G. ZIEGLER.
Cider-Press.

No. 223,972. Patented Jan. 27, 1880.

Fig. 1.

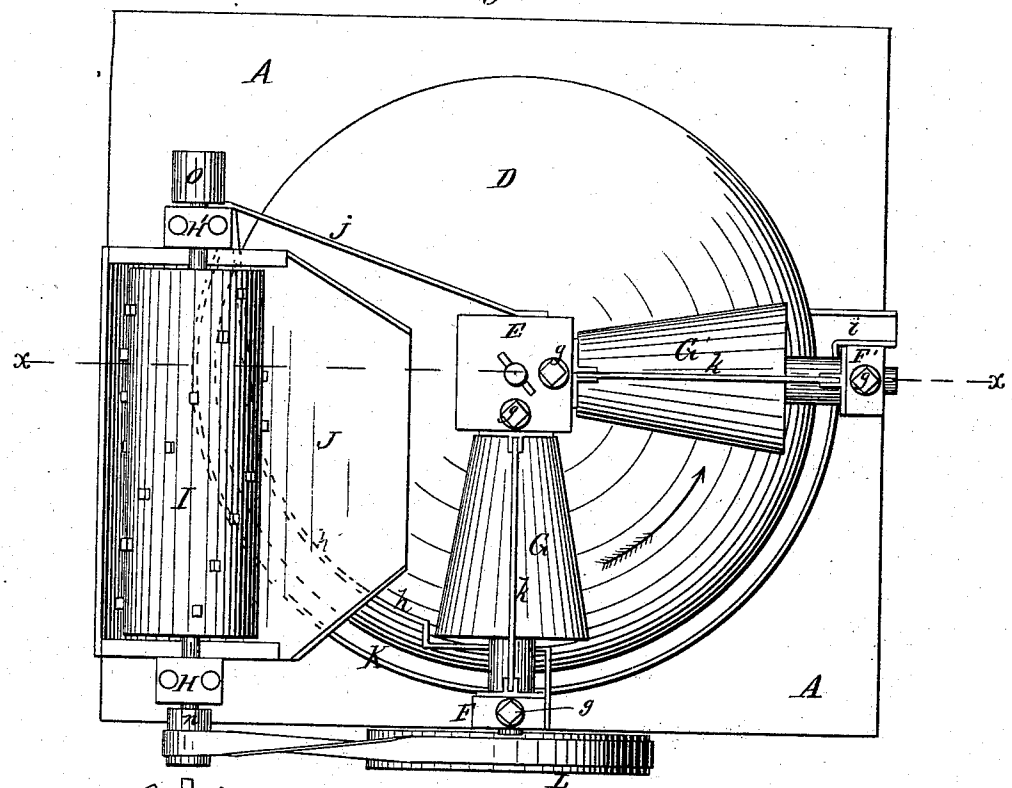
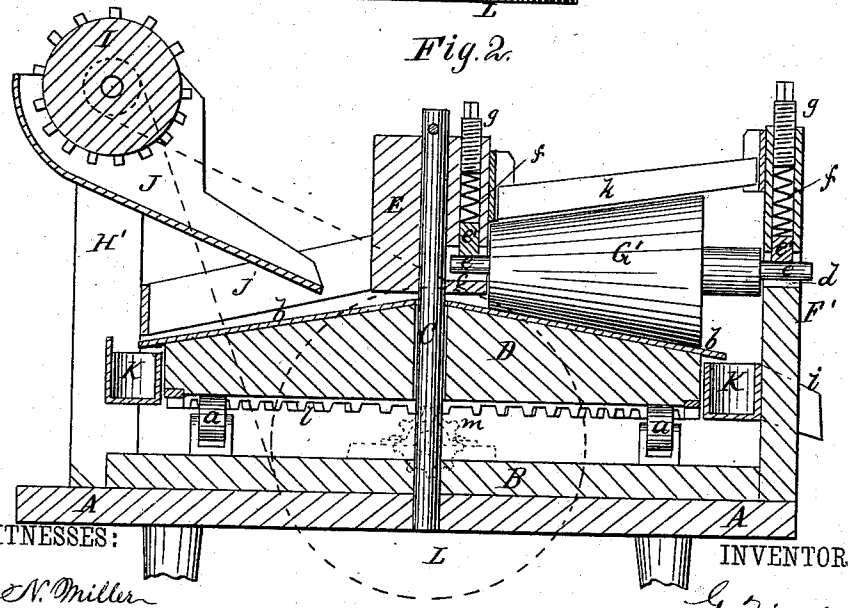


Fig. 2.



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GOTTLIEB ZIEGLER, OF PARIS, OHIO.

CIDER-PRESS.

SPECIFICATION forming part of Letters Patent No. 223,972, dated January 27, 1880.

Application filed July 22, 1879.

To all whom it may concern:

Be it known that I, GOTTLIEB ZIEGLER, of Paris, in the county of Stark and State of Ohio, have invented a new and Improved Cider-Press, of which the following is a specification.

The object of my invention is to provide a press which is adapted to express the juice from any quantity of pomace that may be required without changing the parts of the press, and which is also adapted to work with greater facility and dispatch than the presses now in use.

The invention will first be described in connection with the drawings, and then pointed out in the claims.

In the accompanying drawings, Figure 1 is a top plan or view of the improvement; and Fig. 2 is a cross vertical section of the press, taken on line *x x* of Fig. 1.

Similar letters of reference indicate corresponding parts.

Referring to the drawings, A is the base-plate of the press, supported on suitable feet or legs, and having on its upper side a circular platform, B. On this platform is a circle of friction-rollers, *a*. From the center of platform B rises a fixed shaft, C.

D is the circular revolving table, conical on its upper side and flat underneath. It is placed over shaft C, resting on rollers *a* and revolving freely on the shaft. Its conical upper side is covered with sheet metal, *b*, which projects beyond the periphery of the table, as shown.

On shaft C, above the table, is fixed a housing, E, having on two of its adjacent sides vertical slotted bearings *c*. Just opposite these bearings two housings, F F′, rise from the platform A, outside the revolving table, and in these are other bearings, *d*, in line with those in E.

G G′ are the pressure-rolls, having gudgeons *e e*, which are placed in the bearings *c d* so that the two rolls are at right angles to each other. The rolls are conical, so as to present a parallel face to the conical surface of the revolving table.

In the upper part of housings E F F′ are vertical sockets leading down to the bearings, in which are placed bearing-blocks *e′* next to the gudgeons, above these spiral springs *f*, and then a screw-plug, *g*. The slotted bearings allow the rolls a certain amount of vertical play to enable them to adjust themselves to the quantity of pomace passing under them; but the pressure of the springs *f* holds them down closely and prevents them from yielding sufficiently to relieve the pomace from the requisite amount of pressure.

H H′ are the two housings rising from the base A on the side opposite roll G′. In these housings is journaled the shaft of the crushing-cylinder I. Beneath the cylinder is an apron, J, opening over the revolving table close to the roller G. On this apron the pomace falls and is delivered by it to the table.

From housing H′, which is just outside the periphery of the revolving table, a shield or guard, *h*, extends around over the table near its edge to the housing F, beyond the center of roll G. The purpose of this guard is to prevent the pomace from falling from the revolving table before reaching the first pressure-roll.

K is a circular trough placed outside the periphery of the revolving table, and with its inner edge under the projecting edge of the sheet-metal cover *b* of the table. The ends of this trough are supported by housings F′ and H′, and beyond the former it terminates with a spout, *i*.

Between housings E H′ is fixed a plate, *j*, with its edge close to the conical surface of the revolving table, forming thus a scraper which scrapes the dry pomace off the table. Over the presser-rolls are placed similar plates *k*, with their ends secured in the housings. These serve to scrape the surface of the rolls.

On the under side of the revolving table is placed a circular rack, *l*, which meshes with a pinion, *m*, on the shaft of band-wheel L. This band-wheel is belted to pulley *n* on the adjacent end of the crushing-cylinder shaft, and on the opposite end of this shaft is another pulley, *o*, which is belted to the power, so that as the crushing-cylinder revolves it communicates motion to wheel L and pinion *m*, and this turns the table D in the direction of the arrow, and the rollers G G′, being in contact with the table or the pomace upon it, are revolved by the friction.

The screw-plugs *g* enable the rolls to be set at different distances from the surface of table

D, so as to obtain a variable amount of pressure on the pomace; or the roller G may be set at one distance to partly press the pomace, and G′ closer to complete the pressure.

The operation of this invention is as follows: The crushed pomace falls from the apron J to the revolving table D, which carries it to roller G. Passing under this, it is pressed and partially deprived of its juice; thence passing under roll G′, the remainder of the juice is squeezed out. The dry pomace being carried around by the table, it is scraped off by the scraper *j*, and the surface of the table thus kept clean for the reception of the freshly-crushed pomace as it falls from the apron.

From this description it will be readily seen that a continuous feeding of the pomace can be kept up, as the pressing mechanism acts without interruption, and as fast as the apples are crushed they can be pressed and the dry pomace scraped off the table. The juice runs from the table into trough K, and from this, through spout *i*, into suitable receptacles.

The machine can be made equally useful as a sugar-cane press, by attaching a suitable cutting-machine to it.

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

1. As an improvement in cider-presses, the circular table D, with conical top, placed over shaft C and supported on friction-rollers *a*, and adapted to revolve around said shaft, in combination with conical rollers G G′, placed over said table, whereby the crushed pomace falling on the said table from apron J is carried under the said rollers for the purpose of expressing the juice, substantially as described.

2. In combination with the circular revolving table D and pressure-rolls G G′, the crushing-cylinder I, provided with an apron, J, to deliver the crushed pomace as it falls from the crusher to the table D, substantially as described.

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