

C. F. HARTMANN.

Improvement in Wine-Presses.

No. 115,731.

Patented June 6, 1871.

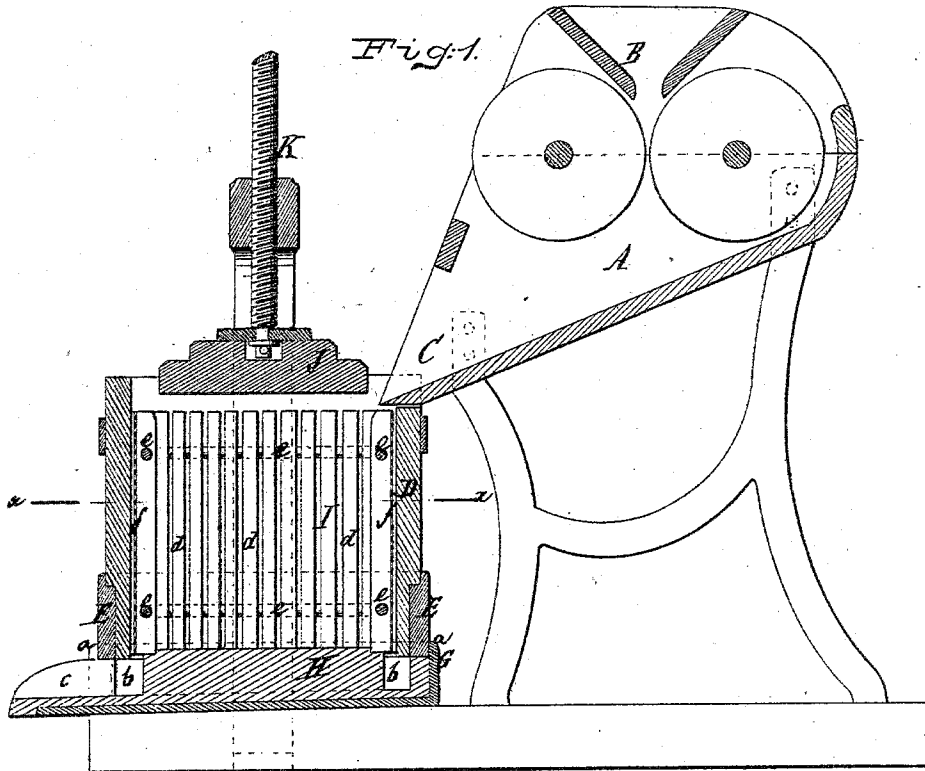


Fig. 2.

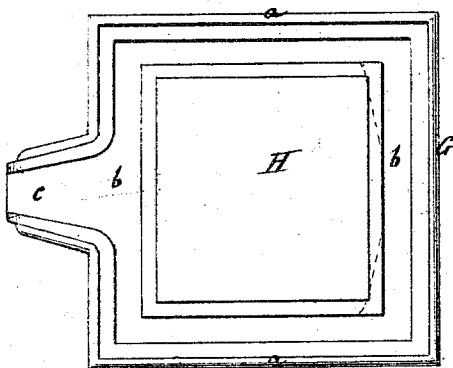
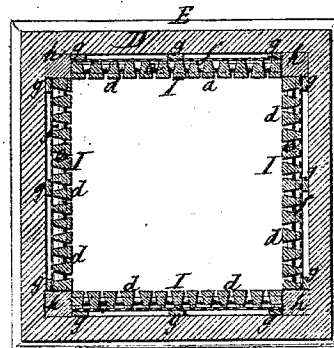


Fig. 3.



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UNITED STATES PATENT OFFICE.

CHRISTIAN FREDERICK HARTMANN, OF NAZARETH, PENNSYLVANIA.

IMPROVEMENT IN WINE-PRESSES.

Specification forming part of Letters Patent No. 115,731, dated June 6, 1871.

To all whom it may concern:

Be it known that I, CHRISTIAN FREDERICK HARTMANN, of Nazareth, in the county of Northampton and State of Pennsylvania, have invented a new and useful Improvement in Wine-Presses; and I do hereby declare the following to be a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification, in which drawing—

Figure 1 represents a longitudinal vertical section of this invention. Fig. 2 is a plan of the press-bottom detached. Fig. 3 is a horizontal section of the press-box, the line *x x*, Fig. 1, indicating the plane of section.

Similar letters indicate corresponding parts.

This invention relates to certain improvements on a wine-press described in Letters Patent granted to me February 22, 1870, and numbered 100,142. These improvements consist in the arrangement of a metal casing embracing the press-bottom and forming a flange projecting over the top edge of said bottom, so as to confine the press-box in the proper position toward the bottom while the operation of pressing progresses, and also to impart to the bottom the requisite strength and durability.

The press-box is strengthened by a casing embracing its bottom end, and, if desired, it may be further strengthened by one or more hoops. The grates in the interior of the press-box are formed each of a series of trapezoidal strips of wood placed with their narrow edges outward, and protected by wire-netting secured to their outer surfaces in such a manner that the interspaces between the adjoining strips are narrowest on their inner or receiving ends and widest at their outer or discharging ends, and by these means the choking up of the grates is effectually prevented, while all solid parts mixed with the juice are retained either by the grates or wire-netting protecting the backs of said grates.

In the drawing, the letter A designates the crushing apparatus, which consists of two rollers which are geared together so as to revolve in opposite directions, and which are situated beneath a hopper, B, and inclosed in a case provided with a spout, C, through which the crushed fruit or pulp is carried to the press-

box D. This press-box is constructed of strong boards or planks, and it is strengthened by a casing, E, of cast-iron or any other suitable material, which embraces its bottom edge, and, if desired, one or more hoops, F, may be applied to the body of the box at suitable distances apart. The casing E of the press-box is made to fit nicely into a casing, G, which embraces the press-bottom H, and which is provided with a flange, *a*, projecting over the edge of said bottom, so that the box, when placed down on the bottom H, is retained in the proper relation toward the bottom. The casing G is also made of cast-iron like the casing E, so that the latter will always fit in the former. If the bottom edge of the press-box should be left unprotected the wood would be liable to swell by the moisture, and the box could not be inserted in casing G; or it would be liable to swell during the operation of pressing, and in that case it would bind in the casing G. By the casing G the press-bottom is strengthened and prevented from swelling or from splitting, and at the same time the juice is not allowed to come in contact with the metal. In said bottom is made a channel or gutter, *b*, which extends all round and inclines down toward the discharge-spout *c*. The interior of the press-box D is lined with grates I, which are composed of trapezoidal strips *d*, the broad edges of which face inward, and which are united by dowels *e* passing transversely through them. The rear or outer surfaces of these grates are covered with wire-gauze *f*, held in position by upright strips *g*. (See Fig. 3.) By the dowel connection the grates are rendered elastic, they are prevented from swelling, and they can be easily cleaned. By using trapezoidal strips *d* in the construction of the grates I the interspaces between said strips are rendered conical, being smallest on their inner or receiving ends and largest on their outer or discharging ends, and by these means the grates are effectually prevented from choking, while the receiving ends of the interspaces can be made as narrow as may be desirable. By combining with the trapezoidal strips or grate bars the wire-netting *f* the egress of all solid matter from the press-box is effectually prevented, and nothing but clear juice is permitted to pass through the grates. Said grates are placed loosely in the press-box, so that

they can be reversed at pleasure, and when in position they are confined between the corner blocks *h*. (See Fig. 3.)

In using the press for making wine from grapes, where it is desirable to exclude all contact with metal, the wire-gauze sides of the grates are turned outward; but in pressing currants, raspberries, or other small berries, where contact with metal is of no consequence, the wire-gauze sides of the grates are turned inward. When the press-box is adjusted on the bottom *H* the bottom edges of the grates bear upon the inner edge of the gutter *b*, while the bottom edge of the press-box rests upon the outer edge of said gutter. The juice passing through the grates is thus conducted down into the gutter without coming in contact with any of the metal parts of the press box or bottom. The follower *J* is operated by a screw, *K*.

By this arrangement a wine-press is obtained which is durable in its construction and convenient in its operation.

The grates can easily be taken out and cleaned, and they are firm, durable, and easily constructed.

What I claim as new, and desire to secure by Letters Patent, is—

1. The combination of the metallic casings *E G*, press-bottom *H*, grates *I*, and the wire-netting *f*, as herein shown and described, for the purposes specified.

2. The arrangement in the wine-press, substantially as herein shown, of the grates *I*, constructed of trapezoidal strips *d* united by dowels *e*, substantially as described.

3. In the wine-press herein shown, the combination of the wire-netting *f* with the trapezoidal strips *d*, forming the grates *I*, substantially as set forth.

CHRISTIAN FREDERICK HARTMANN.

Witnesses:

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