

W. S. DYER.
Cider Presses.

No. 153,324.

Patented July 21, 1874.

Fig. 1.

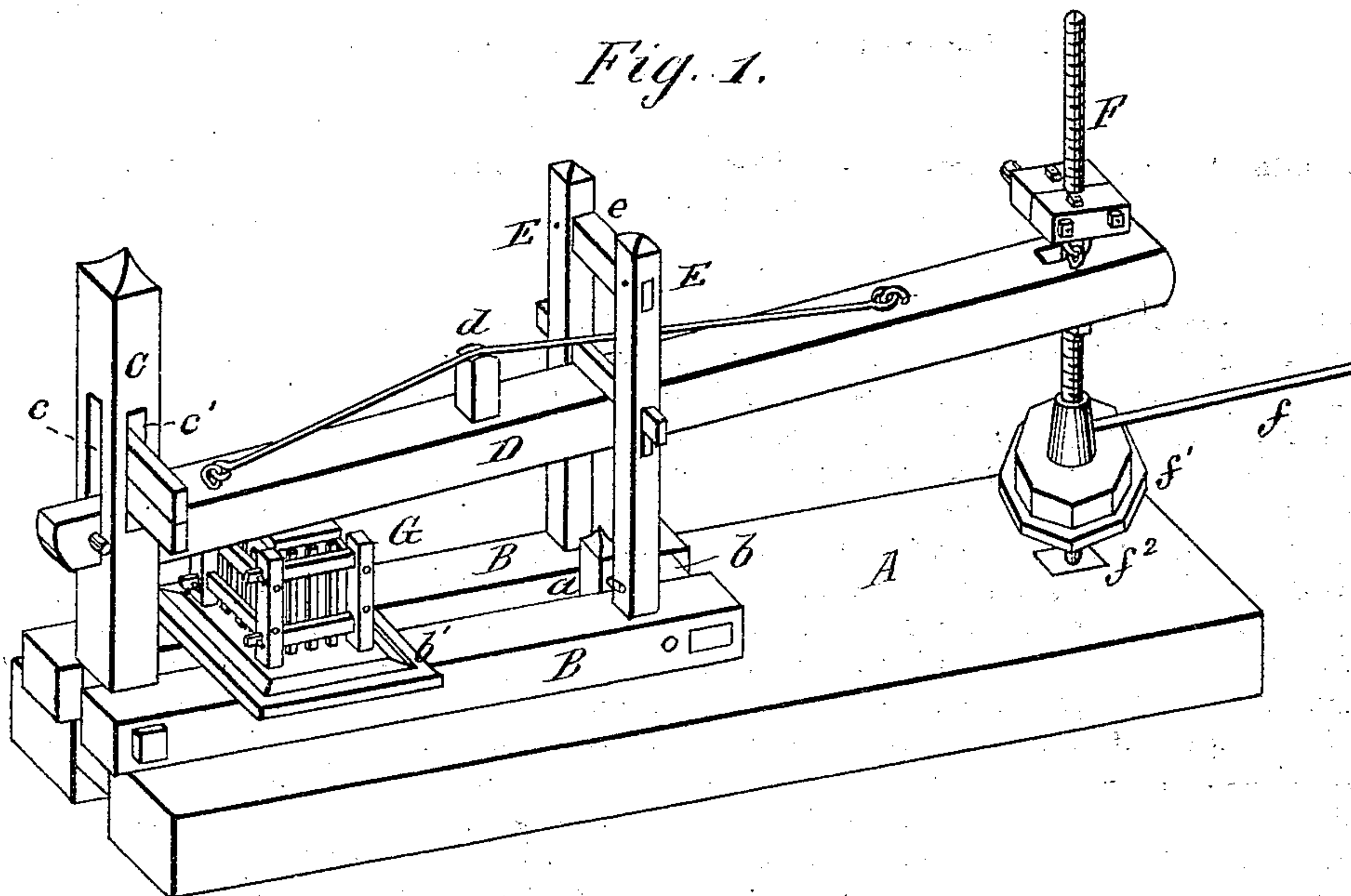


Fig. 2.

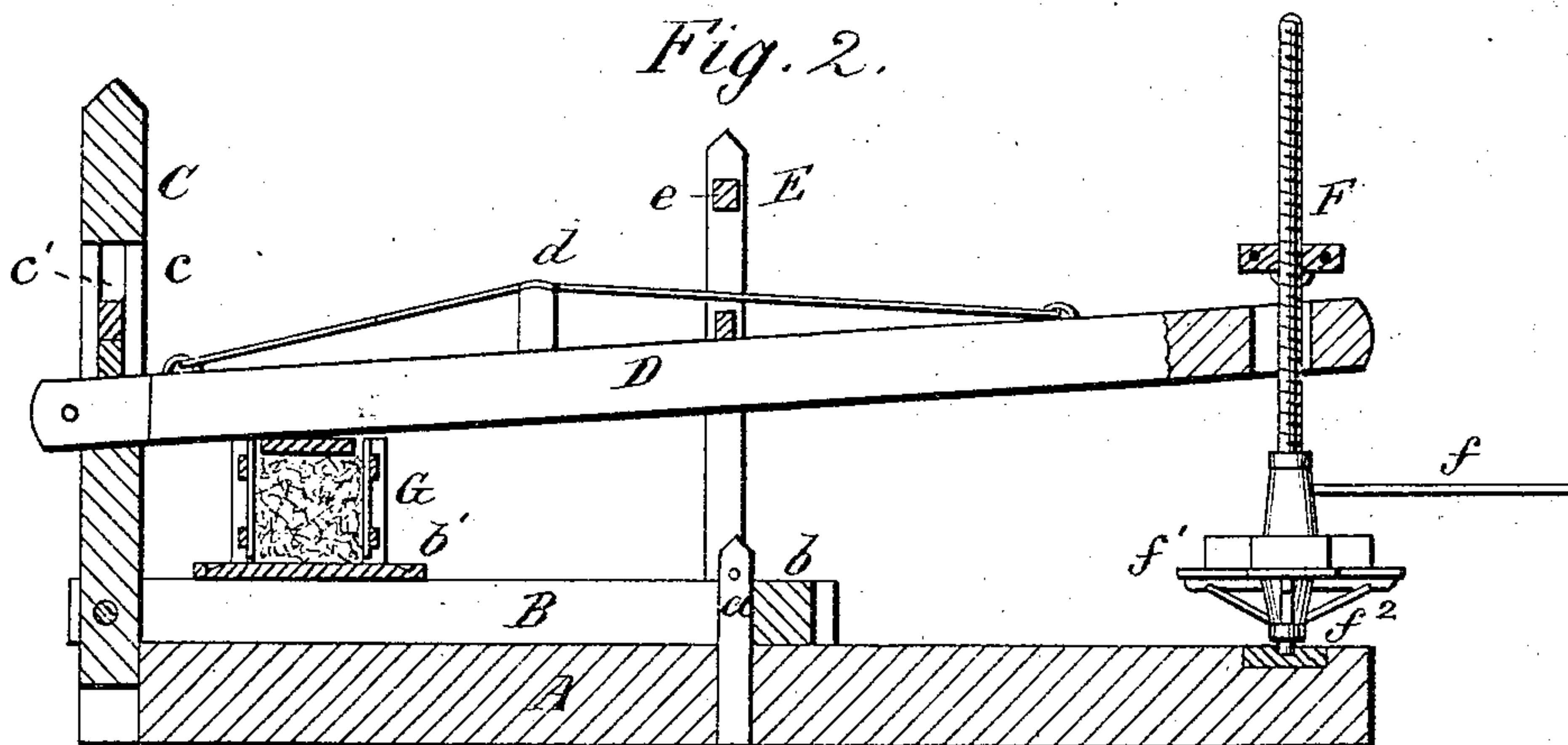
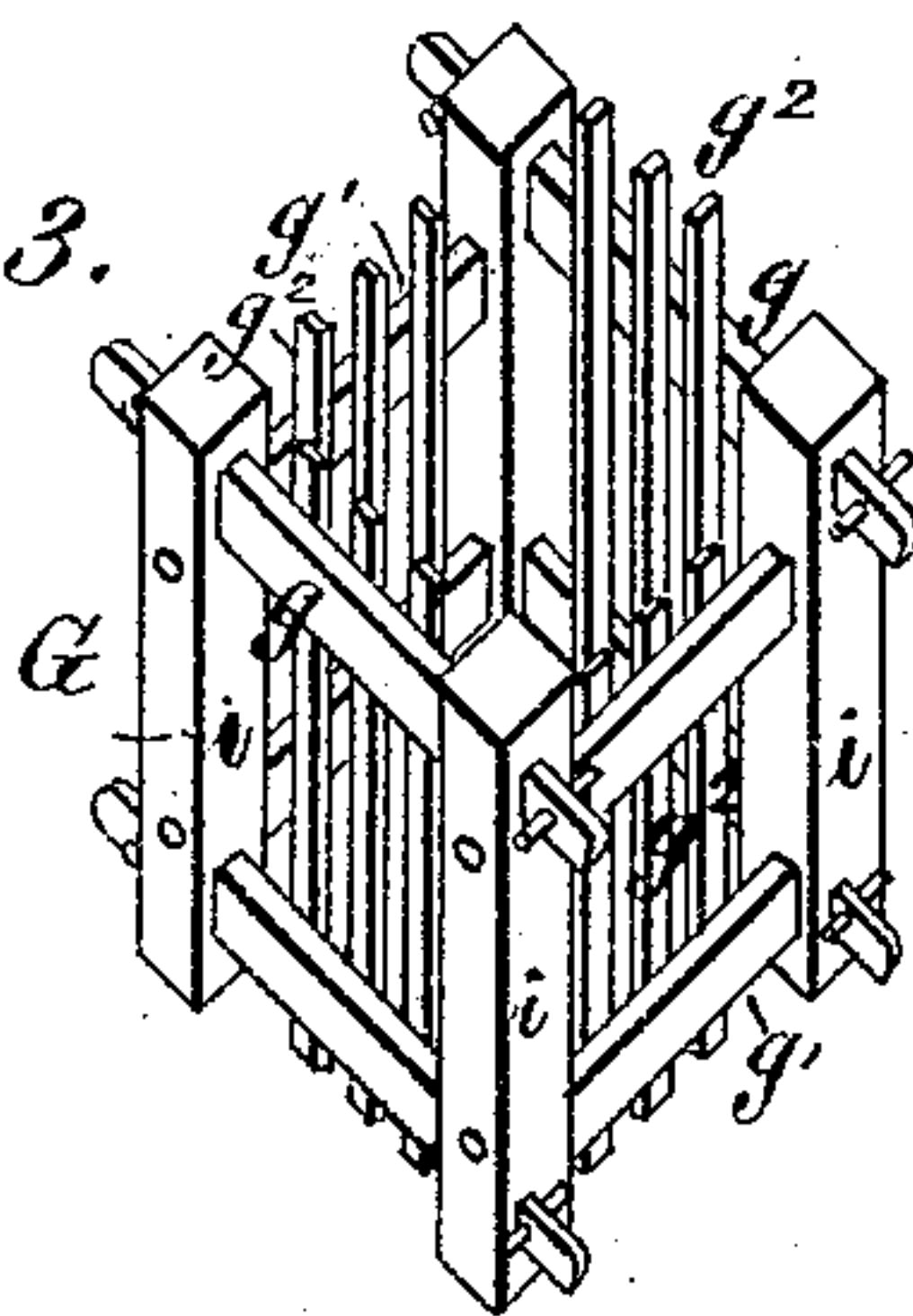


Fig. 3.



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UNITED STATES PATENT OFFICE.

WILLIAM S. DYER, OF SPRINGFIELD, ILLINOIS.

IMPROVEMENT IN CIDER-PRESSES.

Specification forming part of Letters Patent No. 153,324, dated July 21, 1874; application filed May 9, 1874.

To all whom it may concern:

Be it known that I, WILLIAM S. DYER, of Springfield, in the county of Sangamon and State of Illinois, have invented a new and useful Improvement in Cider and Cheese Presses; and I do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The object of my invention, and what I desire to secure by Letters Patent, is an improvement in cider and cheese presses, whereby the same may be rendered more effective in operation; and my invention therein consists in the novel construction and arrangement of the principal operative parts, as is more fully hereinafter explained.

In order to enable others skilled in the art to make and use my invention, I proceed to describe the same in connection with the drawings, in which—

Figure 1 is a perspective view of my press. Fig. 2 is a longitudinal sectional view of the same; and Fig. 3 a perspective view of the pomace-box.

Upon any platform, A, is placed a framework, which consists of a base composed of two pieces of joist, B, separated by a cross-piece, *b*, at one end, and a standard, C, at the other end. The pieces of the joist B rest flatly on the platform A, and are secured to it by means of a small post, *a*, fixed rigidly in the platform A and the large standard C, which extends below the pieces B and fits into a score in the platform A. The small post *a* lies in the space between the separated joists B, and close against the cross-piece *b*, which is mortised into the pieces B at their ends. A pin passes through the head of the post *a*, which is somewhat higher than the pieces B, and thus holds the pieces B. The standard C, before mentioned, is secured rigidly to the pieces B by being let into them, and then held by a bolt, which passes through the pieces B and standard C transversely. The standard C has two mortises, *c* and *c'*, cut through it at right angles to each other, the longitudinal mortise, *c*, being somewhat longer than the transverse mortise, *c'*. In the longitudinal mortise of the standard C fits the tenon of a long beam, D, the end of said tenon project-

ing sufficiently to allow a pin to be passed through it transversely. This beam D is kept from moving horizontally by two posts, E, which are tenoned into the pieces B, respectively, and between which the beam D is placed. The posts E are held rigidly together by the cross-piece *e*, mortised and tenoned into their upper ends, and the posts E are mortised transversely at about the middle point of their heights. The beam D is mortised vertically at the end opposite the standard C to allow a screw, F, readily to pass through it. On either side of this mortise one eyebolt is passed through the beam and secured by a nut on the under side of the beam. The beam D is further provided with a truss-rod, which extends from one end to the other of the beam, being girded up by a stud, *d*. The truss thus strengthens the beam, and keeps it from springing. A wooden nut, composed of two pieces bolted together, is placed above the mortise, and is secured to the beam by eyebolts, which lock with those in the beam. The screw F working in this nut causes the beam to rise or be depressed without injury to the screw, the nut allowing motion of the end of the beam D, which moves in the arc of a circle. The lower part of the screw F is enlarged, the screw proper terminating a short distance below the beam. In this enlargement a hole is pierced for a lever, *f*, by means of which the screw is worked. Below the lever a small platform, *f*¹, is secured around the base of F a short distance above the base A, and the screw F terminates in a metal spindle, which fits in a bearing, *f*², in the base A. Upon the pieces B a square platform, *b'*, is fastened, said platform having a channel on its upper surface around its edge, for the purpose of preventing the escape of any liquid that may fall upon it. A score is cut from this channel on one side to allow the liquid to be drawn off. A pomace-box, G, consisting of four principal parts, *g g* and *g*¹ *g*¹, is placed on this platform, and beneath the beam D. Each one of the four parts mentioned is composed of a square frame of four pieces mortised and tenoned together. Two of the frames *g* have their upright pieces *i i* mortised to admit the tenons of the longitudinal pieces of the other two frames *g*¹, so when the four frames are put to-

gether and keyed the box G will be a cube. Each of the frames is further provided with vertical slats g^2 , so that the box G presents the appearance of a square cage without top or bottom.

The beam D being raised at its weighted end by turning the screw in one direction, and the other end raised and held in place by putting the wooden keys or fids under it and passed through the transverse slots in the standard C, and the pomace-box G being placed beneath the beam D, and upon the platform b' , the cheese or pomace is placed in the box G, and flat blocks of the size of the interior of the box placed upon it. By changing the fids now to the upper side of the beam, and screwing up the weight upon the weighted end of the beam, and placing weights therein, the weighted end of the beam will exert a leverage upon the blocks on the pomace, and the pieces therein will be expressed. When the beam D takes upon the box G, and the weights are screwed down so that the spindle will rest upon the bearing, the fids in the standard C may be withdrawn, that end of the beam which rests in the mortise c may be raised as far as the length of the mortise will allow, and the fids placed beneath it to hold it in that position. More blocks may now be placed upon those already in the box G. By removing the fids and screwing up the screw F, the end of the beam in the mortise c will be lowered, and, when sufficiently down, may be

fiddled and held there as before. The screw F being now turned, the beam D will bear down on the blocks in the box G. This operation may be repeated until the pomace or cheese is sufficiently pressed, when the pins in the box are removed, and the sides fall apart, thus allowing the contents to be removed and the box to be conveniently cleaned.

Having thus described my invention, what I claim as new is—

1. The combination of the base B, platform b' , uprights C and E, fitted with mortise and fids, as described, beam D, and weighted screw F, all constructed substantially as described and shown.

2. The pomace-box G, consisting of the transverse pieces $g g^1$, and upright pieces $i i i$, and slats g^2 , as described, the parts g^1 and g being mortised and pinned together, and tenoned within the pieces $i i$, substantially as herein described and shown.

3. In a cider and cheese press, the combination of the base B, platform b' , standards C and E, beam D, weighted screw F, and pomace-box G, all constructed substantially as described and shown.

This specification signed and witnessed this 30th day of April, A. D. 1874.

WILLIAM S. DYER.

Witnesses:

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