L. L. Bond,

Cotton Press.

No. 24,258. Patented May 31, 1859.

Fig. 1.

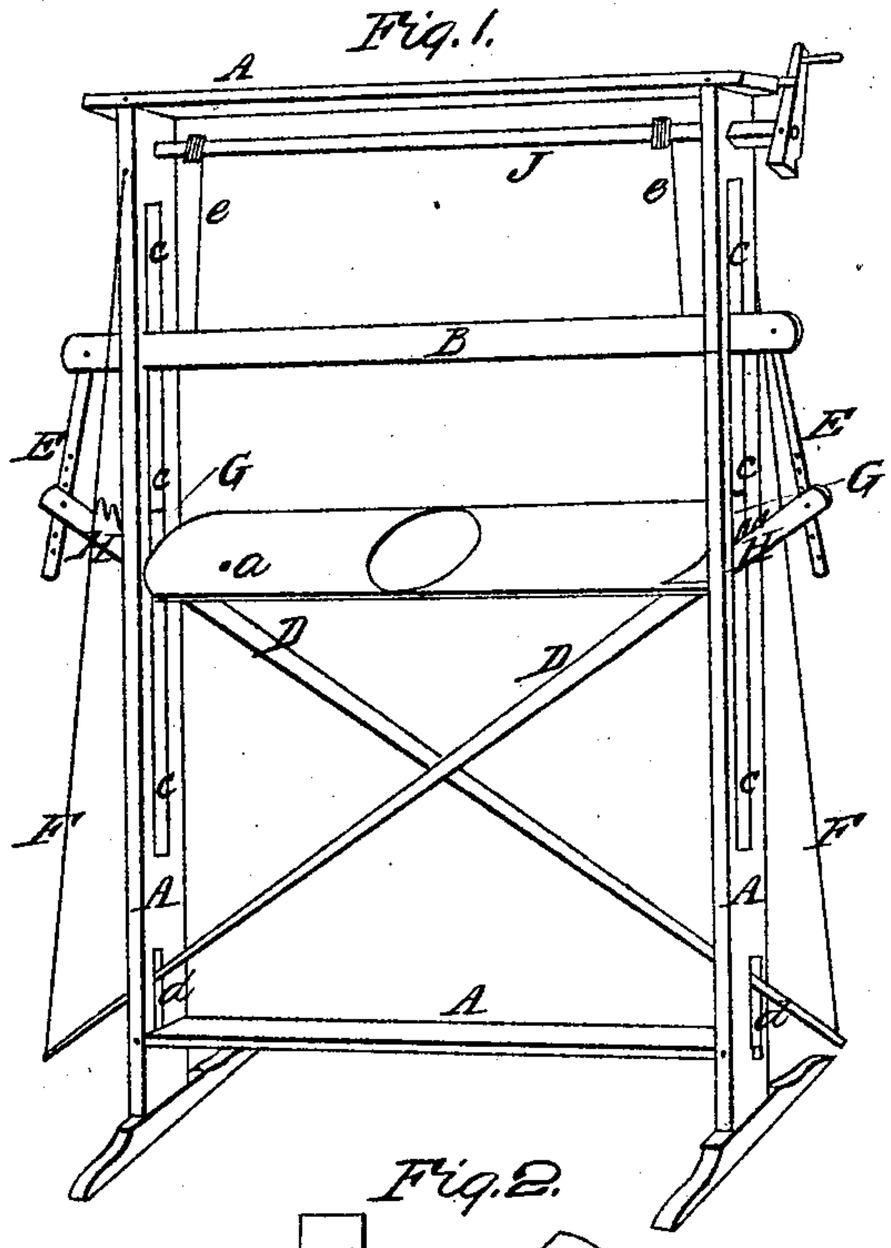


Fig. 2.

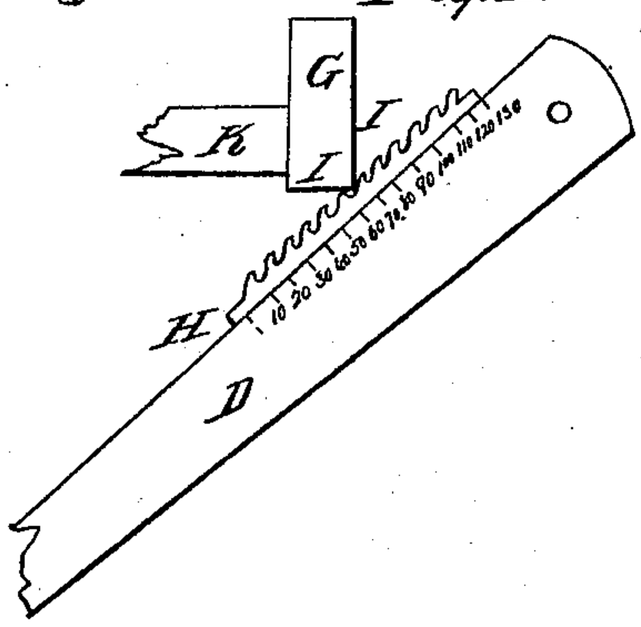
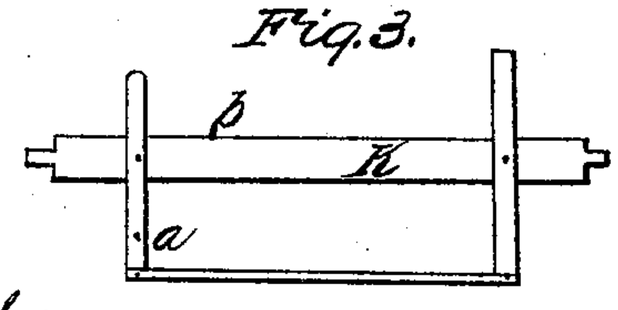


Fig. 3.



Witnesses:
John Adiunco
Junius B Lingham

Inventor:
Lester L Bond

UNITED STATES PATENT OFFICE.

LESTER L. BOND, OF CHICAGO, ILLINOIS, ASSIGNOR TO HIMSELF AND GILES B. WILLIAMS.

IMPROVEMENT IN SELF-ACTING PRESSES.

Specification forming part of Letters Patent No. **24,258**, dated May 31, 1859.

To all whom it may concern:

Be it known that I, LESTER L. BOND, of the city of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Self-Acting Presses; and I do hereby declare that the following is a clear, full, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a perspective view; Fig. 2, a section of the lever, one-third full size, showing the connection with the table-frame K and the method of changing and gaging the power. Fig. 3 is a top view of the table-frame with the blocks or heads G removed.

The nature of my invention consists in constructing a self-acting press operating in a frame, A, by means of two levers, D D, upon which rests the table-frame K, (shown fully by taking the upper portion of Fig. 2 in connection with Fig. 3,) which supports the press-board C, and to which the beam B is attached by the connecting-bars E, and so arranged that a relative upward motion and pressure is given to the table C and K and a downward motion and pressure given to the beam B, by which arrangement a much greater space is obtained in which to work the press without exhausting its power, and by means of the connecting-bars E the space between the beam B and the board C is adjusted to the size of the substance to be pressed, and in so connecting the levers with the table-frame at G by means of a socket-shoe, I, and a ratchet-plate, H, that the power of the press can be changed and regulated easily to any required degree of pressure without the use of weights.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

I construct my press of wood in nearly all of its parts. The frame A is from five and one-half to six feet high, and about three and one-half feet in width; but if great power is required it should be made wider. In the posts of the frame long mortises *c c* are made about four feet in length, in which the beam B, the press-board C, in combination with the frame K, and the levers D, work, and at the lower end, in opposite sides, are small mortises *d d* for the lower ends of the levers. The beam B is straight, and cut in at the ends to receive the upper ends of the connecting-bars E E. The press-board C rests on the frame K, and is attached to it by a bolt at *a*, opposite to which is a staple on the under side, which is not shown. This board is placed on a line with the beam when in operation; but when not, by being turned so that the staple catches on the pin *b*, Fig. 3, it forms a table supported by the frame R, which frame is made to work in the mortises *c c* by blocks or heads G, on which are placed iron shoes I, with a hooked projection to catch in the ratchet-plate H.

The levers D are made straight, and at the upper ends have an iron ratchet-plate, H, attached to them, upon which a graduated scale may be placed, so that by placing the shoe I on the head G in any of the notches the required amount of power can readily be obtained, the power increasing as the connecting-bars E are approached. The connecting-bars E are pivoted to the beam B, and pass through the ends of the levers, and are perforated in a number of places, by means of which the space between the beam B and the board C is regulated. The cords or rods F support the lower ends of the levers and preserve their length and remove all friction. The press, however, will operate without them, but not so well.

The shaft J, with crank, is for the purpose of raising and loosening the press, and is connected with the beam B by means of the cords *e e* by placing pulleys in the upper part of the frame. This shaft may be attached to the beam B, the whole forming a cheap, durable, and powerful press, which is easily adjusted and kept in repair, and is mainly designed to be used in cheese-making, but is valuable for other purposes, and removes the objections which have existed to self-acting presses by giving a space of nearly three inches before its power is exhausted and in regulating the amount of pressure.

I do not claim, broadly, a self-acting press, as such presses have been heretofore known and used; but

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

1. The arrangement for connecting the press-beam B with the levers D D by the connecting-bars E E, whereby the press is made to operate from above and below.

2. The socket-shoe I and the ratchet-plate H, or their mechanical equivalents, for altering and gaging the power of the press, substantially as set forth and specified.

LESTER L. BOND.

Witnesses:

JOHN ADRIANCE,

JUNIUS B. LINGHAM.