L. S. BEARCE.

COTTON-PRESS.

No. 169,763. Patented Nov. 9, 1875.

Fig. 1.

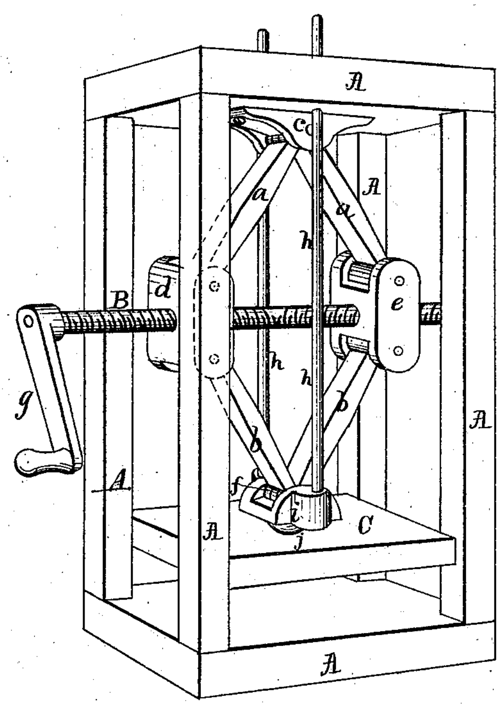
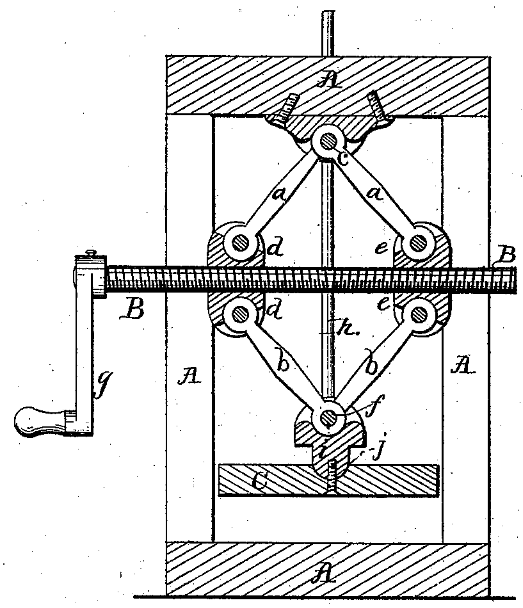


Fig. 2.



Witnesses:

J. M. Gardner.

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UNITED STATES PATENT OFFICE.

LARNED S. BEARCE, OF HOUSTON, TEXAS.

IMPROVEMENT IN COTTON-PRESSES.

Specification forming part of Letters Patent No. **169,763**, dated November 9, 1875; application filed November 2, 1875.

To all whom it may concern:

Be it known that I, LARNED S. BEARCE, of Houston, Harris county, Texas, have invented certain new and useful Improvements in Presses, of which the following is a specification:

This invention relates to presses for pressing cotton and other substances.

My improvements can best be explained and understood by reference to the accompanying drawing, in which—

Figure 1 is a perspective view, and Fig. 2 is a vertical central section, of a press embodying said improvements.

A is the frame of the press. B is the right-and-left screw, and *a a b b* are the two sets of toggle-arms. The upper arms, at their upper ends, are hung on a pivot, *c*, and at their lower ends are jointed each to a screw-nut, *d* or *e*, on the screw B. The lower arms, at their lower ends, are connected by a pivot, *f*, to a knuckle-piece, which is connected to the platen C, as hereinafter described, and at their upper ends are jointed each to the nut *d* or *e*. The screw is rotated by a handle, *g*, or other suitable means. Under this arrangement it will be noted that the working parts are placed in diamond shape, and that they hang on the upper joint or pivot *c*. Sliding rods or bars *h* are employed to prevent the working parts—that is, the toggle-arms and screw—from tilting. These rods may be variously arranged. In the present instance they are attached to the knuckle piece or block *i* of the lower joint of the toggle, and extend up through guide-holes in the top of the press. The lower pivot or joint *f* is in the knuckle-piece *i*, and to this piece *i* the platen is connected by a ball-and-socket or universal joint, *j*, as seen in Fig. 2, which will permit the platen a tilting movement in any direction independent of the toggle-levers and screw.

Under the arrangement above described of the toggle-levers and screw, I obtain all the force and directness of a single screw and the power of the four levers, and the ball-and-socket connection between these parts and the platen renders this arrangement feasible, since thereby the platen is self-adjusting under pressure, and all injurious strain on the joints is removed.

It will also be noted as a distinguishing feature of this arrangement that the toggle-arms, at the points where they converge in the line of the pressure, meet, and are hung on one and the same axis or pivot.

I do not here claim, broadly, a toggle-press in which the arms are combined with a platen self-adjustable under pressure, for I have made that the subject of a separate application; but

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

1. In a press for pressing cotton and other substances, the combination, with toggle levers or arms, and a right-and-left screw, arranged together substantially as described, of a platen connected with the toggle-arms by a ball-and-socket or equivalent joint, substantially as and for the purposes set forth.

2. The combination of the toggle levers or arms and right-and-left screw, arranged together as described, the sliding guide rods or bars, and the platen, connected with the toggle-levers by a ball-and-socket or equivalent joint, substantially as set forth.

In testimony whereof I have hereunto signed my name this 2d day of November, A. D. 1875.

L. S. BEARCE.

Witnesses:
EWELL A. DICK,
HENRY R. ELLIOTT.