# L. LEWIS.

## COTTON PRESSES.

No. 182,683. Patented Sept. 26, 1876.

FIG. II

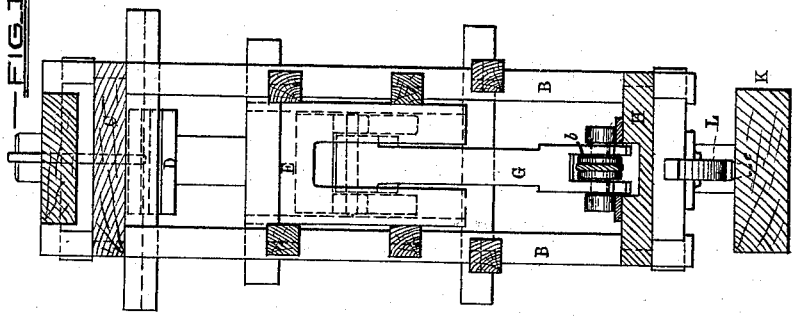



FIG. I

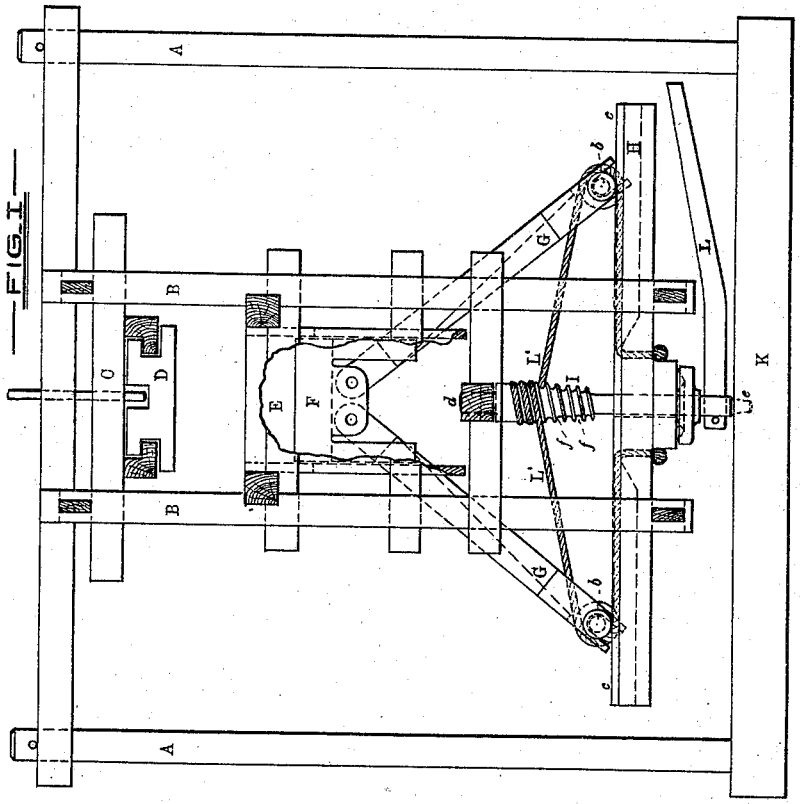
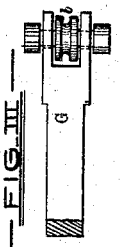



FIG. III




WITNESSES.

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# UNITED STATES PATENT OFFICE.

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## IMPROVEMENT IN COTTON-PRESSES.

Specification forming part of Letters Patent No. **182,683**, dated September 26, 1876; application filed August 30, 1876.

*To all whom it may concern:*

Be it known that I, LEWIS LEWIS, of the city of Vicksburg, in the county of Warren and State of Mississippi, have invented certain Improvements in Cotton-Presses, of which the following is a specification; and I do hereby declare that in the same is contained a full, clear, and exact description of my said invention, reference being had to the accompanying drawing, and to the letters of reference marked thereon.

This invention relates specially to improvements in the mechanism for operating the follower, or that part of the press which is moved vertically within the cotton-box in the cotton-compressing operation.

In the description of my improved cotton-press which follows, due reference must be had to the accompanying drawing, forming a part of this specification, and in which—

Figure 1 is a partly-sectional front elevation of a cotton-press embodying my improvements; Fig. 2, a side view of the same, also partly in section; and Fig. 3 is a view of a part of the press.

Similar letters of reference indicate similar parts in all the figures.

A and B are, respectively, the outer and inner frames of the cotton-press. C is a plate, secured to the upper part of the inner frame B, to which plate the removable head-block D is attached. E is the cotton-box, and F the vertically-moving follower, adapted to slide therein. G G are bars, pivoted to the under side of the follower F, and at their lower ends furnished with rollers *b*, which rest upon a track, *c*, on the upper side of the bed-plate H. I is a conically-shaped capstan, having a pintle, *d*, at the upper end thereof, resting in a part of the inner frame. The lower part of the capstan passes through the bed-plate H, which, together with the inner frame B, are supported thereon, and extends to the step *e* in the foundation K. L is a lever projecting from the capstan I, through which power is applied to operate the press.

The means of communication between the capstan and the bars G is a rope, L′, which passes through a hole in the upper end of the capstan, and around the rollers *b* to the bed-plate, to which its ends are secured. As the capstan is revolved, the rope L′ is wound spirally around it, and, in order to prevent the two parts of the rope from chafing against each other, the capstan is provided with two spiral grooves, *f*, in which the rope is embedded.

The advantage of having the capstan conical in form, and with its smaller diameter at the lower end thereof, is, that the power applied to the follower F through the medium of the bars G and rope L′ is increased as the cotton is compressed.

By removing the upper cross-piece of the outer frame from contact with the inner one, and securing the lever L to some stationary object, the operation of the press may be reversed, and the follower made to ascend, by applying power to some part of the inner frame. In this operation the rope is coiled around a stationary capstan, and the same result obtained as that with the parts of the press arranged and operated as before described.

Having thus described my invention, what I claim as new, and wish to secure by Letters Patent of the United States, is—

In a cotton-press, the revoluble spirally-grooved conical capstan I, in combination with the rope L′, rollers *b*, and bars G, for the purpose of drawing together the lower ends of the said bars G, whereby a vertical movement of the follower F is obtained, substantially as herein set forth.

In testimony whereof I have hereunto subscribed my name this 12th day of August, in the year of our Lord, 1876.

LEWIS LEWIS.

Witnesses:
J. D. GILLAND,
R. D. HOWE.