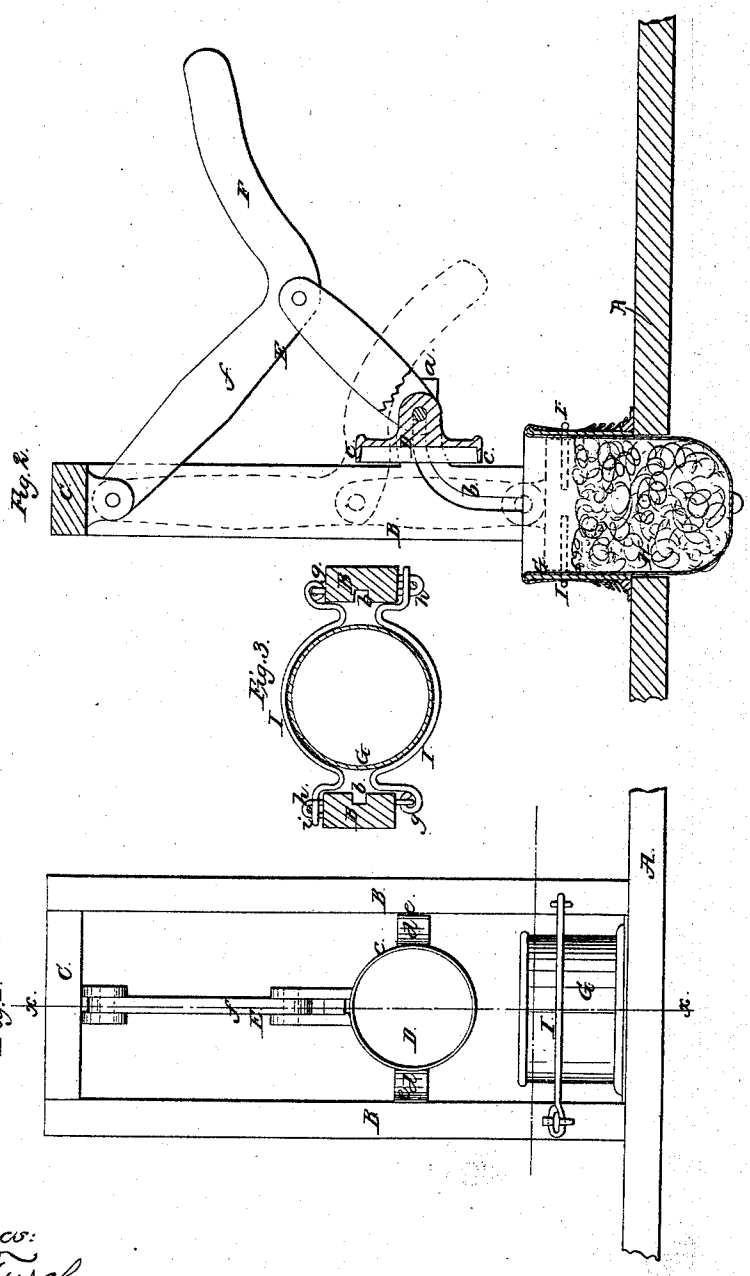
L. S. Chichester,

Cotton Press.

No. 26,546. Patented Dec 20, 1859.



Witnesses:
Wm. Tusch
J. Mombs

Inventor:
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AM. PHOTO-LITHO. CO. N.Y. (OSBORNE'S PROCESS)

UNITED STATES PATENT OFFICE.

LEWIS S. CHICHESTER, OF NEW YORK, N. Y., ASSIGNOR TO H. G. EVANS, OF SAME PLACE.

IMPROVEMENT IN COTTON-PACKERS.

Specification forming part of Letters Patent No. **26,546**, dated December 20, 1859.

To all whom it may concern:

Be it known that I, LEWIS S. CHICHESTER, of the city, county, and State of New York, have invented a new and useful Machine for Pressing-Cotton and other Fibrous Substances into Sacks; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a front elevation of my invention. Fig. 2 is a side sectional view of the same, taken in the line *x x*, Fig. 1. Fig. 3 is a longitudinal section of the same, taken in the line *y y*, Fig. 1.

Similar letters of reference indicate corresponding parts in the several figures.

The object of this invention is to obtain a simple and efficient device for expeditiously pressing cotton and other fibrous substances into sacks—such substances as do not require or will not admit of being subjected to a very great pressure, but which, in order to economize in transportation and storage, require to be packed or compressed as much as possible without injury.

The invention is more especially designed for pressing into sacks Sea Island or long-staple cotton, which, as is well known, cannot be compressed into bales as the ordinary or short-staple cotton, in consequence of the injury that would be done to the fiber by the extreme pressure. This work of pressing long-staple cotton into sacks has hitherto been done by a simple manual operation, consuming considerable time and endangering the health of the operators. These difficulties it is believed are fully obviated by this invention.

To enable those skilled in the art to fully understand and construct my invention, I will proceed to describe it.

A represents a flooring to which two uprights, B B, are secured, said uprights being connected at their upper ends by a cross-bar, C. Each upright B has a lateral projection, *a*, attached to it, in which the upper parts of grooves *b* terminate, said grooves extending down to the lower ends of the uprights, and forming guides for a plunger, D. This plunger D is of circular form, and is provided at its edge with an annular flange, *c*, which projects at right angles from the face of the plunger, as shown clearly in Fig. 2. The plunger has a curved arm, *d*, attached to each side of it, and these arms are each provided with a pin, *e*, the pins fitting in the grooves *b b*.

To the plunger D a toggle, E, is attached, the upper arm or lever, *f*, of which is secured to the under side of the cross-bar C, the lower lever being secured to the upper surface of the plunger. The lower part of the lever *f* is curved so as to form a handle, F, which projects from said lever at a slightly obtuse angle, as shown clearly in Fig. 2.

G is a hollow metal cylinder, which is secured to the flooring A between the two uprights B B, the flooring having an opening in it over which the cylinder is secured, and corresponding in diameter to the cylinder. The diameter of the plunger D is equal to the internal diameter of the cylinder G, or nearly so, space being allowed between the two for a sack, H, (see Fig. 2,) which is fitted within the cylinder, the plunger D working within the sack, as shown in Fig. 3.

I I are two spring-clamps, which are attached to the uprights B B near their lower ends. These clamps may be constructed of steel, and so curved as to conform to the cylinder G, as shown in Fig. 3. These clamps at one end are attached to the uprights by joints *g*, and the opposite ends are connected to the uprights by staples *h* and pins *i*.

The operation is as follows: The operator raises the plunger D by drawing outward the handle F of the toggle, the pins *e e* fitting in the upper ends of the grooves *b b*, and the plunger retained in a vertical or edgewise position, as shown clearly in Fig. 2. This position of the plunger fully exposes the cylinder G, and the operator then takes the sack H and turns it inside outward and fits it on the cylinder G, crowding it down on the cylinder until its end will fit a short distance within the cylinder G. The clamps I I are then adjusted to the cylinder and press the sack thereto. The operator then grasps the lever F, and an attendant throws a quantity of cotton into the sack H. The operator then forces inward the handle F, and the plunger D descends and compresses the cotton, and at the same time forces down the sack, the latter rendering or sliding over the cylinder G in consequence of the pressure of the plunger. The clamps I I,

by being adjusted to the sack and cylinder more or less tightly, determine the amount of pressure to which the cotton is subjected, and this, by means of graduating screws, wedges, or keys, may be regulated as desired. Each time the plunger is raised the attendant throws a quantity of cotton into the bag, and each time the plunger descends the cotton previously thrown is compressed and the sack forced down, the operation being continued until the sack is filled.

By this invention it will be seen that sacks, however long, may be filled by a plunger having but a moderate length of movement, and that the cotton pressed into them may be subjected to a greater or less degree of pressure by simply graduating the pressure of the clamps I I. The method of doing the work at present is to insert the sack in a hole in the flooring and secure its top thereto. A workman then enters the bag and pounds the cotton in the sack as it is thrown into it by an attendant. This is not only a slow operation, but a very unhealthy one, as the operator within the sack inhales the dust that rises from the cotton as it is pounded. The fiber of the cotton is also liable to be injured by the operation, and when unpacked, even if not injured, it does not present that systematic and salable appearance as when packed by my machine. The flange *c* of the plunger insures a nice disposition of the fiber adjoining the sack, and has a tendency to prevent its being broken or injured by friction against the sack while being forced down within it.

The whole device may be constructed and erected in working order at a very reasonable cost.

I do not confine myself to the mode herein shown for operating the plunger D, for other means may be used, although the plan herein shown and described would probably be equal, if not superior, to other modes.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

Pressing cotton and other fibrous substances into sacks H by placing the same on a hollow cylinder, G, fitted over an aperture of corresponding diameter in the flooring A, and having clamps I I bearing or pressing against the sack on the cylinder, and so arranged as to allow the sack to render or give over the cylinder, under the pressure of a plunger, D, while pressing the substance into the sack, substantially as described.

LEWIS S. CHICHESTER.

Witnesses:
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