J. Slocum,

Cotton Press,

No 3,997, Patented Apr. 16, 1845.

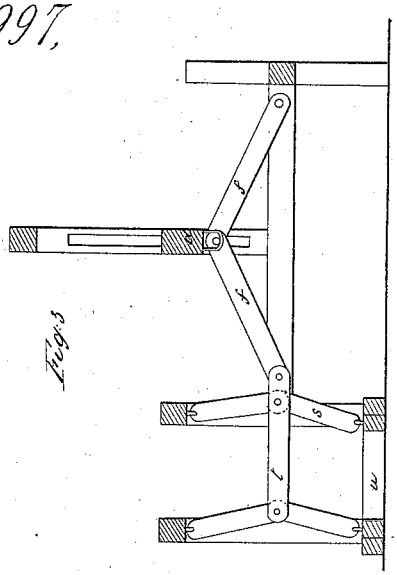

Fig. 3

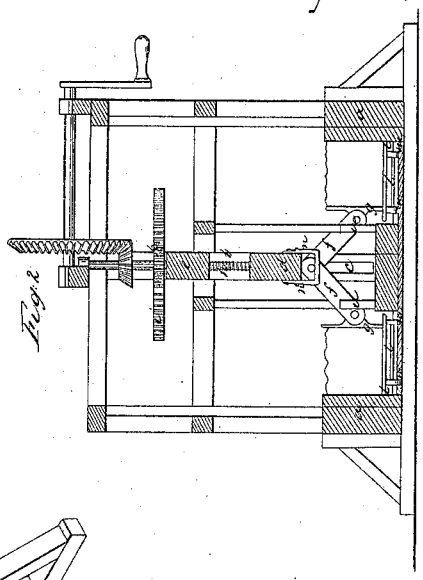

Fig. 2

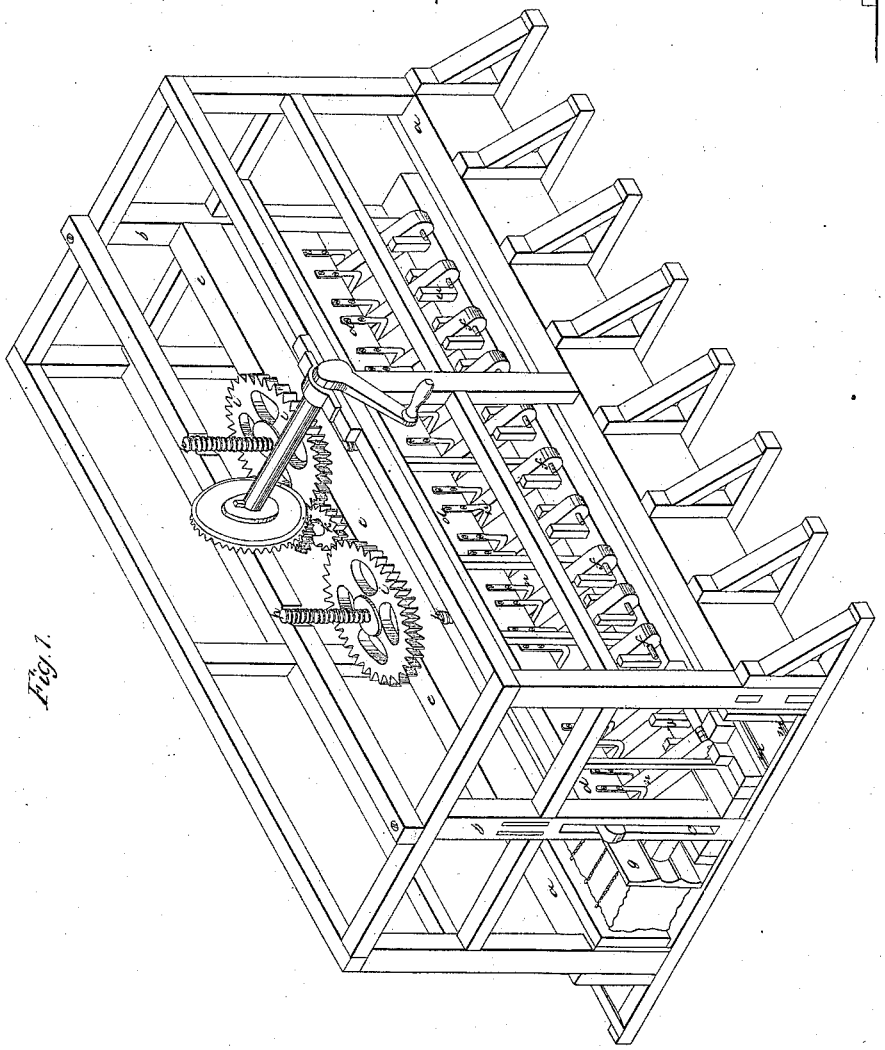

Fig. 1.

UNITED STATES PATENT OFFICE.

JOSEPH SLOCUM, OF SYRACUSE, NEW YORK.

IMPROVEMENT IN COTTON-PRESSES.

Specification forming part of Letters Patent No. **3,997**, dated April 16, 1845.

To all whom it may concern:

Be it known that I, JOSEPH SLOCUM, of Syracuse, in the county of Onondaga and State of New York, have invented a new and useful Improvement in the Construction of Cotton and other Presses; and I do hereby declare that the following is a full, clear, and exact description, reference being had to the accompanying drawings, which form a part thereof, in which—

Figure 1 is an isometrical view, Fig. 2 is a cross-section, and Fig. 3 a modification, of my improvements.

The nature of my invention consists in constructing a machine to press a given number of bales, which are run into it on cars, and, after receiving the pressure, they are confined till they leave the machine and are tied or corded.

The construction is as follows: Two abutment-walls, *a*, are made parallel with each other, on which the sides of a building may be erected, they being placed at a sufficient distance apart for that purpose, and properly braced. The sides of the building are given in outline in the drawings by the frame-work. In the center, between the above-named walls *a*, are erected two posts, *b*—one at each end—which are stayed by the frame-work. In these posts *b* are slots *c*, in which a tenon on each end of a horizontal beam, *d*, slides to guide said beam in its vertical movement, as about to be described. Over the beam *d* there is a large stationary beam, *e*. Under the movable beam *d* are placed at proper intervals a series of toggle-joint levers, *f*, the arms of which are jointed under said beam, and their outer ends are attached to followers *g*, which they force up toward the abutment-wall as the beam *d* descends and compresses the articles that may be placed between said wall and the follower. To force the beam *d* downward I employ two or more screws, *h*. These pass up through the stationary beam *e*, in which a revolving nut is fastened that forms the hub of a large spur-wheel, *i*. At each screw these spur-wheels are geared into a pinion, *k*, situated between them, to which the driving-power may be connected, as in the drawings, by bevel-gearing, or in any other convenient method.

The articles to be pressed in this machine are placed on cars *l*, which run on a railway that is made alongside the wall *a*, and marked in the drawings *m*. If it is a cotton-bale, it may be surrounded by a case upon the cars, of usual construction, with a follower in it, which, when the bale is pressed, holds it by any usual fastening till it is run out of the machine to be tied; or it may be tied in the press. Each toggle-joint is connected with the moving beam by two stirrups, *n*, which extend from one side of the beam to the other, and allow it a play endwise, so that if the bale at one follower is smaller than the other the strain shall be equalized without bringing it onto the beam, as would be the case if permanently jointed thereto. The platen or follower may be entirely detached from the end of the arm instead of using an additional platen, as described above.

A modification of my machine, to be used for punching, is shown in Fig. 3. It consists of a similar series of levers to those above described, and working in a similar manner. These, instead of acting on followers, are connected with the center joint of an upright toggle-joint, *s*, this again being connected by the lower arm with a follower, *u*, that works up and down. This follower can have a double row of upright toggle-joints with a connecting-rod, *t*, between them, as represented in the drawings, if required, and it may be used for punching sheets of iron, or other purpose. The arms *f* are forced down by the beam *d* bearing against them, and they are raised by the loops as it rises, there being guides *u* on each side that prevent the arms from receding farther on one side than the other. The center joint is always brought to the center of the beam when raised.

Having thus fully described my improvement in presses, what I claim therein as new is—

The combination of the series of toggle-joints with the beam *d*, in the manner described, so that they can have a lateral motion without straining the beam.

J. SLOCUM.

Witnesses:
J. J. GREENOUGH,
B. K. MORSELL.