

G. W. Penniston,

Cotton Press,

No 26,706,

Patented Jan. 3, 1860.

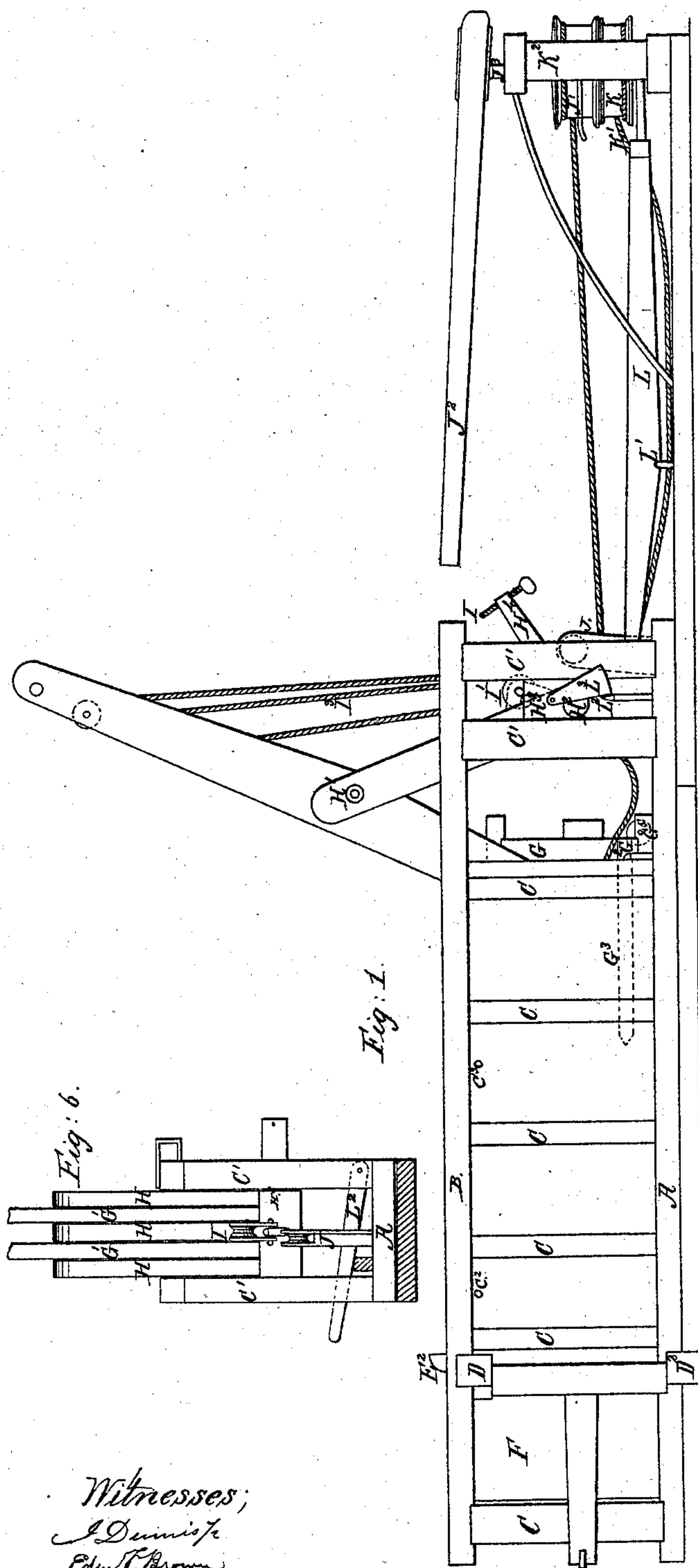


Fig. 1.

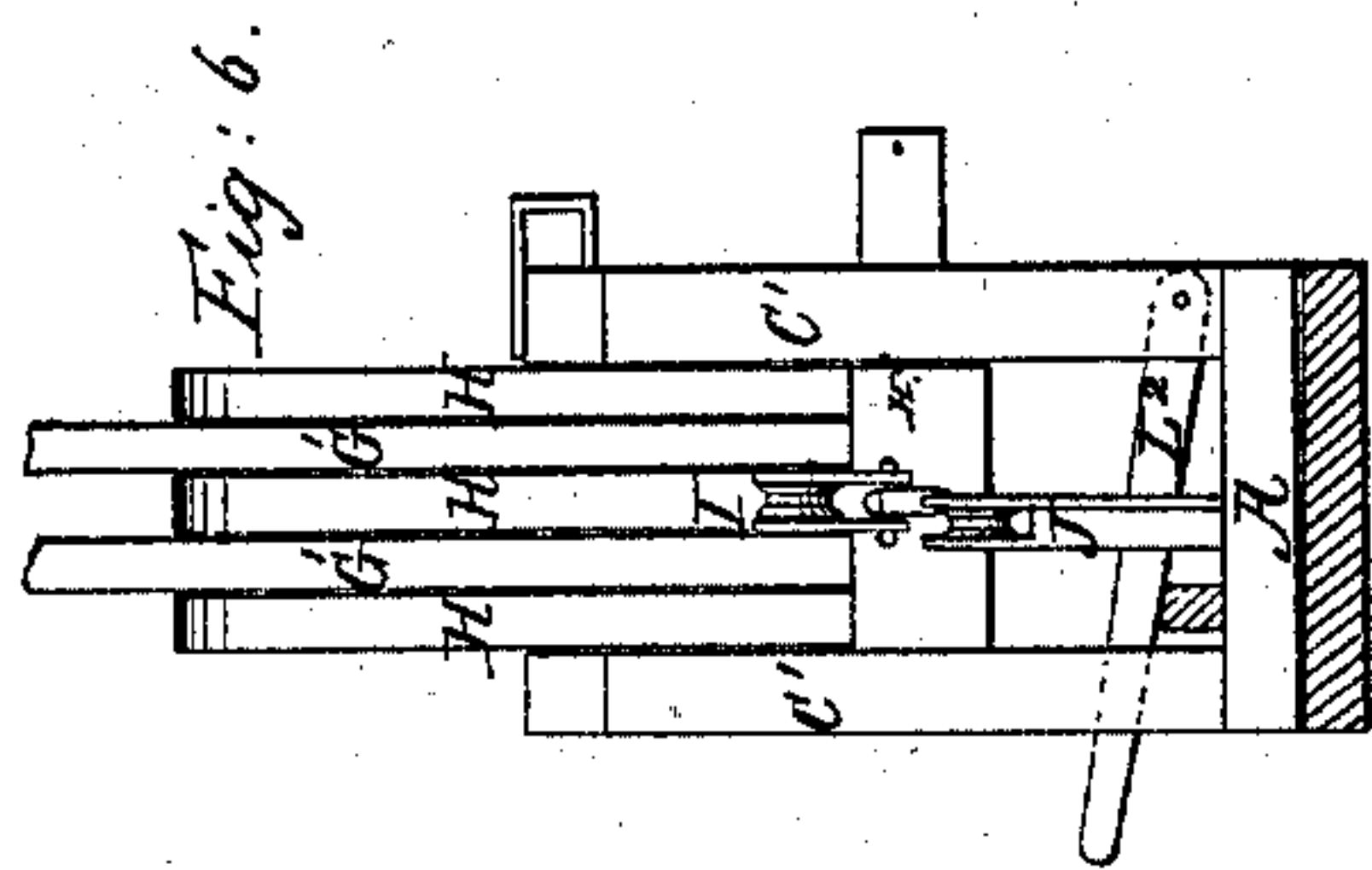


Fig. 6.

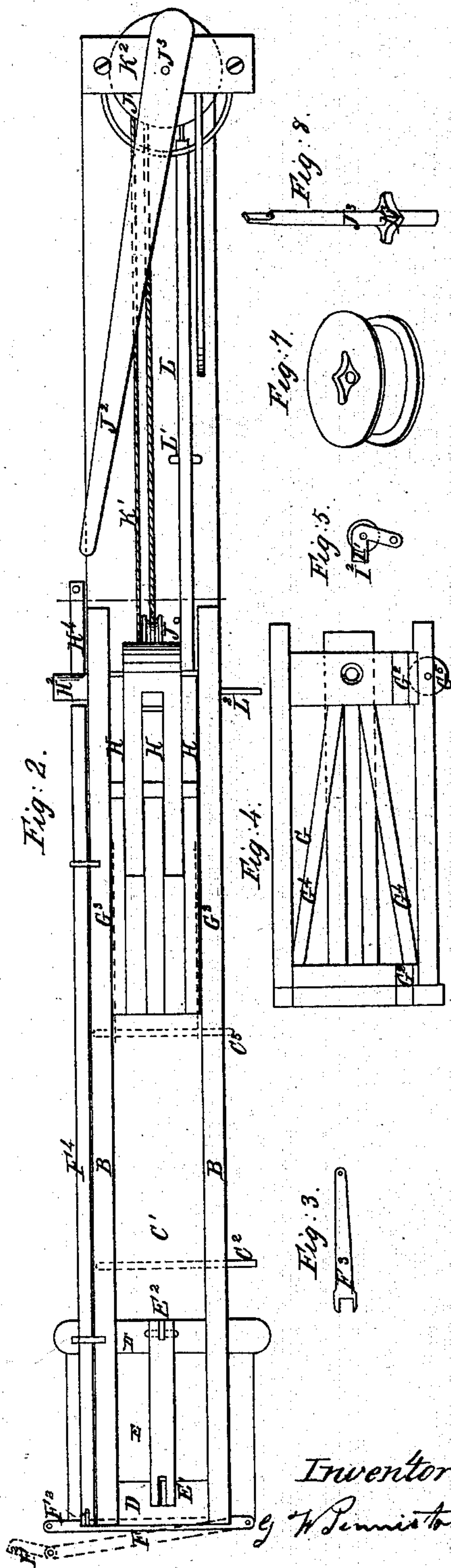


Fig. 2.

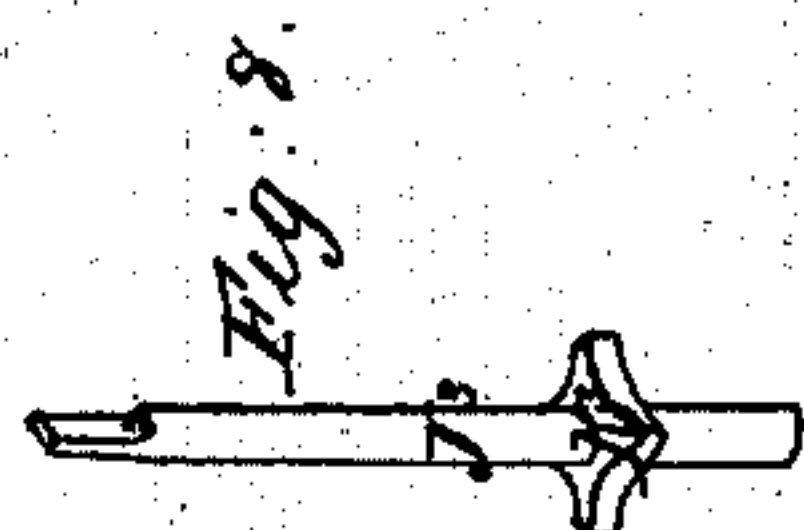


Fig. 8.

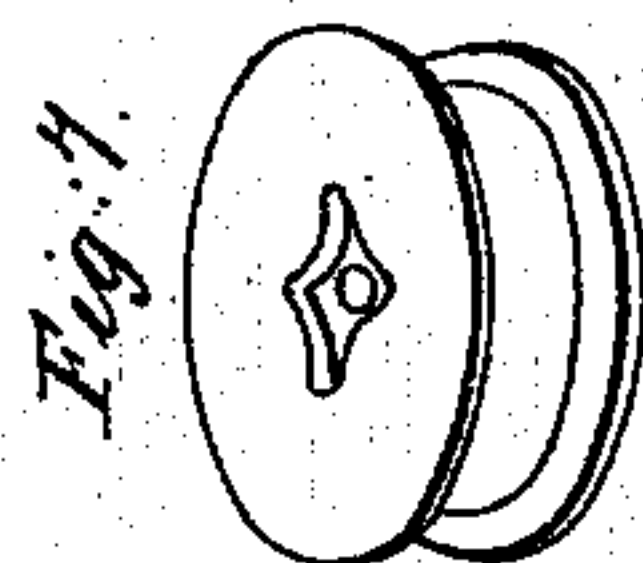


Fig. 7.



Fig. 5.



Fig. 4.

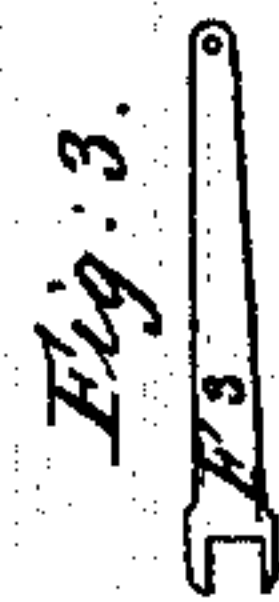


Fig. 3.

Witnesses;
J. Dennis Jr.
Edw. P. Brown

Inventor:
G. W. Penniston

UNITED STATES PATENT OFFICE.

GEORGE W. PENNISTON, OF NORTH VERNON, INDIANA.

IMPROVEMENT IN PRESSES.

Specification forming part of Letters Patent No. 26,706, dated January 3, 1860.

To all whom it may concern:

Be it known that I, GEORGE W. PENNISTON, of North Vernon, in the county of Jennings and State of Indiana, have invented certain new and useful Improvements in Presses for Cotton, Hay, &c.; and I do hereby declare that the same are described and represented in the following specification and drawings.

To enable others skilled in the art to make and use my improvements, I will proceed to describe their construction and operation, referring to the drawings, in which the same letters indicate like parts in each of the figures.

Figure 1 is an elevation of a press with my improvements. Fig. 2 is a plan of the same.

The nature of my improvements consists in a clevis combined with a bar and key for locking and releasing the doors of the press-box, and in fastening the pulley-block to the rock-shaft, to relieve it of some of the pressure in working the press.

In the accompanying drawings, A is the base of the press-box, connected to the top bars, B B, by the posts C C C' C', to make a strong frame, the top bars, B, being connected by the cross-bars D D'. The planking for the sides of the press is fastened to the posts C C, and the top C' of the press-box is arranged to vibrate on the rod C³, so that it can be opened to fill the press and then closed and secured by the rod C². The door E is hinged at E' and secured by a catch at E². There are two doors like F—one on each side—hinged in the bars D' D², and when closed are held by the locking-bar F' and clevis F², hinged to the end of the bar F', and shown open in dotted lines in Fig. 2. When the doors F are closed and the clevis placed in the position shown at F², parallel with and on the bar F', to hold the doors to, the clevis is held parallel with the bar by the key F³, (shown in Fig. 3,) with a forked end, which is placed upon the clevis and bar, and hinged to the traverse-rod F⁴, which vibrates the key and releases the clevis, so that the elasticity of the article pressed throws the doors open.

The plunger G is shown in elevation in Fig. 4. It is made long enough to allow the toggle-levers to work it into the press-box as far as required without cutting scores in the press-box for the toggle-levers G' G' to work in. G² G² are scores in the plunger, which traverse on

the ways G³ on the sides of the press-box. (Shown by dotted lines in Figs. 1 and 2.) In order to prevent the plunger from rocking and making the bales of unequal thickness, I put in the braces G⁴ G⁴, to stiffen it and hold the plunger parallel to the end of the press, and the roller G⁵, under the point of connection with the toggle-levers, relieves the plunger of much of the friction which would otherwise impede the progress of the plunger. The toggle-levers G' G' are connected to the three toggle-bars H H H by the pin H', one of the bars supporting the pin between the levers and the other two bars outside the levers rendering it very strong and making it a most powerful press. The lower ends of the toggle-bars H are fastened to the rock-shaft H², which shaft turns in the blocks H³, between the posts C', and carries the arm H⁴, and screw I, which strikes the rod F⁴ and moves it so as to release the key F³ when the bale being pressed is small enough, and let the doors of the press open. The pulley-block I', Fig. 5, is fastened to the rock-shaft H², and is provided with projections I², to hold the pulley from swinging toward the rock-shaft, so as to bind the rope when the press is drawn open. The rope I³ is fastened to one of the toggle-levers G', and passes around the pulley in the block I' and up over the pulley between the toggle-levers G', and down under the pulley in the block J, fastened to the base A, and from that to the windlass-barrel J', upon which it is wound by a horse attached to the lever J², fastened to the shaft J³ of the windlass shown in Fig. 8. The windlass-barrel K is right under the windlass-barrel J', and is connected to the plunger G by the rope K', which draws back the plunger after the bale pressed has been bound. The shaft J³ is supported by the frame K², and is arranged to turn freely in both windlass-barrels, and is provided with a clutch-block, K³, which is carried from one windlass-barrel to the other by raising and lowering the barrels by the lever L, so as to lock the barrels to the shaft alternately to work the toggles, and press a bale or retract the press, each windlass-barrel having a cavity in it, as shown in Fig. 7, for the block K³. The lever L, which raises and lowers the windlass-barrels, has its fulcrum at L', and is crossed by the lever L², which is locked down by the latch L³, Fig. 1, so as to hold the barrel K up to the block K³. By

swinging the latch one side, both windlasses will descend, so as to lock the upper one to the shaft. This arrangement of windlasses allows the horse that carries the lever J^2 to travel all the time in one direction, and saves the time and labor of turning twice for each bale pressed.

To fill this press the doors E and C' are opened and the press-box filled with the cotton or other material to be pressed, and the doors closed and fastened, as heretofore described. The windlass is then worked to draw down the toggle-levers until the screw I operates the bar F^4 and releases the doors F F, when the bale is ready to receive its hoops, after which it may be removed.

My improvements make a press cheaper in proportion to its capacity, which may be worked with a given pressure, with less power,

and in far less time than any other press made prior to the date of my invention.

I believe I have described my improvements in presses so as to enable any person skilled in the art to make and use them. I will now state what I desire to secure by Letters Patent, viz:

1. The clevis F^2 , constructed substantially as described, in combination with the bar F^4 and key F^3 , for locking and releasing the doors of the press-box, as specified.

2. Fastening the block I' to the rock-shaft H^2 , so as to relieve it of some of the pressure in working the press, as set forth.

G. W. PENNISTON.

Witnesses:

J. DENNIS, Jr.,

EDM. F. BROWN.