

(No Model.)

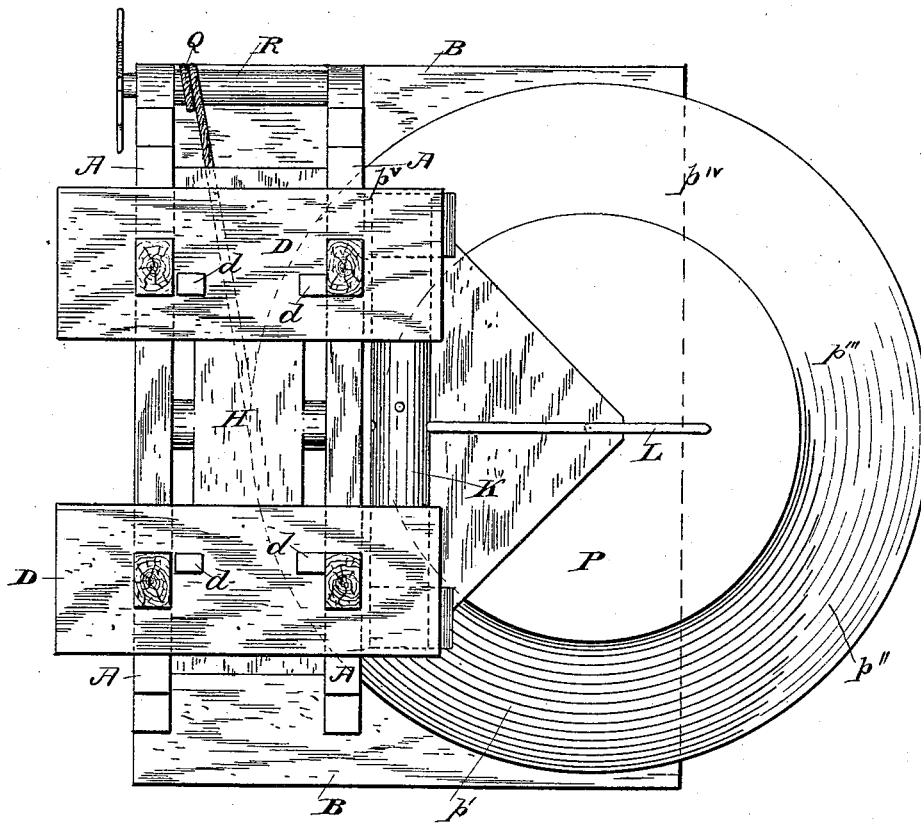
3 Sheets—Sheet 1.

W. J. CLARKSON.  
COTTON PRESS.

No. 250,711.

Patented Dec. 13, 1881.

Fig 1.



Attest:  
Geo. T. Smallwood, Jr.  
Louis W. Hopkins

Inventor:  
William J. Clarkson.  
BY Wright Bros  
attys.

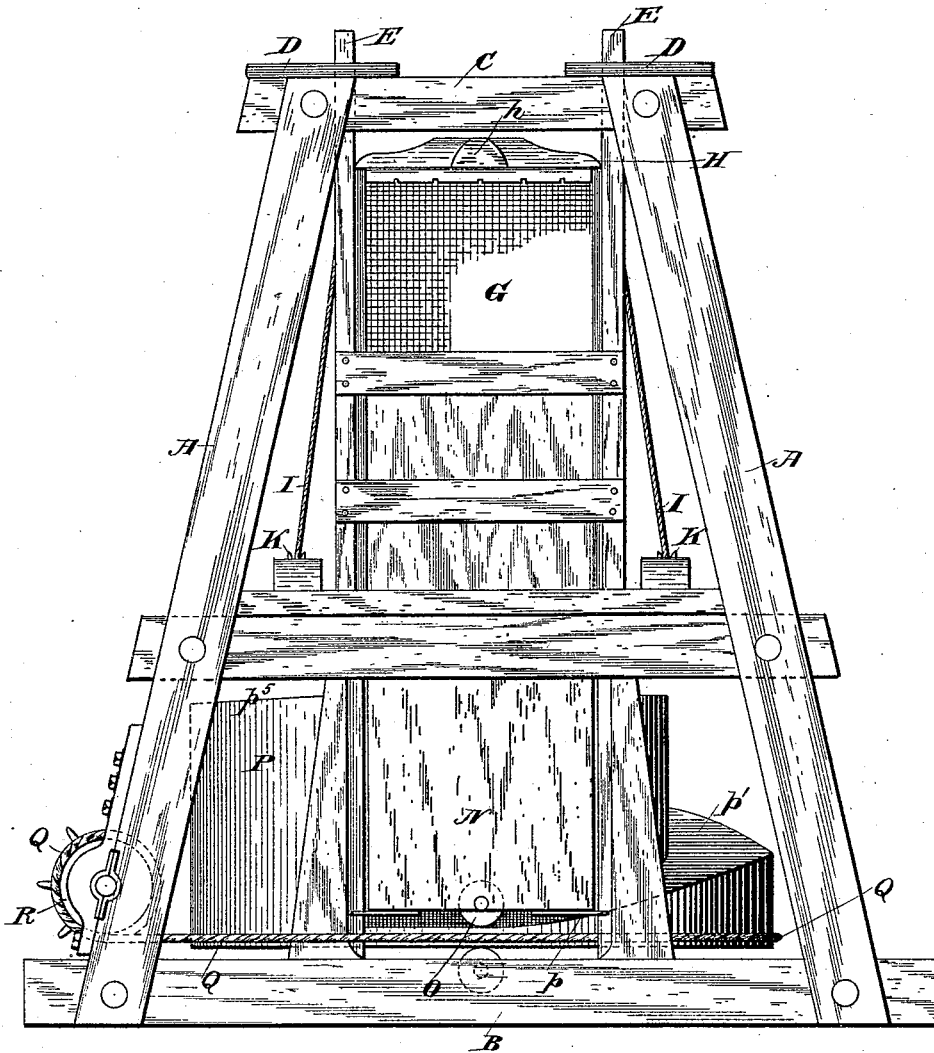
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Patented Dec. 13, 1881.

Fig 2.



Attest:  
 Geo. I. Smallwood Jr.  
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 William J. Clarkson.  
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(No Model.)

3 Sheets—Sheet 3.

W. J. CLARKSON.

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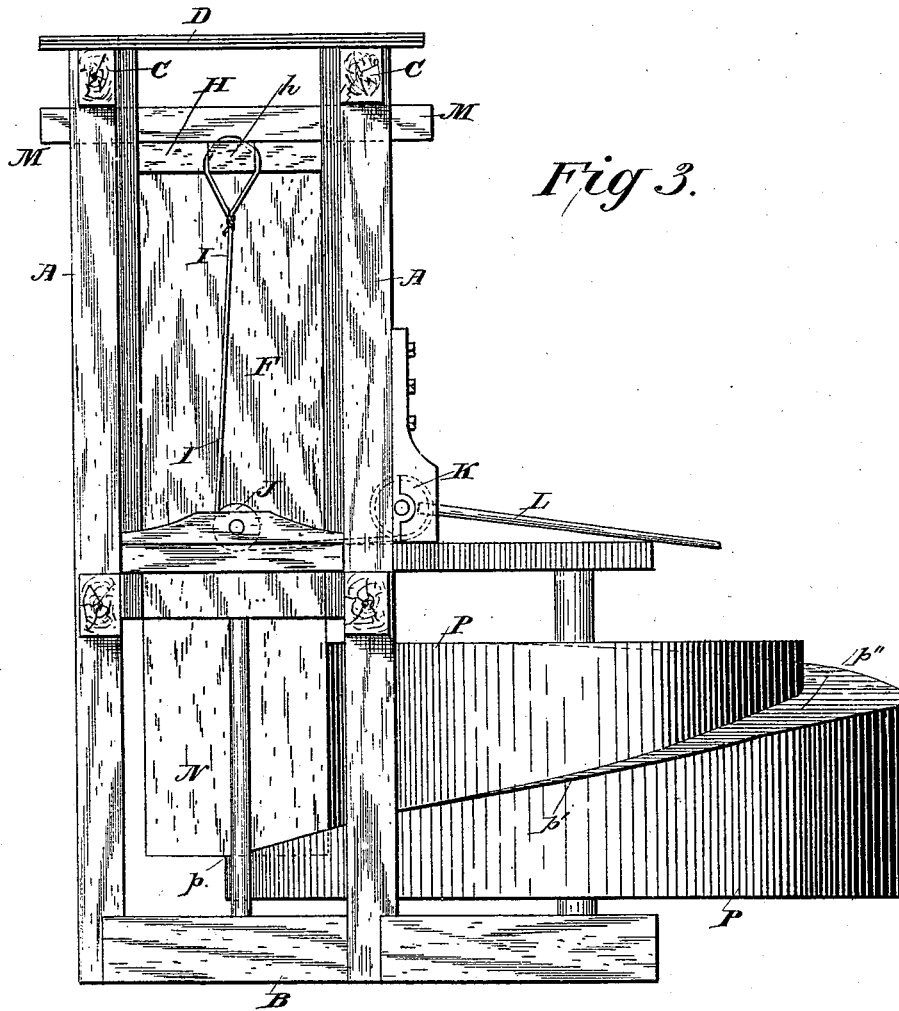


Fig 3.

Attest:  
 Geo. T. Smallwood Jr.  
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Inventor:  
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 BY Knights  
 attys.

# UNITED STATES PATENT OFFICE.

WILLIAM J. CLARKSON, OF GOURDIN'S STATION, SOUTH CAROLINA.

## COTTON-PRESS.

SPECIFICATION forming part of Letters Patent No. 250,711, dated December 13, 1881.

Application filed September 27, 1881. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM J. CLARKSON, of Gourdin's Station, in the county of Williamsburg and State of South Carolina, have invented a new and Improved Cotton-Press, of which the following is a specification.

My new and improved press is made with a vertically-moving press-box, which, when filled and closed, is drawn down by a comparatively quick movement, by means of a windlass, to impart preliminary pressure to the cotton, and is then fixed by chocks or wedges, while the follower is driven up from below by means of a large horizontal cam-wheel formed with inclines becoming gradually less steep from the beginning to the end, so as to act with increasing force on the follower, and near the termination of the movement, to impart any pressure desired.

In the accompanying drawings, Figure 1 is a plan view of my improved press. Fig. 2 is a rear view thereof. Fig. 3 is a side view of the same.

A A represent standards, mounted upon a bed, B, and connected at top by beams C C and transoms D, in which latter are formed guiding-slots *d* for the vertical posts E of the press-box. The said box is formed in customary manner, with stationary sides F F, front and back doors G G, and a movable top, H, from the ends of which project lugs *h* for the attachment of ropes I I, which pass around pulleys J J to the preliminary windlass K, which may be operated by means of a hand-spike, L.

M M are chocks or wedges, which, when the press-box has been drawn down, are inserted between the top H of the press-box and the beams C of the frame.

N is the press-follower, resting, through the medium of one or more anti-friction rollers, O, on the inclined ways *p p' p''*, &c., of the horizontal cam-wheel P, which latter is of large diameter, as shown, and is rotated with great force by means of one or more ropes or chains, Q, passed around its periphery and to the pulley R.

The operation is as follows: The movable cotton-box or press-box is elevated to the necessary extent and filled with cotton, which is tramped in customary manner. The cover

H of the box is then placed on and the ropes I I passed over the end lugs, *h*. The windlass L is turned, by which means the press-box may be drawn down two feet, more or less, or, say, one-third of the movement which is required to press the bale. The chocks or wedges M are then placed over the cover H, beneath the beams C, so as to secure the said cover and form a strong abutment, against which the heavy pressure from below will be sustained. The cam-wheel P is then rotated by means of the second windlass, R, which gives immense power and reduces the bale to the required size, a five-hundred-pound bale being successfully reduced to twenty cubic feet. The box is then opened and the bale tied in customary manner.

I prefer to construct the cam-wheel P with inclines *p p' p''*, &c., of six different grades, the first section, *p*, being comparatively steep, the next, *p'*, less steep, and so on to the end, where the final incline *p<sup>s</sup>* is of very low grade, so as to develop immense pressure.

I am aware that it is not broadly new to impart a gradually-increasing pressure to a cotton-bale as the work of compressing progresses; but my novel method of applying the power of an inclined plane for such a purpose by means of a graded cam-wheel which bears directly under the follower of a press possesses very important advantages in the way of simplicity, strength, and effectiveness.

This press can be put up with less cost than any other I have seen, and by any ordinary carpenter. It is thus within reach of many who are not able to procure a cotton-press of ordinary construction.

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

1. A vertically-moving press-box to impart preliminary pressure to the cotton, in combination with an independently-moving follower to impart the final heavy pressure, substantially as herein described.

2. The combination of the movable press-box E F G, operated from above downward by means of ropes or chains I I, and the windlass L, to impart the preliminary pressure to the cotton.

3. The combination of the vertically-moving

follower N and the cam-wheel P, formed with inclines  $pp'p''$ , &c., of gradually-reduced grade, as and for the purposes set forth.

4. The combination, with the press-box E  
5 F G, having suitable actuating mechanism, of the vertically-moving follower N, the cam-wheel P for actuating the same, and the ropes

or chains Q and windlass R for rotating said cam-wheel, substantially as set forth.

WILLIAM J. CLARKSON.

Witnesses:

D. E. GORDON,  
M. H. GORDON.