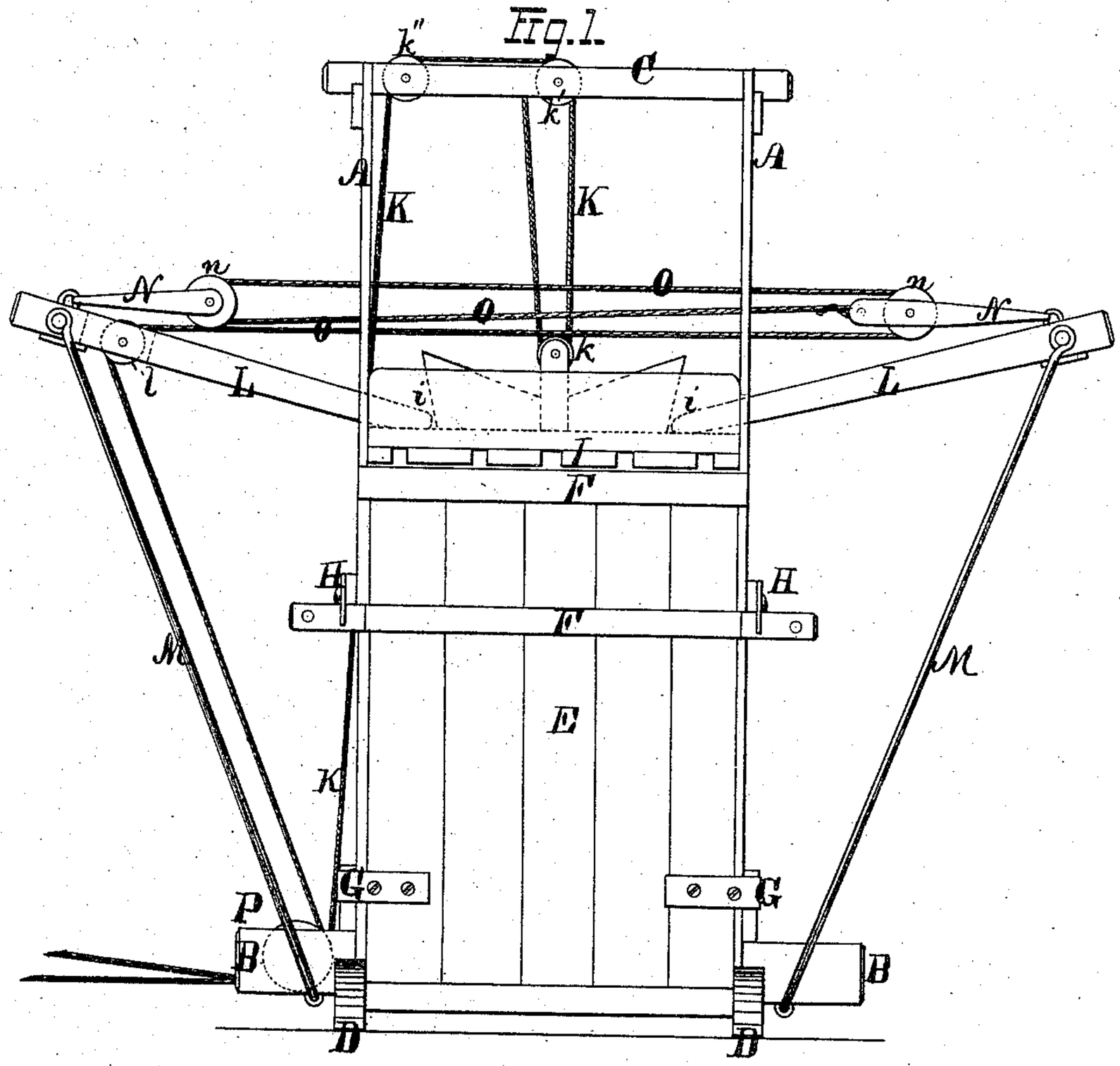
3 Sheets--Sheet 1.

G. W. STEWART.

Cotton-Presses.

No. 156,387. Patented Oct. 27, 1874.

Fig. 1.



Witnesses.

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John R. Young

Inventor.

Geo. W. Stewart, by

Prindle and Dean, his Attys

3 Sheets--Sheet 2.

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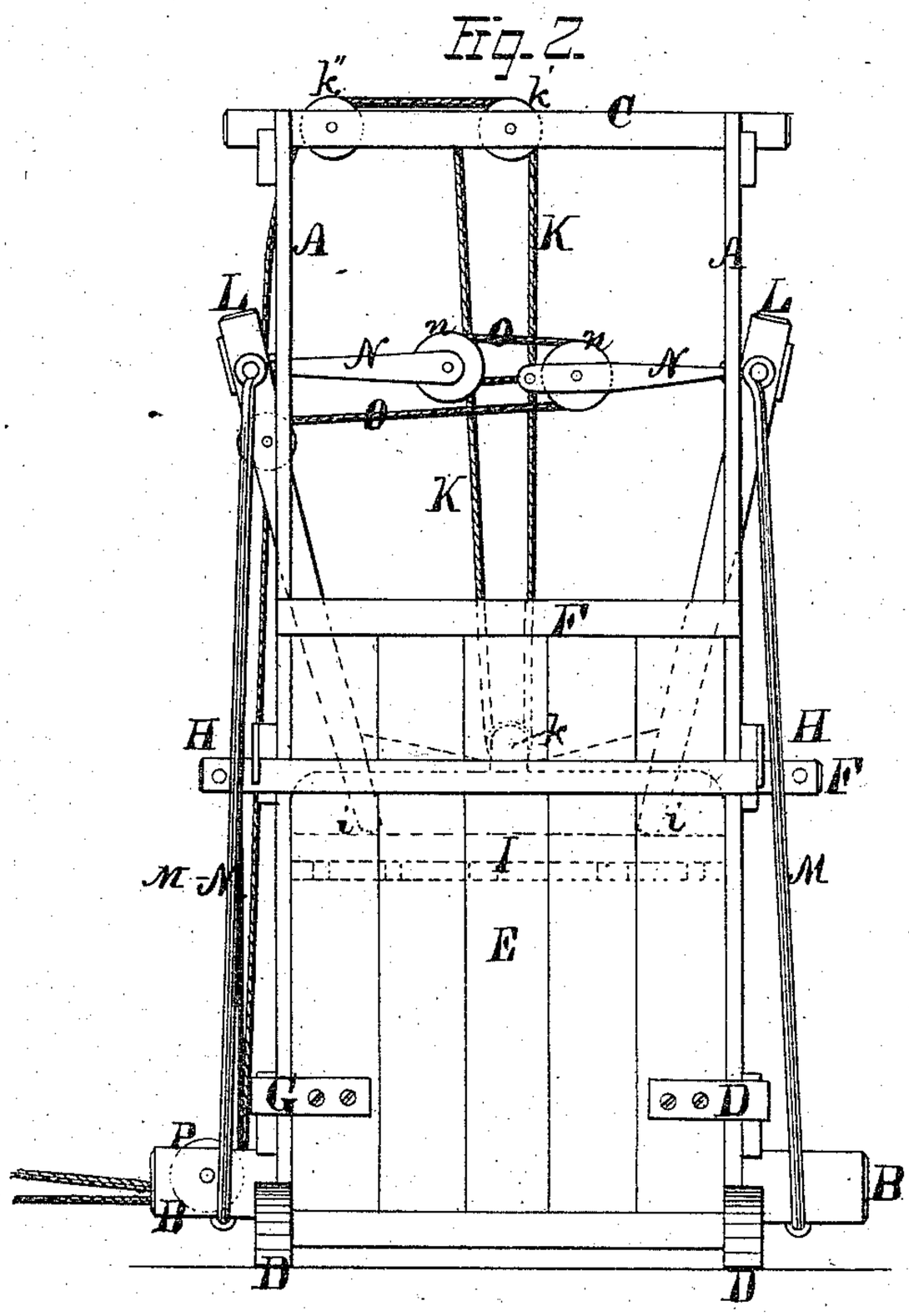
Fig. 2.



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3 Sheets--Sheet 3.

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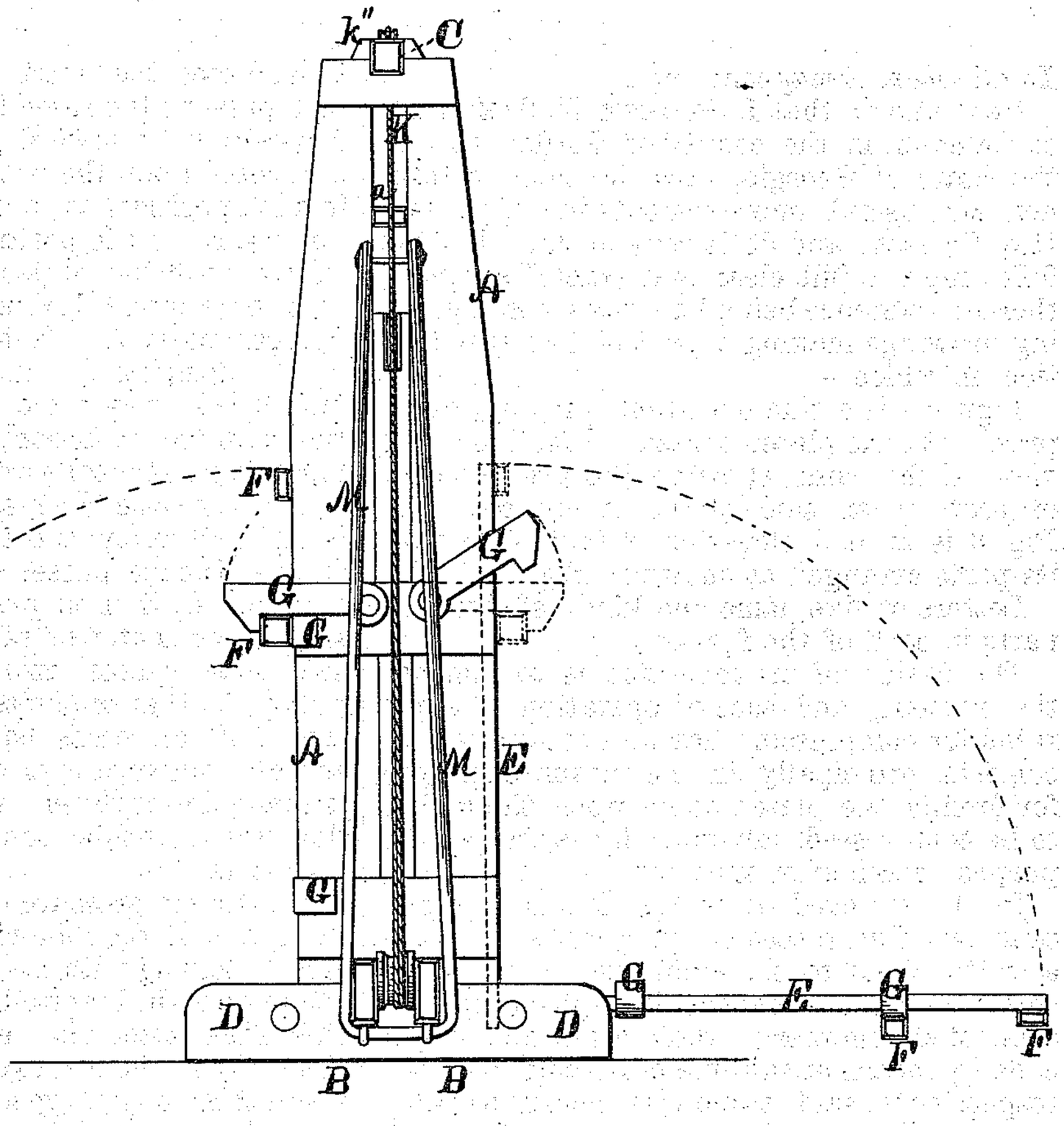
Fig. 3.



WITNESSES:

Jas. E. Hutchinson

John R. Young

INVENTOR.

Geo. W. Stewart, by

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UNITED STATES PATENT OFFICE.

GEORGE W. STEWART, OF CALHOUN, GEORGIA, ASSIGNOR OF ONE-HALF HIS RIGHT TO JOSEPH W. BARRETT, OF SAME PLACE.

IMPROVEMENT IN COTTON-PRESSES.

Specification forming part of Letters Patent No. **156,387**, dated October 27, 1874; application filed July 22, 1874.

To all whom it may concern:

Be it known that I, GEORGE W. STEWART, of Calhoun, in the county of Gordon and in the State of Georgia, have invented certain new and useful Improvements in Cotton and Hay Presses; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings making a part of this specification, in which—

Figure 1 is a side elevation of my improved press with the platen raised. Fig. 2 is a like view of the same, showing the arrangement of parts when said platen is lowered; and Fig. 3 is an end elevation of said press with its parts arranged as shown in Fig. 2.

Letters of like name and kind refer to like parts in each of the figures.

The design of my invention is to increase the efficiency and ease of operation of apparatus for compressing hay and cotton; and it consists, principally, in the means employed for forcing the platen down upon the article to be compressed, substantially as and for the purpose hereinafter specified.

In the annexed drawings, A and A represent two side pieces or uprights, which have a width equal to the thickness of a bale of cotton, and such height as is requisite and are connected together at their lower and upper ends by means of suitable cross-bars B and C, respectively, said standards being parallel, and separated to a distance equal to the width of a bale. The lower cross-bars B and B rest upon and are secured to two sills D and D that have their inner faces upon a line with the inner faces of the uprights A and A, and between said sills upon each side of the frame is pivoted one end of a side piece, E, which, when turned upward to a vertical position, passes into and closely fills the space, horizontally, between the edges of said uprights. Each side piece E is strengthened by means of two or more cross-bars F and F, which are secured horizontally upon its outer face, while from suitable points near its upper and lower ends a metal bar, G, extends horizontally and laterally outward, and thence at a right angle toward the opposite side of the frame, so as to embrace the outer face of the standard, and prevent the same from being forced out of position by inward pressure. A hook, H, is pivoted upon the outer face of each upright in such position as to enable it, when turned downward to the position shown in Fig. 3, to engage with the projecting end of one of the cross-bars F, and lock each pivoted side in an upright position. Within the space inclosed by the uprights A and A, and frame sides E and E is loosely fitted a platen, I, which has the usual construction, and is capable of being moved vertically within said space. The platen I is raised by means of a rope, K, which is fastened at one end to or upon the cross-bar C, from thence passes downward and around a pulley, *k*, that is pivoted upon the upper side at the center of said platen; from thence said rope passes upward around a second pulley, *k'*, that is pivoted at the longitudinal center of said cross-bar C, from thence horizontally outward over a third pulley, *k''*, that is pivoted near the end of said bar, and thence downward within convenient reach of the operators.

Downward pressure is applied to the platen by means of the following-described mechanism: Resting within a suitable socket, *i*, upon each side of the longitudinal center of the upper side of the platen I is one end of a lever, L, which latter from thence extend outward through a suitable vertical opening, *a*, in the upright A, and at or near its outer end is pivoted to or upon one end of a link, M, the opposite end of which is in turn pivoted upon the lower side of the cross-bars B and B just outside of said upright A. To the upper and inner side of each lever L is pivoted one end of a double strap, N, which from thence extend inward, and has pivoted between its end a pulley, *n*. A rope, O, is secured to the inner end of one strap, N, from thence passes around the pulley *n* of the opposite strap, from thence around the pulley *n* of the first strap, and from thence horizontally outward over a pulley, *l*, that is pivoted in one of said levers, and thus downward beneath and around a pulley, P, that is pivoted in one of said levers, and thus downward beneath and around a pulley, P, that is

pivoted between the projecting ends of the cross-bars B and B, the end of said rope being connected with a suitable windlass.

As thus arranged it will be seen that by drawing outward upon the rope O, the levers L and L will be drawn inward, and as the upward motion of the latter is prevented by the links M and M, the inner ends of said levers will be forced downward, and with them the platen, the motion of said platen being greatest for a given movement of the rope at the commencement of its downward movement, (where the least power is required,) and least near the close of such movement, (where the most power is necessary.) After the bale has been tied, the rope O is loosened, and the rope K drawn outward, by which means the platen is raised, and the operative parts restored to the relative positions shown in Fig. 1.

The press described is compact and efficient, its operative parts durable, and not liable to derangement, and from the simplicity of its construction, said press can be furnished at a comparatively low cost.

I am aware that heretofore levers have been used where the inner ends could be operated upon ears or lateral projections from the platen, but by my invention, as above explained, all this complexity, and the incident expense of construction, are obviated, and also the great danger of, and trouble from, the accidental breaking of said ears or projections. These points are of the utmost consequence to the cotton planter in country districts.

Having thus fully set forth the nature and merits of my invention, what I claim as new is—

In combination with the platen I, having notches *i i* upon its upper side, the levers L L pivoted, respectively, at their outer ends to or upon the ends of links M M, the straps N and N, the rope O, the pulleys *n n l* and P, substantially as and for the purposes specified.

In testimony that I claim the foregoing I have hereunto set my hand this 18th day of July, 1874.

GEO. W. STEWART.

Witnesses:
D. W. NEEL,
T. M. ELLIS.