

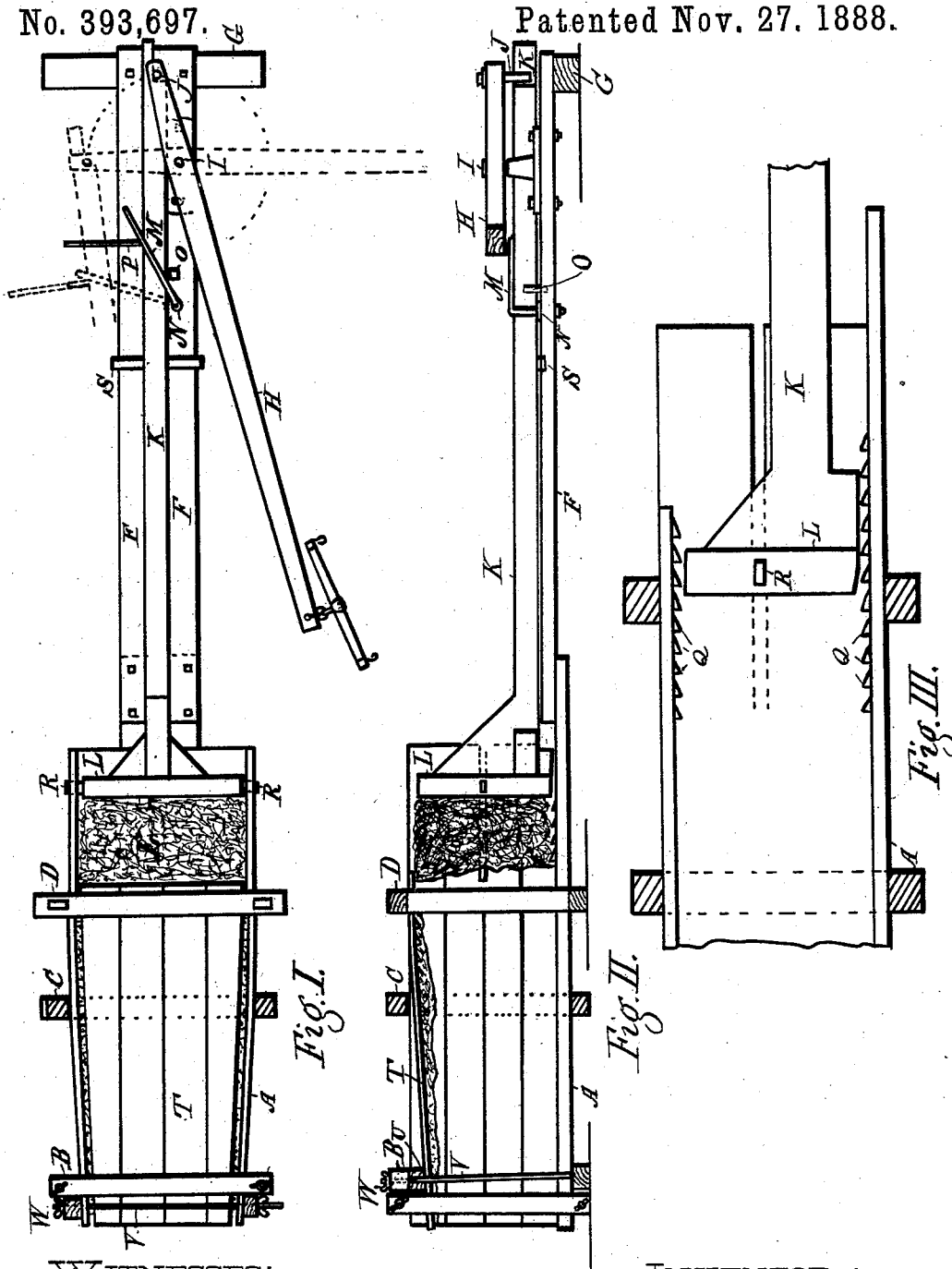
(No Model.)

J. H. GARDNER.

BALING PRESS.

No. 393,697.

Patented Nov. 27. 1888.



WITNESSES:

Robert Kirk.
Robt. S. Miller.

INVENTOR :

John H. Gardner.
By *[Signature]*
Attorney.

UNITED STATES PATENT OFFICE

JOHN H. GARDNER, OF ADAIRSVILLE, GEORGIA, ASSIGNOR TO J. E. SANDERS AND SEID WADDELL, OF UNION CITY, TENNESSEE.

BALING-PRESS.

SPECIFICATION forming part of Letters Patent No. 393,697, dated November 27, 1888.

Application filed June 18, 1888. Serial No. 277,498. (No model.)

To all whom it may concern:

Be it known that I, JOHN H. GARDNER, of Adairsville, in the county of Bartow and State of Georgia, have invented a new and useful Improvement in Baling-Presses, which improvement is fully set forth in the following specification and accompanying drawings, in which—

Figure 1 is a top or plan view of my improved baling-press, Fig. 2 a side elevation of the same, and Fig. 3 the same showing the transverse beveled cleats.

My invention relates to improvements in baling-presses, and its purpose is to provide a simple, inexpensive, and easily-constructed device, which may be easily operated and is so designed as to perform its work rapidly and efficiently with less power and manual labor than are required by other presses of like capacity. It may be so adjusted as to produce bales of varying size and compactness, and when desired may be easily taken apart and removed, or stored to protect it from injury when not in use.

Referring to the accompanying drawings, A represents a bale-box secured by suitable clamps, B C D. The bottom and sides of the receiving end of the box are extended, so that when the ram or plunger is withdrawn an opening, E, is provided on top, through which hay or other material may be introduced at intervals while the press is in operation. A suitable piece of timber or sill, F, is bolted to the extension of the box and is supported at its outer end by a head-block, G. A lever, H, operated by horse-power, is suitably pivoted on the sill at I. Underneath and near the end of the short arm of said lever is a stud, J, which engages a notch in a pitman, K, the opposite end of which carries a ram or plunger, L. A bridle or link, M, is pivoted on the sill at N and limits the lateral movement of the plunger as it follows the arc described by the stud J on the short arm of the lever. A pin, O, in the sill arrests the pitman when it reaches the desired limit. The lever is then released and the pitman reacts. A stud, P, in the pitman then engages the link M, and the link is thereby brought back to the proper position to re-engage the pitman on the next

movement of the lever, the stud J engaging in its end, as before. If desired, a spring may be attached to the pitman and the sill beneath it; but in practice it is found that the elasticity of the hay or other material in the press is sufficient to throw the plunger back to the open position, where it remains until the stud in its succeeding revolutions again engages the notch in the pitman.

When the press is in operation, the horse travels in his circuit without stopping. The plunger, when retracted, discloses the opening in the top of the bale-box, and sufficient time is then afforded to add supplies of material to be subjected to the succeeding movement of the plunger. Space-blocks are used to regulate the size of the bales, which are tied in the usual manner by wires or cords. The bottom and top of the box are provided interiorly with transverse beveled cleats Q, the inclined edges of which retain the hay during the intervals when the plunger is withdrawn.

It will be understood that as the lever rotates the relative positions of the pivot thereon and the stud which engages the pitman are such that the power increases in proportion to the resistance that is encountered, and that at the moment when the pitman is released, the resistance being in a direct line with said stud and pivot, no appreciable shock is communicated to the lever.

To obviate undue friction between the plunger and the bottom of the bale-box and to prevent displacement, the sides of the plunger are provided with studs R, which slide back and forth in slots in the adjacent sides of the box. A friction-roller, S, or a cleat, may be placed on the sill F to prevent friction between the same and the pitman and to allow free play to the link.

When it is desired to increase the density of the bale, the rear end of the box may be readily contracted. This is accomplished by gradually reducing the width of the upper wall, T, of the box rearwardly of the middle clamp and slotting the side walls at U. The clamp B is made adjustable by screw-rods V and tail-nuts W, the top and sides being sufficiently flexible. The outer ends are thus brought nearer together, and the bale, being

thereby subjected to additional lateral compression, is rendered more compact.

What I claim as new is—

5 The bale-box, as described, the head-block G and sill F, bolted to the box and supported by the block, the pitman K, the plunger L, attached to the same, the link M, pivoted to the sill at N, the stud P of the pitman, adapted to engage said link, and the lever H, pivoted
10 to the sill at I and having the stud J on its short arm engaging the notched outer end of

the pitman, these several parts being constructed, combined, and adapted to operate substantially as described.

In testimony that I claim the foregoing I have hereunto set my hand, this 24th day of December, 1887, in the presence of witnesses.

JOHN H. GARDNER.

Witnesses:

W. L. COLSTON,
A. P. COLSTON.