(No Model.) 2 Sheets—Sheet 1.

R. GARSIDE.

COTTON AND HAY PRESS.

No. 321,208. Patented June 30, 1885.

FIG. I.

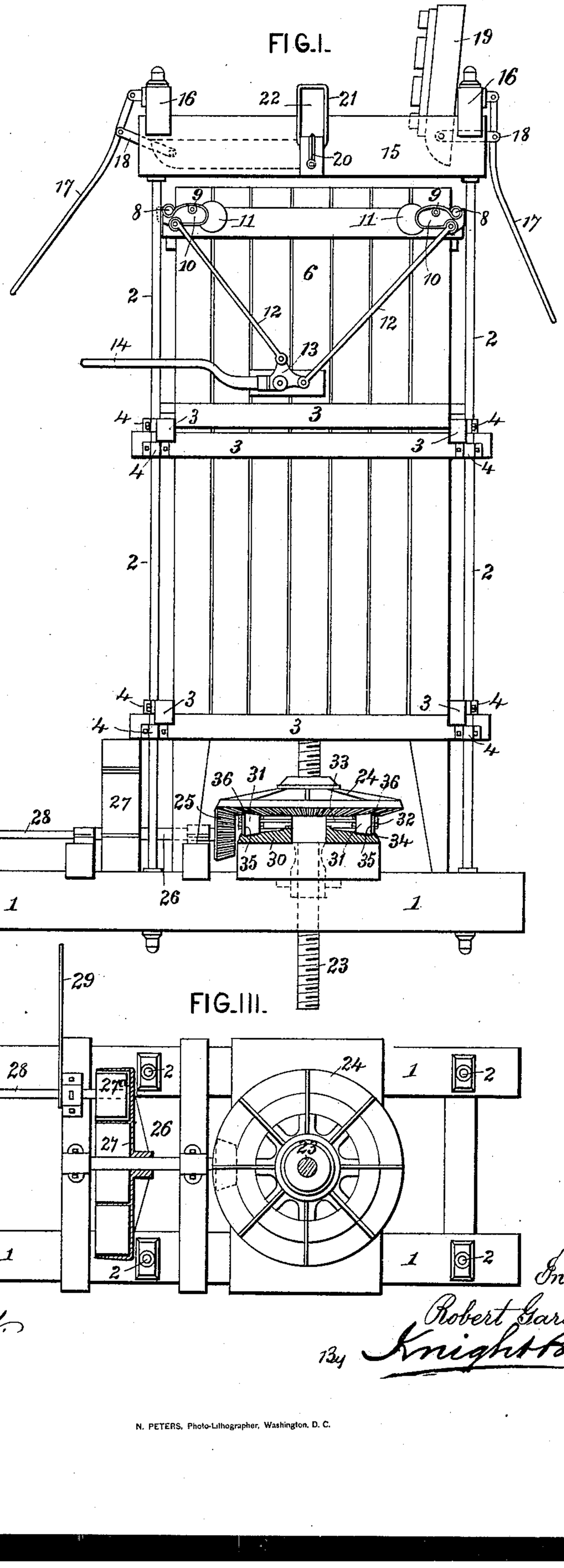

FIG. III.

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Geo. T. Smallwood.
Edward Stier.

Inventor:
Robert Garside
By Knight Bros. attys.

(No Model.) 2 Sheets—Sheet 2.

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FIG. II.

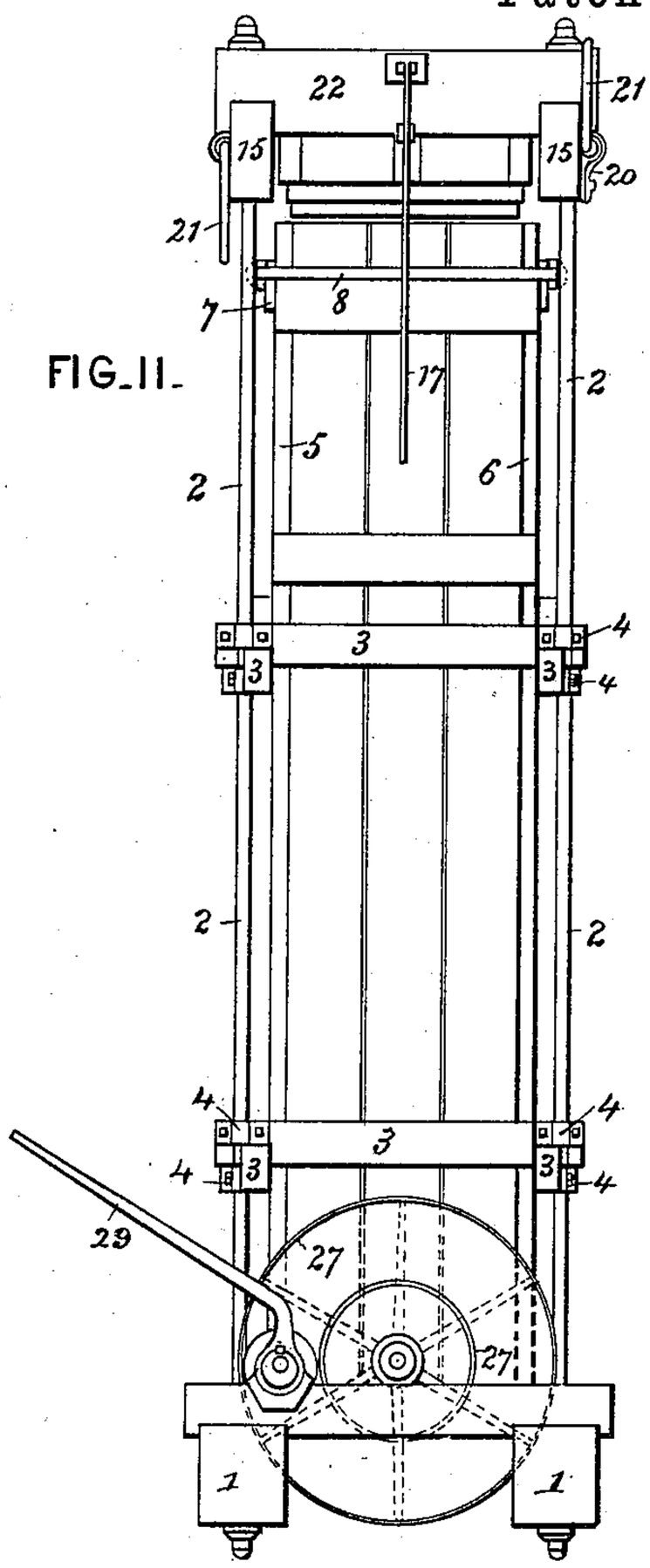


FIG. VI.

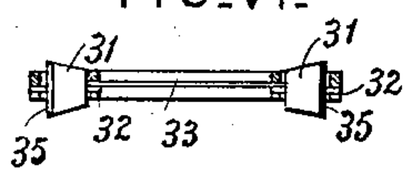


FIG. V.

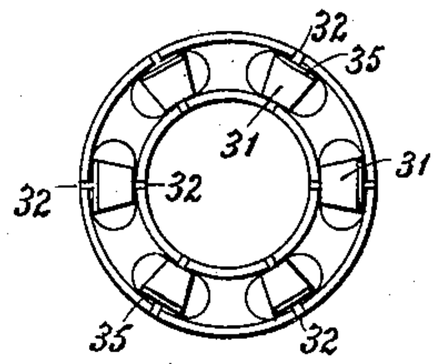
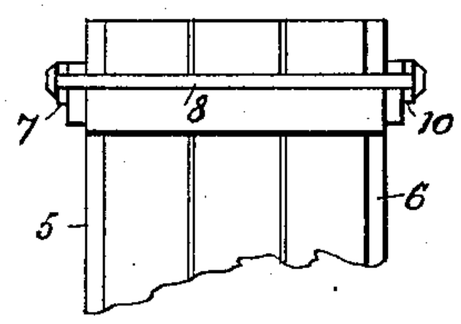


FIG. IV.



Attest:
Geo. T. Smallwood.
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Inventor:
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UNITED STATES PATENT OFFICE.

ROBERT GARSIDE, OF MEMPHIS, TENNESSEE, ASSIGNOR TO J. E. RANDLE & CO., OF SAME PLACE.

COTTON AND HAY PRESS.

SPECIFICATION forming part of Letters Patent No. 321,208, dated June 30, 1885.

Application filed March 23, 1885. (No model.)

To all whom it may concern:

Be it known that I, ROBERT GARSIDE, a citizen of the United States, residing at Memphis, in the county of Shelby and State of Tennessee, have invented certain new and useful Improvements in Cotton and Hay Presses, of which the following is a specification.

My improvements relate, first, to means for locking the front and rear battens of a cotton-press to position while the follower of the press is in operation; secondly, to means for locking the covers of the press; thirdly, to means for supporting the press-box from the main rods or standards of the press; and, fourthly, to improvements in the anti-friction bearing for the main or master wheel by which the follower-screw is forced upward or retracted.

To these ends my invention consists in certain details in the construction of the press, which will be more specifically described hereinafter, and pointed out in the claims.

In order that the invention may be better understood, I will proceed to describe it with reference to the accompanying drawings, in which—

Figure I is a front elevation of my improved press. Fig. II is a side elevation of the same. Fig. III is a plan view of the mechanism beneath the press-box, the gear on the pinion-shaft being shown in section. Fig. IV is a detail sectional view through the batten and locking devices. Fig. V is a plan view of anti-friction movement ring. Fig. VI is a vertical section of the same.

1 may represent the bed-frame of the press. 2 2 2 2 are four vertical iron rods fixed in the bed-plate, and serving as the corner-posts of the press. Upon the rods 2 the binding-frames 3 are supported by means of metal straps or clamps 4. The frames 3 being made with half-cylindrical recesses for receiving the rods 2, and the straps 4 being then bolted tightly over them, the frames are fixed rigidly from vertical movement on the posts.

The upper side battens, 5 6, of the press-box are hinged at bottom or made removable in customary manner, and while a bale of hay or cotton is being pressed they are fixed to position by a locking device of the following construction: To the batten 5 are bolted two plates, 7, slotted to receive one end of the tie-rods 8. To the other batten, 6, are pivoted at 9 two locking-dogs, 10, weighted at their inner ends 11, and having noses of sufficient length to project behind the corner-post when said dogs are forced upward to horizontal position. The dogs are operated by links 12, connected to the bell-crank 13, pivoted near the bottom of batten 6 and rigidly connected with hand lever or arm 14. To the side top beams, 15, of the press are fixed by gaining or otherwise two cross-bars, 16, to which are hinged hand-levers 17, connected by links 18 with the half-doors 19. To the outside of said side beams, 15, near their centers, are fixed straps or brackets 20, in which are hinged links 21, adapted to engage over the end of a central locking-beam, 22, which passes transversely across the press at the point of intersection of the two half-doors 19.

23 is the follower-screw of the press supporting the follower, and itself supported by the master-wheel 24, adapted to be driven by frictional or toothed connection with bevel-pinion 25 on shaft 26, journaled in cross-bars on the main bed-frame of the press. The said shaft is adapted to be driven in either direction to force the follower-screw upward or retract it by means of friction-gear 27, driven by the friction gear-wheel 27^a on main driving-shaft 28. 29 is a hand-lever for shifting the said friction-gear, so as to drive the shaft 26 in either direction. The master-wheel 24 is supported from bed-plate 30 by a series of frusto-conical anti-friction rollers, 31, having journals 32, resting in bearings in the horizontal movement-ring 33, which surrounds the follower-screw and travels with the master-wheel on its rotation.

34 is an annular beveled ridge at the edge of the base-plate, which engages with an inclined or beveled face, 35, upon the anti-friction rollers to prevent their departure from a circular path. A similar beveled ridge, 36, is made upon the under side of the master-wheel 24. The bearing-surfaces of said master-wheel, bed-plate, and anti-friction rollers are all hardened by being molded in a chill-mold, so as to resist wear.

Having thus described my invention, the following is what I claim as new therein and desire to secure by Letters Patent:

1. In combination with four corner posts or rods for a cotton or hay press, a self-supporting press-box having binding-frames whose faces are recessed to receive said posts and clamped to said posts by metallic straps, substantially as set forth.

2. In combination with the hinged or removable battens of a cotton or hay press, the pivoted locking-dogs, a bell-crank lever and links connecting said bell-crank lever to the outer ends of said locking-dogs for operating the same by a single movement, substantially as set forth.

3. The pivoted locking-dogs for the hinged or removable battens of a cotton or hay press weighted at their inner ends to adapt them to automatically lock when pressure is released.

ROBT. GARSIDE.

Witnesses:
THOS. J. CLARKE,
A. E. SPEERS.