

No. 680,407.

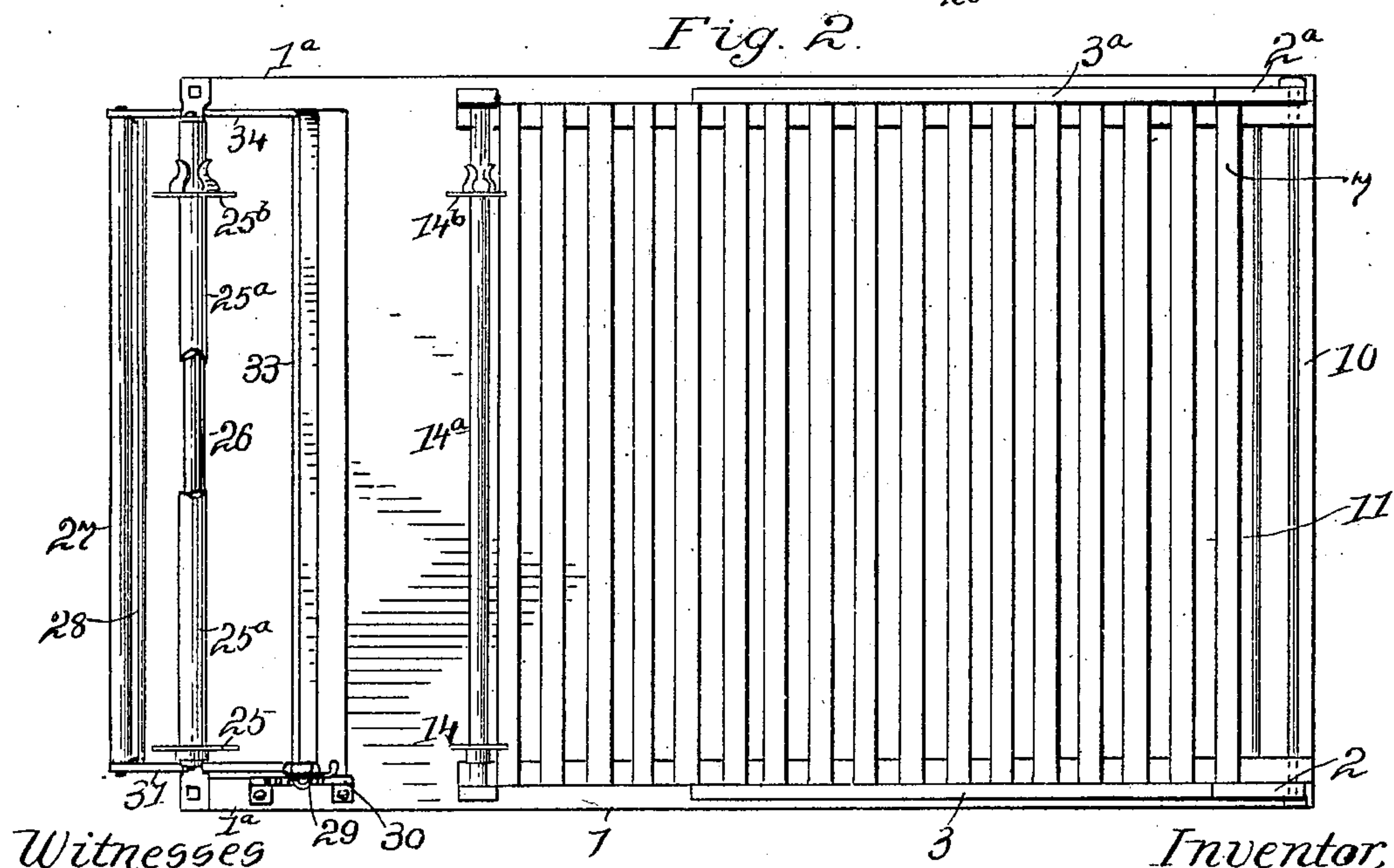
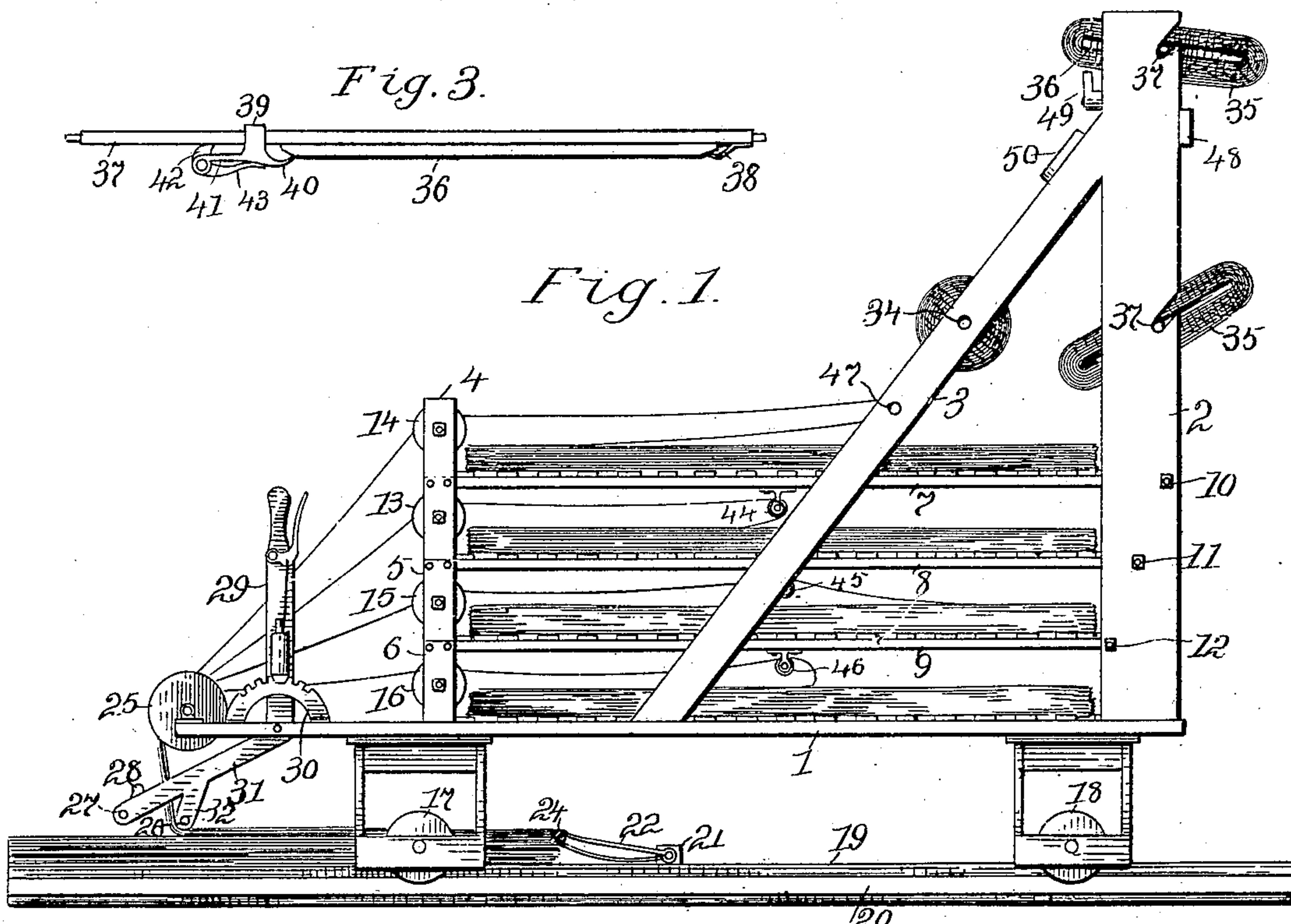
Patented Aug. 13, 1901.

C. D. CODDINGTON.
CLOTH PILER.

(Application filed Dec. 3, 1900.)

(No Model.)

2 Sheets—Sheet 1.



Witnesses
Nora Graham.
Ira Graham

Inventor,
Cephas D. Coddington.
by L. P. Graham
his attorney

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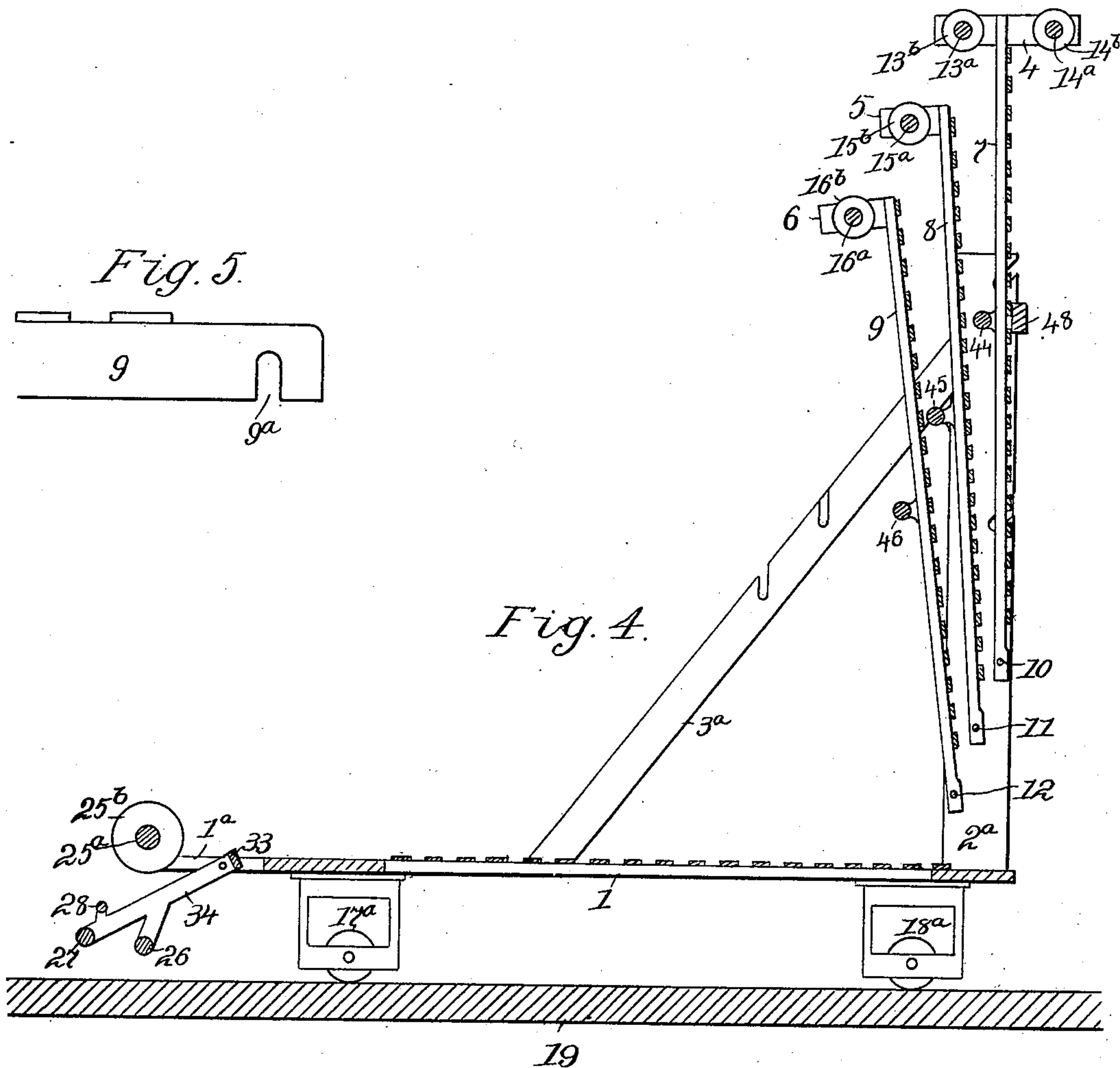
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Ina Graham.

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his attorney.

UNITED STATES PATENT OFFICE.

CEPHAS D. CODDINGTON, OF DECATUR, ILLINOIS, ASSIGNOR OF ONE-HALF
TO OSCAR C. ROBERTSON, OF SAME PLACE.

CLOTH-PILER.

SPECIFICATION forming part of Letters Patent No. 680,407, dated August 13, 1901.

Application filed December 3, 1900. Serial No. 38,505. (No model.)

To all whom it may concern:

Be it known that I, CEPHAS D. CODDINGTON, of the city of Decatur, county of Macon, and State of Illinois, have invented a new and useful Machine for Laying Cloth, of which the following is a specification.

This invention provides means for expeditiously laying cloth from folds, cylindrical rolls, or flat rolls onto a cutting-table. It is exemplified in the structure hereinafter described, and it is defined in the appended claims.

In the drawings forming part of this specification, Figure 1 is a side elevation of a machine embodying my invention. Fig. 2 is a plan of the machine. Fig. 3 is a detail of a pivot-rod adapted to clasp the core-boards of flat rolls of cloth. Fig. 4 is a longitudinal vertical section through the machine, showing the cloth-holding trays raised preparatory to loading the machine with folded cloth. Fig. 5 is a detail of an end of a tray, representing a modified structure thereof.

The frame of the machine comprises a horizontal platform 1, from the opposite sides of one end of which arise standards 2 and 2^a. Braces 3 and 3^a extend obliquely downward from the upper ends of the standard along the sides of the platform and are attached at their lower ends to the platform. From the end of the platform opposite the standards the corners 1^a extend forward to provide bearings for cloth-laying mechanism, and the platform is mounted on one side on grooved rollers 17 and 18, that run on a track 20 alongside the table 19, and on the other side the platform is sustained by flat rollers 17^a and 18^a, that run on the surface of the table.

A plurality of trays are pivotally supported at their rear ends on rods sustained in the standards, and at their front ends the trays are provided with legs that line up vertically when the trays are in operative position. In this instance there are three trays used, and these are designated by 7, 8, and 9. The lower tray 9 is pivoted at its rear end on rod 12, and it has legs 6 at its front corners that rest on platform 1. The tray 8 is pivoted on rod 11, and its legs 5 rest on the upper ends of the legs 6. Tray 7 is pivoted on rod 10, and its legs rest on the legs of tray 8. The trays

are flat structures, preferably slatted for the sake of lightness, and they are each adapted to sustain a fold of cloth properly spread out. In the downward-extended legs of each tray is journaled a roller adapted to sustain a run of cloth, and the legs of the upper tray extend above the tray and provide bearings for an additional roller. Each roller in the swingable ends of the trays has a pair of guide-disks, one fixed near the outer end of its roller and the other shiftable on the opposite end. The upper roller is shown at 14^a, the next highest at 13^a, the next at 15^a, and the lowest at 16^a. The fixed disks of the rollers are shown at 14, 13, 15, and 16, and the shiftable guides are shown at 14^b, 13^b, 15^b, and 16^b. An additional cloth-supporting roller crosses the lower surface of each tray at about the longitudinal center thereof and out of contact therewith. These rollers are shown at 44, 45, and 46.

The platform 1 constitutes a tray for folded cloth, and when it is desired to load the trays and the platform the trays are first raised to the positions shown in Fig. 4, where they may be temporarily sustained by the buttons 49 and 50 (shown in Fig. 1) in connection the one with the standard 2 and the other with the brace 3. A fold of cloth is then spread out onto the platform 1, the tray 9 is partly lowered, the end of the cloth is threaded through the space between roller 46 and the bottom of the tray and over roller 16^a, and the tray is lowered until its legs rest on the platform. Next the tray 9 is loaded and the end of the cloth thereon is threaded over the rollers 45 and 15^a of tray 8. Then tray 8 is loaded and the end of the cloth thereon is threaded over rollers 44 and 13^a of tray 7, and finally tray 7 is loaded and the end of the cloth thereon is carried around a roller in the standards or the braces, as shown at 47 in Fig. 1, for instance, and laid over roller 14^a. This completes the loading of the trays shown; but if there were additional trays, as there may be, the loading operation would continue in the manner pointed out.

The different runs of cloth from the trays and the platform are all carried over a roller 25^a, journaled in the extensions 1^a of the platform, and from there they run to the cloth-

laying rollers 26 and 27. The cloth-laying rollers are journaled in arms 31 and 34. The arms are pivoted in extensions 1^a, one on each side of the machine. A bar 33 connects the arms together at their upper ends, and a rod 28 connects them together at their lower ends. A lock-lever 29 is rigidly attached to the rock-frame, at the outer side thereof and in line with the pivots of the arms, and a notched segment 30 provides means for holding the lever and the arms in different positions. The different runs of cloth traveling over roller 25^a are passed between rollers 26 and 27, and as the machine travels forward roller 26 lays the cloth, while roller 27 acts to spread and press the "lay" on the return trip of the machine. When the machine reaches the end of the lay on its return trip, a rod 24 is passed through the fold of cloth formed by reversing the motion of the machine and through a pair of swingable loops 22, but one of which is shown in the drawings. When the cloth has been carried past the end of the lay, the rod 24 is laid onto the cloth and extended through the loops at any convenient place in the length thereof, and as the machine starts on its return trip it passes over the rod and drags it to the limit of the loops, which is the end of the lay. The loops are pivotally connected with the ends of a strip 21 of the cutting-table, and they are long enough to swing the height of a lay of cloth without materially departing from a vertical line, and they are preferably made of wire.

The guide-roller 25^a has a stationary disk 25 and a shiftable disk 25^b, and the purpose of the shiftable disk on this roller and the shiftable disks on the rollers of the trays is to adjust the space between disks to conform to the width of the cloth to be laid. The disks on roller 25^a act as guides to direct the cloth properly to the cutting-table, and the rollers 26 and 27 are used only to spread the cloth and prevent the accumulation of air thereunder.

The standards and the braces have bearings to receive the ends of roll-carrying rods or shafts, and at 37 in Fig. 1 are shown pivot-rods of flat rolls, while at 34 is shown the pivot-rod of a cylindrical roll. The cloth from the rolls is run over the rollers 14^a and 25^a and carried to the spreading-rollers in the same manner as is the cloth from the folds on the trays. The pivot-rods for the flat rolls are constructed as shown in Fig. 3, in which the pivot-rod is shown at 37, the core-board for the roll at 36, a fixed clamp member at 38, and a slidable clamp member at 40. A ring 39 embraces the pivot-rod slidably and carries the clamp member 40 on one of its sides, and from its opposite side projects an arm 41. A cam 42 is pivoted in the end of arm 41 in position to bear against the pivot-rod, and a lever 43 provides means for forc-

ing the cam into contact with the rod. The fixed clamp member is made to engage one end of the core-board, the slidable clamp member is forced into contact with the opposite end of the board, and the cam is turned to the position shown to make the engagement secure.

The idea of the invention is to always swing the trays on the rods in the standards; but if it is ever desirable to remove them from the machine their ends may be slotted, as shown at 9^a in Fig. 5, and they may be lifted clear of the platform.

The lever for adjusting the spreading-rollers is at the front of the machine, where the operator walks in laying the cloth, and it is attached directly to the arm-frame.

The machine may lay as many bolts or rolls at one time as is desired, and it lays while traveling in both directions.

I claim—

1. The combination in a cloth-laying machine, of a plurality of trays each hinged at one end one above another and each having attached to its under surface, near the longitudinal center thereof, a guide-roller for the cloth in the tray next below.

2. In a cloth-laying machine the combination of a platform, standards thereon providing bearings for the pivot-rods of cloth-rolls, and a plurality of flat trays hinged each at one end to the standards one above another.

3. In a cloth-laying machine, the combination of a platform, cloth-carrying trays hinged each at one end to an extension of the platform, a pair of arms carrying cloth-spreading rollers, and a guide-roller in the platform above the spreading-rollers.

4. In a cloth-laying machine the combination of a platform, standards thereon, a plurality of trays hinged to the standards, an arm-frame carrying spreading-rollers, a lock-lever attached to the arm-frame at the pivot thereof and a guide-roller in the platform above the spreading-rollers.

5. A pivot rod or shaft for flat rolls of cloth comprising a rod, a fixed clamp member on an end of the rod, a ring slidable on the rod, a clamp member on one side of the ring, an arm on the opposite side of the ring and a cam-lever pivoted in the arm and adapted to engage the rod.

6. The combination with a cutting-table and a cloth-laying machine traveling thereon, of a pair of loop-bars hinged to the table, and extended lengthwise thereof and a rod insertible through the loops of the loop-bars to hold the end of a fold of cloth.

In testimony whereof I sign my name in the presence of two subscribing witnesses.

CEPHAS D. CODDINGTON.

Witnesses:

OSCAR C. ROBERTSON,
W. B. GREGG.