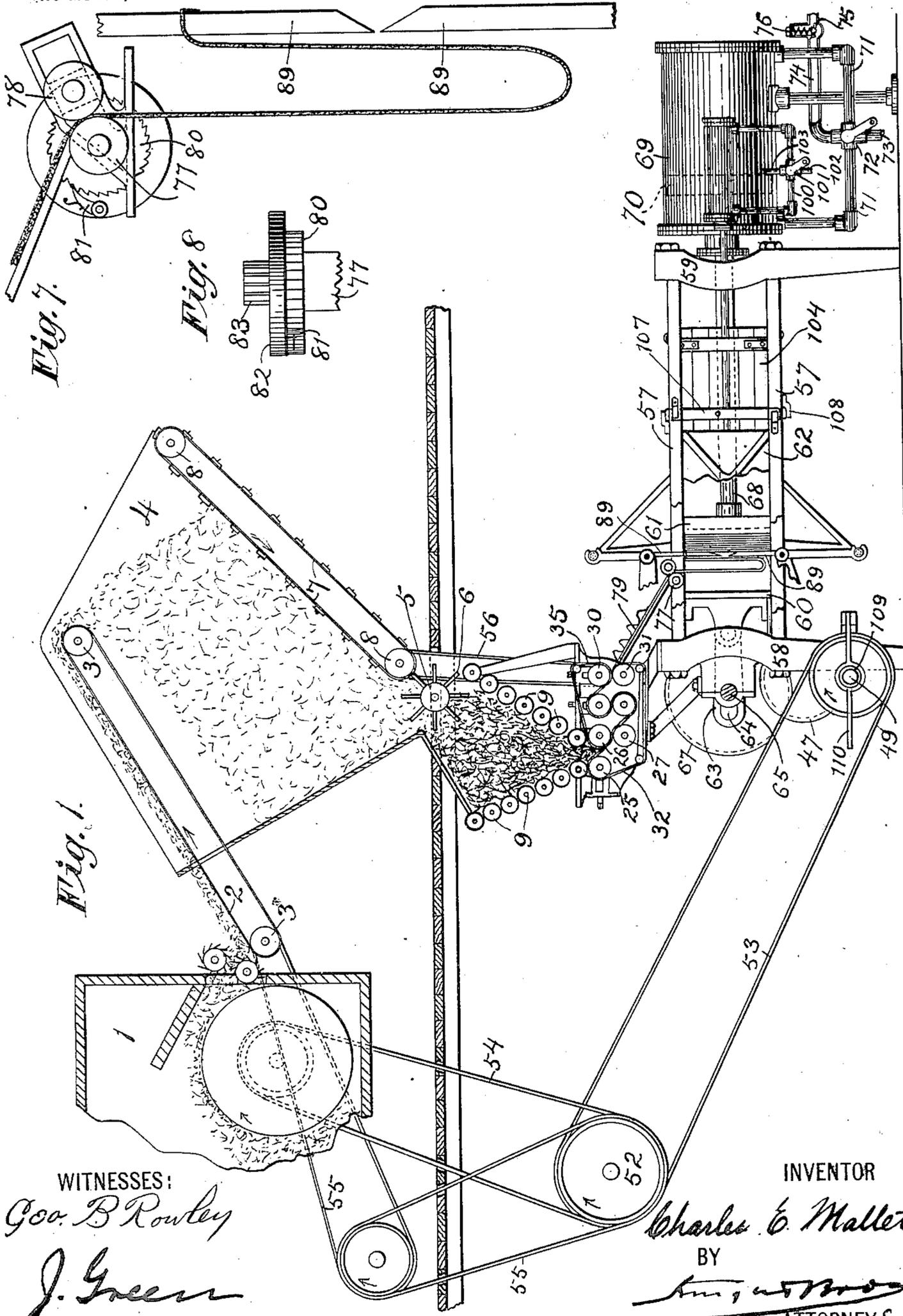


C. E. MALLET.
COTTON PRESS.

(Application filed Sept. 9, 1899. Renewed July 27, 1900.)

(No Model.)

4 Sheets—Sheet 1.



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C. E. MALLET.
COTTON PRESS.

(Application filed Sept. 9, 1899. Renewed July 27, 1900.)

(No Model.)

4 Sheets—Sheet 3.

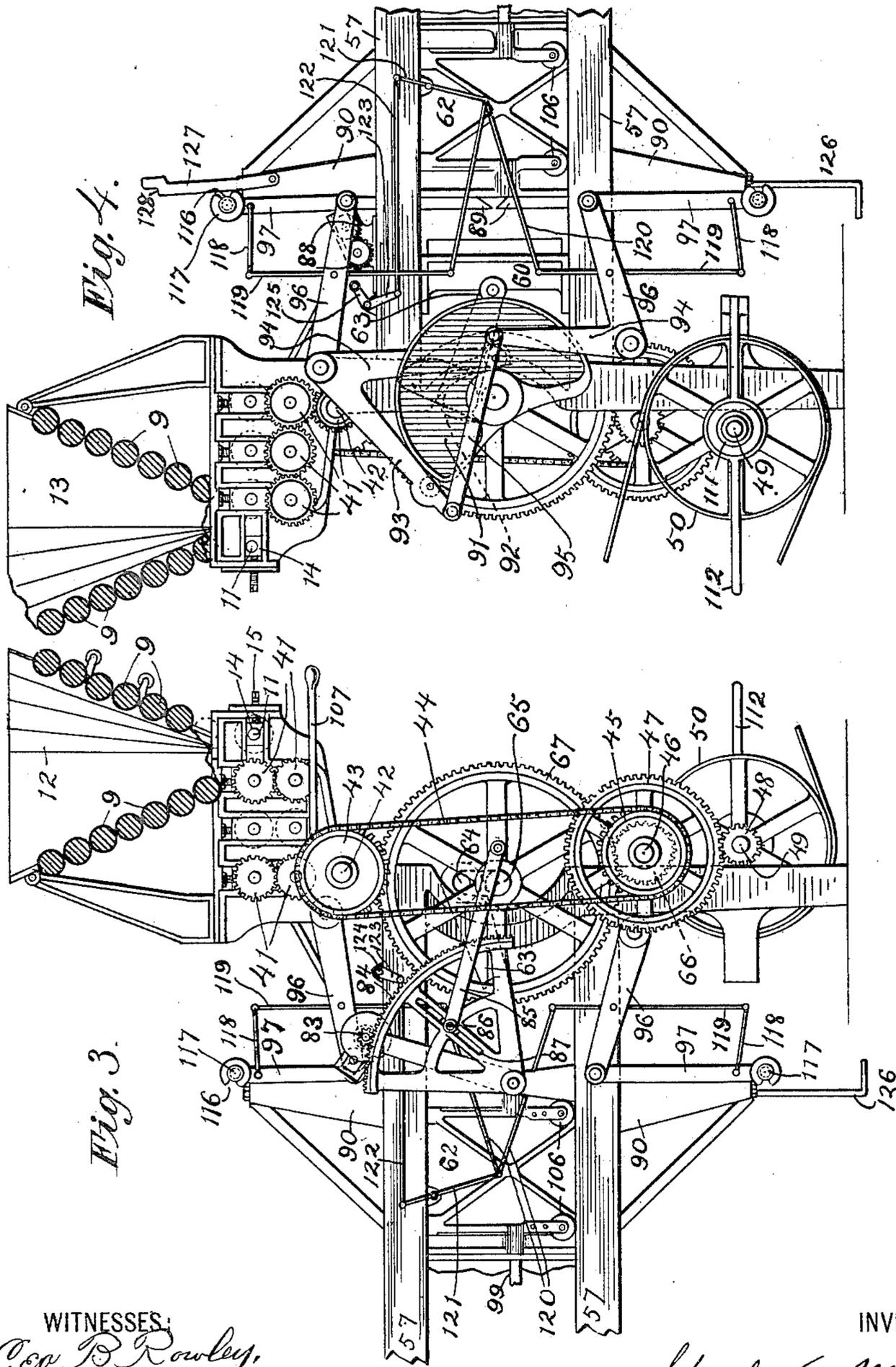


Fig. 4.

Fig. 3.

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COTTON PRESS.

(Application filed Sept. 9, 1899. Renewed July 27, 1900.)

(No Model.)

4 Sheets—Sheet 4.

Fig. 12.

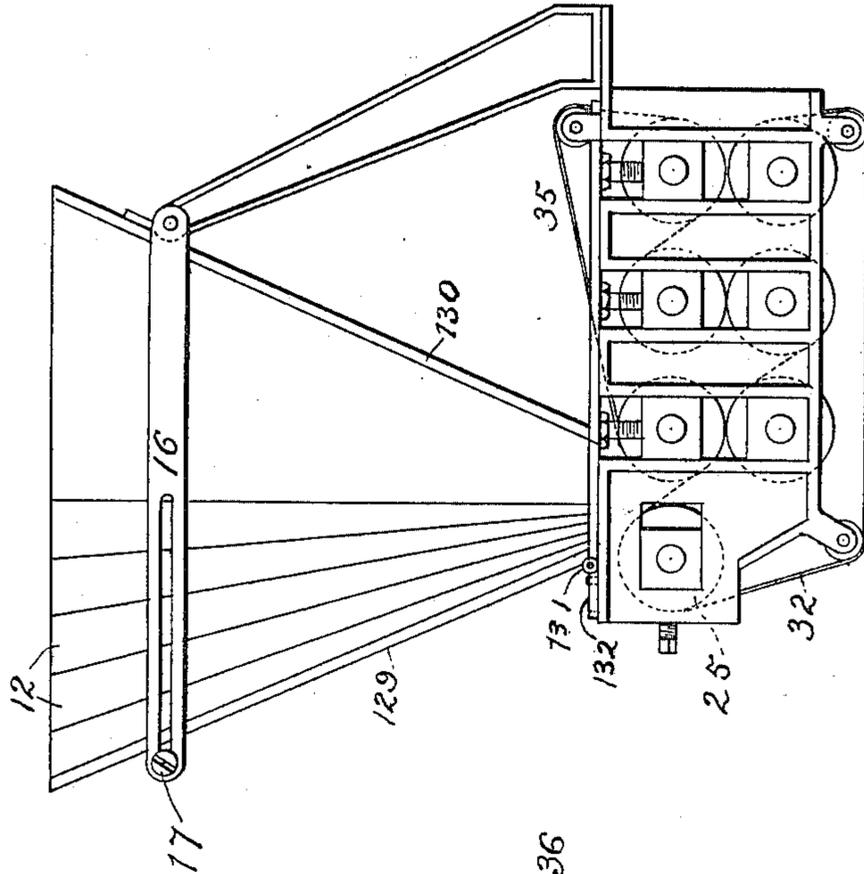
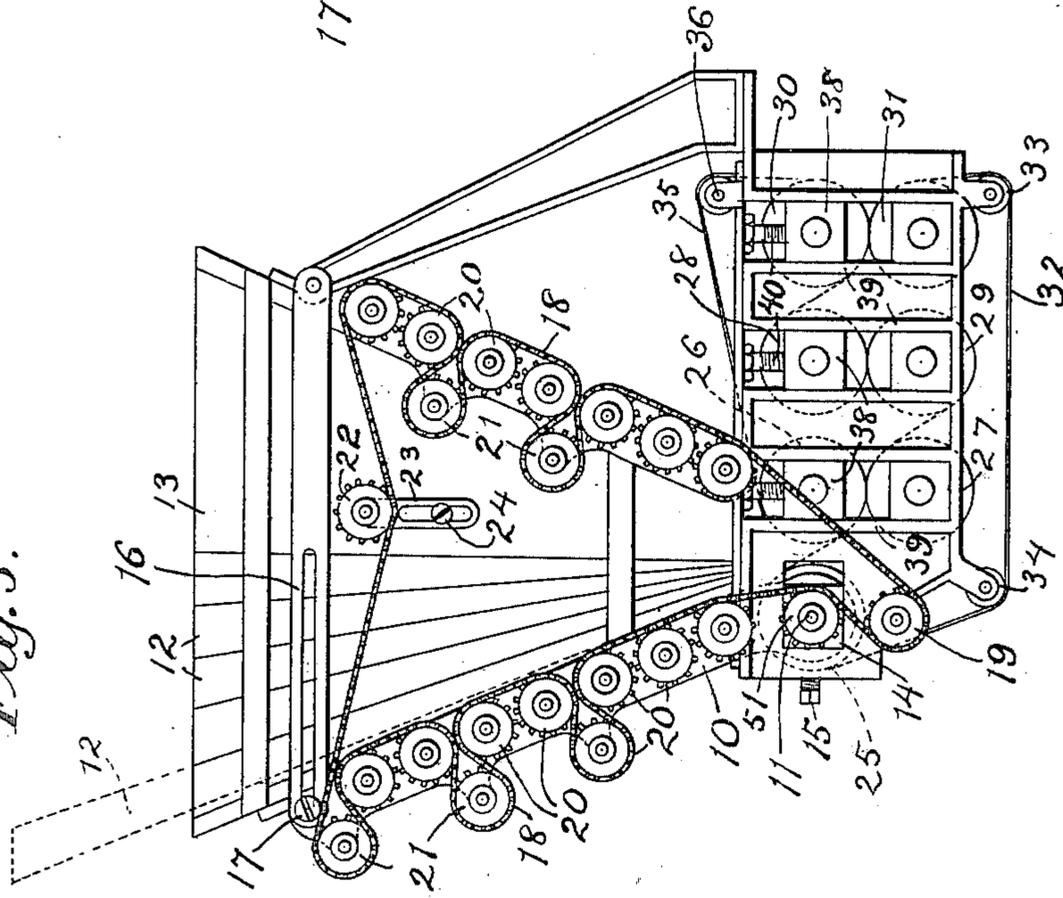


Fig. 5.



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UNITED STATES PATENT OFFICE.

CHARLES E. MALLETT, OF NEW YORK, N. Y.

COTTON-PRESS.

SPECIFICATION forming part of Letters Patent No. 661,349, dated November 6, 1900.

Application filed September 9, 1899. Renewed July 27, 1900. Serial No. 25,024. (No model.)

To all whom it may concern:

Be it known that I, CHARLES E. MALLETT, a citizen of the United States, residing at New York, in the county and State of New York, have invented certain new and useful Improvements in Batting and Compressing Cotton, of which the following is a specification.

This invention relates to improvements in cotton-presses, and specifically to improvements on the form of cotton-press shown in Patent No. 607,063, granted to me July 12, 1898, and in my application for patent, Serial No. 691,601, filed September 22, 1898.

My invention comprises certain improvements in means for supplying the press with a bat of cotton, means for laying the folds of the bat in the press, means for operating the platen, means for operating the inclosing box for the bale, and other details of construction, as hereinafter set forth. Presses of this character have to be operated intermittently—that is, they are only capable of receiving cotton during a part of the time, while during the rest of the time—namely, during the final compression of the bale, the tying of same, and removal thereof from the press—the bat cannot be fed into the press. On the other hand, it is desirable when the press is used in direct connection with gins that the gins shall be able to operate continuously, so as to get the maximum output from same. This combination of an intermittently-operating press with a continuously-operating gin I secure by providing an intermediate apparatus serving as an accumulator to receive the continuous supply of cotton from the gins and allow its accumulation during the idle moments of the press, means being also provided to deliver the cotton from this accumulator intermittently, as required. This delivery means also serves as the bat-forming means and comprises feeding and guiding devices, between which the cotton is received and which deliver the cotton in a loose bat to condensing rolls or belts, that condense the bat by squeezing it between such belts as they are passed concentrically around the carrier drums or rolls. The feeding and guiding devices for forming the bat are preferably adjustable, so as to regulate the weight or thickness of the bat. The feed-

ing mechanism operates intermittently and delivers the bat to the bat-laying apparatus.

I prefer to arrange the press so that the platen and plunger move horizontally and to fold the bat between the platen and plunger by the action of gravity, it being fed down by intermittently-operating feed-rolls that lower the bat in successive bights or folds between the platen and plunger alternately with the compressive operations of the plunger. It will be apparent that the forming preliminarily of a compact bat of sufficient strength to maintain its own weight is of importance in connection with this method of feeding.

The platen is preferably operated by hydraulic or fluid pressure, and means are provided for allowing the platen to recede automatically under the compressive action of the plunger to make room for the successive folds of cotton. The bale-inclosing box may also be operated by fluid-pressure.

My invention further includes details of construction, as hereinafter set forth.

In the accompanying drawings, Figure 1 is a sectional view, partly in elevation, of the complete accumulating bat forming and baling mechanism. Fig. 2 is a plan view of the baling-press and bat condensing and feeding rolls. Figs. 3 and 4 are elevations of the plunger and portions of the press from opposite sides, the bat-forming device being shown partly in section. Fig. 5 is a side elevation of the bat-forming mechanism. Fig. 6 is a sectional view of the bat-condensing mechanism. Figs. 7 and 8 are detail views of the bat-folding mechanism. Figs. 9 and 10 are side and end elevations of a cam for operating retaining-fingers for the cotton during the baling process. Fig. 11 is a detail of a locking device for the plunger. Fig. 12 shows a modification of the bat-forming means.

Referring to Fig. 1, I have represented at 1 a portion of a condenser, which, it will be understood, is supplied from a gin or gins, said condenser feeding the cotton, in the form of a bat or otherwise, to an apron 2, carried by rolls 3, and discharging at its other end into a receiver or accumulator 4. The sides of this receiver are inclined inwardly toward the bottom, so as to form a throat, in which is placed a roll 5 with projections 6, which

open, distribute, and feed the cotton from the receiver 4 to the bat-forming device below it. One side of receiver 4 is preferably formed as or provided with a belt 7, carried
 5 by rolls 8 and having projections, as shown, so that as the belt travels in the direction of the arrow it tends to carry the cotton down to the opener and feeder roll 5. Whether
 10 the cotton passes to receiver 4 in a bat or in a loose and free condition it is opened by the picking device described into a loose condition and in that condition is received by the
 15 bat-forming devices, which are located directly below the roll 5 and comprise means for guiding the cotton and feeding it downward while gradually condensing it. As
 20 shown in Figs. 1 and 5, this bat-forming means consists of two series of parallel contacting rolls 9, the said series of rolls being farther apart at the top than at the bottom and being
 25 all so driven that they exert a continual downward and inward effect on the cotton and deliver it in the form of a loose bat to the bat-condensing means. These rolls are
 30 smooth—that is to say, they are not provided with teeth or projections—and I have found that such rolls take a better hold of the cotton than smooth belts, while at the same
 35 time they are effectually self-cleaning. One at least of these two series of rolls should be adjustable toward and away from the other. Thus in Fig. 5 I have shown the left-hand
 40 series of rolls as supported on a frame 10, pivoted on a shaft 11, so as to swing toward or away from the other frame, as required, insertion pieces or staves 12 being inserted in
 45 the ends or removed, as indicated in dotted lines in Fig. 5, to adjust the box to any desired width, the remainder of the ends of the
 50 box being stationary, as indicated at 13. The pivotal support-shaft 11 of frame 10 is mounted at each end and in a sliding bearing 14, which is adjustable by means of a set-screw
 55 15. The frame 10 and the rolls 9, carried thereby, are held in adjusted position by means of slotted slide-bars 16 and clamp-screws 17. By the above means the capacity
 60 of the bat-forming series of rolls 9 9 may be varied or adjusted by adjusting the upper ends at such distance apart that they will take in just the proper amount of cotton. These rolls are driven by a chain or belt 18,
 65 that passes over a driving-wheel 19, over sprockets or pulleys 20 on the ends of each roll, and over idlers 21, an adjustable idler 22 being also provided to maintain the driving-chain 18 sufficiently taut, the adjustment being effected, for example, by means of a
 70 slotted hanger or bracket 23, clamped in proper position by a screw 24.

The bat-condensing device consists of a roll 25, located under one of the series of smooth untoothed rolls 9 and journaled on shaft 11, and a plurality of rolls 26 27 28 29 30 31, arranged in pairs, the number of these rolls
 65 being made sufficient to effect by their cumulative action sufficient condensation of the

cotton. A belt 32 (see Figs. 5 and 6) passes over roll 25 and between rolls 26 and 27, and
 70 then under roll 29 and up between rolls 29 and 28, then over roll 28, and down between rolls 30 and 31, and then back over idlers 33 34 to roll 25. Another belt 35 passes over roll 26
 75 and follows the course of belt 32, as described, lying directly parallel to and alongside of same until it passes out from between rolls 30 and 31, where the belt 35 turns away
 80 from belt 32 and returns over idler 36 to roll 26. These belts thus overlap during a part of their course, and the effect of the strain imparted to the belts in their circuitous and
 85 concentric paths around their carrier-rolls causes them to be tightly squeezed or strained toward one another. As the cotton passes between them, it causes an increase of this
 90 strain and is subjected to a powerful compressive action between parallel concentric surfaces, which also exert a slight felting action on it. The effect is that the cotton is condensed,
 95 forming a comparatively coherent bat, which when it issues from between the belts 32 35, where said belts leave the rolls 30 31, has sufficient cohesion to part readily from both belts and passes to the
 100 feeding and folding rolls. The rolls 26, 28, and 30 are mounted in boxes 38, capable of vertical adjustment in guiding and supporting frames 39 and adjustable by set-screws
 105 40, and the rolls 26 to 31 are driven at substantially the same peripheral speed by suitable means, as by gears, (represented at 41 in Figs. 3 and 4,) these gears being operated by
 110 a shaft 42, connected by chain-and-sprocket devices 43 44 45 to a shaft 46, which carries a gear 47, engaged by a pinion 48 on a shaft
 115 49, on which is mounted a pulley 50. Roll 25 is driven by a chain 18, which passes over a sprocket 51 on shaft 11.

The above-described mechanism may be belted up or otherwise operatively connected
 120 in any suitable manner. I have indicated at 52 in Fig. 1 a main driving-pulley or source of power connected by belt 53 with pulley 50, by belt 54 with the ginning apparatus or condenser 1, and by belts 55 with a roll 3 of the
 125 conveying-belt 2. The feed-belt 7 may be driven by belt 56 from the shaft of roll 30, as indicated.

The baling-press is here shown as operating in a horizontal direction, the main frame-
 130 bars 57 thereof extending horizontally and being supported at their ends in head and foot frames 58 59. The plunger 60, platen 61, and bale-inclosing box 62 are all adapted to slide longitudinally on these bars and to be
 135 guided thereby. The plunger 60 is operated by connecting-links 63, pivoted thereto and to cranks 64 on shaft 65, which is driven by gearing 66 67 from shaft 46, above referred to.

The platen 61 is operated by the piston-rod
 140 68 of a hydraulic cylinder 69, whose piston is indicated in dotted lines at 70 and which is provided with piping 71 and four-way exhaust and supply valve 72, so that water un-

der pressure may be admitted to either end of the cylinder from a supply-pipe 73, while at the same time opening the other end of the cylinder to exhaust-pipe 74. By this means the platen may be moved positively, under the operator's control, in either direction. A relief-valve 75 is connected to the exhaust-valve, provided with means, such as regulatable spring or weight 76, responding to the pressure on the platen due to compressive action on the plunger, to cause the platen to move away from the plunger from time to time to make room for the successive layers of cotton inserted between them. The laying or folding of the cotton-bat between the plunger and platen is effected by feed-rolls 77 78 at the lower end of a shelf 79, leading from the condensing-belts 32 35, said rolls 77 78 being operated intermittently, so as to feed sufficient length of bat in a fold or bight between the plunger and platen to form one double fold or layer of the bat, the bat falling or running from the feed-rolls by gravity and the other end of the fold or bight being held by retaining devices hereinafter described, and the feeding-rolls 77 78 being then arrested while the fold aforesaid is pressed onto the bale or platen by the action of the plunger. To effect such intermittent action of the rolls 77 78, the roll 77 is connected by ratchet-and-pawl connection 80 81 to disk 82, mounted loosely on the shaft of roll 80 and carrying a pinion 83, which is engaged by a segment or section gear 84, (see Fig. 3,) oscillated by a link 85, pivoted to gear 67 and pivotally connected to the sector-gear 84 by a pivot-bearing 86, adjustably secured in radial slot 87 in such sector-gear. As the gear 67 rotates it oscillates the segment-gear and causes pinion 83 to rotate alternately in opposite directions. While rotating in one direction the pinion 83 causes, through the pawl-and-ratchet connection, rotation of roll 77 to cause feeding of the bat, while in the opposite movement of the pinion the pawl slips over the ratchet and the roll 77 is not operated. Roll 78 is geared to roll 77 by gears 88. After each fold is pressed toward the platen or against the cotton already in the bale it is necessary to provide means for retaining the cotton already pressed into the bale from springing back when the plunger is released. For this purpose I provide retaining fingers or frames 89, these fingers sliding laterally with respect to the longitudinal direction of the machine in brackets or supports 90 on box 62 and being adapted to enter between the plunger and the cotton just as the plunger presses the cotton into place and to remain in that position until the plunger is pressing up the next fold, being then speedily withdrawn to enable the fold to be pressed against the bale and then quickly inserted again to hold this fold, together with the cotton previously laid in, in place. To effect this periodic movement of the fingers 89, I prefer to operate them by cam mechanism,

(shown in Figs. 2, 4, 9, and 10,) the same comprising two cams 91 92, mounted on shaft 65 and engaging, respectively, with arms 93 94 on a rocker-frame which carries at each end of the machine an arm 96, connected by link 97 to the finger-frame 89. As the plunger-operating shaft 65 rotates the cam 91, which extends around rather more than a semicircle, keeps the fingers 89 in engagement with the cotton until just as the plunger is fully pressed in the cam 91 releases arm 93, and at the same time the cam 92, which is in the form of an arm or tappet, strikes arm 94 and throws the fingers 89 out quickly and then clears the arm 94, so as to allow cam 91 to quickly return said fingers. The fingers 89 and the operating-links 97 on the other side of the machine are operated by another rocker-frame having arms 96 94, respectively connected to links 97 and to a link 95, connected to arm 93, so as to operate the fingers 89 in unison.

The bale-inclosing box 62 is preferably operated by hydraulic devices, such as cylinders 98, operating piston-rods 99, connected to opposite ends of said box, cylinder-pipes 100, four-way valve 101, and supply and exhaust pipes 102 103 being provided for these cylinders to enable the operation of the box by power in either direction, the pipe 102 being connected to any suitable source of water or liquid under pressure. Flaps or walls 104, hinged at 105 to the main frame-rods 57, may be turned in and fastened to form an extension of box 62 or may be turned out of the way, as indicated in dotted lines in Fig. 2, to allow the box 62 to be moved within or past them. The box 62 is shown as mounted on rolls 106, (see Figs. 3 and 4,) which roll on frame-bars 57 in the longitudinal movement of the box. The fastening of the flaps 104 in closed position is effected by hasp-bars 107, pivoted to and engaging with hooks 108 on the frames 57.

109 indicates a lever for operating a clutch 110 (see Fig. 2) for controlling the operating connection of the bat forming and condensing apparatus with the driving mechanism to enable the feeding of the bat to the folding apparatus to be arrested when desired. A clutch 111, controlled by a lever 112, is also provided to enable the press, with its connected mechanism, to be stopped during the operation of wrapping and tying the bale and removing same from the press, while allowing the ginning apparatus and the delivery means connected therewith to continue in operation.

It is necessary to lock the plunger in position nearest the platen during the final pressing up of the bale, and for this purpose I have shown arms or pivoted struts 113 pivoted to the plunger and capable of engaging with sockets 114 in the head-frame 58 to hold the plunger in such position, as indicated in Fig. 11, or to be turned in against the platen, as indicated in Fig. 2, these sockets being ta-

pered off so as to give a wedge effect. The plunger 60 and platen 61 are provided with the usual grooves 115 to enable passage of the bale-ties.

5 While I have shown the cotton-supplying means 1 as a condenser, it will be understood that any suitable delivery means may be provided to convey the cotton from the gin or
10 gins to the accumulator 4; but in any case it would be desirable to use delivery means capable, like the condenser, of effecting the cleaning of the cotton at the same time. Means are also provided for disengaging the links 97
15 from the finger-frames 89 when the box has been filled with cotton and is to be lowered. For this purpose the ends of the links 97 are provided with notches or open slots 116, fitting over pins 117 on the finger-frames 89, so
20 that the links can be thrown away from the pins and the box can be moved away from the plunger. To effect this operation of the links, I show a system of levers and link mechanism comprising links 118, pivoted to links 97
25 and to levers 119, which are pivoted to the arms 96 of the finger-frame-operating rocking levers, the other ends of levers 119 being connected by rods 120 to operating-levers 121,
30 pivoted to the frame-bars 57 and actuated by tie-rods 122 from arms 123 on a rock-shaft 124, which carries also a handle 125, by which the whole system of link-and-lever mechanism may be operated. The object of providing the intermediate levers 119, pivoted on
35 arms 96, is to enable the operating parts directly connected to the links 97 to take part in the ordinary in-and-out movements of the finger-frames. A bracket 126 serves to support the lower finger-frames when thus released, and an arm 127, pivoted to the top
40 bracket 90, has a shoulder 128, which can be engaged with the upper finger-frame to hold the same in elevated position.

The operation of the apparatus is as follows:
45 The cotton delivered from the ginning apparatus or condenser or supply means 1 by the apron 2 in the form, say, of a loose bat falls into the receiver or accumulator 4, it being understood that the bat will, in general, be so weak that the cotton will fall in detached
50 pieces into such receiver. This receiver is of sufficient capacity to allow of the accumulation therein of all the cotton that may be ginned during the idle periods of the press, in the tying of the bale, and removal of same
55 from the press, the cotton being only drawn from the accumulator during the time when the press is in operation. Assuming now that a sufficient supply of cotton is in the accumulator, the press is prepared for operation by moving the platen 61 to position
60 nearest the plunger by operation of cylinder 69, controlled by valve 72, this valve being then left in position to connect the cylinder-space back of the piston to relief-valve 75.
65 The box 62 is also moved to position nearest the plunger by means of its fluid-pressure operating mechanism 98 99, and the flaps 104

are closed to form the box extension and held by lock-bars 107. The bagging having been
70 put over the platen, the picker-roll 5 and the bat-forming mechanism are started, the picker-roll feeding the cotton in a loose open condition from receiver 4 into the bat-forming mechanism and the rolls 9 forcing the
75 cotton through the bat-forming mechanism and gradually compacting it together, so that it leaves this mechanism as a coherent bat. As all the rolls 9 on each side of the bat-forming mechanism are in contact and move in the
80 same rotative direction, they will rub against one another, and each roll will clean the roll above it and prevent cotton from being carried out between the rolls. The frame 10 and bearing 14 are also adjusted to give the desired density and thickness of bat. From the
85 bat-forming device the bat is led between belts 32 and 35, where they converge to pass between their carrying-rolls, and by the operation of these belts the bat is drawn between them and exposed to strong pressure due to
90 the straining effect of the belts in passing around the rolls, particularly to the strain in passing around roll 29, between rolls 29 28, and around roll 28. The effect of this lateral pressure on the cotton between parallel moving
95 surfaces is to produce a more effective condensation than can be effected by the use of rolls only pressing the cotton along a line of tangential contact. The felting effect due to the reversal of curvature of the belts in passing
100 from roll 29 to roll 28 also aids in making the bat more coherent. The effect of this condensing apparatus is to make the bat so coherent that it will sustain its own weight when fed through the feed-rolls 77 78. The
105 condensed bat is led through these feed-rolls and then secured over or behind the retaining-fingers 89, and a sufficient bat is formed and fed through belts 32 35 to accumulate on shelf 79 in folds, so as to form a reserve to
110 feed the rolls 77 78, which during the intermittent periods of operating feed faster than the belts 32 35. The press may then be started in operation, and the rolls 77 78 first quickly drop a definite length of bat between the plunger
115 and the platen, the bat folding itself by the action of gravity to form a fold or bight. While this is taking place the plunger is removed from the platen, and as it approaches the platen the rolls 77 78 are arrested, the
120 plunger then pressing the fold or bat toward the platen. At the same time the fingers 89 are withdrawn from between the platen and plunger by the action of cam 92, and then as soon as the fold is pressed tight by the
125 plunger these fingers are again inserted, entering between the bat and the plunger and running in the grooves 115 in the plunger. The plunger then withdraws, leaving the bat-fold held by the retaining-fingers, and this
130 operation is then repeated, a new fold or bat being laid in, pressed by the plunger, and held by the retaining-fingers each time. As the cotton thus accumulates on the platen

the pressure of the plunger thereon after a few folds have been laid in becomes so great that the relief-valve 25 yields, allowing fluid to pass through said valve and the platen to drop a short distance, and this effect takes place automatically from time to time as the bale increases in thickness. The bale is thus built up endwise until the platen has receded within and nearly to the end of box extension formed by flaps 104. There being then sufficient therein to form a bale of proper weight, the bat forming and feeding devices and the plunger mechanism are stopped, and the bagging having been placed over the end of the bale the plunger is moved to its position nearest the platen and is locked in that position by the arms 113, which are turned up against the head-frames. The finger-frames 89 being withdrawn are disengaged and held out by their operating link mechanism, leaving the tie-grooves free. The valve 72 is then operated to admit fluid-pressure back of the piston in cylinder 69, and the piston is thereby driven toward the plunger with the full hydraulic pressure, with the result that the cotton is all forced into box 62, and a bale of maximum density results. The flaps 104 are then unfastened and turned outward, and box 62 is moved away from the platen and the bale by fluid-pressure cylinders 98, leaving the bale freely exposed at the sides, top, and bottom for the tying operation. The bale having been properly tied, the platen is moved back, the plunger is released, and the machine is ready to start on another bale.

A modification of the bat-forming device is shown in Fig. 12, the rolls 9 being omitted and the cotton feeding and guiding device consisting simply of sides 127 130, one of which is hinged at 131 and is adjusted by slotted frame 16 and clamp-screw 17, as in the case of frame 10. Removable staves 12 are also provided to fill out the ends to any desired width, and the pivoted support 131 of side 129 is made adjustable, as by a slot-and-pin fastening 132, to adjust the bottom of said side accordingly. In this case the cotton feeds by gravity, assisted by the action of the belts 32 35, drawing cotton from the bottom of the device. In place of the picker-roll 5 at the bottom of the accumulator I may provide a rapidly-rotating brush to effect the same result—namely, to open and feed the cotton.

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

1. The combination with a ginning apparatus and means for delivering cotton from such apparatus, of driving means for continuously operating such delivery means, an accumulating device receiving the cotton from such delivery means, and having an outlet, a picker device located at said outlet to open the cotton and feed it through the outlet, feeding means in the accumulator for feeding the cot-

ton therein toward the outlet thereof and to the said picker device, an intermittently-operating baling-press, bat forming and feeding devices adapted to receive the cotton from the said picker device and deliver it in the form of a bat to the press, and driving mechanism connected to the said feeding device in the accumulating device, to the picker device, and to the bat-forming devices, operating said devices intermittently and concurrently with the operation of the baling-press.

2. A bat-condensing means comprising smooth carrying-rolls and two belts mounted thereon in such manner as to pass in parallel arrangement between and around the rolls during a part of the length of each belt, and to pass concentrically around one of the rolls, then between the roll and another roll and then in reverse curvature around said other roll, and means for driving said rolls at substantially the same speed to move the parallel parts of the belt in the same direction.

3. In a cotton-press, the combination with the horizontal press-box having a feed-opening on top, and the plunger movable horizontally toward and away from the feed-opening in said box, bat-feeding rolls located on top of said box adjacent to said feed-opening adapted to feed a bat of cotton by gravity between the platen and plunger, and means for holding a portion of the bat so that the bat will fold as it drops by gravity from the feed-rolls in position to be acted upon by the plunger.

4. In a cotton-press, the combination with means for forming and feeding a cohesive bat, of a horizontally-arranged press-box, a horizontally-reciprocating plunger and bat-feeding mechanism arranged above the box and adapted to feed the bat by gravity in front of the plunger, substantially as set forth.

5. In a cotton-press, the combination with means for forming and feeding a cohesive bat, of a horizontally-arranged press-box, a horizontally-reciprocating plunger and bat-feeding rolls arranged above the box and adapted to feed the bat by gravity in front of the plunger, substantially as set forth.

6. In a cotton-press, the combination with means for forming and feeding a cohesive bat, of a press-box, a reciprocating plunger, means for feeding a bat of cotton in front of the plunger and a shelf or support for accumulating the cotton during the compressing action of the plunger.

7. In combination with means for condensing cotton into a bat of sufficient density to maintain its own weight, a horizontally-arranged press-box, a horizontally-reciprocating plunger, and a feeding device for said bat arranged over said box and adapted to take the bat from said bat-condensing means and feed it by gravity in front of said plunger, substantially as set forth.

8. In combination, means for condensing cotton into a compact bat, a shelf or support for receiving and accumulating said bat,

feed-rolls arranged to receive the bat from said shelf or support, and a horizontal press-box and horizontally-reciprocating plunger arranged beneath said feed-rolls, substantially as and for the purpose set forth.

9. In a cotton-press, the combination of a horizontal press-box, a horizontally-reciprocating plunger, a feeding device over said box adapted to feed and fold by gravity a bat of cotton in front of said plunger, and retaining-fingers having mechanism for moving them laterally into and out of engagement with the folded bat, substantially as set forth.

10. In a cotton-press, the combination with the platen and the plunger movable toward and away from the platen, of means for feeding a cohesive bat between such platen and plunger, comprising feed-rolls and means for operating said rolls to feed the bat while the plunger is removed from the platen and to arrest said rolls when the plunger is approached to the platen.

11. In a cotton-press, the combination with the platen and the plunger movable horizontally toward and away from the platen, of bat-feeding rolls adapted to feed a bat of cotton between the platen and the plunger, means for holding a portion of the bat so that the bat will fold as it drops by gravity from the feed-rolls, and means for operating said rolls to feed the bat while the plunger is removed from the platen and to arrest said rolls when the plunger is approached to the platen.

12. In a cotton-press the combination with the platen and the plunger provided with means whereby it is moved toward and away from the platen, of feed-rolls for feeding and laying in folds a cohesive bat of cotton between the platen and the plunger, an oscillating mechanism operatively connected to the

plunger, and a connection, including a pawl and ratchet, between such oscillating mechanism and the feed-rolls, to enable the feed-rolls to be operated during a part of the movement of the plunger but to remain at rest during the rest of such movement.

13. In a cotton-press the combination with the platen and the plunger movable toward and away from the platen, of means for laying a bat of cotton in folds between the platen and plunger, means for operating the plunger to press the folds so laid toward the platen, retaining-fingers movable laterally to the direction of movement of the plunger, and means for operating said retaining-fingers, comprising cams operatively connected with the plunger-operating means, and lever mechanism operated by said cams to move the fingers in and out from between the platen and plunger.

14. In a cotton-press the combination with the frame, the platen, an inclosing box adapted to surround the platen, means for moving the platen, and means for moving the box parallel to the movement of the platen, of hinged flaps supported on said frame by hinge-supports and adapted to be closed to form a box extension or to be opened to allow the box to move within or past them.

15. The combination with the platen and plunger mechanism, and the cotton-retaining finger-frames and means for reciprocating said finger-frames, of means for simultaneously disengaging said retaining-finger frames from their operating means.

CHAS. E. MALLET.

Witnesses:

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