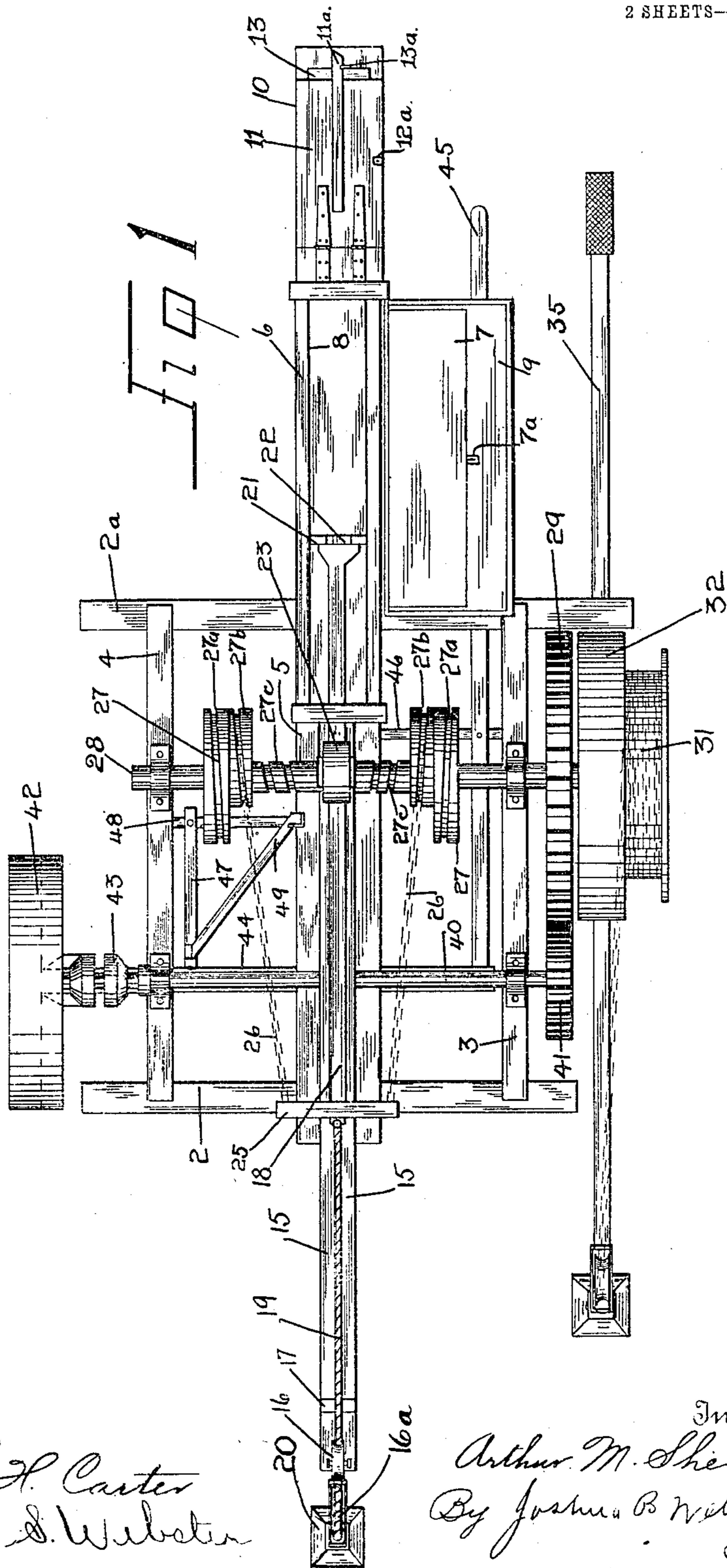


No. 812,155.

PATENTED FEB. 6, 1906.

A. M. SHEAKLEY.
FIBER BALING MACHINE.
APPLICATION FILED SEPT. 19, 1904.

2 SHEETS—SHEET 1.



Witnesses
Frank H. Carter
Percy S. Webster

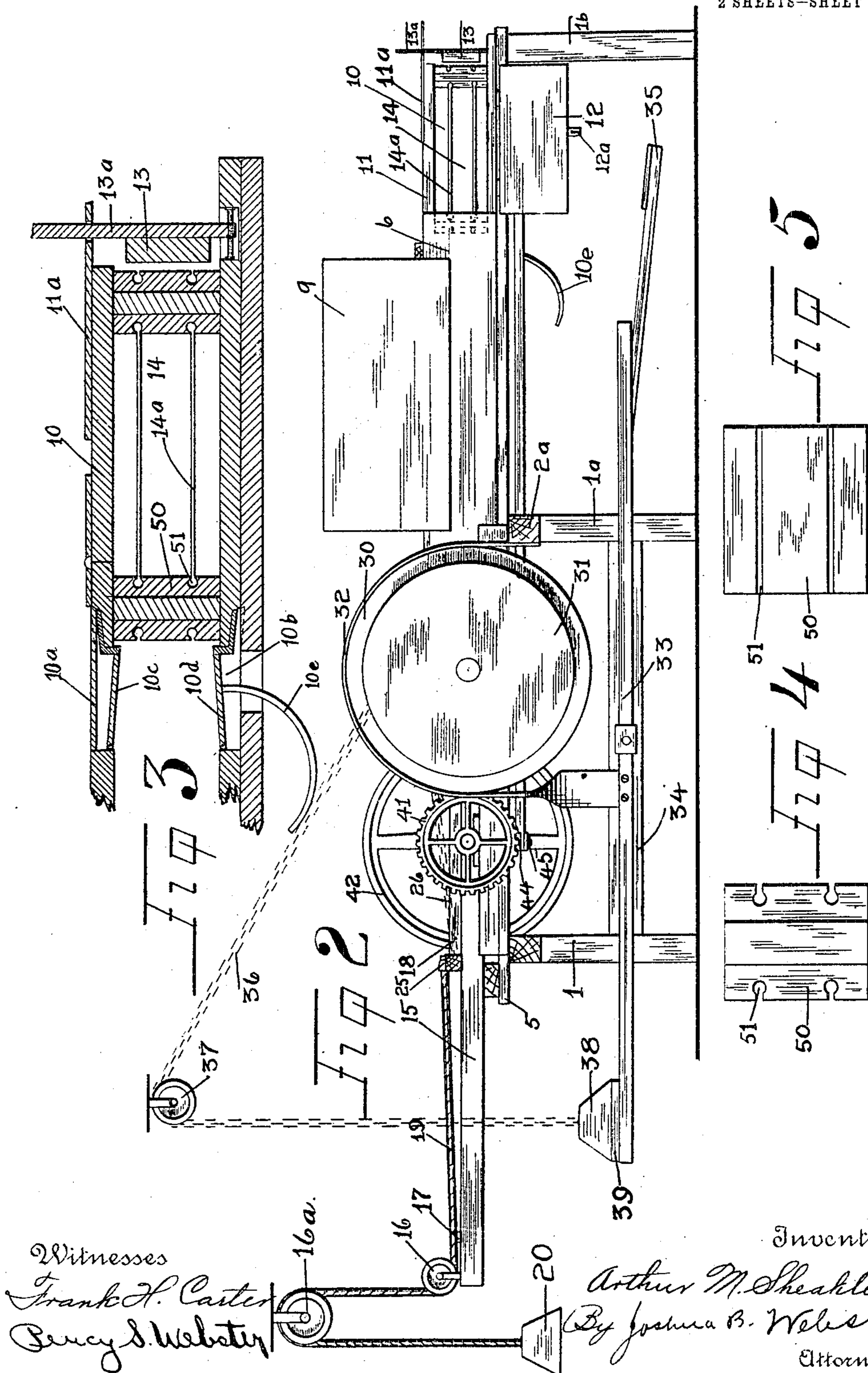
Inventor
Arthur M. Sheakley
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UNITED STATES PATENT OFFICE.

ARTHUR M. SHEAKLEY, OF STOCKTON, CALIFORNIA.

FIBER-BALING MACHINE.

No. 812,155.

Specification of Letters Patent.

Patented Feb. 6, 1906.

Application filed September 19, 1904. Serial No. 224,988.

To all whom it may concern:

Be it known that I, ARTHUR M. SHEAKLEY, a citizen of the United States, residing at Stockton, in the county of San Joaquin, State of California, have invented certain new and useful Improvements in Fiber-Baling Machines; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and the figures of reference marked thereon, which form a part of this specification.

My invention relates to improvements in baling-machines used in baling Manila rope or fiber cut and otherwise prepared for use in mortar for plastering purposes; and it consists in the effective construction herein set forth.

My object is to produce a machine by means of which the fiber may be readily baled for wholesale and retail trade; and I accomplish this object by the peculiar construction and relative arrangement of parts herein specified, and particularly pointed out in the claims appended.

I have found that it requires about four pounds of fiber to one barrel of lime. Hence I have constructed a machine which will tightly bale four pounds of said fiber into a small, neat, convenient bale, which machine is fully illustrated in the accompanying drawings, in which—

Figure 1 is a top plan view of my improved fiber-baling machine. Fig. 2 is a side elevation of the same. Fig. 3 is a longitudinal sectional view of a portion of a baling-box. Fig. 4 is an end view of a baling-block. Fig. 5 is a side elevation of same.

Similar numerals of reference indicate corresponding parts in the several views.

1 and 1^a are suitable upright beams. On these are cross-beams 2 and 2^a, supporting longitudinal beams 3 and 4.

In the center of the machine is a longitudinal board 5, near one end of which is fastened a box 6, provided with a hinged cover 7 and having a lining of iron 8. On one side of said box is a feed-trough 9. The cover 7 when turned back forms a portion of the bottom of said feed-trough 9. A box 10 forms a continuation of the box 6 and has a hinged lid 11 on the top thereof and a hinged side 12 and a hinged end 13. On the lid 11 is fastened an

outwardly-projecting bar 11^a and on the end 13 an upwardly-projecting bar 13^a, the two being suitably notched and adapted to interlock. In the stationary side 14 of the said box 10 are narrow slots 14^a. In suitable slots 10^a and 10^b in the top and bottom of the inner end of the box 10 are suitably pivoted catches 10^c and 10^d, respectively. The catch 10^c extends into the box 10 by its own weight and the catch 10^d is forced to extend upward into said box by means of a spring-weight 10^e, attached rigidly to said catch 10^d.

On top of the board 5 is a narrow longitudinal beam 15, which extends outward from the rear end of the box 6 to any desired point beyond the end of the board 5. On the outer end of this beam is a pulley 16 and a block 17 just in front of said pulley. On the top of said beam is a follower-rod 18, on the outer end of which is fastened a rope 19, which rope extends under the pulley 16 and over a suitably-arranged pulley 16^a and on the end of which rope is a weight 20. On the inner end of the follower-rod 18 is a follower 21, which fits inside the box 6 and is provided with slot 22 in its upper and lower edge, which slots allow said follower to pass the catches 10^c and 10^d. A guide-pulley 23 is pivotally mounted on the beam 15, under which guide-pulley the follower-rod 18 acts. On the outer end of the follower-rod 18 is a cross-arm 25. Chains 26 connect each end of said cross-arm to irregular cones 27, which cones are rigidly attached to a shaft 28, which shaft is just at the rear of the box 6 and is journaled on the beams 3 and 4. Said cones 27 are formed of a circular portion 27^a, a suddenly-reducing portion 27^b, which portion reduces to a portion 27^c, which is a trifle larger than the shaft 28. The purposes of this construction will be hereinafter set forth. On the end of the shaft 28 nearest the trough 9 is a large pinion-wheel 29. Rigidly attached to the outer side of said pinion is a wooden wheel 30, provided with an outwardly-extending spool 31.

32 is a broad piece of sheet metal which is secured at one end to the beam 2^a and curved over the wheel 30 and is pivoted to a lever 33, which is pivoted to a cross-beam 34, secured to the beams 1 and 1^a. Said lever has a foot-piece 35 at one end which extends to a point near the box 10. The other end extends to any point desired. A chain 36 is secured to the spool 31 and extends over a suitably-ar-

ranged pulley 37, on the free end of which chain 36 is a weight 38, adapted to rest on a platform 39 on the lever 33.

On a shaft 40 journaled on the beams 3 and 4 is a small pinion-wheel 41, which engages with the large pinion-wheel 29. On the other end on said shaft 40 is any ordinary friction-clutch pulley 42, provided with a clutch device 43. Attached to this clutch is a link 44, which extends under the beams 3 and 4 and is pivoted to a lever 45, which extends to a point near the box 10 and which is pivoted to an outwardly-extending fulcrum 46, secured to the board 5. A longitudinal bar 47 is pivoted to the link 44 near the beam 4 and is also pivoted to a similar bar 48, which in turn is pivoted to the under side of the beam 4 and extends to a point near the board 5, where it is solidly attached to a cross-bar 49, which is pivoted in a slot in the bar 47 near the link 44. The end of the bar 49 nearest the board 5 is bent and extends upwardly to a point above the follower-rod 18.

The operation is as follows: Any desired motive power may be applied to the pulley 42. When the machine is at rest, the clutch mechanism 43 is released from the pulley 42, the follower 21 is held in position at the head of the box 6 by means of the weight 20, and the wheel 29 is held stationary by means of the brake 32 being held tight by the weight 38. When it is desired to operate the machine, a sufficient amount of fiber—say four pounds—is weighed out and put into the feed-box 9. A block 50 is then placed in each end of the box 6, the material is stuffed into said box, the lid 7 is closed, and also the doors 11, 12, and 13, the doors 11 and 13 being securely locked by means of the locking device 11^a–13^a. The lid 7 is locked by means of the hasp-lock 7^a and the door 12 by means of hasp-lock 12^a. The operator then pulls the lever 45 toward him and simultaneously pushes the foot-piece 35 downward. This throws the clutch mechanism 43 into the pulley 42 and releases the brake 32, and the shaft 40, the pinion-wheels 41 and 29, the shaft 28, and the cones 27 are all set in motion and drive the follower 21 along in the box 6, which pushes the blocks 50 and the material between them into the box 10 past the catches 10^c and 10^d. When the said follower reaches this point, then the cross-bar strikes the upwardly-projecting part of the bar 49. This movement of the follower by the system of bars 49, 48, 47, and 44 pulls the clutch 43 out of the pulley 42. The weight 20 pulls the follower 21 back to the head of the box 6, the slots 22 allowing said follower to pass the catches 10^c and 10^d, which catches hold the blocks 50 and the material between them tightly pressed within the box 10. When the follower 21 is being forced through the box, the chain 36 wraps around the spool 31 and pulls the weight 38 upward. When

the clutch-pulley is released and the follower is pulled back, then the weight 38 drops again until said follower is in position at the head of the box 6, when it strikes the platform 39, thus putting on the brake 32 and stopping further movement. The door 12 is then opened, and twine is then secured around the material between the blocks 50 by means of a needle and the slots 14^a and 51. Then the doors 11 and 13 are opened, and the bale thus tied is taken out. The blocks are again placed in the box 6 and the machine is again ready for operation.

The purpose of having the cones 27 of the shape shown is that when the greatest strain comes it will be almost directly on the shaft, and thus making the work more effective.

I have entered into a detailed description of the construction and relative arrangement of parts embraced in the present and preferred embodiment of my invention. I do not desire, however, to be understood as confining myself to such specific details, as such changes and modifications may be made in practice as fairly fall within the scope of my claims.

Having thus described my invention, what I claim as new and useful, and desire to secure by Letters Patent, is—

1. In a device of the kind described, the combination of a suitable frame, a compression-chamber mounted on the frame, a plunger arranged in said compression-chamber, a horizontal shaft mounted on the frame, cones carried by said shaft, a cross-bar attached to the plunger, chains attached to said cross-bar and winding around said cones, a second horizontal shaft mounted on the frame, intermeshing gearing carried by said shafts, a pulley carried by said second shaft, clutch mechanism comprising clutch members carried by said second shaft and said pulley, a lever pivoted on the frame and connected to said clutch mechanism, a spool carried by said first-named shaft, a chain carried by said spool, a weight attached to said chain, a brake-wheel carried by said shaft, a brake-band surrounding said brake-wheel, a pivoted lever attached to said brake-band, said weight being adapted to bear on the end of said pivoted lever to bring the brake-band into contact with the brake-wheel, substantially as described.

2. In a device of the kind described, the combination of a suitable frame, a compression-chamber mounted on the frame, a plunger arranged in the compression-chamber, a horizontal shaft mounted on the frame, a cross-bar attached to the plunger, flexible connections attached to the cross-bar and winding around said shaft, a second horizontal shaft mounted on the frame, intermeshing gearing carried by said shafts, a pulley carried by said second shaft, clutch mechanism carried by said pulley and said second shaft,

5 a lever pivoted on the frame, and connected to said clutch mechanism, a third chain connected to the first-named shaft, a weight attached to said last-named chain, a brake-wheel carried by said first-named wheel, a brake-band surrounding said brake-wheel, a lever pivoted to said brake-band, said weight being adapted to bear on said lever.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ARTHUR M. SHEAKLEY.

Witnesses:

PERCY S. WEBSTER,
JOSHUA B. WEBSTER.