No. 815,478. PATENTED MAR. 20, 1906.

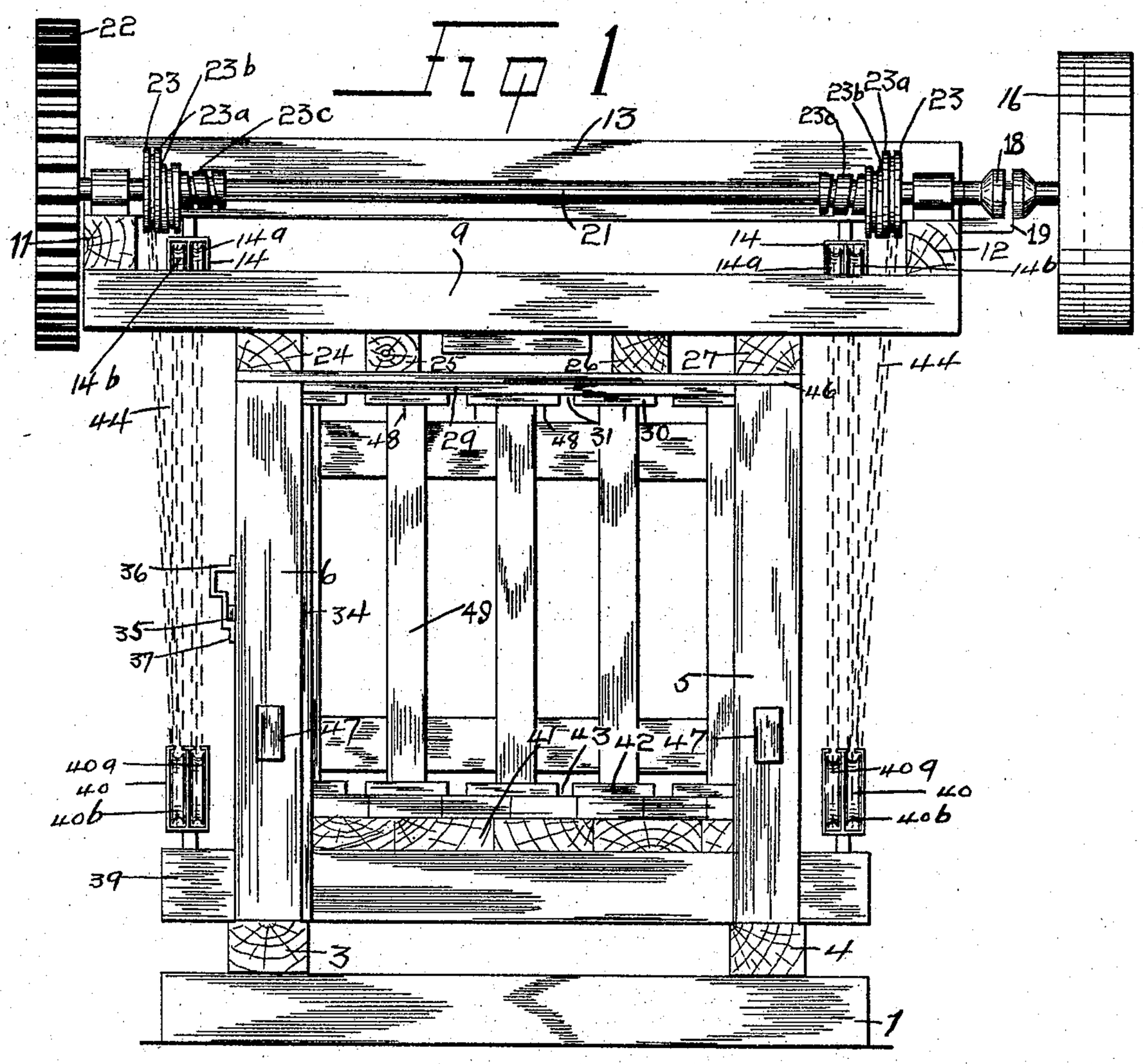
A. M. SHEAKLEY.

FIBER CRATING MACHINE.

APPLICATION FILED AUG. 26, 1904.

3 SHEETS—SHEET 1.

Fig 1



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3 SHEETS—SHEET 2.

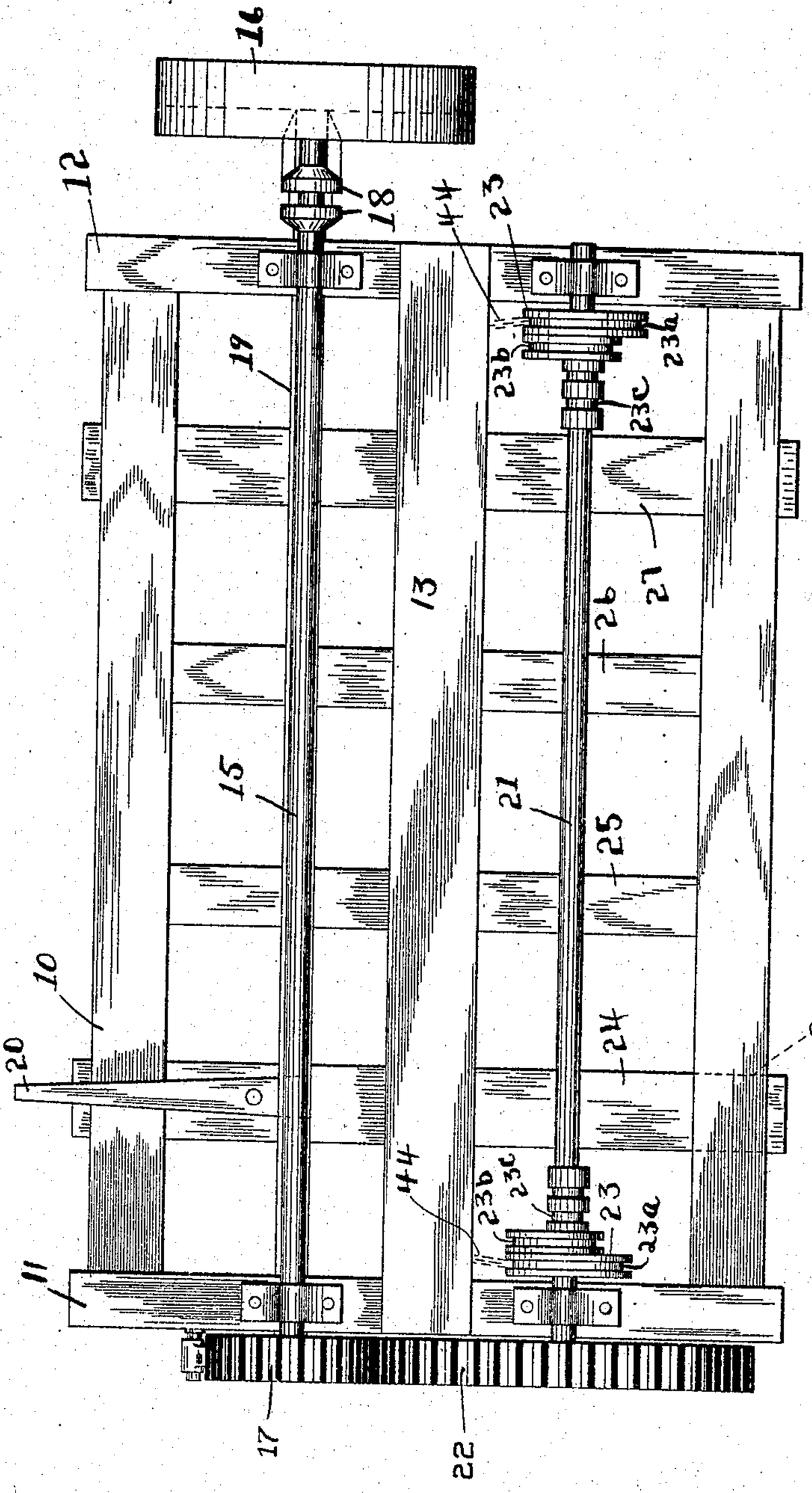

Fig. 2.

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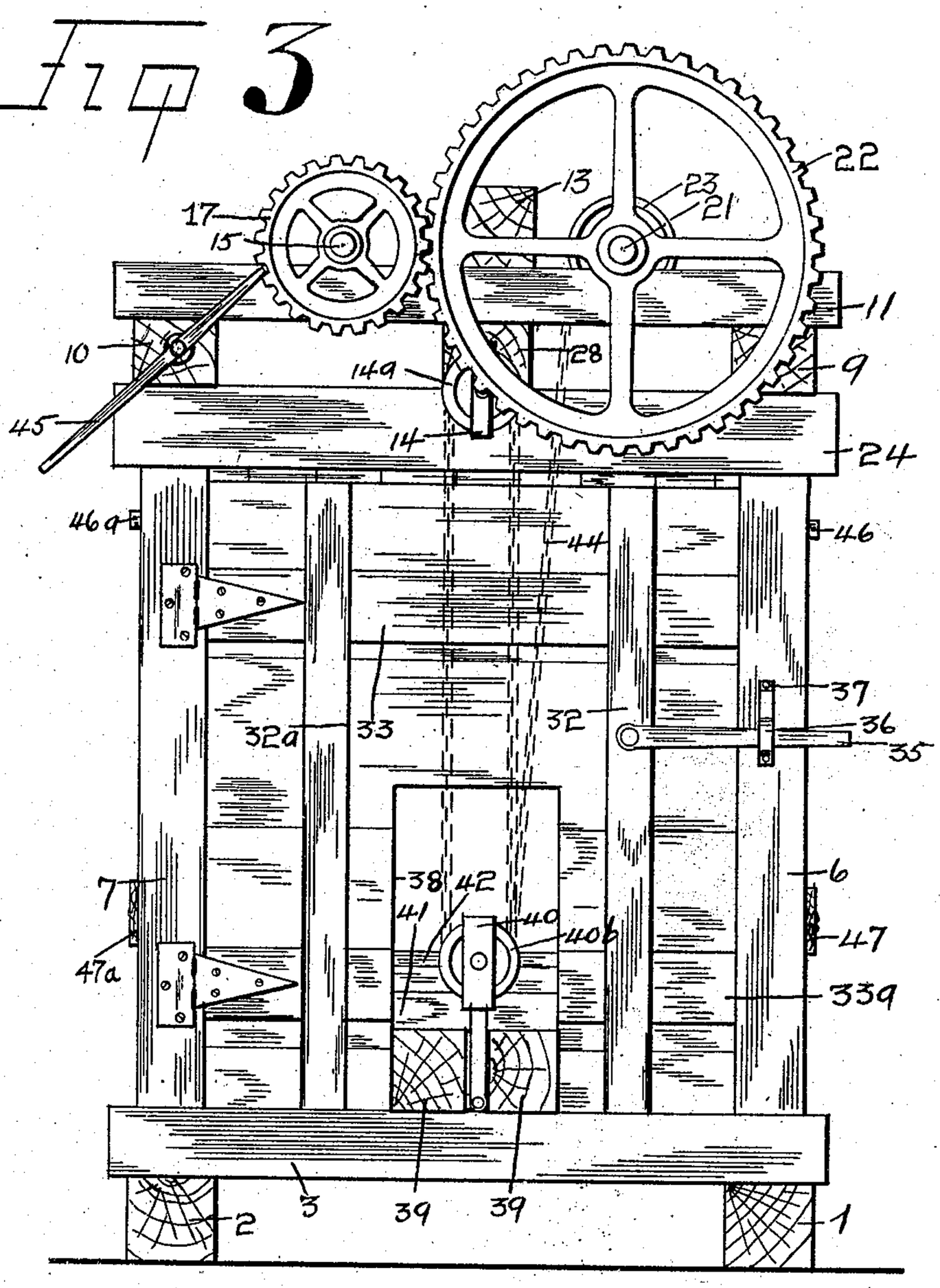
3 SHEETS—SHEET 3.

Fig 3



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UNITED STATES PATENT OFFICE.

ARTHUR M. SHEAKLEY, OF STOCKTON, CALIFORNIA, ASSIGNOR TO HERCULES MANUFACTURING COMPANY, OF STOCKTON, CALIFORNIA, A CORPORATION.

FIBER-CRATING MACHINE.

No. 815,478. Specification of Letters Patent. Patented March 20, 1906.

Application filed August 26, 1904. Serial No. 222,204.

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-Crating 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 to the figures of reference marked thereon, which form a part of this specification.

My invention relates to improvements in baling-machines, and particularly to that class used in crating manila fiber used in mortar for plastering purposes after it has been prepared and baled for retail use; and my object is to produce such a machine as will quickly and effectually do the work for which it is designed. This object I accomplish by the peculiar construction and arrangement of parts herein fully described, and particularly pointed out in the claims appended.

Referring to the drawings, Figure 1 is a side elevation of my improved crating-machine. Fig. 2 is a top plan view of same. Fig. 3 is an end view of said machine.

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

1 and 2 are longitudinal base-beams across which are secured cross-beams 3 and 4, on the ends of which are upright beams 5, 6, 7, and 8. Across the tops of the beams 6 and 7 is secured a beam 24 and across the tops of the beams 5 and 8 a beam 27. On said beams 24 and 27, near the ends thereof, are secured cross-beams 9 and 10. On the said beams 9 and 10, near the ends thereof, are secured beams 11 and 12. Across the middle of these beams is a large beam 13, on the under sides of which near each end is suspended a double pulley-block 14, containing pulleys 14^a and 14^b. On one side of the beam 13 a shaft 15 is journaled on the beams 11 and 12, on one end of which shaft is secured a friction-clutch pulley 16 and on the other end a small pinion-wheel 17. A suitable clutch device 18 operates on the shaft 15, and a link 19 connects said device to a suitably-pivoted lever 20, which lever extends outward from the front of the machine. On the other side of the beam 13 a shaft 21 is journaled on the beams 11 and 12. On one end of said shaft is a large pinion-wheel 22, which engages with the small pinion-wheel 17. On each end of said shaft 21 just inside the beams 11 and 12 is secured an irregular cone 23, which cones are formed of a circular portion 23^a, a suddenly-reducing portion 23^b, which portion reduces to a small portion 23^c, which is a trifle larger than the shaft 21.

Across the under sides of the beams 9 and 10 are secured cross or brace beams 25 and 26, across the center of which beams is secured a beam 28, which beam is in turn secured to the beams 11 and 12.

On the under sides of the beams 25 and 26 is arranged a wooden roof or ceiling 29, on the bottom of which are secured slats 30, between which slats are left five or more small slots 31.

In the side of the machine under the wheels 17 and 22 is arranged a door between the beams 6 and 7 and hinged to the beam 7, which door is composed of upright beams 32 and 32^a and cross-beams 33 and 33^a, on the inside of which beams is a solid wall 34, which wall is adapted to extend a trifle beyond the beam 6 within the body of the machine when said door is closed. On the beam 32 is pivoted a bar 35, which engages with a catch composed of a larger portion 36 and a reduced portion 37, which catch is secured on the beam 6. In the center of said door, near the bottom thereof, is a slot 38, through which slot and a corresponding slot in the other side of the machine extend two beams 39, between which beams are pivotally mounted double pulley-blocks 40, containing pulleys 40^a and 40^b. On the top of said beams 39 within the body of the machine is secured a floor 41, on the top of which are arranged slats 42, between which slats 42 are left five or more small slots 43, which slots are in a direct line with the slots 31.

Chains 44 are fastened at one end to the pulleys 14^a and pass through the pulleys 40^a, then through the pulleys 14^b, then through the pulleys 40^b, and then to the cones 23, where they are again fastened.

A catch-bar 45 is pivoted to the end of the beam 10 opposite the pinion-wheel 17, which catch is adapted to engage with the said pinion-wheel 17.

Across the beams 5 and 6 and the beams 7

and 8 are secured slats 46 and 46ª, respectively. The ceiling 29 is of sufficient width to allow a space between it and said slat, wherein may be inserted the top of a shutter 49, the bottom of which may be locked by thumb-latches 47 or 47ª. 48 represents sharp pins fastened in the ceiling 29 and adapted to receive suitable crating-slats.

The operation is as follows: Suitable slats are fastened onto the pins 48 and correspondingly on the floor 41. Any desired number of small bales of the fiber are then piled on the last-named slats and suitable doors or shutters are placed over the open ends of the machine, the upper ends of said shutters being held in position by means of the slats 46 and 46ª and by means of the thumb-latches 47 and 47ª. Suitable motive power is then applied to the pulley 16, and then the clutch 18 is thrown into the pulley 16 by means of the lever 20. Then the pulley revolves the shaft 15 and the pinion-wheel 17, which in turn revolves the pinion-wheel 22, the shaft 21, and the cones 23, which cones pull the floor 41 upward by means of the chains 44 until the said small bales are firmly pressed together between the slats on the floor 41 and those on the pins 48. The catch 45 is then inserted into one of the pinions of the wheel 17 and holds the floor 41 in position. Any suitable binding-wires are then inserted through the slots 31 and the corresponding slots 43 and bound around said slats, thus holding said small bales together securely. The operator then grasps the latch 35 and pulls it from the portion 37 into the enlarged portion 36. This loosens the inside of the door 34 from the crate and allows said crate to be easily taken from the machine when the shutters 49 are taken out.

The purpose of having the pulleys 40 pivotally mounted between the beams 39 is to allow said beams a little swing, thus helping to throw the crate out of the machine. The purpose of having the cones 23 constructed as shown in the drawings is that when the worst strain comes it falls on the portion 23, which being only a trifle larger than the shafts does the work most effectually.

Many changes may be made in the form and details of my invention without departing from the spirit thereof. Hence I consider myself entitled to all forms of the invention as lawfully 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 crating-machine a hinged door in one side of said machine, the inner edge of said door extending a trifle within the body of said machine, a catch on one of the beams of said machine on the same side as is said door, said catch being formed of a large and reduced portion, and a bar fastened to said door and resting in said catch, as specified.

2. In a crating-machine the combination of a suitable framework, an adjustable flooring between said framework, a roofing between said framework, and sharp pins projecting downwardly from said roofing and adapted to receive crate-slats, as set forth.

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

ARTHUR M. SHEAKLEY.

Witnesses:
PERCY S. WEBSTER,
JOSHUA B. WEBSTER.