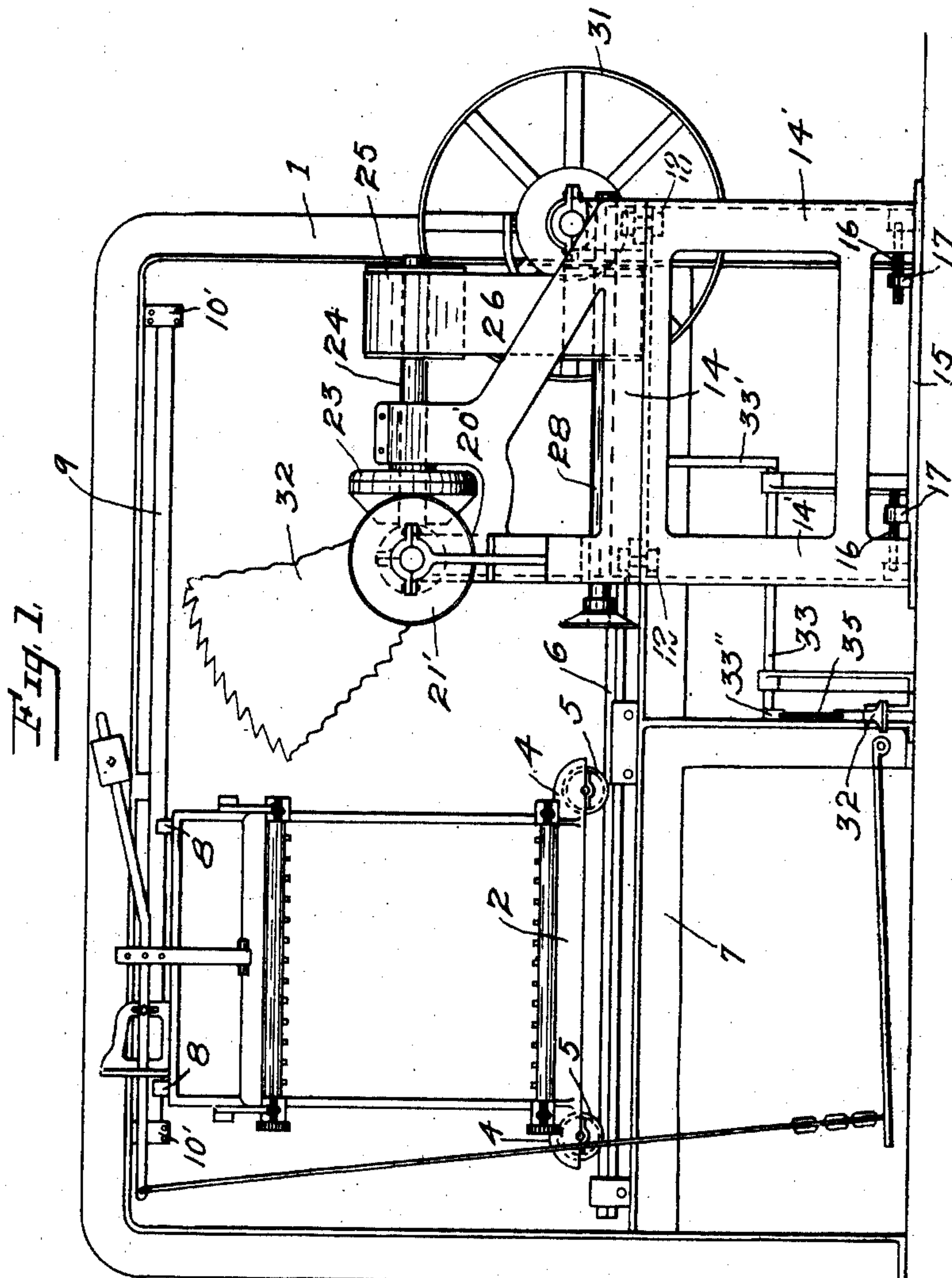
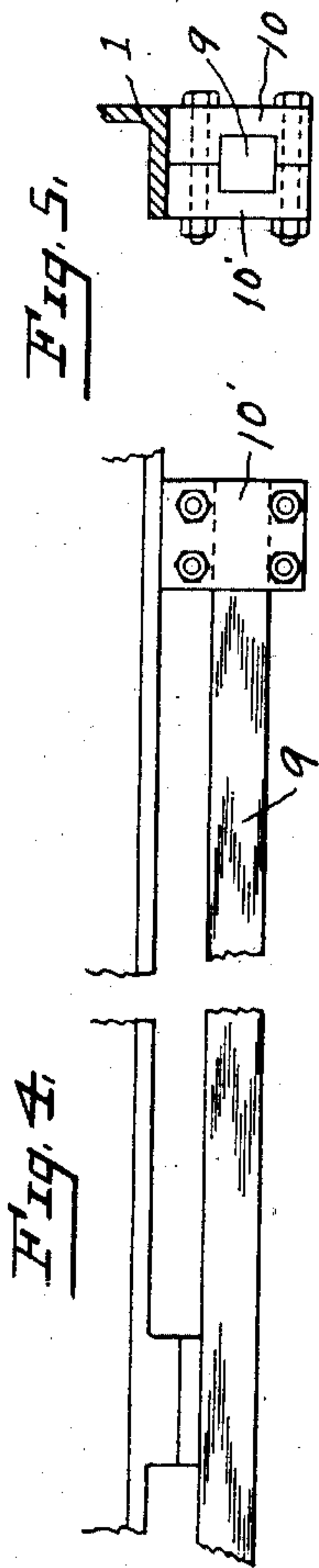


No. 864,750.

PATENTED AUG. 27, 1907.

F. W. BURPEE.  
SHINGLE MACHINE.  
APPLICATION FILED JAN. 26, 1906.

3 SHEETS—SHEET 1.



Witnesses

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Arleta Adams

By

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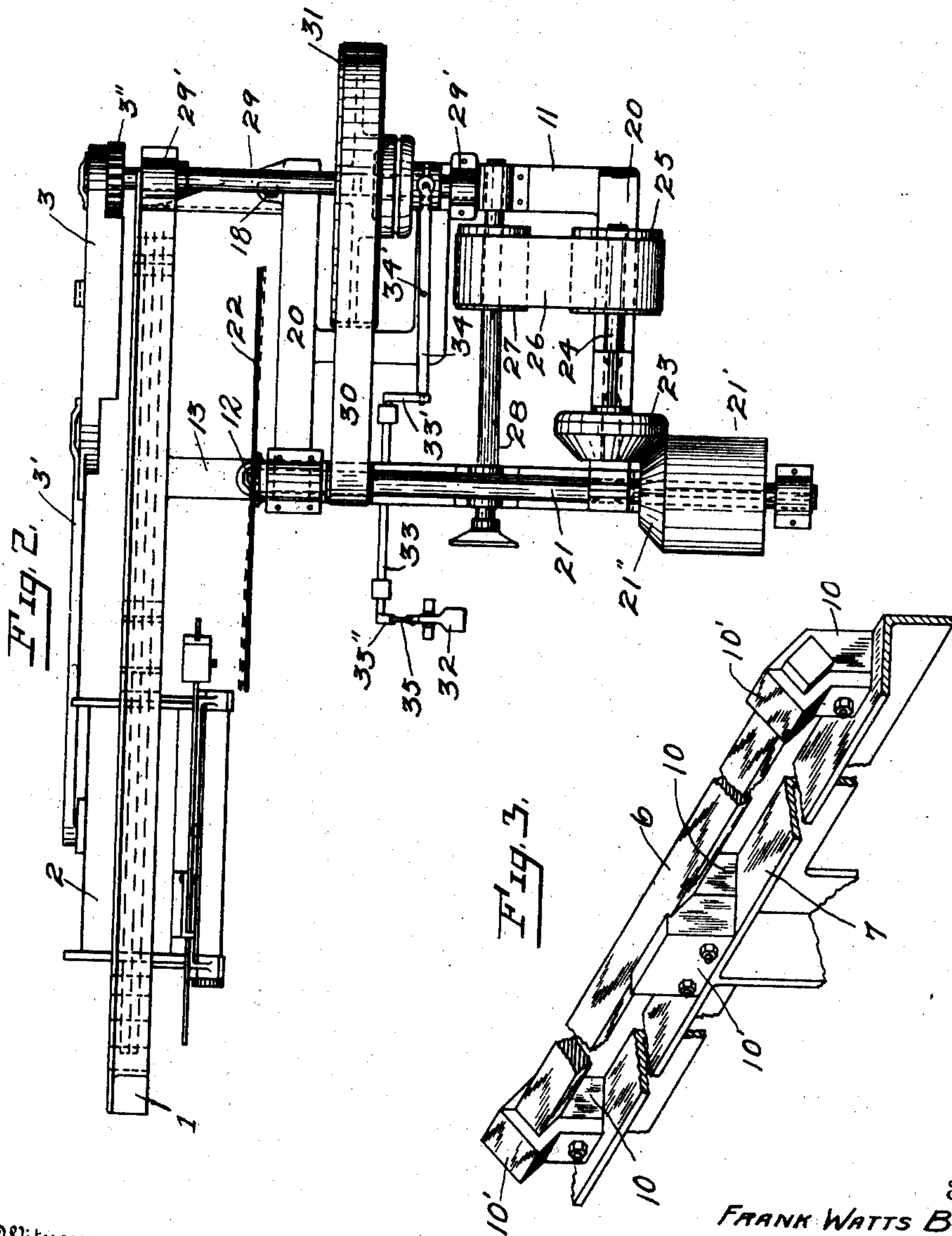
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3 SHEETS—SHEET 2.



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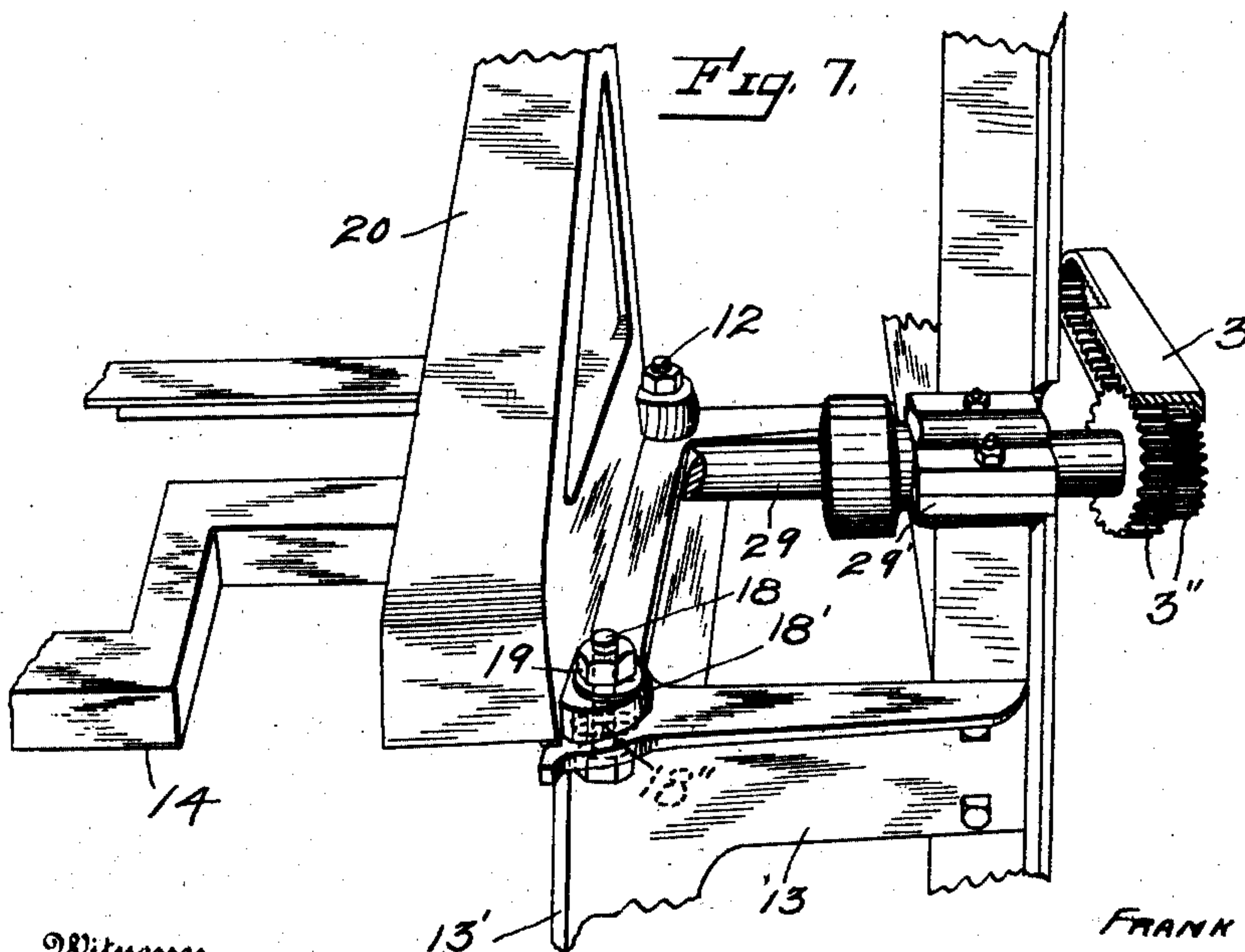
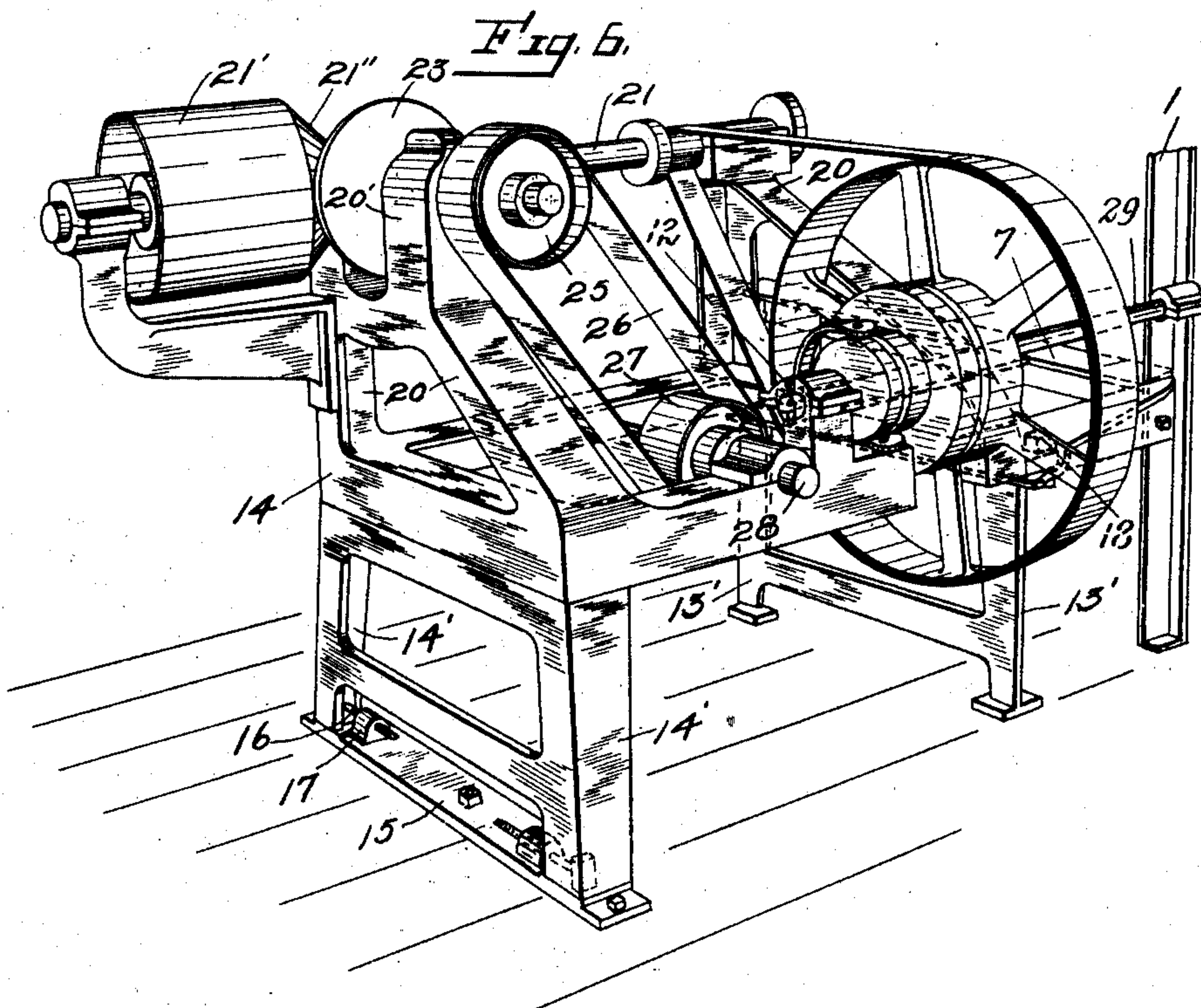
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3 SHEETS—SHEET 3.



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# UNITED STATES PATENT OFFICE.

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INGTON.

## SHINGLE-MACHINE.

No. 864,750.

Specification of Letters Patent.

Patented Aug. 27, 1907.

Application filed January 26, 1906. Serial No. 298,078.

*To all whom it may concern:*

Be it known that I, FRANK WATTS BURPEE, a citizen of the Dominion of Canada, and a resident of the city of Vancouver, in the Province of British Columbia, Canada, have invented certain new and useful Improvements in Shingle-Machines, of which the following is a specification.

My invention relates to machines for sawing shingles, particularly of the type illustrated in my Patent 760,610 and the primary object thereof is to improve and simplify such constructions.

Other objects will be set forth in the following description and those features of construction upon which I desire protection, succinctly defined in the appended claims.

In the accompanying drawings in which like numerals of reference indicate like parts throughout the several views: Figure 1 is a front view of a machine constructed in accordance with my invention with parts removed. Fig. 2 is a top plan view thereof. Fig. 3 is a detail fragmentary view in perspective of the lower track for the carriage. Fig. 4 is a detail fragmentary side view of the upper track. Fig. 5 is an end view thereof. Fig. 6 is a view in perspective of the saw frame, and Fig. 7 is a fragmentary detail showing more clearly the adjustable connection of the saw frame to the base of the track frame.

In the drawings reference numeral 1 indicates the usual vertically disposed rectangular track frame of an upright shingle sawing machine, 2 the carriage thereof and 3 the mangle rack which is connected to the carriage 2 by a link 3' and operated by a pair of pinions 3'' as in my aforesaid patent.

The carriage, which can be of any desired construction, has secured to its base truck frames 4 in which are mounted wheels 5, and these wheels bear on a track 6 arranged on a bed 7 which is supported in the lower portion of the track frame. Secured to the top of the carriage are guides 8 which slidably embrace a track 9 secured to the upper portion of frame 1.

Both of the tracks 6 and 9 are square in cross section and each has four treads, the side faces of track 9 being the treads thereof and the longitudinal edge portions of track 6 serving in a like capacity. Therefore track 9 has flat treads and track 6, V-shaped treads.

The tracks are preferably clamped between suitable jaws, as 10 and 10', the former being fixed and having the latter, which is removable, bolted thereto as shown. By providing each track with a plurality of treads, the usefulness of the tracks is prolonged, for, when their active treads become worn, the jaws 10' can be removed and the tracks then turned so as to bring new treads into position for service. As now considered, track 9 has opposite faces simultaneously serving as active treads, the guides 8 being arranged in pairs, and tracks

6 on which the wheels 5 roll, has but one of its treads in active use at a time.

Reference numeral 11 indicates the husk frame which is pivoted at 12, to an offset portion of the bed 7, said offset portion being in the form of a stand 13 and having its free end portion supported by legs 13'. The husk frame comprises a base part 14 having at its outer end portion legs 14' which are mounted for sliding movement, as on a plate 15, and suitable means is provided for adjusting this frame so as to adjust the "lead" of the saw relatively to the line of travel of the carriage. This adjusting means consists of screws 16, mounted in lugs 17 of the plate 15 and having threaded engagement therewith and having their outer ends engaged in recesses in the legs 14', whereby by loosening one screw 16 and tightening the other the husk frame can be adjusted on its pivot 12.

In order to hold the husk frame more firmly in its adjusted position, I provide a lock means therefor, the same consisting of a bolt 18 mounted in a lug 18' of said frame and projecting through a slot 18'' in the stand 13, and having on its threaded end portion a nut 19 (see Fig. 7), which can be readily released or tightened when desired.

Reference numeral 20 indicates spaced apart stands of the husk frame in which is journaled an arbor 21. This arbor carries a driving pulley 21' and the shingle saw 22 and said driving pulley has one of its end portions, as 21'' beveled so as to serve as a friction gear which is engaged by a friction gear 23 fixed to one end of a cross shaft 24, journaled in a branch arm 20' of the outer stand 20. Cross shaft 24 is also provided with a pulley 25 over which a belt 26 passes, said belt also passing over a pulley 27 fixed to an arbor 28, which carries the jointing saw.

In addition to having the power from arbor 21 transmitted to the arbor of the jointing saw, I also drive the drive-shaft 29 of the feed works of the machine therefrom by means of a belt 30 which passes over a suitable pulley thereof and a friction clutch pulley, as 31, which is mounted on the drive shaft 29. The clutch mechanism of this pulley is operatively connected to a suitably fulcrumed treadle, as 32, through the medium of a rotatably mounted rod 33 having laterally extending arms 33' and 33'', a lever 34 fulcrumed at 34' and pivotally connected to the clutch mechanism and arm 33', and a link 35 pivoted to arm 33'' and one end of said treadle.

The drive shaft 29 is mounted in bearings 29' one of which is on the husk frame and the other on the track frame and allowance is made in these bearings for the movement of said shaft 29, occasioned by adjusting the husk frame to give "lead" to the saw.

The "lead", or angle of the saw to the line of travel of the carriage must obviously be very small (see dotted



- position of the saw, Fig. 2), otherwise the saw would run out of its true line of cut into the wood, but by providing an adjustable husk frame on which the saw is mounted, the saw can be adjusted so as to be given a proper "lead" which will overcome to a marked degree, friction of the block on the saw, as that side face of the saw which faces the shingle bolt will be out of contact with the shingle bolt during both the advance and return movements of the carriage.
- 10 The track 6 and 9 as herein shown, are of the particular form now employed by me, it is obvious however that the number of treads on these tracks can be readily varied at will.
- 15 Having thus described my invention what I claim as new, and desire to secure by Letters Patent of the United States of America, is:—
1. In a machine of the type set forth, a frame, a carriage mounted thereon, a saw frame arranged at one side of said first frame and being pivoted at one end portion for horizontal adjustment, legs on the opposite end portion of said saw frame supported for sliding movement, means connected to said legs for adjusting said saw frame, and a saw for operating on the work as conveyed mounted on said saw frame for movement therewith.
  - 25 2. In a machine of the type set forth, a frame, a carriage mounted thereon, a saw frame pivoted at one end portion of said first named frame, depending means fixed to said saw frame for supporting the free end portion thereof, means slidably supporting said last named means, a saw for operating on the work as conveyed mounted on
  - 30

said saw frame for movement therewith, and means for adjusting said saw frame, for the purpose specified.

3. In a machine of the type set forth, a frame, a carriage mounted thereon, a saw frame pivoted at one end portion of said first named frame, legs fixed to said saw frame for supporting the free end portion thereof, means slidably supporting said legs provided with lugs having screw threaded openings, and screws mounted in the openings in said lugs and engaging said legs for effecting adjustment of said saw frame, for the purpose specified.

4. In a machine of the type set forth, a frame, a stand fixed to said frame and projecting outwardly therefrom, a carriage mounted on said frame, a saw frame pivoted at one end portion to said stand, means supporting the free end portion of said saw frame for sliding movement, a saw for operating on the work as conveyed mounted on said saw frame for movement therewith, and means to adjust said saw frame to present the faces of said saw at an angle to the plane of its cut.

5. In a machine of the type set forth, a frame, a carriage mounted thereon, a stand fixed to said frame and projecting outwardly therefrom, a saw frame pivoted at one end portion to said stand, legs on the free end portion of said saw frame, means slidably supporting said legs, means engaged with said legs for adjusting said saw frame, a saw on said saw frame for operating on the work as conveyed, and means on said saw frame engaged with said stand for securing the saw frame from movement.

Signed at Vancouver, B. C. this 17th day of January 1906.

FRANK WATTS BURPEE.

Witnesses:

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W. H. JOHNSON.