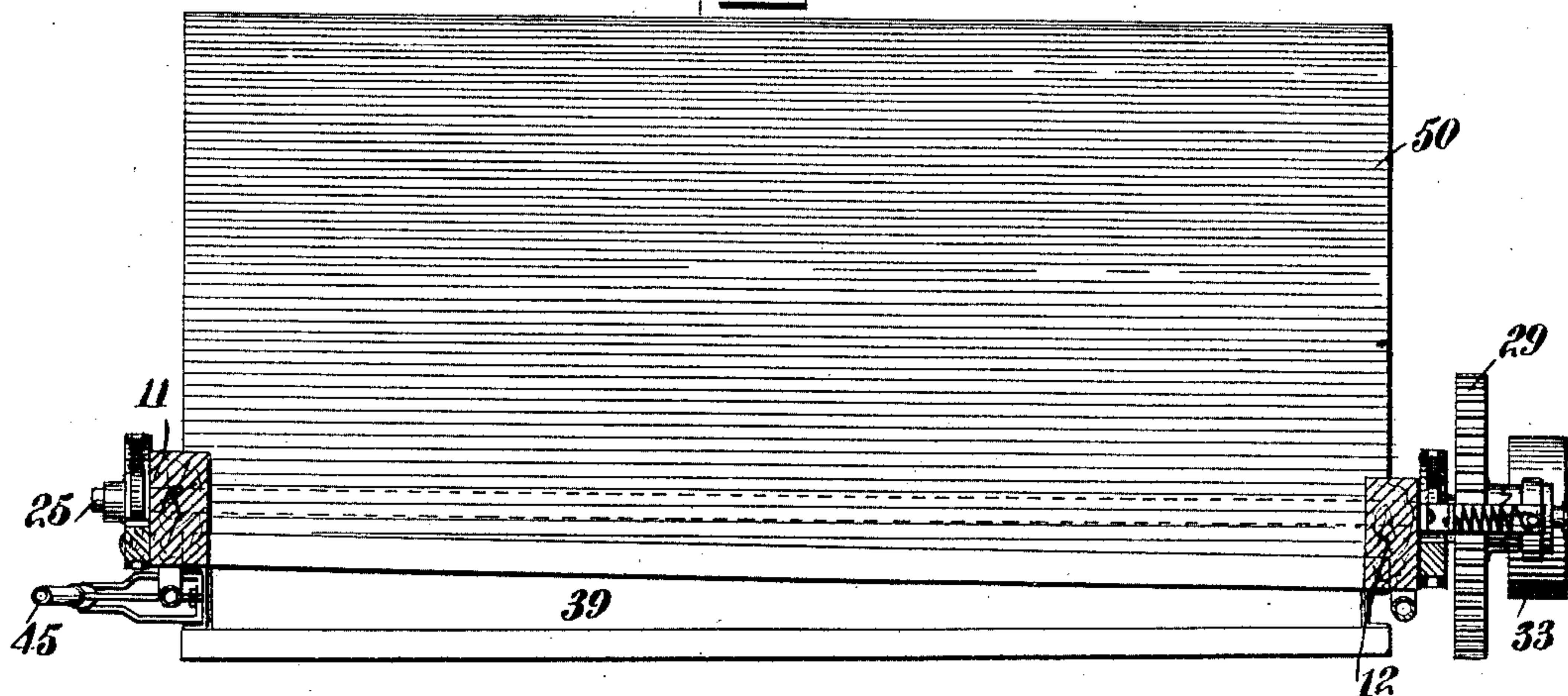
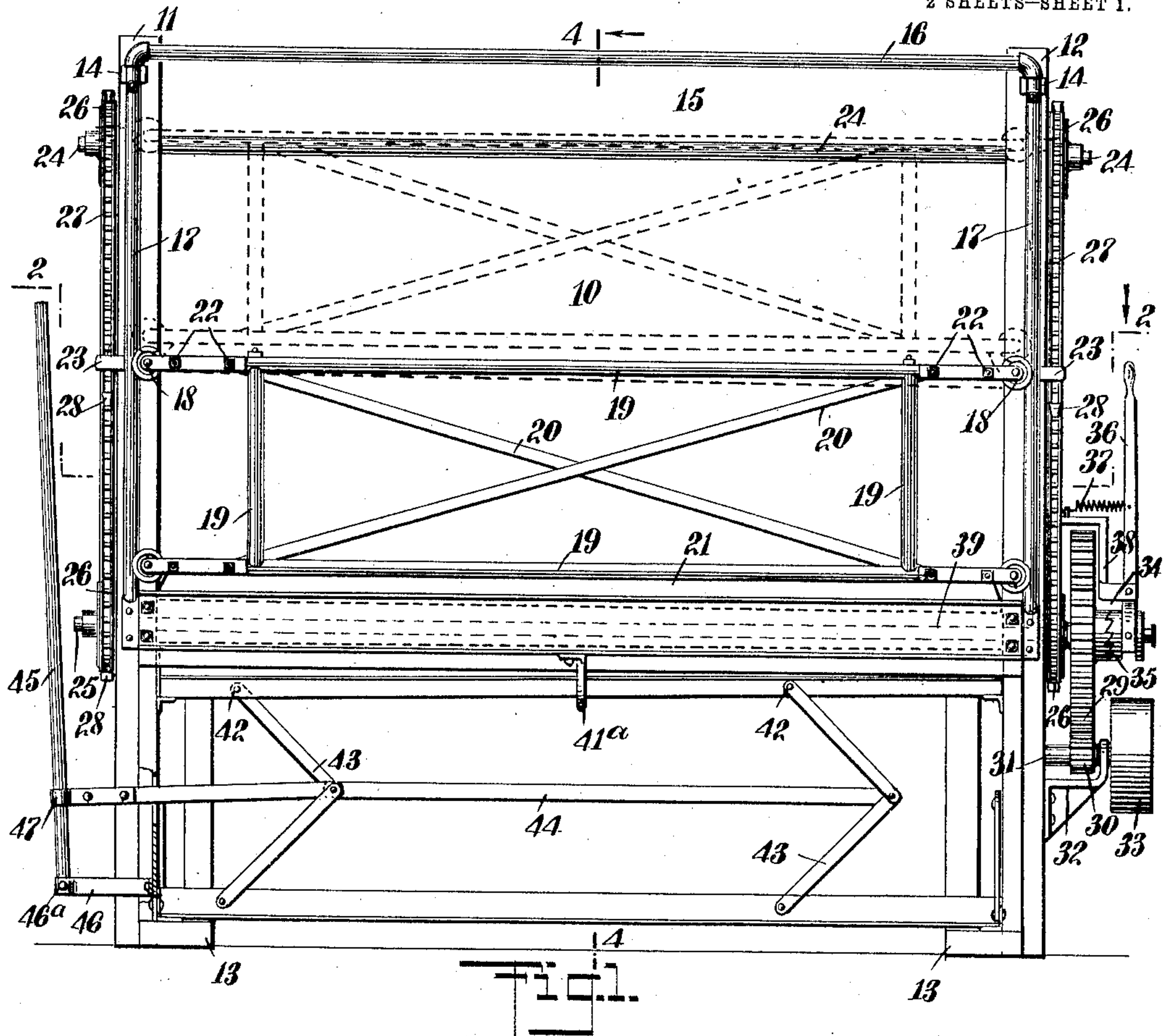


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POST MOLDING MACHINE.  
APPLICATION FILED DEC. 9, 1909.

997,100.

Patented July 4, 1911.

2 SHEETS—SHEET 1.



WITNESSES  
*Ben. Joffe*  
*R. A. Hoster*

Fig. 2.

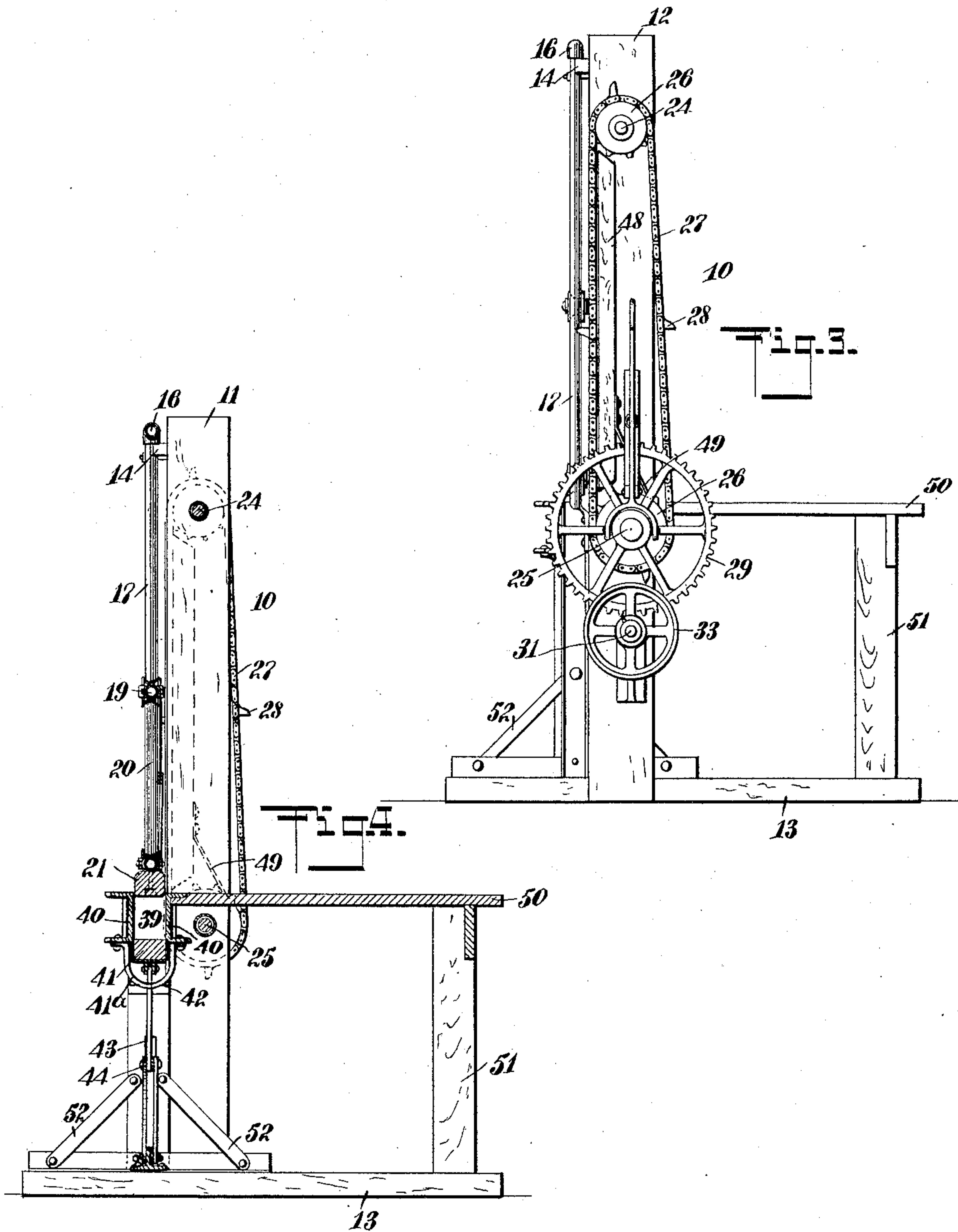
INVENTOR  
*Alley W. Spooner*  
BY *Munn & Co.*  
ATTORNEYS

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ATTORNEYS



# UNITED STATES PATENT OFFICE.

ALLEY W. SPOONER, OF LEONIDAS, MICHIGAN.

POST-MOLDING MACHINE.

997,100.

Specification of Letters Patent.

Patented July 4, 1911.

Application filed December 9, 1909. Serial No. 532,186.

*To all whom it may concern:*

Be it known that I, ALLEY W. SPOONER, a citizen of the United States, and a resident of Leonidas, in the county of St. Joseph and State of Michigan, have invented a new and Improved Post-Molding Machine, of which the following is a full, clear, and exact description.

My invention relates to molding machines, and has for its object to provide a machine for molding fence posts and the like, preferably of concrete, and adapted to mold posts of various shapes, depending entirely upon the form of mold used.

My invention comprehends, among other features, a self-dropping tamping plunger for suitably tamping the concrete in the mold and pressing it into a shape similar to the form of the mold.

My invention also comprehends convenient means for ejecting the finished post from the mold, it being understood that the tamping plunger and ejecting device are independent mechanisms, thus dispensing with any complicated mechanism.

My invention further comprehends certain novel features of value, as will be hereinafter more fully described.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar characters of reference denote corresponding parts in all the views, and in which—

Figure 1 is a side elevation of my invention, Fig. 2 is a sectional view, taken on the line 2—2 in Fig. 1, showing the mortar table and adjacent operative members; Fig. 3 is an end view, and Fig. 4 is a sectional view taken on the line 4—4 in Fig. 1.

The post molding machine 10, having standards 11 and 12 secured to a base 13, has fastened thereon, by means of suitable holding members 14, a rigid frame-work 15 comprising a cross bar 16 and side guides 17. Slidably mounted on the side guides 17, by means of suitable bearings 18 secured to the braces 19 and diagonals 20, is a tamping plunger 21. Secured to the braces 19 by means of bolts 22 are projections 23 extending outwardly from the said braces 19.

Through the upper and lower portions of the standards 11 and 12 are extended rods or shafts 24 and 25, and keyed to each end of the said shafts 24 and 25 are toothed wheels 26, connected by endless chains 27, having thereon at spaced distances out-

wardly-extending arms 28. To the lower shaft 25 there is suitably keyed a gear-wheel 29, in mesh with a gear-wheel 30 keyed to a shaft 31 mounted in a bearing 32, and secured to the shaft 31 is a pulley 33, which connects with suitable means for operating the tamping plunger 21. A clutch 34, comprising a clutch member 35, a lever 36 and a spring 37, mounted on a bearing 38, engages and disengages a clutch member on the gear-wheel 29 and permits of starting or stopping the tamping plunger 21 when in its upward travel.

Immediately below the tamping plunger and in strict alinement with the same, is a mold 39, comprising sides 40, and a bottom 41 adapted to slidably engage the sides 40, the said sides being held together by a clamp 41<sup>a</sup>. Pivottally fastened to the bottom 41 at the points 42 are toggle levers 43, connected by a bar 44 and controlled by a hand lever 45, pivoted on a brace 46 at 46<sup>a</sup>, and connected with the bar at the point 47.

Secured to the board 48 fastened to the standard 12 is a spring 49, engaging the teeth of the lower toothed wheel 26 and adapted to hold the plunger 21 from moving downward by its own weight before the said plunger is disengaged from the projections 28 on the chains 27. Mounted on the post molding machine 10, intermediate the standards 11 and 12, is a mortar table 50, supported by uprights 51 fastened to the base 13, and also secured to the machine 10 are diagonal braces 52, for more securely strengthening the same.

The operation of my post molding machine is as follows: When the clutch 35 is thrown into engagement with the gear wheel 29 by means of the lever 36, thereby starting the mechanism, the gear wheel 29 transmits the power by means of the wheels 26 on the shafts 24 and 25, and the chain 27 is set in motion, and moving upwardly engages, by means of the projections 28 on the same, the portions 23 of the plunger 21, thereby carrying the said plunger upwardly, as is shown in dotted lines in Fig. 1. Now when the projections 28, in engagement with the portions 23, have reached the end of their upward path, they pass over the wheels 26 away from the plunger portions 23 and are thereby disengaged from the same. This allows the plunger 21 to fall by its own weight and engage the mold 39, having therein a plastic material. Just as the



plunger comes in contact with the said mold, the next pair of projections on each of the chains 27 engage the projections 23 of the plunger, and the plunger starts upward, 5 repeating the operation as hereinbefore described. By means of this operation, the plastic material in the mold is well tamped and takes the form of the mold in which it is placed. When the molding material is 10 suitably tamped and solidly packed, the operator manipulates the lever 45 which sets into motion the toggle levers 43 and raises the bottom 41 of the mold, thereby forcing the finished post out of the mold to a level 15 corresponding to that of the mortar table 50, and by a slight movement of the operator, it is set aside, where it becomes thoroughly dry and hard, being then a solid mass of a shape similar to that of the mold 20 in which it was previously placed when soft and plastic.

Owing to the simplicity in construction, efficiency and speed, this machine is an important factor in the molding of posts for 25 fences and the like, and the independent means for tamping the material in the mold and ejecting the same from the mold, dispense with any complicated mechanism and rank this machine as a superior device in 30 post-molding machines as regards commercial manufacture and use.

It will be understood that this machine can be either operated by hand or by mechanical power.

Having thus described my invention I 35 claim as new and desire to secure by Letters Patent:

A post molding machine comprising an upright main frame, a mold in the frame, a movable bottom in the mold, means for re- 40 moving the bottom from the mold, conveyers mounted on the frame at both ends thereof, a plunger frame mounted to move on the frame, diagonal supports secured to the plunger frame for substantially holding 45 the same together, a plunger on the lower end of the said frame and extending longitudinally thereof, lateral extensions secured to the frame and extended outwardly from both ends of the frame, rollers on the said 50 extensions and engaging the main frame to permit a vertical movement of the frame, lugs laterally extended from both ends of the plunger frame and adapted to be engaged by the conveyers, the said plunger 55 frame being disposed between the said conveyers, and a driving shaft on the frame, for connection with driving means for operating the conveyers to move the plunger 60 when the said lugs of the plunger frame are engaged by the conveyor.

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

ALLEY W. SPOONER.

Witnesses:

GEO. E. SHANK,  
LLOYD SMITH.