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PNEUMATIC FEEDING MECHANISM FOR BRANDING OR PRINTING MACHINES.
APPLICATION FILED AUG. 25, 1911.


6 SHEETS—SHEET 2.

Fig. 2.

Witnesses

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6 SHEETS—SHEET 6.
To all whom it may concern:

Be it known that I, ORIN C. FENLASON, a citizen of the United States, residing at Hoquiam, in the county of Chehalis and State of Washington, have invented a new and useful Pneumatic Feeding Mechanism for Branding or Printing Machines, of which the following is a specification.

The invention relates to a pneumatic feeding mechanism for a machine for branding or printing veneer, and is a division of an application, filed on or about Feb. 21, 1908, Serial No. 417,167, for the said machine.

The object of the present invention is to improve the construction of feeding mechanism, and to provide simple, inexpensive and efficient pneumatic feeding mechanism for feeding veneer into a machine, adapted to take the veneer from the top of a pile or stack, whereby the veneer is handled with greater facility and rapidity, and without the injury resulting from the feeding of the veneer from the bottom of a pile or stack by mechanical means.

With these and other objects in view, the invention consists in the construction and combination of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended; it being understood that various changes in the form, proportion, size and minor details of construction, within the scope of the claims, may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawings:—Figure 1 is a side elevation of a veneer branding machine, constructed in accordance with this invention. Fig. 2 is a similar view, showing the other side of the machine. Fig. 3 is a plan view of the machine. Fig. 4 is a rear elevation of the machine, the rear veneer-receiving receptacles being removed. Fig. 5 is a central longitudinal sectional view of the same. Fig. 6 is an enlarged vertical sectional view, taken substantially on the line 6—6 of Fig. 2, and illustrating the construction of the oscillatory intermittently operated suction mechanism. Fig. 7 is a detail sectional view, taken substantially on the line 7—7 of Fig. 6. Fig. 8 is a detail view of one of the crank wheels. Fig. 9 is a detail view of the adjustable sprocket wheel of the gearing for operating the feeding mechanism. Fig. 10 is a sectional view of the same. Like numerals of reference designate corresponding parts in all the figures of the drawings.

The veneer to be branded is placed upon a vertically reciprocable table 1, arranged at a slight inclination and provided with a plurality of longitudinally disposed magazines or compartments 2, adapted to receive sheets 3 of veneer, arranged in the form of a stack or pile, as clearly illustrated in Fig. 5 of the drawings.

The machine is shown equipped with five separate veneer-receiving magazines or compartments, and is adapted to brand simultaneously five long narrow strips of veneer, but it will be readily understood that the table may be constructed to accommodate veneer of any size. The magazines or compartments are formed by longitudinal walls or partitions, and are provided with front walls 4, which terminate short of the upper edges of the side walls or partitions.

The table is mounted upon a cross head 5, provided with an inclined upper face to support the table at an inclination and having vertical end flanges 6, extending longitudinally of the cross head and arranged in vertical guide ways, consisting of slots 7, formed in the sides of the frame of the machine at the front thereof, as clearly illustrated in Figs. 1, 2 and 5 of the drawings. The cross head is also equipped at its ends with horizontal pivots or tramlines 8, and it is connected with crank wheels 9 by adjustable connecting rods 10. The crank wheels, which are mounted on a front transverse shaft 11, are located at opposite sides of the machine, and the adjustable connecting rods are provided with means for varyng their length to adjust the table to position the same properly with relation to the feeding mechanism, hereinafter described.

The crank disks or wheels are provided opposite the wrist pins 12 with heavy or weighted portions 13 for counter-balancing the crank wheels. The counter-balancing weights are formed by increasing the thickness of the heavier half of the wheels, which are equipped with curved guards 14, secured at their terminals to the weighted portions of the crank wheels in recesses thereof and
constituting a portion of the periphery of the crank wheels to prevent the shoulders, formed by thickening the said crank wheels, from coming in contact with the operator, or other person.

5 The rotary movement of the crank wheels reciprocates the table and carries the veneer to and from the oscillatory feeding device, comprising a hollow transverse vacuum rock shaft or tube 15, a plurality of upper vacuum or suction tubes 16, and a corresponding number of lower telescopic vacuum or suction tubes 17, provided at their lower ends with veneer-engaging feet 18.

10 The hollow shaft 15, which extends across the front of the machine at the top thereof and which rocks or partially rotates, is journaled in suitable bearings 19 and is connected at its ends with fixed vacuum tubes or pipes 20, extending upwardly from the ends of the hollow shaft and then inwardly toward the median line of the machine to a main air trunk 21. The main air trunk 21, which is located above the median line of the machine, may be arranged at any other convenient point and is connected with a rotary exhaust fan (not shown), which exhausts the air in the main air trunk and creates a suction in the vacuum or suction tubes.

15 The shaft 15, which is provided adjacent to the inner sides of the bearings 19 with shoulders 22, is extended outwardly beyond the bearings into sleeves 23, having inner attaching portions 24, and provided at their outer ends with annular flanges 25. The lower ends of the pipes 20 are provided with annular flanges 26, which are secured to the flanges 25 by means of screws 27, or other suitable fastening devices, suitable packings 28 of rubber, or other material being interposed between the flanges 25 and 26. The screws 27 also pierce metallic collars 29, which are fitted against the outer faces of the flanges 26 to reinforce and clamp the same. By this construction air tight joints between the hollow shaft and the vacuum tubes or pipes 20 are provided.

20 The hollow shaft 15 is provided at the bottom with projecting ribs or bosses 30, and the tubes 16, which depend from the hollow shaft, are provided at their upper ends with flanges 31, secured to the ribs or bosses by screws 32, or other suitable fastening devices. The depending tubes 16 are provided with reduced lower portions 33 to receive the lower telescopic tubes 17, which are provided at their upper ends with annular flanges or enlargements 34, arranged to engage interior shoulders 35, formed by interiorly reducing the lower portions of the depending tubes. The shoulders 35 serve as stops for limiting the downward movement of the telescopic tubes, and the tubes 16 and 17 form extensible suction devices, and are adapted to accommodate themselves to the reciprocation of the table with varying quantities of veneer in the magazines thereof. Each foot 38 is in the form of a cap having a reduced upwardly extending threaded portion or neck 39 to screw on the lower end of the telescopic tubes, whereby the foot is attached to the same. The bottom of the foot is flat and is provided with a plurality of apertures 37, through which the air is drawn by the exhaust fan. The suction created by the exhaust fan enables each telescopic tube to securely grip and hold a sheet of veneer. When the table is moved upwardly, the veneer is carried into engagement with the telescopic members of the suction devices, and the top sheets of veneer are retained by the same when the table moves downwardly away from the suction devices.

30 The oscillatory pneumatic feeding device, which engages the sheets of veneer at a point intermediate of the ends thereof, is swung inwardly or rearwardly to feed or deliver the veneer to the carrying mechanism, which conveys the veneer to the branding dies. Motion is communicated from the front of the cross head to the hollow shaft by means of a rod 38 and an arm 39. The rod is connected at its lower end with a horizontal pivot 40 of the cross head by means of a shank or piece 41 into which the lower end of the rod is screwed, a jam nut 42 being provided to prevent the rod from accidentally unscrewing. The arm 39, which extends forwardly or outwardly from the hollow shaft, is secured to the latter by means of a clamp 43, and its outer end 44 is bifurcated and is provided with opposite bearings to receive a pin or pivot 45, through which the rod 38 passes. The upper portion 46 of the rod is threaded to receive a pair of nuts 47, which adjustably position a cushion 48 on the rod. A metallic washer 49 is interposed between the nuts and the cushion to form a backing for the latter. The rod 38, which is adapted to slide through the perforation 50 of the pin or pivot 45, carries a coiled spring 51, interposed between the nut 42 and the pin or pivot 45 and arranged to be compressed when the rod moves upward independently of the arm, after the latter has reached the limit of its upward movement. The arm is swung downwardly by the rod 38 to feed the veneer inwardly, and the said rod forms a substantially rigid connection between the feeding device and the gearing during such movement of the former, the buffer or cushion 48 being in engagement with the pin during such movement of the feeding device.

35 The return or forward movement of the feeding device is effected through the spring 51, and a plurality of horizontally disposed coiled springs 52, arranged in advance of
the tubes 16, and secured at their rear ends to the same, and connected at their front ends to a transverse portion 53 of a substantially U-shaped frame 34. The tubes 16 are provided at their front sides with eyes, to which the rear ends of the coiled springs 52 are connected, and the U-shaped frame, which is composed of two short sides and the transverse connecting portion 53, is provided at the latter with depending lugs 55, to which the outer or front ends of the springs 52 are secured. These springs 52 are dis- tended, when the feeding device is swung inwardly or rearwardly, and they assist in returning the oscillatory feeding device to its initial position, and for maintaining the same in such position, while the veneer is being carried upward to the telescopic members. The forward or return movement of the oscillatory feeding device is limited by means of a transversely disposed buffer 56, extending across the front of the machine and consisting of a strip of rubber, or other suitable material, mounted in the groove of a channel bar 57. The channel bar 57, which is composed of upper and lower sides or flanges, and a connecting portion, is provided at the said sides or flanges with segmental recesses 58, arranged at intervals and located opposite the tubes 16, and adapted to expose portions of rubber, and to arrange the metallic portions beyond the feeding device to prevent the channel bar from being struck by the tubes 16. The crank wheels rotate in the direction of the arrow in Fig. 2 of the drawings, and when the wrist pin moves upwardly at the inner or rear side of the crank wheels, the table is moved upwardly and the oscillatory feeding device is moved forwardly, or in the direction of the front of the machine. The oscillatory feeding device is at the limit of its forward movement, and in engagement with the buffer 56, when the table is at the center of its stroke, and the wrist pin is midway between the top and bottom of the crank wheels. Further upward movement of the wrist pin carries the cushion 48 away from the pin or pivot 45, which is engaged and held against downward movement by the spring 51. The coiled spring 51 gradually increases in tension with the upward movement of the table, and the feeding device is held tightly at the limit of its forward movement and is caused to engage the veneer at the same point during each operation of the machine, so that the veneer will be uniformly fed to the carrying means. The spring constitutes a yieldable connection between the feeding mechanism and the operating mechanism, while the table is moving upward independently of the said feeding mechanism. The first half of the downward throw or movement of the connecting rod 10 returns the cushion 48 to the position shown in Fig. 2 of the drawings, and the second half swings the feeding mechanism rearwardly from the forward position illustrated in full lines in Figs. 2 and 5 of the drawings to the dotted position shown in Fig. 5. The first half of the upper throw or movement of the connecting rod swings the feeding mechanism upwardly.

The branding, which is fully illustrated, described and claimed in the aforesaid application, occurs during the second half of the upward stroke or movement of the connecting rod and the first half of the downward throw or movement, while the feeding mechanism is at the limit of its forward movement.

Motion is communicated to the shaft 11 by sprocket gearing, consisting of a longitudinally disposed sprocket chain 60, and front and rear sprocket wheels 61 and 62. The front sprocket wheel 61, which is arranged on the shaft 11, is adjustably secured to a disk 63, provided with an annular series of perforations 64 and keyed, or otherwise secured to the shaft 11. The perforations are adapted to receive screws 65, which engage threaded perforations 66 of the sprocket wheel 61. The adjustment of the sprocket wheel 61 enables the feeding mechanism to be operated to feed the veneer at the proper time. Any other suitable means, however, may be employed for adjustably mounting the front sprocket gear on the shaft 11, and if desired, other gearing may be employed for communicating motion to the crank wheels.

The veneer is conveyed to and from the branding mechanism by means of lower front and rear continuously rotating wheels 67 and 68, arranged in transverse series and mounted on transverse shafts 69 and 70, and operating with upper front and rear idlers or gravity wheels 71 and 72. The shafts 69 and 70 are journaled in suitable bearings of the sides of the frame, and they are equipped with spur wheels 73 and 74, which mesh with a large spur gear wheel 75, mounted on a shaft 76 and also meshing with a gear 77 of a counter shaft 78. The shaft 78 is also provided with a pulley 79, which receives a driving belt 80, extending downward through the floor to a suitable driving pulley. The machine will generally be arranged on one of the upper floors of a factory, but it may be operated at any other place, and the driving belt will be arranged to correspond to the position of the machine with relation to the driving shaft. The rear sprocket wheel 62 is mounted on the shaft 76, and the gear 75 rotates in the direction of the arrow in Fig. 1 of the drawings. This rotates the wheels 67 and 68 in the proper direction for carrying the veneer to and from the branding mechanism. The upper flight or stretch of the sprocket chain
10 also travels forwardly or in the direction of the front of the machine, and this secures the operation of the crank wheels heretofore explained.

The front and rear veneer, carrying wheels 67 and 68, which are arranged in spaced relation, as clearly illustrated in Figs. 3 and 4 of the drawings, extend in advance and in rear of a transversely disposed bed plate 81, and the upper gravity wheels, which yieldably hold the veneer in engagement with the lower positively driven wheels, are journaled between oscillatory arms 82 and 83, arranged in pairs and connected by sleeves, mounted on front and rear transverse rods 84 and 85. The gravity wheels 71 and 72 exert a sufficient pressure on the veneer to secure a positive and rapid movement of the same through the machine, when the veneer is free to move, and they enable the movement of the veneer through the machine to be arrested during the branding operation, without stopping the rotary movement of the carrier wheels 67 and 68.

The tensile strength of the veneer is sufficient to enable this result to be accomplished without injury to the material.

The veneer is delivered to the feeding wheels by the oscillatory feeding device, which introduces the inner end of the veneer between the upper and lower wheels 71 and 67. The veneer is gripped by the front carrying wheels with sufficient force to engage it with the suction devices, and it is rapidly carried rearwardly through the machine until its movement is arrested. The veneer is moved across the top of the bed plate, which is equipped with burners 92, and during the passage of veneer across the said plate, the sheets of veneer are first gripped by a series of clamping plungers 108 and are then engaged by a series of branding plows 110, and finally expelled in the foresaid application. As soon as the veneer is released by the clamping plungers, the carrying wheels rapidly complete the movement of the veneer through the machine and discharge the veneer upon the rear table 135 having compartments 136 from which the veneer may be readily removed.

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

1. In a machine of the class described, the combination with a frame having guides, a table mounted in the guides and adapted to hold a stack or pile of veneer, actuating mechanism including a continuously rotating crank element connected with the table for continuously reciprocating the same in an upward and downward direction, and feeding means arranged in the path of the table and movable at an angle to the direction of the movement of the table.
tubes being movable at an angle to the direction of the movement of the table and adapted to feed the veneer therefrom.

7. In a machine of the class described, the combination of a table slidable upwardly and downwardly and arranged to hold veneer, means for guiding the table in the sliding movement thereof, actuating mechanism for continuously reciprocating the table in an upward and downward direction, a pendulum oscillatory extensible veneer feeding device pivotally hung directly above the table and arranged in the path of the same, said feeding device being movable at an angle to the direction of the movement of the table for feeding the veneer therefrom.

8. In a machine of the class described, the combination of a table arranged to hold a stack or pile of veneer, actuating mechanism connected with the table for continuously reciprocating the same in an upward and downward direction, an extensible feeding device pivotally hung at a point directly above the table, and means for connecting the feeding device with the table for oscillating the feeding device in an angle to the direction of the movement of the table, the latter means also permitting the table to move independently of the feeding means.

9. In a machine of the class described, the combination of a table adapted to hold a stack or pile of veneer, a pendulum pivotally hung feeding device located above and arranged to oscillate over the table to feed the veneer and provided with an extensible suction device, means actuated by the table for positively swinging the feeding device to move the same from the table to feed the veneer, and yieldable means for swinging the feeding device toward the table.

10. In a machine of the class described, the combination of a table slidable upwardly and downwardly and provided with a plurality of veneer receiving magazines or compartments, means for guiding the table in its sliding movement, actuating mechanism connected with the table for continuously reciprocating the same, a suction or vacuum shaft located directly above the table and forming a pivot, and a plurality of suction tubes depending from and communicating with the suction or vacuum shaft, and means for connecting the shaft with the table for rocking the shaft to swing the tubes at an angle to the direction of the movement of the table.

11. In a machine of the class described, the combination of a table arranged to receive a stack or pile of veneer, an oscillatory suction device located above the table and provided with an arm, means for raising and lowering the table to carry the veneer toward and from the suction device, a rod connected with the table and having a slidable connection with the said arm and provided with means for engaging the same to positively move the feeding device in one direction, and a spring disposed on the rod and yieldably engaging the arm to move the feeding device in the opposite direction.

12. In a machine of the class described, the combination of a frame provided with guides, a table mounted in the guides and movable upwardly and downwardly, a hollow vacuum rock shaft mounted on the frame and located above the table and provided with a depending suction device for feeding the veneer from the table into the machine, an arm extending from the rock shaft, a rod connected with the table and provided with adjustable means for engaging the arm to move the rock shaft in one direction, a spring disposed on the rod for moving the arm in the opposite direction, and gearing provided with means for reciprocating the table in the said ways.

13. In a machine of the class described, the combination of a frame provided with guides, a table mounted in the guides and movable upwardly and downwardly, a hollow vacuum rock shaft mounted on the frame and located above the table and provided with a depending suction device for feeding the veneer from the table into the machine, an arm extending from the rock shaft, a rod connected with the table and provided with adjustable means for engaging the arm to move the rock shaft in one direction, a spring disposed on the rod for moving the arm in the opposite direction, a stop arranged in the path of the suction device for limiting the movement thereof in one direction, and means for reciprocating the table in the said ways.

14. In a machine of the class described, the combination of a frame provided with guides, a table mounted in the guides and movable upwardly and downwardly, a hollow vacuum rock shaft mounted on the frame and located above the table and provided with a depending suction device for feeding the veneer from the table into the machine, an arm extending from the rock shaft, a rod connected with the table and provided with adjustable means for engaging the arm to move the rock shaft in one direction, a spring disposed on the rod for moving the arm in the opposite direction, a stop arranged in the path of the suction device for limiting the movement thereof in one direction, a spring connected with the suction device and arranged to be placed under tension by the movement of the said device from the stop, and means for reciprocating the table.

15. In a machine of the class described, the combination of a frame provided with ways, a table movable along and guided by the ways, a vacuum rock shaft mounted above the table and provided with a depend-
ing suction device, means for communicating motion from the table to the rock shaft and for permitting the former to move independently of the latter, a buffer arranged in the path of the suction device, and a spring connected with the suction device and arranged to be placed under tension by the movement of the suction device from the buffer.

16. In a machine of the class described, the combination of a frame provided with guides, a cross head slideable in the guides, a table mounted on the cross head, a pivotally hung oscillatory feeding device located above the table in the path of the same, and gearing for reciprocating the table including a crank element, and pitman connections between the crank element and the table.

17. In a machine of the class described, the combination of a frame provided with guides, a cross head slideable in the guides, a table mounted on the cross head, a pivotally hung oscillatory feeding device located above the table in the path of the same, gearing for reciprocating the table including a crank element, and pitman connections between the crank element and the table, and means for adjusting one of the elements of the gearing to feed the veneer at the proper time.

18. In a machine of the class described, the combination of a table adapted to hold a stack or pile of veneer, actuating means connected with the table for continuously reciprocating the same in an upward and downward direction, a hollow vacuum rock shaft forming a pivot and located directly above the table, a depending suction tube composed of an upper tube having its upper end fixed to the shaft and communicating therewith and a lower telescopic tube carried by the lower portion of the upper tube and provided with a veneer engaging foot, and means for connecting the rock shaft with the table for actuating the former to oscillate the suction device at an angle to the direction of the movement of the table.

19. In a machine of the class described, the combination of a table, a hollow vacuum rock shaft, and a depending suction device composed of an upper tube having its upper end fixed to the said shaft and communicating therewith and provided with a reduced lower portion forming an interior shoulder, a lower tube slideable in the lower portion of the upper tube and provided at its upper end with means for engaging the said shoulder and supported by the latter and having a veneer-engaging foot.

20. In a machine of the class described, the combination of a frame, a vertically movable table, a rock shaft having a plurality of depending suction devices located above the table, means for moving the table upwardly and downwardly and for rocking the said shaft, a buffer arranged in the path of the suction device, a bracket mounted on and extending from the frame, and springs connected with the suction devices and with the bracket.

21. In a machine of the class described, the combination of a frame having guides, a table slideable in the guides, a pivotally mounted pendant feeding device located above the table in the path of the same, an arm connected with the feeding device, means for reciprocating the table in the guides, and connections between the table and the said arm for oscillating the feeding device.

22. In a machine of the class described, the combination of a frame having guides, a table slideable in the guides, a pivotally mounted pendant feeding device located above the table in the path of the same, an arm connected with the feeding device, a pitman connected with the table for reciprocating the same, and connections between the table and the said arm for oscillating the feeding device.

23. In a machine of the class described, the combination of a frame having guides, a table slideable in the guides, means including a continuously rotating crank element connected with the table for reciprocating the same, a feeding device arranged above the table in the path of the same, and means for communicating motion from the table to the feeding device to oscillate the same back wardly and forwardly to and from the path of movement of the table.

24. In a machine of the class described, the combination of a table slideable upwardly and downwardly and adapted to hold a stack or pile of veneer, means for guiding the table in its sliding movement, actuating mechanism connected with the table for continuously reciprocating the same, feeding means movable backwardly and forwardly to and from the path of movement of the table, and means for positively actuating the feeding means in one direction and for yieldingly urging the same in the opposite direction.

25. In a machine of the class described, the combination of a table slideable upwardly and downwardly, means for guiding the table in the sliding movement thereof, actuating mechanism connected with the table for continuously reciprocating the same, an oscillatory feeding device pivotally hung directly above the table and arranged to swing backwardly and forwardly to and from the path of movement of the table, and means for positively actuating the feeding device in one direction and for yieldingly urging the same in the opposite direction.

26. In a machine of the class described, the combination of a table, actuating mech-
anism connected with the table for continuously reciprocating the table in an upward and downward direction, an oscillatory feeding device, and means for connecting the feeding device with the table for actuating the former simultaneously with the latter, said connecting means having a yieldable connection.

27. In a machine of the class described, the combination of a table movable upwardly and downwardly and adapted to hold a stack or pile of veneer, means for guiding the table to prevent tipping of the stack or pile, a feeding device arranged in the path of the table and movable at an angle to the direction of movement of the table, and means for actuating the feeding device including a reciprocatory rod connected at one end to the table and having a relatively rigid portion arranged to engage and move the feeding mechanism away from the stack or pile, said rod being also provided with a cushion arranged to yieldably urge the feeding mechanism toward the stack or pile.

28. In a machine of the class described, the combination with a table adapted to hold a stack or pile of veneer, and a feeding device, said parts having relative upward and downward movement and also a relative movement at an angle to such upward and downward movement, of means for producing such relative movement including a continuously rotating crank element connected with the table, and a reciprocatory rod connected at one end to the table and provided with rigid and yieldable portions arranged to positively move the feeding mechanism away from the stack or pile and yieldably urge the feeding mechanism toward the stack or pile, and means for guiding the table to prevent tilting of the stack or pile.

29. In a machine of the class described, the combination of a table movable upwardly and downwardly and adapted to hold a stack or pile of veneer, means for guiding the table to prevent tilting of the stack or pile, a feeding device arranged in the path of the table and arranged at an angle to the direction of movement of the table, and means for actuating the feeding device including a rod connected at one end to the table and provided with a relatively rigid portion arranged to engage and positively move the feeding mechanism away from the stack or pile, said rod being also provided with a cushion arranged to yieldably urge the feeding mechanism toward the stack or pile.

30. In a machine of the class described, the combination of a table movable upwardly and downwardly and adapted to hold a stack or pile of veneer, means for guiding the table to prevent tilting of the stack or pile, feeding mechanism arranged in the path of the table and movable at an angle to the same, said feeding mechanism being provided with an arm, and means for actuating the feeding mechanism including a reciprocatory rod connected at one end to the table and having a sliding connection with the said arm and provided with a relatively rigid portion arranged to engage the arm for positively moving the feeding mechanism away from the stack or pile, said rod being also provided with a cushion located at the opposite side of the arm and adapted to actuate the same to yieldably urge the feeding mechanism toward the stack or pile.

31. In a machine of the class described, the combination of a frame having guides, a table slidable upwardly and downwardly in the guides and adapted to hold a stack or pile of veneer, a rotary crank element located below the table, a pitman connected with the crank element and with the table for reciprocating the latter, and feeding means located above and arranged in the path of the table and movable at an angle to the direction of movement of the table.

32. In a machine of the class described, the combination of a frame, a table adapted to hold a stack or pile of veneer and slidable upwardly and downwardly, means for guiding the table in such sliding movement, a rotary crank element connected with the table for reciprocating the same, feeding means arranged in the path of the table and movable at an angle to the direction of movement of the table, and means for actuating the feeding means including a movable member connected with the table and provided with relatively rigid means for moving the feeding mechanism in one direction and having a spring arranged to yieldably urge the feeding mechanism in the opposite direction.

33. In a machine of the class described, the combination of a frame, a table adapted to hold a stack or pile of veneer and slidable upwardly and downwardly, means for guiding the table in such sliding movement, a rotary crank element connected with the table for reciprocating the same, feeding means arranged in the path of the table and movable at an angle to the direction of movement of the table, and means for actuating the feeding means including a reciprocatory rod or member connected with the table and having a sliding connection with the feeding means and provided at one side of the slidable connection with a relatively fixed engaging portion for moving the feeding means in one direction, and a cushion carried by the rod or member and located at the opposite side of the slidable connection for yieldably urging the feeding means in the opposite direction.
34. In a machine of the class described, the combination of a frame, a table adapted to hold a stack or pile of veneer and slideable upwardly and downwardly, means for guiding the table in such sliding movement, a crank element connected with the table for reciprocating the same, a pendant pivotally mounted oscillatory feeding device located above the table and arranged in the path of the same and slideable at an angle to the direction of movement of the table, said feeding device having an arm, and means for transmitting motion from the table to the feeding device including a member slidably connected with the arm and provided at one side of the slideable connection with a relatively rigid portion for engaging the arm to move the feeding device in one direction, and a cushion carried by the said member and located at the opposite side of the slideable connection for yieldably urging the feeding device in the opposite direction.

35. In a machine of the class described, the combination of a frame, a table slideable upwardly and downwardly and adapted to hold a stack or pile of veneer, means for guiding the table in such sliding movement, a pendant oscillatory feeding device located above the table and arranged in the path of the same, means for transmitting motion from the table to the feeding device including a reciprocatory member connected with and actuated by the table and having a slideable connection with the feeding device and carrying a cushion for actuating the feeding device.

36. In a machine of the class described, the combination of a frame having guides, a table slideable upwardly and downwardly in the guides and adapted to hold a stack or pile of veneer, a rotary crank element located below the table, a pitman connected with the crank element and with the table for reciprocating the latter, a feeding device arranged above the table in the path of the same and means extending upwardly from the table to the feeding device for moving the said feeding device backwardly and forwardly to and from the path of the table.

37. In a machine of the class described, the combination of a frame, a table adapted to hold a stack or pile of veneer and slideable upwardly and downwardly, a rotary crank element located below the table, a pitman connected with the crank element and with the table for reciprocating the latter, feeding means located above the table and movable backwardly and forwardly to and from the path of the same, a reciprocatory rod or member extending upwardly from the table to the feeding device and provided with means for positively moving the same in one direction and for yieldably urging the feeding means in the opposite direction.

38. In a machine of the class described, the combination of a frame, a table slideable upwardly and downwardly and adapted to hold a stack or pile of veneer, a feeding device located above the table and movable backwardly and forwardly into and out of the path of the same, a rotary crank element located below the table, and reciprocatory means for transmitting motion from the crank element to the table and to the feeding device, said reciprocatory means including a cushion for yieldably urging the feeding device in one direction and permitting an independent movement of the table.

In testimony that I claim the foregoing as my own, I have hereunto affixed my signature in the presence of two witnesses.

Witnesses:

PERRY H. MOORE,
LEWIS EBERLY.

Orin C. Fenlason.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."