T. J. GILLIAM.

SHAPING MACHINE.

APPLICATION FILED JAN. 11, 1910.

975,946.

Patented Nov. 15, 1910.

2 SHEETS—SHEET 1.

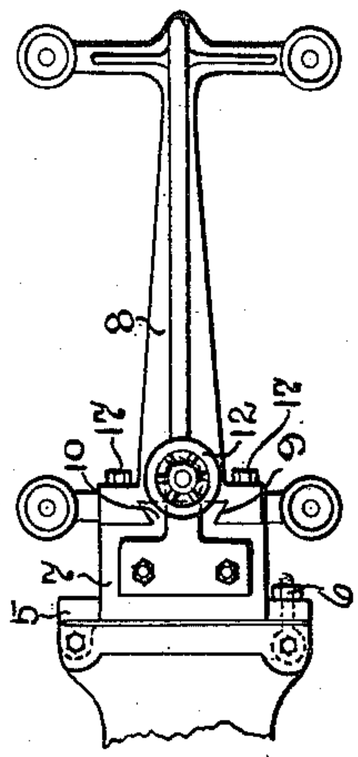

Fig. 2

Fig. 1

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2 SHEETS—SHEET 2.

FIG. 4

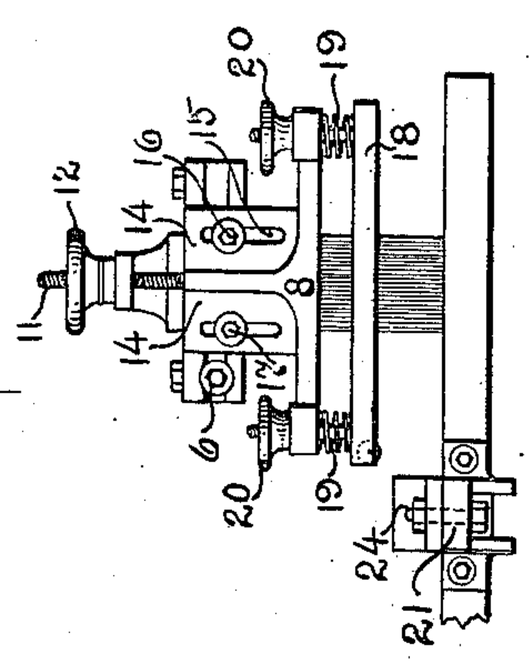


FIG. 5

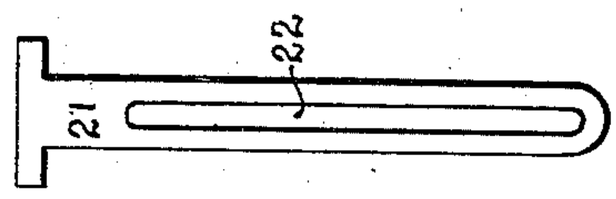
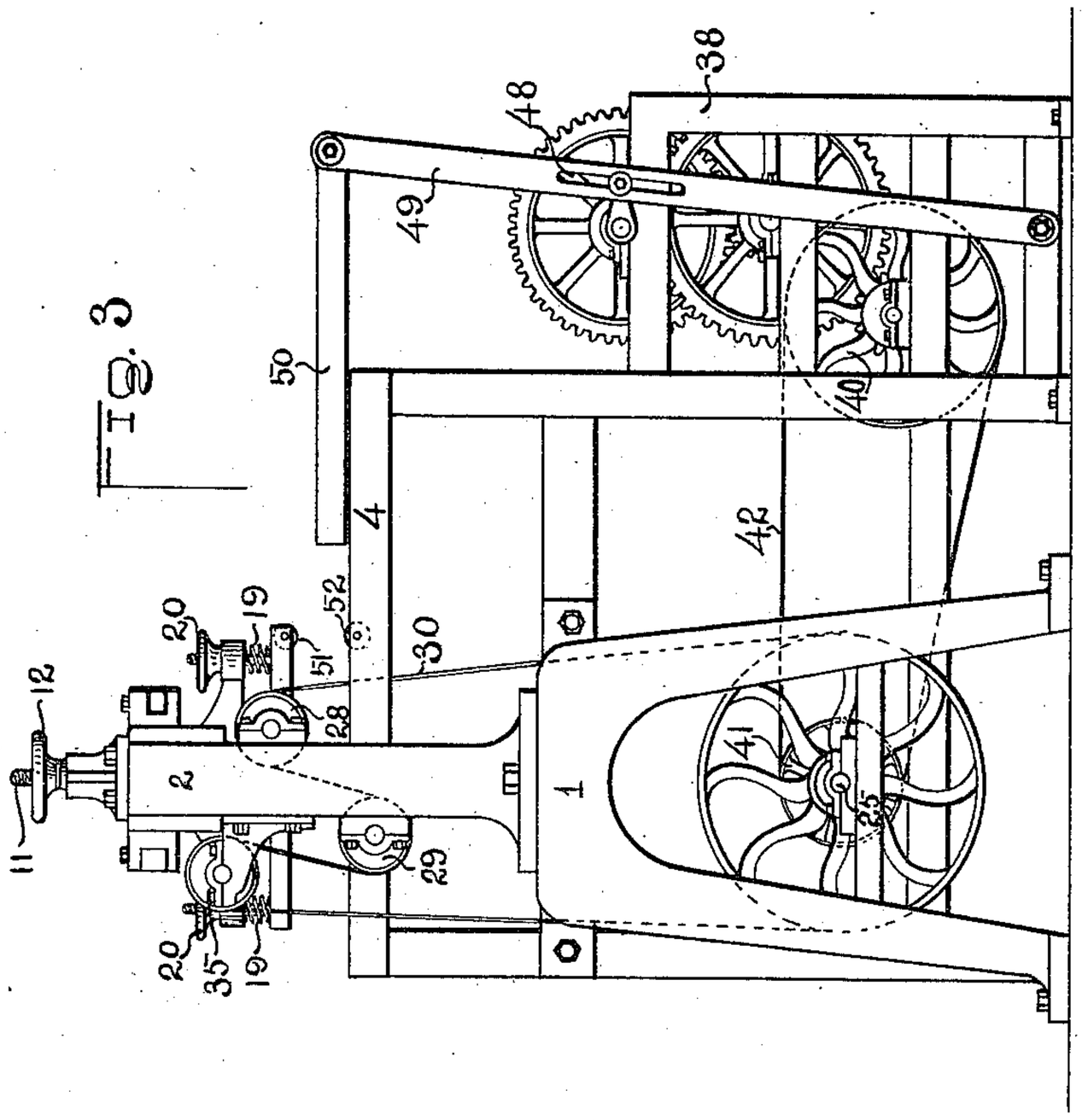


FIG. 3



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UNITED STATES PATENT OFFICE.

THOMAS J. GILLIAM, OF HOUMA, LOUISIANA.

SHAPING-MACHINE.

975,946. Specification of Letters Patent. Patented Nov. 15, 1910.

Application filed January 11, 1910. Serial No. 537,455.

To all whom it may concern:

Be it known that I, THOMAS J. GILLIAM, a citizen of the United States, residing at Houma, in the parish of Terrebonne and State of Louisiana, have invented certain new and useful Improvements in Shaping-Machines; and I do hereby 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.

My invention relates to new and useful improvements in shaping machines and more particularly to the class of machines adapted for shaping the heads of fence pickets and the like and my object is to provide a machine that allows the blanks to be inserted in numbers upon the edges thereof.

A further object is to provide a device that in shaping the heads of the pickets will not tear the grain and a still further object is to provide a machine that will automatically push the blanks in position to be headed.

A further object is to provide means for the holding of the blanks in position while being headed and a still further object is to provide means for the heading of pickets and the like of all shapes and sizes.

Other objects and advantages will be hereinafter referred to and more particularly pointed out in the specification and claims.

Referring to the drawings forming a part of this application, Figure 1 is a front elevation of the complete machine, showing the manner in which a picket is applied thereto. Fig. 2 is a top plan view of the pedestal and swinging arm. Fig. 3 is an end elevation of the machine. Fig. 4 is an end elevation of a section of the machine showing the adjustable arm and pressure bars carried thereby. Fig. 5 is a plan view of the slotted arm carried by the bed of the machine.

Similar reference characters designate corresponding parts throughout the several views.

In carrying out my invention, 1 indicates a base or pedestal upon which is superposed a frame 2 having an extension 3 thereon, the bed or table 4 of the machine proper being positioned intermediately of said pedestal and extension 3.

Secured to one end of the extension 3 by means of hinge 5 and held by means of latch 6, is a stock 7 and mounted thereon is a vertically adjustable arm 8, said arm having a groove 9 engaging a tongue 10 of said stock 7. The arm 8 has extending upwardly therefrom, a threaded bolt 11 engaging a nut 12 carried by the arm 13 mounted on said stock, whereby when said nut is turned, said arm is raised or lowered.

The portions 14 of the arm adjacent the groove engaging the tongue on said stock have the vertically disposed slots 15 therein through which extend bolts 16 carried by said stock and nuts 17 are adapted to engage said bolts, whereby when said arm has been positioned to the predetermined height, said nuts may be tightened and the arm securely held.

Carried by the arm 8 and extending at right angles thereto at the portion adjacent said stock 7 and also at the extreme end of said arm are the pressure bars 18, said bars being vertically adjustable through the medium of spring encompassed adjusting screws 19 engaging nuts 20. The arm, it will be seen extends longitudinally and the under face thereof parallel to the bed 4 of the machine, and secured to the end of the bed, beyond said arm, is an additional extension arm 21, said arm being approximately T shaped and having the elongated slot 22 therein. Mounted on said extension arm and securely held by means of the bolt 23 inserted through said slot 22 is the adjustable stop 24, whereby it will be seen that any length blank may be inserted in the machine and held firmly into position until grasped by the pressure bars.

A counter shaft 25 mounted in bearings on said pedestal or base 1 and extending longitudinally therethrough, has mounted thereon, the main driving pulley 26 and secondary pulley 27, the last referred to pulley driving the pulleys 28 and 29 through the medium of a belt 30, said pulleys 28 and 29 being mounted on shafts 31 and 32 which are in turn mounted in the bearings 33 of the superposed frame 2. An additional shaft 34 on said frame 2 carries a pulley 35 which is used as a tightener for the belt 30 and mounted on the spindles 36 of the shafts 31 and 32 are the rotary cutters 37, here shown in a peculiar shape but which may be substituted by any form of cutter in any shapes whatsoever, as my invention does not call for any particular form of cutter.

A frame 38 extending from the main portion of the machine has mounted therein the shaft 39 carrying the pulley 40 driven

by an additional pulley 41 on the counter shaft 25, through the medium of a belt 42. A second shaft 43 mounted in bearings 44 on the upper portion of said last referred to frame has mounted thereon the gear 45 and driven by the gear 46 on the shaft 39 through the medium of intermediate gearing. Extending from the ends of said shaft 43 are the cranks 47 inserted and held within slots 48 of the vertically extending levers 49 which are pivotally mounted at their lower ends to the lower portions of said frame and pivotally mounted to the upper ends of said levers are horizontal extending push rods 50 resting upon the bed 4 of the machine. As the machine is driven, it will be seen that the levers 49 are reciprocated driving the push rods 50 backward and forward thereby driving the blanks under the pressure bars 18 and to prevent the slipping or backing of the blanks after once having been engaged by said pressure bars, the rollers 51 have been inserted in the ends of said pressure bars and additional rollers 52 mounted in the bed of the machine.

In operation, the operator after having adjusted the arm 8 and the pressure bars 18 to the correct height and the stop 24 to the correct length of the blanks, the machine is started and said blanks placed in small numbers upon their edges in the bed 4 of the machine. The push rods 50, being reciprocated, will force the blanks over the rollers 52 and under the pressure bars 18 as though they were a single block and the ends thereof engaged with the rotary cutters 37. As the push rods 50 are drawn in their backward movement, the operator again places a number of blanks upon the bed and upon the return movement of said push rods, said blanks will be in turn forced under pressure bars and into engagement with the cutters, while the previously inserted blanks will have been headed and passed out on the other side of the machine beyond the cutters. This action is continued until the desired number of pickets has been completed.

It will be seen that upon inserting a number of pickets upon their edges and having them engaged with the cutters as though they were a single block, the customary tear and splitting of the grains will be obviated. It will further be seen that by providing the adjustable arm carrying the adjustable pressure bars, any width picket may be headed and by providing an adjustable stop any length blank may be inserted within the machine. It will still further be seen that I have provided a means for the automatic forcing of the blanks into and out of engagement with the cutters and by providing rollers in the pressure bars and in the bed of the machine the slipping or backing of the blanks is prevented. It will still further be seen that although I have shown my machine as applied to fence pickets, I do not limit myself to just such devices but may use the machine in connection with the shaping of woods used in any connection whatsoever.

What I claim is:—

1. In a shaping machine of the class described, the combination with a frame having cutters thereon; of a vertically adjustable arm carried by said frame and also adapted to be swung laterally, spring-held pressure bars carried by said arm and extending at right angles thereto, means to automatically force the material to said pressure bars, and driving means therefor.

2. In a shaping machine, the combination with a frame having cutters thereon; of an arm extending longitudinally of said frame, means to vertically adjust said arm, said arm being also adapted for lateral swinging movement, pressure bars carried by said arm and extending at right angles thereto, additional means to vertically adjust said pressure bars, automatic means to force the material to said pressure bars, and driving means therefor.

3. In a shaping machine, the combination with a frame having cutters thereon and a stock pivotally secured to one end of an extension of said frame; of an arm carried by said stock and vertically adjustable thereon, pressure bars carried by the ends of said arm and extending at right angles thereto, and means to automatically force the material under said pressure bars.

4. In a shaping machine, the combination with a frame having an extension thereon, cutters carried by said extension and driving means therefor; of an arm carried by said extension and vertically adjustable thereon, an additional means whereby said arm may be swung laterally, pressure bars carried by said arm and adapted for vertical adjustment, and automatic means to force the material beneath said pressure bars.

5. In a shaping machine, the combination with a frame having an extension thereon, cutters carried by said extension and driving means therefor; of a stock pivotally secured at one end to said extension, an arm carried by said stock and vertically adjustable thereon, means to lock said stock to said extension, pressure bars carried by said arm, and automatic means to force the material beneath said pressure bars.

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

THOMAS J. GILLIAM.

Witnesses:
NUMA LE BLANC,
F. F. LIRETTE.