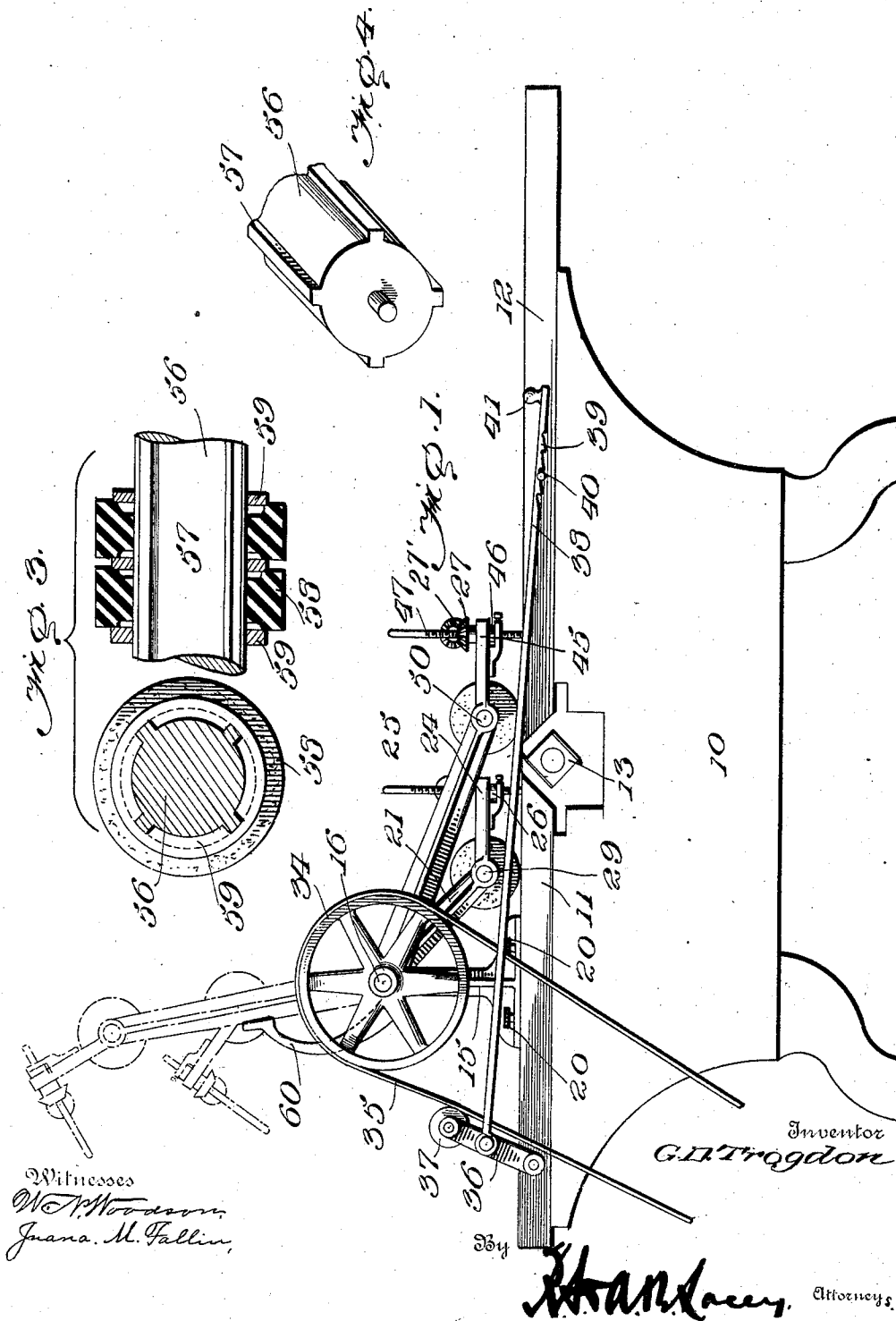


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 FEED ATTACHMENT FOR HAND JOINTERS.
 APPLICATION FILED OCT. 5, 1909.

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Patented Mar. 14, 1911.

2 SHEETS-SHEET 1.

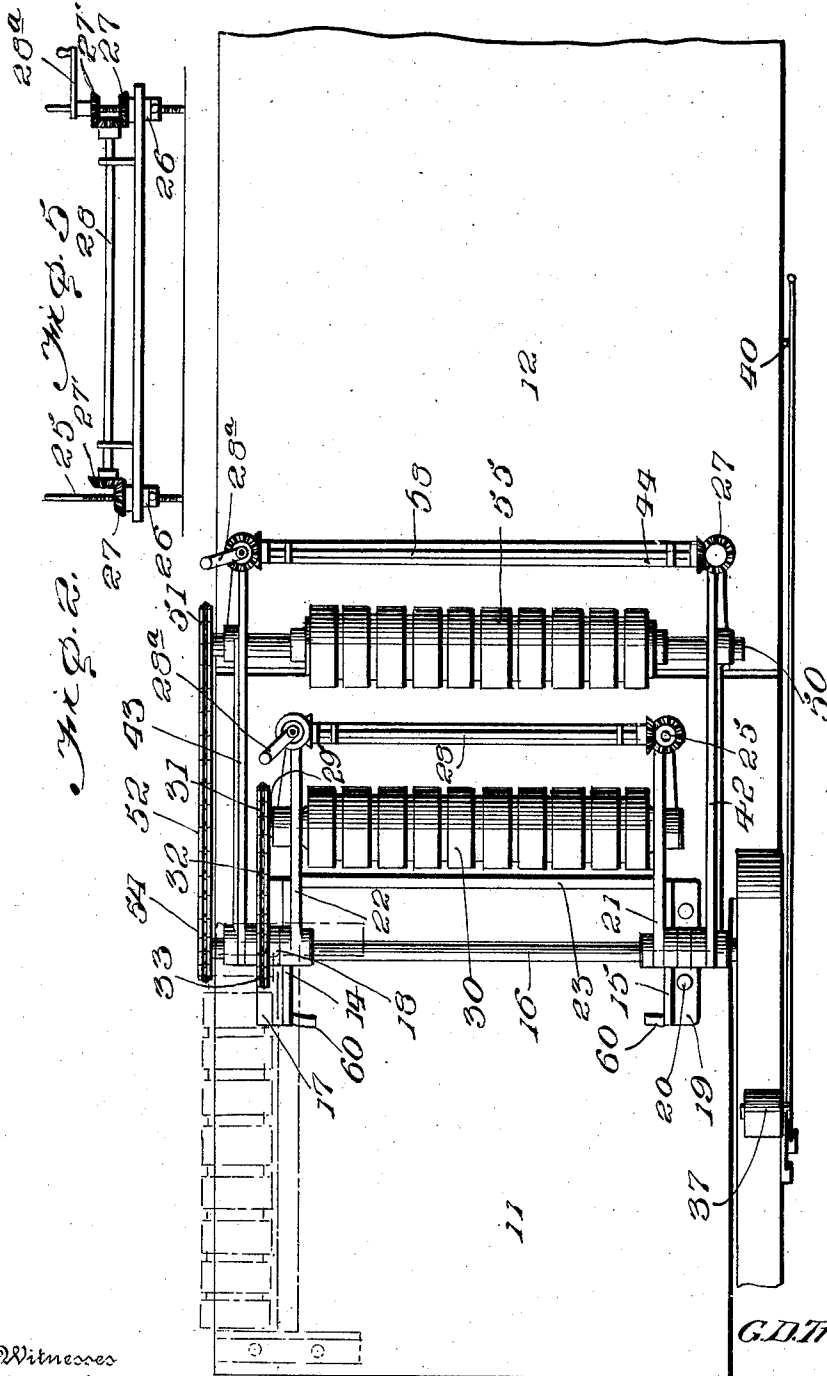


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Witnesses
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UNITED STATES PATENT OFFICE.

GEORGE D. TROGDON, OF TOCCOA, GEORGIA.

FEED ATTACHMENT FOR HAND-JOINTERS.

986,782.

Specification of Letters Patent. Patented Mar. 14, 1911.

Application filed October 5, 1909. Serial No. 521,037.

To all whom it may concern:

Be it known that I, GEORGE D. TROGDON, a citizen of the United States, residing at Toccoa, in the county of Stephens and State of Georgia, have invented certain new and useful Improvements in Feed Attachments for Hand-Jointers, of which the following is a specification.

This invention relates to hand jointers and refers to a power feed attachment for the same.

The invention has for an object a device of this character which can be readily applied to a machine to greatly increase the capacity of the machine without in any manner decreasing the quality of the work which is the out-put of the machine.

The invention has for another object the provision of an attachment of this character which will fully protect the operator and lessen the possibility of accident to him by contact of the hands of the operator with the cutting mechanism and also to provide one which is readily adjustable to accommodate boards of various thicknesses which are passed over the table.

The invention further contemplates a feed attachment of this character which is provided with novel means whereby the same can be adjusted relative to the table so as to swing the feed rollers out of operation and to dispose the complete mechanism to one side of the table for the purpose of feeding lumber in the old method when desired.

For a full understanding of the invention and the merits thereof, reference is to be had to the following description and accompanying drawings, in which;

Figure 1 is a side elevation of the jointer table having the attachment applied thereto, the same disclosing the rollers in an inoperative position in dotted lines; Fig. 2 is a top plan view of the table of a jointer having the improved feeding attachment applied thereto. Fig. 3 is a fragmentary view of the roller, disclosing transverse and longitudinal sections through the same. Fig. 4 is a detail perspective view of the core of the roller. Fig. 5 is a detail front elevation of the adjusting mechanism.

Corresponding and like parts are referred to in the following description and indicated in all the views of the accompanying drawing by the same reference characters.

Referring to the drawing; the numeral 10 designates the frame of the hand jointer

which is provided with the cooperating table sections 11 and 12 which are positioned upon the opposite sides of the cutting mechanism 13. Upon the table section 11 is disposed a pair of standards 14 and 15 which are arranged in parallel relation transversely to the table section 11 and support in their upper extremities a transverse shaft 16. The standard 14 is provided at its lower extremity with a flange 17 arranged at right angles to the same and engaged upon the upper face of the table section 11, the flange 17 being provided with a pivot pin or screw 18 which loosely engages through the flange 17 and is secured in the table section 11, to admit of the turning of the standard 14 about a vertical axis. The standard 15 is provided in a like manner with an out-turned flange 19 at its lower extremity for engagement upon the table section 11 and which is provided with set screws 20 to engage in the upper face of the table 11 to secure the standard 15 upon the table in transverse alinement with the standard 14.

Loosely mounted upon the shaft 16 and inwardly of the standards 14 and 15 is a pair of arms 21 and 22 which radially extend in parallel relation from the shaft 16 and are held in such position through the medium of a cross brace 23 disposed between the arms 21 and 22 adjacent their inner extremities. The outer ends of the arms 21 and 22 are off-set as at 24 for the reception of vertical adjusting bolts 25 which are threaded at their lower ends and engaged through threaded sockets 26 formed upon the outer ends of the off-set portions 24. The bolts 25 extend downwardly through the sockets 26 and rest at their lower ends upon the upper face of the table section 11 to adjustably support the arms 21. Each of the bolts 25 is provided with an interiorly threaded bevel pinion 27, said pinions meshing with corresponding pinions 27' keyed to the ends of a shaft 28. The shaft 28 is turned by the pinion and crank handle 28^a to adjust the distance between the off-set portions 24 and the table section 11. At the points of intersection between the off-set portions 24 and the arms 21 and 22, bearings 29 are formed to receive a transverse roller shaft 29' which supports a suitable roller 30. The roller 30 is thus transversely disposed across the upper face of the table section 11 between the arms 21 and 22, and

is adjusted vertically by shaft 28 which rotates the bolts 25 and causes the feeding of the same through the sockets 26.

The means employed for rotating the roller 30 comprises the extending of the shaft 29' beyond the arm 22 and the positioning of a sprocket 31 thereon. A chain 32 is passed backwardly from the sprocket 31 and over a sprocket 33 rigidly secured upon the shaft 16. The shaft 16 extends outwardly of the standard 14 to support the sprocket 33 in alinement with the sprocket 31. The rotation of the shaft thus imparts motion to the roller 30 in any adjusted position. The shaft 16 is provided with a suitable pulley 34 upon its opposite extremity, outwardly of the standard 15, over which is passed a belt 35 driven by any suitable source of power and which is regulated as to its tension upon the pulley 34 through the medium of the belt tightener disclosed in the drawings. The belt tightener which includes no part of this invention but which is disclosed simply for the reason of rendering the device operative, comprises a link 36 which is pivotally secured to the side of the table section 11 and extends upwardly therefrom, to rotatably support a pulley 37 for engagement against the belt 35. An adjusting rod 38 is pivotally connected to an intermediate portion of the link 36 and extends forwardly at one side of the jointer 10 and is provided in its under face with a rack 39 for adjustable engagement with a pin 40. The pin 40 is secured in the adjacent edge of the table section 12 and holds the reach rod 38 rigidly in adjusted position. A suitable handle 41 is carried upon the forward extremity of the rod 38 for manipulating the same.

The shaft 16 is provided with a pair of long arms 42 and 43 which are loosely mounted thereon and extend forwardly from the same, the long arms 42 and 43 being positioned upon the shaft 16 outwardly of the standards 14 and 15 and adjacent the extremities thereof. A cross brace 44 is positioned adjacent the outer ends of the long arms 42 and 43 for the purpose of retaining the same rigidly in parallel relation with one another. Off-set portions 45 are formed upon the outer extremities of the arms 42 and 43 which carry sockets 46 for the reception of adjusting bolts 47 which are disposed through the sockets 46 in threaded relation, and are fed through the same by sprockets 48 which are actuated by a chain 49. One of the vertical bolts 47 is provided with a crank arm 49' to rotate the same. The arms 42 and 43 rotatably support a roller shaft 50 at their outer ends, the shaft 50 being disposed transversely across the upper face of the table section 12. The shaft 50 extends outwardly beyond the arm 43 where it is provided with a sprocket 51

for the reception of a chain 52 extending backwardly and engaging over a sprocket 54 carried upon the extremity of the shaft 16. The shaft 50 is provided midway of its ends with a roller 55.

It will be noted that the sprockets 53 and 54 are of like diameter, and also that the sprockets 31 and 51 correspond in diameter, thus insuring the uniform rotation of the rollers 30 and 55.

Referring particularly to Figs. 3 and 4 in which is disclosed in detail the formation of the rollers employed, the same includes a core 56 which is of cylindrical form having longitudinal and spaced beads 57 formed in its periphery over which are alternately fitted collars 58 and sleeves 59. The collars 58 are formed from a resilient material, such as rubber or the like, while the sleeves 59 are formed of metal or similar hard substance for the purpose of retaining the collars 58 in equi-distantly spaced relation throughout the length of the roller. It will be noted from Fig. 3 that both the collars 58, and the sleeves 59 are provided with grooves in their inner faces which correspond to the beads 57 formed upon the periphery of the core 56, thus locking the collars 58 and sleeves 59 upon the core 56.

In operating the device the belt 35 is actuated to rotate the pulley 34, whereby the shaft 16 is brought into motion. This motion is imparted through the sprockets 33 and 54 to the shafts 29 and 58, whereby the rollers 30 and 55 are rotated. The rollers 30 and 55 are rotated in the same direction, whereby the lumber is fed to the cutting mechanism over the upper faces of the table sections 12 and 11 respectively. When it is desired to raise the rollers 30 and 55 upwardly from the face of the table of the jointer 10, the operator grasps the handles 28^a and moves the same in the desired direction to feed the adjusting bolts 25 and 47 respectively through the sockets 26 and 46. This operation raises the off-set portions 24 and 45 from the table sections 11 and 12 and consequently carries the rollers into such position. It will thus be observed that lumber varying in thickness may be passed over the table of the jointer 10 and the rollers 30 and 55 may be adjusted so as to receive the lumber. The weight of the mechanism disposed upon the arms 21 and 22 and the arms 42 and 43 is deemed sufficient to engage the rollers 30 and 55 frictionally upon the upper face of the wooden strip which is positioned beneath the same. By reason of the flexibility of the collars 58 from which the rollers are formed and by reason of the spaced relation of the same, the rollers bind upon the boards which are passed beneath the same, as the collars are permitted to spread at their peripheries, and to thus effect a firm gripping action upon

the boards to draw the same over the cutting mechanism 13.

When it is desired to employ the jointer 10 without the attachment, or when it is desired to adjust the mechanism of the attachment, the arms 21 and 22 and the arms 42 and 43 are swung upwardly to rest upon the braces 60 which are carried by the standards 14 and 15. The braces 60 are spaced inwardly from the shaft 16 to support the arms by their own weight, as they tend to fall backwardly from the shaft 16. The screws 20 are now loosened and the standard 15 is swung backwardly against the opposite edge of the table section 11, as is disclosed in dotted lines in Fig. 2, whereby the complete mechanism is disposed at one side of the table of the jointer 10.

Having thus described the invention, what is claimed as new is;—

1. In combination with a jointer table, a pivoted standard mounted at one side of the table, a registering standard detachably disposed upon the opposite side of the table, a shaft journaled through the standards, short arms hinged upon the shaft against the inner sides of the standards, long arms hinged upon the shaft outwardly of the standards, and feed rollers mounted between the outer ends of the arms.

2. In combination with a jointer table, registering standards transversely disposed upon the table, a shaft journaled in the

standards, a pair of short arms hinged upon the shaft inwardly of the standards, a pair of long arms hinged on the shaft outwardly of the standards, rollers journaled between the ends of the arms, and fastening means carried by the standards to adjustably secure the same upon the table.

3. In combination with a jointer table, spaced standards hingedly disposed upon one side of the table and adapted to be swung across the same, a shaft journaled in the standards, arms hinged upon the shaft, rollers mounted upon the arms, adjustable supporting means carried by the arms to space the rollers above the table, and rests disposed upon the standards for supporting the arms in a raised position.

4. In combination with a jointer table having a cutting mechanism midway of its length, spaced standards detachably disposed across the table adjacent to one end thereof, a shaft carried by the standards, short arms hinged upon the shaft and terminating adjacent to the cutting mechanism, long arms hinged upon the shaft and extending beyond the cutting mechanism, and rollers journaled in the outer ends of the arms.

In testimony whereof I affix my signature in presence of two witnesses.

GEORGE D. TROGDON. [L. s.]

Witnesses:

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