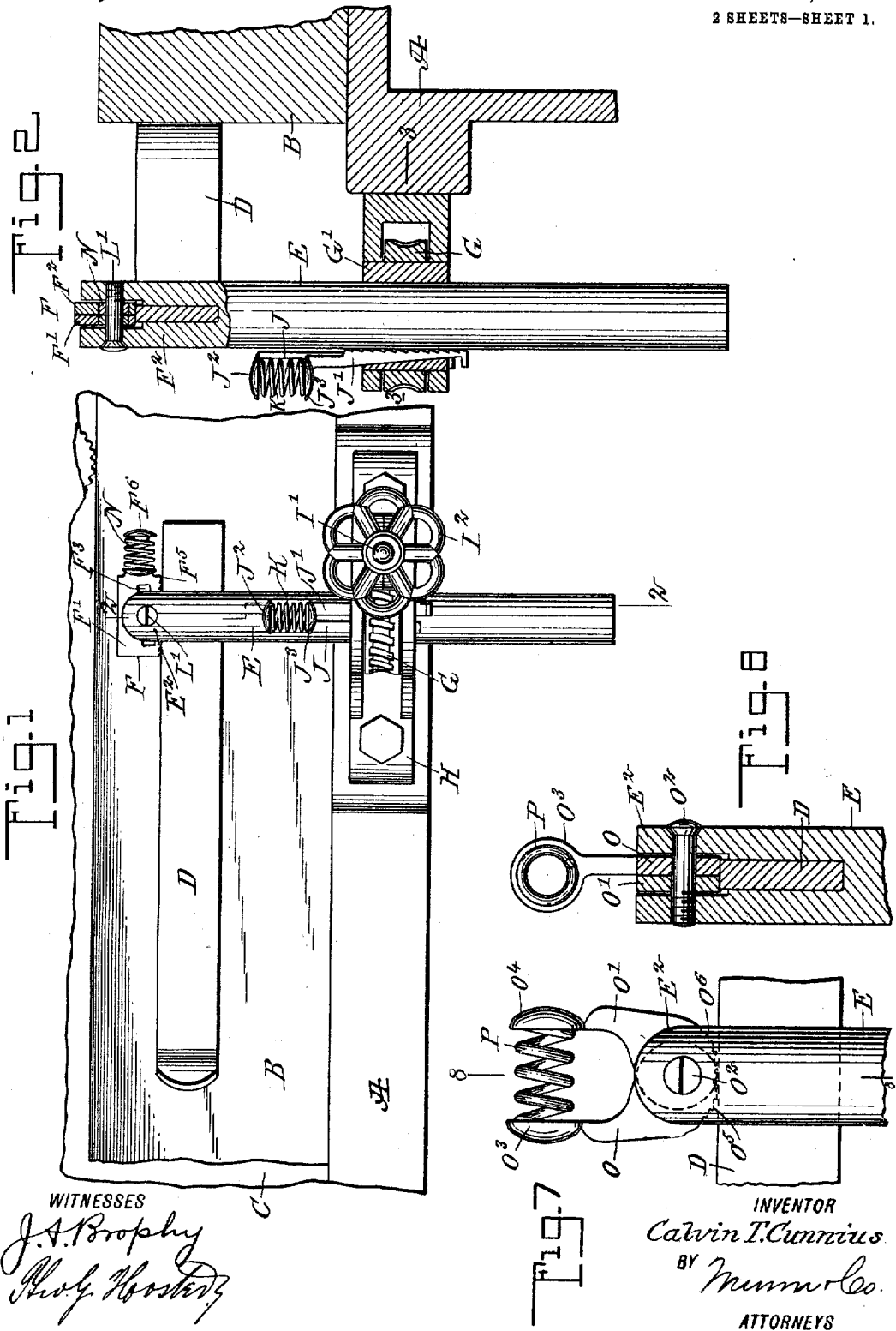


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 SPRING POST FOR WOODWORKING MACHINES.
 APPLICATION FILED JAN. 25, 1909.

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2 SHEETS—SHEET 1.



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2 SHEETS—SHEET 2.

Fig. 3

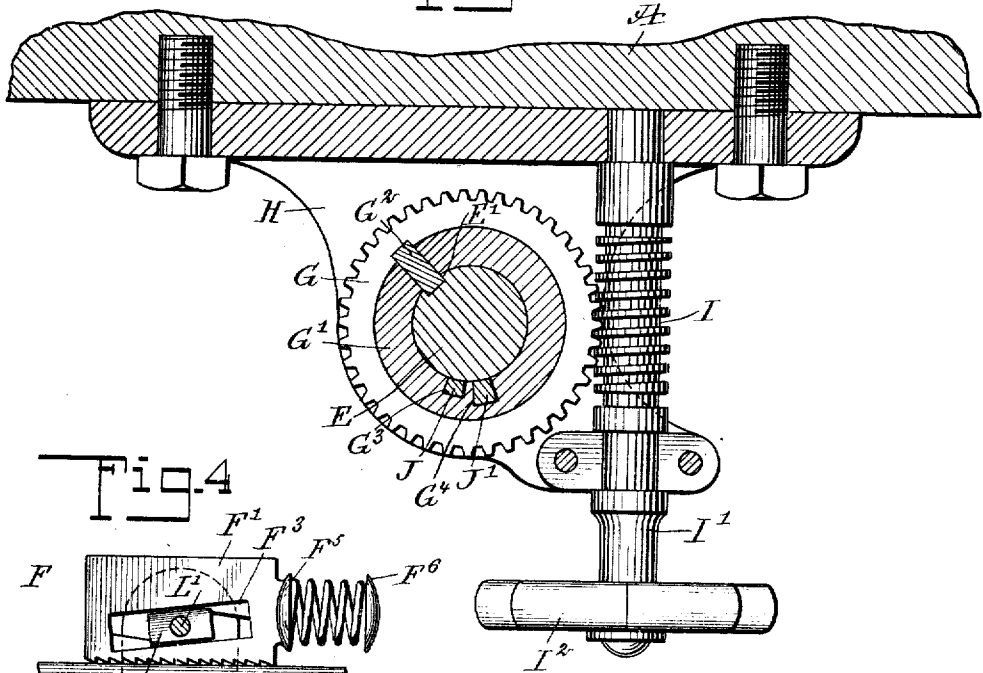


Fig. 4

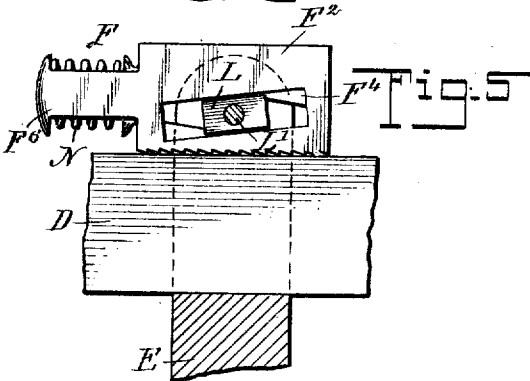
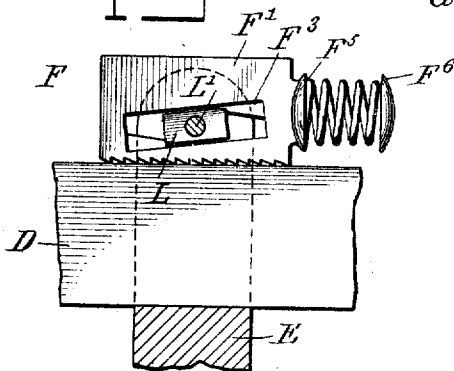
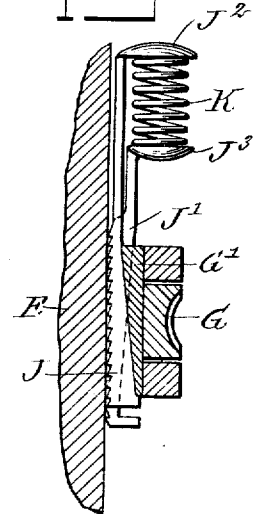


Fig. 6



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CALVIN THEODORE CUNNIUS, OF LONG BRANCH, NEW JERSEY.

SPRING-POST FOR WOODWORKING-MACHINES.

947,211.

Specification of Letters Patent. Patented Jan. 18, 1910.

Application filed January 25, 1909. Serial No. 474,036.

To all whom it may concern:

Be it known that I, CALVIN T. CUNNIUS, a citizen of the United States, and a resident of Long Branch, in the county of Monmouth and State of New Jersey, have invented a new and Improved Spring-Post for Woodworking-Machines, of which the following is a full, clear, and exact description.

10 The invention relates to molding and other wood working machines, and its object is to provide a new and improved spring post for holding a piece of lumber or other work against a guide as the material is moved over the table, the arrangement being such that the post can be conveniently turned, raised or lowered, and a spring finger can be readily adjusted on the post, to bring the spring finger into the desired position relative to the work. This object is attained by providing a manually-controlled gearing for turning the post and locking it in the desired turned position; by making the post vertically adjustable and providing means for locking it to the gearing, and by providing a locking device for adjustably locking the spring finger to the post.

A practical embodiment of the invention is represented in the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a side elevation of the improvement; Fig. 2 is an enlarged transverse section of the same on the line 2—2 of Fig. 1; Fig. 3 is an enlarged sectional plan view of the same on the line 3—3 of Fig. 2; Fig. 4 is an enlarged sectional side elevation of the clamping device in position for clamping the spring finger to the post; Fig. 5 is a rear sectional side elevation of the same; Fig. 6 is an enlarged sectional side elevation of the clamping device in position for clamping the post to the worm wheel; Fig. 7 is a side elevation of a modified form of the clamping device in position for clamping the spring finger to the post; and Fig. 8 is a cross section of the same on the line 8—8 of Fig. 7.

50 Over the top of the bed or table A of a molding or other machine is passed the piece of lumber or other work B, pressed trans-

versely against a guide C by one or more finger pieces D, each adjustably secured in the upper end of a post E by a clamping device F of special construction and hereinafter more fully described in detail.

The post E is adjustably secured in the bore of the hub G' of a worm wheel G, said hub G' being journaled in a bracket H fastened to the bed A, the said bracket being forked to hold the worm wheel G against up and down movement. The hub G' carries a key G² (see Fig. 3) engaging a key way E' in the post E, so that when the worm wheel G is turned the post E turns with it, to give the finger piece D the desired tension relative to the work B.

The worm wheel G is in mesh with a worm I, having its transversely-extending shaft I' journaled in suitable bearings on the bracket H, and on the outer end of the said worm shaft is secured a hand wheel I² under the control of the operator, to enable the latter to turn the shaft I' and the worm I for the latter to turn the worm wheel G and post E, to swing the finger piece D into the desired position relative to the work B. It is understood that by the use of the worm I and the worm wheel G, the post E is normally locked against turning, but the post E can be turned at the option of the operator.

The post E is adapted to be locked to the hub G' of the worm wheel G by a clamping and locking device, consisting essentially of a pair of wedge-shaped clamping plates or keys J, J', mounted to slide in keyways G³, G⁴ formed in the hub G' and tapering in opposite directions, the inner edges of the clamping plates J, J' being provided with teeth for firmly gripping the side of the post E, to hold the latter against up and down movement. The upper ends of the clamping plates J, J' are provided with handles J², J³, pressed on at their opposite faces by the ends of a coil spring K, to draw the clamping plates J, J' in opposite directions, and thus move their toothed inner edges in firm gripping contact with the post E. When the operator takes hold of the handles J², J³ and presses the same toward each other against the tension of the spring K then the clamping plates J, J' move into releasing position relative to the post E, to

allow of sliding the latter up or down in the hub G' of the worm wheel G, to bring the finger piece D the desired distance above the bed A, according to the height of the work B under treatment at the time. When the post E has been moved into the desired position then the operator releases the handles J², J³, to allow the spring K to draw the clamping plates J, J' back into clamping position.

The clamp F, previously mentioned and shown in detail in Figs. 3 and 4, consists of the clamping plates F', F², provided with elongated slots F³, F⁴ inclined in opposite directions, and in the said slots F³, F⁴ extends a block L held on a pivot L' secured to the upper forked end E² of the post E, and in which forked end extends the finger piece D and the said clamping plates F', F². The clamping plates F', F² are provided with handles F⁵, F⁶, between which is interposed a coil spring N, to move the clamping plates in opposite directions and to cause their lower toothed edges to firmly grip the top edge of the finger piece D, with a view to hold the latter in position in the forked end E² of the post E. When it is desired to release the finger piece D for adjusting it in the post E, the operator takes hold of the handles F⁵, F⁶ and presses the same toward each other against the tension of the spring N, so that the clamping plates F', F² move into releasing position relative to the finger piece D, to permit the operator to shift the finger piece D on the post E according to the thickness of the work B under treatment at the time.

The clamping and locking device shown in Figs. 7 and 8 is similar in its action to the clamping device F, and consists of clamping plates O, O' fulcrumed on a pin O² held on the upper forked end E² of the post E, and the said clamping plates are provided with handles O³, O⁴, between which is interposed a coil spring P, to press the clamping plates O' apart and cause the lower toothed cam edges O⁵, O⁶ to grip the top edge of the finger piece D, to hold the same against movement in the post E.

When it is desired to release and adjust the finger piece D on the post E, it is only necessary for the operator to take hold of the handles O³, O⁴ and press the same toward each other against the tension of the spring P, so that the clamping plates are caused to swing for the cam edges O⁵, O⁶ to release the finger piece D. The latter is now shifted in the forked end E² of the post E to the desired position, and then the operator releases the handles O³, O⁴, to allow the spring P to swing the clamping plates O, O' back into gripping position relative to the finger piece D.

From the foregoing it will be seen that the post E can be readily turned to give the finger piece the desired tension relative to the height of the work B, and the finger piece D can be conveniently adjusted in the post E relative to the thickness of the work B.

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

1. A spring post for wood working machines, comprising a post mounted to turn, a spring finger secured to the post, and manually controlled mechanism for turning the post and holding it in position to which it has been turned, whereby to give to the spring finger the desired tension relative to the work.

2. A spring post for wood-working machines, comprising a post mounted to turn, a spring finger secured to the upper end of the post, a worm wheel in which the said post is secured, and a worm in mesh with the said worm wheel for turning the latter and the said post.

3. A spring post for wood-working machines, comprising a post carrying a spring finger, a worm wheel in which the said post is adjustably mounted, a worm in mesh with the said worm wheel, means for turning the said worm, and a fastening device for adjustably securing the said post to the said worm wheel.

4. A spring post for wood-working machines, comprising a post carrying a spring finger, a worm wheel, having oppositely tapering key ways and a bore for the said post to pass through, wedge-shaped clamping plates slidably engaging the said key ways and adapted to grip the said post, a spring pressing the said clamping plates in an opposite direction, and a manually-controlled worm in mesh with the said worm wheel.

5. A spring post for wood-working machinery, comprising a post, a spring finger slidably engaging the said post, and a pair of spring pressed clamping plates for clamping the said spring finger in position on the said post.

6. A spring post for wood-working machinery, comprising a post, a spring finger slidably engaging the said post, a pair of clamping plates held on the post for clamping the said spring finger in position on the post, the said clamping plates having handles, and a spring interposed between the said clamping plates.

7. A spring post for wood-working machinery, comprising a post, a spring finger slidably engaging the said post, a pair of clamping plates provided with handles having inclined slots extending in opposite di-

rections, a block held on the said post and engaging the said slots, and a spring pressing the said clamping plates in opposite directions to clampingly engage the said clamping plates with the said spring finger.

8. A spring post for wood-working machines, comprising a post, a spring finger adjustably secured on the said post, and means for turning the said post and locking

it against turning, and in which means the said post is adjustably secured.

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

CALVIN THEODORE CUNNIUS.

Witnesses:

NELLIE M. BRAY,
RALPH L. BRAY.