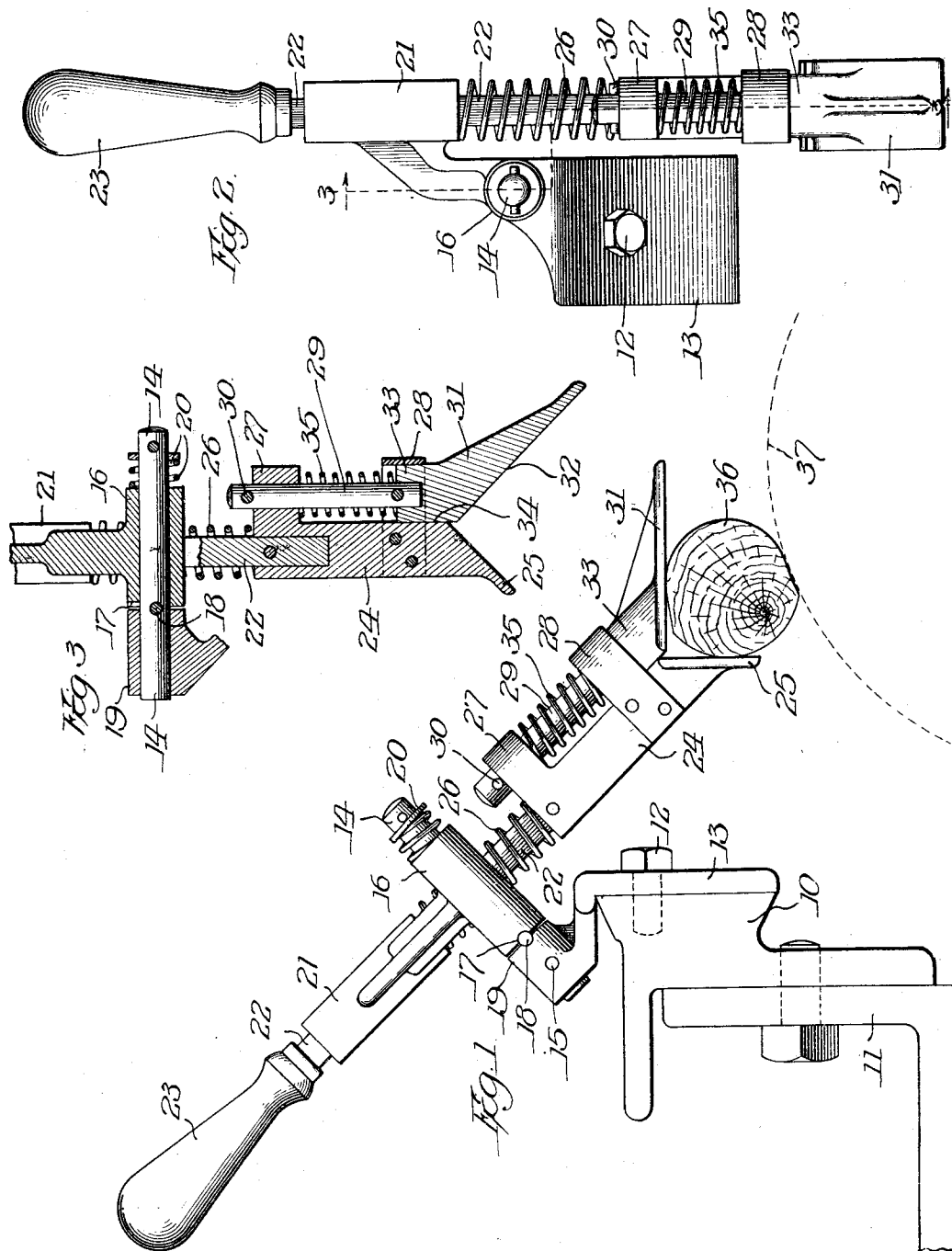


C. E. LA POINTE.
STEADY REST FOR WOOD TURNING MACHINES.
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UNITED STATES PATENT OFFICE.

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STEADY-REST FOR WOOD-TURNING MACHINES.

1,052,596.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, CHARLES E. LA POINTE, a citizen of the United States, residing at Beloit, in the county of Rock and State of Wisconsin, have invented certain new and useful Improvements in Steady-Rests for Wood-Turning Machines, of which the following is a specification.

My invention relates to a device for steadying wood or other material which is being turned in a machine, and is particularly, although not exclusively, adapted for use in connection with wood-working machines or lathes of the well-known type.

When a comparatively long piece of material such as wood is placed in position in a lathe and it is desired to turn the central part of the piece, the resistance offered by the wood-working tool, which may be in the form of a cutter-head, causes the wood to be slightly sprung, with the result that the turning is not accurately performed.

It is the object of my invention to provide a device which will steady the piece of material being turned, and thereby cause the work to be accurately performed.

Described in general terms, my device consists of a supporting member which may be attached to the body of the machine, and a rod held by said supporting member and having on its end a plate adapted to engage one side of the material being turned. This rod is preferably resiliently carried by its support so that it may be used to engage pieces of wood of different sizes, and also will follow the periphery of the material as the size of the latter becomes reduced in the process of turning. Resiliently carried by the rod just mentioned is a second plate which has an engaging surface preferably at right angles to the engaging face of the plate first mentioned. The rest is so fastened to its support that it may be swung out of position when desired. These and other advantages of my invention will be more readily understood by reference to the accompanying drawings, which show a preferred embodiment of my invention, and in which:

Figure 1 is a side elevation of my improved steady rest in operative position with relation to a piece of wood being turned; Fig. 2 is a front elevation of the steady rest shown in Fig. 1; and Fig. 3 is a fragmen-

tary enlarged section taken on the line 3—3 of Fig. 2.

The bracket 10 is securely fastened to an angle iron or the like 11 which is mounted on the frame-work of the lathe or other wood-working machine. Fastened to the bracket 10 by means of the bolt 12 is the support 13, to which is fastened the shaft 14 by means of the pin 15. Inclosing the shaft 14 is the sleeve 16, this sleeve being adapted to be rotated on the shaft 14 and provided at one edge with notches 17 adapted to engage a pin 18. The sleeve 16 is normally thrust against the collar 19 of the support 13 by means of the spring 20. Integral with the sleeve 16 is a bearing member 21 within which the rod 22 is adapted to move. Fastened to one end of the rod 22 is the handle 23, and fastened to the opposite end is the member 24 having an engaging plate 25. Between the member 24 and the bearing 21 is placed the spring 26 which incloses the rod 22.

The member 24 is provided with a bearing extension 27 and a strap 28. As best shown in Fig. 3, the rod 29 passes through the bearing 27, and is provided near its end with the pin 30 which prevents the end of the rod from passing through the bearing 27. Fastened to the opposite end of the rod 29 is the engaging plate 31 having its face at substantially a right angle to the face of the plate 25. The end 33 of the engaging plate 31 is fastened to the end of the rod 29, and is engaged on its periphery by the strap 28, which holds the surface 34 in contact with the corresponding surface of the member 24. A spring 35 is placed between the end 33 of the engaging plate 31 and the bearing 27 and normally keeps the engaging plate 31 in the position indicated in Fig. 3.

Having thus described the construction of my improved device, its operation may now be clearly understood: After a piece of wood 36 is placed in position in a wood-working machine in which it is desired to turn the material by means of the cutter-head 37 or the like, the steady rest is turned into the position indicated in Fig. 1 by means of the handle 23. The plate 25 is resiliently held in contact with the wood 36 by means of the spring 26, while the plate 31 is similarly held in engagement with the wood by means of the spring 35. It will be

clear that both of these plates 25 and 31 will automatically adjust themselves to any inequalities in shape of the wood 36. By this means any springing or clattering which might be caused by the action of the cutter-head 37 on the wood 36 is effectually prevented. When it is desired to move the steady rest out of operative position it may be turned on the shaft 14 by the handle 23 until an appropriate notch 17 engages the pin 18, and the longitudinal axis of the steady rest is thus brought into a position substantially parallel to the longitudinal axis of the material which is to be turned.

It will be apparent to those skilled in the art that many changes could be made in the detailed structure of the various parts which I have described without departing from the spirit or scope of my invention.

What I claim is:

1. In a steady rest, the combination of a support, a movable steadying member mounted on said support, a second steadying member mounted on said first member and having a work-contacting face arranged at an angle to the work-contacting face of said first member, said second member being mounted for longitudinal movement relative to said first member, and springs associated with each said first and second members tending to advance the work contacting ends thereof, the force exerted against the work being only that exerted by the springs associated with one of said members, substantially as described.

2. In a steady rest, the combination of a support, a movable steadying member mounted for longitudinal and swinging movement on said support, a second steadying member mounted on said first member and having a work-contacting face arranged

at an angle to the work-contacting face of said first member, said second member being mounted for longitudinal movement with and relative to said first member, and springs associated with each of said members, the force exerted against the work being only that exerted by the spring associated with one of said members, substantially as described.

3. In a steady rest, the combination of a support, a sleeve member pivoted to said support, a steadying member mounted in said sleeve member, a second steadying member mounted on said first member, springs tending to advance each of said members, the force exerted against the work being only that exerted by the spring associated with said first member, substantially as described.

4. In a steady rest, the combination of a support, a sleeve member pivoted to said support, means for resiliently maintaining said member in proper relation to said support, a steadying member mounted in said sleeve member and adapted for sliding movement at right angles to the pivot of said sleeve member, a second steadying member mounted on said first member, and springs associated with each of said members, the work-contacting faces of each said members being arranged at substantially right angles to each other whereby a force is exerted in two directions against the work, the sole force being limited to the force exerted by the spring advancing said first steadying member, substantially as described.

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