L. M. BENNETT.

ROLLER SETTING DEVICE.

APPLICATION FILED MAR. 22, 1916.

1,189,528.

Patented July 4, 1916.

2 SHEETS—SHEET 1.

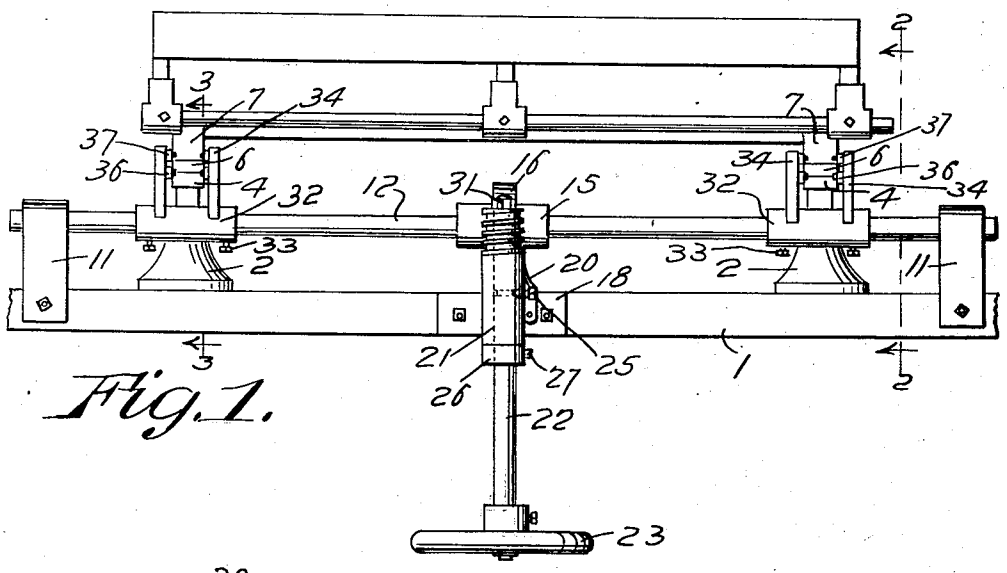


Fig. 1.

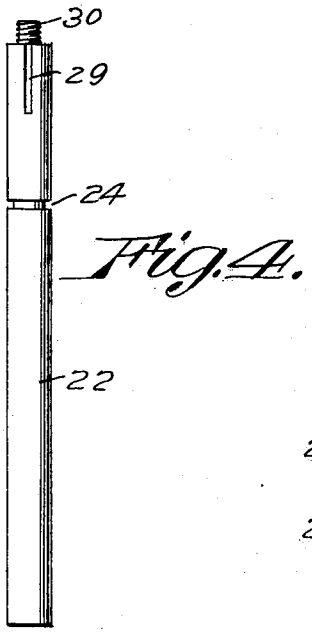
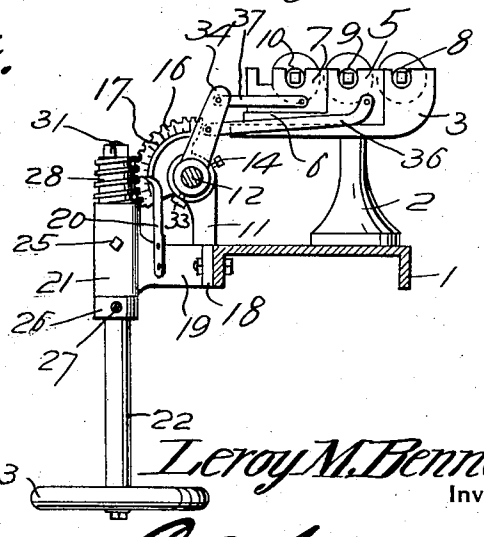


Fig. 4.

Fig. 2.



Witnesses

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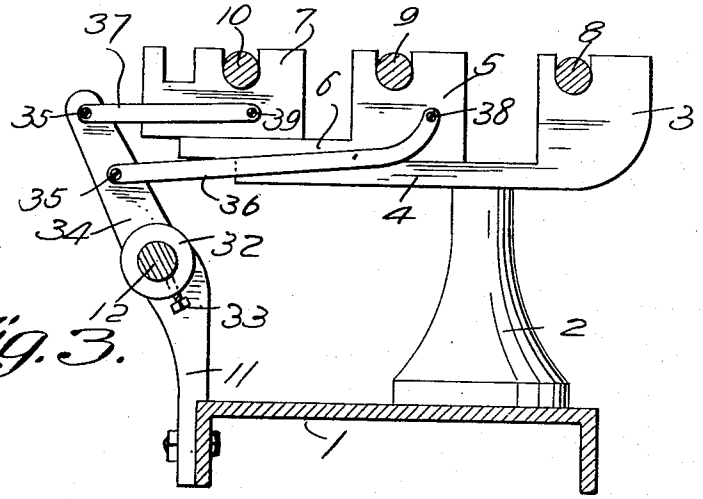


Fig. 3.

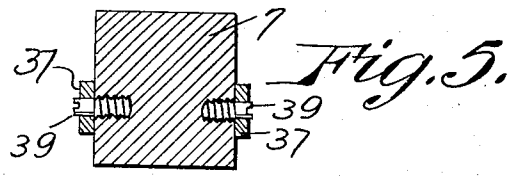


Fig. 5.

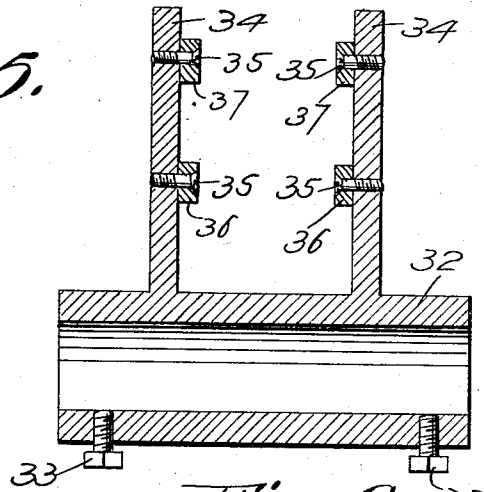


Fig. 6.

Witnesses

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UNITED STATES PATENT OFFICE.

LEROY M. BENNETT, OF MOOSUP, CONNECTICUT.

ROLLER-SETTING DEVICE.

1,189,528. Specification of Letters Patent. Patented July 4, 1916.

Application filed March 22, 1916. Serial No. 85,906.

To all whom it may concern:

Be it known that I, LEROY M. BENNETT, a citizen of the United States, residing at Moosup, in the county of Windham and State of Connecticut, have invented a new and useful Roller-Setting Device, of which the following is a specification.

The device forming the subject matter of this application is adapted to be employed in connection with roving, spinning and twisting machines for the purpose of adjusting the bottom rolls.

The invention aims to provide novel means under the control of an operator whereby without using a gage, the bearings of the bottom rolls may be adjusted with respect to each other.

It is within the province of the disclosure to improve generally and to enhance the utility of devices of that type to which the present invention appertains.

With the above and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed, can be made within the scope of what is claimed, without departing from the spirit of the invention.

In the accompanying drawings:—Figure 1 shows in front elevation, a structure embodying the present invention; Fig. 2 is a cross section on the line 2—2 of Fig. 1; Fig. 3 is a cross section on the line 3—3 of Fig. 1; Fig. 4 is a side elevation showing the actuating shaft; Fig. 5 is a cross section showing one of the bearings and the actuating links therefor; and Fig. 6 is a longitudinal section of one of the sleeves on the drive shaft.

In the accompanying drawings the numeral 1 indicates the supporting bar of a roving, twisting or spinning machine, the supporting bar 1 carrying stands 2 on each of which is mounted an arm 4 carrying a fixed bearing 3.

The numeral 5 indicates an intermediate bearing including an arm 6 which is slidable for adjustment on the arm 4. At 7 there appears a front bearing which is slidable for adjustment on the arm 6 of the intermediate bearing 5. Journaled in the bearings 3 is a rear roller 8, the numeral 9 indicating an intermediate roller journaled in the bearings 5, and the numeral 10 denoting a front roller journaled in the bearings 7.

The parts above described, and their adjustments, are well known and understood in the art, and need no further description.

In carrying out the present invention, a pair of standards 11 is attached to the supporting bar 1, and in the standards 11 is journaled for rotation a horizontal shaft 12. Held adjustably on the shaft 12 by means of one or more set screws 14, is a sleeve 15 carrying a forwardly projecting arcuate rack 16, provided on one side, as shown in Fig. 2, with a scale 17, which, if desired, may read down to one-sixteenth of an inch. Fixed to the supporting bar 1 below the sleeve 15 is a bracket including a foot plate 18 having a projecting arm 19. Secured to the arm 19 is an upstanding indicator 20 adapted to coact with the scale 17. On the outer end of the arm 19 there is an upright tubular bearing 21 in which is journaled an actuating shaft 22. Intermediate its ends, the actuating shaft 22 is provided with a circumscribing groove 24 adapted to receive a stud bolt 25 threaded into the bearing 21. Secured to the lower end of the actuating shaft 22 is a hand wheel 23 or other suitable means whereby the actuating shaft may be rotated. Surrounding the actuating shaft 22 and abutting against the lower edge of the bearing 21 is a collar 26 held in place by a screw 27. A worm 28 engages the upper end of the bearing 21, the worm being keyed as shown at 29 to the upper end of the actuating shaft 22. The actuating shaft 22 terminates in an upstanding threaded stem 30 on which is mounted a nut 31 serving to hold the worm 28 in place. The worm 28 meshes into the rack 16. Mounted on the drive shaft 12 adjacent its ends are sleeves 32 held in place by set screws 33. The sleeves 32 are equipped with projecting arms 34 carrying pivot elements 35. The forward ends of links 36 and 37 are mounted on the pivot elements 35, the rear ends of the links 37 being pivoted as shown at 39 to the front bearings 7, and the rear ends of the links 36 being pivoted as shown at 38, to the intermediate bearings 5.

In practical operation, the actuating shaft 22 may be rotated by means of the hand wheel 23, the worm 28 meshing into rack 16, to rotate the shaft 12. The arms 34 ac-

tuate the links 36 and 37, the bearings 7 and 5 in this manner being adjusted with respect to each other.

The operator may note at any time, the relative relations existing between the indicator 20 and the scale 17 on the side of the rack 16 and, by this means, the relative positions of the bearings 7 and 5 with respect to each other and with respect to the bearings 3 may be observed.

It is to be noted that the structure forming the subject matter of this application affords a simple but effective means whereby the bearings 7 and 5 may be adjusted, and whereby, at any time, the relative positions of the parts may be noted without applying a gage.

Having thus described the invention, what is claimed is:—

1. In a machine of the class described, a supporting structure; bearings carried by the supporting structure and movable with respect to each other; rolls journaled in the bearings; a bracket mounted on the supporting structure; an actuating shaft mounted for rotation on the bracket; a worm assembled with the actuating shaft; a drive shaft disposed transversely of the actuating shaft and journaled on the supporting structure; a rack carried by the drive shaft and meshing into the worm, the rack being provided with a scale; an indicator mounted on the bracket and coöperating with the scale; a crank arm carried by the drive shaft; and links connecting the crank with the bearings.

2. A machine of the type described comprising relatively movable bearings; rolls journaled in the bearings; links assembled with the bearings; a shaft having a crank arm wherewith the links are connected; means for supporting the shaft for rotation; and means for rotating the shaft.

3. In a machine of the class described, a supporting structure; bearings carried by the supporting structure and movable with respect to each other; rolls journaled in the bearings; an actuating shaft mounted for rotation on the supporting structure; a worm assembled with the actuating shaft; a drive shaft disposed transversely of the actuating shaft and journaled on the supporting structure; a rack carried by the drive shaft and meshing into the worm; crank arms carried by the drive shaft; and links connecting the arms with the bearings.

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

LEROY M. BENNETT.

Witnesses:
E. M. KENNEDY,
HARRY R. LOW.

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