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C. J. MURRAY.

SUPPORT FOR SCAVENGER ROLLS OF SPINNING FRAMES.

APPLICATION FILED MAR. 28, 1904.

NO MODEL.

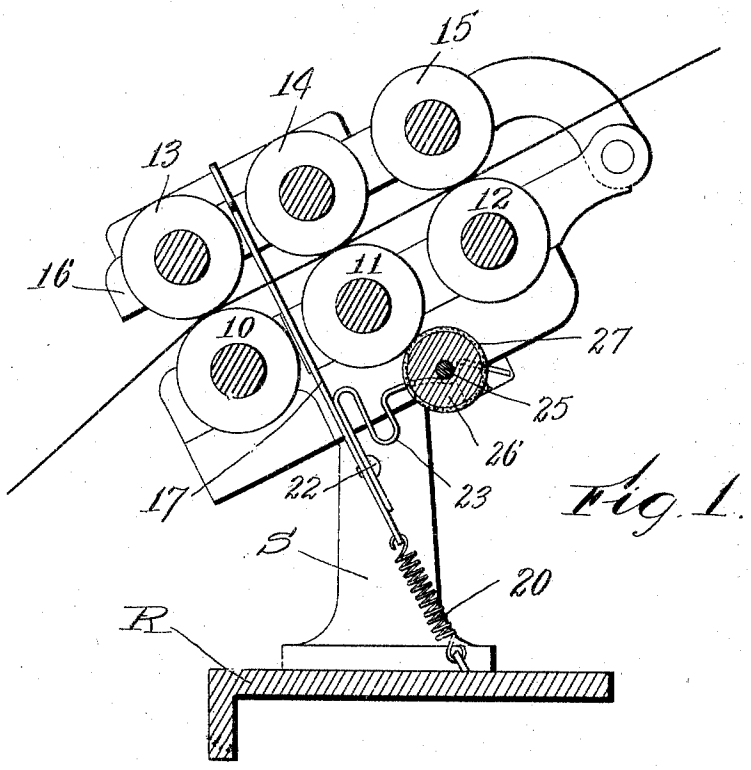


Fig. 1.

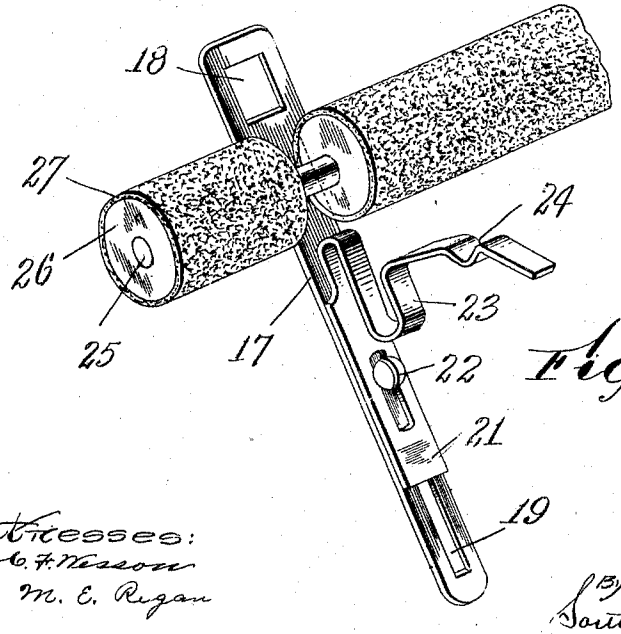


Fig. 2.

Witnesses:
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By his Attorneys
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No. 775,928. Patented November 29, 1904.

UNITED STATES PATENT OFFICE.

CHARLES J. MURRAY, OF WILLIMANTIC, CONNECTICUT, ASSIGNOR TO HIMSELF, AND JOHN A. MURRAY, OF WORCESTER, MASSACHUSETTS.

SUPPORT FOR SCAVENGER-ROLLS OF SPINNING-FRAMES.

SPECIFICATION forming part of Letters Patent No. 775,928, dated November 29, 1904.

Application filed March 28, 1904. Serial No. 200,232. (No model.)

To all whom it may concern:

Be it known that I, CHARLES J. MURRAY, a citizen of the United States, residing at Willimantic, in the county of Windham and State of Connecticut, have invented a new and useful Support for Scavenger-Rolls of Spinning-Frames, of which the following is a specification.

This invention relates to a construction which has been especially designed with a view of supporting a supplemental scavenger-roll in position to coöperate with the drawing-rolls of a spinning or twisting machine.

The especial object of this invention is to provide a strong, simple, and inexpensive construction which will have sufficient flexibility to permit a cleaning-roll or scavenger-roll to be supported in contact with the under side of a drawing-roll of a spinning-frame and at the same time will permit said drawing-roll to be set or adjusted to different positions.

To these ends this invention consists of the construction and combinations of parts, as hereinafter described, and more particularly pointed out in the claims at the end of this specification.

In the accompanying drawings, Figure 1 is a sectional view of sufficient parts of a spinning-frame to illustrate the application of my invention thereto, and Fig. 2 is a perspective view showing a part of the scavenger-roll and the support therefor.

In the use of an ordinary spinning-frame it is now customary to use a cleaning or scavenger roll in connection with the front drawing-roll. In the ordinary construction of drawing-rolls the rear two sets of rolls are adjustable, so that they can be moved and fastened in different positions, according to the length of fiber of stock which is being operated upon. In practice no provision is usually made for the use of scavenger or cleaning rolls in connection with the adjustable drawing-rolls of a spinning-frame. The collection of dirt or lint upon the drawing-rolls of a spinning-frame is objectionable, not only for the reason that it results in inferior work, but also for the reason that it requires that the operation should be stopped at more or less frequent intervals and the construction cleaned. To overcome this objection, a number of supports have been proposed for providing additional cleaning-rolls to coöperate with the drawing-rolls of a spinning-frame. For this purpose it has been proposed to mount the cleaning-rolls in independent roll-stands extending up from the roll-rail, and it has also been proposed to support such cleaning-rolls in various ways from the roll-stands which support the drawing-rolls. Such constructions, however, have been comparatively expensive and do not permit the lateral separation in the drawing-rolls. To overcome these objections in a spinning-frame constructed according to this invention, I have provided means for supporting the drawing-rolls in spring-arms, which are adjustably fastened to the stirrups which hold down the saddle for the top rolls.

Referring to the accompanying drawings and in detail, R designates the roll-rail or part of the framework of a spinning-frame. Extending up from the roll-rail R are the roll-stands S. Mounted in the roll-stands S are the bottom rolls 10, 11, and 12, the rolls 11 and 12 being preferably mounted in an adjustable piece which can be set to different positions, according to the length of fiber operated upon. Coöperating with the bottom rolls 10, 11, and 12 are the top rolls 13, 14, and 15, which are mounted in a saddle 16. Extending down from the saddle 16 are the stirrups 17. Each of the stirrups 17, as shown in Fig. 2, is provided with an eye 18 at its upper end and with a slot 19 at its lower end for engaging with a spring 20, weighted lever, or other means for holding down the saddle.

The parts as thus far described may be of any of the ordinary forms used in spinning-frames.

For supporting the scavenger-roll to coöperate with the bottom roll 11 I provide a slotted plate 21, which is adjustably fastened to the stirrup 17 by a screw 22. Extending from the slotted plate 21, and preferably formed therewith, is a spring-arm having a

return-bend 23 and a notch 24, which forms a bearing for the shaft of the scavenger-roll. The scavenger-roll comprises a central shaft or rod 25, a wooden roll 26, with a covering of felt or similar material 27. The scavenger-roll is notched or cut away at suitable points in its length to be supported by the spring-arms from the stirrups. By means of this construction simple and efficient means are provided for flexibly supporting a supplemental scavenger-roll in a spinning or twisting machine in such a manner that it will not interfere with the adjustment or lateral separation of the top rolls.

I am aware that changes may be made in the details of the spring-supports and the way of fastening them to the stirrups. I do not wish, therefore, to be limited to the construction I have herein shown and described; but

What I do claim, and desire to secure by Letters Patent of the United States, is—

1. In a spinning or twisting machine, the combination of the stirrups for holding top rolls in engagement with bottom rolls, and a scavenger-roll supported by the stirrups and engaging one of the bottom rolls.

2. In a spinning or twisting machine, the combination of the stirrups or tension-rods for holding down the top rolls, a scavenger-roll, and spring-arms adjustably secured to the stirrups for supporting the scavenger-roll.

3. In a spinning or twisting machine, the combination of the stirrups or tension-rods for holding down the top rolls, a scavenger-roll, and spring-supports for said scavenger-roll, each of said supports comprising a slotted plate adjustably fastened to a stirrup with an integral spring-arm having a return-bend with a notch or socket forming a bearing for the scavenger-roll shaft.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

CHARLES J. MURRAY.

Witnesses:
PHILIP W. SOUTHGATE,
JOHN F. CROWELL.