Dec. 31, 1940. H. T. OVERBEY 2,226,977

THREAD AND ROVING GUIDE FOR SPINNING MACHINES

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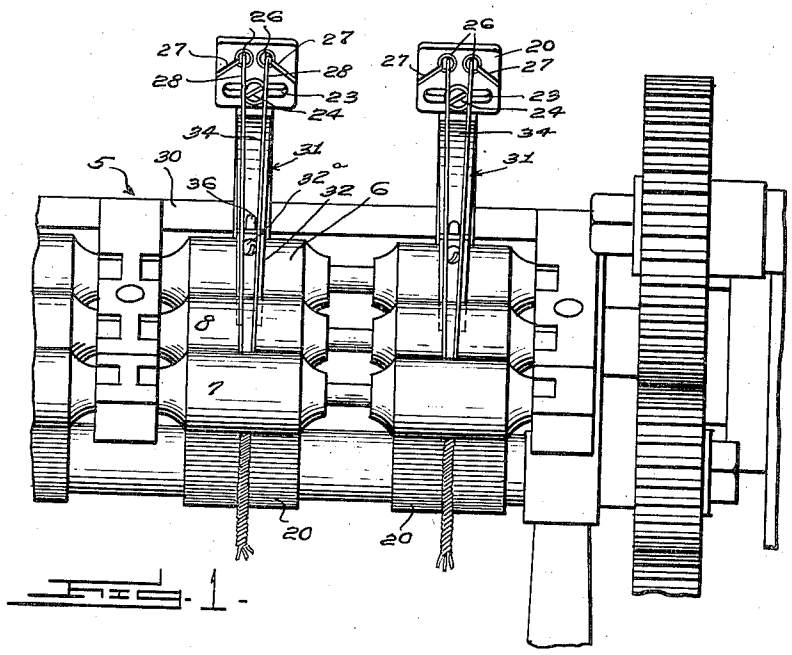


Fig. 1

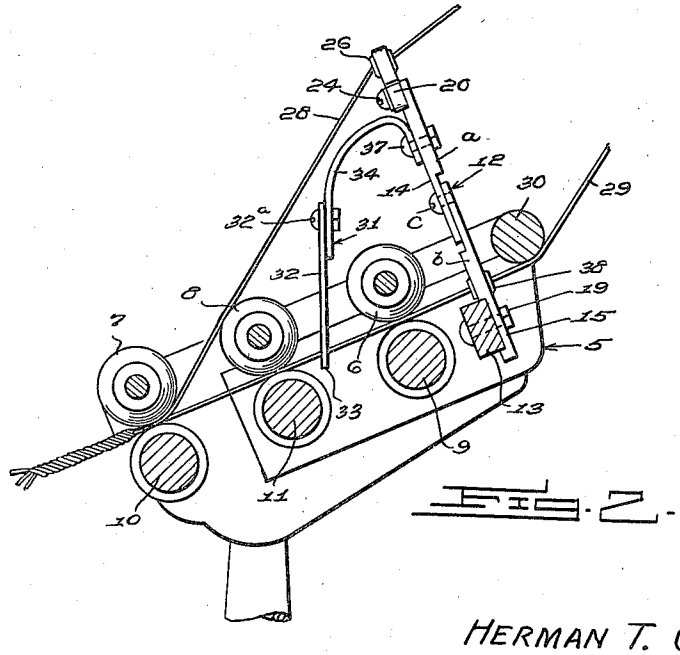


Fig. 2

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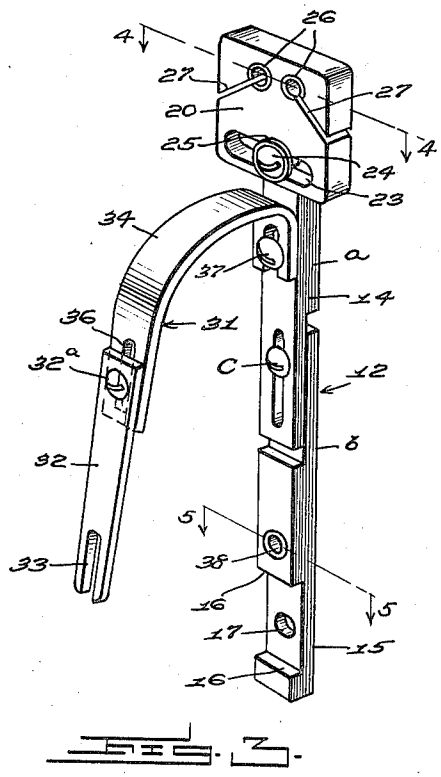
By Clarence A. O'Brien

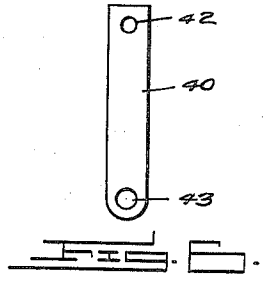
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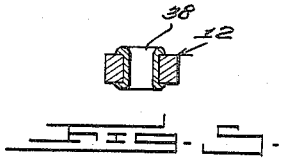
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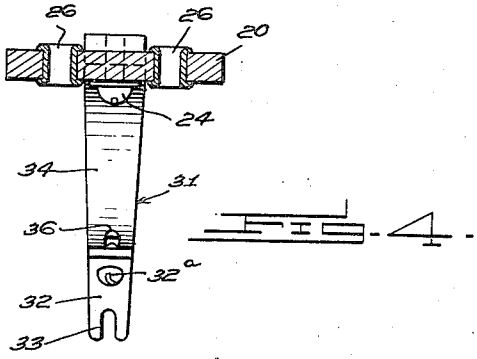
THREAD AND ROVING GUIDE FOR SPINNING MACHINES

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THREAD AND ROVING GUIDE FOR SPINNING MACHINES

Herman T. Overbey, Wadesboro, N. C.

Application February 27, 1940, Serial No. 321,129

13 Claims. (Cl. 57—106)

This invention relates to new and useful improvements in spinning machines, and more particularly to a thread and roving guide especially adapted for use on spinning machines in the manufacture of bourette and novelty yarns, the same being a continuation in part of my copending application Serial No. 314,701, which was filed January 19, 1940.

The principal object of the present invention is to provide a thread and roving guide which in use will maintain the roving properly centralized with respect to the yarn threads to the end that uniform twisting of the threads and roving will take place.

Another important object of the invention is to provide a guide of the character stated which will materially save time and materially increase the quality of yarn produced, due to the elimination of imperfect construction of the yarn.

Other objects and advantages of the invention will become apparent to the reader of the following specification.

In the drawings:

Figure 1 represents a fragmentary top plan view showing the roller assembly of a spinning machine equipped with the improved guide means.

Figure 2 is a section on the line 2—2 of Figure 1.

Figure 3 is a perspective view of the guide unit.

Figure 4 is a section on the line 4—4 of Figure 3.

Figure 5 is a section on the line 5—5 of Figure 3.

Figure 6 is an elevational view of an attachment adapted to be employed in place of the forked leg 32 when certain kinds of roving are used, especially roving of a finer gauge.

Referring to the drawings wherein like numerals designate like parts, it can be seen in Figure 1, that numeral 5 denotes a bank of rollers consisting of the back roller 6, the front roller 7 and the intermediate roller 8 overlying corresponding rollers 9, 10 and 11, respectively.

As shown in Figure 2, the guide is generally referred to by numeral 12 and is mounted on the usual roving transverse motion bar 13. The unit 12 consists of the post 14, the lower portion of which is reduced as at 15 to define shoulders 16 to rest upon the bar 13. This reduced portion 15 has the opening 17 therein through which the bolt 18 extends and is equipped with the nut 19. This bolt 18 extends through the bar 13 and firmly secures the post 14 in the position substantially shown in Figure 2. This post 14 consists of a pair of interlapping sections *a*—*b* connected by a bolt and slot connection *c*.

A substantially square-shaped block 20 is adapted to rest upon the shoulder 21 at the upper end of the post 14 which is defined by the provision of the reduced extension 22. The lower edge portion of the block 20 has the elongated slot 23 therein, through which extends the screw 24, this screw passing through a washer 25 bearing against the forward side of the block 20. Obviously, by loosening the screw 24, which is driven into the reduced extension 22 of the post 14, the block 20 can be adjusted in a lateral direction and secured in the adjusted position by tightening the screw.

A pair of eye members or bushings 26—26 extend through the upper portion of the block 20 and narrow slots 27—27 incline upwardly from the side edges of the block to extend into the eyelets or bushings 26. Obviously the yarn threads can be easily inserted into these eyelets by way of the slots 27, thus eliminating threading of the eyelets. This will save considerable time on the part of the attendant.

As shown in Figures 1 and 2, the yarn threads 28—28 extend downwardly from the spools (not shown) through the eyelets 26—26, and downwardly over the roll 8 and between the rolls 7 and 10.

The roving (see Figure 2) is denoted by numeral 29 and extends from an upward position, downwardly under the rail 30 and passes between the rolls and forwardly to bunch with the threads 28—28 as suggested in Figure 2.

Frequently this roving 29 shifts on the rolls and does not merge with the threads 28—28 intermediately. This results in the roving being exposed on the finished yarn, which, of course, is improper. In consideration of this, the roving guide element generally referred to by numeral 31 is employed.

This guide 31 consists of the arcuate-shaped member 34 formed with the down-turned bifurcated ear 35 through which the screw 37 is disposed. This screw is threadedly disposed into a threaded opening in the post section *a*.

The lower end portion of this arcuate-shaped member 34 is formed with the slot 36. A leg 32 is apertured at its upper end to receive the bolt 32*a* which passes through the slot 36 and is equipped with a nut whereby and in complement with the bolt 32*a*, the leg 32 can be clamped in the desired adjusted position against the lower portion of the arcuate-shaped member 34. The lower portion of this leg 32 is forked as at 33 to

receive the roving 29, as clearly shown in Figure 2.

This forked leg 32 is preferably employed when coarse or heavy roving is being utilized, but when finer gauged roving has to be employed, it is preferable that the leg 32 be detached and the trumpet 40 substitute therefor. This trumpet 40 has the opening 42 at its upper end to accommodate the bolt 32a and the roving guide opening 43 at its lower end.

Thus it can be seen, that with either the forked leg 32 or the trumpet 40 in use, the roving will be guided to meet the threads 28 at a centralized merging point to the end that improper twisting of the threads and roving will be eliminated which at present results in exposure of the roving in the resultant yarn.

The various adjustments afforded by reason of the extensible parts are adopted to the end that this appliance can be employed on various makes and sizes of spinning machines.

Obviously, the eyelets 26 can be of porcelain or some other suitable material to the end that there will be the least amount of friction possible to which the threads 28 must be subjected, and this is also true with respect to the roving passing through the eyelet 38.

While the foregoing specification sets forth the invention in specific terms, it is to be understood that numerous changes in the shape, size and materials may be resorted to without departing from the spirit and scope of the invention as claimed hereinafter.

Having described the invention, what is claimed as new is:

1. In a spinning machine, a thread and roving guide, said guide consisting of a post having a head structure, an eyelet at the lower portion of the post through which roving can pass, and thread eyelets in the head, said head being in the form of a block and having slots therein leading to the said eyelets.

2. In a spinning machine, a thread and roving guide, said guide consisting of a post having a head structure, an eyelet at the lower portion of the post through which roving can pass, and thread eyelets in the head, said head being in the form of a block and means whereby the block can be adjusted horizontally on the post in a direction transverse to the passage of threads and roving.

3. In a spinning machine, a thread and roving guide, said guide consisting of a post having a head structure, an eyelet at the lower portion of the post through which roving can pass, and thread eyelets in the head, a leg member extending from the post and being bifurcated to define a crotch through which roving can pass.

4. In a spinning machine, a thread and roving guide, said guide consisting of a post having a head structure, an eyelet at the lower portion of the post through which roving can pass, and thread eyelets in the head, and a guide leg on the post for guiding roving to a point intermediate of thread passing through the eyelets in the head.

5. In a spinning machine, a roller bank, guide means for threads and roving, and supplemental guide means adapted to finally guide the roving to a point immediately between the threads as they merge into a bunch.

6. In a spinning machine, a roller bank, guide means for threads, a roving guide for centralizing roving with respect to the threads at the twist point of the threads and roving, said guide means comprising a support, and a member adapted to extend down into the bank of rollers and constructed to define a trumpet through which the roving is adapted to pass.

7. In a spinning machine, a roller bank, thread guide means, and a roving guide, said roving guide extending into the roller bank and provided with a trumpet-like formation through which the roving is guided.

8. In a spinning machine, a roller bank, thread guide means, and a roving guide, said roving guide extending into the roller bank and provided with a trumpet-like formation through which the roving is guided, said roving guide consisting in construction of an elongated leg divided into a pair of interlapping sections and adjustment means between the sections.

9. In a spinning machine, a roller bank, thread guide means, and a roving guide, said roving guide extending into the roller bank and provided with a trumpet-like formation through which the roving is guided, said roving guide consisting in construction of an elongated leg divided into a pair of interlapping sections and adjustment means between the sections, said adjusting means being adapted to permit separation of the trumpet formed section from the complementary section.

10. In a spinning machine, a roller bank, thread guide means, and a roving guide, said roving guide extending into the roller bank and provided with a trumpet-like formation through which the roving is guided, said roving guide consisting in construction of an elongated leg divided into a pair of interlapping sections and adjustment means between the sections, said trumpet formation being in the form of a fork.

11. In a spinning machine, a bank of rollers, a guide proper at the thread and roving feed side of the bank, said guide proper being adapted to guide roving and threads and provided with means extending between certain of the rollers of the bank to further guide the roving controlled by the guide proper.

12. In a spinning machine, a bank of rollers, a guide proper at the thread and roving feed side of the bank, said guide proper being adapted to guide roving and threads and provided with means extending between certain of the rollers of the bank to further guide the roving controlled by the guide proper, said means consisting of a member extending from the guide proper and provided with an extensible guide leg.

13. In a spinning machine, a bank of rollers, a guide proper at the thread and roving feed side of the bank, said guide proper being adapted to guide roving and threads and provided with means extending between certain of the rollers on the bank to further guide the roving controlled by the guide proper, said guide proper consisting of a post divided into a pair of interlapping sections, one of said sections being formed with a slot and securing means disposed through the slot and into the other section.

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