May 24, 1949. W. F. BIRD 2,471,058

CONTROL OF TEXTILE FIBERS DURING DRAFTING OPERATIONS

Filed Oct. 8, 1947 2 Sheets-Sheet 1

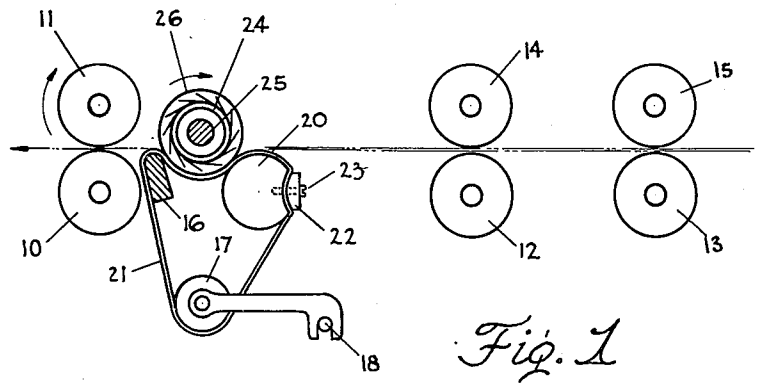


Fig. 1

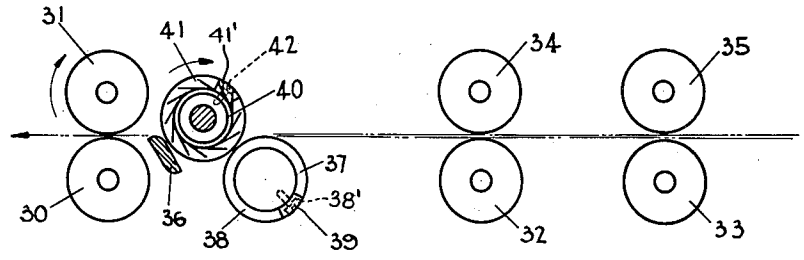


Fig. 2

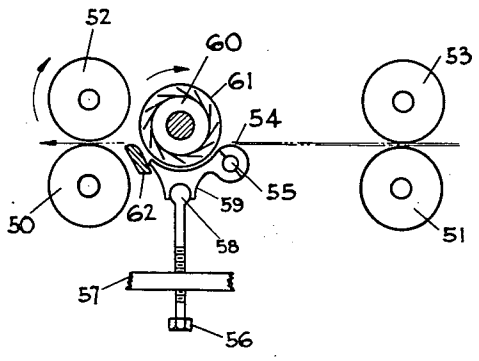


Fig. 3

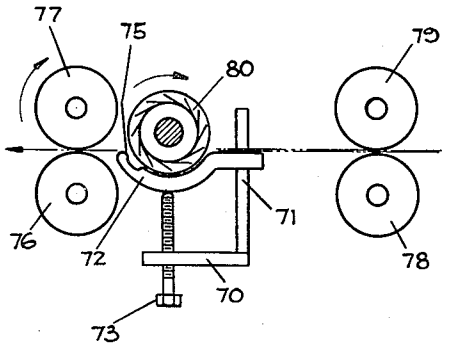


Fig. 4

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Filed Oct. 8, 1947 2 Sheets-Sheet 2

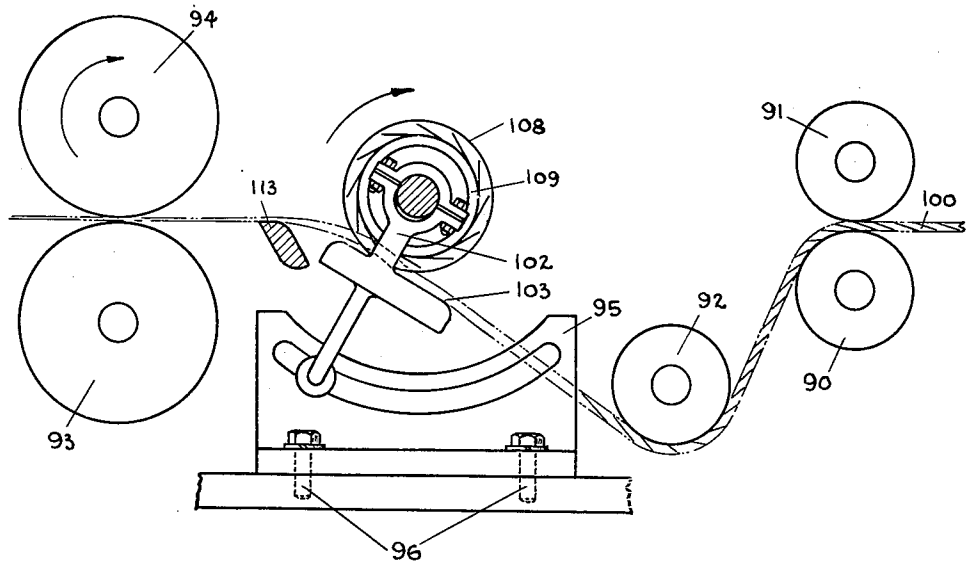


Fig 5

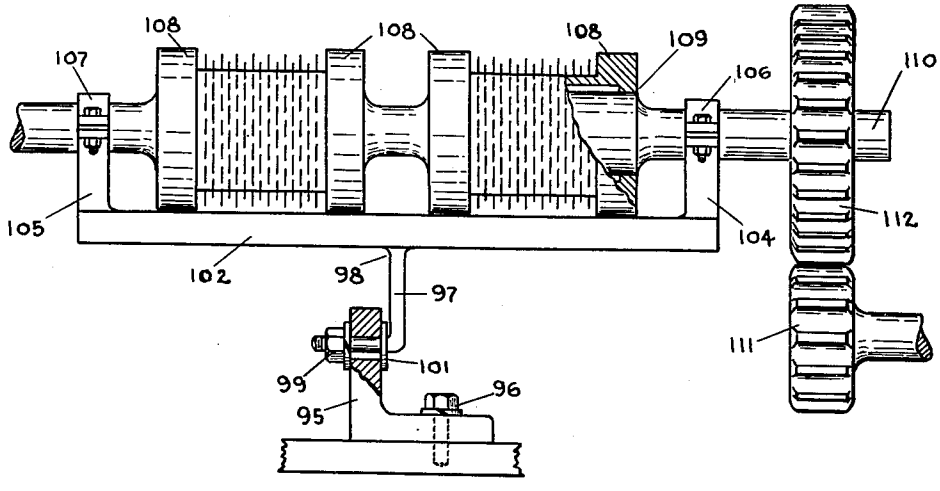


Fig 6

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CONTROL OF TEXTILE FIBERS DURING DRAFTING OPERATIONS

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Application October 8, 1947, Serial No. 778,637

17 Claims. (Cl. 19—130)

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This invention relates to draft and draw frames such as are used in the preparation of textile yarns, rovings and slivers. The present disclosure is a continuation in part of my co-pending applications, Serial Nos. 635,642 and 645,055. Application Serial No. 22,686 is a division of Serial No. 645,055, now abandoned.

In application Serial No. 635,642, I have illustrated drafting devices of substantially universal application. These devices have expanded the range of blends and length variation of fibers which may be processed successfully and economically. The illustrated embodiments of this prior application show arrangements for the successful feeding and control of fibers difficult to process because of twist characteristics and wide variation in fiber length in and within stocks of fibers.

Abandoned application Serial No. 645,055 and its divisional application Serial No. 22,686 each specifically disclose arrangements of positively driven control rollers in combination with a support to provide even control of fibers during drafting. Among the features disclosed in these prior applications is a positively driven pin control roller cooperating with a fiber guide or support. In the latter case, a particular structure is provided to reduce wear when the guide and control roller are operating in contact, but at different speeds.

In the present instance, I am illustrating additional variations in fiber control mechanism during drafting. These include certain simplifications of the previous embodiments and permit a reduction in the number of parts, especially power driven parts. Additionally, it provides for a wide selection of material for use in the guides to overcome operating difficulties such as static.

As in the prior applications, I use the feature of effecting a support for the fibers substantially directly opposite to the point of first contact of the fibers with the control roller. The structural improvements largely reside in modifying the supports and their cooperation with the control roller as will be more fully explained.

In the present case, I illustrate the use of a stationary nose bar whether or not an apron is used. I also contemplate providing an adjustable support over which the fibers slide during drafting and which is automatically adjusted by movement of the control roller or independently adjustable thereto. The automatically adjustable fiber or strand support many conveniently take the form of a stationary apron having a tensioning device within or cooperating with the outside of its periphery. The independently adjustable

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strand guides are also characterized by being operative in several adjusted positions.

My combination of parts and steps greatly expands the permissible use of pin control units. It provides for desired variation in pin control and it provides for high draft in a novel manner. For example, I have found that pin rolls present fiber drafting problems not present in ordinary roll type forms of slip draft devices. If the stock is not properly presented to the pins, several types of undesirable fiber dislocations may occur. One type occurs when substantially complete pin penetration is not accomplished very quickly.

In this case, that portion of the strand which pins have penetrated will be subjected to different longitudinal feeding and restraining forces and rates than the strand portion which has not been penetrated. This is likely to be most unsatisfactory on small frames such as roving frames geared for a high draft. In general, the difficulties are increased with increased mattiness or lack of parallelism of the fibers and in stock having a wide range of fiber length as described in application Serial No. 635,642. It is also increased where the porcupine or other pin roller travels at a higher rate than the feeding means as is sometimes the case. Another is that the initial penetration being in untwisted stock subjects the stock to undesirable transverse forces at the point in the process where the fibers are least able to withstand these forces without irregular results in the final spun yarn.

It is believed that these difficulties are largely responsible for what has been a trend away from porcupine control rollers especially in those devices in which the fibers are curved about a portion of the porcupine roll during processing.

I have overcome these difficulties without introducing new processing difficulties, and have determined that by properly presenting and guiding a strand or strands of fibers to, about and from a porcupine or other pin roll that a comparatively wide range of mechanism can be used.

I am, of course, aware that different type fiber supports have previously been used in conjunction with a pin roller. These commonly take the form of gears which at once restrict the pin spacing and arrangement within narrow limits and create unequal pressures and undulations in the stock. Also, I am familiar with the use of guards, guides or rolls which because of their position or form do not provide for the present type support at the initial points of pin insertion into the stock during drafting. I believe that I

am the first to provide means and method of attaining the following objects of invention.

It is an object of my invention to provide a method of and apparatus for the control of fibers in the critical drafting area of a drafting device which is characterized by definitely supporting the fibers against deflections from transverse pin inserting operations.

Another object is to provide a strand deflecting pin roll and a strand deflecting member between the pin roll and the front drawing off nip to provide for a definite path of approach of the stock to the front nip and/or a strand deflection opposite to that created by the pin roll.

Another object is to provide forms of strand guides other than a movable apron for close cooperation with a pin roll in a drafting operation.

Another object is to provide a pin roll and strand guide combination in which the stock may be uniformly controlled in any of several adjusted positions of the control unit.

Another object is to provide a front guide between the control roller and the front drafting rolls which may define a fixed point which need not vary with the different adjustments of the control roller and cooperating guide or guides.

Another object is to provide stationary forms of strand guides in drafting areas for cooperating with positively driven fiber controlling pin rollers.

Another object is to provide a strand guide which will present the stock to a predetermined point on the control roller either forwardly or rearwardly of the center of the control roller.

Another object is to provide a strand guide which does not enter the pinned area of a pin control roller, but which insures substantially complete and quick penetration of stock irrespective of the degree of parallelism of the component fibers.

These and other objects of the invention will be manifest from a consideration of the following description claims and drawings in which:

Fig. 1 is a diagrammatic side elevation of an embodiment of my improvements using a flexible weighted self adjusting apron type of strand guide in combination with a porcupine type pin roll.

Fig. 2 is a side elevational view of a modification in which a fixed nose bar and rollers, with or without anti-friction devices, may be used.

Fig. 3 is a side elevational view of a modification showing a pivotally adjustable strand guide and nose bar combination.

Fig. 4 is a side elevational view of an adjustable guide having the nose bar integral with the strand presenting guide means.

Fig. 5 is a side elevational view of a modification in which the strand is presented at different predetermined positions on the periphery of the pin roll including positions forwardly of the pin roll center line.

Fig. 6 is a sub-assembly view, partly in section, which shows the drive, the manner of adjustment for the strand guide portion, and a control roll construction of the modification shown in Fig. 5.

It is to be understood that either the shape or position of parts may provide for a supporting of the fibers along their length and in the area of the initial contact between the fibers and the pins. Additionally, the surface of the supports is such that they do not enter between the points of the pins and hence need not turn with the pin roller. The presentation of the strand or strands to the pin roll is made under conditions that the bulk of the stock itself and the supporting guide

may contribute to the supporting of the fibers during pin insertion. In short, the size of the sliver or roving being processed may influence the respective settings of the strand support and pin control roller.

In Fig. 1 I have shown the combination of a break draft device which as usual precedes one or more greater draft stages or areas and the usual twisting to form a roving or a final yarn. The use of a break draft, particularly with false twisted stock is advantageous as it reduces both the irregularity and mattiness of the stock before the stock reaches the point of pin insertion.

In Fig. 1 a pair of front rolls **10** and **11** form a front drawing off nip for the fibers being processed. Bottom roll **10** is positively driven at a relatively high rate. Bottom feed rolls are progressively slower in speed to provide a break draft and a greater draft as will be understood. Rolls **11**, **14** and **15** are pressure weighted rolls cooperating with the driven rolls **10**, **12** and **13**. I keep the number of moving parts to a minimum by providing a nose bar **16**, a weight **17** pivoted at **18**, and fixed cylinders **20**, over all of which parts the apron **21**, is looped as an endless band.

The apron **21** is secured to the fixed cylinder **20** by means of a rounded plate **22** fitting into a cut out portion of the cylinder by screws such as **23**.

The pin roll **24** is preferably positively driven and is keyed to its supporting shaft **25** to insure a definite predetermined rate and uniform control which cannot ordinarily be obtained by using the stock alone as a driving means. Similarly, I prefer to use anti-friction collars **26** on the pin rolls. The collars are preferably wide to avoid any tendency of the middle of the apron to curve or bow upwardly. The anti-friction collars may be similar to those described in my prior application Serial No. 645,055 and comprise a ball or other anti-friction bearing of known design. These bearings may be pressed into place on the pin roll **24** so that the inner race rotates with the roll and shaft and the outer race may turn freely relatively thereto. Any suitable anti-friction bearing may be used, the main feature being the provision of free turning relatively between the apron contacting portion of the collar and the roll about which the collar is positioned. With this construction, it will be seen that the end of the pins may be touching, or just short of touching the stationary flexible apron **21**, and that vertical and horizontal adjustments of the pin roll **24** will be automatically compensated for by the sliding of the apron about the nose bar **16**. The cylinder **20** is slidably adjustable along the horizontal line so as to be moved in conjunction with the adjustment of the pin roller **24**. The pull of the weight **17** may act forwardly on the cylinder, although a fixed adjustment provides more certainty of operation and is preferred. Fig. 2 shows a simple construction which emphasizes the flexibility of my concept and shows that the stationary or other apron and its weight roller may in some cases be dispensed with. This is accomplished by using a nose bar **36** and a cylindrical guide **37** covered with an anti-friction surface roll **38**, which may be conveniently locked against movement by set screws **39**, as through a small projection **38¹** on roller **38**.

The pin roll **40** has anti-friction collars **41**, such as described in my prior abandoned application, 645,055, and its divisional application 22,686 with an extending portion **41¹** through which set screws **42** may be inserted to secure the collars

against free turning on the pin roll. The extending portion is provided merely to more conveniently introduce the set or locking screw and has no particular processing function.

The rolls **30**, **31**, **32**, **33**, **34** and **35** are the equivalent of rolls **10**, **11**, **12**, **13**, **14** and **15** respectively, Fig. 1. As in Fig. 1 the size and relative position of parts are such that the stock is supported along its length in the area of initial pin insertion. The fixed nose bar **36** causes the stock to approach the drawing off nip from the same position regardless of the vertical or horizontal adjustment of the pin roller or the guide **37**. The angle of the pins is preferably such that the pin withdrawal is made without dislocation of the fibers.

In structures such as Figs. 1 and 2, proper adjustment of the pin roll is greatly facilitated by use of a fixed bar which deflects the strand between the pin roll and the drawing off nip. It will be noted that this deflection is in a direction opposite to the deflection caused by the pin roll. The adjustment is such that it is within a control unit rather than an adjustment in the position of the entire unit. Any of the several embodiments may be used with or without a break draft as conditions warrant.

It will be noted that in Fig. 2, the strand support presents the strand to the pins at a point which is substantially above the bottom of the base of the lowermost pins so as to deflect the incoming strand. The spacing of the supporting surface from the ends of the pins is approximately equal to or less than the thickness of the stock being processed so as to provide a definite support. Usually either the collars **41** or the roll **38** will be unlocked so that a difference in speed between the fiber control roller and its collars will be provided as desired. Sometimes, as when the stock is of substantial bulk, a small spacing between the collars and roll **38**, may be provided. In cases where contact of the collars and roller surface is required for best operation, I prefer that one or the other be unlocked, to avoid wear of parts although this is not essential to the method concept or operation of the apparatus. Accordingly, when only the collars **41** are unlocked, the collars **41** and roll **38** will be stationary. When only the roll **38** is unlocked, the roll **38** will have the same surface speed as the collars. In either of these arrangements, wear of collars or rolls is avoided. As is known, fiber blends are almost limitless in number and the best arrangement for each cannot be specifically described.

Fig. 3 shows a fiber control combination within a draft zone. In this modification, rolls **50**, **52** provide a drawing off nip and rolls **51**, **53** a slower set of feed rolls. A pivoted guide member **54** turns about the shaft **55**, on movement of screw **56**, in fixed plate **57**. The top portion of guide **54** is circular so that the stock will enter the pins at approximately the same point regardless of the setting. Lowering of the guide will increase the strand entrance spacing for heavier stock or to reduce the compression on fiber stock. The screw **56** has a ball **58** on its end which fits into socket **59** to permit adjustment as will be understood.

The spacing of the guide and pins is such that the bulk of the stock, which is under some tension as it passes over **54**, will be supported at the bottom at the point of first contact with the pins. The free end of the guide is concentric with the pin roll and may be adjusted very close to it.

The arrangement of Fig. 4 is somewhat similar

to that shown in Fig. 3, but differs therefrom in that the adjustment is vertical and the guide is extended to include a nose bar portion. In Fig. 4 a fixed bracket **70** has rods **71** at its sides. These are out of the path of the stock and permits the raising and lowering of the guide **72**, on rods **71** by turning the screw **73** in bracket **70**. The guide has a flat support for the strands as they approach the pin roller. The effective adjustments of Figs. 3 and 4 are relatively small as compared to Figs. 1 and 2. In Fig. 4, the end portion **75** of guide **72** may provide the function of the nose bar of the other modifications. The curvature of the guide **72** is substantially concentric with the pin roll when the guide **72** is in position close to the roller.

Rolls **76**, **77**, **78** and **79** present the usual draft producing rolls of a drafting device. Pin roll **80** may or may not have anti-friction collars. It will be noted that the adjustment of the guide is independent of the pin roll. The collars of the pin rolls need not be anti-friction collars, although the use of such collars is contemplated herein. When anti-friction collars are used, it will be obvious that the form of adjustment may also be changed, such as by substituting spring pressure for the positive movement of the screws as shown. Adjustment is important to the flexibility of devices incorporating the present improvement as it may be used in many forms to vary amount of control given a particular stock as well as to vary the condition for various bulks of stock and fiber length. The adjustment may be against independent stops or up to, but not into the points of the pins of the pin roller.

Fig. 5 illustrates another embodiment wherein a generally flat plate with rounded ends deflects the strand or strand of fibers into the path at a predetermined point or points on the periphery of the pin control roller. As previously set forth, the control of the fibers is most critical close to the drawing off nip. For situations where short contact with the pin roller is desired or where a limited or no curving about the pin roll is preferred, I provide a structure to meet their several requirements.

According to this embodiment, a support, which may be stationary during operation, is provided. It may be adjustable along the periphery of the pin roller and independently adjustable of the pin roll both as to spacing from the pin roll and about its controlling portion. I have shown low twisted stock **100** entering the feed rolls **90**, **91** and moving down and about a bar or roller **92**. The twist will be removed as the stock advances and is drafted so that it is untwisted at the point of pin insertion which is close to the front drawing off nip formed by driven rollers **93** and pressure roller **94**. A fixed bracket **95** secured to the frame by screws **96**, has a curved slot along which the guide is secured in adjusted position. A bent member **97** having an attached end **98**, and a turned in threaded portion permits the described adjustment through manipulation of nut **99** and washer **101**.

The end **98** is fixed to member **102**. The member **102** has a strand guide portion **103**, which may be rounded off and two arms **104**, **105** having semi-circular top portions which together with companion members **106**, **107** support the strand guide portion **103** against anti-friction collars **108** of the pin roll **109**. It will be seen that by use of shims or spacers between parts **104**, **106** and **105**, **107**, different adjustments may be made in a radial direction and that the anti-

friction collar is not essential to the broad concept.

Fig. 6 shows a pair of pin rolls, the mounting of the strand guide about the pin roll shaft 110, and the centrally located bracket 95 with its associated parts. Gear 111 is a drive gear for gear 112 fixed to the pin roll shaft as will be understood.

A nose bar 113 positioned between the pin roll and the front drawing off nip supports the strand and insures its leaving the pin roll from a definite predetermined position as desired. It may, but need not be adjusted with the guide portion 103.

The guide portion 103 is shown to have a straight surface in the area in which the strands first contact the pins. Minor modification may obviously be made such as making a portion concentric to the pin roll.

The apron, Fig. 1, may be leather, woven rubber, metal or the like, and sufficiently smooth so that it will provide a support of the type described and not enter the pinned area. The pins are preferably short, staggered, dense and disposed at an angle as previously described. The pin rolls are horizontally and vertically adjustable as desired and are preferably positively driven.

It will be noted that the forces to which a strand or plurality of strands are subjected are such as to cause it or them to be in contact with the support or guide prior to and at the time of initial contact with the pins of the control roller. It perhaps should be mentioned that textile fiber strands are classified by weight rather than thickness and that different type fibers have different degrees of compactness because of their cohesive and adhesive properties as well as their wildness. Furthermore, the stock is untwisted and the fibers are rapidly changing their relative positions within the strand at the point of pin insertion. The setting of an individual machine may vary slightly with the character of the stock being processed and with the angle of inclination of the pins to their supporting base. The setting should be such as to provide substantially complete penetration of the pins through supported stock and the support should not enter into the pinned area. Entry of the stationary support into the pinned area would render the devices inoperative. The spacing between the guide and pins is preferably very close so that the ends of the pins intersect at least a portion of the path of the supported compact bulk of the fibers to be processed. The bulk of the fibers are those positioned relatively to each other to form a continuous strand and having interfacial friction with one another. Wild fibers are not included in this definition as will be understood.

The various modifications illustrate the flexibility of the concept in applying it to structural embodiment. They also illustrate the flexibility of different individual structures and their adaptability for drafting different type stocks and on different size machines. In all cases the guide is something more than a mere guard. It does not interfere with the pin control. It will be noted that while two or more porcupine or other pin rolls may be used in a single drafting area, in such cases all of the pin insertions should be under the control conditions above set forth. This is particularly true in high draft units.

A pin roller is a form of slip draft device, but in general, it is preferred that the stock be fed to it at a definite rate. While this is not necessary for all stock it gives a frame equipped with feeding rollers a range of operation not otherwise obtained. The ratch is usually set to take care of the longest fibers which may be 8 inches to as much as 12 inches in length. Stock which contains a relatively high percentage of long fibers, such as mohair does not require the same refinement of feeding control as weaker irregular blends. It may be processed on any of the illustrated embodiments. This is true of nearly all spinnable blends, except the weakest stocks having a wide variation in fiber length.

As briefly suggested above, the recent trend has been to restrict the use of porcupine rollers even in the French system. Also most inventors in this field have stressed structures constructed to avoid any deflection of the strand by a pin roll as by use of two porcupine rolls on opposite sides of the strand. Contrary to these lines of thought, I have determined that much of the difficulty encountered flows from the faulty pinning arrangements of the prior art and that opposite deflections appear to balance each other especially when properly positioned within the drafting area. I have arranged the second deflection so as to facilitate the removal of the stock from the pins and in a manner to allow adjustment of the pin roller and its associated parts without materially effecting the manner of introducing stock to the front nip.

Having described my improvements in connection with preferred embodiments, but not wishing to be limited to the specific details shown and described, but only by the limits of inventive novelty, I claim:

1. In a drafting mechanism for strands of textile fibers, means forming a front nip to draw off the fibers as they are being drafted, a stationary strand guide for fibers as they pass forwardly to the front nip, said stationary guide extending lengthwise along the path of the fibers for a predetermined distance, means including the said front nip forming means for moving a strand of fibers in contact with the stationary guide, and a rotatable fiber control pin roller for initially penetrating into only that portion of the length of the strand in contact with the stationary guide as the pin roll rotates in operation.

2. In a drafting mechanism for strands of textile fibers, means forming a front nip to draw off the fibers as they are being drafted, a stationary strand guide for fibers as they pass forwardly to the front nip, said stationary guide extending lengthwise along the path of the fibers for a predetermined distance, means including the said front nip forming means for moving a strand of fibers in contact with the stationary guide, and a rotatable fiber control pin roller for initially penetrating into only that portion of the length of the strand in contact with the stationary guide as the pin roll rotates in operation, the pins of said pin roll forming an obtuse angle with the approaching strand portion.

3. In a drafting mechanism for strands of textile fibers, means forming a front nip to draw off the fibers as they are being drafted, a rotatable fiber control pin roller rearwardly of the front drawing off nip, a rigid strand contacting guide positioned between the pin control roller and the drawing off nip, said strand guide being positioned to deflect the strand and cause it to curve about a forward portion of the pin roll, a strand supporting guide having a continuous surface for the fibers as they approach the pins of the pin roller, said guide being spaced from the ends of the pins a distance less than the thickness of the

strands as they are being drafted whereby the fiber strands may be definitely supported opposite to the points where the pins enter the strands.

4. In a method of drafting textile fibers, the steps which consist of moving a strand of fibers through a drafting area, providing a stationary support lengthwise along the fibers being drafted, simultaneously and progressively penetrating the strand of fibers being fed by inserting fiber control pins the full width of the strand into the continuously supported portion, withdrawing the fiber control pins after substantially complete penetration of the strand, said insertions and withdrawals being in a rotary path and the insertions occurring only while the fibers are supported against deflection by the pins at points which are at or closely spaced from the outside perimeter of the rotary path of the pins, moving the pins in the general direction of strand travel and moving the strand over and relative to the support while simultaneously feeding, drafting and controlling the penetrated fibers so that the penetrated strand is uniformly controlled.

5. In a method of drafting textile fibers, the steps which consist of moving a strand of fibers through a drafting area, providing a stationary support lengthwise along the fibers being drafted, simultaneously and progressively penetrating the strand of fibers being fed by inserting fiber control pins the full width of the stock into the continuously supported portion, withdrawing the fiber control pins after substantially complete penetration of the strand, said insertions and withdrawals being in a rotary path and the insertions occurring only while the fibers are supported against deflection by the pins at points which are at or radially spaced from the outside perimeter of the rotary path of the pins a distance less than the thickness of the strand being processed, moving the pins in the general direction of strand travel and moving the fibers over and from the stationary support.

6. In a drafting mechanism for strands of textile fibers, a front drawing off nip for the fibers as they are being drafted, a stationary flexible support for the fibers as they pass forwardly to the front nip, a rotatable fiber control pin roller for penetrating the strand of fibers as it moves forwardly along the flexible stationary support toward the front nip, and means for depressing a portion of the flexible stationary support into a curved path about a portion of the path of the ends of the rotatable pins of the pin roller.

7. In the combination set forth in claim 6 further characterized in that the depressing means and the pin roller are simultaneously adjustable and the flexible support is yieldably mounted to conform with any particular adjustment of the pin roller.

8. In a drafting mechanism for textile fibers, means forming a front nip for the fibers as they are being drafted, a stationary flexible support for the fibers as they pass forwardly to the front nip, a rotatable fiber control pin roller for penetrating the strand of fibers as it moves forwardly along the flexible stationary support and approaches the front nip of the drafting mechanism, anti-friction collars on opposite sides of the pinned area of the roller, said collars being in contact with the flexible support along a curved line.

9. In a drafting mechanism for textile fibers, means forming a front nip for the fibers as they are being drafted, a stationary flexible support for the fibers as they pass forwardly to the front nip, a rotatable fiber control pin roller for penetrating the strand of fibers as it moves forwardly along the flexible stationary support and approaches the front nip of the drafting mechanism, anti-friction collars on opposite sides of the pinned area of the roller, said collars being in contact with the flexible support along a curved line, and tensioning means including the pin roll and another member said other member being yieldably mounted and in contact with the flexible guide.

10. In a drafting mechanism for strands of textile fibers, means forming a front nip to draw off the fibers as they are being drafted, a rotatable fiber control pin roller rearwardly of the front drawing off nip, a rigid strand contacting guide positioned between the pin control roller and the drawing off nip, said strand guide being positioned to deflect the strand and cause it to curve about a forward portion of the pin roll, a strand supporting guide having a stationary continuous convex surface for the fibers as they approach the pins of the pin roller, said guide being spaced from the ends of the pins a distance less than the thickness of strand as it is being drafted whereby the fiber strand may be definitely supported opposite to the points where the pins enter the strand.

11. In the combination set forth in claim 1, means for adjusting the stationary strand guide toward and away from the pin roller, said means including a fixed support for the guide and means for moving the guide relatively to the support.

12. In the combination set forth in claim 1, means for adjusting the stationary strand guide toward and away from the pin roller, said means including a fixed pivotal support for the guide and means for moving the stationary guide relatively to the support.

13. In a drafting mechanism for strands of textile fibers, means forming a front nip to draw off the fibers as they are being drafted, a stationary strand guide for fibers as they pass forwardly to the front nip, said stationary guide extending along the path of the fibers for a predetermined distance means including the said front nip forming means for moving a strand of fibers in contact with the stationary guide, and a rotatable fiber control pin roller for initially penetrating into only that portion of the length of the strand in contact with the stationary guide as the pin roll rotates in operation, and means for securing the stationary guide in different positions about the arcuate path of the ends of the pin roller pins.

14. In a drafting mechanism for strands of textile fibers, means forming a front nip to draw off the fibers as they are being drafted, a stationary strand guide for fibers as they pass forwardly to the front nip, said stationary guide extending along the path of the fibers for a predetermined distance means including the said front nip forming means for moving a strand of fibers in contact with the stationary guide, and a rotatable fiber control pin roller for initially penetrating into only that portion of the length of the strand in contact with the stationary guide as the pin roll rotates in operation, said stationary guide having a substantially straight strand guide surface to provide support for the portion of the strand to be initially penetrated.

15. In a drafting mechanism for strands of textile fibers, means forming a front nip to draw off the fibers as they are being drafted, a stationary strand guide for fibers as they pass for-

wardly to the front nip, said stationary guide extending along the path of the fibers for a predetermined distance means including the said front nip forming means for moving a strand of fibers in contact with the stationary guide, and a rotatable fiber control pin roller for initially penetrating into only that portion of the length of the strand in contact with the stationary guide as the pin roll rotates in operation, said stationary guide having a substantially straight strand guide surface to provide support for the portion of the strand to be initially penetrated, and means for securing the stationary guide in different positions about the arcuate path of the ends of the pin roller pins.

16. In a drafting mechanism for strands of textile fibers, means forming a front nip to draw off the fibers as they are being drafted, a stationary strand guide for fibers as they pass forwardly to the front nip, said stationary guide extending along the path of the fibers for a predetermined distance means including the said front nip forming means for moving a strand of fibers in contact with the stationary guide, and a rotatable fiber control pin roller for initially penetrating into only that portion of the length of the strand in contact with the stationary guide as the pin roll rotates in operation, said stationary guide being pivotally supported and means for adjusting the stationary guide about the pivot point.

17. In a drafting mechanism for strands of textile fibers, means forming a front nip to draw off the fibers as they are being drafted, a stationary strand guide for fibers as they pass forwardly to the front nip, said stationary guide extending along the path of the fibers for a predetermined distance means including the said front nip forming means for moving a strand of fibers in contact with the stationary guide, and a rotatable fiber control pin roller for initially penetrating into only that portion of the length of the strand in contact with the stationary guide as the pin roll rotates in operation, and means for adjusting the stationary support radially of the ends of the pins.

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