Feb. 14, 1956 E. F. SAUNDERS ET AL 2,734,335

STRAND INTERRUPTING AND FEEDING APPARATUS

Filed Dec. 27, 1950 3 Sheets-Sheet 1

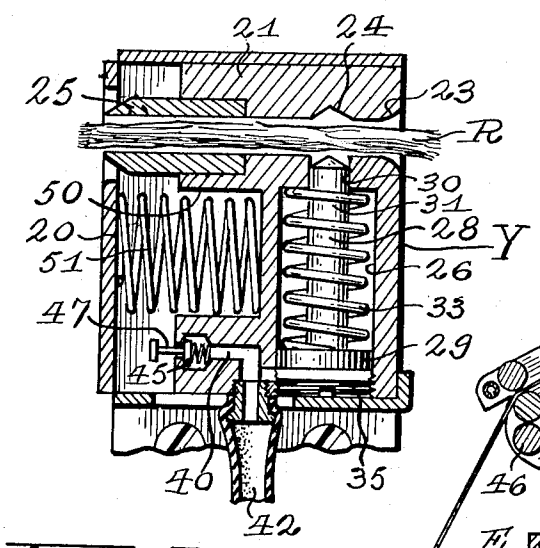


Fig. 2

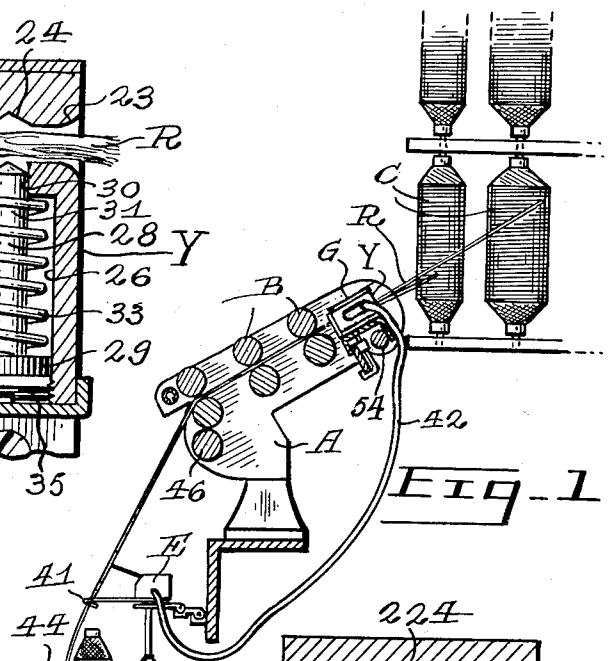


Fig. 1

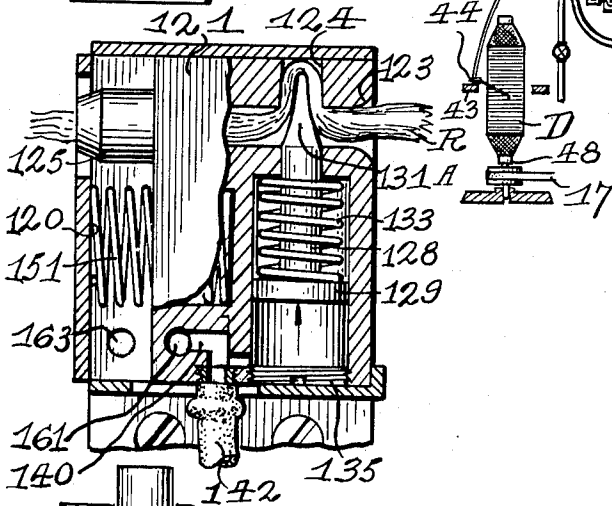


Fig. 3

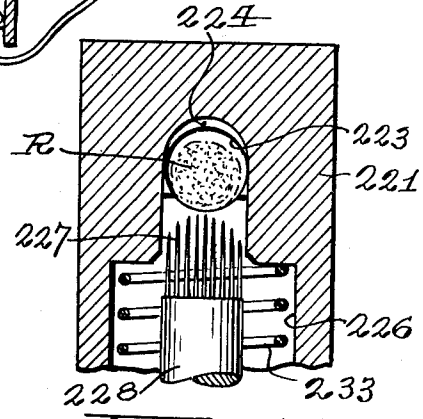


Fig. 4

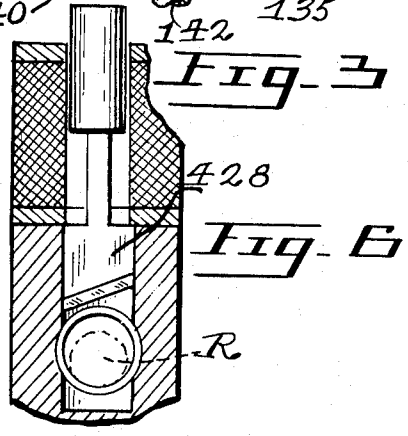
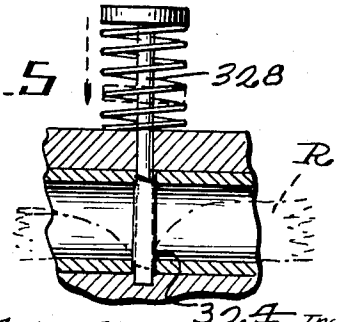


Fig. 6

Fig. 5



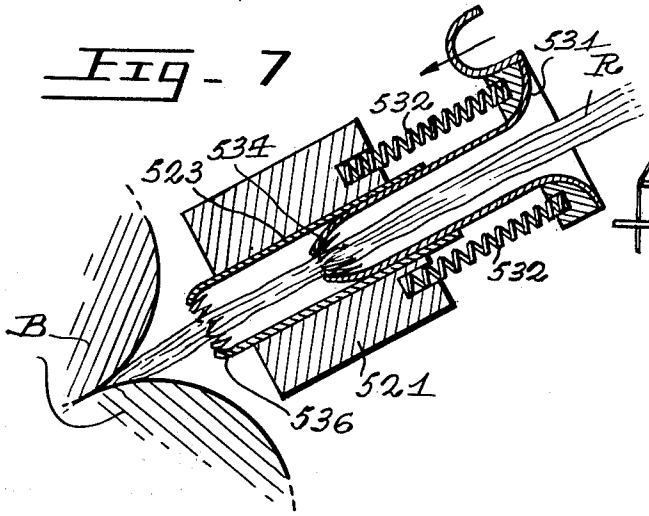
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Feb. 14, 1956 E. F. SAUNDERS ET AL 2,734,335

STRAND INTERRUPTING AND FEEDING APPARATUS

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Fig. 7



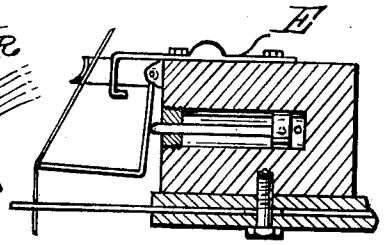


Fig. 8

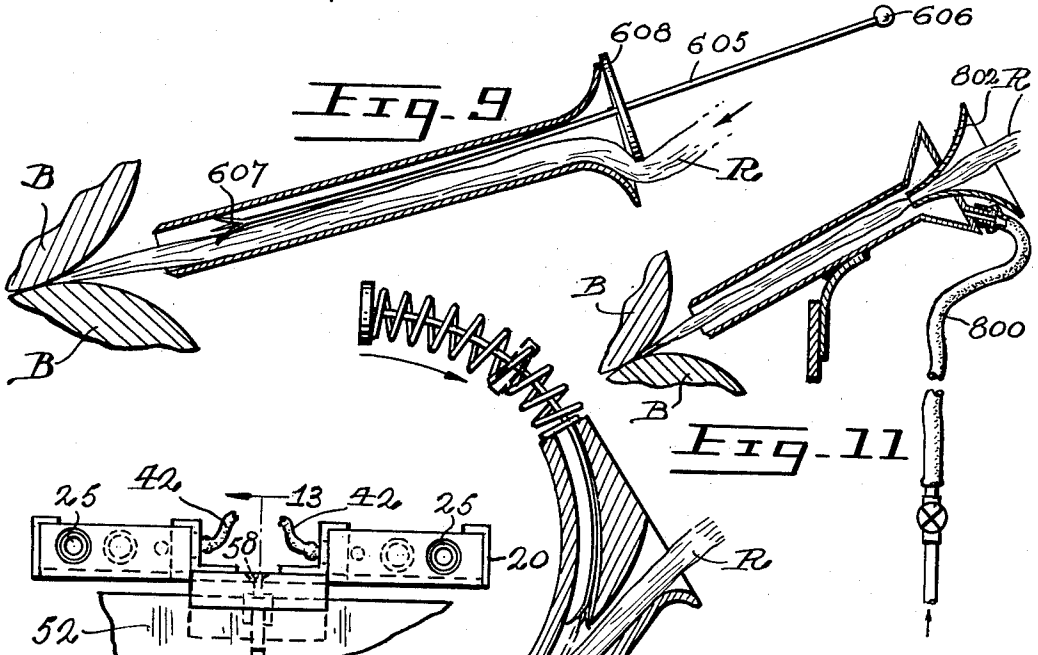


Fig. 9

Fig. 11

Fig. 12

Fig. 10

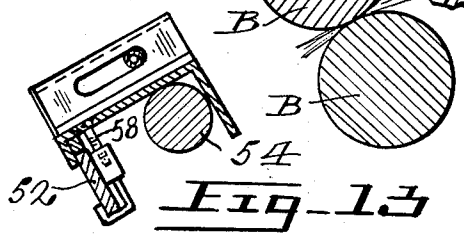


Fig. 13

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STRAND INTERRUPTING AND FEEDING APPARATUS

Filed Dec. 27, 1950

3 Sheets-Sheet 3

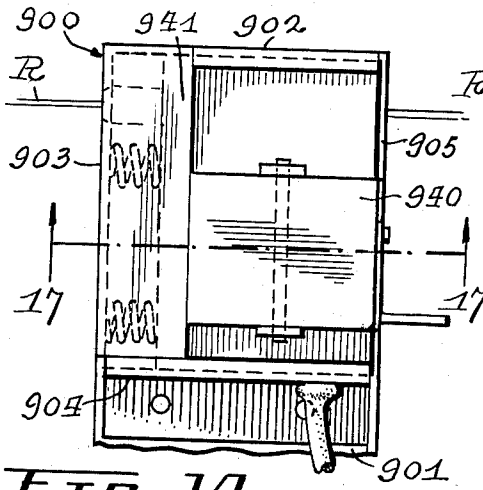


Fig. 14

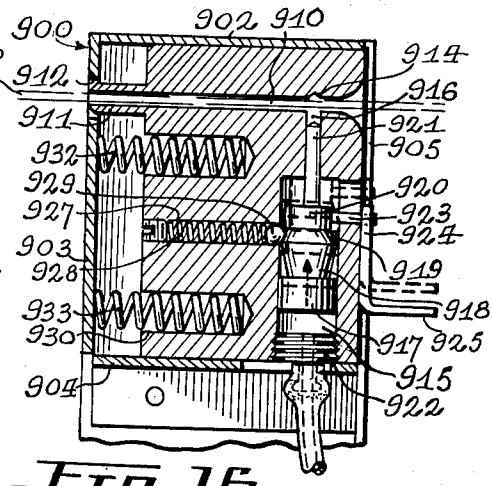


Fig. 16

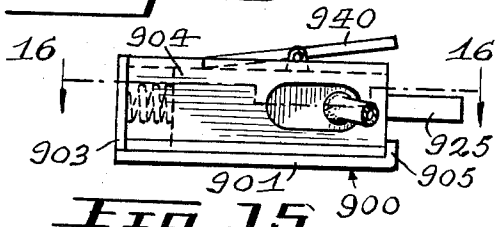


Fig. 15

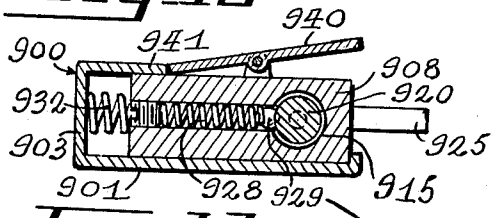


Fig. 17

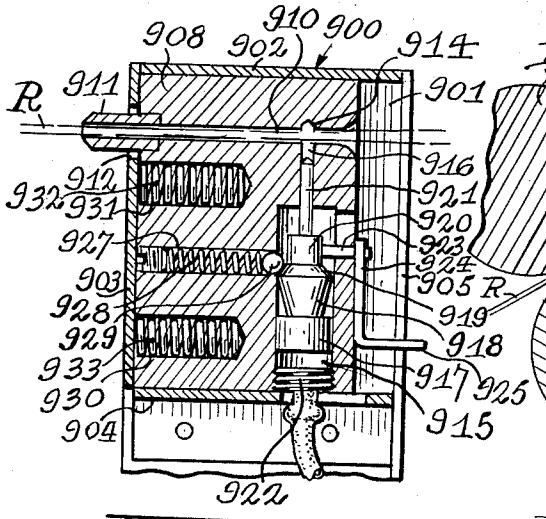


Fig. 18

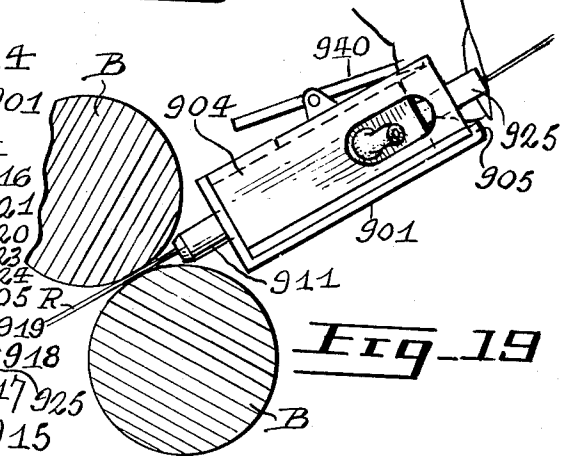


Fig. 19

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United States Patent Office 2,734,335 Patented Feb. 14, 1956

2,734,335

STRAND INTERRUPTING AND FEEDING APPARATUS

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Application December 27, 1950, Serial No. 202,928

13 Claims. (Cl. 57—86)

This invention relates to improvements in interrupting and refeeding devices for roving or other fiber strands used by textile machines.

Present development

The present invention relates to interrupting means for severing roving or other textile strands and for refeeding the strands which may be and preferably are used but need not necessarily be used in conjunction with the invention of application Serial No. 142,222, now Patent No. 2,611,230.

Generally speaking, the present invention employs apparatus involving the following features. The apparatus includes a supporting and guiding member preferably a member having a tubular passage through which the roving or strand to be severed passes. This passage is preferably long enough to permit severing of the roving within it, for example, between the point of contact of the severing means with the strand and the bite of drawing rolls. The passage is also long enough to retain a length of the roving within the passage for refeeding, for example, drawing rolls.

Broadly speaking, the member including the feeding passage also has a transverse passage. In this transverse passage operates a plunger carrying a severing head. The severing head may take one of a number of preferred forms.

A preferred form of the invention is embodied in the following device. It includes a substantially horizontal casing. The casing has front, back and side walls and preferably a rearwardly extending top flange on the front wall. A block is mounted in the casing for forward and rearward movement. Means, for example springs, normally urge the block in a rearward direction. The block includes a guide passage for roving or other strand to be interrupted. This extends from rear to front of the block. The block carries a forward extension of the passage or nozzle. This is for placing close to drafting rolls to lead the strand in close to the nip of the rolls. The passage preferably has a trumpet-like opening. The block includes a transverse cylinder having a part of reduced diameter leading into the guide passage. A piston assembly operates in the cylinder. The piston assembly includes a piston head, a double faced cam above said head and a piston rod extending beyond the cam entering the restricted portion of the passage. An inlet is provided in the block to the end of the cylinder behind the piston head. The block also has a passage extending perpendicular to the cylinder. This perpendicular passage houses a spring and a ball bearing pressed by the spring against the cam portion of the piston assembly. Normally the piston assembly is urged in a downward direction, that is away from contact with the roving, by action of the ball bearing against its upper cam face. When sufficient air pressure enters the cylinder the action of the ball bearing is overcome and the piston assembly moves upwards over the apex of the cam. Then the ball

bearing acts on the other face of the cam thus urging the assembly upwards.

The effect of this arrangement is that normally the ball bearing retains the cam in downward position. But, when the interrupting action has taken place, the assembly is urged in a direction to trap the strand.

Pivoted on the top of the block is a lever. This lever has a portion adapted to engage the flange at the front of the housing. When the lever is tripped it disengages the flange and makes it possible to push the block forward in the housing so as to bring the roving close to the nip of the drawing rolls and to start feeding again. A key is also connected to the piston assembly and projects outside the housing. This makes possible manipulation to bring the assembly back to starting position at the moment when the roving is fed in between the nip of the rolls.

While the interrupting method and mechanism has, for convenience and illustration, been described in conjunction with spinning it is understood that it might be used for other purposes where it is desired to interrupt a strand of fibers.

The invention will now be described in more detail by reference to the accompanying drawings illustrating preferred embodiments of it in which parts and the strand of fibers acted on are shown in some instances on exaggerated or reduced scale. The application shown for illustrative purposes is to spinning operations.

Figure 1 is a side elevation, partly in section of the principal elements of a typical ring spinning frame equipped with control mechanism according to the invention.

Figure 2 is a horizontal cross-section, partly in plan through one form of combined interrupting and automatic feed mechanism according to the invention.

Figure 3 is a horizontal cross-section partly in plan through another type of interrupting mechanism.

Figure 4 is a vertical cross-section partly in plan through still another type of interrupting apparatus.

Figure 5 is a vertical cross-section partly in elevation, showing another type of interrupting mechanism.

Figure 6 is a vertical cross-section partly in elevation, showing still another type of interrupting mechanism.

Figure 7 is a vertical cross-section partly in plan through a type of automatic feeding mechanism, according to the invention.

Figure 8 is a vertical cross-section partly in elevation through a form of detecting mechanism which may be employed with the interrupting apparatus of the present invention.

Figure 9 shows a feeding mechanism embodying a hand feeding element, partly in elevation, in vertical cross-section.

Figure 10 is a vertical cross-section, partly in elevation, through a feeding mechanism embodying an automatically retractable hand operated feed mechanism.

Figure 11 is a vertical cross-section, partly in elevation, showing an air feed mechanism.

Figure 12 is a rear elevation showing the bracket for holding the interrupting mechanism of Figure 2.

Figure 13 is a vertical cross-section partly in elevation, through the centre of the bracket shown in Figure 12, i. e. substantially along the line **13—13** of Figure 12.

Figure 14 is a plan view of another form of interrupting unit.

Figure 15 is a side elevation of the unit shown in Figure 14.

Figure 16 is a horizontal cross-section along the lines **16—16** of Figure 15 partly in plan.

Figure 17 is a transverse vertical cross-section partly in elevation substantially along the lines **17—17** of Figure 14.

Figure 18 is a horizontal cross-section substantially

along the lines **16—16** of Figure 15, partly in plan showing the operational parts of the unit, moved into feeding position.

Figure 19 is a side elevation partly in section showing the relationship of the feeding and interrupting unit to the drawing rolls with the feeding unit in feeding position.

Detailed description

Referring more particularly to the drawings, the general arrangement of a spinning frame and mechanism, according to the invention, is as follows. Sufficient of the conventional spinning frame parts are described to make clear the combination.

On the roll stand A are mounted the drafting rolls B extending the length of the frame which draw roving from the bobbins C mounted in the spinning frame creel. Each roving R is drawn through a trumpet 23 forming part of an interrupting mechanism G and through the successive pairs of drawing rolls B, then through the thread guide 41 to the traveller 44 riding on the ring 43, and thence to the spindle bobbin D. An underclearer roll 46 on the roll stand A collects cotton fly and broken ends from the lower front drawing roll.

The roving R as it passes through the drawing rolls B is attenuated because each successive pair of drawing rolls B is geared to rotate faster than the previous pair. The twist is put into the strand of fibers by the relative rotating motions of the spindle and traveller as the yarn is drawn down from the drawing rolls through the thread guide **41** and traveller and wound on the bobbin. The spindle **48** and bobbin D are rotated by the tape **17** from a drive (not shown), while the traveller **44** is rotated on the ring **43** by the pull of the yarn. There are, of course, a number of spindles arranged side by side on the spinning frame each associated with the mechanism described for spinning a strand of fibers into yarn. The drawing rolls on both sides of the frame are driven from a common source of power through gear trains at the end of the frame. The spindles are usually driven in fours, two on each side of the frame, by a tape-belt, the tapes being driven off a series of metal pulleys or drums mounted on a shaft running lengthwise through the base of the frame. The mechanism so far described in detail is conventional as will be recognized by those skilled in the art.

Applicants' apparatus and general arrangement

The spinning frame is equipped, in combination with the parts described above, with control mechanism for each spindle, which detects a break in the end being spun and in response to this detection interrupts the respective roving prior to its reaching the drawing rolls. This control mechanism includes, in combination with the other parts of the frame, detecting means and interrupting means, actuating means for each of these means and an operative connection between them. The detecting means shown is indicated generally by E and its actuating means is compressed air supplied through suitable control means as in Figure 18. Alternatively, the detecting mechanism can be electrically operated and working in conjunction with an electrically actuated interrupting mechanism. The interrupting means is indicated generally by G. The detecting means E is capable of determining when an end of yarn being spun has broken. The interrupting means G responds to the detection of a broken end, as described, and interrupts the roving being fed to the individual spindle before it enters the first pair of drawing rolls B.

The present invention is directed particularly to interrupting methods and refeeding means to be used in combination with detecting means which may be those of application Serial No. 142,222, filed February 3, 1950, or those of application Serial No. 202,929, filed December 27, 1950.

Interrupter—First preferred form

The interrupting unit shown in Figure 2 is held by and operates in a holder **20** as best shown in Figure 12. The unit is made up of a block **21** in which passages and chambers are provided for the purposes to be described, including an elongated trumpet tube **23** having a tubular insert **25** forming an extension.

The block **21** is formed with a transverse cylinder or passage **26** in which there operates a piston assembly **28** having a piston head **29**. The passage or chamber **26** has a constricted outlet portion **30** leading up to the passage **23**. The piston head is connected to a plunger **31** which is designed to be urged through the opening **30**. The piston assembly **28** is normally retracted by the action of a coil spring **33** on the piston **28** acting on the head **29**. A screw fitted closure member **35** closes off the cylinder **26**. The block is also provided with a passage **40** which leads from an air supply pipe **42** to within the cylinder **26** at the side and in front of the piston head **29**. The passage **40** also leads to the small spring air release valve **45**. The stem **47** of the air release valve extends beyond the back of the block. The block **21** is also provided with a recess **50** accommodating a coil spring **51** which rides against the back of the holder **20**.

Operation

This form of interrupting mechanism operates as follows. The roving R passes through the trumpet passage **23** in the normal way on its way from the creel to the drawing rolls. When the respective end breaks the detecting mechanism E allows air under pressure to pass to the interrupting mechanism G through the connecting tube **42**. This air under pressure moves the piston assembly **28** toward the trumpet tube **23**. This motion carries the plunger **31** into and across the passage **23** which traps the roving securely against the surface of the indented portion **24**. This is termed "holding" the roving which, in principle, consists of trapping the roving between two surfaces of suitable materials so that it is held firm against further movement at that point. The strand of roving when caught and held at the indented portion **24** is still being drawn into the rolls B and as a result it is pulled apart between these two points and leaves a drawn out strand of fibers from the indented portion **24** extending to the nip of the rolls.

When the operator wishes to piece up the end he shuts off the air supply to the interrupter at the detector. He then places his finger against the back of the block at about the point Y and pushes the whole assembly in the direction of the rolls until the block comes in contact with the back of the holder. During this action, the severed end of the roving is pushed forward into the bite of the rolls, as is best shown in Figure 19, and the entire strand of roving is thus drawn forward in the usual manner. Just before the block reaches the limit of its feeding movement, the stem of the air release valve **47** contacts the back wall of the holder **20** and is forced inwards allowing the air to escape from the cylinder and passage in the block which permits the piston to retract under the influence of the spring **33**. This pulls the plunger out of the trumpet tube and allows for free movement of the roving. When the attendant removes his finger, the block moves back into its normal position under the influence of the spring **51**.

Figure 3 illustrates an alternative principle of a mechanical arrangement by which roving may be severed. Similar parts of the apparatus to those found in Figure 2 are illustrated by corresponding numbers, raised by one hundred. In this case, the indented portion **24** becomes a slot **124** into which the plunger **131A** is fitted so that it will function as a tight wedge. In operation, the roving is carried into the slot by the head of the plunger and held securely by the wedge action between the plunger and the walls of the slot, while the roving beyond the slot is drawn forward by the rolls B and the strand thus severed. This action is known as severing by "binding" the roving.

The air release in this model is obtained by having an

open port **161** in the bottom of the block come over another open port **163** in the base of the holder at the end of the feeding movement of the block. Thus the block acts as a slide valve.

Otherwise the operation is similar to that of the control shown in Figure 2.

Figure 4 illustrates a further principle of causing the roving to be severed which is known as "tearing." This apparatus includes a block **221** including a trumpet tube **223** through which the roving passes. The block **221** is provided with a chamber **226** in which operates a plunger **228** normally held by a spring **233** in inoperative position. The remainder of the mechanism can be similar to that shown in Figures 2 and 3. When an end break is detected the respective plunger **228** is moved in an upward direction so that the fine prongs **227** pass through the roving R and seat in the recess **224** which results in the strand of roving catching on the prongs, after which it is severed by a combined action of tearing and pulling itself apart due to the continual pull of the drawing rolls B.

Figure 5 shows the principle of "shearing" the roving. Here, a closely fitted and shaped plunger **328** rides by a shearing edge **324** thus severing the roving with the action of a pair of scissors.

Figure 6 illustrates the action of "cutting" the roving with a guillotine-like sharp knife-edge **428** for a cutter. This unit is shown as solenoid operated for illustrative purposes. It would receive its impulse from an electrical detector unit as, for example, shown in application Serial No. 142,222. Wiring from the detector would replace the air tube **42**.

Figure 7 illustrates diagrammatically the principle of feeding the roving with a movable trumpet tube. With this arrangement, the roving may be severed by any desirable means. The trumpet tube is shown assembled to slide in a housing.

The numeral **521** represents a housing block mounted in rear of the rolls B. The tube **531** slides in a sleeve **523** in the block **521**. It is normally urged in a rearward direction by a spring **532**. The end of the trumpet tube **531** is provided with inwardly angled burrs **534**. The opening at the end of the tube where the burrs are located is sufficiently large to allow the roving to pass the burrs in a forward direction without damage to the roving but when the trumpet is pushed forward the burrs catch or engage the roving and carry it forward toward the drawing rolls. Sometimes the sleeve **523** in which the trumpet tube is shown to move may be provided on its inner end with a set of burrs **536**. This will largely prevent the roving, when severed, from pulling away from the rolls. The sleeve is not always necessary.

Figure 8 illustrates a typical detector unit E suitable for use in combination with the interrupter of the present invention.

Figure 9 illustrates the use of a hand wire feed means **605** having a handle end **606**, a split and a pronged end **607** and a movable guard **608**. It is used to move the roving forward in a fixed trumpet tube, after the roving has been severed. The movable guard **608** is provided to prevent the prongs from touching the rolls B by contacting the front of the trumpet tube and thus preventing further forward motion of the wire.

It is also to be used in connection with the first feeding of roving when bringing a frame into operation. The wire shaft may be shaped as required to make it convenient for use with different models of spinning frame.

Figure 10 shows a pronged wire, as for example, that of Figure 9, held in a permanent fixture and the feed being developed by pushing the wire forward against the action of the spring.

Figure 11 shows a device for the automatic feeding of roving through the use of the principle of the aspiration. Air is admitted through the pipe **800** to a position just behind a trumpet **802**. The air is under pressure and flows by the end of the small trumpet into the large trumpet tube which has the effect of drawing in the roving and carrying it forward to the rolls.

Figure 12 shows the holder for the interrupter mechanism for the control illustrated in Figure 2. The holder is made up on a left and right hand basis, so that each holder contains two interrupter units servicing adjoining spindles.

Figure 13 shows the mounting of the holder in Figure 12. This mounting includes a screw binding mechanism **58** with which the holder is secured to the transversely moving rectangular bar **52**. It also rides on and is spaced by the circular frame rod **54** by which means a uniform distance of the holder from the drawing rolls is maintained.

Unit of Figures 14 to 19

The interrupter unit shown in Figures 14 to 19 is held in a container **900** so constructed as to hold two interrupter units, as best shown in Figure 12. It has a floor **901** and retaining walls **902**, **903**, **904** and **905**. The interrupter block **908** is slidably mounted in the frame **900**. The block is provided with a roving channel or trumpet tube **910** extending from front to rear thereof. The tube is provided with a tip **911** projecting forwardly through an opening **912** in the wall **903**. The block is also provided with a transverse cylinder **915** having a narrow extension **916** intersecting the trumpet tube **910** and carrying on at the other side of this tube in a slight indentation **914**.

In the cylinder **915** is mounted a piston assembly. This assembly is made up of a piston head portion **917**, two frustroconical cam portions **918** and **919** extending from the piston head portion **917** to a cylindrical portion **920**, which also adjoins the plunger portion **921**. The plunger portion **921** extends into the extension channel **916** leading to the trumpet tube. The tapped front end of the cylinder **915** is plugged by a screw **922**. From the cylindrical part **920** there extends laterally a pin **923** on which is mounted a traversely extending handle **924** having a finger key **925**. In the front of the block there is a passage **927** leading to the cylinder **915**. In this passage is a spring **928** and a ball-bearing **929** which is urged by the spring against the cam portions of the piston assembly. There are also two other channels **930** and **931** in the block in which are mounted springs **932** and **933** which bear against the wall **903**.

The operation of the device is as follows. Figure 16 showing the working parts of the unit at rest position at which time the piston assembly is under the influence of the spring **928** and ball bearing **929**. The action of the ball **929** under the urge of the spring **928** is to influence the movement of the piston assembly by acting on the cam portions **918** and **919**. When the ball is against the face **919** it tends to hold the piston and plunger away from the trumpet tube, and when the ball is bearing against the face **918** it tends to hold the plunger in the trumpet tube, thus binding the roving in that position even if the air pressure against the piston is vented.

When an end breaks air is admitted to the cylinder **915** behind the piston head **917**. This causes the piston assembly to move against the ball bearing in contact with the cam portion **919**. After air pressure has built up sufficiently so as to overcome the reaction of the spring and ball-bearing the piston assembly moves forward until the plunger portion **921** engages the roving in the trumpet tube **910** and carries it into the indentation **914**. The roving is thus held firmly against the pull of the drawing rolls and is thus severed. The block itself is held against forward motion during that time by the catch **940** which holds against the lip **941** of the container.

The refeeding of the roving which is part of the piecing-up process is accomplished as follows. The attendant first resets the detector which automatically vents the air under pressure from the interrupter cylinder. He then

reaches over the rolls from the front of the frame and contacts the interrupter block as shown in Figure 19. By means of this motion he urges down the rear of the catch **940** so the block can be moved forward. Continued pressure on the rear of the block forces it forward against the action of the springs **932** and **933** until its front edge contacts the wall **903**. During this movement the severed portion of the roving is held firmly in the trumpet tube by the plunger **921** and is thus carried forward and fed into the bite of the drawing rolls. As this occurs, the attendant moves the plunger assembly back to its rest position by pressing on the key **925**. This action allows free movement of the roving through the trumpet tube.

It will be understood that, without departing from the spirit of the invention or the scope of the claims, various modifications may be made in the specific expedients described. The latter are illustrative only and not offered in a restricting sense, it being desired that only such limitations shall be placed thereon as may be required by the state of the prior art.

The sub-titles used throughout the specification are merely to simplify reference thereto and should otherwise be disregarded.

We claim:

1. A mechanism of the type described for use in a textile apparatus having a creel and drawing rolls, means for guiding a strand of roving passing from the creel to the drawing rolls, including a guide and feed member having a first end adapted to be mounted adjacent to the drawing rolls having an elongated tubular guide passage extending in substantially roving-feed direction for positively guiding a considerable length of the strand and supporting it through a predetermined path, a cylinder in the said feed member transverse to said tubular passage and having a localized entrance to said passage, and a plunger member operative in said cylinder and having an end portion adapted to cross the tubular passage and engage the roving, said localized entrance being located at a point remote from the front of said feed member thereby to leave a considerable portion of said passage between said entrance and the front of said feed member.

2. A mechanism according to claim 1, in which the plunger member includes a blunt end adapted to engage the roving and retain it against a face of said feed member whereby the roving between said feed member and the drawing rolls is placed under tension until it breaks.

3. A device for use in a textile apparatus having drawing rolls, a housing having a relatively movable front end adapted to be placed near the drawing rolls and a passage for the roving extending therethrough, said passage having a surface close to which the roving is adapted to pass, a plunger for entering the passage at a localized area to pinch the roving against said surface, the housing being mounted for movement toward and away from the front end, means normally urging the housing away from the front end, means normally urging the plunger away from the roving passage, means for causing the plunger to enter the roving passage when an end break occurs, and means for withdrawing the plunger from the roving passage when feeding is completed including a slidable member having a finger contact.

4. A device for use in a textile apparatus having drawing rolls, comprising, a frame having a front end adapted to be placed near the drawing rolls, a body mounted in said frame for limited movement back and forth, said body having a tubular passage for roving, the body including a tubular extension leading toward said front end, said body including a cylinder transverse to the roving passage and communicating with the roving passage, a plunger in said cylinder, means normally holding the plunger away from the roving, an air inlet to the cylinder behind said plunger, an air outlet from said cylinder, a release valve for controlling the air outlet and having a stem extending outside said body, and means normally urging said body in a direction away from the drawing rolls, the release valve adapted when the body is moved towards said drawing rolls to contact said frame and thereby be opened.

5. A device for use in a textile apparatus having drawing rolls, comprising, a frame having a front end adapted for mounting near the drawing rolls, a body mounted in said frame for limited movement back and forth, said body having a tubular passage for roving, the body including a tubular extension leading toward said front end, said body including a cylinder transverse to the roving passage and communicating with the roving passage, a pressure actuated plunger in said cylinder, means normally holding the plunger away from the roving, an air inlet to the cylinder behind said plunger, an air outlet from said cylinder, said body having an outlet port at a surface thereof and a passage leading from said air inlet to said port, and said frame having a port therein adapted to register with the port in said body when the body is moved into the forward feeding position.

6. A device for use in a textile apparatus having drawing rolls, including a housing having a front end adapted to be mounted near the drawing rolls and having an elongated passage extending therethrough for guiding and supporting a roving, said housing having a transverse passage leading to said roving passage, the housing having a recess in a wall thereof at the surface of said roving passage and opposite said transverse passage, a plunger, the plunger including a head having a number of spaced apart fine prongs, and means for causing the plunger to enter and cross said passage whereby the prongs enter said recess.

7. A device for use in a textile apparatus having drawing rolls comprising a housing having a front end near the drawing rolls, said housing having a passageway for a roving to be fed, a cylinder in said housing having a part joining said passageway and extending transversely thereto, a piston assembly operable in said cylinder, said piston assembly including a piston portion and a cam portion, said cylinder having an opening extending to within access of said cam portion, a bearing in said opening adapted to engage said cam portion, means resiliently urging the bearing against said cam portion, a rod extending from said piston portion into said passageway, an air inlet to said cylinder behind the piston portion, the piston portion being adapted to be held in inoperative position by said bearing acting against one face of said cam portion and to be held in operative position by said bearing acting against the other face of said cam portion, and means for supplying air pressure to the inlet for advancing the piston portion past the bearing against the action of the cam portion.

8. A device according to claim 7 in which the housing is mounted in a casing for movement therein, resilient means normally urging the housing in one direction but permitting the housing to be moved in the other direction against said resilient means for bringing the end of said passageway into access of the drawing rolls thereby to feed the roving adjacent thereto.

9. A device according to claim 8 which includes a lever mounted on said housing and adapted to engage a portion of said casing to retain the housing positively in retracted position.

10. A device for use in a textile apparatus having drawing rolls comprising, a housing having a front end adapted to be placed close to the drawing rolls of a textile apparatus for engaging and feeding roving, said housing having a lengthy passage for receiving a considerable length of said roving, and including an entrance and an outlet, said housing having a transverse cylindrical opening at a position remote from said inlet, entering said passage, a plunger operative in the cylindrical opening to move from a retracted position away from the roving passage to a roving engaging position within the roving passage, means for normally retaining the plunger in retracted

position, and means for causing the plunger to move into roving-engaging position thereby to engage the roving to cause it to be broken by the pull of the drawing rolls and whereby the free end of the roving remains in the portion of said passage between the transverse cylindrical opening and said inlet.

11. A device of the type described for use in a textile apparatus having drawing rolls comprising a housing including a front end adapted for mounting near the drawing rolls and having a roving passage extending therethrough, said passage having a surface close to which the roving is adapted to pass, a plunger for entering the passage to hold the roving against said surface, the housing being mounted for movement toward and away from the front end, means normally retaining the housing away from the front end, and means for actuating said plunger to cause it to enter said passage to hold the roving and for withdrawing the plunger from the passage to release the roving.

12. A device of the type described having a creel and drawing rolls receiving roving from the creel comprising, a guide member mountable in operative relationship to the drawing rolls, said guide member having an elongated passage for guiding a strand of roving passing from the creel to the drawing rolls, said passage having an entry end and an exit end, and means for engaging the roving whereby the strand is broken by the pull of the drawing rolls and a portion remains in said passage, said guide member being mounted for movement from a terminal position in which the exit end is removed from the bite of the drawing rolls to a feed position in which the exit end is close to the bite of the drawing rolls.

13. In a device of the type described having a creel and drawing rolls receiving roving therefrom, means forming a passage for the roving passing from the creel to the drawing rolls adapted to support a substantial length of roving, means for holding the roving at a point in said passage whereby it is broken by the pull of the drawing rolls, retaining means normally retaining said roving passage forming means away from said drawing rolls, said retaining means adapted to be overcome for permitting the roving-holding means to be moved toward the drawing rolls for feeding the roving to the drawing rolls.

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