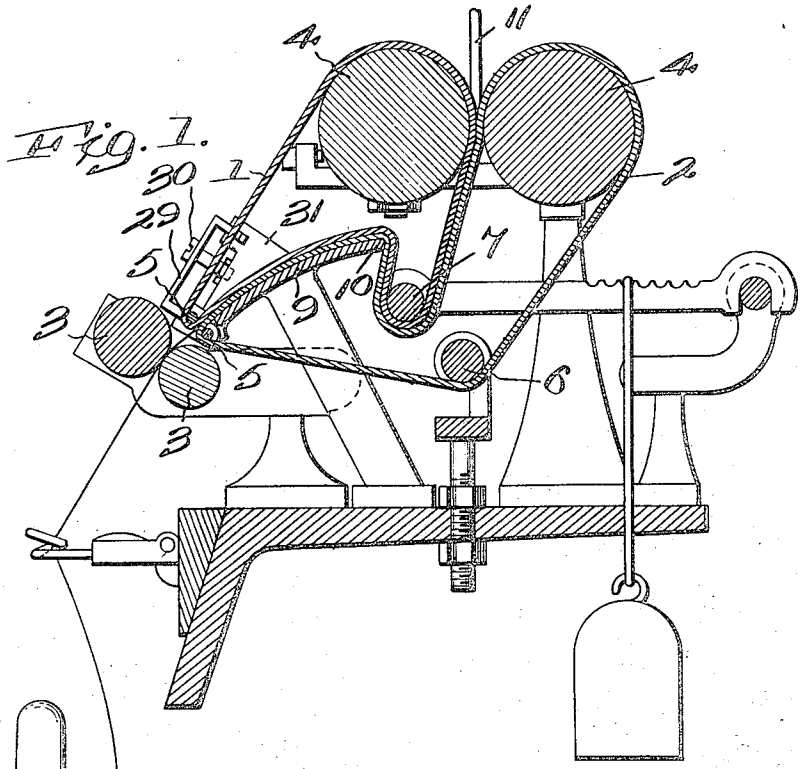
F. CASABLANCAS.

SPINNING FRAME.

APPLICATION FILED JAN. 31, 1914.

1,147,676. Patented July 20, 1915.

Fig. 1.



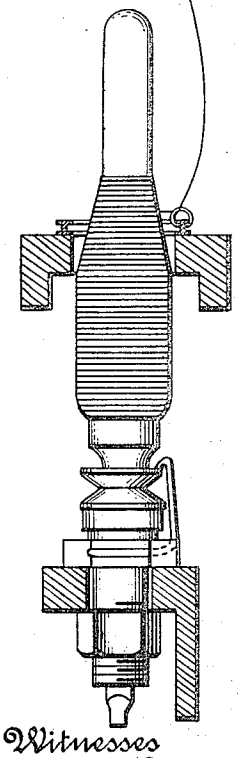


Fig. 3.

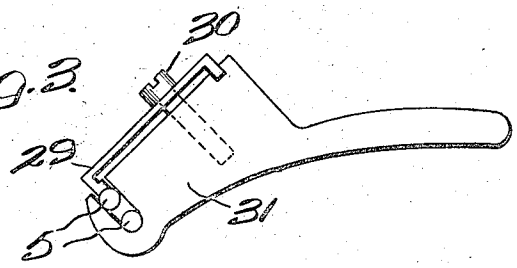
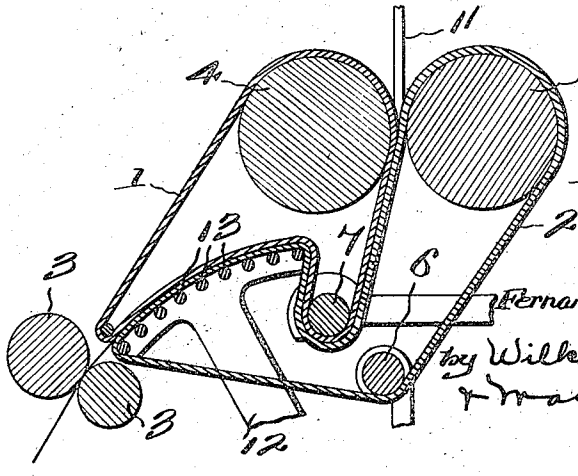


Fig. 2.



Witnesses
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UNITED STATES PATENT OFFICE.

FERNANDO CASABLANCAS, OF SABADELL, SPAIN.

SPINNING-FRAME.

1,147,676. Specification of Letters Patent. Patented July 20, 1915.

Original application filed May 25, 1912, Serial No. 699,750. Divided and this application filed January 31, 1914. Serial No. 815,702.

To all whom it may concern:

Be it known that I, FERNANDO CASABLANCAS, a subject of the King of Spain, residing at Sabadell, Spain, have invented certain new and useful Improvements in Spinning-Frames; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to spinning frames, and the subject-matter thereof constitutes a division of my former application Serial No. 699,750, filed May 25, 1912, and allowed October 8, 1913.

It is an object of the present invention to provide a spinning frame for drawing fibers of different lengths and conducting the same into close proximity to the drawing rollers, whereby the drawing is effected over a relatively small length of the roving.

Another object of my invention is to provide a spinning frame adapted for varying-length fibers and to maintain the same under pressure throughout their length, and to provide means for adjusting the pressure located at the point of delivery of the roving to the drawing cylinders.

In describing my invention in detail reference will be had to the accompanying drawing, wherein like symbols refer to like or corresponding parts throughout the several views, and in which:

Figure 1 is a vertical sectional view of my improved spinning frame. Fig. 2 is a similar view disclosing a slight modification; and Fig. 3 is a detail.

Referring more particularly to the drawing, 1 and 2 designate a pair of endless feeding belts running over, respectively, pairs of rollers 4 and 5 suitably mounted on the framework. The rollers 4 are enlarged and constitute the feeding rollers for receiving the roving, while the guiding rollers 5 are relatively small so as to enable the same to be located in close proximity to the drawing rollers 3, which, as usual, run at relatively higher speeds and pass the attenuated fibers to the bobbin as shown and as will be understood. A tension roller 6, adjustably secured to the frame, as shown, provides for taking up slack in the belt 2, and a weight-controlled tension roller 7 bears against both belts at a point intermediate the rollers 4 and 5, and in addition to compensating for the slack imparts the initial pressure to the roving 11, which is fed between the straps or belts 1 and 2 in the point of tangency of the rollers 4 and conducted by said belts between the guiding rollers 5 to the drawing rollers 3.

Between the tension roller 7 and the pair of rollers 5 is located a convex plate 9, so supported from the frame as to elevate the belts vertically from the tension roller 7 and provide for a substantially uniform pressure exerted over approximately the entire length of the fibers treated. This plate 9 extends in close proximity to the rollers 5 and supports the fibers as they are being drawn, thereby preventing any creeping of the same and obviating entanglement.

In place of the plate 9 I may employ a segmental support 12, as shown in Fig. 2, carrying a plurality of rods or rollers 13 preferably spaced apart in parallel relation. While this construction does not afford as perfect and continuous a pressure as that disclosed in Fig. 1, yet, especially in the case where rollers are employed, the friction on the belt 2 is reduced and the resistance lessened, so as to be an economy as regards the motive power. This construction enables also to regulate the pressure exerted upon the fibers by increasing or reducing the number of rods or rollers 13.

The guiding rollers 5 are arranged to be resiliently supported, and for this purpose the frame of the machine is provided with bearing blocks 31 having slots therein, as more particularly seen in Fig. 3, for accommodating the journals of both of the rollers. On each of the bearing blocks 31 is secured a flat spring 29 having its free end engaging against the upper roller journal, and cooperating with the flat spring 29 is a set screw 30 located intermediate the ends of the same and threaded into the bearing block 31. The set screw 30 may be adjusted to regulate the tension of the spring 29 on the journals of the rollers 5, as will be understood.

It is an especial advantage of my construction that, in reducing the size of the guiding rollers, the same may be placed in close proximity to the drawing rollers and accurately direct the fibers to the point of tangency of the drawing rollers.

I have shown and described preferred and satisfactory constructions, but desire it to

be understood that slight changes may be resorted to without departing from the spirit and scope of my invention, provided such changes fall within the scope of the appended claims.

I claim:

1. In a spinning frame, the combination, between drawing cylinders and feeding cylinders, of a pair of guiding cylinders of smaller diameter, fitted at a certain distance from the drawing cylinders which is to be less than the shortest fibers of the roving, a pair of endless belts conducted by the feeding cylinders and by the guiding cylinders for carrying the fibers to the drawing cylinders, means for providing that the belts produce on the fibers a strong pressure at a certain distance from the drawing cylinders which is to be longer than the longest fibers of the roving, and a curved plate on which the belts are guided and slide for insuring the substantial uniformity of the pressure given to the fibers, which is to be weaker than the pressure of the drawing cylinders.

2. In a spinning frame, the combination of drawing cylinders, feeding cylinders, guiding rollers located in close proximity to said drawing cylinders, a pair of endless belts trained over said feeding and guide cylinders for conducting the roving to the drawing cylinders, an arcuate plate over which said belts travel, and a tension device bearing upon said feeding belts and forming with said arcuate plate an elbow therein, substantially as described.

In testimony whereof, I affix my signature, in presence of two witnesses.

FERNANDO CASABLANCAS.

Witnesses:

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C. SNYDER.