April 27, 1937. T. G. GRAY 2,078,847

TOP ROLLER CLEARER

Filed July 13, 1936

Fig. 1.

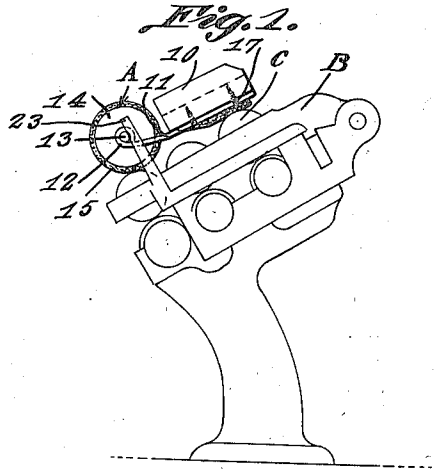


Fig. 2.

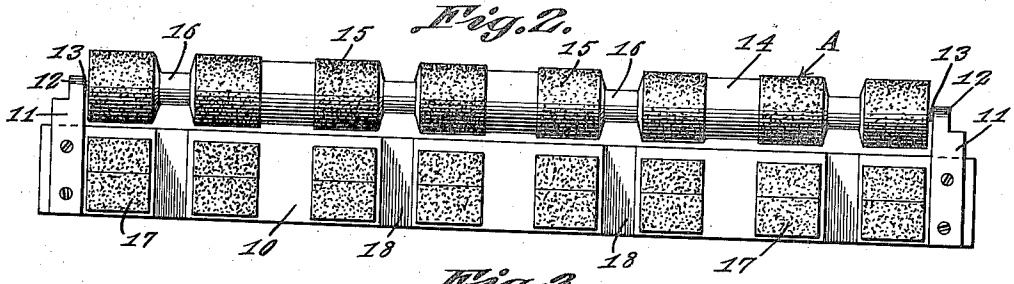


Fig. 3.

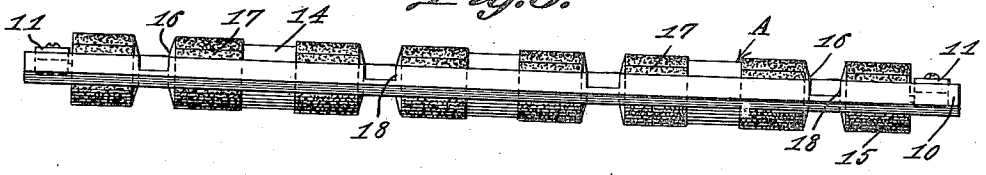


Fig. 4.

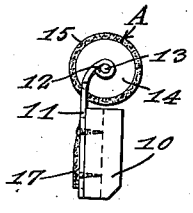


Fig. 5.

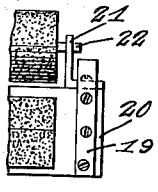


Fig. 6.

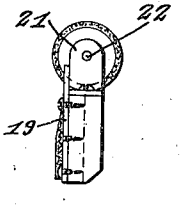
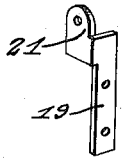


Fig. 7.



Trumon G. Gray, INVENTOR

BY Victor J. Evans & Co.

ATTORNEYS

Patented Apr. 27, 1937 2,078,847

UNITED STATES PATENT OFFICE

2,078,847

TOP ROLLER CLEARER

Trumon G. Gray, Seneca, S. C.

Application July 13, 1936, Serial No. 90,400

1 Claim. (Cl. 19—140)

The invention relates to a top roll clearer for spinning machines and more especially to clearers for textile machinery.

The primary object of the invention is the provision of a clearer of this character, wherein the top roll of a spinning machine will be relieved of lint or waste accumulations so that these avoid the formation of lumps in the yarn resulting in inferior weaving and break outs in the woven cloth and thus maintaining the top rolls cleaned during the working of the spinning machine.

Another object of the invention is the provision of a clearer of this character, wherein the front and rear top rolls of a spinning machine will be cleared of waste or accumulation of lint or other fibrous matter while the spinning machine is in operation and at the same time not disturbing the intermediate top roller which is required to run free for the successful and perfect spinning operation in the production of fabric material, the clearer being readily and easily cleaned when operating with the spinning machine and in this manner avoiding the shutting down of such machine.

A further object of the invention is the provision of a clearer of this character, wherein the construction thereof is novel in form and coacts with the top rolls of a spinning machine to eliminate accumulation of waste through a wiping action and without disturbing the intermediate top roll which is not weighted and must run without contact with the clearer for the production of a smooth yarn.

A still further object of the invention is the provision of a clearer of this character, which is simple in construction, thoroughly reliable and efficient in operation, readily and easily applied to a spinning machine, automatic in the working thereof, and inexpensive to manufacture and install.

With these and other objects in view, the invention consists in the features of construction, combination and arrangement of parts as will be hereinafter more fully described, illustrated in the accompanying drawing, which discloses the preferred embodiment of the invention, and pointed out in the claim hereunto appended.

In the accompanying drawing:

Figure 1 is an elevation of a drawing frame showing the clearer constructed in accordance with the invention applied.

Figure 2 is a bottom plan view of the clearer.

Figure 3 is a rear edge elevation thereof.

Figure 4 is an end view.

Figure 5 is a fragmentary bottom plan view showing a slight modification.

Figure 6 is an end elevation thereof.

Figure 7 is a perspective view of one of the brackets of the clearer.

Similar reference characters indicate corresponding parts throughout the several views in the drawing.

Referring to the drawing in detail, particularly Figures 1 to 4 inclusive. A designates generally the clearer used with the top rolls as equipped in a drawing frame B of a spinning machine, the top rolls being indicated at C, and the said clearer will be hereinafter more fully described in detail.

The clearer A comprises a plank or board 10 having fixed thereto close to opposite ends crosswise of the same brackets 11, these having reduced curled pintle bearings 12 for the pintle 13 of a front rotary clearer roller 14 provided at intervals with the annular clearer cloth coverings 15, the roller 14 being reduced at 16 to afford circular spaces for the saddle riding on the front of the top roll C in the frame B. This roller 14 at the coverings 15 has contact with the front roll of the series C. The brackets 12 locate the roller 14 in front of the board or plank 10.

The board or plank 10 at its under face has adhesively stuck or made fast thereto felt cushions or pads 17, these tapering from an intermediate point thereof in a forward direction with the thicker portions at the rear ends of said pads or cushions where the latter make contact with the rear roll of the series C in the frame B. The forward tapered formation of the pads or cushions 17 avoids contact thereof with the intermediate roll of the top series C in the frame B so that this roll runs free and is not weighted and must run without contact or friction from the pads or cushions 17.

The plank or board 10 at intervals in the under face thereof is provided with the transverse clearances 18 registering with the reduced annular portion 16 in the roller 14 so as to avoid interference and for coverage of the saddle extending from the center of the back roll to the center of the front roll of the series C.

In Figures 5 to 7 inclusive of the drawing there is shown a slight modification wherein each bracket 19 secured in the end of the plank or board 20 is formed with a bearing ear 21 for the axle or spindle 22 of the front clearer roller.

The brackets 11 and 19, respectively, coact with stops 23 on the cap bar, only one of these stops being shown in Figure 1 of the drawing,

so that the top roll clearer will properly ride and coact with the top roll C in the frame B of the spinning machine.

The clearer roller 14 can be readily cleaned without the removal of the top clearer from the top rolls in the frame B of the spinning machine and also without necessitating the stopping of such machine.

The top rollers C in the frame B will be cleared of lint or other fibrous waste accumulated thereon during the working of the spinning machine.

The front roller 14 rests upon the front top roll while the pads or cushions 17 of the clearer rest upon the rear top roll C in the frame B during the working of the spinning machine.

The clearer will keep clean the top rolls from fly and dirt as all lint and fibrous accumulations will be removed by the coverings 15 and the pads or cushions 17, there being a wiping action by the pads or cushions and the coverings 15 will roll upon the front roll of the series C in the frame B and in this manner these rolls will be cleared of accumulations while the spinning machine is operating and thereby resulting in the production of smooth yarn.

What is claimed is:

A clearer of the character described comprising a clearer board, a clearer roll forwardly of said board and rotatable for engaging a front top roll of a spinning machine, a plurality of pads made fast at intervals to the bottom face of said board and each tapered in a forward direction with the thicker portions engageable with a top rear roll of said spinning machine, and plate-like brackets secured to the under face of said board transversely thereof and having reduced bearings extended outwardly beyond the front edge of said board for journal connection of the clearer roll therewith, the thinner portions of said pads being disposed next to and away from a top intermediate roll of the spinning machine.

TRUMON G. GRAY.