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C. W. WORLEY

2,985,921

MEANS FOR REMOVING SLIVER FROM A CARD DOFFER

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FIG. 1.

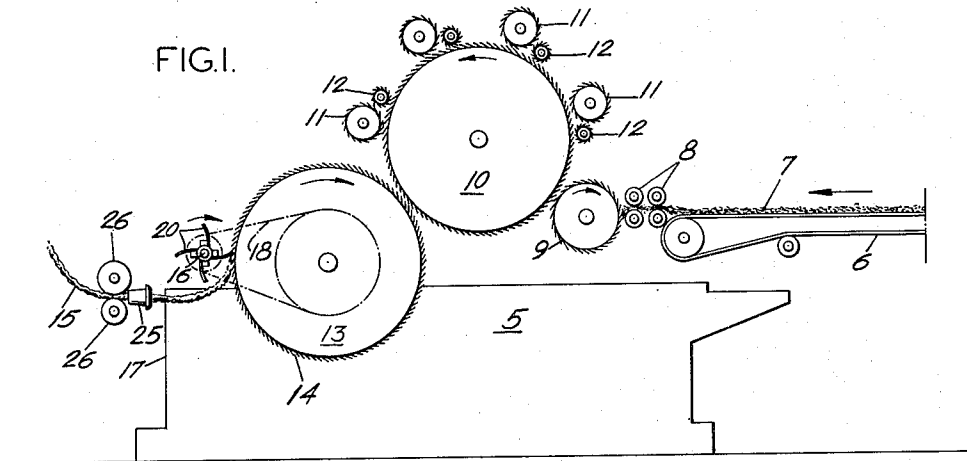


FIG. 2.

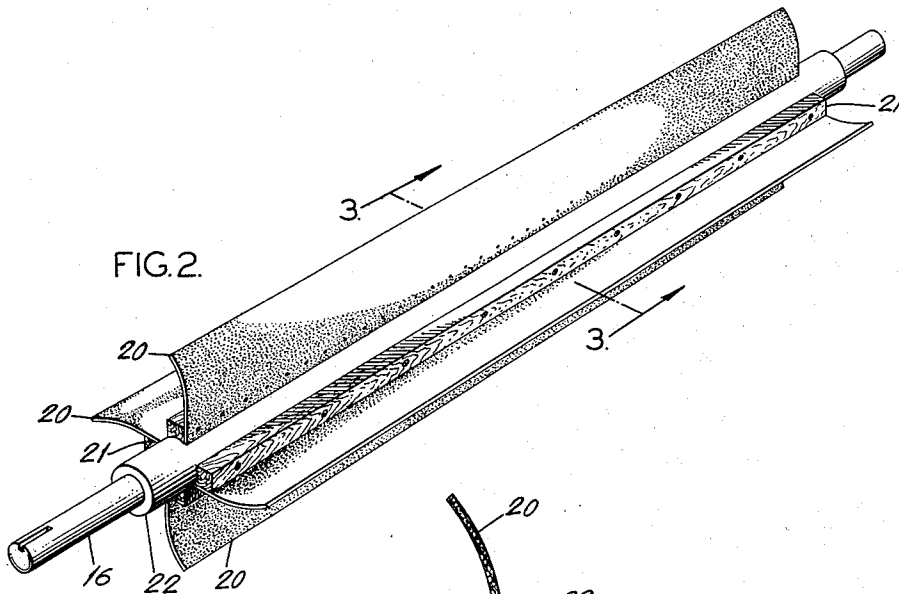
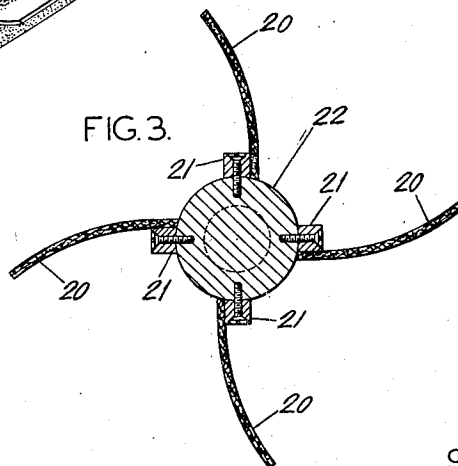


FIG. 3.



INVENTOR:
CHARLES W. WORLEY
BY *Hyde W. Ballard*
ATTY.

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Charles W. Worley, Dahlonaga, Ga., assignor to James
Lees and Sons Company, Bridgeport, Pa., a corpora-
tion of Pennsylvania

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2 Claims. (Cl. 19—106)

This invention pertains to carding machines and more particularly to an improved means for removing the sliver from the doffer.

The present practice in the manufacture and use of cards or carding machines is to employ an oscillating doffer comb which disengages the sliver from the card clothing of the doffer. It has been found that the rapidly oscillating doffer comb requires comparatively expensive drive means which must be lubricated and frequently replaced due to wear or lack of adjustment. This, of course, necessitates certain down-time for the carding operation. My improved stripper for the doffer operates at relatively low speed and has resilient engaging blades which have extremely long life and which do not damage the clothing. The stripper does not oscillate but is driven through a belt that turns at slow speed and with a constant direction non-vibratory motion.

A primary object of the invention, therefore, is to provide a non-oscillating stripper for the doffer of a card.

A further object of the invention is to provide a non-oscillating stripper having resilient means for disengaging a sliver from the clothing of a doffer.

A still further object is to provide a shaft having a plurality of resilient or bendable blades positioned to remove the sliver from a card doffer.

Further objects will be apparent from the drawings and specification in which:

Fig. 1 is a diagrammatic view showing a carding machine incorporating the present invention,

Fig. 2 is a perspective of one end of my improved stripper, and

Fig. 3 is a section as seen at 3—3 of Fig. 2.

Referring more particularly to the drawings, a card or carding machine indicated generally at 5 is provided with the customary feed belt 6 for carrying a web of fibers 7 to the card. The web passes through feed rolls 8, around transfer roll 9, and onto the clothing of main cylinder 10. The workers and strippers 11 and 12 function in the usual manner to separate and straighten the

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fibers in web 7. The doffer 13 is provided with clothing 14 onto which the web 7 is transferred from main cylinder 10. In order to remove the sliver 15 from doffer 13, I provide a shaft 16 journaled above the card frame 17. This shaft conveniently is turned in a constant clockwise direction as seen in Fig. 1 by means of a belt 18 from any convenient source such as the shaft of doffer 13. Shaft 16 is provided with a plurality of flexible or resilient blades 20, 20 having an uninterrupted doffing edge which may be of a natural or a synthetic plastic material secured to wooden strips 21, 21. Two examples of such materials are leather and rubber. These strips are in turn screwed or otherwise secured to an enlarged hub 22 of shaft 16. It will be observed in Fig. 2 that the blades 20 are somewhat arcuately curved away from the peripheral direction in which the stripper turns.

After the sliver 15 has been removed from the doffer by the blades 20, 20, it passes through a trumpet 25 and take-up rollers 26, 26 to be thereafter treated in accordance with any desired textile process.

It has been found that while the present stripper is useful for both synthetic and natural fibers, excellent results have been achieved in the field of synthetics. The slow peripheral speed does not damage the sliver and permits it to be disengaged from the doffer very readily. This is believed to be due to the combined action of the stripper and the flexible elements which operate evenly at all times. The long life and low maintenance of my improved device together with its effectiveness far excel known prior art devices.

Having thus described my invention, I claim:

1. In a carding machine assembly having a doffer the subcombination for removing a fibrous web from said doffer comprising a shaft, constant direction drive means for rotating said shaft, and a plurality of relatively flexible smooth blades secured to and extending axially on said shaft and substantially parallel to the center line thereof for disengaging said fibrous web from the doffer said blade having an uninterrupted doffing edge.

2. Apparatus in accordance with claim 1 in which the shaft is provided with a plurality of leather blades.

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