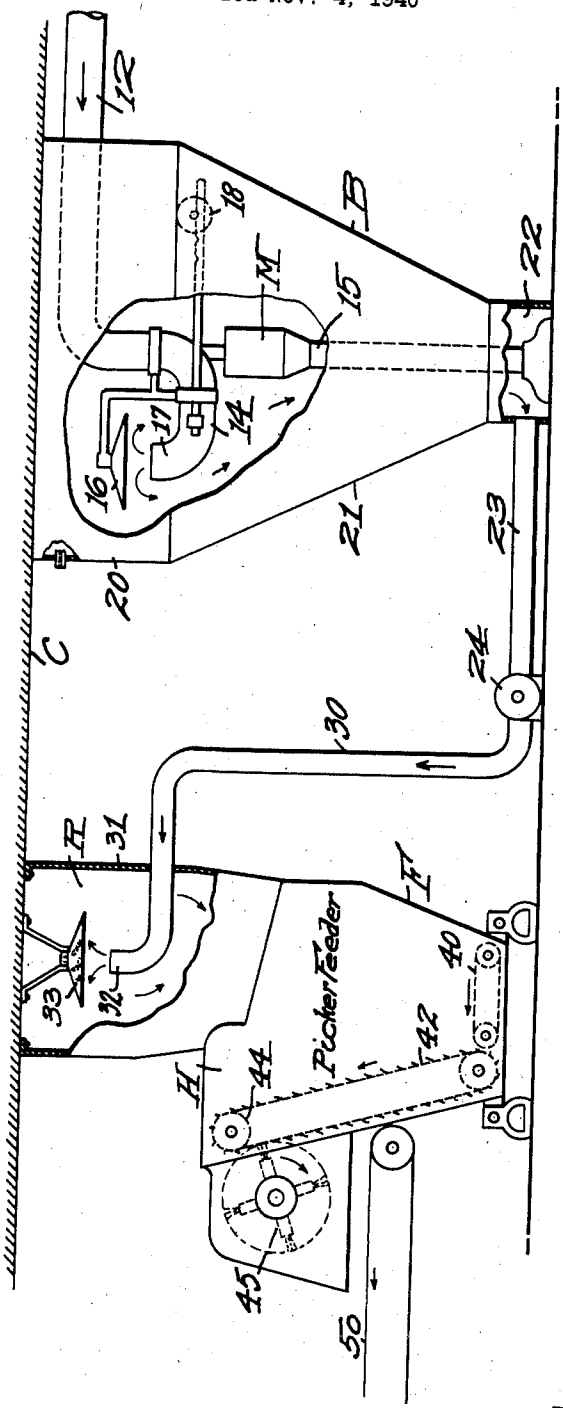
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MEANS TO DELIVER STOCK TO A PICKER FEEDER

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MEANS TO DELIVER STOCK TO PICKER FEEDERS

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2 Claims. (Cl. 19—146)

This invention relates to the preparation of fibrous stock, such as cotton or wool, for further textile operations such as carding, drawing or spinning. In such preparation of stock, it is customary to utilize a machine called a "picker" in which the stock is opened and mixed and by which it is thereafter delivered in the form of a bat or otherwise for further operations.

It is desirable to deliver stock to a picker at a definite and uniform rate, and a machine called a "picker feeder" is commonly used for this purpose. This machine includes a hopper in which stock is deposited in bulk, usually by hand, a spiked conveyor apron, and a comb device. The apron and comb remove the stock from the hopper at a fairly uniform rate and deposit the stock on the feed apron of the picker or of some other similar machine.

It is sometimes desirable to mix or blend different kinds or grades of stock before the stock is placed in the hopper of the picker feeder, and a commercial blending machine may be used for this purpose.

It is the general object of my invention to provide improved means for conveying and delivering mixed or blended stock direct to the hopper of a picker feeder, and for additionally intermingling the fibers as the stock is thus delivered.

My invention further relates to arrangements and combinations of parts which will be hereinafter described and more particularly pointed out in the appended claims.

A preferred form of the invention is shown in the drawing, which is a side elevation showing my invention in combination with a blending machine and with a picker feeder, certain parts being sectioned or broken away to show interior construction.

Referring to the drawing, I have shown a blending machine B and a picker feeder F, together with my improved means for conveying blended fibers from the machine B to the hopper H of the feeder F.

The blending machine as shown comprises a supply pipe 12 connecting with a U-shaped tubular arm 14 which is mounted to rotate about the axis of a support 15 and which is preferably driven by a motor M. A cone or deflector 16 is mounted above the upwardly open end 17 of the arm 14 and moves with the arm in its rotary travel. The arm 14 and associated parts are counterbalanced by a weight 18. The deflector 16 has curved vanes on its under face and is rotated on its own axis by the air blast from the pipe end 17.

The arm 14 and deflector 16 rotate within a vented casing 20 having a lower portion 21 which is downwardly contracted and which delivers the blended fiber to a chamber 22, from which chamber the fiber is withdrawn through a pipe 23 by a suction fan 24. The top of the casing 20 may be closed by the ceiling C of the compartment in which the blending machine B is installed. The combined rotating movement of the arm 14 and distributing action of the deflector 16 result in very effective intermingling and blending of the fibers delivered to the machine B through the pipe 12.

The blended fibers are forwarded by the fan 24 through a pipe 30, which preferably extends horizontally through the side wall 31 of a casing which encloses a receiving chamber R positioned above the hopper H of the picker feeder F.

The inner end 32 of the pipe 30 is preferably up-turned as shown in the drawing, and a conical deflector 33 is mounted above the up-turned end 32 of the pipe 30. The deflector 33 is provided with curved vanes, as is the deflector 16, and is rotated by the air blast from the pipe end 32. The blended fibers delivered through the pipe 30 and up-turned end portion 32 are distributed and further intermingled by rotation of the deflector 33 and fall downward through the chamber R into the hopper H of the picker feeder F.

The picker feeder is of a usual construction and comprises a bottom conveyor 40 on which the fibers are advanced toward a spiked apron 42 by which portions of fiber are carried over an upper guide-roll 44 and into proximiity of a comb device 45 by which the fibers are removed from the spiked apron and are allowed to fall on a feed apron 50, associated with a picker or with some other textile machine.

The details of construction of the blending machine B and of the picker feeder F in themselves form no part of my present invention, which relates rather to the provision of an operative unit by which fibers may be blended, forwarded and delivered to a picker or other machine as a continuous operation and without personal attention from the operator or the use of manual labor.

By the provision of such a unit, I not only reduce the cost of supplying the picker with stock, but I also deliver the stock regularly and continuously. I furthermore provide a secondary mixing and intermingling of the stock in the receiver chamber R, in addition to the primary blending operation in the machine B.

It should be noted also that when my invention is used, the stock is at all times fully en-

closed and protected, from the time it enters the feed pipe 12 until it is deposited on the feed apron 50. This substantially reduces the fire hazard and also prevents the accumulation of waste on the walls and floor of the room in which the mechanism is located.

Having thus described my invention and the advantages thereof, I do not wish to be limited to the details herein disclosed, otherwise than as set forth in the claims, but what I claim is:

1. A mechanism for blending and feeding fibrous stock comprising a blending machine, pneumatic means to supply stock to said blending machine, a feeding machine, automatic means to forward the blended stock direct from said blending machine to said feeding machine, and means to additionally blend the stock as it is delivered to said feeding machine.

2. A mechanism for blending and feeding fibrous stock comprising a blending machine, means to supply stock to said blending machine, a chamber in which the blended stock is collected by gravity, a feeding machine, pneumatic means to forward the blended stock from said chamber to said feeding machine, and means to additionally blend the stock as it is delivered to said feeding machine.

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