

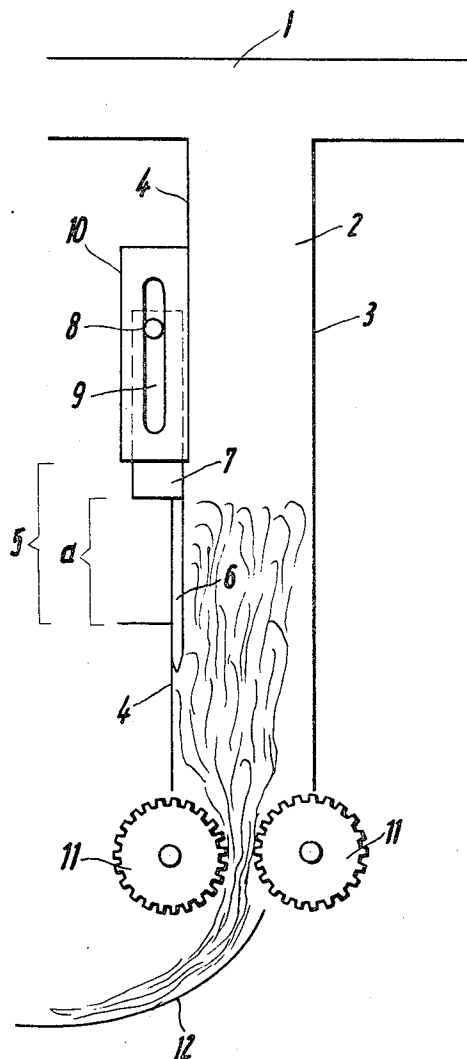
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FLOCCULE FEEDING DUCT HAVING AN AIR BLEED ORIFICE

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FLOCCULE FEEDING DUCT HAVING AN AIR BLEED ORIFICE

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4 Claims 10

ABSTRACT OF THE DISCLOSURE

In a flock feeding device using pneumatic conveying means for the flock from a feeding duct to at least one side duct from which the flock is discharged into spinning machine devices, the provision of an air discharge vent having a comb-like discharge rating which is vertically adjustable along the comb-tine lengths whereby to increase or decrease the effective vent size.

The invention relates to floccule feeding ducts which serve for the feeding of machines which prepare floccules for spinning and to which the floccules are delivered pneumatically under air pressure. A portion of the air serving for the transport of the floccules is discharged from the ducts. Special air bleed orifices have been provided on the ducts for the discharge of the air. For example, perforated plates have been installed, or a comb consisting of a plurality of vertical needles has been arranged in front of an air bleed opening, vertical slots on the order of about 1 mm. being formed between the needles.

It has developed that the best size of air bleed cross section in such openings on floccule feeding ducts depends on a number of floccule feeding ducts connected to the feeding system and on the position of the row at which the floccule feeding duct is located.

The aim of the invention is to provide a means for simple adaptation of the size of the air bleed openings to prevailing conditions.

According to the invention, a comb of the above-described kind is arranged in a floccule feeding duct in such a manner that it is stepwisely or smoothly adjustable in the vertical direction.

The single figure of the drawing shows a schematic view of an embodiment of the invention.

Fibers are blown from a duct 1 in the direction of the arrow into a floccule feeding duct 2 which is repre-

sented in longitudinal section. The right wall 3 of the duct 2 is closed. The left wall 4 of the duct 2 has a rectangular opening 5 extending substantially over its entire width. This opening 5 is closed by numerous vertical needles 6 of 1 to 3 mm. in diameter, which leave vertical gaps between them on the order of 1 mm. in size. The needles are fastened at the top of a holder 7 with which they form a comb. A screw 8 is disposed at each end of the holder, this screw being movable in a vertical slot 9 in a slide 10 affixed to duct 2 and adapted to be fixed in any desired position by tightening against the slide. The vertical height *a* of the slots available between the needles 6 for the discharge of air can be stepwisely or smoothly varied by displacing the comb in the vertical direction. The floccules deposited in duct 2 are drawn from the duct by the feed rolls 11 which are driven by the feeding system of the machines which prepare the floccules for spinning, and they are delivered to this machine through the chute 12.

What is claimed is:

1. In a flock feeding device having a feeding tube and at least one branch tube; means for pneumatically feeding flock into said feeding tube and thence into one of said branch tubes; means for feeding said flock from said branch tube to further operations; and means for exhausting the pneumatic conveyor; the improvement which comprises an air vent in said branch tube comprising a side wall with an opening therein and a holder-tine assembly overlying said opening in sliding adjustable relationship thereto, wherein said tines are directed in the direction of flow of said flock, and including means for moving said assembly in the direction of said tines whereby to overlay said opening with a predetermined portion of said holder, thus adjusting the effective size of said opening and thereby regulating the exhausting of said pneumatic conveyor.

2. The improved device claimed in claim 1 wherein said tines are substantially vertical.

3. The improved device claimed in claim 1 wherein said comb is stepwisely adjustable.

4. The improved device claimed in claim 1 wherein said comb is smoothly adjustable.

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