

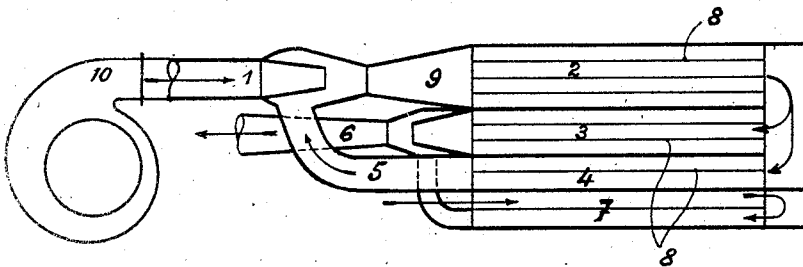
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1,924,255

MACHINE FOR TENTERING AND DRYING FABRICS

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1,924,255

MACHINE FOR TENTERING AND DRYING
FABRICS

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1 Claim. (Cl. 34—48)

My present invention relates to improved means for producing the circulation of air through tentering and drying machines, i. e. machines in which layers of fabric after being moistened are moved through compartments of the machine into which air is blown so as to cause progressive drying of the fabric.

In many tentering and drying machines, it is customary, at present, to employ a plurality of pressure or suction fans to effect the circulation of the cold and hot air and to return a portion of the humid air into circulation.

This results in considerable mechanical complication, with all the consequent inconveniences in respect of upkeep and reliable running.

According to the present invention, the conditions of positive and negative pressure to be set up in the various compartments of the tentering machine are established by means of a single fan, and one or more choke tubes replacing the present plurality of fans.

The accompanying drawing illustrates diagrammatically, a vertical section of a typical embodiment of the device.

The hot air supplied from a fan 10 or any other source of hot air, under pressure, is injected by the nozzle 1 through the compartments 2, 3, 4 through which pass the layers of fabric 8, represented transversely. This air carries off a portion of the humid air returning from the machine by way of the return pipe 5. The mixture enters the compartment 2 by way of the choke tube 9, and a portion is discharged to the outside through the choke tube 6, after passing through the compartment 3, whilst the other portion is returned to the compartment 2, through the passage 5, after traversing the compartment 4.

On the other hand, the air issuing from the compartment 3 is utilized in the choke tube 6, for aspirating a quantity of cold air through the compartment 7. The last layer of fabric is thus cooled in the compartment 7 before passing out of the machine. The dimensions of the choke tubes are, of course, calculated so as to furnish the desired deliveries into each compartment, supplementary regulation being also possible by means of suitable dampers or mobile nozzles of any known type (not shown).

The arrangement of the choke tubes and circulation pipes may vary considerably. In particular, the choke tubes may be located outside the tentering machine, and simply attached to the compartments thereof by means of nozzles.

What I claim is:

An air circulating device for fabric tentering and drying machines, which comprises in combination, a plurality of compartments for the fabric, a single fan, a nozzle for said fan, a choke tube coaxially surrounding said nozzle for connecting it to the end of one of said compartments, means for connecting the end of one of the other compartments to the annular space between said choke tube and said nozzle, a nozzle at the end of a compartment located between the two compartments above mentioned, a choke tube coaxially surrounding the last mentioned nozzle and opening into the atmosphere, means for directly connecting together the other ends of the compartments above mentioned, another compartment for the fabric directly connected to the atmosphere, and means for connecting the last mentioned compartment with the space between the last mentioned nozzle and the last mentioned choke tube.

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