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[54] METHOD FOR INCREASING THE STRENGTH OF A PAPER OR PAPERBOARD PRODUCT

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[57] ABSTRACT

Processes for increasing the strength of cellulosic fibers are carried out by contacting relatively dry cellulosic fibers with an agent in particulate or vapor form comprising a carboxylic acid cyclic anhydride at an elevated temperature for a time sufficient to significantly increase the bonding strength of the fibers. The treated fibers bond more readily to one another and they also hold wet and dry strength aids more strongly. Furthermore, the treatment does not significantly affect the internal chemical structure of the fibers so that paper made from the fibers exhibits overall improved dimensional stability.

23 Claims, 6 Drawing Sheets

