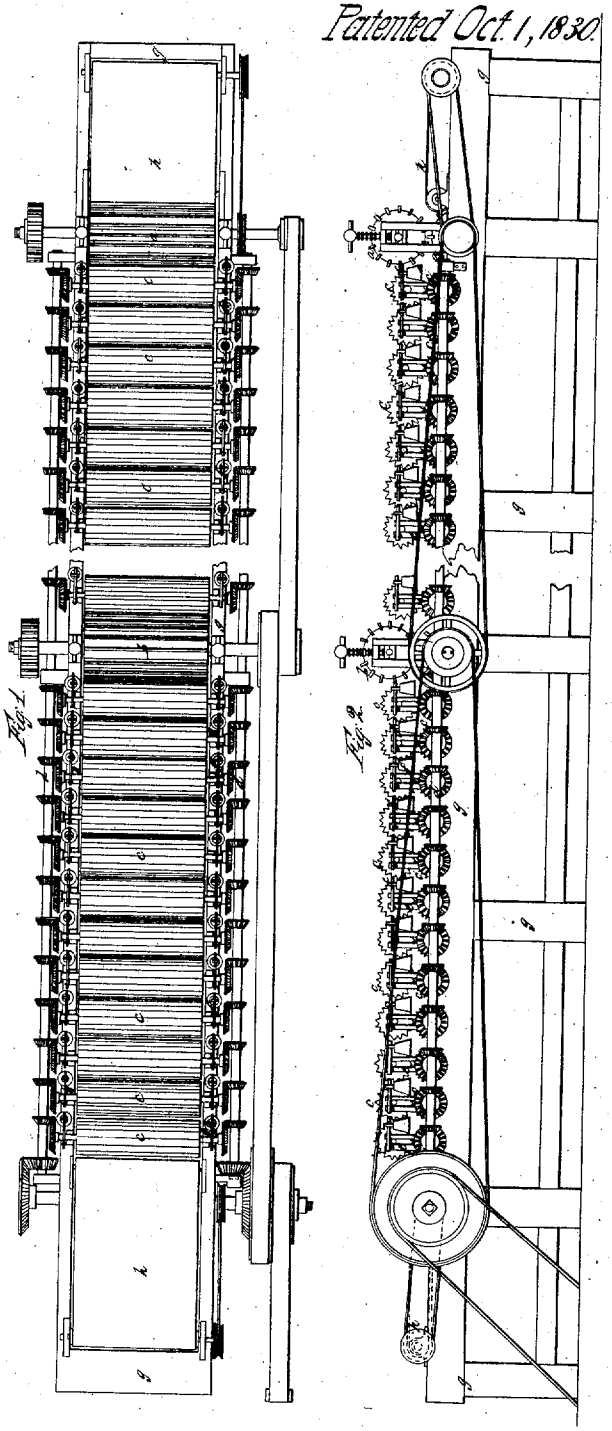
No Printed Specification Available

6149X

Nichols & Fairbanks.

Hemp and Flax Brake.

Patented Oct. 1, 1830.



Oct. 1. 1839 6149X 24

Ethan A. Nichols & Thaddeus Fairbanks. St Johnsbury Vermont.

Letters Patent

The Schedule referred to in these Letters Patent and making part of the same containing a description in the words of the said Ethan A. Nichols and Thaddeus Fairbanks themselves of their improvement Hemp & Flax Dresser.

To all persons to whom these presents shall come Ethan A. Nichols of Hardwick and Thaddeus Fairbanks of St Johnsbury in the County of Caledonia & State of Vermont send Greeting

Be it known that the said Thaddeus Fairbanks and Ethan A Nichols have invented certain new and useful improvement for a Hemp and Flax dresser designed to be applied to any or all such Hemp and Flax Machines as are constructed with reciprocating brake rollers. The following is a full and exact description of the construction and operation of said improvement as invented or discovered by us. 1st A wooden Roll corresponding in length to the brake Rollers of the Hemp and Flax Machine to which it is applied thro' which is driven an iron shaft which bears for purposes and Iron blades or prongs extending the whole length of the roll and projecting laterally as such as nine from the surface of the roll and about 2 inches apart These blades may be confined in suitable grooves in the roll made of cast iron they may be soldered and confined by screws or rivets they may be straight or indented. The rolls with the blades thus applied may be called dressers. Two of these dressers are then placed the one a little below the other so that the blades stay and mash into each other like the cogs of two wheels upon shafts of the dressers equaling their revolutions. and motion is given them by a belt or gear wheel attached to one of them. The following is a description of the Hemp and Flax machine. as combined upon the principles of Mines and Bains and is introduced here for the purpose of explaining the operation of the improvement as invented by us when applied to said Mines & Bains Machine

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A number of pairs of fluted brake rollers 4 or 5 inches in diameter (usually 60 in. to 70 pairs) are placed in a row & mounted & supported by a frame of wood. The rope fibres are laid regularly at each end and side upon the bottom pair and the pairs lie side by side so closely as to cause the flax or hemp from one pair to another until it passes thro' the whole range upon each side of the machine extending the whole length in an iron shaft supported upon the wooden frame aforesaid. Small bevel wheels affixed to these shafts connect at right angles with wheels upon the ends of the bottom rollers and the whole is propelled by a power at the end of the machine. The rollers lie in a horizontal position. The whole range forming a level flat surface and the flax or hemp is conducted into the machine by a moving apron upon which it is spread and is received upon another apron at the foot of the machine.

The application of an improvement to Hemp and Flax machines as above consists of pairs of dressers are placed at the foot of the machine between the last pair of fluted brake rollers & the rollers connected with the aprons and are turned in the same direction as the fluted brake rollers, but with far greater velocity. one or more pairs of dressers may also be inserted at convenient distances in different parts of the machine & should the diameter of the dressers exceed that of the brake rollers the relative velocities should be such as to bring with the ordinary brake rollers the hemp or flax passes from the brake rollers between the dressers and is received by the next pair of brake rollers or by the rollers connected with the apron at the foot of the machine and as the progress of the hemp thro' the machine is gradual the action of the dressers operates to distribute the fibres equally the brake rollers immediately preceding above the double purpose of breaking the fibres and of holding the fibres during the operation of the dressers. In testimony that I claim the above as the true invention of the construction and operation of the said improvement we have hereunto set our hands and seals this 6th day of September in the year of our Lord one thousand eight hundred and forty —

Witness { Hiram Moore
John Barney

Ethan A. Hoag
Madison Fairbanks

Enrolled
Sept.