June 24, 1924. 1,499,134

W. H. WALDRON

FESTOONING MACHINE FOR CARRYING PAPER AND FABRICS

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Fig. 1

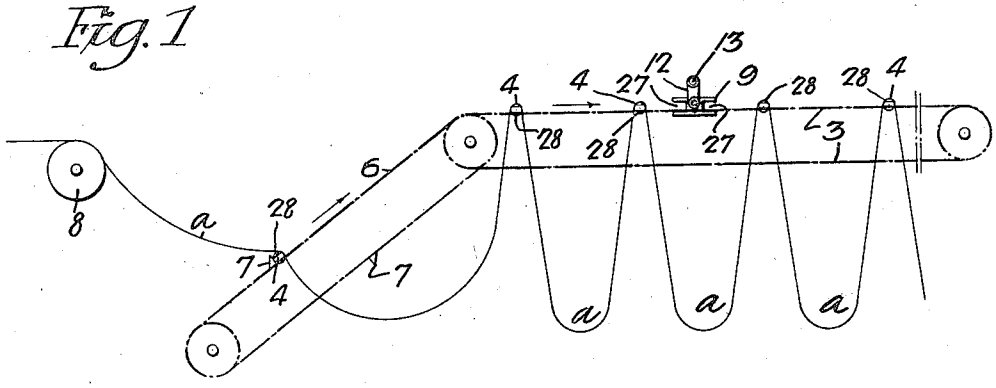

Fig. 7.

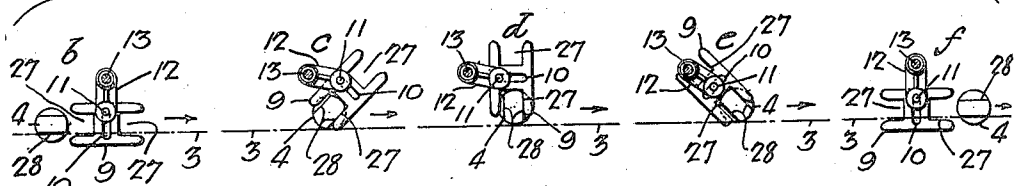

Fig. 2.

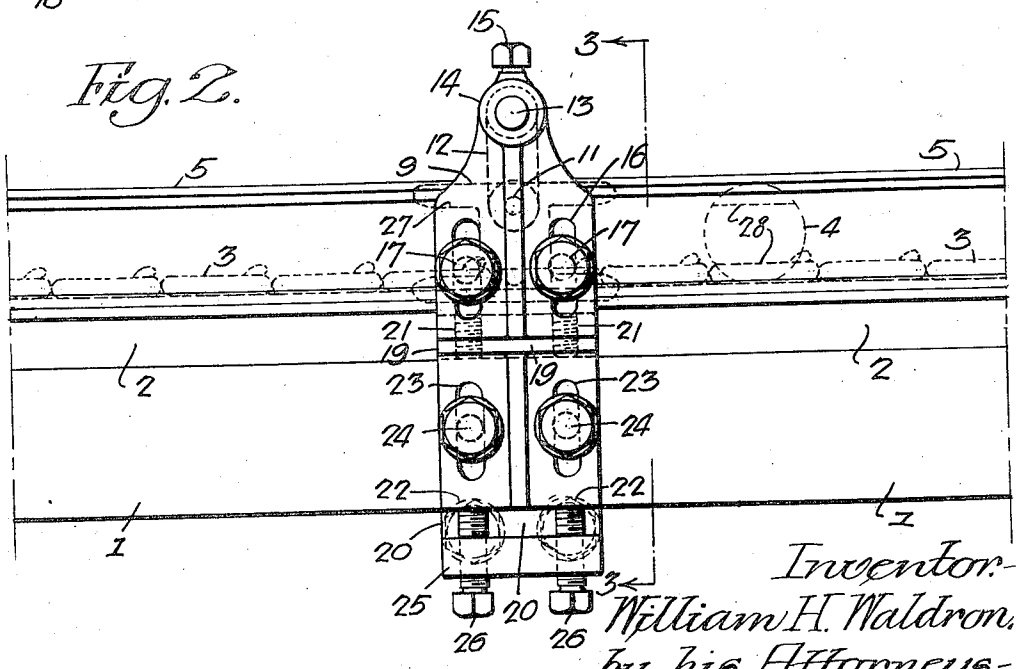

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Fig. 3.

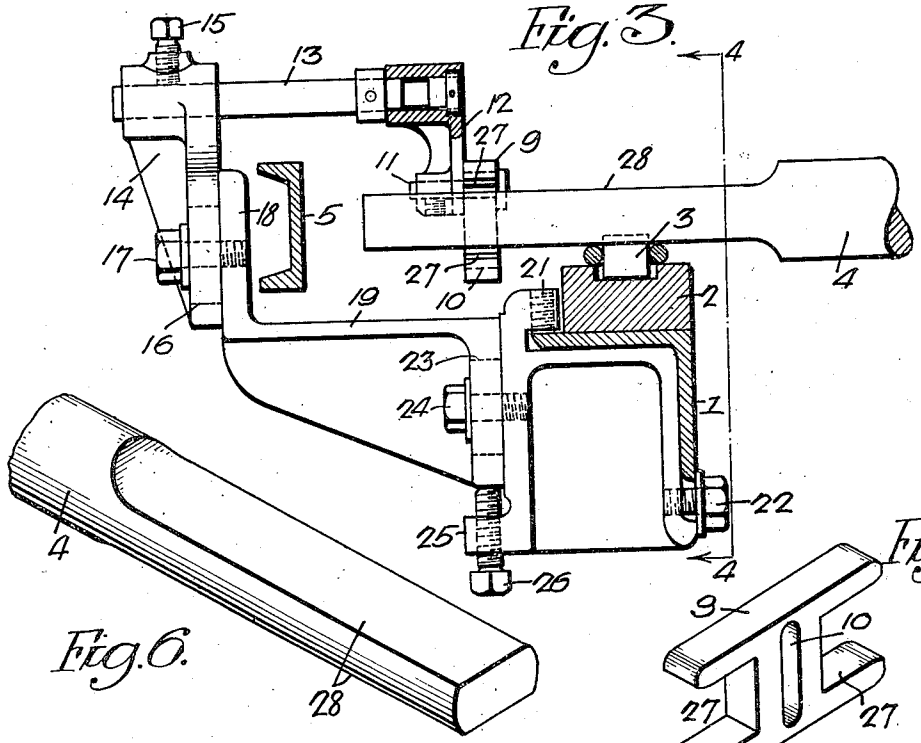
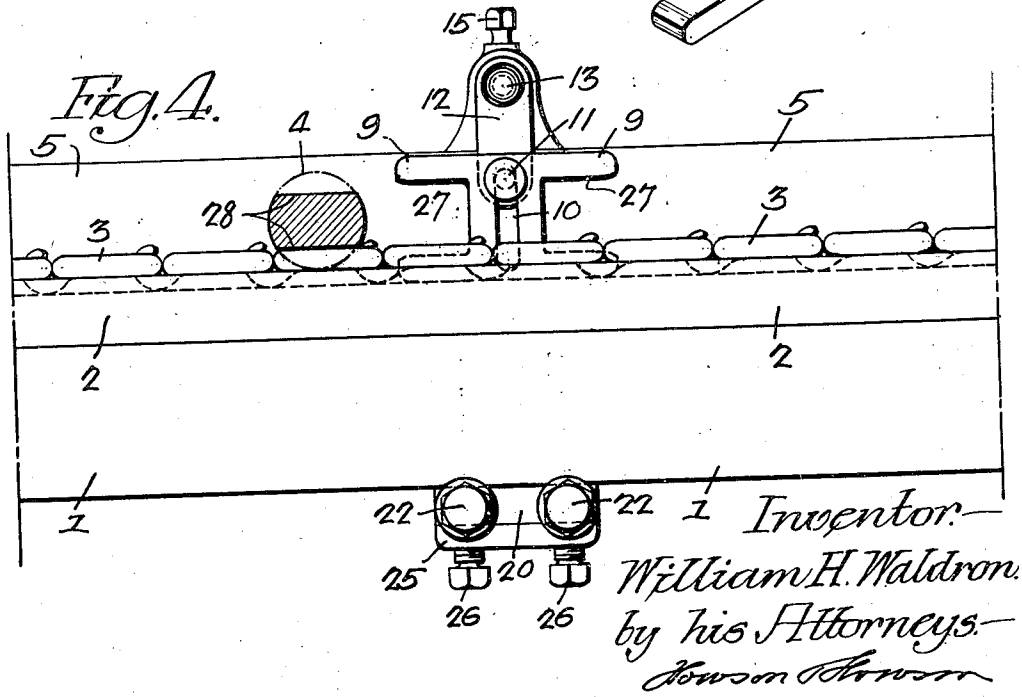


Fig. 5.

Fig. 6.

Fig. 4.



Inventor.
William H. Waldron.
by his Attorneys.
Howson & Howson

Patented June 24, 1924. 1,499,134

UNITED STATES PATENT OFFICE.

WILLIAM H. WALDRON, OF NEW BRUNSWICK, NEW JERSEY, ASSIGNOR, BY MESNE ASSIGNMENTS, TO JOHN WALDRON CORPORATION, OF NEW BRUNSWICK, NEW JERSEY, A CORPORATION OF NEW JERSEY.

FESTOONING MACHINE FOR CARRYING PAPER AND FABRICS.

Application filed August 11, 1923. Serial No. 656,971.

To all whom it may concern:

Be it known that I, WILLIAM H. WALDRON, a citizen of the United States, residing in New Brunswick, Middlesex County, New Jersey, have invented certain Improvements in Festooning Machines for Carrying Paper and Fabrics, of which the following is a specification.

My invention relates to certain improvements in means for turning sticks used in supporting continuous sheet of paper, or continuous fabrics, in festoons in drying machines.

The invention can also be used for supporting yarns in dyeing machines, where it is desired to turn the sticks.

The object of my invention is to provide a means for turning the sticks as they are traversed through the machine.

This object I attain in the following manner, reference being had to the accompanying drawings, in which:

Fig. 1 is a diagrammatic view of sufficient of a festooning machine for drying paper and fabrics to illustrate my invention;

Fig. 2 is a detached side view showing a portion of the track carrying chain and the stick turner;

Fig. 3 is a sectional view on the line 3—3, Fig. 2;

Fig. 4 is a sectional view on the line 4—4, Fig. 3;

Fig. 5 is a perspective view of the turning block;

Fig. 6 is a perspective view of one end of one of the sticks; and

Fig. 7 is a diagrammatic view showing the action of the turning device.

Referring to the drawings, 1 is one of the longitudinal rails of a festooning machine. 2 is a carrier strip on which the chain 3 travels. This chain carries the sticks 4 in the ordinary manner. 5 is a guard rail, which is located beyond the ends of the sticks. 6 is a conveyer having lugs 7, which engage the sticks that are placed in position to engage the fabric *a* as it comes from the roll. This conveyer carries the sticks up to the chain 3 and forms the loops of the material, as shown clearly in Fig. 1.

The previous description refers to the ordinary festooning machine used in drying paper or fabrics.

My improved device for turning the sticks consists of an H-shaped block 9, having a slot 10 through which extends a pin 11 on an arm 12, loosely mounted on a stud 13 secured to an adjustable bearing 14 by a set screw 15. The bearing is slotted at 16. Extending through each of the slots is a clamp screw 17, which is threaded into an opening in the upturned portion 18 of a bracket 19, which, in turn, is secured adjustably to a frame 20 that is secured to one of the rails 1 by clamp screws 21 and 22, Fig. 3.

The bracket 19 is slotted at 23. Extending through the slots 23 are screws 24. Extending through a lug 25 at the lower end of the frame are set screws 26. On turning these screws, the bracket 19 can be raised or lowered.

By the construction hereinbefore described, the block 9 is brought into proper alignment with the sticks 4. The block 9 is made as shown in Fig. 5, and is recessed at each side, as shown at 27. The edges of the recesses are beveled, as clearly shown in Fig. 5, so as to permit the sticks to enter the recesses. Each end of each stick 4 is shaped as shown in Fig. 6 so as to form flat surfaces 28, which pass into one of the recesses, and, as a stick is traversed through the drier, it enters one of the recesses, as shown at *b*, Fig. 7. As the movement continues, the block 9 turns on its pivot and the arm 12 is also turned in order to raise the block, as at *c*. *d* designates the block at its greatest height, and a partly turned stick directly under the block. *e* denotes the position of the block as a stick is leaving the block after it has made almost a complete revolution. *f* denotes a stick leaving the block, the block being in position to receive another stick as it moves forward, the stick having been turned one-half a revolution.

In some classes of goods, which are damp, or wet, if the goods remain in the same position on the sticks until dry, the goods bear the marks of the sticks. When the sticks are turned over during the drying operation, the material is shifted, and the marking of the goods by the sticks is prevented.

It will be understood that there is one of these turning devices at each side of the machine. In some of the machines, there

may be a number of these devices, according to the length of travel of the sticks through the drying apparatus.

This invention can also be applied to dyeing machines, in which hanks of yarn are suspended from sticks. It is desirable in dyeing certain classes of yarn that the sticks be turned in order to insure uniform dyeing of the yarn.

I claim:

1. The combination of two tracks; chains arranged to travel on the tracks; sticks having flattened portions at each end and mounted on the chains so as to move therewith; two brackets, one at each side of the machine; an arm pivotally hung from each bracket; and a block carried by each arm, each block being recessed at opposite sides, the recesses being in the path of the sticks so that each stick, as it moves forward, will enter one of the recesses in the blocks and will be turned by the blocks without retarding the forward movement.

2. The combination of two tracks; a chain arranged to travel on each track; sticks having flattened portions at each end resting on the tracks; a vertically adjustable bracket secured at each side of the machine adjacent the tracks; a stud adjustably mounted on the brackets; an arm loosely mounted on the stud; a pin on the arm; and a block having a slot therein to receive the pin, said block being recessed at each side, the block being in the path of the sticks as they are traversed through the machine so that the sticks will enter the recesses and will be turned by the blocks as they move forward.

WILLIAM H. WALDRON.