

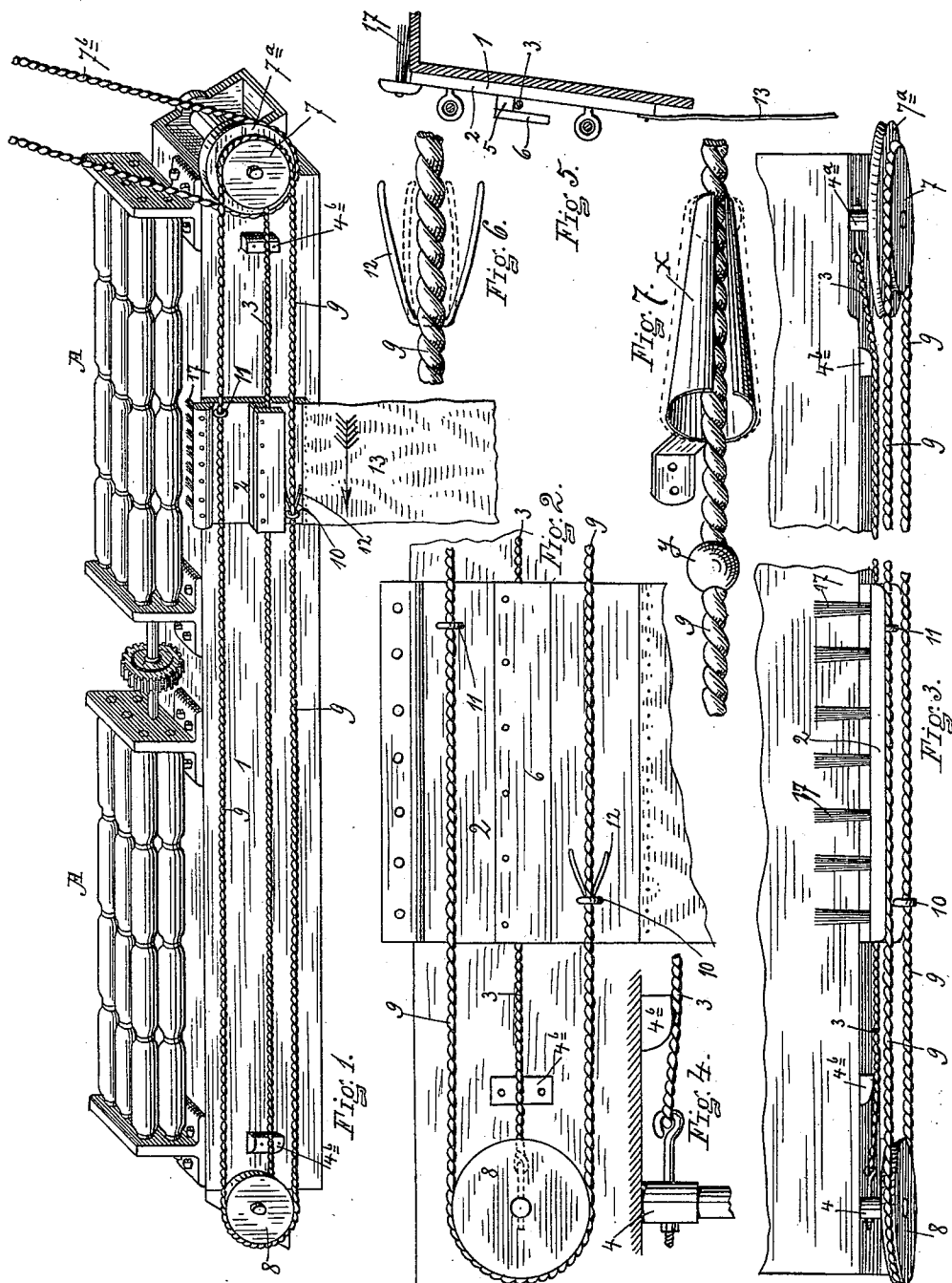
(No Model.)

J. CAIN.

WIPING DEVICE FOR SPINNING MACHINES.

No. 547,063.

Patented Oct. 1, 1895.



WITNESSES.
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WIPING DEVICE FOR SPINNING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 547,063, dated October 1, 1895.

Application filed March 14, 1895. Serial No. 541,657. (No model.)

To all whom it may concern:

Be it known that I, JOHN CAIN, of Utica, in the county of Oneida and State of New York, have invented certain new and useful Improvements in Wiping Devices for Spinning-Machines, &c.; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form part of this specification.

My invention relates to improvements in wipers for spinning-machines and similar machinery.

In the drawings which accompany and form a part of this specification, and in which similar letters and figures of reference refer to corresponding parts in the several views, Figure 1 shows a part of a spinning-machine, showing particularly the feeding-rollers and my wiping device applied to the machine. Fig. 2 shows enlarged details of the same from the side. Fig. 3 shows a plan view of the parts shown in Fig. 2. Fig. 4 shows details of track-stretching devices. Fig. 5 shows an edge view of the parts shown in Fig. 2. Fig. 6 shows details on an enlarged scale. Fig. 7 shows a modified form of construction.

Referring to the reference letters and figures in a more particular description of the device, 1 indicates the face side of the frame of a spinning-machine, and A A indicate the rollers which feed the roving in the spinning-machine; but the details of construction of this part not being of importance are not clearly or carefully shown. On the side of the frame toward the carriage carrying the spindles is mounted the wiper-body 2. This consists of a plate or body, as a piece of board, adapted to lie against the face 1 of the frame, and is supported upon the track 3, which is stretched between the studs 4 4^a, secured on the face 1 of the machine by means of bolts, as shown, or otherwise.

The wiper 2 is provided with a shoulder-piece 5, which projects from the wiper 2 and is provided with a downwardly-projecting lip 6, the projecting shoulder 5 and the lip 6, to-

gether with the back of the wiper, forming an inverted groove, through which the cable or track 3 passes in supporting the wiper. In the upper edge of the wiper are provided tufts or bristles, constituting a brush 17, which brushes over the upper face of the frame and rests more or less upon the face in such a position that they will wipe the face as the wiper is moved backward or forward.

For moving the wiper backward and forward along the face 1, I provide a pair of grooved band-wheels 7 and 8, to one of which power may be applied by a band-wheel 7^a and belt 7^b, as shown, or in any other suitable manner. The wheels 7 and 8 are mounted loosely on studs 4^a and 4, respectively. Around the wheels 7 and 8 pass the continuous cord or small cable-carrier 9, which also passes through eyes 10 and 11, secured upon the back of the wiper-body, and which are somewhat larger than the diameter of the carrier-cord. Secured in the cord or carrier 9 is the V-shaped spring-expander 12, which is adapted to readily enter the eyes 10 or 11 at its smaller or pointed end, and is expanded at its rear end, so as not to readily pass through either of the eyes 10 or 11 without considerable force being applied for that purpose.

The expander 12 is preferably simply a piece of spring-wire passed through the body of the carrier-cable, and being pointed at its front end and properly shaped will retain itself in position without other securing means, although it may be readily understood that a special means may be provided for securing the expander in position on the carrier.

In operation the carrier is caused to pass across the face of the machine by the rotation of the wheels 7 and 8, one of the strands passing in one direction and one in the opposite direction. When the expander 12 comes to the eye—say, 10, in the construction as shown in the drawings—it engages therein with sufficient force to move the wiper along the face of the machine until it comes to the end of the supporting track or cable 3, when it is stopped by one or the other of the blocks 4^b, (which also hold the track out from the face 1,) and when stopped, the carrier still moving forward, draws the expander 12 through the eye 10 and it passes around the wheel 8, and

as it passes again toward the right of the machine, as shown in Fig. 1, it engages in the eye 11 and moves the wiper along the face of the machine until it strikes the block 4^b adjacent to the band-wheel 7, when, the wiper being again held, the spring-expander is drawn through the eye 11 and passes around to the eye 10, carrying the wiper in the opposite direction, and thus it is kept almost continuously in motion. The band-wheels 7 and 8 must be far enough removed from the upper parts of the machine and freed so that they will not interfere with the expander passing around their periphery. There may also be attached to the lower side of the wiper a cloth or "dust-rag" 13, which will drag on the carriage (not shown) of the machine when it comes up to the head of the rollers A A, as is usual with this class of machines and is generally well known. In line of the eyes 10 and 11 a conical split spring-expander *x* may be provided, secured on the carriage 2, and for use with this modified form of device there is provided a ball or bead *y*, secured on the carrier 3 instead of the expander 12. The bead *y* is adapted to fully enter the large end of the expander *x*, and with sufficient force caused to pass entirely through it, expanding it, as shown in dotted outline in Fig. 7.

It is obvious that the wiper might be supported entirely on the strands of the carrier 9 and the track 3, or its equivalent, dispensed with; but I prefer to provide the track, as it is not necessary to keep the carrier as taut as

would be the case if it were required to also support the wiper.

What I claim as new, and desire to secure by Letters Patent, is—

1. The combination of a carrier, a movable carriage having an eye through which the carrier passes and an expander secured on the carrier, substantially as set forth.

2. The combination in a wiping machine of a wiper, a belt carrier for moving the wiper, eyes secured on the wiper through which the oppositely moving parts of the carrier pass respectively, and an expander secured on the carrier, substantially as set forth.

3. In a wiping device, the combination of a track, a wiper, a continuous carrier, eyes secured to the wiper through which the oppositely moving parts of the carrier pass respectively, and an expander secured on the carrier, substantially as set forth.

4. In a wiping device for spinning machines, &c., the combination of a movable wiper, a track therefor, a continuous carrier, wheels carrying the carrier, eyes on the wiper through which the oppositely moving parts of the carrier pass, respectively, and an expander secured on the carrier, substantially as set forth.

In witness whereof I have affixed my signature in presence of two witnesses.

JOHN CAIN.

Witnesses:

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GEORGE C. CARTER.