L. N. D. WILLIAMS.

WEB HOLDER.

APPLICATION FILED MAR. 20, 1916.

1,186,255. Patented June 6, 1916.

Fig. 1.

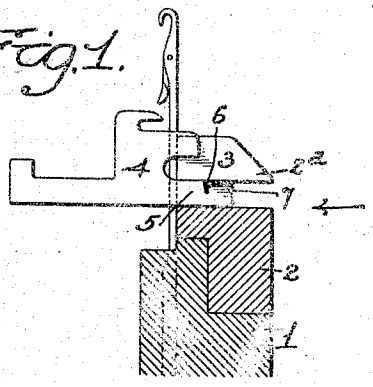


Fig. 4.

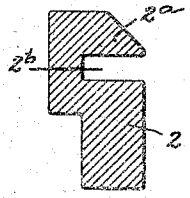


Fig. 7.

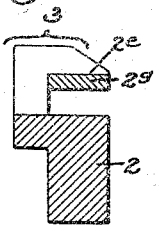
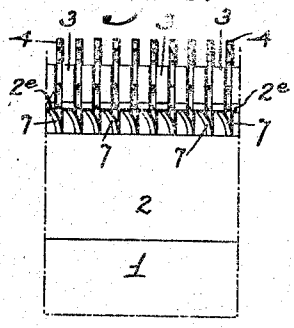


Fig. 2.



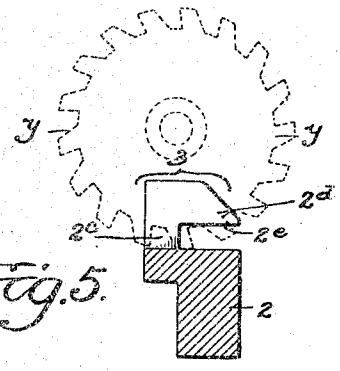


Fig. 5.

Fig. 3.

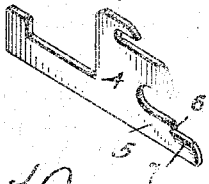


Fig. 8.

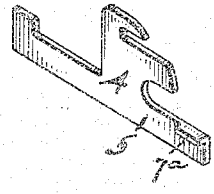


Fig. 6.

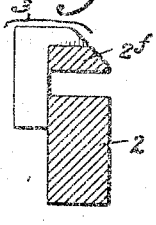


Fig. 10.

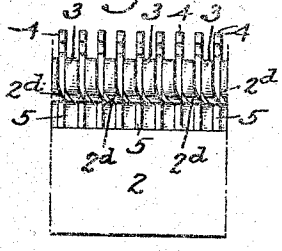
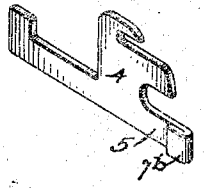


Fig. 9.



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UNITED STATES PATENT OFFICE.

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WEB-HOLDER.

1,186,255. Specification of Letters Patent. Patented June 6, 1916.

Application filed March 20, 1916. Serial No. 85,406.

To all whom it may concern:

Be it known that I, LOUIS N. D. WILLIAMS, a citizen of the United States, residing in Ogontz, Pennsylvania, have invented certain Improvements in Web-Holders, of which the following is a specification.

My invention consists of an improvement in web holders such as are employed in connection with the needle carriers of knitting machines for engaging the sinker wales of the last produced course of stitches and preventing the said stitches from rising with the needles.

My invention consists in so constructing such web holders and the guides therefor as to prevent rise of the web holders under the upward stress of the sinker wales, while, at the same time, the formation of the guides is facilitated and cheapened.

In the accompanying drawing Figure 1 is a sectional view, on an enlarged scale, of the upper part of the needle carrier of a knitting machine, with web holder and guide and retainer for the latter constructed in accordance with my invention; Fig. 2 is a face view looking in the direction of the arrow, Fig. 1; Fig. 3 is a detached perspective view of the web holder; Figs. 4 and 5 are views representing successive steps in the formation of the web holder guides in accordance with my invention; Figs. 6 and 7 are views similar to Fig. 5, but illustrating constructions which my invention is intended to replace; Figs. 8 and 9 are perspective views of modified forms of web holder, in accordance with my invention, and Fig. 10 is a view similar to part of Fig. 2, but illustrating a modification of my invention.

My invention is applicable either to circular or straight bed knitting machines, but will, for convenience, be considered as applied to a circular machine.

In the drawing, 1 represents part of the needle cylinder and 2 a ring mounted upon the upper edge of said needle cylinder and having, projecting upwardly therefrom, ribs 3, between which are laterally guided the web holders 4, each of the latter having at the bottom a forwardly projecting stem 5.

In producing the web holder guides in accordance with my invention I first form in the inner face of a solid ring 2^a, a groove 2^b, as shown in Fig. 4, and I then form in said ring vertical slots extending from the top of the same down to the level of the base of the groove, as shown in Fig. 5, so that each rib projecting upwardly from the ring 2 presents a relatively narrow neck 2^c and an inwardly projecting head 2^d, the latter presenting at the bottom a shoulder 2^e. The guide stem 5 of each web holder is notched, as shown at 6 in Fig. 3, at a point some distance from the inner end of the stem and that portion of the stem inwardly beyond the notch is laterally bent, as shown at 7 in Fig. 3, whereby when the web holders are introduced into their guides, said laterally bent portions of the stems will project beneath the shoulders 2^e of the heads of the adjoining guide ribs, as shown in Fig. 2, and will thus effectually prevent any rising movement of the web holders under the upward stress of the sinker wales of the web. When the web holders are constructed in this manner the guides therefor can be readily produced by first turning or milling the groove 2^b, and then by successive operations of a milling cutter *y*, as shown in Fig. 5, producing the vertical slots with intervening ribs 3, thereby considerably simplifying and cheapening the operation as compared with guides in which the vertical retention of the web holders is effected by contact of their stems 5 with a ring 2^f integral with the ribs 3, as shown in Fig. 6, or with a separate ring 2^g bearing against the shoulders 2^e, as shown in Fig. 7.

Instead of forming the retainer on the guide stem 5 of the web holder in the manner shown in Fig. 3, other means of forming the same, within the scope of my invention, may be employed, for instance by bending a lateral flange 7^a on the top of the stem 5, as shown in Fig. 8, or by doubling over upon itself, as shown at 7^b in Fig. 9, the projecting end of said stem 5.

Instead of laterally bending the inner portion of the stem 7 of the web holder the shouldered portion of the head 2^d of the guide rib may be thus bent, if desired, in order to overlap said stem 7, as shown in Fig. 10.

I claim:

1. A knitting machine web holder having a guide stem with laterally projecting flange, whose upper face will, by contact with an adjoining member of the machine, serve to prevent rise of said web holder.

2. A knitting machine web holder having a laterally bent portion presenting an upper

face which, by contact with an adjoining member of the machine, will prevent rise of the web holder.

3. A knitting machine web holder having a projecting guide stem part of which is laterally bent and presents an upper face which, by contact with an adjoining member of the machine, will prevent rise of the web holder.

4. A knitting machine web holder having a projecting guide stem with vertical notch therein, that portion of the stem inwardly beyond the notch having its upper portion bent laterally.

5. The combination of a knitting machine needle carrier having a top member with upwardly projecting ribs and alternating slots, each of said ribs presenting a shoulder, and web holders having guide stems playing between said ribs, one of said parts having a laterally projecting member so as to cause locking engagement of said stems and shoulders.

6. The combination of a knitting machine needle carrier having a top member with upwardly projecting ribs and alternating slots, each of said ribs presenting a shoulder, and web holders having guide stems playing between said ribs, and having laterally projecting flanges for bearing against said shoulders.

In testimony whereof, I have signed my name to this specification, in the presence of two subscribing witnesses.

LOUIS N. D. WILLIAMS.

Witnesses:

KATE A. BEADLE,

HAMILTON D. TURNER.