May 3, 1938. W. L. VAN METER 2,116,130

FRICTION DEVICE

Filed Oct. 26, 1937

Fig. 1.

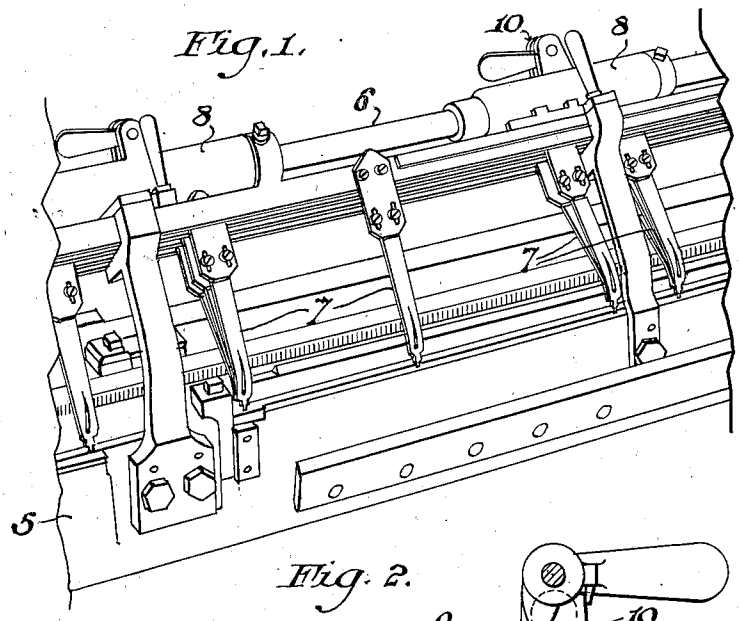


Fig. 2.

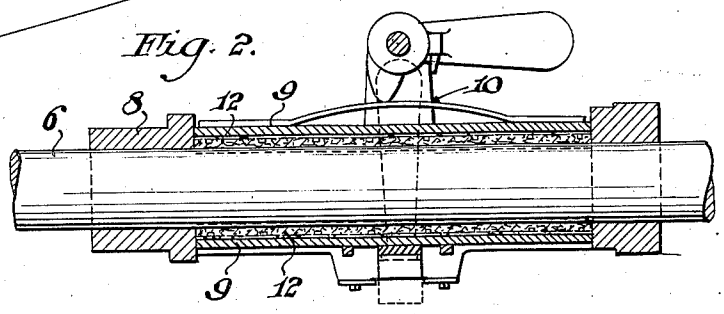


Fig. 3.

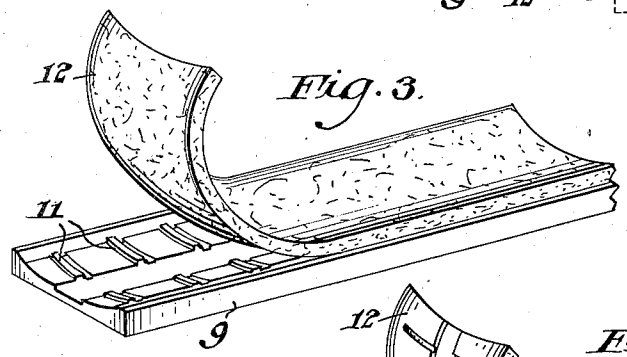
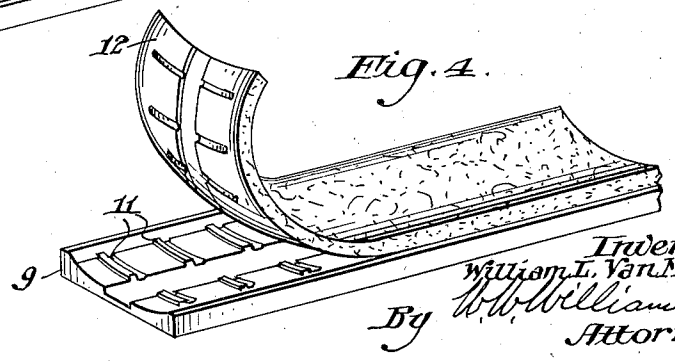


Fig. 4.



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UNITED STATES PATENT OFFICE

2,116,130

FRICTION DEVICE

William L. Van Meter, Philadelphia, Pa.

Application October 29, 1937, Serial No. 171,620

1 Claim. (Cl. 66—126)

My invention relates to a new and useful friction device for use in connection with a flat or full fashioned knitting machine and has for one of its objects to provide a novel means for connecting the friction pad to its shoe.

Another object of the invention is to construct a friction shoe with cleats of any desirable and suitable configuration and arrangement to be embedded in a cooperating friction pad to prevent movement of said pad relative to the shoe when the pad is fixed in place by an adhesive.

In present day carrier motion friction boxes the pads are attached to the shoes by rivets or equivalent fastening means which requires that the pads be apertured thus weakening the pads to such an extent that their usefulness is soon impaired. Also the use of fastening devices which penetrate the pad can only engage restricted areas of said pad and as the latter wears away the fastening devices will be exposed and may damage the carrier rods. These disadvantages are entirely overcome by this invention because the complete inner surface of the pad is held to the shoe and the cleats engage an extended area of the pad to prevent slipping.

With the above and other objects in view, this invention consists of the details of construction and combination of elements hereinafter set forth and then designated by the claims.

In order that those skilled in the art to which this invention appertains may understand how to make and use the same, I will describe a construction embodying the conception, referring by numerals to the accompanying drawing forming a part hereof, in which:—

Fig. 1 is a fragmentary perspective view of a portion of a flat knitting machine illustrating the arrangement of a friction box.

Fig. 2 is an enlarged longitudinal sectional view of a friction box showing the use of my invention.

Fig. 3 is a fragmentary perspective view of a shoe and pad, one end of the latter being turned back prior to being secured to the shoe.

Fig. 4 is a view similar to Fig. 3 showing the impressions made in the pad by the shoe cleats after said pad has been pressed onto the shoe.

In carrying out my invention 5 represents a flat or full fashioned hosiery knitting machine including the usual friction rod 6 for actuating the carriers 7 in the well known manner. The carriers are reciprocated by the friction boxes 8 in which friction devices or padded friction shoes 9, generally two in number, are mounted and held in contact with the carrier rod 6 by a spring clamp appliance 10.

Specifically my improvement comprises providing the inner or padded surface of a friction shoe 9 with cleats 11 to produce a roughened or uneven surface. The cleats may be of any suitable or convenient shape and size and if generally rectangular may extend lengthwise, crosswise or obliquely of the shoe. The cleats can consist of a series of pegs, screws, sharp pointed pins, projections or depressions distributed irregularly or in definite patterns over the inner surface of the shoe to provide an obstruction for the pad 12.

The pad 12 is generally a sheet of leather of the same length and width as the shoe 9 and is pressed onto the cleated or roughened surface of said shoe with an adhesive between them for fastening the two together. In pressing the pad 12 onto the shoe the cleats will be embedded in the under surface of the pad to make impressions which will be like a matrix of the roughened surface of the shoe as will be obvious by reference to Fig. 4.

Since the pad 12 is secured to the shoe throughout its length and breadth by the adhesive, said pad is effectually held against accidental displacement and because of the cleats said pad is maintained in proper alignment with the shoe and securely held against slippage.

Of course I do not wish to be limited to the exact details of construction herein shown and described, which are only for the purpose of disclosing the conception, as these may be varied within the scope of the appended claim, without departing from the spirit of my invention.

Having thus described my invention what I claim as new and useful is:—

In a knitting machine having a friction rod and a friction box encircling the rod, friction shoes in said box, leather pads fixed to the shoes by an adhesive, and obstructions on the faces of the shoes to which the pads are fixed and coacting with the pads to prevent the latter from slipping relative to the shoes.

WILLIAM L. VAN METER.