J. C. TAUBER.

MECHANISM FOR KNITTING FLEECE LINED FABRIC.

APPLICATION FILED NOV. 13, 1913.

1,114,414. Patented Oct. 20, 1914.

Fig. 1.

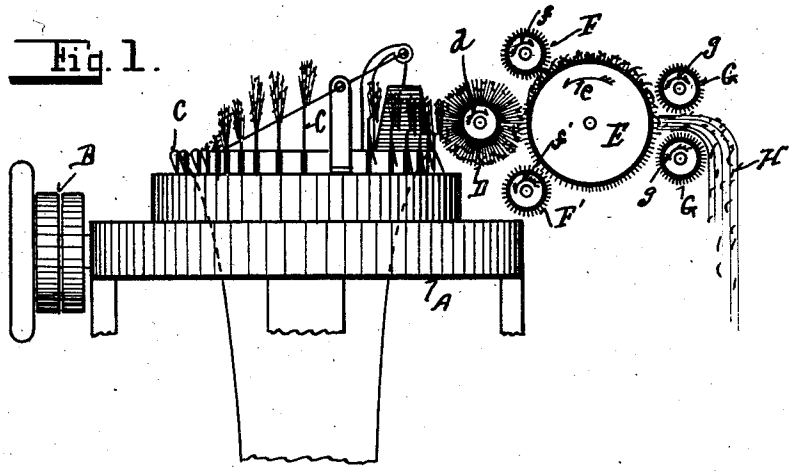
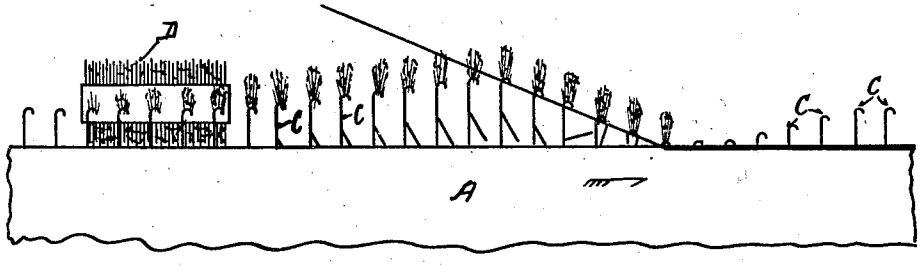


Fig. 2



Witnesses.

A. W. Mitchell

E. E. Myers

Inventor.

John C. Tauber

By J. C. & H. W. Sturgeon

attys.

UNITED STATES PATENT OFFICE.

JOHN C. TAUBER, OF ERIE, PENNSYLVANIA.

MECHANISM FOR KNITTING FLEECE-LINED FABRIC.

1,114,414. Specification of Letters Patent. Patented Oct. 20, 1914.

Application filed November 13, 1913. Serial No. 800,787.

To all whom it may concern:

Be it known that I, JOHN C. TAUBER, a citizen of the United States, residing at Erie, in the county of Erie and State of Pennsylvania, have invented certain new and useful Improvements in Mechanism for Knitting Fleece-Lined Fabric; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as 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 of reference marked thereon, forming part of this specification.

My invention relates to improvements in mechanism for producing fleece-lined fabric.

Heretofore, in making fleece-lined knit fabric, the fleece is produced either by combing out a portion of the fiber of the yarn on one side of the fabric after the knitting thereof is completed, or by knitting into each stitch of the fabric, loops of fiber, the ends of the fiber of which loops all appear on one side of the fabric and constitute the fleece. In the latter case the loops of fiber have been produced by means of mechanism which presented a thin bat of fiber in such a position that the hooked needles of the knitting machine could be caused to be thrust through the bat of fiber and upon being withdrawn therefrom, retained upon the hooks small tufts of fiber, which, together with the thread are drawn through the loop on the needle.

The object of my invention is to produce an improved mechanism adapted to place on each hooked needle of a knitting machine, a tuft of fiber just before the needle hooks engage the thread so that the thread will hold the tuft in the hook and the thread and tuft will be drawn through the loop on the needle together, leaving the free ends of the fibers composing each tuft projecting from one side of the fabric.

In carrying out my invention I provide a brush adapted to receive fibers suitable to form a fleece-surface, which brush I place in such a position adjacent to the hooked needles of a knitting machine that the hooks will gather a tuft of fibers thereon as they pass through said brush, and will carry said tufts together with the incoming thread through the loop on each needle during the process of knitting.

The features of my invention are hereinafter more fully set forth and explained, and are illustrated in the accompanying drawings in which—

Figure 1, is a view in elevation of a portion of a knitting machine, with my improved fiber-feeding mechanism combined therewith. Fig. 2, is a diagrammatic view of the same.

In these drawings A, indicates a knitting machine, provided with the usual driving gear B, and hooked needles C, common to knitting machines. At one side of the knitting machine A, adjacent to the hooked needles C, I suitably mount a brush D, which is provided with somewhat long and flexible teeth, which are adapted to permit the hooked ends of the needles C, to pass freely therethrough without injury to the needles C. I preferably make this brush D, rotary, and cause the same to rotate in the direction of the arrow *d*, so that the brush teeth travel upward with relation to the hooked needles C, so that any fibers carried by the brush will be carried thereby into the open hooks of the needles C. Adjacent to the brush D, I place suitable feed mechanism adapted to maintain on the brush D, a supply of fibers to be placed on the hooked needles C. This feed mechanism I preferably make in the form of a carding-drum E, of usual construction, and cause the same to rotate preferably in the direction of the arrow *e*. Adjacent to the carding-drum E, I mount carding-rolls F, and F′, which preferably are caused to rotate in the direction of the arrows *f* and *f′*, the surfaces of which rollers F and F′, however, preferably traveling faster than the surface of the carding-drum E, so that the fibers on the drum E, will be properly combed prior to being presented to the brush D. Adjacent to the carding-drum E, I suitably mount feeding rollers G, which are caused to rotate in the direction of the arrows *g*, for the purpose of suitably carrying a bat H, of wool or other fibers to the carding-drum E. The mechanism for causing the brush D, and carding-drum E, and rollers F, F′, and feed-rollers G, to rotate, is common to carding machines and forms no part of my invention, and therefore I have not shown or described the same.

From the foregoing description it will be evident to those skilled in the art, that any suitable mechanism adapted to maintain a

suitable supply of wool or other fiber upon the brush D, will carry out the object of my invention, therefore I do not desire to be limited to the exact form and arrangement of mechanism herein shown and described.

Having thus fully shown and described my invention what I claim as new and desire to secure by Letters-Patent, is:—

1. In an apparatus of the class described, a continuous upwardly traveling brush having long flexible wires or bristles, mechanism adapted to distribute fiber onto said brush, a knitting machine, vertically slidable needles therein, down turned hooks on said needles adapted to engage said brush and comb fiber therefrom, and mechanism adapted to cause said needle hooks to travel continuously across said upwardly traveling brush, substantially as set forth.

2. In an apparatus of the character described, the combination of a carding drum and its associated mechanism, a continuous upwardly traveling brush having flexible wires or bristles adapted to take fiber off of said carding drum, a knitting machine, vertically slidable needles therein, down turned hooks on said needles adapted to engage said brush and comb fiber therefrom, and mechanism adapted to cause said needle hooks to travel continuously across said upwardly traveling brush, substantially as set forth.

3. In an apparatus of the character described, the combination of a carding drum and its associated mechanism, a continuously upwardly traveling brush having flexible wires or bristles adapted to take fibers off of said drum, a knitting machine, needles therein supported in a vertical position adjacent to, and movable across said upwardly traveling brush, down turned hooks on the upper ends of said needles adapted to comb fibers out of said brush during their traverse thereacross, substantially as set forth.

In testimony whereof I affix my signature, in presence of two witnesses.

JOHN C. TAUBER.

Witnesses:
S. H. Drown,
H. M. Sturgeon.