

(No Model.)

H. PULSTER.
KNITTED FABRIC.

No. 409,425.

Patented Aug. 20, 1889.

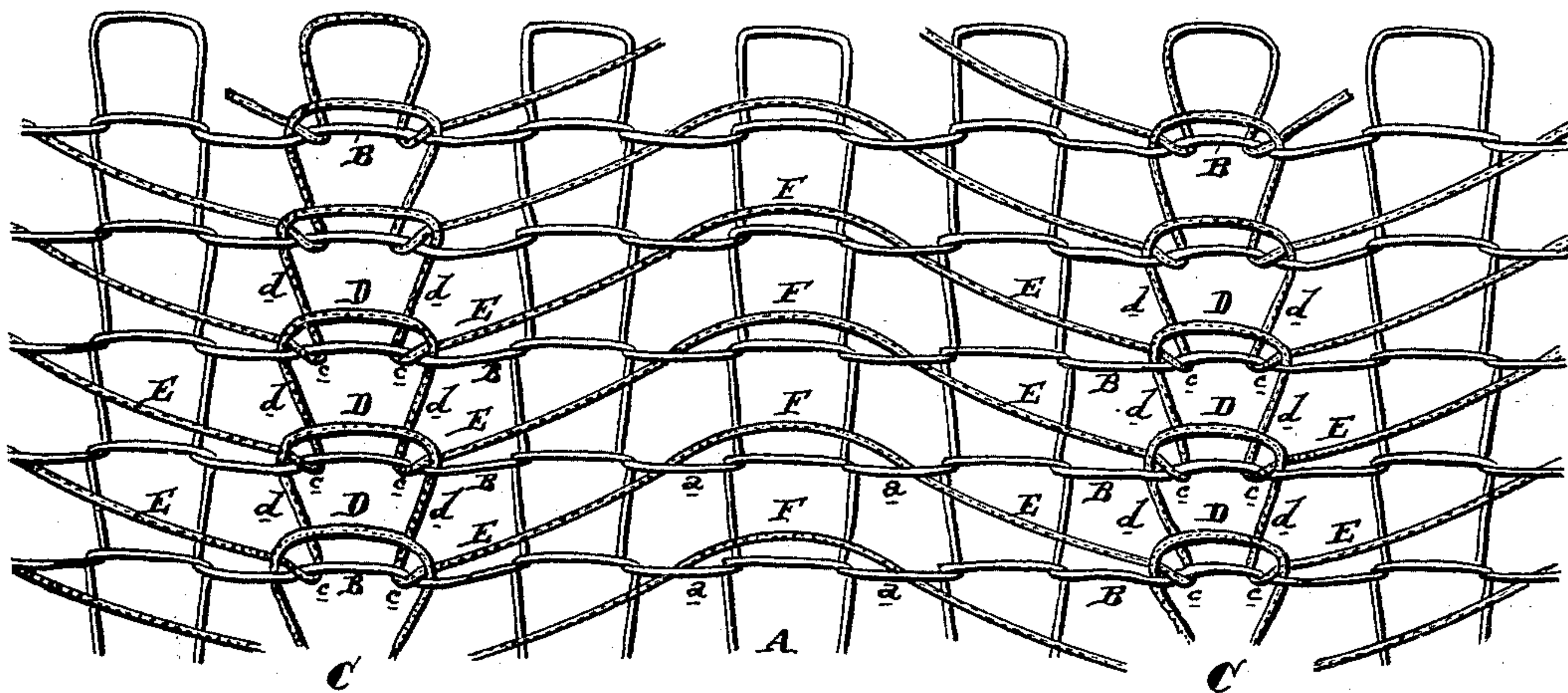


FIG. 1.

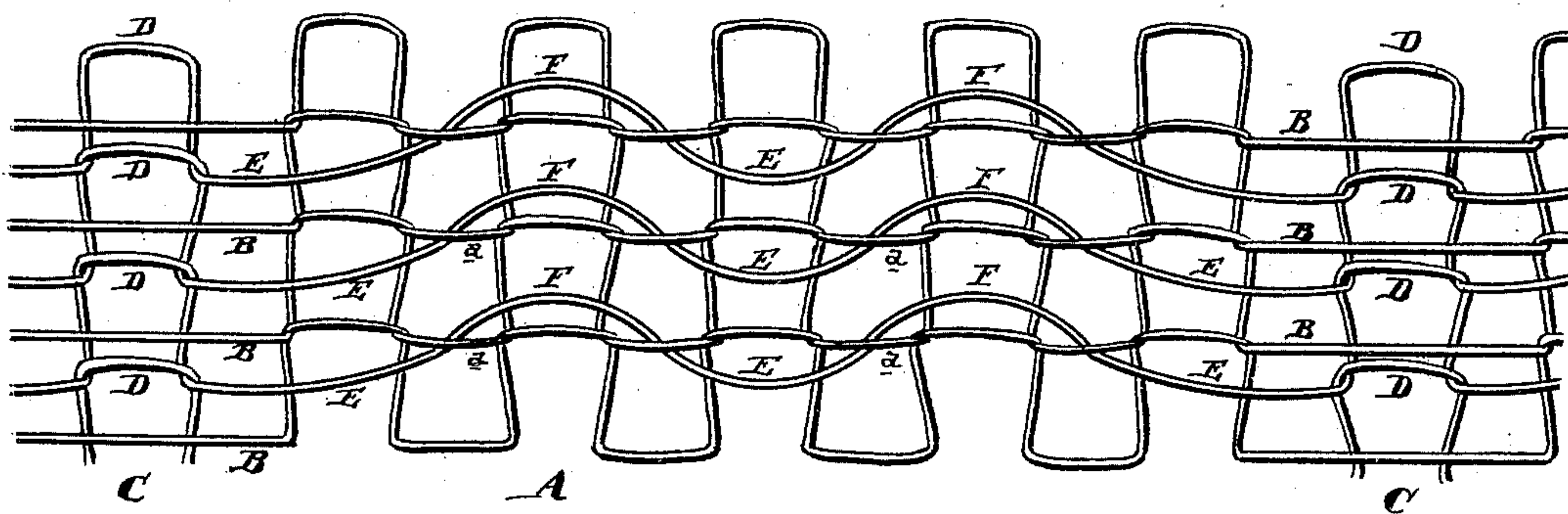


FIG. 2.

Attest

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HENRY PULSTER, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO KLANDER & BROTHER, OF SAME PLACE.

KNITTED FABRIC.

SPECIFICATION forming part of Letters Patent No. 409,425, dated August 20, 1889.

Application filed June 23, 1887. Serial No. 242,208. (No model.)

To all whom it may concern:

Be it known that I, HENRY PULSTER, of the city and county of Philadelphia, and State of Pennsylvania, have invented an Improvement in Knitted Fabrics, of which the following is a specification.

My invention has reference to knitted fabrics; and it consists in certain improvements, all of which are fully set forth in the following specification, and shown in the accompanying drawings, which form part thereof.

In carrying out my invention I proceed to knit a striped fabric in the ordinary way, which is well known to those skilled in the use of knitting-machines for making striped or figured fabrics, and during this work I cause the floats to be tied into the back of the fabric at one or more places in each float, so that when the completed fabric is examined it will be found devoid of loose floats upon the back, and hence there is no liability of the parts formerly found as floats catching upon the fingers or toes of the wearer, or in any other way being pulled or dragged so as to injure the appearance of the face of the fabric.

It is to be understood that I do not confine myself to any particular apparatus for producing the fabric. In fact, it may be made by hand so far as my invention is concerned. The generic feature is the destroying of the floats formed in fabrics such as found upon the market, or equivalent fabrics, by tying them into or to the body of the fabric.

In the drawings, Figure 1 is an elevation of a piece of fabric embodying my invention, looking from the back, and Fig. 2 is a similar view of a modification of the same.

A is the ordinary knitted body portion, or that forming the main part of the fabric, the loops being connected, as usual, by the parallel horizontal thread parts *a*.

C represents a vertical line of loops D, formed of a different thread from that making up the part A, and which loops are tied to the bars B of the said part A by being looped over them, as shown. An examination of Fig. 1 will disclose the fact that the loop D passes down and under a bar B at *c*, and the ends of said loop are brought out to the right and left, as at E, back of a line of body-loops A, then

in front of a horizontal thread part *a* of the horizontal line of loops immediately above that to which the bar B first mentioned belongs, then back of another line of loops, then down in front of another thread *a*, then back of another row of loops, and next to a second line C of loops D. The part between the two lines of loops C, and comprised by portions E F E, is what is usually a long loose loop or float, but it is seen that with my invention these parts do not exist as floats, they being tied in by threads *a*. If the lines of loops C C are farther apart, then the thread E F E would simply wind back and forth over the threads *a* two or more times, as in Fig. 2. It is immaterial how often these back or float threads are caught in. The next loop D passes back of the bar B, first mentioned, then in front of the parts E and *d* of the previous loop D. The ends E E of this last-mentioned loop are then tied into the body part, as above described when speaking of threads E E of the previous loop D. From this it will be seen that the bar B is the means of tying the two succeeding loops D together in Fig. 1. In Fig. 2 it will be observed that this is not the case, for in the fabric there shown the loops D are directly looped into each other, and are simply interlaced into the body part by passing the threads forming them between the bars B.

Aside from the method of knitting a striped or figured fabric, the method involved in making my fabric consists simply in causing the parts F to pass in front of the thread forming the body-loops A in such a manner as to be tied in by the portions *a* thereof, but not to be acted on by the needles forming the loops A, except so far as to cause the said body-loop to be formed over the float-threads. This may be done by use of a sinker-frame on an ordinary latch-needle head having tuck-cams.

The drawings show the fabric as a striped fabric. This is chosen for illustration as being best adapted to show the invention; but, as before stated, it is to be understood that my invention is equally applicable to any figured fabrics as well. By properly arranging the threads various patterns may be formed, but in any event the tendency to form floats

only exists with vertical stripes or figures when the parts formed from consecutive parts of the same thread are isolated or separated at some distance.

5 Each horizontal row of loops may be formed of different threads, and thus any number of threads may be employed to make the fabric. All of the large jersey-cloth knitting-heads have in the neighborhood of sixty-four thread-
10 guides, and if such a machine were used the fabric would be made of a corresponding number of threads.

From the foregoing it is evident that to tie in the floats, or what would constitute the
15 floats, they must pass back of at least three or more adjacent body-loops. The pattern-loops from the same thread and in adjacent pattern portions are in the same horizontal lines. It is also evident that the pattern-loops are interlaced with the body portion and are be-
20 tween two vertical lines of loops. The pattern-threads, which connect two parts of the pattern and form the float parts, are tied into the body portion by passing in front of the
25 horizontal threads of the body-loops and back of three or more of said body-loops, which are adjacent.

The essential feature of my invention may be carried into effect in many ways; hence I
30 do not limit myself to the details here set out.

Having now described my invention, what I claim as new, and desire to secure by Letters Patent, is—

35 1. A knitted fabric formed of two or more separate threads, one or more of which are knitted together for forming the body-loops, and the other or others of which threads are formed into pattern-loops and interlaced with
40 the body portion to form a pattern, and in which the body-loops are grouped in horizontal rows of three or more loops, and the pattern-loops are one or more in number in the same horizontal line, those loops of the same
45 line in different parts of the fabric being formed of the same thread, and the connecting threads of the pattern-loops being tied to the body portion by passing back of the body-

loops and in front of the body-thread between the loops thereof.

2. A knitted fabric formed of two or more separate threads, one or more of which threads are knitted to form body-loops, and the other or others of which threads are knitted into
55 figure or pattern loops in the same horizontal lines, the parts being interlaced together to form a single fabric having a figured face, and in which the threads connecting the isolated figure or pattern loops appear upon the back and are tied into the fabric at one or
60 more places in their length by the threads forming the body portion.

3. A knitted fabric formed of two or more separate threads, one or more of which threads form the body-loops A and bars B, and the
65 other or others of which form the pattern-loops C, consisting of the loops D, held in contact with each other by the bars B, whereby the said loops D are connected in line without passing through each other.

4. A knitted fabric formed of two or more separate threads, one or more of which are knitted together for forming the body-loops, and the other or others of which threads are formed into pattern-loops and interlaced with
75 the body portion to form a pattern, and in which the body-loops are grouped in horizontal rows of three or more loops, which groups are separated by unlooped lengths of threads, and the pattern-loops are one or more in num-
80 ber in the same horizontal line, and are arranged in front of the unlooped lengths of thread connecting the groups of body-loops, those pattern-loops of the same line in different parts of the fabric being formed of the
85 same thread, and the connecting threads of the pattern-loops being tied to the body portion by passing back of the body-loops and in front of the body-thread between the loops thereof.

In testimony of which invention I hereunto set my hand.

HENRY PULSTER.

Witnesses:

R. M. HUNTER,
ANDREW ZANE, Jr.