

(No Model.)

A. D. EMERY.
WOVEN SEAMLESS SIDE POCKET.

No. 415,151.

Patented Nov. 12, 1889.

Fig. 2.

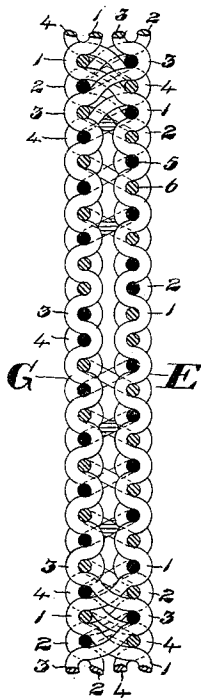


Fig. 1.

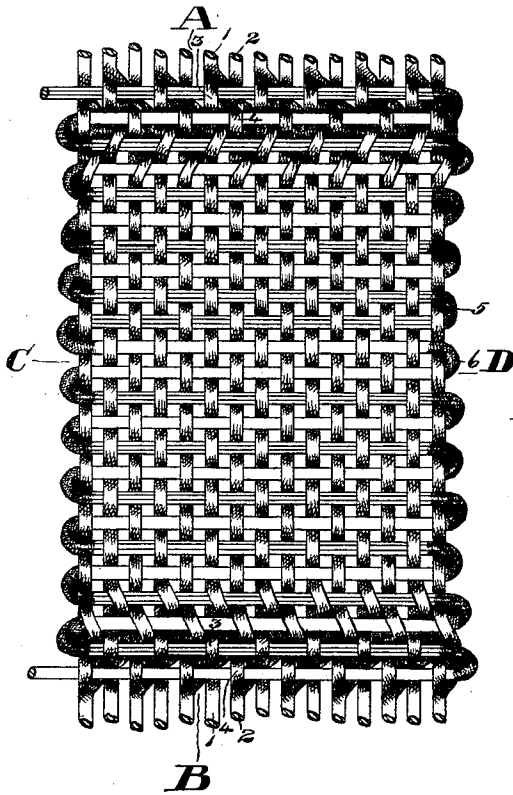
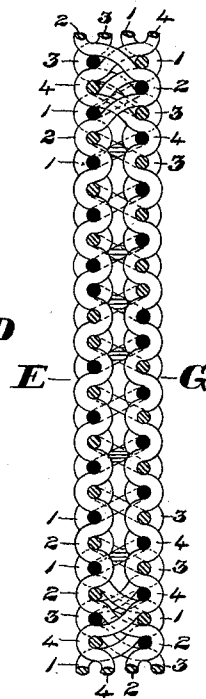


Fig. 3.



Witnesses.
Monte R. Paul
Gertrude Ward

Inventor.
Wm. D. Emery
by
Frank MacArthur
Attorney.

UNITED STATES PATENT OFFICE.

ABRAM D. EMERY, OF TAUNTON, MASSACHUSETTS.

WOVEN SEAMLESS SIDE POCKET.

SPECIFICATION forming part of Letters Patent No. 415,151, dated November 12, 1889.

Application filed May 31, 1889. Serial No. 312,830. (No model.)

To all whom it may concern:

Be it known that I, ABRAM D. EMERY, a citizen of the United States, residing at Taunton, in the county of Bristol and State of Massachusetts, have invented certain new and useful Improvements in Woven Seamless Side Pockets, of which the following is a full description.

My invention relates to woven seamless pockets composed of a set of chain-threads and two separate sets of weft-threads, each occupying a half of each pick. The particular pocket to which my present invention relates is what is known in the art as a "side" pocket, having top, bottom, and one end entirely closed and the fourth end closed part way from top and bottom and open for the desired distance between the ends. The chain-threads pass lengthwise of the fabric over and under the two weft-threads which pass crosswise of the fabric. The top and bottom are closed by interlacing the chain-threads around the two weft-threads. One end of the pocket is closed the entire length by transferring the weft-threads at that point to opposite sides of the fabric, passing them by each other and crossing them one over and one under between the two outer chain-threads of that side. The other end is closed part of the way, as described, in the same manner as the opposite end, and for the remaining distance is left open to form the entrance to the pocket by returning the weft-threads through the same half of the fabric through which they approach the opening and around the outer chain-threads on that side of the fabric, thereby forming two selvages at that point. The weft-threads, in other words, make continuous passages around the pocket in opposite directions throughout the interlaced portions and throughout that part of the fabric where both ends of the pocket are closed, the weft-threads making passages from selvage to selvage in that part of the fabric where the pocket is left open.

In the accompanying drawings, forming a part of this specification, Figure 1 is a plan view of the fabric as formed with the threads separated and enlarged to show the position of the same. Fig. 2 is a section on the line A B, looking toward the end D, showing the formation as well as the opening on the end

D. Fig. 3 is a cross-section on the line A B, looking toward the end C, showing the construction of the closed end.

The numerals 1, 2, 3, and 4 indicate the chain-threads.

The numeral 5 indicates the shaded weft-thread and the numeral 6 the plain weft-thread.

Referring to Fig. 1, it will be seen that the two weft-threads each occupy a half of each pick. In that portion of the fabric where both ends of the pocket are closed the weft-threads make continuous passages around the fabric in opposite directions, passing by each other at the meeting edges of the two halves of the chain-threads and crossing one over and one under. From this formation it results that the weft-threads alternate with each other in their passage across the fabric, and that they occupy opposite sides of the fabric at each succeeding pick. This formation is more particularly described in an application filed by me May 31, 1889, Serial No. 312,829, (Case 14.) It will be further observed that throughout that part of the fabric where one end of the pocket is open the weft-threads make passages from one selvage to the opposite selvage and return, thus passing through the same half of the fabric twice in succession, or for two successive picks, and passing through the opposite side of the fabric for the next two successive picks, the other weft-thread occupying the opposite side of the fabric. This formation of fabric is more particularly described in an application filed by me February 28, 1888, Serial No. 265,639, (Case 1.) Thus it will be seen that when both ends of the pocket are closed the weft-threads 5 and 6 follow each other in regular order through the fabric, while in that part of the fabric where one end is open the thread 6 is on one side for two successive picks and is followed by thread 5 for two successive picks.

The term "pick" as used in this specification signifies a complete layer of weft around the pocket, composed of one weft-thread on one side of the pocket and the other weft-thread on the other side, both lying in the same vertical plane, passing perpendicularly to the length of the pocket. These threads are laid in the fabric in a single operation by the simultaneous passage of two shuttles

through a double shedding, as explained in an application filed by me August 3, 1889, Serial No. 319,702, (Case 24,) which case presents the method by which the seamless side pockets herein described and claimed are made.

In Fig. 2 will be seen the positions of the weft-threads 5 and 6 in their passage through the fabric and the manner in which they are transferred from one side of the fabric to the other to form the closed end, and also the manner in which they pass from selvage to selvage to form the open end. It will be seen that thread 5 is on the side G for two picks, while the thread 6 is on the side E for two picks throughout the open portion of the fabric, which result is produced, as explained, by returning the weft-threads through the same side in which they approach the opening and around the outer chain-threads of the end D.

In Fig. 3 the weft-threads 5 and 6 are shown in like positions as in Fig. 2, but in sections, and looking toward the side C, which is the closed end. From this view it will be apparent that the threads 5 and 6 always cross between the two outer chain-threads and pass to opposite sides of the fabric on the closed end. It will furthermore be observed that weft-threads 5 and 6 in crossing over and under each other at this end alternate with each other with respect to the relation of over and under. This holds true throughout that part of the fabric where both ends are closed. In that part of the fabric where one end is open it will be observed that the thread 6 uniformly passes over the thread 5 at the closed end. This particular arrangement of the threads is produced by the method of manufacture which is fully illustrated in an application filed by me February 28, 1888, Serial No. 265,639, (Case 1.)

For the purposes of the present specification, I have illustrated my invention by means of a fabric or pocket made up of four picks

closed at the bottom, then eight picks of the fabric in two halves and closed on both ends, then four picks with the fabric open on one end and closed on the other, then four picks with the fabric in two halves and closed on both ends, and then four picks with the ends bound together. It will be understood, however, that the number of picks apportioned to each part of the fabric may be varied at will so long as they remain multiples of four.

The pocket herein described resembles the fabric of application, Serial No. 265,581, (Case 2,) in the respect that two weft-threads each occupy a half of a pick and are transferred to opposite halves of the pocket or fabric. In the fabric referred to the threads are so transferred at each second pick as in the portion of the present pocket containing the mouth. Such part cut out and opened out flat is the fabric of Case 2. In the body of the pocket the weft-threads are transferred after every pick, uniting the two ends of the pocket in precisely the way the two halves of the fabric of Case 2 are united.

I make no claim here, broadly, to transferring the two weft-threads into opposite positions in a fabric; but

What I claim is—

A woven seamless side pocket containing two weft-threads, each occupying a half of each pick, the weft-threads being transferred to opposite sides of the pocket after each pick in the formation of the body of the pocket and transferred after each second pick in the portion of the pocket containing the mouth, the top and bottom of the pocket being formed by interlacing the weft-threads with all the chain-threads.

In testimony whereof I have hereunto set my hand this 29th day of May, A. D. 1889.

ABRAM D. EMERY.

Witnesses:

WM. T. DONNELLY,
WALTER T. EMERY.