

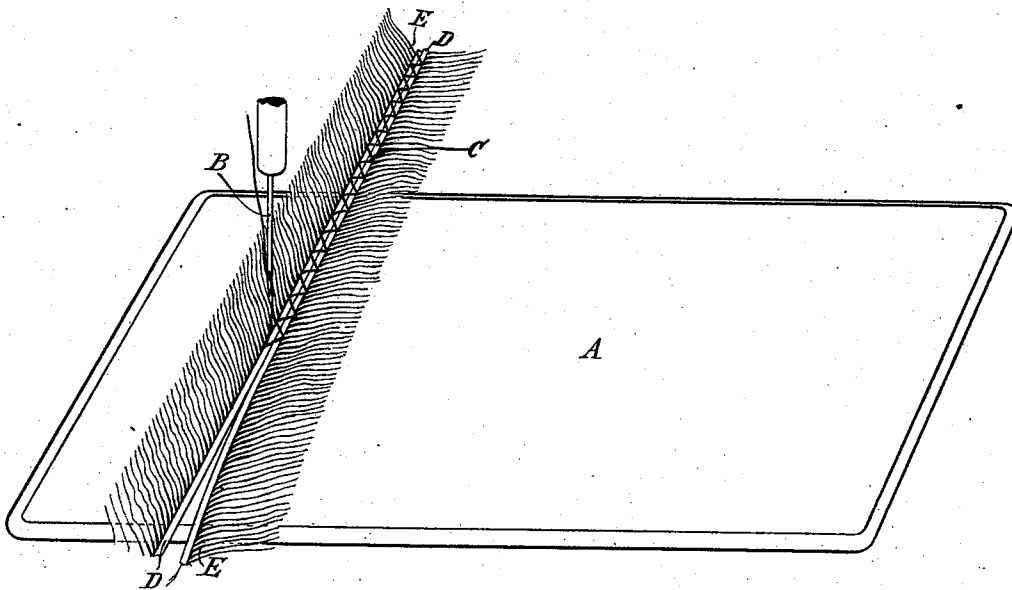
(No Model.)

S. WETZLER.

PLUME OR FEATHER AND ART OF SEWING SAME.

No. 537,327.

Patented Apr. 9, 1895.



Witnesses:

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PLUME OR FEATHER AND ART OF SEWING SAME.

SPECIFICATION forming part of Letters Patent No. 537,327, dated April 9, 1895.

Application filed November 1, 1894. Serial No. 527,628. (No model.)

To all whom it may concern:

Be it known that I, SIGMUND WETZLER, a citizen of the United States, residing at New York, in the county and State of New York, have invented certain new and useful Improvements in Plumes or Feathers and in the Art of Manufacturing the Same, of which the following is a specification, reference being had to the drawing accompanying and forming a part of the same.

In the manufacture of articles of wearing apparel from feathers, particularly feather trimmings from ostrich plumes, it is customary, almost without exception, to strip from the original quill the narrow horn-like spines to which the veins or downy portions of the plumes are attached, and then to associate two or more of such spines either in the form of plumes, or in long strips to be used in various ways. In general, it may be stated that the use of single feathers or plumes in their original or natural form is now exceptional, and that nearly all articles manufactured from feathers, are made up of the spines and veins of several feathers associated together. The association of these parts of feathers is commonly termed "sewing," though it more properly consists in bringing together the spines of two or more feathers and tying them at intervals so as to imitate more or less perfectly a natural feather, a needle being used as a convenient means of passing the binding thread around the contiguous spines and between the veins. It is moreover a common practice to lay together two or more entire feathers and to bind or sew together their quills to make up what appears to be a single feather but more full, and plume like, and what is stated herein with reference to the binding or sewing of the detached spines of feathers applies equally to feathers as a whole. Hand sewing of this character is a slow, difficult and laborious operation, and yet this has been the only method heretofore employed to my knowledge, and at the present time the fact that any mechanical appliances, other than the needle, can be practically employed in sewing feathers together in the manner described, seems to be, so far as I can ascertain, entirely unknown, and in fact accepted among those engaged in the

business as a practical impossibility. I have, however, discovered what I understand to be a radical improvement and advance in the art of working or manufacturing feathers, to wit: a way of sewing feathers by machinery and have produced a composite plume or feather thereby, which is superior to those which have been or can be practically made by hand.

The machines by means of which I have found that feathers may best be sewed, using this term in the technical sense indicated above, are any sewing machines in which the thread at each downward thrust of a needle is looped or interlocked either with itself or with another thread and in or by means of any device in which the stitches in lieu of running in a right line, run obliquely or zig-zag. Such machines require no detailed description, as they are of the most ordinary and well-known character; but even a machine having a straight-feed could be made to do the work, if the material were shifted to and fro laterally by hand while the needle is raised.

To illustrate the method which I have discovered of sewing feathers, I have annexed hereto a drawing, in which A designates the bed-plate of a sewing machine and B the needle.

Assuming the machine to be running at a slow speed and to be provided with the proper arrangements to use either one or two threads and cause the same to interlock at every downward thrust of the needle; a suitable number of feathers, or spines D and veins E are prepared and these are passed in pairs under the needle with the spines forced closely together, first permitting the needle to pass between the veins close to the spines on one side and then by shifting the work sidewise while the needle is up and at the same time advancing it slightly, causing the needle at its next thrust to pass close to the spines but on the opposite side. In other words, making a zig-zag line of interlocking stitches as shown at C which will tie the two spines together as closely and perfectly for all practical purposes as though they were one. Usually, unless the spines are of different lengths, one will always be started in advance of the

other so that the two will break joint and a continuous length of feather produced, as in hand sewing.

If, in lieu of sewing together parts of feathers it be desired to sew together two or more entire feathers to form a compound feather or plume, the two or more feathers will be laid one over the other with their bodies or quills superposed and in line. These will be passed through the machine in the same manner as above described, so that the needle will loop or interlock the thread or threads on opposite sides of the quills alternately and carry the thread or threads obliquely across the quills above and below.

It is of course unnecessary that the quills, spines or parts of feathers be advanced or shifted from side to side by hand, if suitable mechanism be obtainable for doing this, whatever such mechanism may be, but in making this statement I do not wish to be understood as implying that any special kind of mechanism is required.

I do not claim to have discovered any new

mechanism or any new function in mechanism heretofore existing, but

What I claim to have discovered is—

1. The improvement in the art of sewing feathers which consists in passing contiguous quills or spines to which the veins are attached through a loop or lock-stitch sewing machine and causing the needle to pass between the veins alternately on opposite sides of the quills or spines, whereby the said quills or spines will be closely tied or bound together.

2. As a new article of manufacture a feather or plume composed of contiguous quills or spines to which the veins are attached, tied or bound together by a thread or threads looped or interlocked on alternately opposite sides of the quills or spines and crossing the said quills or spines above and below in zig-zag lines.

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Witnesses:

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