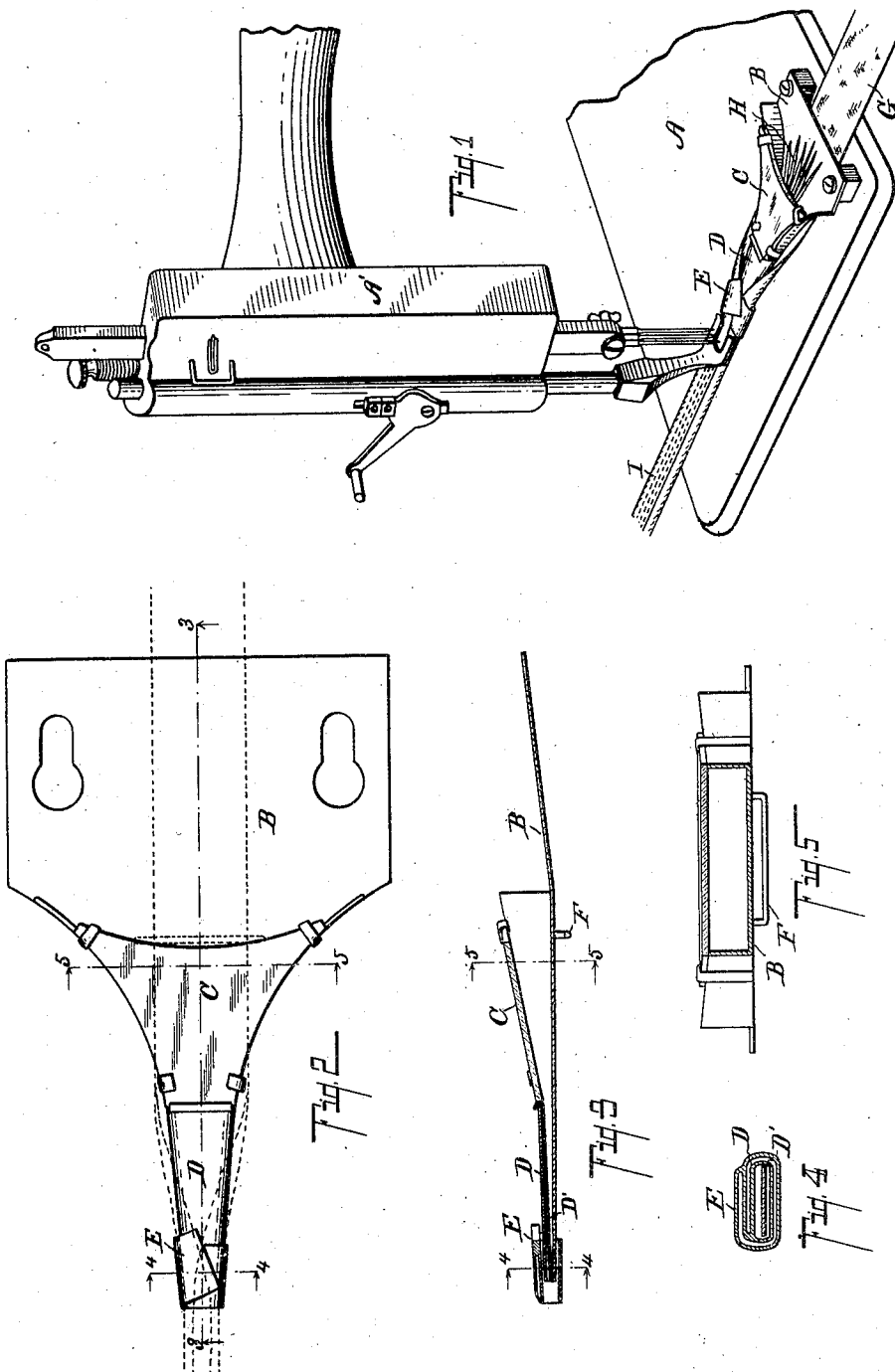


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W. WEBSTER.
MACHINE FOR MANUFACTURING STIFFENERS.
APPLICATION FILED APR. 19, 1901.



Witnesses:

L. E. Wood
Chas. A. Earl

Inventor,

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UNITED STATES PATENT OFFICE.

WILLIAM WEBSTER, OF PORTER, INDIANA, ASSIGNOR TO THE WARREN
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MACHINE FOR MANUFACTURING STIFFENERS.

SPECIFICATION forming part of Letters Patent No. 778,929, dated January 3, 1905.

Application filed April 19, 1901. Serial No. 56,804.

To all whom it may concern:

Be it known that I, WILLIAM WEBSTER, a citizen of the United States, residing at the village of Porter, in the county of Porter and State of Indiana, have invented certain new and useful Improvements in Machines for Manufacturing Stiffeners, of which the following is a specification.

This invention relates to an improved device or machine for the manufacture of stiffening cords or tapes. As heretofore manufactured these stiffening cords or tapes have been made up of a plurality of small cords of stiffening fibers which have been wound with a wrapping-thread, and a number of these cords have then been secured together in a group by wrapping-thread and the whole covered with a suitable covering when desired. It will be observed that there are many steps to that process; and the objects of this invention are to provide a simple and efficient machine whereby the cord made of stiffening fibers will be completed, substantially aside from the processing, at a single operation by a workman or operator and that at a high rate of speed.

The machine consists, first, of the sewing-machine, preferably of the three-needle variety, and a suitable attachment therefor, whereby fibers, as fibered quills, can be readily manipulated and fed into the same, and a wrapper, as a piece of tape or strip of cloth G, folded or wrapped around the same and stitched securely in place. The minor objects of the invention will appear from the detailed description to follow.

I accomplish the objects of the invention by the devices and means described in this specification.

The invention is clearly defined and pointed out in the claims.

A structure embodying the features of my invention is fully illustrated in the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a detail illustration of the head and work-table of the sewing-machine in connection with the special features of my device. Fig. 2 is a plan view of the work-table

and guiding feature of my improved structure. Fig. 3 is a detail longitudinal sectional view of the structure, taken on line 3 3 of Fig. 2. Fig. 4 is an enlarged detail transverse sectional view taken on line 4 4 of Fig. 2. Fig. 5 is an enlarged detail transverse sectional view taken on line 5 5 of Fig. 2.

In the drawings all of the sectional views are taken looking in the direction of the little arrows at the ends of the section-lines, and similar letters of reference refer to similar parts throughout the several views.

I prefer in this connection to use a three-needle sewing-machine, because it binds and assembles the blade together so much more effectively, though a single-needle sewing-machine would be quite effective in making narrow cords or blades. There is nothing special about the sewing-machine used in this connection. I provide an attachment for the sewing-machine which coöperates therewith and results in an effective machine for manufacturing stiffening cords or tapes. The same consists of a main table B, which is supported on suitable blocks a little above the table A of the sewing-machine and is funnel-like in form and extends forward in proper position to guide the tape or cord under the needle of the machine. A top plate C is provided, preferably of glass, so that the operator can see exactly what is taking place. A loop F is on the under side of the machine through which the tape G, which forms the wrapper of the stiffening-tape, passes. A guide D, with an outer shell portion E, forming spaces for the passage of the tape or strip G, is illustrated, and the position for the passage for the tape is indicated in Fig. 4. This passage permits the edges of the cloth or tape to overlap as it passes through the guide, the position of the tape being indicated in dotted lines in Fig. 2 and shown in full lines in Fig. 1. A tongue D' is within the passage or throat where the fibers H are introduced. By this means an operator will be able to feed into the machine very small fiber and can distribute the same, so that an even amount will pass into the blade I, and as it passes under the needle of the machine the blade will be stitched

through, retaining the wrapper effectively in position and at the same time serving to bind the cord into a firm blade or narrow cord, as the case may be.

5 I have shown the structure in its most approved form, but desire to remark that it can be greatly varied in its details without departing from my invention. I have shown the same made up of several distinct parts joined
10 together. It might be possible to construct more of these in a single piece than I have accomplished, and, on the other hand, it might be found desirable to employ more parts.

I have shown a transparent top, as C, but
15 this could probably be made of metal and be quite effective after an operator has had a little experience.

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

1. The combination with the stitching mechanism of a sewing-machine, of a ribbon or tape guide having means for overlapping the edges of a ribbon or tape, passing therethrough; a
25 feed-tube for fibers, delivering into said ribbon or tape guide; a rearwardly-projecting

spring-tongue within said feed-tube; and a table positioned in front of said feed-tube for the manipulation of the fibers, for the purpose specified. 30

2. The combination with the stitching mechanism of a sewing-machine, of a ribbon or tape guide having means for overlapping the edges of a ribbon or tape, passing therethrough; a
35 feed-tube for fibers, delivering into said ribbon or tape guide; and a rearwardly-projecting spring-tongue within said feed-tube, for the purpose specified.

3. The combination with the stitching mechanism of a sewing-machine, of a ribbon or tape
40 guide having means for overlapping the edges of a ribbon or tape, passing therethrough; a feed-tube for fibers within said guide; a tongue within said feed-tube for holding the fibers in a layer, for the purpose specified. 45

In witness whereof I have hereunto set my hand and seal in the presence of two witnesses.

WILLIAM WEBSTER. [L. s.]

Witnesses:

G. A. MARQUARDT,
HERMAN F. WAGNER.