

No. 707,004.

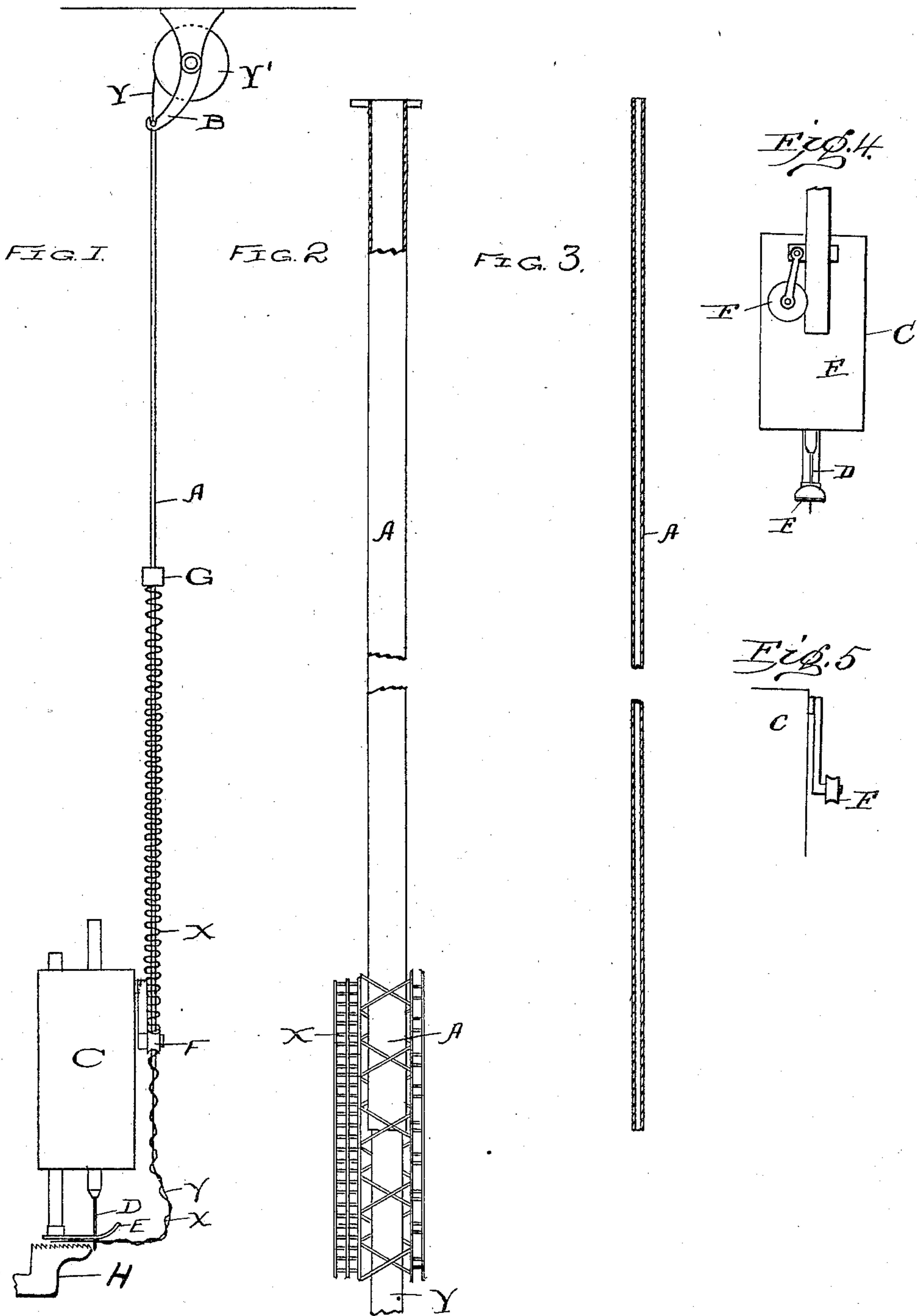
Patented Aug. 12, 1902.

M. H. POWELL.

TAPE INSERTING AND STITCHING MECHANISM.

(Application filed Aug. 17, 1896. Renewed June 12, 1902.)

(No Model.)



WITNESSES:

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# UNITED STATES PATENT OFFICE.

MYRON H. POWELL, OF CHICAGO, ILLINOIS, ASSIGNOR, BY MESNE ASSIGNMENTS, TO HIMSELF, UNION SPECIAL SEWING MACHINE COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS, AND EDWARD P. HATCH, OF LAGRANGE, ILLINOIS.

## TAPE INSERTING AND STITCHING MECHANISM.

SPECIFICATION forming part of Letters Patent No. 707,004, dated August 12, 1902.

Application filed August 17, 1896. Renewed June 12, 1902. Serial No. 111,370. (No model.)

*To all whom it may concern:*

Be it known that I, MYRON H. POWELL, a citizen of the United States, residing in Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Apparatus for Threading Edging, of which the following is a specification.

My invention relates to an improvement in apparatus designed for use in connection with the sewing on of taped meshed edging to garments; and it primarily consists in a construction of bodkin or edging-holder upon which the meshed edging is threaded.

Secondly. It consists in a construction of bodkin or edging-holder upon which the edging is threaded and through which the tape with which the edging is to be supplied is passed, whereby when the tape passes out of the edging-holder and the edging off the same the former will be automatically threaded or inserted into the latter and may be drawn off together and used as desired.

Thirdly. The invention consists in an edging-holder from which the taped edging is fed arranged in proximity to the stitch-forming mechanism of a sewing-machine, whereby as the taped edging passes from the edging-holder it may pass under the influence of the feeding mechanism of the sewing-machine, and thus the edging properly taped be drawn off from the holder as the sewing progresses; and, finally, the invention consists in certain details of construction hereinafter described, and referred to in the appended claims.

In a companion application filed of even date herewith, Serial No. 603,000, I have shown a machine for threading and assembling long lengths of edging upon a bodkin or edging-holder, and in the application of the edging to the edging-holder herein described I prefer to use such a machine; but it will be understood that I do not wish to be limited thereto in any respect, as the edging may be threaded on this device by hand or in any other suitable way.

In the accompanying drawings, which illustrate the invention, Figure 1 is a side elevation of the same, showing the edging-holder

in its operative relation to the stitch-forming mechanism of a sewing-machine. Fig. 2 is a front view of the edging-holder or bodkin, illustrating the taped edging. Fig. 3 is a vertical section of said edging-holder. Figs. 4 and 5 are detail views of the connection between the edging-holder and the head of the machine.

In said drawings, A represents the improved edging-holder or bodkin, which consists of a flat tube about corresponding in external width to the width of the meshes of the edging, so as to allow of the latter being threaded thereon, and in interior width about to the width of the tape which is to be inserted in the edging. The edging (marked X) is threaded and gathered in crimps upon the holder A in any suitable manner, but preferably by the mechanism set forth in the companion application above referred to. The edging-holder is preferably suspended in a vertical position from a hanger B, which is formed to support a spool Y', upon which the tape Y is wound and from which it is fed into the edging-holder, the edging being crimped properly or arranged with its cross-bars alternately upon opposite sides of the plane of the edging-holder and threaded thereupon. It will be plainly seen that if the edging and tape are drawn from the edging-holder at the same time, tape will be automatically threaded through the meshes of the edging, and it will also be seen that the operator can at any time draw an excess length of tape whenever it is necessary to do so without drawing edging at the same time—as, for instance, when an extra length is required for fastening the ends of the garment or for tying a bow, &c.—without affecting in any way the relations between the edging and the tape yet remaining within the holder.

C represents the head of a sewing-machine of any well-known construction; D, the needle thereof; E, the presser-foot, and H the feed. I prefer to hang the edging-holder so that its exit end for the tape and edging will be adjacent the stitch-forming mechanism of the sewing-machine, so that when the edging and tape are drawn down and clamped by



the presser-foot and feed the action of the feed of the machine in moving forward the garment to be sewed will feed the edging and the tape, and the stitch-forming mechanism  
5 will secure said taped edging to the garment.

To prevent the edging under the action of gravity from dropping too rapidly off the holder, I secure upon any suitable support, preferably the same support upon which the  
10 lower end of the edging-holder rests, a yielding roller F, which bears against the edging-holder near its lower end. It may be hinged to its supporting-arm, so as to bear by gravity against the edging on the holder, or a  
15 slight spring-pressure may be employed. This pressure upon the edging should be so light as not in any sense to bind upon the same or prevent its free pulling off under the action of the feed of the sewing-machine.  
20 It is also desirable to prevent the gathers or crimps in the edging from being straightened out while upon the edging-holder, because if straightened out binding or friction might be caused upon same holder. Hence a small  
25 sliding weight G is placed, as shown, upon the upper end of the holder, which weight automatically follows the edging as it moves down the holder and retains the gathers or crimps therein.

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

1. In combination with the stitch-forming mechanism and feed of a sewing-machine, a  
35 tubular holder upon the exterior of which the edging is threaded and gathered, and through the interior of which the tape is passed, said holder being arranged with respect to the said feed to cause the edging and tape to be simul-

taneously drawn thereby from the holder and  
40 fed to the stitch-forming mechanism.

2. In combination with the stitch-forming mechanism and feed of a sewing-machine, a tubular holder upon the exterior of which the  
45 edging is threaded and through the interior of which the tape is passed, and a bearing or retarding device to hold the edging against a too free movement from off the holder, said holder being arranged with its discharge end  
50 adjacent to the feed to cause the latter to draw the taped edging from the holder and feed it to the stitching mechanism.

3. In combination with the stitch-forming mechanism and feed of a sewing-machine, an edging and tape feeding and threading mech-  
55 anism comprising, a tape-reel, a tubular open-ended holder suspended from the reel-frame with its lower end in proper relation to the feed, the said holder being adapted to have the edging threaded upon its exterior and  
60 the tape pass through its interior, substantially as and for the purpose set forth.

4. In combination with the stitch-forming mechanism and feed of a sewing-machine, a  
65 vertically-arranged tubular holder upon the exterior of which the edging is threaded and gathered, and through the interior of which the tape is passed, said holder being arranged with respect with the said feed to cause the  
70 edging and tape to be simultaneously drawn thereby over the holder and fed to the stitch-forming mechanism, and a sliding weight as G; substantially as described.

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Witnesses:

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