2 Sheets—Sheet 1.

C. O. PARMENTER.
Sewing-Machine.

No. 212,495. **Patented Feb. 18, 1879.**

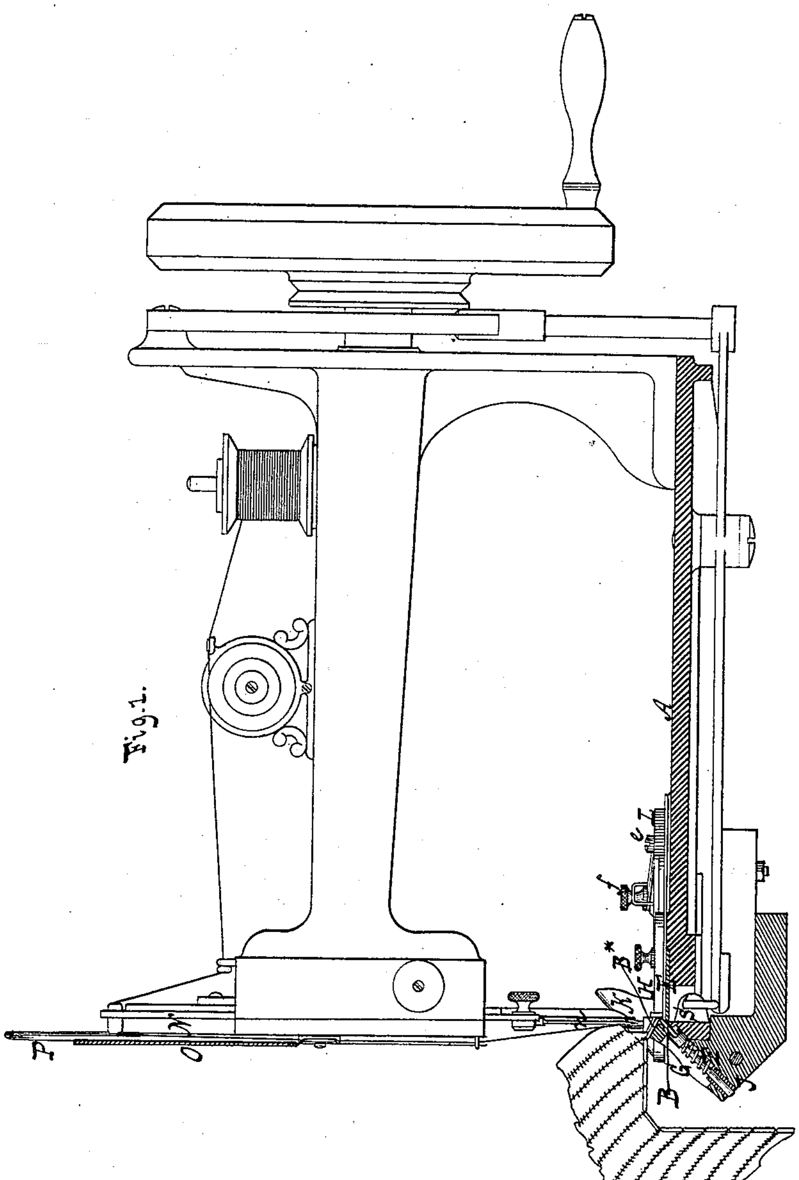

Fig. 1.

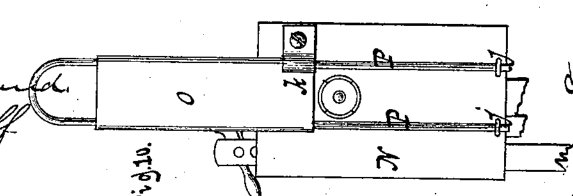

Fig. 10.

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2 Sheets—Sheet 2.

C. O. PARMENTER.
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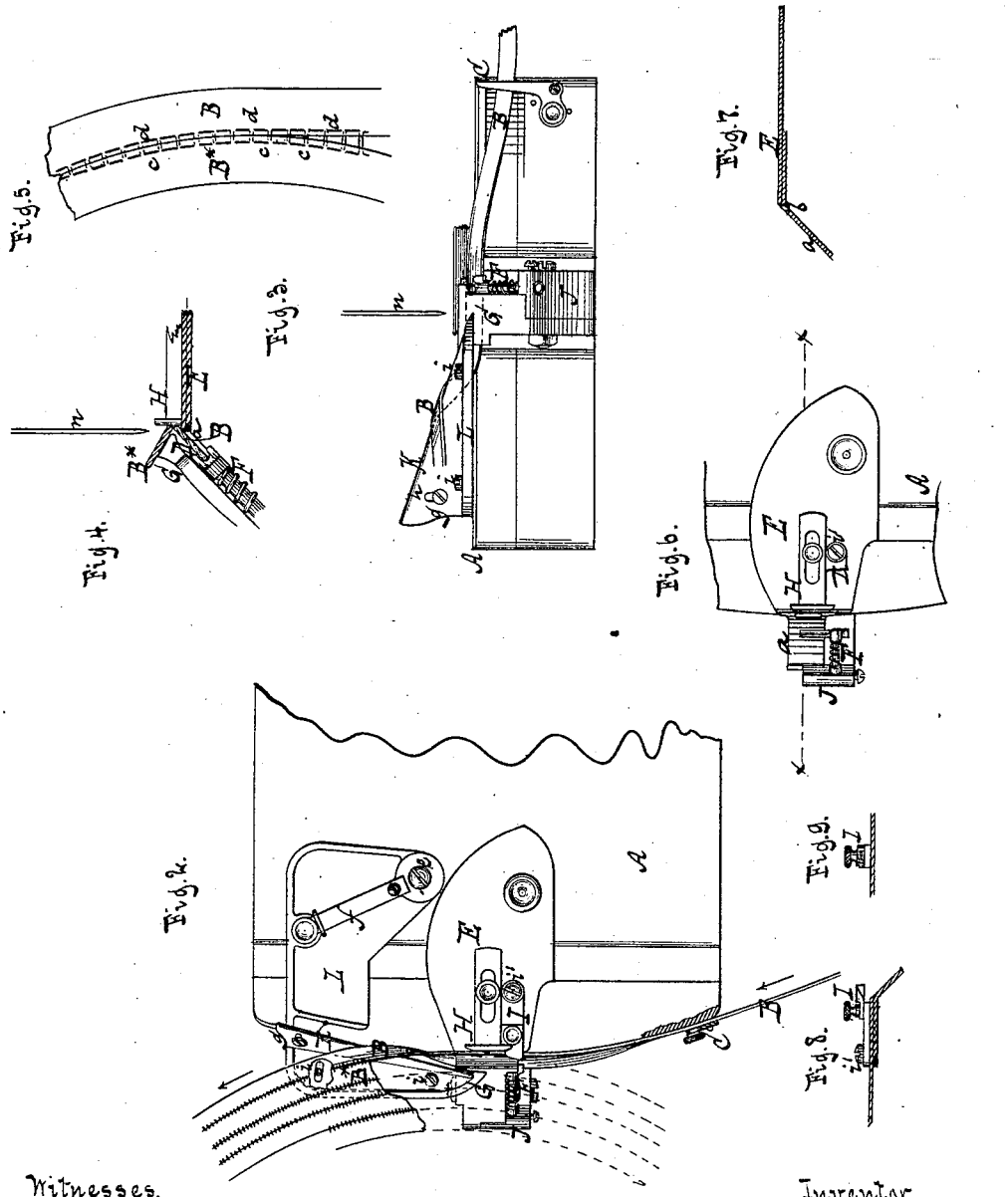

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UNITED STATES PATENT OFFICE.

CHARLES O. PARMENTER, OF AMHERST, MASSACHUSETTS.

IMPROVEMENT IN SEWING-MACHINES.

Specification forming part of Letters Patent No. **212,495**, dated February 18, 1879; application filed August 8, 1878.

To all whom it may concern:

Be it known that I, CHARLES O. PARMENTER, of Amherst, in the county of Hampshire and State of Massachusetts, have invented a new and useful Improvement in Sewing-Machines, which improvement is fully set forth in the following specification, reference being had to the accompanying drawings, in which—

Figure 1 represents a side view, partly in section, of a sewing-machine provided with my improvements. Fig. 2 is a plan or top view, and Fig. 3 a front view, of a portion of the same. The remaining figures are details, which will be referred to as the description progresses.

Similar letters indicate corresponding parts.

This invention consists in the combination, with an organized stitch-forming mechanism, of a rigid and a spring support, the face of the rigid support being at such an angle to that of the spring-support and to the path of the stitching-needle that the edges of the fabrics to be united are brought against each other at an angle of sixty degrees, (more or less,) and a machine is obtained which is adapted for sewing straw braids or other materials edge to edge by an ordinary lock-stitch.

With the rigid and spring supports is combined a gage, which regulates the distance of the stitches from the edges of the braids or other articles to be united, and a swinging latch, to assist in retaining the braid in the proper position.

The front end of the throat-plate is inclined to co-operate with the rigid support, and to form a channel for guiding the fresh braid or other material to the work to which it is to be attached.

In sewing straw hats, a stretcher is used to keep the work in the proper position while forming the tip of the hat and its brim and to stretch the outer edge of the braid.

In the drawings, the letter A designates the cloth-plate of my sewing-machine, which is provided with a stitch-forming mechanism of any known construction. In the example shown in the drawings this stitch-forming mechanism consists essentially of a needle, *n*, which has a reciprocating motion in a vertical plane, and of a shuttle, S, which has a reciprocating motion in a horizontal plane. With these parts is combined a presser-foot and a suitable feed mechanism.

The feed mechanism shown in the example represented by the drawings consists of a needle-feed; but any other suitable feed mechanism can be substituted therefor.

All these parts are well known, and require no further description.

As already stated, my machine is intended particularly for forming a hat or cap having its brim and crown made up from a continuous strip of straw or other braid, the successive coils of said strip being stitched together edge to edge.

The braid B, Figs. 2 and 3, is taken from a spool (not shown in the drawings) and passed through a guide, C, Fig. 3, to a channel, D, (best seen in Fig. 4,) which is formed of an inclined extension, *a*, of the throat-plate E, a spring-support, F, a rigid support, G, and an adjustable gage, H. With these parts is also combined a swinging latch, I, Figs. 2, 8, and 9, which serves to keep the braid down upon the spring-support F.

The rigid support G is secured in an inclined position to a bracket, J, which is attached to or formed on the front of the machine. This bracket also forms the guide for the shank of the spring-support F.

The head of the rigid support G is triangular in cross-section, and its face is inclined, as shown in Figs. 1 and 4, so that the new braid B, as it passes through the channel D, is held at an angle of about sixty degrees (more or less) toward the braid B*, Fig. 4, which rests upon the inclined face of the rigid support, and to which said new braid is to be united edge to edge.

The throat *b* for the needle is in the inclined extension *a* of the throat-plate. (See Fig. 7, which represents a longitudinal section of the throat-plate in the plane *x x*, Fig. 6.) The edges of the braid B and of the braid B* bear against the gage H, Fig. 4, and as the needle descends it passes through both the braid B and the braid B* at a short distance from their edges, which distance can be increased or diminished by adjusting the gage H.

As the operation progresses the edges of the braid B and of the braid B* become united

by a series of lock-stitches, such as indicated in Fig 5, where the lines *c* indicate the needle-thread, and the lines *d* the shuttle-thread.

On the cloth-plate A is placed the stretcher K, which is secured to a bed-plate, L, that swings on a pivot, *e*, Fig. 2, and is locked in position by a spring-catch, *f*. This stretcher is used in forming the tip and the brim of the hat; but in forming the crown of the hat said stretcher is swung back out of its working position.

The supporting-edge of the stretcher can be adjusted up or down by means of a set-screw, *g*, Fig. 3, which passes through a slot, *h*, and it can also be adjusted in or out by set-screws *i*, Figs. 2 and 3, so that its action can be adapted to braids of different widths and thicknesses.

The swinging latch I has its fulcrum on a pivot, *i'*, Figs. 2 and 8, and it is provided with a lip, which catches over the edge of the rigid support G.

To the face-plate N of my machine I apply a shield or guard, O, (see Fig. 10,) behind which the thread passes, and whose function is to protect the thread from being caught by the hat while the latter is being formed, and especially when the crown is being sewed. This shield slides on a bent wire, P, so that it can be raised to allow of threading the machine. The wire P is bent to a U shape, and its ends are inserted in staples *j j*, projecting from the face-plate N, while it is held against the plate by a clamp, *k*.

What I claim as new, and desire to secure by Letters Patent, is—

1. The combination, with an organized stitch-forming mechanism, of a rigid support and a spring-support, each inclined at an approximate angle of sixty degrees to the path of the stitching-needle, and a suitable guide and gage, whereby the upper and lower braids, besides resting upon said supports, respectively, may have their edges brought together both in the path of said needle, and are thereby adapted to be joined together by a lock-stitch, substantially as set forth.

2. The combination, with an organized stitch-forming mechanism, of a rigid support, G, a spring-support, F, a throat-plate provided with an inclined extension, *a*, and a gage, H, all constructed and adapted to operate substantially as and for the purpose described.

3. The combination, with an organized stitch-forming mechanism, of a rigid support, G, a spring-support F, a throat-plate provided with an inclined extension, *a*, and a swinging latch, I, all constructed and adapted to operate substantially as and for the purpose described.

4. The combination, with an organized stitch-forming mechanism, of a rigid support, G, a spring-support, F, and a stretcher, K, all constructed and adapted to operate substantially as and for the purpose described.

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Witnesses:

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