H. SILBERT.

MACHINE FOR MAKING HAT FRAMES.

APPLICATION FILED NOV. 13, 1909.

968,202. Patented Aug. 23, 1910.

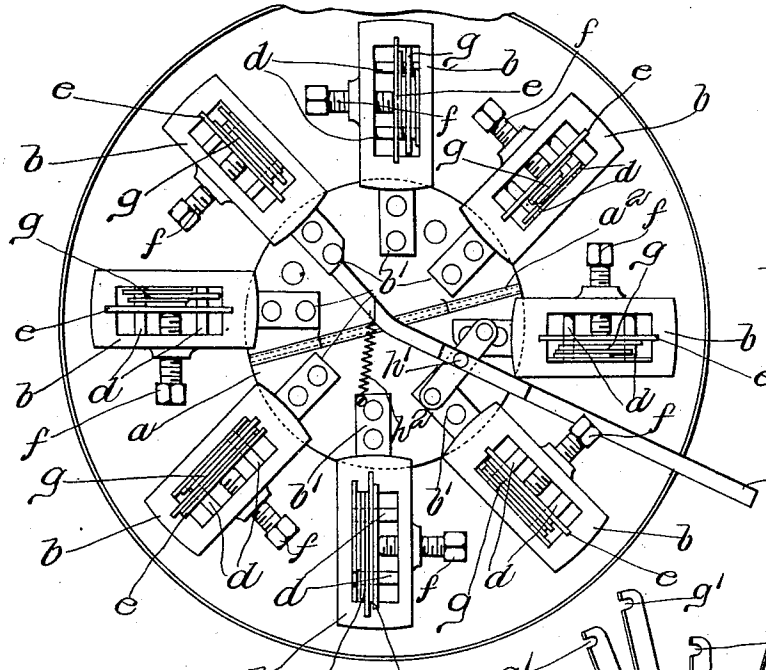

Fig. 1.

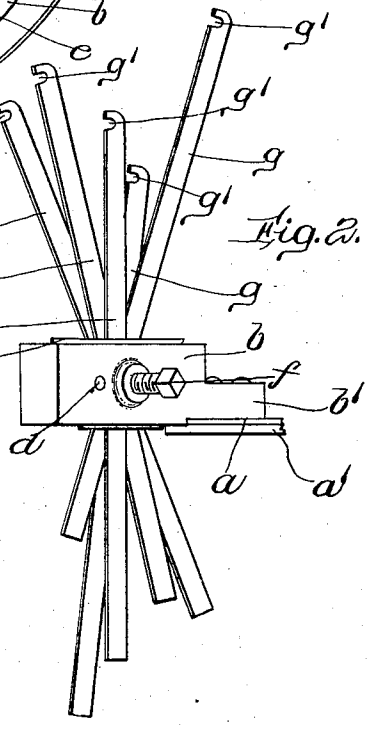

Fig. 2.

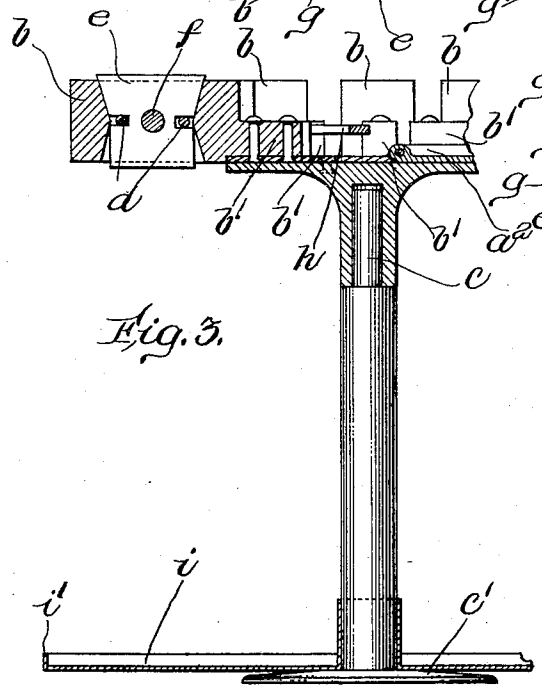

Fig. 3.

Witnesses:
P. W. Pezzetti
E. Batchelder

Inventor:
Henry Silbert
by Wright, Brown, Quinby & Craig
Attys

UNITED STATES PATENT OFFICE.

HARRY SILBERT, OF BOSTON, MASSACHUSETTS.

MACHINE FOR MAKING HAT-FRAMES.

968,202. Specification of Letters Patent. Patented Aug. 23, 1910.

Application filed November 13, 1909. Serial No. 527,840.

To all whom it may concern:

Be it known that I, HARRY SILBERT, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Machines for Making Hat-Frames, of which the following is a specification.

This invention relates to machines for making wire frames for ladies' hats, and refers particularly to that type of such machines which employ a circular series of groups of adjustable pattern-forming rods or arms around which the operator wraps or winds the wire.

One of the objects of my invention is to provide a simple and relatively inexpensive machine of this type, and especially to provide means whereby the pattern-forming rods or bars may be easily adjusted, and whereby different shapes of such rods or bars may be substituted for each other to suit special patterns or shapes of frames to be made.

Another object of the invention is to provide a machine of this type with means for preventing the wire from becoming entangled around the support, and to prevent the pattern rods from dropping entirely out of position when loosened.

To these ends my invention consists in the construction and combination of parts substantially as hereinafter described and claimed.

Of the accompanying drawings,—Figure 1 is a plan of so much of a complete machine as is necessary to explain the present invention. Fig. 2 is a side elevation of one of the rod clamping frames or boxes. Fig. 3 is a side elevation, partly in section, of the complete machine, but omitting the pattern-forming rods or bars.

Similar reference characters indicate the same or similar parts in all of the views.

A circular table a carrying a series of rectangular frames b which I shall hereinafter, for convenience of description, refer to as boxes, is mounted upon a disk a' which is rotatably mounted upon a spindle c which latter may be supported in any convenient manner, as by a base or foot piece c'. The table a is formed of two sections connected by a hinge a^2, and one section is rigidly secured to the disk a' while the other section may be turned up for the purpose hereinafter described.

The boxes are secured to the table by means of suitably formed shanks b', and the opening in each box is crossed by two pins d on which a clamping plate e is guided when actuated by means of a screw f passing through one side of the box and adapted to press the plate e toward the opposite wall of the opening.

The bars or rods g having hooks g' consist of simple flat members which can be overlapped and clamped in any position or grouping, being clamped between one side of the plate e and the opposite wall of the box. For convenience of description, I refer to the rods g as pattern rods.

The method of using the machine need not be described herein further than to state that the wire which is to constitute the frame of the hat is simply passed around the machine and engaged with the hooks g' of the several groups of pattern rods g. Some shapes of hat frames will permit of all of the rods being of the simplest form, which is straight, as shown in Fig. 2. Sometimes, however, the shape of the frame to be made is such that the rods g must be angular. Owing to the fact that the rods g can be quickly slipped out or put in place between the plate e and the opposite wall of the box, different shapes or lengths of rods may be substituted for each other.

One of the sections of the table is arranged to be tilted simply to enable the pattern frame comprising the entire series of groups of hooked rods to be sufficiently collapsed to enable the hat frames to be removed. To lock the movable section in its horizontal position for use, I employ a lever h, pivoted at h' to a suitable support affixed to the stationary section of the table, and having its other end overlapping the hinged section of the table, the end of said lever contacting with the inner end of one of the box shanks b'. The contacting surfaces of the lever and shank are preferably slightly cam-shaped or eccentric relatively to the pivot h' of the lever, a spring h^2 being employed to hold the lever in the position shown in Fig. 1. When in this position, the two sections of the table, and consequently the entire circular series of boxes and their forming arms or rods, will be securely held in their relative positions during the frame-shaping operations. When each hat frame has been completed, the lever h is simply

swung in a direction in opposition to the spring h^2 sufficiently to bring its inner end out of position to oppose the cam-shaped shank, so that one-half of the series of boxes can be swung upwardly sufficiently to carry the upper ends of the rods clamped therein inward to collapse the series as a whole to permit the hat frame to be removed.

The spindle c is shown as provided with a sleeve between the base c' and the bottom of the socket portion of the disk a', and on said sleeve is mounted a disk or circular platform i having a flange i' at its outer edge. This platform is preferably so mounted that it turns freely about the spindle or sleeve, and it prevents the pattern rods g from dropping entirely out of the boxes when the clamps are loosened to enable the rods to be adjusted, and it also supports loose coils of wire during the use of the machine and prevents such loose coils from becoming entangled so as to interfere with the rotation of the machine in use.

As best shown in Fig. 1, the boxes are all wide enough so as to admit between one inner wall of each and the opposing clamping plate, a plurality of overlapping flat rods in such manner that said rods can be completely pulled out and varied in number by simply manipulating the screw f.

I claim:

1. A machine for making hat frames, comprising a circular series of boxes each having a clamping plate movably mounted therein, and a screw engaging one side of the plate, each box having a width to hold a plurality of overlapping rods clamped between the other side of the plate and the opposite wall of the box.

2. A machine for making hat frames comprising a circular series of boxes each having a clamping plate movably mounted therein, means for guiding the plate transversely of the box, and a screw engaging one side of the plate, each box having a width to hold a plurality of overlapping rods clamped between the other side of the plate and the opposite wall of the box.

3. A machine for making hat frames comprising a table formed in two sections hinged together, a circular series of boxes carried by said table, means for clamping a plurality of rods in each box, a laterally movable lever pivotally connected with one section of the table and overlapping the other section of the table, and means engaging the end of the lever to lock the two sections of the table in a uniform plane.

4. A machine for making hat frames comprising a circular series of boxes each having a clamping plate movably mounted therein, a pair of fixed transverse rods passing through said plate, and a screw engaging one side of the plate, whereby a plurality of overlapping rods may be clamped between the other side of the plate and the opposite wall of the box.

5. A machine for making hat frames comprising a circular series of boxes each having a clamping plate movably mounted therein and a screw engaging one side of the plate each box having a width to hold a plurality of overlapping rods clamped between the other side of the plate and the opposite wall of the box, and means for supporting said rods when the clamps are loose.

6. A machine for making hat frames comprising a circular series of boxes each having a clamping plate movably mounted therein and a screw engaging one side of the plate whereby a plurality of overlapping rods may be clamped between the other side of the plate and the opposite wall of the box, and means for supporting said rods when the clamps are loose, said means comprising a rotatably mounted platform below the series of boxes.

7. In a machine for making hat frames, the combination with a circular series of boxes each having a clamping plate movably mounted therein, of a series of flat notched rods mounted between each plate and the opposite wall of the box, and a screw engaging the other side of the plate whereby said rods may be adjustably clamped.

8. In a machine for making hat frames, the combination with a rotatable table having a circular series of boxes provided with clamping devices, of a series of pattern rods for each box and adapted to be clamped therein, and a platform mounted to rotate about an axis in alinement with the axis of rotation of the table.

In testimony whereof I have affixed my signature, in presence of two witnesses.

HARRY SILBERT.

Witnesses:
A. W. HARRISON,
P. W. PEZZETTI.