(Model.)

J. VANNETT.

OSCILLATING HOOK FOR SEWING MACHINES.

No. 336,456. Patented Feb. 16, 1886.

Fig. 1.

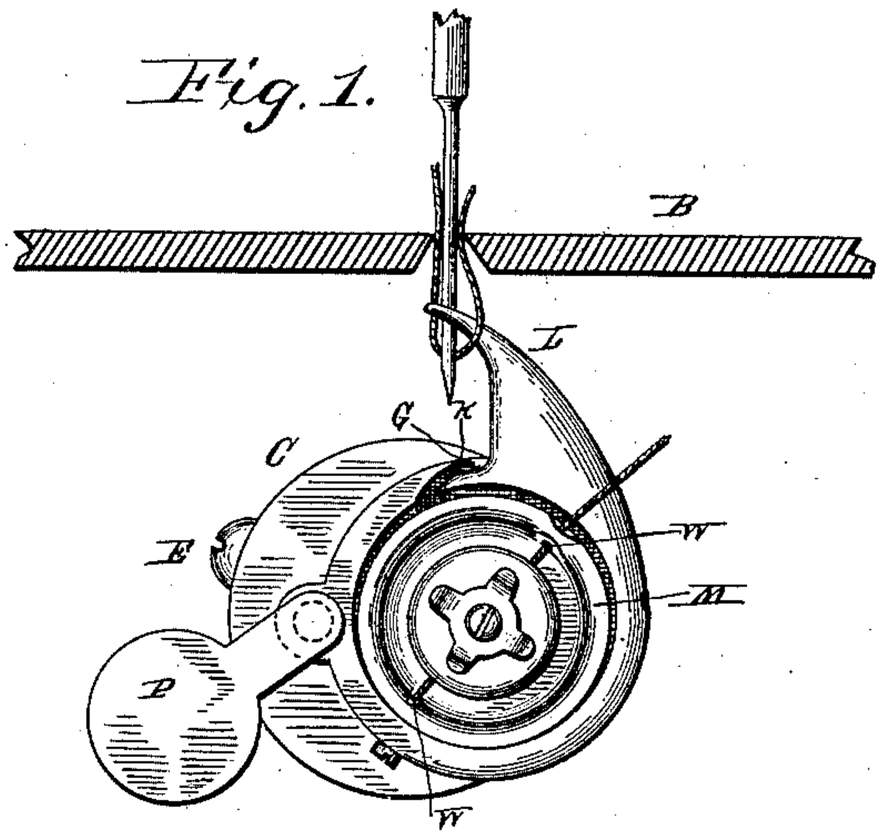


Fig. 2.

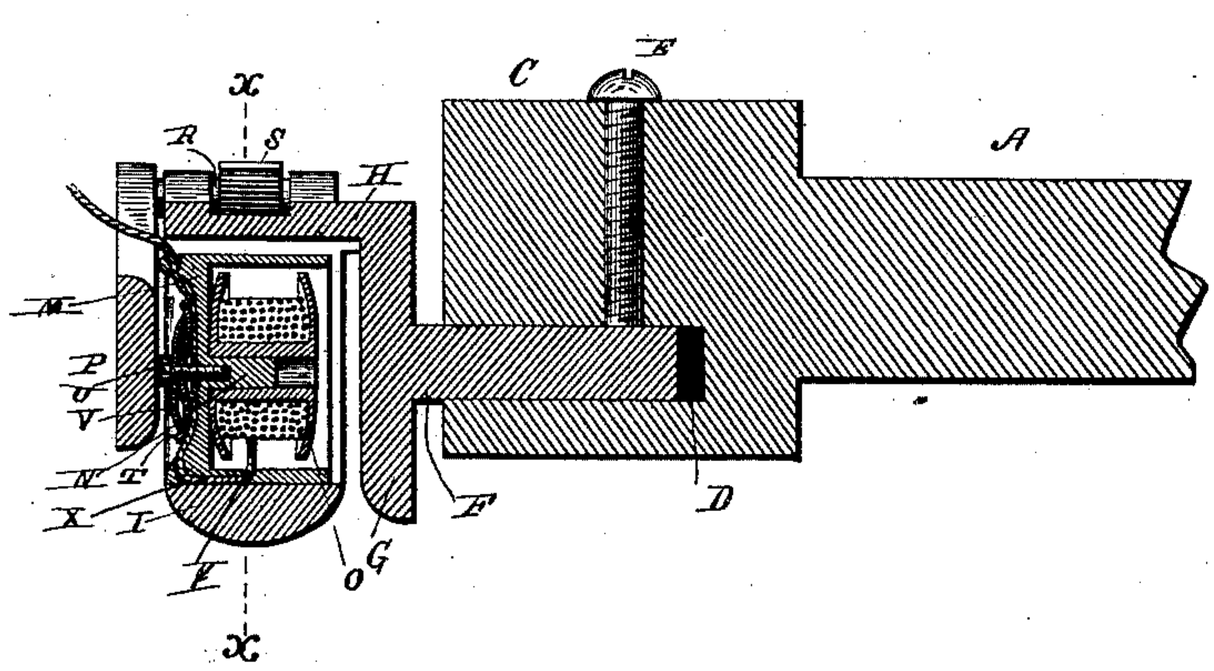
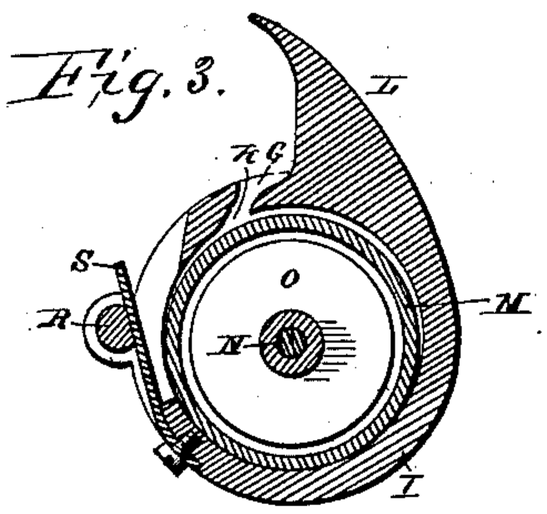


Fig. 3.



Witnesses
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John C. Jenkins

Inventor
Jasper Vannett
By his Attorney
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UNITED STATES PATENT OFFICE.

JASPER VANNETT, OF TIFFIN, OHIO, ASSIGNOR OF ONE-THIRD TO GEORGE S. YINGLING, OF SAME PLACE.

OSCILLATING HOOK FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 336,456, dated February 16, 1886.

Application filed February 14, 1884. Serial No. 120,783. (Model.)

To all whom it may concern:

Be it known that I, JASPER VANNETT, a citizen of the United States, residing at Tiffin, in the county of Seneca and State of Ohio, have invented a new and useful Improvement in Oscillating Hooks for Sewing-Machines, of which the following is a specification.

My invention relates to improvements in that class of sewing-machines known as "oscillating-hook" machines; and it consists in the combination and arrangement of parts, as hereinafter specified, and pointed out in the claims.

In the drawings, Figure 1 represents an end view of the device when in position in a machine; Fig. 2, a longitudinal section of the same, and Fig. 3 a vertical sectional view on line *x x*, Fig. 2.

The shaft A, Fig. 2, rests under the bed-plate B of a machine, and has imparted to it by suitable mechanism a rotary oscillating movement. This shaft is provided with a head, C, having eccentrically in it a hole or passage, D. Held normally in the hole D by means of a set-screw, E, is a pin, F, projecting from a disk, G, having its face slightly rounded. Having a single point of attachment, H, to one edge of the said disk G is a cylindrical frame, I, broken in its continuity by the mouth K, which has overlapping lips. Erected on the frame I, on that side of the mouth occupied by the under lip, is a hook, L. The inner edge of the said frame is parallel to but at a slight distance from the face of the disk G, except at the connecting-point H. Within the frame I rests the cylinder M, having one end closed, and from which closed end projects inwardly a spindle, N, for the bobbin-spool O. This spindle is not essential. This cylindrical case and the contained bobbin is held in place in the interior of the frame I by a door, P, having projecting from one side a hinge-rod, R, one side of which is flattened and forms a bearing for the retaining-spring S. This door may be turned to one side, as in Fig. 1. The closed end of the case M is concaved somewhat on the exterior, and thereby forms a seat for the tension-plate T, which consists of a disk, and which is held in place by a screw, U, under the head of which is interposed the spring-washer V. In the edges of the closed end of the said case M are the diametrically-opposite holes W, and on the surface of the case is a depression, X, connecting a hole, Y, about centrally located, to one of the said holes W. The thread from the bobbin passes through these holes and under the tension-plate T. The bobbin-case and hook being placed eccentrically on the shaft with the point of the hook so placed as to move, when in operation, as near the center of the said shaft as possible, the said hook has the shortest possible travel, and permits a shorter needle and smaller loop formed thereby to be utilized than though the center of the hook, which point coincides with the center of the bobbin, were at the axis of the shaft A. The surface of the frame I back of the hook is rounded to cause the loop to fall to the sides of said frame more easily than if the same were of other shape. The hook engages the loop from the needle and directs its course into the mouth K as the said device is oscillated, and when the shaft begins the reverse movement the needle-thread is drawn out of the mouth K, by means of an ordinary take-up, and entirely around the bobbin-thread, forming the stitch. The bobbin-case being eccentric on the shaft A, the said bobbin will be nearly all above the center of the shaft A during a portion of the revolution; hence the loop will be much shorter than though the said bobbin were centrally placed on said shaft. As the loop passes entirely around the bobbin, the bobbin-thread must be encircled by the said loop and the stitch formed.

By means of the pin F and the set-screw holding the same the position of the hook may be varied, the said pin being the axis thereof, and thus caused to engage the loop sooner or later in the revolution of the shaft.

I claim—

1. Combined with the actuating-shaft, a loop-hook and bobbin-holder mounted eccentrically thereon, and having a rotary adjustment on the point of connection, substantially as specified.

2. Combined with the actuating-shaft, a loop-hook having its axis eccentric to the axis of the said shaft, and having a rotary adjustment on said eccentric axis, substantially as specified.

3. A cylindrical frame connected integrally at one edge and at a single point to an edge of

a disk, and having an exterior projecting hook and a mouth leading to its interior, combined with a bobbin loosely contained in said case, substantially as specified.

4. Combined with the actuating-shaft, a disk fixed to said shaft eccentric to its axis, a cylindrical frame attached to one edge thereof and having an exterior loop-hook, and a mouth leading to the interior, and a door with a spring-retained pivot or hinge on one side said case, the whole arranged substantially as and for the purpose specified.

In testimony that I claim the foregoing I have hereunto set my hand.

JASPER VANNETT.

Witnesses:

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J. C. ROYER.