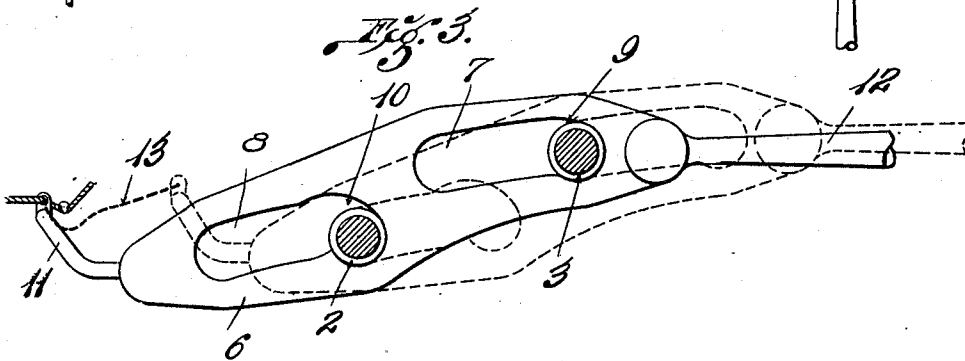
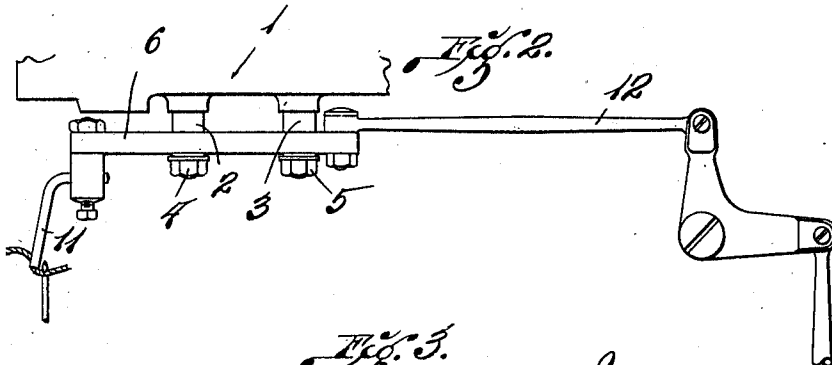
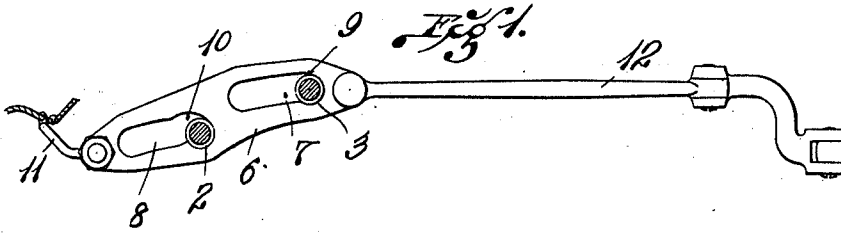


W. DUFFY.
 THREAD LOOPER FOR SEWING MACHINES.
 APPLICATION FILED JUNE 24, 1910.

992,863.

Patented May 23, 1911.



WITNESSES:

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WILBYE DUFFY, OF ST. LOUIS, MISSOURI, ASSIGNOR TO LANDIS MACHINE COMPANY,
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THREAD-LOOPER FOR SEWING-MACHINES.

992,863.

Specification of Letters Patent.

Patented May 23, 1911.

Application filed June 24, 1910. Serial No. 568,742.

To all whom it may concern:

Be it known that I, WILBYE DUFFY, a citizen of the United States, residing at St. Louis, Missouri, have invented a certain new and useful Improvement in Thread-Loopers for Sewing-Machines, of which the following is a full, clear, and exact description, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a plan view of my invention. Fig. 2 is an elevation of my improved device showing as much of the machine as is necessary for an understanding of the same. Fig. 3 is an enlarged view of the looper slide cam.

This invention relates to a new and improved form of thread looper to be used more especially in connection with the well known hook needle wax thread sewing machine, and illustrated in the patent to Campbell No. 253,156, January 31, 1882, and in the patent to Amborn No. 388,752, August 28, 1888.

The object of my present invention is to simplify the construction of means for operating the thread looper.

In the old form of operating means to guide the looper in its proper path and to lay the thread in the hook of the needle it was found necessary to use a combined slide member and cam slot which is complicated and difficult to produce. In my device the slide member and cam slot are combined in a single simple flat piece which is much easier to make and better in operation than the device old in the art.

With these objects in view my invention consists in the construction, arrangement and combination of the various parts of my device as herein described and thereafter pointed out in the claims.

In the drawings 1 indicates the lower part of the over hanging arm of the ordinary wax thread machine.

2 and 3 are studs projecting from the lower surface of the arm and having nuts 4 and 5 screwed on the ends thereof.

Mounted to slide on the top surface of the

nuts 4 and 5 is my improved slide and cam piece 6 having two slots 7 and 8 formed therein. The slot 7 is nearly straight in the general longitudinal direction of the member 6 with a slight curvature at one end 9. The slot 8 is for a considerable portion of its length substantially parallel with the slot 7, and has at one end a decided curve to the right.

The studs 2 and 3 engage in the slots 8 and 7 respectively of the member 6 so that the latter may be supported by and slide upon these studs. At one end of the slide member 6 is adjustably mounted the looper 11. At the other end of the slide member 6 is connected a link 12 operatively connected to the main shaft of the machine. By moving the slide piece 7 from the dotted line position shown in Fig. 3 to the full line position shown in same figure the looper is caused to travel in a path as shown in the dotted line 13, *i. e.*, straight for a considerable distance, and then curved in an arc around the needle. This movement of the looper is caused by the cam-shaped slot 8 which causes the slide piece 6 to move in a longitudinal direction, and as the pin 2 works in the curved end 10 of the slot 8 the member 6 swings about the stud 3 in a curved line as shown in Fig. 3, thereby assuring that the thread is positively laid into the eye of the hooked needle.

I am aware that minor changes in the construction, arrangement and combination of the various parts of my improved device can be made and substituted for those herein shown and described without departing from the nature and spirit of my invention.

I claim:

1. In combination, the frame of a sewing machine, two studs projecting therefrom having screw threads at one end of each, nuts mounted on the ends of each stud, a looper slide having two cam slots engaging the studs and supported on the nuts at the ends thereof, a looper mounted thereon, and operating means therefor.

2. In combination, the overhanging frame of a sewing machine, two studs projecting exteriorly therefrom having screw threads at one end of each, nuts mounted on the

ends of each stud, a loop member having two slots, each slot engaging a stud, said slide member being supported on the nuts at the ends of the studs, a loop member attached to the slide member, and operating means for the slide member.

5 In testimony whereof I hereunto affix my

signature in the presence of two witnesses, this 21st day of June, 1910.

WILBYE DUFFY.

Witnesses:

M. P. SMITH,
J. W. NIFT.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."
