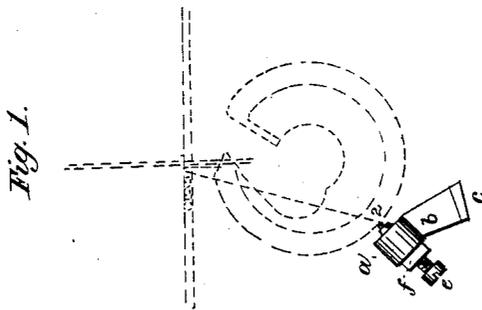
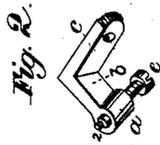


L. P. COLLINS.
Sewing Machine.

No. 30,615.

Patented Nov. 13, 1860



Witzersoes.
G. Cohen
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UNITED STATES PATENT OFFICE.

LYMAN P. COLLINS, OF SACRAMENTO, CALIFORNIA.

IMPROVEMENT IN LOOP-CATCHES FOR SEWING-MACHINES.

Specification forming part of Letters Patent No. 30,615, dated November 13, 1860.

To all whom it may concern:

Be it known that I, LYMAN P. COLLINS, of Sacramento, in the county of Sacramento and State of California, have invented a certain new and Improved Metallic Loop-Catch for Sewing-Machines; and I do hereby declare the following to be a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 represents the loop-catch as applied to the rotary hook or shuttle of a sewing-machine. Fig. 2 represents a perspective view of the loop-catch in one of its positions and as detached from the part with which it is to work.

Similar letters of reference where they occur refer to like parts of the device in both figures.

I am aware that many loop-catchers have been devised, most of which are elastic or yielding, and that metal, glass, ivory, bristles, bone, and wood have been suggested as the material which is to bear against the rotary hook or shuttle. Of those that yield or are elastic none answer the purpose, for a thick or thin spot in the thread either hangs or slips through and throws out the stitch. Of those that bear against the rotary hook or shuttle the friction is objectionable, as it prevents said hook or shuttle from running at that free and uniform speed that will insure its taking and delivering the loop at the exact time, without which precise action the forming of the loop is uncertain.

My invention consists in a loop-catch which is adjustable but non-elastic, and which may be set up within a line of the shuttle or hook without touching it, and past which the finest thread cannot pass until the exact part of the shuttle or hook comes around to where it is to be released to be drawn up into the stitch.

A loop-catch very much resembling mine in appearance has been devised; but it is operated by a spring, which either causes it to bear against the hook or shuttle or else allows the thread to slip past it; and sometimes when a thick part of the thread gets in between it and the hook, it will break the thread, and is therefore unreliable and objectionable.

To enable others skilled in the art to make

and use my invention, I will proceed to describe the same with reference to the drawings.

a is a hub or nut on the end of an arm, *b*, which is projected from the foot-piece *c*, which latter is screwed or otherwise attached to the machine, and the screw-hole of which may be oblong to properly adjust it to its place.

e is an adjusting-screw working through the hub *a* and having its point 2 dressed down for catching the loop, as shown.

f is a jam-nut for holding the screw firmly and immovably in the hub after the point of the screw is properly adjusted—that is, brought up to within a line of the shuttle or hook without actually touching it, or so that the finest thread cannot pass between it and the shuttle, thereby preventing friction and wear of the parts, also dispensing with the use of oil on the periphery of the rotary hook around which the thread passes; yet the said nib or catch is set in such close proximity to the hook that it will catch and retain, until the proper time for its release, a loop of the finest cotton or silk used by the sewing-machine, so that when the nib or catch is once set for the finest cotton it does not require any further care or attention to keep it in proper order for any kind of work done with the machine.

I do not confine myself to supporting the loop-catcher by its foot, as in Fig. 1, as the support may be obtained in the manner of the pads used on the Wheeler & Wilson machines, as by a slot and screw, and in other ways.

I claim—

A metallic or other hard loop-catcher for sewing-machines, composed of a hub or main nut, *a*, in Figs. 1 and 2, also an adjusting-screw, *e*, also check-nut *f*, also nib or catch 2, so that the catch, being hard and unyielding, against which the loop comes in contact, can be so adjusted by the screw *e*, and firmly held by means of check-nut *f* that the finest thread cannot pass between said catch and the rotary hook until the proper time for its release, the whole being constructed, arranged, and operating as herein set forth and explained.

LYMAN P. COLLINS.

Witnesses:

E. S. FOGG,
ELI BAKER.