

No. 667,170.

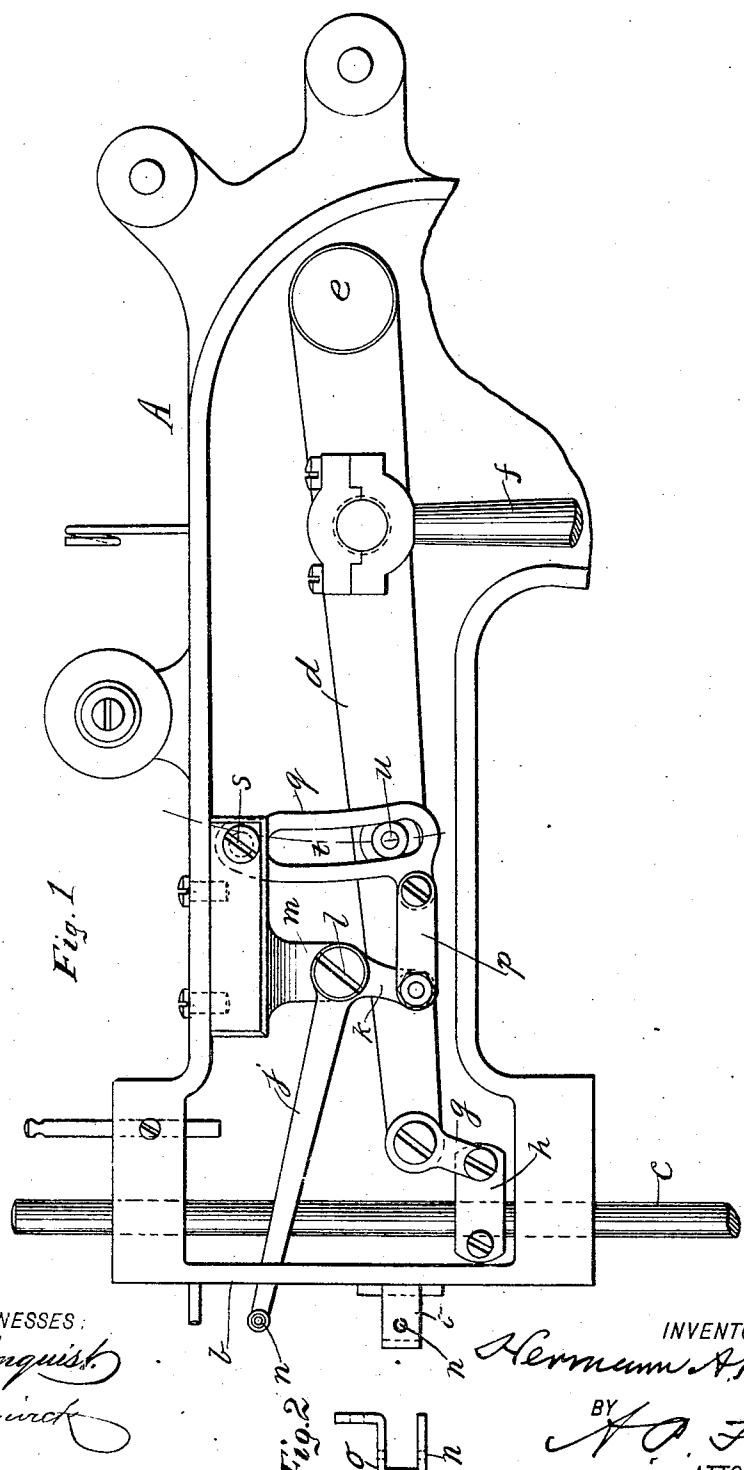
Patented Jan. 29, 1901.

H. A. KLEMM.

NEEDLE THREAD TAKE-UP FOR SEWING MACHINES.

(Application filed Oct. 20, 1900.)

(No Model.)



WITNESSES:

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HERMANN A. KLEMM, OF NEW YORK, N. Y.

NEEDLE-THREAD TAKE-UP FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 667,170, dated January 29, 1901.

Application filed October 20, 1900. Serial No. 33,684. (No model.)

To all whom it may concern:

Be it known that I, HERMANN A. KLEMM, a citizen of the United States of America, and a resident of New York city, county and State of New York, have invented certain new and useful Improvements in Needle-Thread Take-Ups for Sewing-Machines, of which the following is a specification.

My invention consists of improved constructions and arrangements of needle-thread take-up devices for sewing-machines whereby it is designed to provide more simple, economical, and quiet-running high-speed apparatus, as hereinafter described, reference being made to the accompanying drawings, in which—

Figure 1 represents a side elevation of my improved take-up apparatus as applied to the needle-bar and presser-bar supporting arm of a sewing-machine, with the cover of the recess in said arm in which the said apparatus is arranged detached. Fig. 2 is a plan view of the thread-guide with which the take-up lever co-operates.

A represents the said stationary arm; b, the head of the same; c, the needle-bar; d, the lever for operating the needle-bar; e, the pivot of said lever; f, the connecting-rod whereby motion is imparted to said lever by an eccentric on the main shaft, (not shown in the drawings;) g, a link, and h a clamp by which the needle-bar and lever are connected, said link being pivoted to the lever and clamp at its ends, respectively. These parts are all of well-known construction, and are not claimed; but in connection with them I provide the bell-crank lever, comprising the long thread-take-up arm j, and the short working arm k, pivoted at l to a supporting-bracket m, located so as to support the pivot l at a suitable distance back of the head b and along the lever d in the direction of its pivot.

The arm j reaches forward through a slot in the head b, with its end having an eye n projecting from the head over a duplex thread-guide o, and the arm k reaches downward from the pivot along one side of lever d and is connected by a link p with the lower free end of a lever q, the upper end of which is pivoted

at s to a fixed support, which in the drawings is a part of bracket m, but may be any other suitable part.

The lever q extends downward along the side of lever d and has a slot t ranging lengthwise of it, and the lever d carries a roller-stud u, working in the slot. The pivot s is set in a larger radius of pivot e of the needle-bar-working lever d than stud u, so that as the needle rises the eye n of take-up lever j descends and releases the thread for action of the looper, and when the needle descends said eye n rises and draws up the slack of the loop.

It is manifest that a lever q without the slot t and working between two studs on lever d would be an equivalent of the arrangement shown and therefore alike within the scope of the invention.

It will be seen that the lever q and stud or studs of the lever d afford very simple, easy, working, and reliable means of operating the take-up lever.

What I claim as my invention is—

In a needle-thread take-up device for sewing-machines, the combination with the needle-bar, and the needle-bar-operating lever, said lever arranged on the side of the stationary needle-bar-supporting arm, of the elbow take-up lever j, k pivoted at l, the lever q pivoted at s, a stud or studs on the lever d, operating said lever q, the link connecting said lever q, and arm k of the take-up lever, and thread-guide o, the long arm j of said take-up lever extending forward of the head of the stationary supporting-arm, the pivot of the lever q being in the eccentric relation to the actuating stud or studs for causing down movement of the take-up lever when the needle-bar-actuating lever rises, and up movement of said take-up lever when said needle-bar-actuating lever swings downward.

Signed at New York city, N. Y., this 15th day of October, 1900.

HERMANN A. KLEMM.

Witnesses:

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