No. 722,236. PATENTED MAR. 10, 1903.

H. A. KLEMM.

LOOP HOLDER FOR SEWING MACHINES.

APPLICATION FILED APR. 15, 1901.

NO MODEL.

Fig. 1.

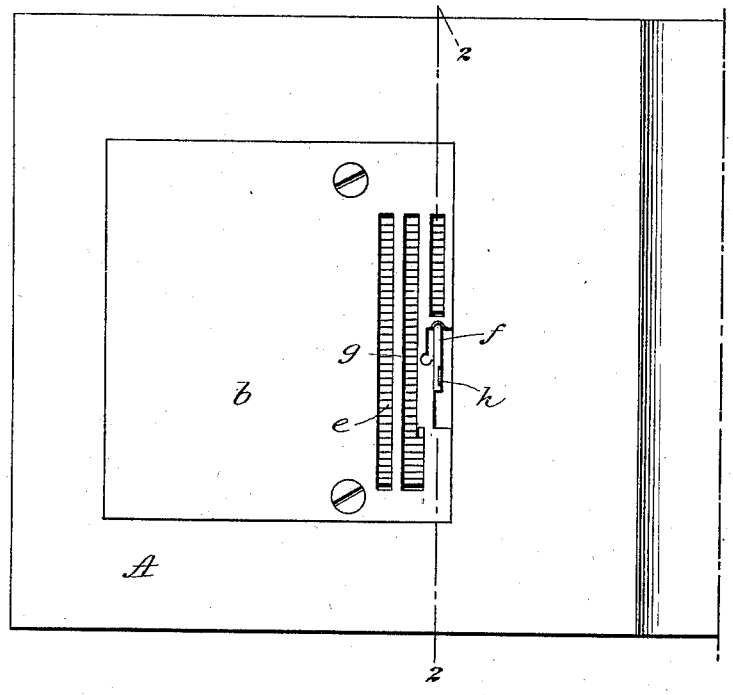


Fig. 4.

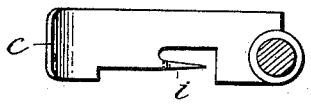


Fig. 2.

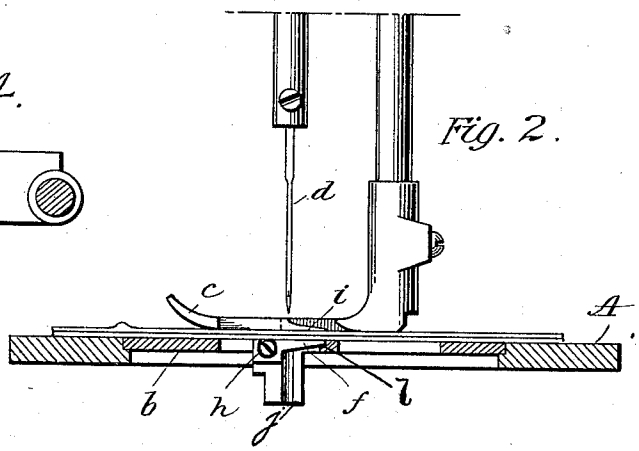
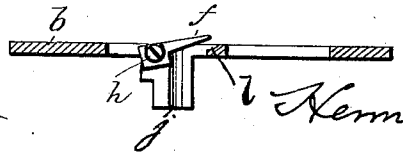


Fig. 3



WITNESSES:

Thos. A. Olmsted

C. Sedgwick

INVENTOR

Hermann A. Klemm

BY

A. G. Thayer.

ATTORNEY

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

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

LOOP-HOLDER FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 722,236, dated March 10, 1903.

Application filed April 15, 1901. Serial No. 55,940. (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 the borough of Bronx, New York city, State of New York, have invented certain new and useful Improvements in Loop-Holders for Sewing-Machines, of which the following is a specification.

My invention relates to the finger sometimes used in the throat-plate, around which the loops are formed and serving to facilitate the running of the thread when the loops are drawn up; and it consists of such fingers pivotally connected with the throat-plate, so as not to resist the drawing of the thread so positively and to permit the drawing of the loops to a greater extent while still on the finger, in combination with a rigid finger of like character on the presser-foot, whereby besides facilitating the drawing of the threads the fabrics may be gripped and held in better form while the tension of the thread is expanded on the two fingers, and thus controlled as to the stresses of the threads on the edges of both pieces, producing fairer and more uniform shape of the overseamed edges, said fingers being effective in preventing the thread from drawing too tightly into the edges of the fabrics and misshaping them, as hereinafter described, reference being made to the accompanying drawings, in which—

Figure 1 is a plan view of the throat-plate and the feed-dog, showing the finger pivoted to the said plate. Fig. 2 is a vertical section of the throat-plate and the work-plate of the machine on line 2 2 of Fig. 1 and side elevation of the presser-foot and needle, showing the finger of the throat-plate in side view, with a piece of work under the presser-foot, and also showing a rigidly-attached finger on the presser-foot. Fig. 3 is a detached section of the throat-plate on same line as the section of Fig. 2. Fig. 4 is a plan view of the presser-foot.

A represents the work-plate of the machine; *b*, the throat-plate; *c*, the presser-foot; *d*, the needle, and *e* the feed-dog.

f represents the finger in the slot of the throat-plate alongside of the needle-hole *g*, around which the loops are formed under the work, said finger being according to my invention pivoted to the throat-plate instead of being rigidly connected therewith and instead of being pivoted to the feed-dog, as heretofore. The pivot connection is represented at *h*. It may be constructed in any approved way. The tongue ranges close alongside of the needle, and its point rests in a recess *l*, provided for it in the throat-plate, and thus it supports the work on that side of the needle against the downthrusts of the needle. Together with the pivoted tongue on the throat-plate I also provide the rigid tongue *i* on the presser-foot.

I am aware of the patent to Munsing, No. 583,387, in which a plurality of needles are employed, with a broad rigid tongue of the throat-plate of uniform breadth projecting between two needles solely for serving in the broad space between the needles the common function of the throat-plate—viz., to support the work in said space—and in the presser-foot, which has an opening for the escape of the threads of two needles, there is a tongue, the purpose of which is to extend the common action of the presser in the wide space over the work between the two needles, and the feed-dog which is pivoted to its carrier has a tongue reaching into a slot of the rigid tongue of the throat-plate extending between the needles, the purpose of which is to extend the feed-surface into this wide space where light sleazy goods might otherwise not feed uniformly with the rest and would consequently pucker. I am also aware of the twin-needle machine illustrated in Patent No. 344,493, in which the single looper of the under thread makes a cross-stitch, the under thread being laid beneath the tongue on the throat-plate, which acts to support the material and prevent it from being puckered, and I am also aware of the patent to Woodward *et al.*, No. 597,663, also having a plurality of needles, with a wide slot in the throat-plate for the escape of the threads of two needles and a tongue hinged on the feed-dog and ranging between the two needles, so that the loops are drawn up under the tongue, which is carried on the feed-dog in order that it may carry the cross-threads along in the feed movement, said hinged tongue being limited in said patent to a feed-dog, throat-plate, or

presser-foot having means for reciprocating it in the direction of the feed, and I do not claim such devices.

When the loops are drawn up, the finger will rise, as indicated in Fig. 3, thus yielding somewhat to the pull of the thread, so as to lessen the stress on the thread, and particularly assuming the upward inclination, allowing the loops to be drawn up more before escaping from the finger, and the loops escape more freely from the finger in the inclined position as the work feeds along.

Some advantages of the fingers pivoted on the throat-plate instead of on the feed-dog are that the stitches do not escape as readily from the finger on the feed-dog in consequence of its movements along with the fabric, also in consequence of the rising of the feed-dog, together with the fabric, against the presser-foot, and also because the finger so pivoted and rising with the fabric is more apt to be bound together with the fabric and hinder the feeding of the fabric. The advantages of the pivoted finger used alone are manifest, and it is also advantageous for another purpose when used together with a finger *i* on the presser-foot with which I also use it in combination for gripping the fabric between them to protect the edges of both the upper and the lower fabric from undue stresses of the threads, which without such protection draw into and pucker said edges and make them less even and smooth than when held in the grip of both fingers while the stitches are drawn up.

I am aware that it was suggested that the finger might be hinged on a throat-plate having means for reciprocating it in the direction of the feed, which is a complication that it is desirable to avoid, and I have adapted the device so that it is even more useful on the stationary throat-plate, and my invention is distinguished from all others in that my finger is hinged directly to the stationary throat-plate.

In Figs. 2 and 3 I have represented the pendent guide *j* sometimes used to prevent the needle from springing away from the looper; but it is not represented as related as in any way affecting the claim.

It is to be noticed that by the use of the two tongues one above another the thread-loops draw up more freely and without puckering the fabric as much and the pivoted tongue on the throat-plate coacting with the rigid tongue on the presser-foot swings upward from the beginning of the rising of the fabric by the feed-dog, and thereby more effectually facilitates the escape of the loops from the tongues.

What I claim as my invention is—

The combination with the stitch-forming mechanism, in a machine having one needle only, of a vertically-swinging tongue ranging along one side of the needle and pivoted at one end to the stationary throat-plate and at the point end normally supported in a recess of the throat-plate, and a tongue fixedly attached to the presser-foot in such relation to the pivoted tongue of the throat-plate that the stitches are drawn up around both of said tongues, and the pivoted tongue of the throat-plate swings upward from the beginning of the rising of the fabric by the feed-dog, and thereby more effectually facilitates the escape of the loops from the tongues.

Signed at New York city this 13th day of April, 1901.

HERMANN A. KLEMM.

Witnesses:

C. SEDGWICK,

J. M. HOWARD.