

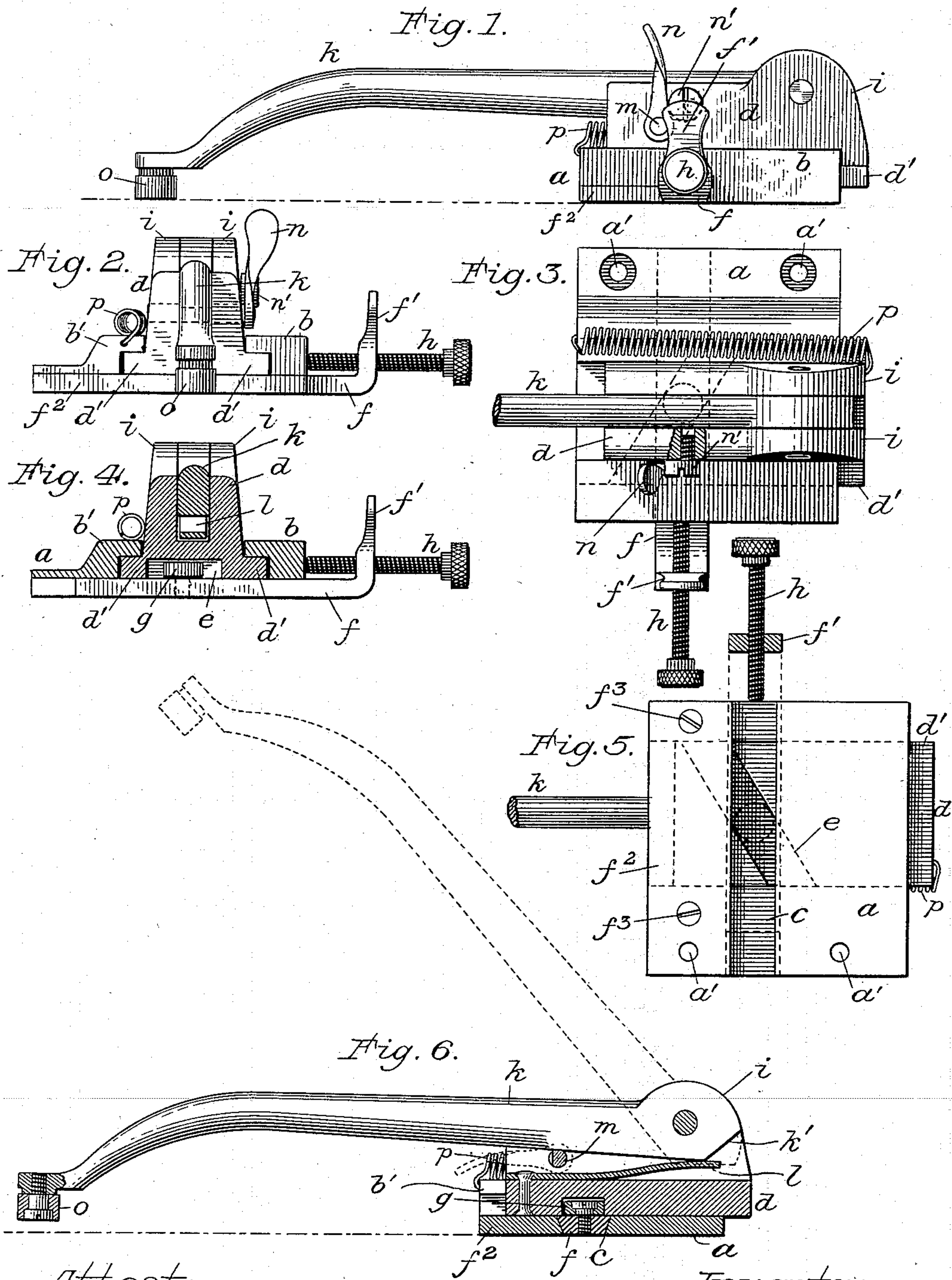
No. 615,463.

Patented Dec. 6, 1898.

H. S. SHAFT.
SEWING MACHINE GAGE.

(Application filed Feb. 16, 1898.)

(No Model.)



Attest:
Howell Bartle
Ed. Pinckel

Inventor:
Henry S. Shaft.
by Wm. H. Pinckel,
Atty.

UNITED STATES PATENT OFFICE.

HENRY S. SHAFT, OF GLOVERSVILLE, NEW YORK, ASSIGNOR OF ONE-HALF
TO JOSEPH J. SCHIFFER, OF SAME PLACE.

SEWING-MACHINE GAGE.

SPECIFICATION forming part of Letters Patent No. 615,463, dated December 6, 1898.

Application filed February 16, 1898. Serial No. 670,559. (No model.)

To all whom it may concern:

Be it known that I, HENRY S. SHAFT, a citizen of the United States, residing at Gloversville, in the county of Fulton and State of New York, have invented a certain new and useful Improvement in Sewing-Machine Gages, of which the following is a full, clear, and exact description.

This invention has for its object to provide a gage for sewing-machines which may be readily placed in position and also adjusted for performing work requiring a gage, and which also may be thrown up out of the way when gagework is not being done without removing the attachment from the machine.

I have embodied my invention in the form of an attachment which may be secured to the bed-plate of any ordinary sewing-machine without interference with or alteration of the moving parts of the machine.

In carrying out my invention I employ a bed, which may be screwed to the sewing-machine bed-plate, and a carriage mounted to slide on said bed and adapted to be held in any given position in said bed, the said carriage having an arm pivoted therein and adapted to be moved up and down and also to be adjusted upon its pivot in said carriage, all as I will proceed now more particularly to set forth and finally claim.

In the accompanying drawings, illustrating my invention, in the several views of which like parts are similarly designated, Figure 1 is a side elevation. Fig. 2 is a front elevation. Fig. 3 is a top plan view with part of the arm broken away. Fig. 4 is a cross-section. Fig. 5 is a bottom plan view; and Fig. 6 is a longitudinal section, the arm being shown in full lines in operative position and slightly raised and in dotted lines in inoperative position.

The bed *a* may be a casting rectangular in outline and provided with two or more countersunk or other holes *a'* for the reception of screws, by which the said bed may be secured to the bed-plate of a sewing-machine. The top of this bed is provided with the undercut flanges *b b'*, and the bottom is provided with a dovetail or other groove *c*, running transversely to the flanges *b b'*.

d is a carriage having the laterally-ex-

tended flanges *d'*, by means of which the said carriage is engaged with the undercut flanges of the bed. The carriage has an oblique groove *e* in its bottom, and the groove *c* of the bed receives a slide *f*, which carries a roller *g*, which last fits in the groove *e* in such way that when the slide *f* is adjusted lengthwise the roller *g* will act upon the carriage through its groove *e* to cause said carriage to move longitudinally in the ways of the bed formed by the undercut flanges *b b'*. These adjustments of the carriage may be fixed by means of a set-screw *h*, arranged in the finger *f'* of the slide and abutted against the flange *b*. The finger-piece *f'* also serves as a medium for actuating the slide *f*.

In order to provide for the dovetailing of the slide *f* in the bed, one portion of the bed, as *f²*, may be made removable and secured to the bed by screws *f³*.

The carriage is made with the ears *i*, between which is pivoted the arm *k*, and this arm is normally pressed downwardly—that is to say, toward the bed of the sewing-machine—by means of a spring *l*, fastened to the carriage. The rear end *k'* of the arm *k* is slabbed off, so that when the arm is bodily lifted upwardly, as into the dotted-line position, Fig. 6, the spring *l* will engage said portion *k'* and rigidly hold the arm in such dotted-line position. In order to adjust the arm to greater or less heights from the bed of the machine, so as to permit some portion of the material being sewed to pass under it, I provide the eccentric *m*, Fig. 6, which is provided with an operating-handle *n*, the eccentric being shown in Fig. 6 as exerting its greatest lift upon the said arm. The normal position of the arm and eccentric is shown in Fig. 1.

n' is a stop for limiting the throw of the eccentric. This stop is shown in Fig. 3 as a screw having an eccentric head and tapped in the ear *i*, rotation of the screw serving to adjust the head toward and from the handle *n*.

The arm *k* is provided at its outer free end with a roller *o*, which acts in conjunction with the material being sewed.

The carriage is normally pressed forward—that is to say, toward the needle of the sewing-machine—by means of a spring *p*.

I have thus described in detail a construction embodying my invention, but wish to be understood as not limiting my invention to such details. For example, other means than the eccentric may be used for lifting the arm *k*, and the device for lifting said arm may be capable of a greater variety of adjustments of the arm, even to the extent of throwing it up into such a position as that it will be out of the way when the gage is not required. So, also, other means may be used for adjusting the carriage longitudinally of the bed, and the slide shown may be dovetailed in the bed in other ways than that described, and, stated generally, modifications of my gage to adapt it to particular kinds of work and particular kinds of machines may be made within the spirit and scope of my invention.

The operation of the invention has been indicated already, but it may be added that the carriage is adjusted back and forth upon its bed, so as to carry the roller end of the arm into greater or less nearness to the needle of the sewing-machine in order to enable the operator to adjust the gage in conformity to the width of seam being sewed. If the arm be slightly raised, as in full lines, Fig. 6, the operator is enabled to pass the bottom piece of goods under the roll, while the top piece must follow along the perimeter of the roll, thus enabling the operator to sew a straight seam on the top piece. This feature of my invention enables an operator to stitch together two pieces of goods, with one edge stitched back from the edge of the other. There is another class of work where the edges of two pieces are sewed together evenly for a certain distance and then the under piece projects. In this class of work both pieces follow along the roll until the under piece projects, and then by throwing up the arm the under piece may go beneath the roll and the upper piece will follow along the roll.

By having the gage mounted upon an arm which is arranged in an adjustable carriage a greater range of adjustment is obtained and in addition the bulk of the attachment may be arranged far back under the arm of the sewing-machine, and thus when the gage-arm is raised at times when it is not to be used the space for the cloth remains unobstructed.

My attachment is applicable to glove-sewing machines especially, but, as already stated, it is also applicable to sewing-machines generally.

What I claim is—

1. A sewing-machine gage, comprising a bed, a carriage slidable upon such bed, a gage-arm pivoted to such carriage and movable with it, to adapt the gage to various widths of seams, and means to adjust the gage-arm vertically, substantially as described.

2. A gage for sewing-machines, comprising a bed, a carriage mounted upon said bed, means to adjust the carriage longitudinally

of said bed, a roller-arm pivoted to said carriage, and means to adjust the said arm vertically, the said arm also being capable of being rendered inoperative, substantially as described.

3. A gage for sewing-machines, comprising a bed, having a transverse groove in its bottom, a carriage slidable upon said bed and having an oblique groove in its bottom, a roller-slide arranged in the bed-groove with its roller in the carriage-groove, a roller-arm pivoted on said carriage and means to adjust said roller-arm vertically, substantially as described.

4. A gage for sewing-machines, comprising a bed, having a transverse groove in its bottom, a carriage slidable upon said bed, and having an oblique groove in its bottom, a roller-slide arranged in the bed-groove with its roller in the carriage-groove, a roller-arm pivoted on said carriage and a spring acting against said arm to hold it in either of two positions, substantially as described.

5. A gage for sewing-machines, comprising a bed, having a transverse groove in its bottom, a carriage slidable upon said bed and having an oblique groove in its bottom, a roller-slide arranged in the bed-groove with its roller in the carriage-groove, and an eccentric for adjusting the arm at different heights relatively to the sewing-machine bed-plate, substantially as described.

6. A gage for sewing-machines, comprising a bed provided with a transverse groove, a carriage mounted to slide upon said bed longitudinally, and having an oblique groove in its bottom, a slide arranged in the groove in the bed and carrying a roller which engages the groove in the carriage, and an adjusting-screw mounted in the slide and abutting against the bed for moving the said slide to effect various adjustments of the slidable carriage upon the bed, substantially as described.

7. A gage for sewing-machines, comprising a bed adapted to be attached to a sewing-machine bed-plate and having a transverse groove in its bottom, a carriage slidable upon said bed and having an oblique groove in its bottom, a roller-slide arranged in the bed-groove with its roller in the carriage-groove, a gage-arm secured to the carriage and adapted to project toward the needle of the sewing-machine when in position, means for adjusting the arm vertically, and a spring connecting the bed and carriage and normally tending to force the carriage and its arm toward the needle of the sewing-machine, substantially as described.

In testimony whereof I have hereunto set my hand this 14th day of February, A. D. 1898.

HENRY S. SHAFT.

Witnesses:

GEO. M. CLARK,
WM. N. ZIMMER.