(No Model.)

E. A. KING & F. GUEST.

TUCKING GUIDE FOR SEWING MACHINES.

No. 591,231. Patented Oct. 5, 1897.

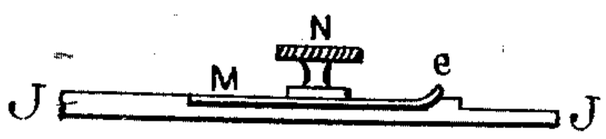

Fig. 3.

Fig. 1.

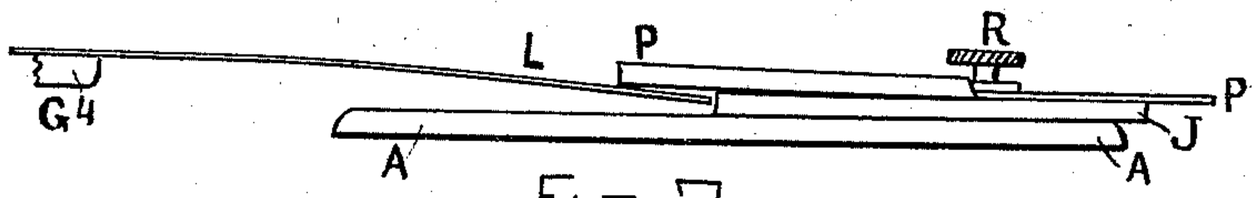

Fig. 2.

WITNESSES

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EDWARD A. KING AND FRED GUEST, OF BOSTON, MASSACHUSETTS.

TUCKING-GUIDE FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 591,231, dated October 5, 1897.

Application filed May 11, 1896. Serial No. 591,143. (No model.)

To all whom it may concern:

Be it known that we, EDWARD A. KING and FRED GUEST, of Boston, in the county of Suffolk and State of Massachusetts, have invented an Improvement in Tucking-Guides for Sewing-Machines, of which the following is a specification.

The object of our invention is to provide a cheap, simple, convenient, efficient, and expeditious tucking-guide adapted more especially to high-speed-power sewing-machines, whereby the tucks in the goods, cloth, fabrics, or desired garments may be folded and stitched simultaneously and of any predetermined or desired width of tucks or of intervening spaces; and it consists in the construction, combination, and arrangement of the several parts of a tucking-guide hereinafter more fully described, and specifically set forth in the claim.

In the drawings hereto annexed, which form a part of this specification, Figure 1 represents a perspective view showing a tucking-guide constructed according to our invention and applied to and secured upon the work-table of a sewing-machine, the sewing devices above the work-table being broken away or omitted so as to show the guide beneath. Fig. 2 represents a front edge elevation of the tucking-guide in position relative to the upper surface of the work-table, the machine and main support-arm being omitted. Fig. 3 represents an edge elevation of a detail of the tucking-guide.

In carrying out our invention we prefer to employ a single-thread sewing-machine, such as the well-known "Willcox & Gibbs," but may be applied to any other sewing-machine in use or to any special machine adapted for such purpose and designed to be run by power at a high rate of speed. Consequently it is essential that the tucking-guide should be simple in construction and operation and very durable.

A represents the work-table of a sewing-machine, and B the reciprocating toothed feed-block, near which is the fixed position of the needle C, and beneath the work-table is the driving-shaft D, provided with the rotary hook for forming the loop-stitch, as heretofore employed and in general use for such purpose, which being well known need not be further described or shown in the drawings.

Now to the bed-plate of the sewing-machine we rigidly secure the inward end of the supporting-arm G, which is extended outwardly and thence forward on an angle G′ and then extended outwardly quite a distance about in line with the front edge of the said work-table A. This portion G″ is formed in the same horizontal plane as the portions G and G′, above described. Now we extend it at a right angle G‴ upward a short distance, so as to nearly coincide with the upper surface of the said work-table or a little above the same, as shown. Then it is formed at a right angle and turned back or inwardly toward the said work-table A horizontally, and this last portion G^4 is provided on its top face or extending through the same vertically with screw-threaded holes into which are fitted thumb-screws H, which may be adjusted as hereinafter described. Thus it will be seen and understood that this rigid horizontal support-arm forms a large or extended loop G^2, for the purpose hereinafter described. To the inward-extended portion G^4 of the said loop-arm, and resting upon the upper surface thereof, is adjustably secured by the said thumb-screws H the extended slotted arm L′ of the horizontal spring folder-plate L, as shown in Fig. 1.

The inward wide end portion L^2 serves to fold the tucks over as the cloth, fabric, or garments are being operated upon and is adapted to spring downward nearer the said work-table A, so as to permit the thicker portions or seams in the garments to pass freely through the tucking-guide, as hereinafter described. The right-angle or straight working edge of the said folder-plate L extends inwardly over the said work-table A nearly to the feed-block B and extends outward or forward over the front edge of the said work-table A about the same distance, more or less. This forward-projecting portion has a segmental edge or curved end portion L^3, over which the garments, endless bands, or skirts pass when being manipulated by the fingers of the operator, so as to guide the same in the desired position to the needle C, so as to fold and stitch the tucks simultaneously. That portion of the garment or cloth not being formed into tucks or directly operated on passes freely through the said extended loop G^2 of the said horizontal arm

G, being suspended thereon instead of being carried entirely above the work-table, this being a very essential and important result or feature of our invention. The sewing-needle C being in a fixed position, the width of the tucks and spaces between them are predetermined by the proper adjustment of the said folder-plate L by means of the slotted arm L′ and the thumb-screws H, whereby the right-angle straight working edge L^2 may be set or adjusted toward or from the line of the needle, more or less, as desired. Now in order to quickly and accurately adjust the said working edge L^2 we provide the inward portion, which projects over the work-table A, with two scales 1 and 2. The former scale 1 nearest the needle is divided into spaces one-half the width of the latter, and the division marks or lines are indicated, respectively, by the same figures, as shown in Fig. 1.

Now in order to fold, guide, and stitch the tucks in an exact, even, uniform, and precise manner rapidly we provide the work-table A, near the right-hand edge opposite the feed-block, with screw-threaded holes into which are fitted the thumb set-screws K and R, which pass through the slots I in the adjustable guide-plate J, the inward edge of which is set and secured in close proximity to the working edge L^2 of the folder-plate, so as to nicely contact with the cloth and guide the flat edge of the tuck, which is sharply defined, by means of the horizontally-adjustable spring presser-plate M, which is nicely fitted into the top surface of the said guide-plate J and secured in working position by means of the thumb set-screw N, passing through a short slot therein and entering a screw-threaded hole provided in the said guide-plate J. The inward working end of the said presser-plate M, at the front corner, is provided with an upward curved projecting lip *e* to facilitate the passage of the seams in the made-up skirts or garments thereunder when set and secured in position, as shown in Fig. 2. Now to the top surface, near the front or forward end of the said guide-plate J, is fitted the adjustable spring and yielding tuck-gage plate P, secured in position thereon by means of the thumb set-screw R, which passes through the elongated slot T, provided in the said gage-plate P, and entering a suitable screw-threaded hole provided in the said guide-plate J or in the work-table A. This gage-plate P has a narrow vertical projecting flange upon its front edge and inward end to facilitate the passage of the cloth thereunder and a guide to the adjacent or subsequent tube being formed therein, as shown and hereinafter described. It will be seen and understood that after the first tuck is formed it and each succeeding tuck form an accurate guide for the next following tuck, and it will be observed that the inward end of the gage-plate works in contact with the base of the adjacent or next tuck previously formed and by which means the feeding of the material in a straight line is insured and the feeding of the material to the needle and formation of tucks of an even and uniform appearance rapidly and easily by a novice or one unskilled in the use of such tucking devices is most evident from the few simple easy-adjusted parts of the guide. It will be observed that by means of the said horizontal supporting-arm G, forming the loop G^2 below the horizontal plane of the work-table A and extending outwardly therefrom a sufficient distance, the cloth, fabric, or garments, endless bands, or skirts being provided with tucks may freely pass through the said loop formed by the arm G instead of being carried above the work-table, thus permitting a clear and unobstructed view of the work as it proceeds, which is so essential in high-speed or power-operated tucking-guides for sewing-machines.

Having thus described our invention, we claim—

A self-folding tucking-guide for sewing-machines, comprising the adjustable folder-plate L, an adjustable guide-plate J having an edge arranged adjacent to and parallel with the edge of the folder-plate, an adjustable spring and yielding gage-plate P having an upward-projecting flange along its front and inner edges, and a spring presser-plate M arranged to bear upon the goods being tucked between the gage-plate and the presser-foot of the sewing-machine and formed with an upturned lip *e* at its front edge, substantially as set forth.

In testimony whereof we have signed our names to this specification, in presence of two subscribing witnesses, this 10th day of March, 1896.

EDWARD A. KING.
FRED GUEST.

Witnesses:
SYLVENUZ WALKER,
JAMES W. GAVIN.