

(No Model.)

2 Sheets—Sheet 1.

A. J. HART.

TUCKER FOR SEWING MACHINES.

No. 303,511.

Patented Aug. 12, 1884.

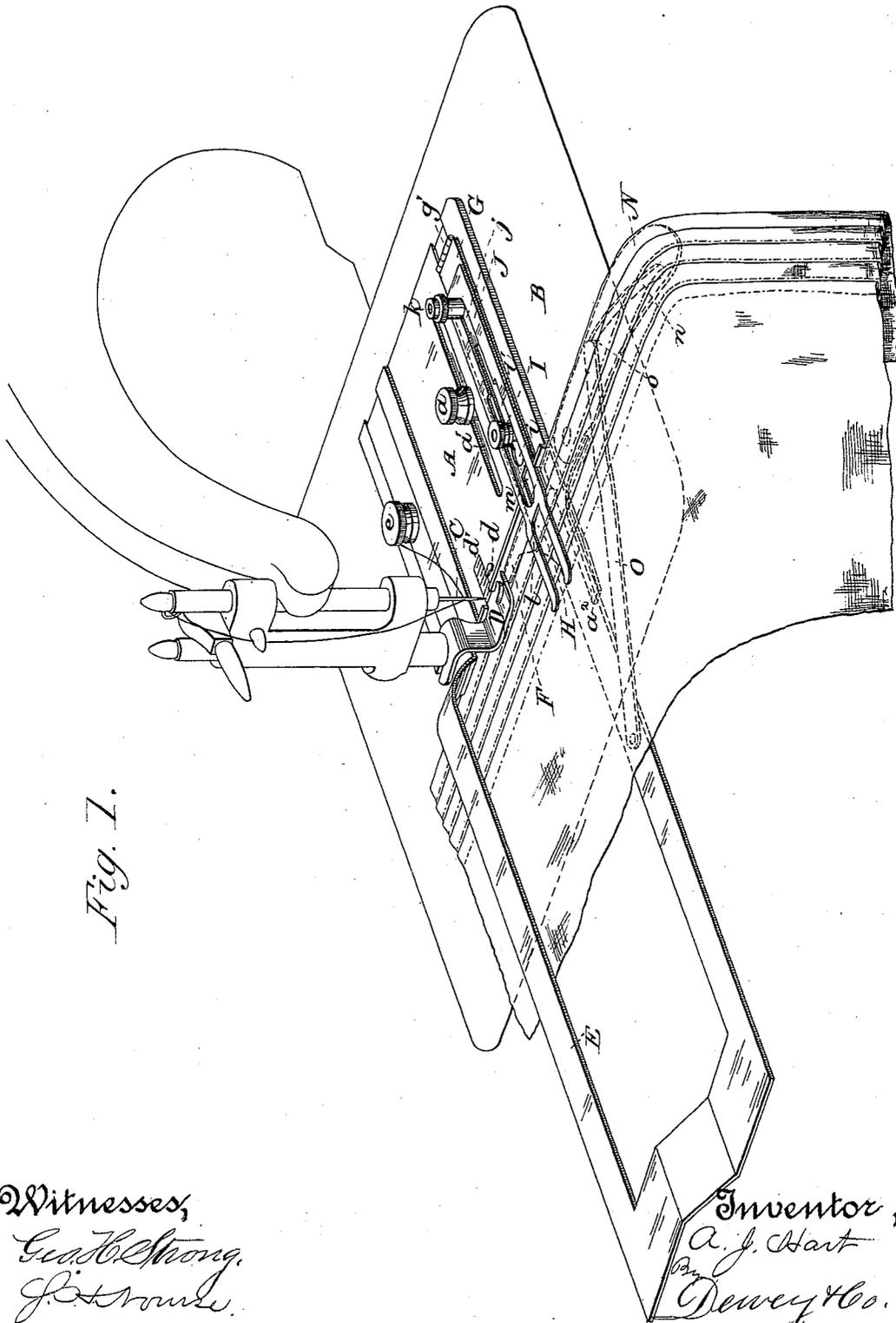


Fig. 1.

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UNITED STATES PATENT OFFICE.

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TUCKER FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 303,511, dated August 12, 1884.

Application filed December 4, 1883. (No model.)

To all whom it may concern:

Be it known that I, ALBERT J. HART, of the city and county of San Francisco, and State of California, have invented an Improvement in Tuckers for Sewing-Machines; and I hereby declare the following to be a full, clear, and exact description thereof.

My invention relates to a new and useful tucking attachment for sewing-machines; and it consists in the combinations of devices hereinafter explained and claimed.

The object of my invention is to provide a simple and effective tucker which shall operate accurately and receive the goods with the tucked portion always on top in sight, whereby the various adjustments can be readily made.

Referring to the accompanying drawings, Figure 1 is a perspective view of my tucker, showing its application to the sewing-machine and goods. Fig. 2 is a perspective view of the tucker. Fig. 3 is a view of the bed-plate A, showing the swinging guide-plate G partly raised. Fig. 4 is a view of the guard-plate J. Fig. 5 is a longitudinal section through the plate J, swinging guide-plate G, and bed-plate A, showing the goods in position.

A is the bed-plate of the tucker, which is secured to the plate B of the sewing-machine by means of a set-screw, *a*, which passes through a slot, *a'*, whereby said plate and all of its attached parts may be moved to regulate the width of the tuck by withdrawing from or approaching the needle C, and this movement is indicated accurately by a pointer, *d*, and a scale on a side extension, *d'*, of the presser-foot D, which said extension fits a recess or notch in the plate A, as shown.

E is an open frame-work, the upper side of which is guided upon the plate A, and is set at any point by a thumb-screw, *e*. Its lower side is provided with a cross end, F, the edge of which comes close up to the inner edge of plate A and lies parallel with it. It finds support on a short arm, *a''*, extended from plate A.

G is a swinging or guide plate. It has a shank, *g*, hinged to its end, which slides in a guide-groove, *g'*, on plate A, whereby the guide-plate, in addition to a swinging move-

ment, has a sliding one. It is set at any point by a screw, I, in plate A, over which it folds, and by which it slides by reason of a hole, *i*, and a slot, *i'*. The inner end of this plate has a cross-piece, H, which lies over the cross end F.

The use of the tucker as thus far described is as follows: The goods are folded for the first tuck and are inserted, the under fold passing under the cross end F between it and the supporting-arm *a''*, and the upper fold passing above said end, but under the cross end H, which is extended over it. The cross end F thus acts as a folder, for the goods are folded over its edge between it and the edge of plate A. Therefore the space between these parts must be large enough to receive the goods, and if not it can be enlarged to suit any thickness of goods by loosening the thumb-screw *e* and moving sidewise the open frame E. To fix the width of the tuck, the whole device is moved on its guide-screw *a* to carry the inner edge of plate A away from or toward the needle, the distance being accurately determined by the pointer and scale hereinbefore referred to. The goods are then passed through the folder or under cross end F, turning them and directing the fold to and under the presser-foot. Thus the first tuck is made. The goods are then removed and again inserted, the untucked portion being the under fold, while that portion which has the tuck upon it is the upper fold. The guide-plate G is then moved forward, so that its cross end H presses against the seam under the first tuck, which thus serves as a guide for the space between it and the next tuck. The movement of this guide-plate renders accurate the space between the tucks, for when that space is previously determined the guide-plate is moved up to the previous tuck wherever it may be, and is then fixed, so that the tuck must travel against its cross end, and the space between it and the one being made remains always the same, so that, wherever set, the cross end H of the plate, by impinging upon the previous tuck, accurately guides the movement of the goods and makes the space between the tucks of exact width throughout.

In order to guard or hold down the upper

fold of the goods and to prevent it from slipping, I have a plate, J. This lies upon the plate G, and is adapted to have an adjustment by means of an extended slot, *j*, in it, which fits over a pin, *k*, in the guide-plate, and is set by a thumb-nut, *k*. The inner end of this plate is forked, the prongs extending over the goods a little way and holding them down. At the base of the fork is a downwardly-turned lip, *l*, which extends through a slot, *m*, in the guide-plate just back of the cross end H, and is adapted to impinge against the edge of the previous or guide tuck, thus preventing said tuck from slipping too far over the cross end H. By the adjustment of this plate it is adapted to limit different widths of tucks, because a wide tuck, by projecting its edge farther over the cross end H, would require the plate J to be set back, while a narrow one would require its adjustment forward.

Pivoted to the projecting side of cross end F is an arm, N, having a slot, *n*, made in it on a curve.

O is a small link pivoted to the frame E and lying upon arm N, with which it is connected by a stud, *o*, fitting slot *n*. By moving this lever the arm N may be adjusted to stand at or nearly at right angles with the tucker, or be moved to an inclination. The object of this is important. The arm N acts as a support and preliminary guide for the cross end F, and is practically an extension of it. The goods fold over it, and the drag or strain of the lower fold is taken off the cross end, so that they are directed to it with accuracy. The removal of this strain is more or less important for different widths of tucks, because for wide tucks more cloth is needed to be brought into the

fold and for narrow tucks less, and the strain may be regulated to the necessities of every case by turning the arm N to any proper inclination to relieve more or less of the strain.

The great advantage of this tucker is that the previous tucks are in the upper fold, and therefore in plain sight. This gives the operator an opportunity to gage the width of his tucks and the spaces between with accuracy and dispatch by adjusting the device and its parts as I have described.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a tucker for sewing-machines, the bed-plate A and adjustable frame E, having cross end F, in combination with the adjustable guide-plate G, having cross end H, and the guard and stop-plate J, adjustable on said guide-plate, as shown, and having a forked end extending over the cross end H, and a downwardly-turned lip, *l*, behind said cross end, substantially as and for the purpose herein described.

2. In a tucker for sewing-machines, the cross end F, over which the goods are folded, in combination with the arm N, pivoted to said cross end, and having a curved slot, *n*, and the pivoted link O, having a stud, *o*, fitting the slot, whereby the arm may be turned, substantially as and for the purpose herein described.

In witness whereof I have hereunto set my hand.

ALBERT J. HART.

Witnesses:

S. H. NOURSE,
H. C. LEE.