

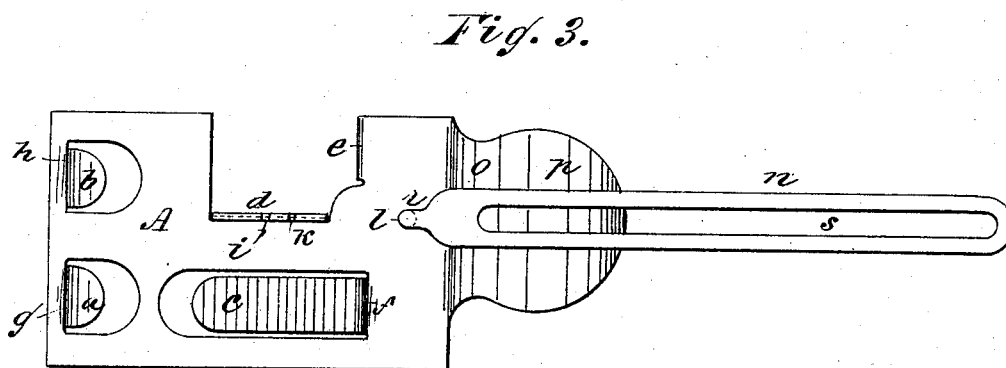
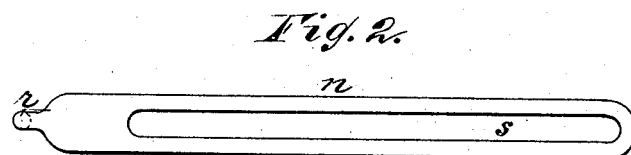
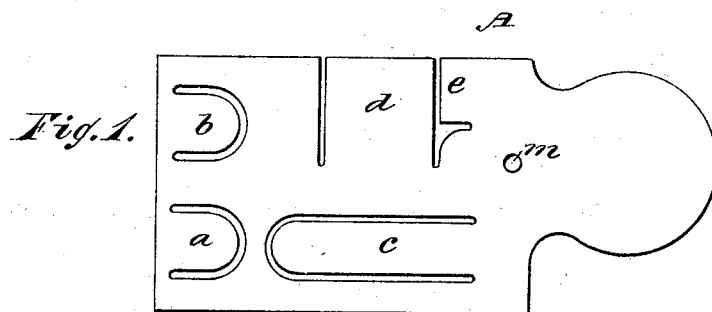
(No Model.)

C. M. DEXTER.

TUCK FOLDER FOR SEWING MACHINES.

No. 267,163.

Patented Nov. 7, 1882.



WITNESSES:

Thos. G. Hooper
C. Sedgwick

INVENTOR:

C. M. Dexter
BY *Munroe & Co*
ATTORNEYS.

UNITED STATES PATENT OFFICE.

CHARLES M. DEXTER, OF SACRAMENTO, CALIFORNIA.

TUCK-FOLDER FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 267,163, dated November 7, 1882.

Application filed May 2, 1882. (No model.)

To all whom it may concern:

Be it known that I, CHARLES M. DEXTER, of Sacramento, in the county of Sacramento and State of California, have invented a new and useful Improvement in Tuck-Folders for Sewing-Machines, of which the following is a full, clear, and exact description.

The object of my invention is to facilitate the correct, rapid, and easy formation of tucks or plaits in cloth.

The invention consists in the peculiar construction of the tuck-folder, as hereinafter more fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a plan view of the folder-plate in the form as cut out, and previous to bending. Fig. 2 is a plan view of the holder used for attaching the folder to the bed-plate of the machine. Fig. 3 is a plan view of the folder complete, and Fig. 4 is an edge view of the same.

For the folder I use a single plate, A, of sheet metal, from the body of which the tongues *a*, *b*, *c*, *d*, and *e* are formed, and the plate and tongues then bent to the form required for the several functions, as follows: The tongue *e* is bent downward, so that it forms a perpendicular flange or guide on the under side of the plate. The tongue *c* is depressed to a position below and parallel with the plate, and its inner end formed with a square shoulder, *f*, which is in line transversely of the plate with the flange *e*, so that the shoulder *f* and flange *e* form the two short non-continuous guides, so placed in relation to each other and the other parts as to act as guides for the tuck being made. The formation is such that there is no metal above these guides to retard the cloth passing through. The tongues *a* *b* are also depressed and their inner ends made with square shoulders *g* *h*, that form two short non-continuous guides, having no metal of the plate above them to retard the cloth passing through, and serving as guides, while the outer portions of the tongues serve as supports to the tuck last made. The tongues or supports *a* *b* are slanted or inclined slightly downward, as shown in Fig. 4, so as to give room

for the seams of the tuck passing through, and the supports are of rounded form on their edges, so that there are no sharp corners or angles on which the cloth can catch. Further, when the supports *a* *b* are cut in the plates the metal is removed from around them, as shown in Fig. 1, so that when they are bent down sufficient space is left for easy passage of the cloth, to and from them. The outer end of the tongue *c*, extending from the guide *f*, forms a support for the cloth and prevents the cloth from falling away in machines having uneven places in their cloth-plate. There is also sufficient metal removed around the edges of tongue *c* to allow the seams in the cloth to pass readily to and from said support. The plate is formed with a downward curve between the guides *g* and *f* and the guides *e* and *h*, and parallel with the guides *g* and *h*, for the purpose of decreasing the space between the plate of the folder and the plate of the machine, so as to keep the cloth from easily folding up between the guides. The tongue *d* is bent upward at right angles to the plate to form a stop, which, abutting against the foot of the machine, prevents the folder from being carried under the presser-foot and out of position. The stop is made by bending the tongue upward and then downward again at its middle, so as to fold the tongue on itself and make it double, the two thicknesses being soldered together, if desired. The upper edge of the stop *d* is made with two notches, *i* *k*, as guides for making the tucks, the placing of the notch *i* opposite the needle bringing the tucks with a space of their own width between them, and the placing of the notch *k* opposite the needle bringing the tucks together without space between them.

The elevated portion *l* of the plate has a circular opening, *m*, for receiving the hook or pin on the end of the holder *n*, by which the folder is attached and adjusted on the machine. This elevation prevents the hook end of the holder from coming in contact with the plate of the machine. Parallel with the elevation *l* is a depression, *o*, that furnishes an extra point of friction between the machine and folder, and at the same time completes the formation of the elevation *l* and a second parallel and elongated elevation, *p*, that is more or less distant from the aperture *m*. This elongated ele-

vation *p* forms a place or support for the holder *n* to bear upon, and on which the holder *n* is pressed by the attaching thumb-screw, and by this pressure the folder is prevented from easily turning on the hook end of the holder. The elongation of the elevation *p* is for the purpose of insuring a support under the holder *n* at all times, even though it be turned to one side. The end of the plate is turned downward to the level of the depression *o*, so as to furnish an additional point of friction between the bed-plate and folder.

The holder *n* is formed with a long slot, *s*, for receiving the thumb-screw, and its hook end is formed by the pin *r*, extending down at right angles, so that when entered in the opening *m* free movement is allowed and the folder made capable of adjustment to the various machines.

The several features shown and described are applied to tuck-folders made in sets, the several folders of each set being graduated in respect to the width between the guides, so as to form tucks of different widths.

The operation of the tucker is as follows: The material is inserted between the tongues *a b c* and flange *e*, and beneath the plate, the outer edge of the material resting against the vertical parts *g* and *h* of the tongues *a b*, which vertical parts act as guides for the material folded upon itself, the inner edge of which passes between the tongue *c*, the flange *e*, and the lower face of the plate. The tucker-plate is secured to the bed-plate of the machine by a set-screw passing through slot 2 in the holder *n* and into the bed-plate of the machine, and is capable of being laterally adjusted thereon. The stop *d* rests against the presser-foot. After forming the first tuck in the above-described manner, the latter is inserted in the tongues *a b* and the material folded upon itself, as before, and the second tuck is formed. By adjusting the tucker-plate laterally with regard to the needle and the notches *i k* on the stop

d the spaces between the tucks may be varied as desired with the same size tuck.

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

1. The combination, in a tuck-folder made from a single plate of metal, of the non-continuous guides *g h* and the supporting-tongues *a b*, formed from the body of the plate and without material above them, as and for the purposes set forth.

2. In a tuck-folder, the guide *f* and tongue *c*, formed in one piece and from the body of the tuck-folder, substantially as and for the purpose set forth.

3. The combination and arrangement, in a tuck-folder, of the supporting-tongues *a b c* and the guides *e f g*, formed out of the single plate of metal of the folder, substantially as shown and described.

4. In tuck-folders, the tongues *a b*, serving as supports for the tuck already made, bent downward at an incline to allow free passage of seams, as specified.

5. In tuck-folders, the supporting-tongues *a b*, bent downward at an incline and formed with rounded ends, as and for the purposes set forth.

6. In tuck-folders, the plate formed with the curve *t* parallel with the guides *g h*, as and for the purposes set forth.

7. In tuck-folders, the stop *d*, formed from the metal in the body of the plate and arranged between the tongues *a b c* and the flange *e*, substantially as shown and described.

8. In tuck-folders, the stop *d*, formed with notches *i k*, as and for the purposes specified.

9. The combination, in a tuck-folder, of the elevations *l p*, separated by the depression *o*, for service as friction-surfaces, on which the holder presses, as shown and described.

CHARLES M. DEXTER.

Witnesses:

EDWARD OWENS,
IVRY. H. GREGORY.