

R. BRADY.

Tuck and Plait Folder for Sewing Machines.

No. 29,856.

Patented Sept. 4, 1860.

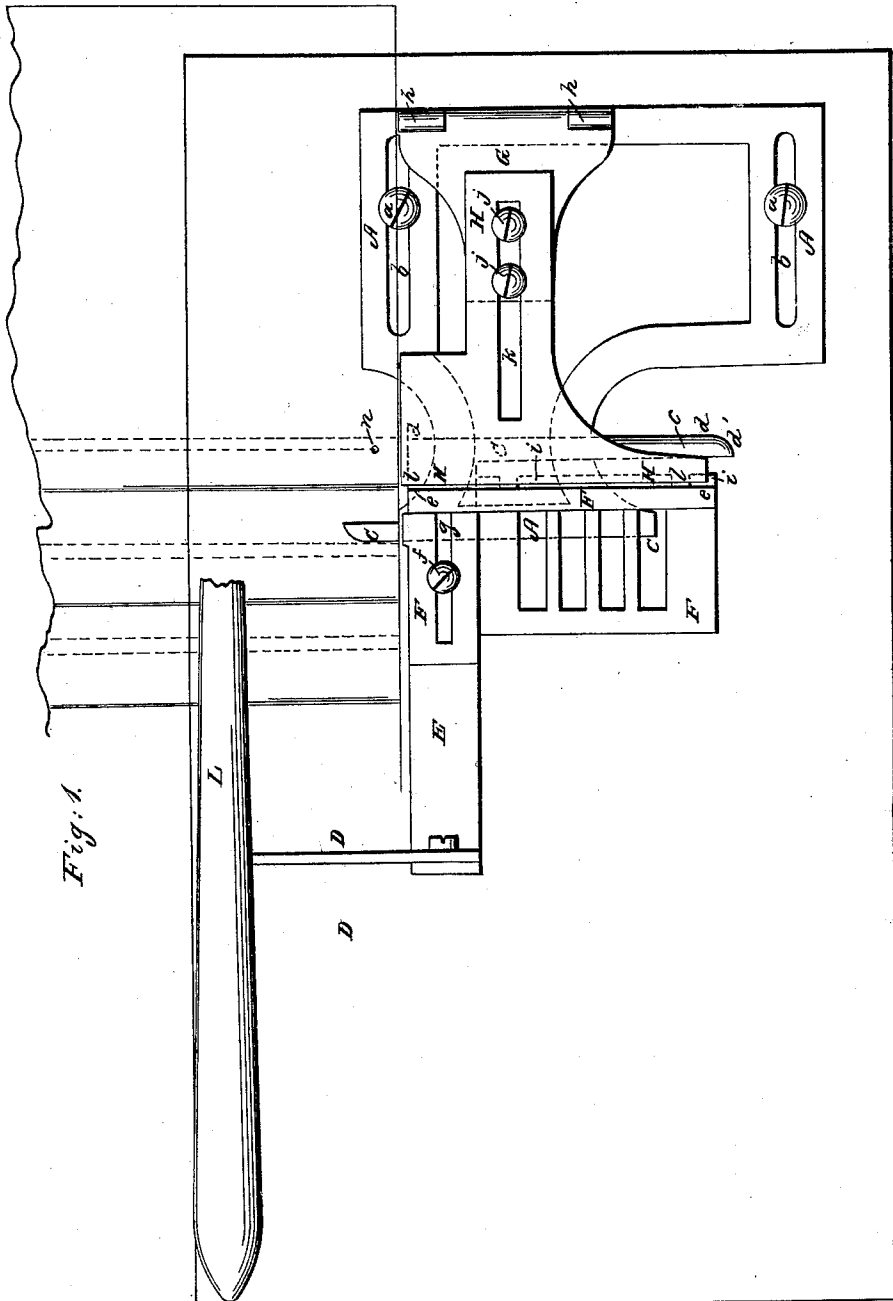


Fig. 1.

Witnesses:  
Chas. Hughes  
Wm. Thompson

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# UNITED STATES PATENT OFFICE.

REUBEN BRADY, OF NEW YORK, N. Y.

## IMPROVEMENT IN TUCK AND PLAIT FOLDERS.

Specification forming part of Letters Patent No. 29,856, dated September 4, 1860.

*To all whom it may concern:*

Be it known that I, REUBEN BRADY, of the city, county, and State of New York, have invented a new and Improved Tuck and Plait Folder for use on Sewing-Machines or otherwise; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a top view of my improved folder, showing its application to a sewing-machine. Fig. 2 is a vertical section of the same. Fig. 3 exhibits a section of part of the folder differently arranged from Fig. 1.

Similar letters of reference indicate corresponding parts in the several figures.

My invention consists in a certain construction and arrangement of the parts of a tuck and plait folder which provides for its adjustment in a very simple manner to perform the folding of tucks and plaits of various widths and at various distances apart, and for the easy introduction of the fabric to be folded.

To enable others to make and use my invention, I will proceed to describe its construction and operation.

A is a thin plate, of steel or other metal, secured to the bed B of the sewing-machine by two screws, *a a*, passing through slots *b b* in the said slots and screwing into the bed, said slots permitting of the adjustment of the said plate in a direction at right angles to the direction of the feed movement, and the said plate having a straight edge, *c c*, which is parallel with the direction of the feed movement.

C is a narrow, straight, flat strip of steel or other metal arranged close above the plate A, where it is held by arms D E, secured to the stationary arm L of the sewing-machine, which holds the presser, the said arms being made moderately elastic to permit a piece of cloth or other material to be easily slipped between the strip C and the plate A. The straight edge *d d* of the said strip faces the opposite way to the edge *c c* of the plate A, and is parallel therewith, and situated permanently but a short distance from a line passing through the needle of the sewing-machine in the direction of the feed movement. The end of the strip C that is farthest from the needle is rounded off, as shown at *d'* in Fig. 1, from its straight edge *d d*.

F is a plate arranged parallel with the plate A, and with its lower surface in the same plane with the lower surface of the strip C. This plate has a raised straight edge, *e e*, which is parallel with the straight edges *c c* and *d d* of the plates A and C, and which faces in the same direction as the edge *d*, and below the said raised edge the said plate projects a short distance toward the edge *c*, as shown at *i* in Figs. 2 and 3, the upper surface of the said projection being in the same plane with the upper surface of the strip C. The said plate is fitted to the arm E, which carries the strip C, and secured thereto by a screw, *f*, passing through a slot, *g*, in the plate and screwing into the arm, the said slot providing for the adjustment of the plate to bring the edge *e e* nearer to or farther from the edge *c c*.

G is an arm connected by a hinge-joint, *h*, with the plate A, the axis of said joint being parallel with the edge *c c* of the said plate.

H is a plate secured to the arm G by two screws, *j j*, passing through a slot, *k*, in the said plate and screwing into the said arm. The said plate has a straight edge, *l l*, which is parallel with the edges *c c*, *d d*, and *e e* of the plates A, C, and F, and which faces the same way as the edge *c c* of the plate A. The slot *k* provides for the adjustment of the plate H in proper relation to the plate F, it being necessary that in the operation of the folder the edge *l l* of the plate H and the edge *e e* of the plate F shall be nearly close together, the edge *l l* overlapping the projection *i* of the plate F.

The folder constructed as above described is adjusted in the following manner: The adjustable plate F is first set with its edge *e e* at a distance from the stationary edge *c c* of the fixed strip C equal to the depth of tuck or width of plait required, and so secured by the screw *f*. If the plaits or tucks are required to be close together, without either lapping each other or having any space left between them, the plate A is adjusted to bring its edge *c c* directly under the edge *e e* of the plate F, as shown in Fig. 3, where the cloth is represented in blue color; but if a space is required between the plaits or tucks, the said plate A is adjusted to bring the said edge *c c* at a distance from the said edge *e e* on the opposite side thereof to the edge *d d* equal to such space, as shown in Figs. 1 and 2, where the cloth is shown in red color; or if the tucks or plaits

are desired to overlap each other the edge *ee* is brought to a distance on the other side of the edge *ee* equal to the desired amount of lap. The said plate A is then secured by the screws *aa*, and when this is done the plate H is adjusted to bring its edge *ll* over the projection *ii*, and nearly close to the edge *ee* of the plate F, and so secured by its screws *jj*.

To insert the cloth in the folder, when adjusted as above described, the plate H and arm G are swung up and thrown back, and one end of the cloth to be folded is slipped under the plate F and under the strip C, but over the plate A, and spread out flat upon the plate A and bed B. The cloth is then folded back over the edge *dd* and the plate H brought down upon it, after which it (the cloth) is folded back over the edge *ll*, as shown in Figs. 2 and 3, and the formation of the plait or tuck is thus commenced. The end which is next the needle *n* (see Fig. 3) is then drawn far enough toward the needle for the feeding device to take hold of it, and on the sewing-machine being started the cloth is drawn through the folder and folded all along, whatever its length. The plaits or tucks, in passing under the presser of the sewing-machine, are flattened down, and in passing under the needle are sewed through their three plies or thicknesses. When one plait or tuck has been completed, the cloth is inserted again in the same manner as before, without turning it over, with the completed plait or tuck under the plate F, as shown in Figs. 2 and 3, and the stitched edge of the said plait or tuck against the edge *ee*, which, as has been before described, constitutes the gage to the distance between the plaits and tucks, and a new tuck is folded and proceeded with

in the same manner as the first one, the edge *ee* constituting a guide to the finished plait or tuck in the folding of the new one, and so keeping all the plaits or tucks parallel with each other. If only a single tuck or plait is to be run, the position of the plate A is immaterial, provided the edges *ee* and *ll* are properly adjusted relatively to the stationary edge *dd*.

It is obvious that by attaching the plate A to a board or any flat surface, and the plate F and strip C to any suitable support above, the folder may be used independently of a sewing-machine, the cloth requiring to be drawn through by hand.

I do not claim, broadly, the giving of an adjustability to the plates F and H, for I am aware that they have been previously employed; but

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The construction of the confining-plate H, when hinged to the lower plate, A, for the purpose and in the manner herein shown and described.
2. The ledge *i* on the plate F, when arranged to operate as and for the purpose herein set forth.
3. The arrangement of the plate A with the plates F H, in the manner herein shown and described, whereby the said plate A serves to furnish an even bearing for the tuck being sewed, and also serves as a guide to the tuck last sewed, all as set forth.

REUBEN BRADY.

Witnesses:

WM. THOMPSON,  
CHARLES HUGHES.