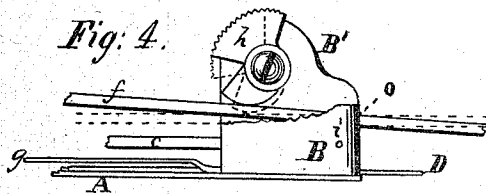
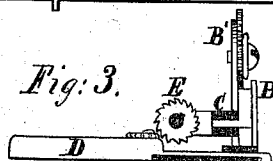
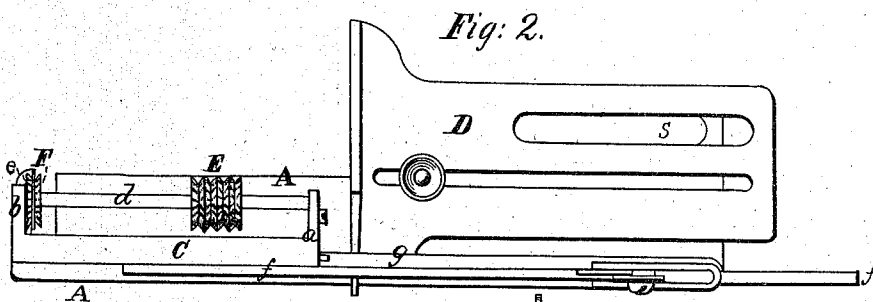
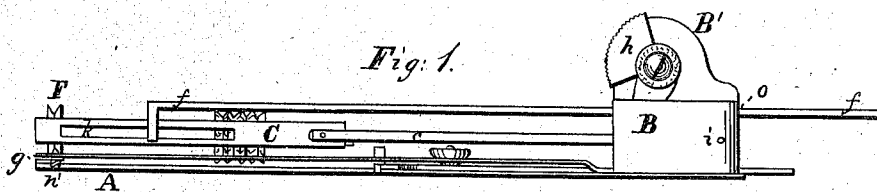


H.C. Goodrich.
Tuck-marker for Sewing Mach.
N^o 106,151. Patented Aug. 9, 1870.



Witnesses

E. H. West.
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Inventor.

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HARRY C. GOODRICH, OF CHICAGO, ILLINOIS.

Letters Patent No. 106,151, dated August 9, 1870.

IMPROVEMENT IN TUCK-CREASING ATTACHMENT FOR SEWING-MACHINES.

The Schedule referred to in these Letters Patent and making part of the same

I, HARRY C. GOODRICH, of the city of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Tuck-Markers for Sewing-Machines, of which the following is a full description, reference being had to the accompanying drawing making part of this specification, in which—

Figure 1 is an elevation.

Figure 2, a top view.

Figure 3, a section.

Figures 4, 5, 6, details.

The drawings are full size.

My invention relates to that class of tuck-markers in which the mark or crease in the cloth is made by means of a wheel rotating over a blade, the cloth passing between the wheel and blade.

The principal object of my invention is to construct a tuck-marker, so that that part of the cloth which is in line with the creasing-wheel and blade will, while being creased, be carried forward by the action of the tuck-marker as fast as that part of the cloth which is being stitched is carried forward by the feed of the sewing-machine. I accomplish this by means of two wheels arranged upon the same shaft, and revolving therewith, one operating as a creasing-wheel, the other as a driving-wheel to operate the creasing-wheel, both wheels so arranged as to be in constant contact with the cloth while in use, the driving-wheel located in the line of the stitching outside of and in front of the presser-foot, and being so serrated or toothed that the moving cloth catching upon the points or teeth on the periphery of the wheel will rotate the same, while the creasing-wheel is so serrated that its teeth catch in the cloth, carrying it forward.

Another object of my invention is to enable the operator to adjust at pleasure the pressure of either or of both of the wheels upon the cloth; this I accomplish by the means hereinafter described.

In the drawing—

A represents a metallic plate, which may be made of sheet metal, in which is a slot, *s*, through which a thumb-screw passes for the purpose of securing the device to the sewing-machine, in the usual manner.

D is a movable gauge, arranged and used in the ordinary manner.

B B' are two standards, permanently fastened to A, the latter being a little longer than the former. They are placed a little distance apart, may be made of a single piece of sheet metal, bent in proper shape, an opening being provided at *o* through which to pass the bar *f*.

The piece or frame C *a b* is made from a single piece of metal, *a b* being arms extending from C, in which arms are bearings, in which the shaft D revolves.

E is a serrated wheel located upon the shaft *d*; this wheel and shaft are so constructed that the wheel can be moved laterally upon the shaft, but cannot rotate thereon, but only with it. This is accomplished by well-known methods, one of which is shown in fig. 3. This wheel must be so made as not to be moved too easily on the shaft, and so that it will remain where placed.

F is another serrated wheel, also having a groove in its face extending around the entire wheel. This wheel is permanently secured to the shaft *d* near the outer end thereof. Beneath the groove in F is a projection or blade, *e*, attached to A, which blade, with the grooved wheel F, makes the mark in the cloth.

The teeth upon these two wheels are near each other, presenting sharp points to the cloth, and the teeth in these two wheels do not project therefrom in the same direction. The teeth upon E are at such an angle and in such direction that the cloth, as it is drawn along under it by the feed of the machine, will catch against the points of the teeth and cause the wheel and shaft to rotate, (see fig. 3,) while the teeth upon F project therefrom in such a direction that, as it revolves, the points of the teeth catch in the cloth, forcing it forward. The wheel E may be grooved as well as serrated, as shown in figs. 1 and 2.

If necessary, the wheel F may be made a little larger than E, thus making allowance for friction, and rendering it certain that the cloth in the line of the marking-wheel will move as rapidly as that part in the line of stitching.

C is pivoted at its inner end to the bar *c*, which is also pivoted between the two standards *i*, giving the desired flexibility to the working parts, and enabling me readily to adjust the pressure of either, or of both wheels, upon the cloth, which I do as follows:

In C is a long longitudinal slot, *k*. A long bar, *f*, passes between the two standards, and is there supported in any suitable manner, as shown. It extends through the metal forming the standard, and requires no other support at that point. The inner end is bent in an L-form, the extreme end passing into the slot *k* in C.

A lever, *h*, is pivoted to B'; the lower arm of the lever is cam-shaped, and comes in contact with the bar *f*, which bar can be moved to the right or left.

By means of this bar *f* and lever *h*, C being pivoted to *c*, as described, I am able to adjust the pressure of the wheels E F upon the cloth, increasing or diminishing that of both, or of either one, at pleasure. If the bent end of the bar *f* be placed midway between the wheels E F, the pressure upon the two wheels will be the same, and can be regulated by the lever *h*; but if the position of *f* be changed, bringing the bent

end nearer one wheel than the other, the pressure on the several wheels will be unequal, but can still be regulated as before.

A cloth-smoother, *g*, may be used with this device.

The cloth of the completed tuck, while the crease is being made for the next tuck, passes under the horizontal spur *n*, as in other devices of a similar nature.

In operation, the device is attached to the sewing-machine so that the wheel *E* will be in front of the feed, and in the line of the stitching, the parts being adjusted with reference to the width of the tuck to be made.

The cloth is passed under both wheels. As the cloth is drawn along by the feed of the sewing-machine, if the pressure of the wheels upon the cloth has been properly regulated, the cloth will catch upon the teeth in the wheel *E*, causing it to revolve, also revolving the shaft *d* and creasing-wheel *F*; at the same time the teeth in *F* will catch in the cloth beneath it, and carry it along between the blade and groove in the wheel, making the mark for the next tuck, the cloth in the line of stitching, and that in line with the creasing-wheel, being carried forward simultaneously and with equal speed, and thus the cloth will be kept smooth, and a mark will be made by the creasing-wheel, parallel to the stitching.

The end of the bar *f*, in the slot *k*, should usually be midway between the two wheels.

The bar *f* is not entirely rigid, but yields enough to permit seams in the cloth to pass beneath the wheels.

The frame *C* is somewhat self-adjusting, being pivoted to *c*, and the latter to the standards, as before described.

Having thus fully described my invention,

What I claim as new, and desire to secure by Letters Patent, is as follows:

1. The combination of the plate *A*, wheels *E* *F*, shaft *d*, and frame *C* *a b*, constructed substantially as and for the purposes specified.
2. The movable wheel *E*, located outside of the presser-foot of a sewing-machine, in combination with the shaft *d* and creasing-wheel *F*, substantially as and for the purposes specified.
3. The combination of the hinged bar *c*, frame *C*, wheels *E* and *F*, and yielding bar *f*, with the plate *A* and guide *D*, constructed and operating substantially as specified.

HARRY C. GOODEICH.

Witnesses:

E. A. WEST,
O. W. BOND.