

A. G. CANER & ELIZABETH SLOAN.

PLAITING ATTACHMENT TO SEWING-MACHINES.

No. 172,966.

Patented Feb. 1, 1876.

Fig. 1.

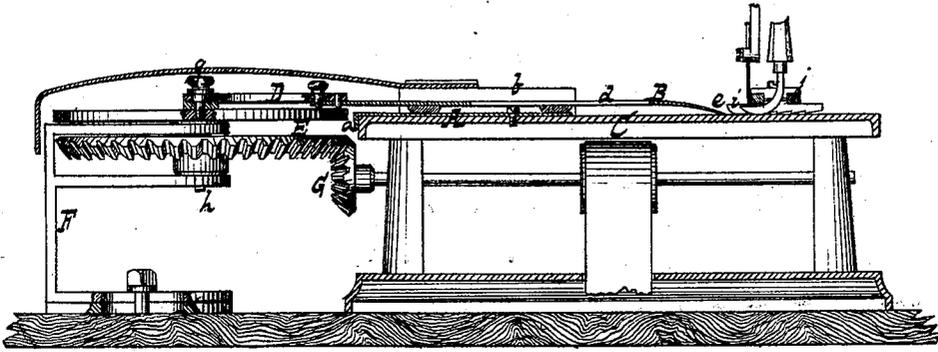
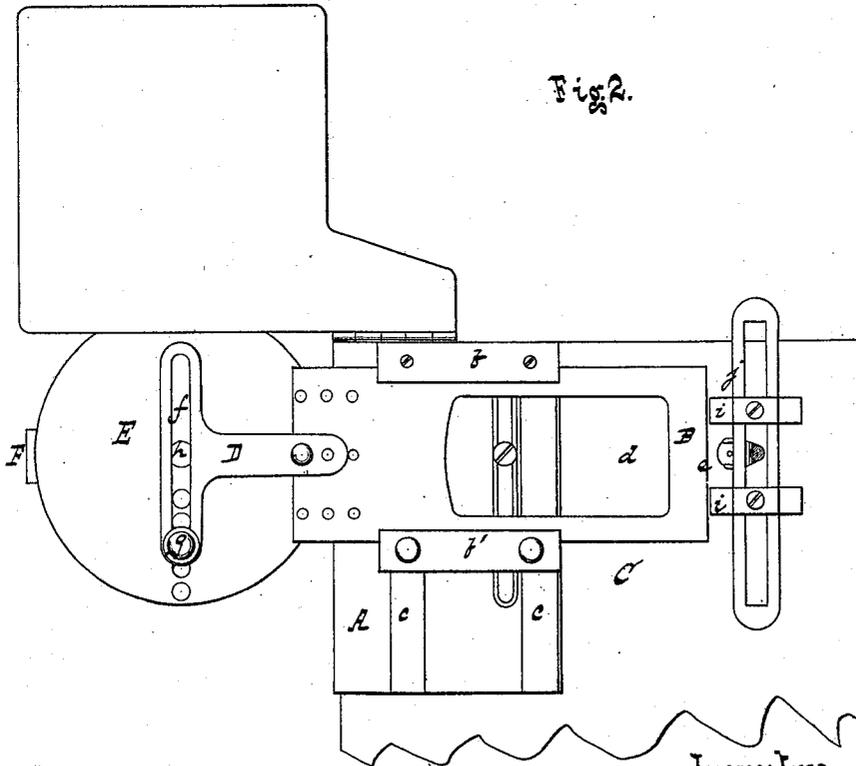


Fig. 2.



Witnesses.

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UNITED STATES PATENT OFFICE

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IMPROVEMENT IN PLAITING ATTACHMENTS TO SEWING-MACHINES.

Specification forming part of Letters Patent No. 172,966, dated February 1, 1876; application filed December 23, 1875.

To all whom it may concern:

Be it known that we, ALFRED G. CANER, of Tottenville, county of Richmond and State of New York, and ELIZABETH SLOAN, of the city, county, and State of New York, have invented a new and Improved Plaiting Attachment to Sewing-Machines, which improvement is fully set forth in the following specification, reference being had to the accompanying drawing, in which—

Figure 1 represents a longitudinal vertical section. Fig. 2 is a plan or top view.

Similar letters indicate corresponding parts.

This invention consists in a plaiting-knife provided with a slot through which the material is fed to the plaiting-edge and to the sewing mechanism, in combination with stops which are attached to and work in conjunction with the presser-foot of a sewing-machine. The plaiting-knife receives a reciprocating motion from one of the shafts of the sewing-machine, and its motion is so timed that each plait, when formed, is stitched by the action of the sewing mechanism. The guide of the plaiting-knife can be adjusted for knives of different width, and the throw of said knife can be changed for plaits of more or less depth.

In the drawing, the letter A designates the guide-plate of the plaiting-knife B. Said guide-plate is intended to be fastened to the cloth-plate C of a sewing-machine, and it is provided with lip *a*, which rests against the edge of said cloth-plate so that it can be conveniently and firmly secured by a single set-screw. On the plate A are secured the grooved guides *b b'*, between which moves the plaiting-knife B, and one of said guides is fitted on V-shaped ways *c*, so that it can be adjusted for knives of more or less width. The plaiting-knife B is provided with a slot, *d*, through which the material is passed to the plaiting-edge *e*. A reciprocating motion is imparted to the plaiting-knife by means of a T-shaped bar, D, which is secured to said knife, and which is provided with a slot, *f*, through which passes a screw or pin, *g*, that is secured in a wheel, E. This wheel is furnished with several sockets at different distances from its center, so that, by changing the screw or pin *g* from one socket to another, the throw of the plaiting-knife can be adjusted according to the desired depth of the plaits

to be produced. The wheel E is mounted on a vertical shaft, *h*, which has its bearings in a standard, F, secured to the table or any other part of the sewing-machine in such a position that the wheel E will mesh into a pinion, G, mounted on one of the shafts of the sewing-machine. In the example shown in the drawing said pinion is secured to an extension of the main shaft of the sewing mechanism, but it is obvious that motion may be imparted to the wheel E by any other suitable means. The standard F is adjustable toward and from the plaiting-knife, so that if the throw of said knife is increased its position can be so regulated that it will not come in contact with the needle of the sewing-machine. The plaiting-knife works in conjunction with stops *i i*, which are adjustable on a bar, *j*, that is intended to be secured to the presser-foot of the sewing-machine, as shown. The position of these stops depends upon the width of the material to be plaited, and they are situated on opposite sides of the presser-foot. The motion of the plaiting-knife is so timed that the same moves back while the material is fed toward the needle by the feed mechanism of the sewing mechanism, and, as soon as the feed motion has been completed the material is firmly retained by the stops *i i*, and then the plaiting-knife moves forward and produces the plait, and then the needle descends and stitches the plait.

Our plaiting attachment can be so adjusted that the plaits formed are stitched in the middle of their length, or near one edge. For this purpose the plaiting-knife is provided with several sets of holes, one set in the middle and two near its edges, and both the stops *i i* are made adjustable on their supporting-bar *j*.

By this arrangement materials of different width can be formed into plaits of various depth with great rapidity.

By giving the plaiting-knife an oblique edge our attachment can be used for producing bias-plaits.

What we claim as new, and desire to secure by Letters Patent, is—

1. The combination of a reciprocating plaiting-knife, having a slot for the passage of the material to the plaiting-edge, with stops *i i* secured to the presser-foot of a sewing mechanism, substantially as shown and described.

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2. The combination of adjustable guides *b b'* with the plaiting-knife B and the ways *c c*, substantially as and for the purpose set forth.

3. The combination of the T-shaped connecting-rod D with the plaiting-knife A and with a wheel, E, receiving a revolving motion from any part of the driving-gear of a sewing-machine, substantially as shown and described.

In testimony that we claim the foregoing we have hereunto set our hands and seals this 22d day of December, 1875.

ALFRED G. CANER. [L. S.]

ELIZABETH SLOAN. [L. S.]

Witnesses:

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