

J. H. APPLIGATE & C. B. WEBB.

SEWING-MACHINE.

No. 177,784.

Patented May 23, 1876.

Fig. 1.

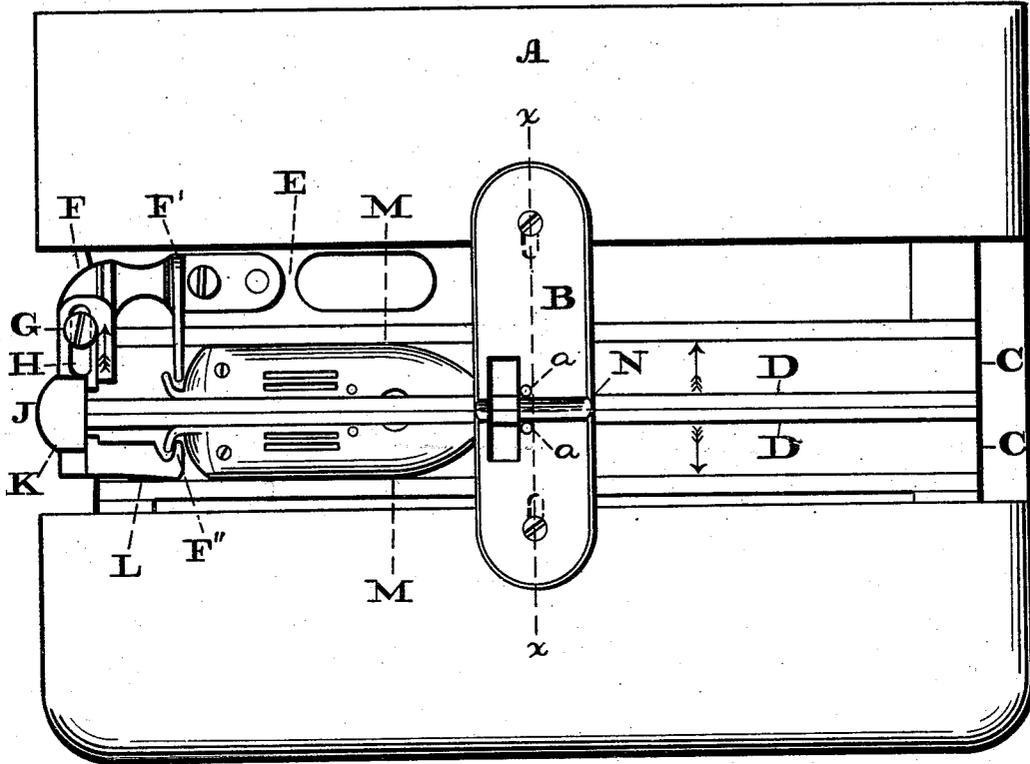


Fig. 2.

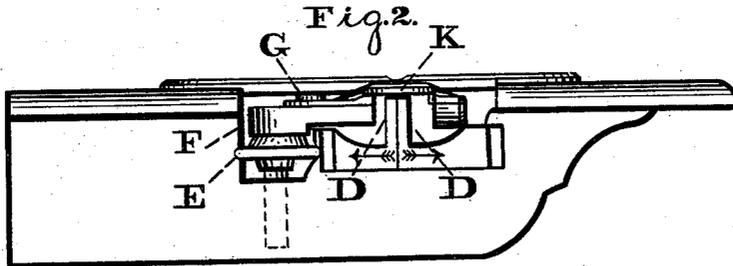
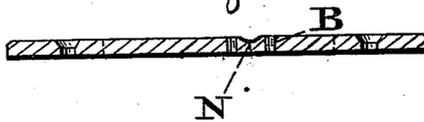


Fig. 3.



Witnesses:

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UNITED STATES PATENT OFFICE.

JOHN H. APPLGATE AND CHARLES B. WEBB, OF PHILADELPHIA, PA.

IMPROVEMENT IN SEWING-MACHINES.

Specification forming part of Letters Patent No. 177,784, dated May 23, 1876; application filed January 27, 1876.

To all whom it may concern:

Be it known that we, JOHN H. APPLGATE and CHARLES B. WEBB, both of the city and county of Philadelphia and State of Pennsylvania, have invented a new and useful Improvement in Sewing-Machines; and we do hereby declare the following to be a clear and exact description of the nature thereof, sufficient to enable others skilled in the art to which our invention appertains to fully understand, make, and use the same, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a face view of a portion of a sewing-machine embodying our invention. Fig. 2 is an end view thereof. Fig. 3 is a section in line *x x*, Fig. 1.

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

Our invention relates to improvements in the class of sewing-machines wherein two stitches are to be formed.

Our invention consists of the combination, with two shuttles adapted to parallel adjustable races, of two arms, which are connected by an adjustable joint, and provided with fingers to engage the rear ends of the shuttles, a single driver being employed.

The invention is applicable to sewing-machines of the class known as "Howe," and all other shuttle-machines with the four-motion feed.

Referring to the drawings, A represents the table, B the throat-plate, and C C two shuttle-races, between which are two partition-bars, D D, which may be brought closely together or separated from each other, relatively to the distance apart of the two seams to be sewed, the throats *a* of the plate and the needles being likewise adjustable relatively to the width of the seams; but no claim of invention is here laid to adjustable throats, needles, and shuttle-races. In a passage adjacent to one of the shuttle-races there is fitted a slide, E, to which is connected an arm, F, whose outer end curves toward the shuttle-race, and has connected to it, by means of a screw, G, and slot H, an arm, J, a portion, K, of which overhangs the partition-bars D D of the shuttle-races, and the end portion L projects in the

direction of the shuttle-race opposite to that at the side of the slide E. On the bar F is a finger, F', and in the end of the part L of the arm J is a finger, F'', the two fingers projecting transversely toward each other, and adapted to engage with the heels of two shuttles, fitted in the races C and facing each other, and each in contact with the partition-bar D of its respective race. The feed-bar will be of the order known as "overhanging," as shown in the Letters Patent heretofore granted to John H. Applegate, one of the present applicants.

Power will be imparted to the slide E in any proper manner, and by means of the arms F J both shuttles will receive simultaneous reciprocations, and, in connection with other parts of the machine, two stitches will be formed.

When the stitches are to be narrow or close, the partition-bars D D will be in contact or close together, and the faces of the shuttles closely in contact therewith, as shown in Fig. 1, the other parts of the machine being correspondingly set.

When wider stitches are required, the screw G will be loosened, the partition-bars D, the throats *a*, and needles separated, and the shuttles moved the proper distance apart. The screw G is then tightened, as are the screws or fastenings of the other adjustable parts, and the forming of the wide stitches may then be accomplished.

It will thus be seen that stitches may be made close together to quite a small fraction of an inch, or separated for wider stitching. It will also be seen that a single bar, connected to the slide E, will operate both shuttles. Moreover, the overhanging portion K of the arm J permits adjustment of the partition-bars D D, and prevents interference therewith, either during said adjustment or the reciprocating motions over said bars.

In the throat-plate, adjacent to the throats, is a transverse channel or gutter, N, which, when the article to be stitched is placed on the plate, will receive the seam of the article, and cause the latter to lie flat on the table, for producing perfect and uniform stitches.

Having thus described our invention, what

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

The combination, with two shuttles adapted to parallel adjustable races, of the arms F J, connected by an adjustable joint, G H, and provided with fingers to engage the rear ends of the shuttles, and a single driver,

connected with one of the arms, substantially as and for the purpose set forth.

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Witnesses:

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