

J. C. COCHRAN.
Improvement in Sewing-Machine Tables.

No. 131,151.

Patented Sep. 10, 1872.

Fig. 1.

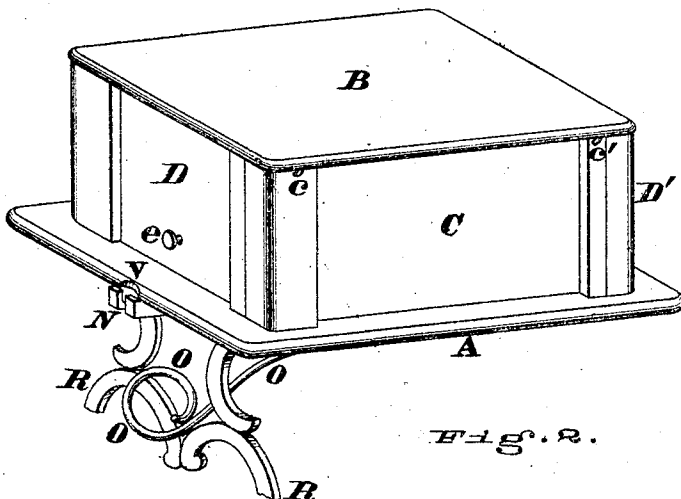


Fig. 2.

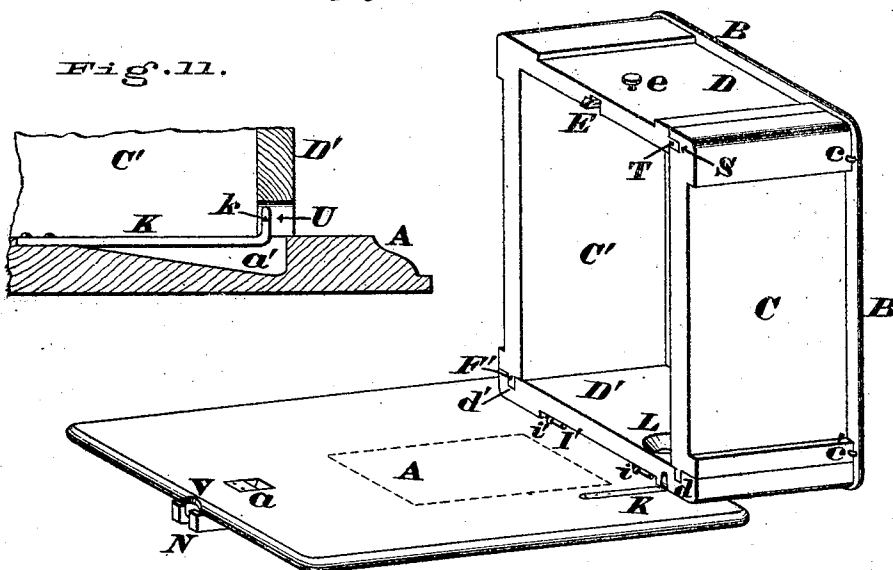


Fig. 3.

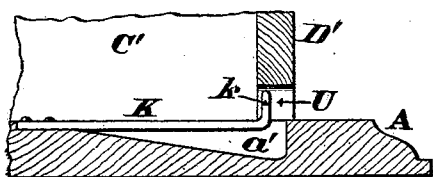
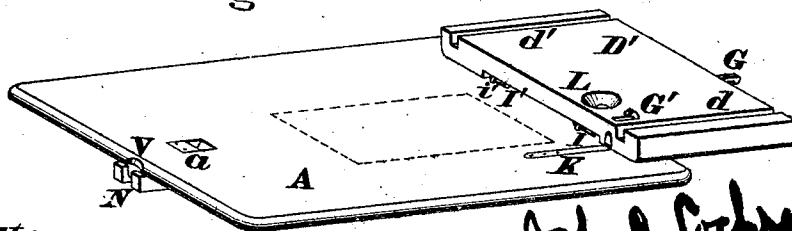


Fig. 3.



Attest.
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UNITED STATES PATENT OFFICE.

JOHN C. COCHRAN, OF RIPLEY, OHIO.

IMPROVEMENT IN SEWING-MACHINE TABLES.

Specification forming part of Letters Patent No. 131,151, dated September 10, 1872.

Specification of certain Improvements in Sewing-Machine Tables, invented by JOHN C. COCHRAN, of Ripley, Brown county, Ohio.

This invention relates to that class of sewing-machines whose needle-arm and adjacent devices are arranged longitudinally of the table and are protected by a detachable box or cover; and the first part of my improvements consists in providing the aforesaid box with a separable end piece, which is capable of being temporarily applied to the right hand of the table proper for the purpose of increasing the area of the same. The second part of my improvements consists in increasing the area of the left-hand end of the table by applying thereto the box or cover, the coupling devices being arranged in such a manner as to maintain said box flush with the top of the table; or, in other words, both of the upper surfaces of these two members—the table and box—when open, are in one horizontal plane, and consequently there is no opposition offered to the goods as they are fed away from the needle. The third part of my improvements consists in constructing the box with one hinged side, which side is capable of being turned up to a horizontal position whenever said box is attached to the table as previously described, thereby increasing the area of the table to a greater extent. In addition to the above-described improvements I have devised certain new and useful coupling devices, whose construction and operations will be hereinafter more fully explained.

Figure 1 is a perspective view of a sewing-machine table embodying my improvements. Fig. 2 shows the table with the box turned so as to assume a vertical position. Fig. 3 represents the detachable end of the box applied to the right-hand end of the table. Fig. 4 shows the box applied to the left-hand end of the table. Fig. 5 represents the table when completely extended, the hinged side of the box being brought to a horizontal position and the detachable end of said box applied in the same manner as shown in Fig. 3. Fig. 6 is a perspective view of the box when detached from the table and inverted. Fig. 7 shows the method of coupling the box to the table. Fig. 8 is a vertical section, showing the devices for maintaining the box flush with the table. Fig. 9 is a vertical section through the box with its

hinged side brought to a horizontal position. Fig. 10 shows the devices for coupling the detachable end of the box to the upper part of the latter; and Fig. 11 is a vertical section, showing the retaining device for preventing lateral displacement of the box.

Of the above illustrations, Figs. 7 and 11 are drawn on a somewhat enlarged scale.

A represents the table of a sewing-machine, and B is the detachable box or cover which protects the operative parts thereof, the position of said parts upon the table being indicated by dotted lines. This detachable box consists essentially of the top B, front and rear sides C C', and two end pieces, D D', of which the one D is a fixture, while the one D' is capable of being removed at pleasure. The front side C of the box is hinged to the top B at *c c'*, but the rear side C' is permanently attached thereto, and also to the end D. The left-hand or fixed end D of the box is provided with a spring-catch, E, which, when said box is attached to the table, engages under a plate, *a*. This spring-catch is operated by an external handle, *e*. The right-hand or separable end D' of the box has two internal blind mortises or grooves, *d d'*, which are adapted to receive tenons F F'. These tenons are formed upon the right-hand ends of the front C and back C' of the box B. This separable end is connected to the top and sides of the box in the following manner: The upper edge of the end piece is provided with a hook, G, which engages under a plate, *b*, of the top, while the lower portion of said end piece has secured to it another hook, G'. A spring-catch, H, engages with the hook G', said catch being attached to the inner side of the front C of the box. Projecting horizontally from the bottom edge of the end piece D are two hook-shaped lugs, I I', which are adapted to engage with staples *i i'* that are driven into the table. The table is provided with a longitudinal groove, *a'*, for the reception of a spring, K, whose free and upturned end *k* enters a kerf, U, in the end piece D', as more clearly shown in Fig. 11. An aperture, L, in the separable piece D, enables the box to fit up snugly around the "spooler" of the machine when said box is in the closed condition shown in Fig. 1. The internal end of this aperture is "reamed out" so as to clear the spooler

whenever the box is turned upon its hinges I I' *i i'*. Projecting from the rear side C' of the box is a headed lug or bolt, M, which lug is capable of being fitted within a forked socket, N, the latter being secured to the middle of the left-hand end of the table by a screw, *n*. Fitted in this rear side of the box is a small plate, *m*, for a purpose which will be hereinafter described. Attached to the under-side of the table A, by a screw or bolt, *o*, is a curved or other suitably-shaped bar or bracket, O, whose downward stress is sustained by the legs R that support said table. This bracket is adjusted so as to maintain the box A in a horizontal position whenever the lug M is inserted in the socket N, as in Fig. 8. Attached to the inner side of front C, and in close proximity to the fixed end piece D, is a spring-bar, P, having two notches, *pp'*, at its free extremity. When the front C is shut this spring-bar extends diagonally across the end D, and the notch *p'* engages over a pin, Q', and thereby maintains said front in its closed position. When the front is opened, as in Figs. 5 and 9, the notch *p* engages over another pin, Q. V is a notch at the end of table A to permit the head of the lug M passing down into the socket N. The inner side of the front C has a blind mortise, S, which, when said front is closed, receives a tenon, T, of end piece D. When the box is applied to the table, as seen in Fig. 1, so as to conceal and protect the operative parts of the machine, the catch E engages under the plate *a*, the lugs I I' are inserted in the staples *i i'*, and the projection *k* of spring K enters the kerf U, and thus both longitudinal and lateral displacement of said box is effectually prevented.

To remove the box bodily from the table it is only necessary to push back the catch E so as to disengage it from plate *a* and then turn the box up to the position shown in Fig. 2. After being thus elevated the spring K is depressed so as to withdraw its stump or projection *k* from the kerf U, and the box is then shoved to the rear side of the table, thereby releasing the lugs I I' from the staples *i i'*. The box is then free to be removed from the table, and it can at any time be again attached thereto by simply reversing the above-described operation. Whenever it is desired to use the machine for a few minutes only, or on small articles, the box need not be entirely detached from the table, but simply brought to the position shown in Fig. 2.

To increase the area of the table at the right-hand end, the catches G H are disengaged, respectively, from the plate *b* and hook G', and the end D' of the box is turned downward to the horizontal position, as shown in Figs. 3 and 5. To increase the area toward the left, the box is applied as seen in Figs. 4, 5, 7, and 8, and when thus attached its weight rests

upon the edge of the table, while the devices M, N, and O prevent said box sagging down, and thus maintain it on a level with the table proper. The area toward the left may be increased to a greater extent by turning the hinged side C up to the horizontal position shown in Figs. 5 and 9. In some cases both the detachable end D', box B, and swinging front C may be employed together for the purpose of increasing the area of the table to its greatest extent. The full extension is shown in Fig. 5.

It will be seen that my improvement enables persons to avail themselves of the advantages of an extension top without using any more material than is necessary to construct an ordinary box case or cover, and consequently there are no heavy and complicated parts to be lifted and adjusted. The weight of ordinary hinged extension tables is an item of serious importance, both to the females who operate the machines and also to the manufacturer or agent who ships them, as it adds materially to the cost of transportation. As the table is not extended rearwardly, the goods have an opportunity to fall down over the edge of the same, which renders it easier for the machine to "feed." The box has a symmetrical appearance, and when placed in position upon the table it not only protects the operative parts of the machine, but it also conceals the various hooks, catches, and other retaining devices. These retaining devices may be of any approved construction, as I do not propose to confine myself to the precise forms herein described.

Claims.

I claim as my invention—

1. In the removable box of a sewing-machine, the separable end piece D', which is capable of being detached from said box and hinged to the table A, substantially as herein described.

2. I claim the combination of the headed lug M, forked socket N, and bracket O, whereby the upper surfaces of the table A and removable box B are maintained in the same horizontal plane when the area of said table is increased, substantially as herein described and illustrated.

3. In the removable box of a sewing-machine, the swinging front C when adapted to increase the length of the table, in the manner explained.

4. The hook-shaped lugs I I', staples *i i'*, spring K *k*, and kerf U, when combined, as and for the object set forth.

In testimony of which invention I hereunto set my hand.

JOHN C. COCHRAN.

Attest:

GEO. H. KNIGHT,
JAMES H. LAYMAN.