(No Model.) 2 Sheets—Sheet 1.

J. C. COCHRAN.

SEWING MACHINE.

No. 341,881. Patented May 18, 1886.

FIG. 1.

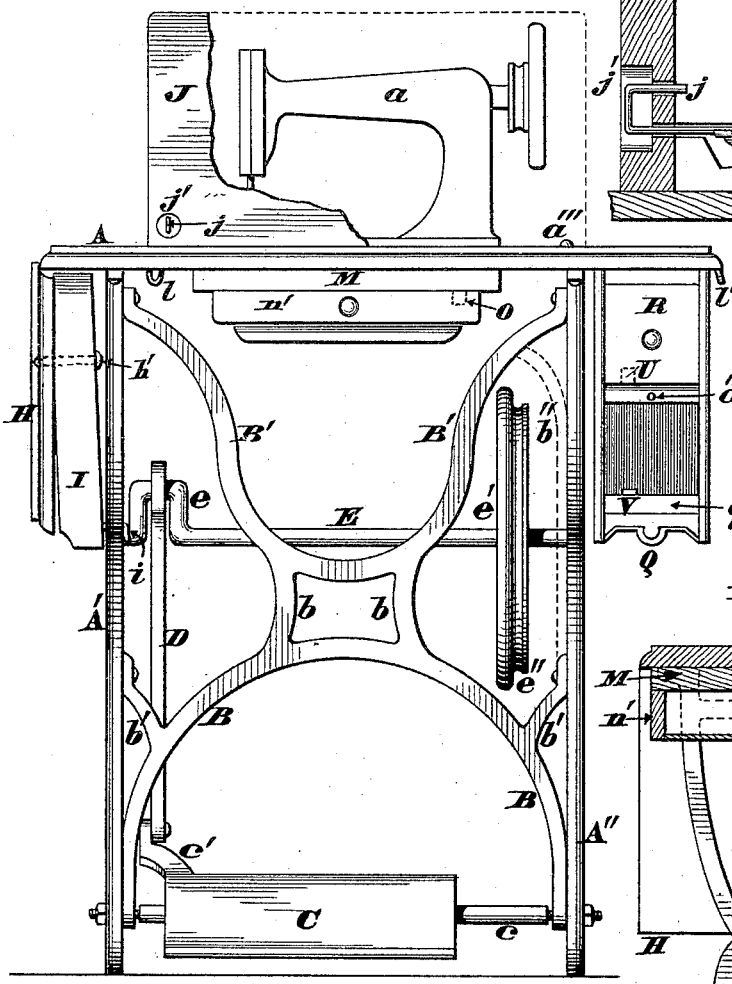


FIG. 4.

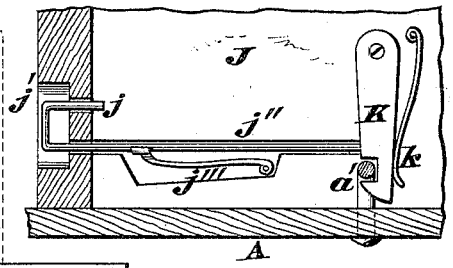


FIG. 5.

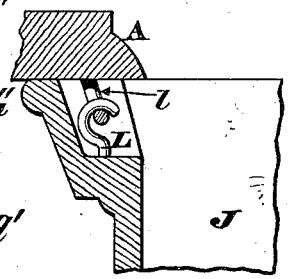


FIG. 2.

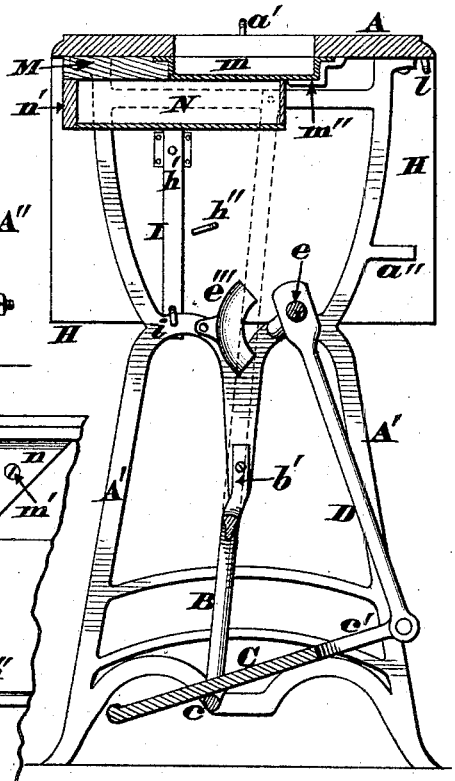
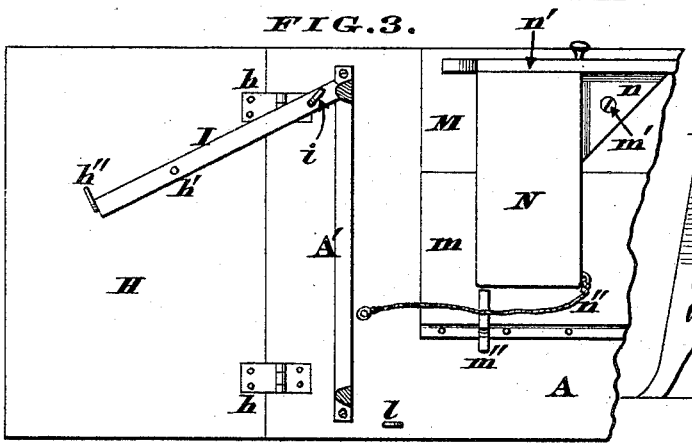


FIG. 3.



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(No Model.) 2 Sheets—Sheet 2.

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SEWING MACHINE.

No. 341,881. Patented May 18, 1886.

FIG. 9.

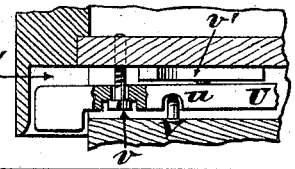


FIG. 6.

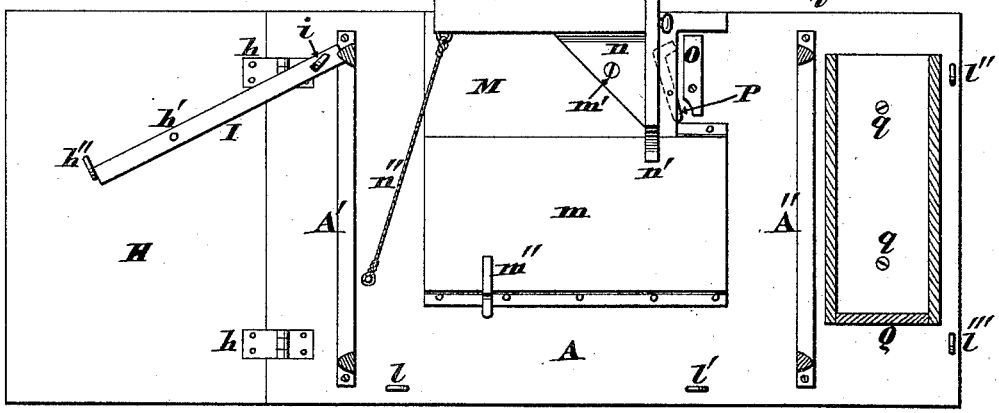


FIG. 7.

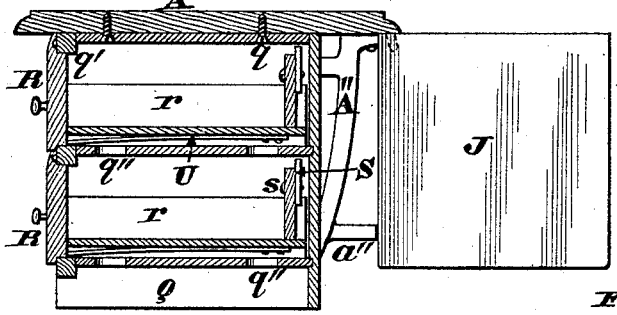


FIG. 10.

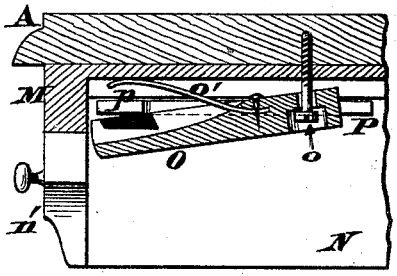
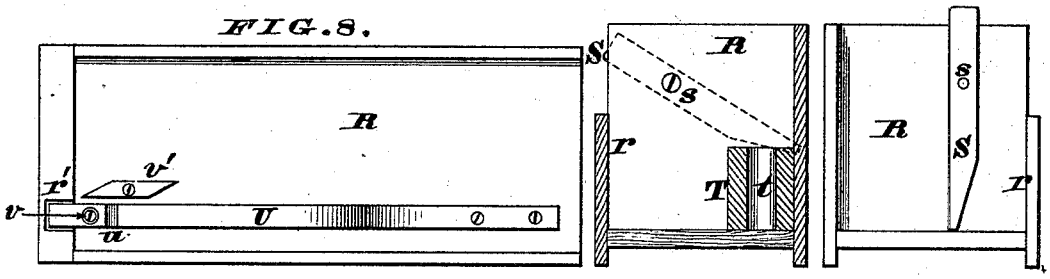


FIG. 11. FIG. 12.

FIG. 8.



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UNITED STATES PATENT OFFICE.

JOHN C. COCHRAN, OF RIPLEY, OHIO.

SEWING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 341,881, dated May 18, 1886.

Application filed March 23, 1885. Serial No. 159,803. (No model.)

To all whom it may concern:

Be it known that I, JOHN C. COCHRAN, a citizen of the United States, residing at Ripley, in the county of Brown and State of Ohio, have invented certain new and useful Improvements in Sewing-Machines, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention comprises certain improvements in the table, frame-work, drawers, and locking devices of sewing-machines, the details of these various improvements being hereinafter more fully described, and pointed out in the claims.

In the annexed drawings, Figure 1 is a front elevation of a sewing-machine embodying my improvements, a portion of the box or cover being broken away, the extension-leaf shown in its pendent position, and the lower drawer being removed from its case or frame. Fig. 2 is a vertical cross-section through the frame, table, and swinging drawer, the "head" of the machine being omitted. Fig. 3 is a sectionized plan of a portion of the under side of the table, the swinging drawer being shown in its normal or closed position and the extension-leaf being opened. Fig. 4 is an enlarged view of the lock wherewith the box or cover is fastened upon the table. Fig. 5 shows the method of hanging said box either to the end or back of the table. Fig. 6 is a plan of the entire under side of the table, the swinging drawer being shown in its open position and the frame or case of the sliding drawers at the right end of said table being sectioned. Fig. 7 is a vertical section through said case and drawers, the box being shown attached to the rear edge of the table. Fig. 8 is an enlarged plan of the under side of one of said sliding drawers. Fig. 9 is an enlarged vertical section of the locking devices at the front ends of said drawers. Fig. 10 is an enlarged vertical section of the device that locks the swinging drawer. Fig. 11 is an enlarged transverse section of one of the sliding drawers. Fig. 12 is an elevation of the rear end of the same.

Referring now to Figs. 1 and 2, A represents an ordinary table, upon which may be mounted any approved form of sewing-machine, *a*. Attached to this table are legs A′ A″, of any approved pattern. Hinged to the left end of the table, as at *h*, is an extension-leaf, H, capable of being turned up to a horizontal position, as shown in Figs. 3 and 6, said leaf having pivoted to its under side at *h′* a brace, I, one end of which latter is adapted to bear against the leg A′ or other fixed member of the machine when said leaf is opened. The other end of said brace bears against a projection or bearing, *h″*, on the under side of said leaf, while the end of said brace that rests against the table leg or frame is notched and carries a short hook, *i*. When the leaf is pendent, this brace can be swung around, so as to cause the hook *i* to engage over one of the cross-pieces of the leg or other fixed member, and thereby lock the leaf in place, as seen in Fig. 2; but when the leaf is turned up and the brace swung around to the position seen in Figs. 3 and 6, said brace holds the leaf securely in place, thus adding materially to the effective area of the table. By this arrangement the leg A′ and stop or bearing *h″* sustain all the weight that is thrown upon the leaf, thereby relieving the pivot of any side strain that is always thrown on it when the brace is hung to the table in the usual manner.

Resting upon the table is a box or cover, J, of the customary pattern, said box having an internal catch, K, that is maintained in its normal position by a spring, *k*. This catch engages with a staple, *a′*, projecting from the top of the table, and is capable of being forced back or disengaged from said staple by a push-piece, *j*, whose outer or bent end is housed within a recess, *j′*, either in the front or back of the box J. *j″* is a guiding-groove for said push-piece, and *j‴* is a spring that produces sufficient friction to retain this piece against accidental displacement, although it may be readily pulled out for the purpose of permanently locking the box to the table.

The catch K automatically snaps over the staple *a′* the instant the box is properly applied to the table and without danger of scratching or marring the polished surface of the latter. Furthermore, it is preferred to house the catch, spring, &c., within a case secured to the interior of the box. The inner bottom edge of this box has hook L, adapted to engage over a pair of staples, *l l′*, projecting downwardly from the rear edge of the table, or over a similar pair of staples, *l″ l‴*, at the right end of the same. (See Figs. 5, 6,

and 7.) In this last illustration the box J is seen applied to the rear edge of the table and is sustained in a horizontal position by resting against a stop, a'', that projects from the leg A'.

Projecting from the top of table A are rounded knobs a''', composed either of metal, bone, or other hard material capable of penetrating or fitting the lower edge of the box J, for the purpose of preventing said box sliding back and forth on said table when the machine is transported; consequently there can be no danger of the polished surface of the table being scratched or damaged by the box, because said projection prevents contact of the box with the table. Attached to the under side of the table is a filling piece or false frame, M, of practically the same depth as the drip-pan m, (seen in Fig. 2,) to which filling there is pivoted at m' a block or brace, n, that connects a swinging drawer, N, to a piece of molding, n', that constitutes the front of said drawer.

n'' is a cord or light chain so attached to the table and drawer as to permit the latter to be swung around to the position seen in Fig. 6. When this drawer is closed, as seen in Figs. 2 and 3, its rear portion extends under the drip-pan m, on account of said drawer being pivoted to the filling-piece M. By a half-turn of this drawer it is brought to and parallel with the front edge of the table, thus affording the most complete and convenient access to said drawer. When closed, the rear end of the drawer rests against a stop, m''.

In order to lock the closed drawer, a drop-catch, O, (seen in Figs. 6 and 10,) may be suspended either from the table A or filling-piece M, and can be arranged so as to cause its free end to bear against the rear side of the molding n'. This drop-catch is preferably hung on a screw, o, and is held in its normal position by a spring, o'. By simply pressing a finger against the front or free end of catch the latter can be raised sufficiently to allow the drawer N to be swung around to the open position seen in Fig. 6; but the instant said drawer is swung back to its normal position the drop-catch engages behind the molding n', as seen in Fig. 10, and thus locks said drawer. This locking can be rendered more secure by pivoting a concealed button, P, between the table and filling-piece, the rear end of the drop-catch being cut away on one side, as seen in Fig. 6, to admit the tip of a person's finger. By inserting the finger in this notch, and then turning the concealed button P so as to cause its hook-shaped end p to wedge between the catch and table, as seen in Fig. 10, the free end of the latter cannot then be elevated; consequently the drawer cannot be opened except by a person who knows how to operate the concealed button P p.

Attached to the right end of the table by screws q is a case, Q, adapted to hold as many sliding drawers R as occasion may require, the left side of said drawers being made comparatively low, as seen at r in Figs 7 and 11, to allow the operator's hand to be readily inserted therein for the purpose of getting at the contents of said drawers. The rear end of each drawer carries a short turn-bar, S, hung upon the threaded portion of a screw, s, whose unthreaded portion is adapted to be turned freely within the end piece of the drawer when a screw-driver is inserted in the nick of said screw. When this bar S is in the erect position seen in Figs. 7 and 12, it serves as a stop when the drawer is pulled out, as said bar then comes in contact with the rail q' at the front of the case Q. Furthermore, this erect bar serves to steady the drawer and prevents the necessity of a side guide-strip; but when this bar is turned down to the position indicated by the dotted lines in Fig. 11, the drawer can then be pulled completely out of the case. Fastened within either one of these drawers, or within the swinging drawer N, is a strip, T, having vertical pockets or chambers t to hold needles, bobbins, and other small attachments employed with sewing-machines. Secured to the under side of each sliding drawer and near the rear of the latter is the fixed end of a spring or flexible strip, U, whose front or free end is notched transversely at u to snap over a staple or stop, V, that projects rigidly from the drawer-case, as seen in Fig. 9.

w is a set-screw that limits the play of the free end of the spring.

v' is a turn-button capable of being swung around and inserted between the table A and spring U, so as to lock the latter upon the stop V. Access is had to these locking devices v' through holes q'' in the boards q''', upon which the drawers run. These holes are also used for inserting the screw-driver in the act of fastening the case Q to the table A. The tip of the spring U is concealed within a mortise, r', in the front end of the drawer, which end projects a sufficient distance beyond the case Q to afford room for said mortise.

The moment the drawer is slid back into the case the notch u of spring U instantly engages with the stop V, and thus automatically locks said drawer, which locking can be rendered more secure by turning the concealed button v', as previously described; but if this button should not be turned, and it is desired to pull out the drawer, the knob of the latter is grasped, and one finger is inserted below the tip of the spring, so as to elevate the free end of the latter clear of the stop V. The drawer is then free to be pulled out in the usual way. I prefer to apply to the front of the case Q the same kind of hard knobs a''' that project from the table, in order that the drawers may be held against lateral play.

In Letters Patent No. 116,809, granted to me July 11, 1871, I have shown, described, and claimed a box-attaching device consisting of a slotted and eyed plate, a headed screw, and a slide that must be operated by hand to lock said plate to said screw. Consequently my claims to the box-fastening devices seen in

this application are not to be construed as an attempt to include the construction shown in said patent.

In another application filed in the Patent Office, April 27, 1885, No. 163,595, I have shown, described, and claimed the pitman-connection and shaft-bearing seen in Figs. 13, 14, 15, and 16 of the present case. Therefore said devices are disclaimed in this application.

I am aware it is not new to apply hook-shaped plates to sewing-machine boxes, and engage said hooks with slotted plates of the table when it is desired to utilize the top of said box as an extension of the latter, as such a construction is seen in the patent granted to J. W. Cheney, March 11, 1873, No. 136,701. Consequently my claim to this part of the invention is not to be construed as an attempt to cover the arrangement of box and fastening devices seen in said patent.

I claim as my invention—

1. The combination, in a sewing-machine, of the extension-leaf H, hinged to the table A, and having on its under side a pivot, *h'*, for the swinging brace I, and a stop, *h''*, against which latter bears one end of said brace when its other end is in contact with the machine leg or frame, and thus prevents any strain being imposed on said pivot *h'*, as herein described.

2. A sewing-machine table having an extension-leaf, H, hinged to one end thereof, and a brace, I, pivoted to its under side at *k'*, said brace having a hook, *i*, near its lower end, which hook engages with the machine-frame when said leaf is pendent or inoperative, as described.

3. The combination of spring-catch K *k*, push-piece *j*, and spring *j'''*, for the purpose specified.

4. The combination, in a sewing-machine, of the box or cover J, provided with recesses in its lower edge, which recesses have located within them hooks L, that engage with staples *l*, projecting from the under side and near the edge of the table when said box is inverted and attached to the under side of the latter, as herein described.

5. In combination with a sewing-machine having a drip-pan, *m*, the filling-piece M and the drawer N, pivoted thereto, for the purpose specified.

6. A sewing-machine table provided on its under side with a horizontally-swinging drawer, N *n'*, spring *o'*, and drop-catch O, for the purpose herein described.

7. The combination of swinging drawer N *n'*, drop-catch O, and turn-button P *p*, for the purpose herein described.

8. The sliding drawer R, having secured to its under side a longitudinal spring, U, whose notch *u* automatically engages over a stop, V, of the case Q when said drawer is shoved therein, as described.

9. The combination, in a sewing-machine, of sliding drawer R, notched spring U *u*, stop V, and turn-button *v'*, for the purpose specified.

10. The combination, with a sewing-machine case, of the sliding drawer R, having its side next to the machine-leg lower than the opposite side, for the purpose described.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN C. COCHRAN.

Witnesses:
J. W. TWEED,
I. C. GROOMES.