Sept. 22, 1936. H. J. GOOSMAN ET AL 2,055,433

ELECTRIC SEWING MACHINE CABINET

Filed May 24, 1935 2 Sheets-Sheet 1

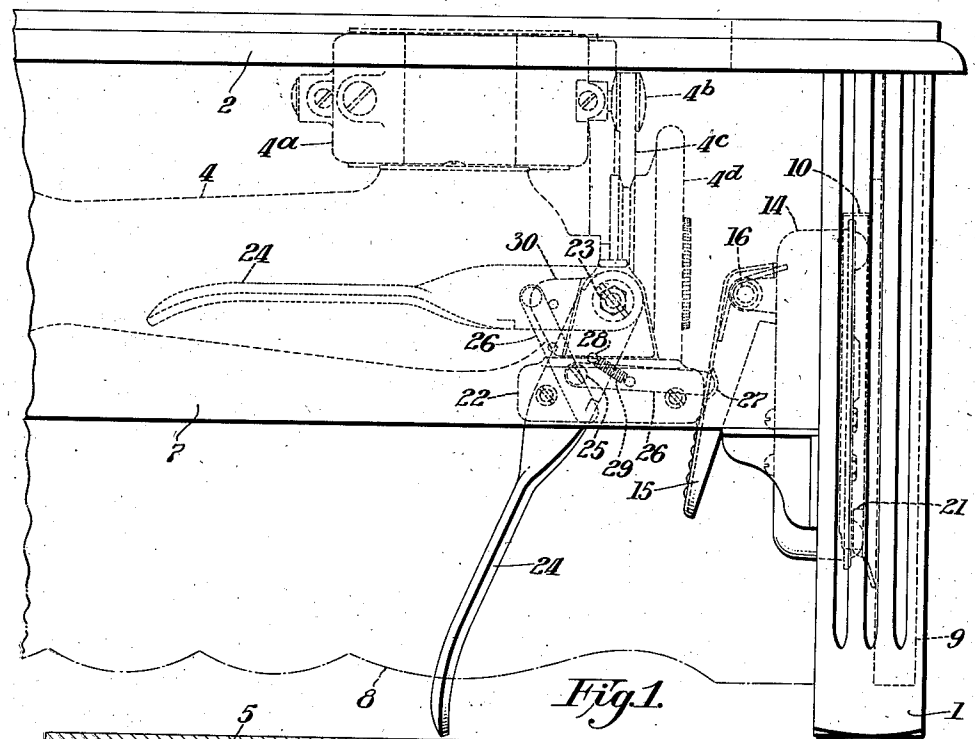


Fig. 1.

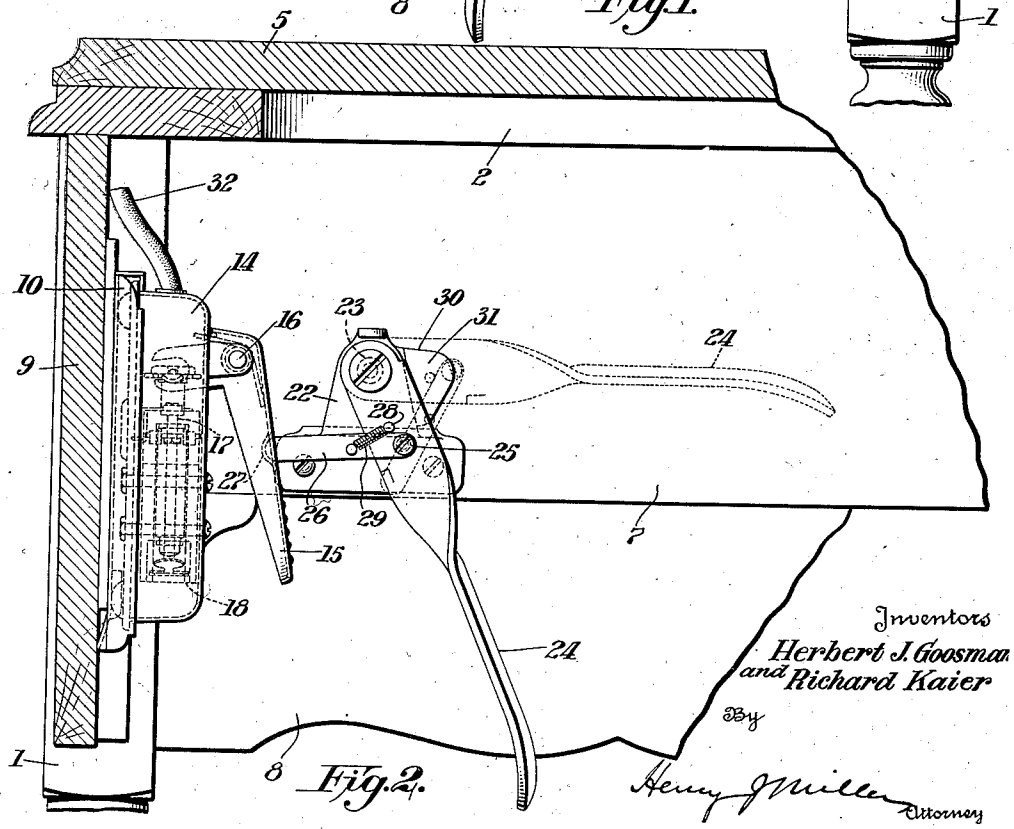


Fig. 2.

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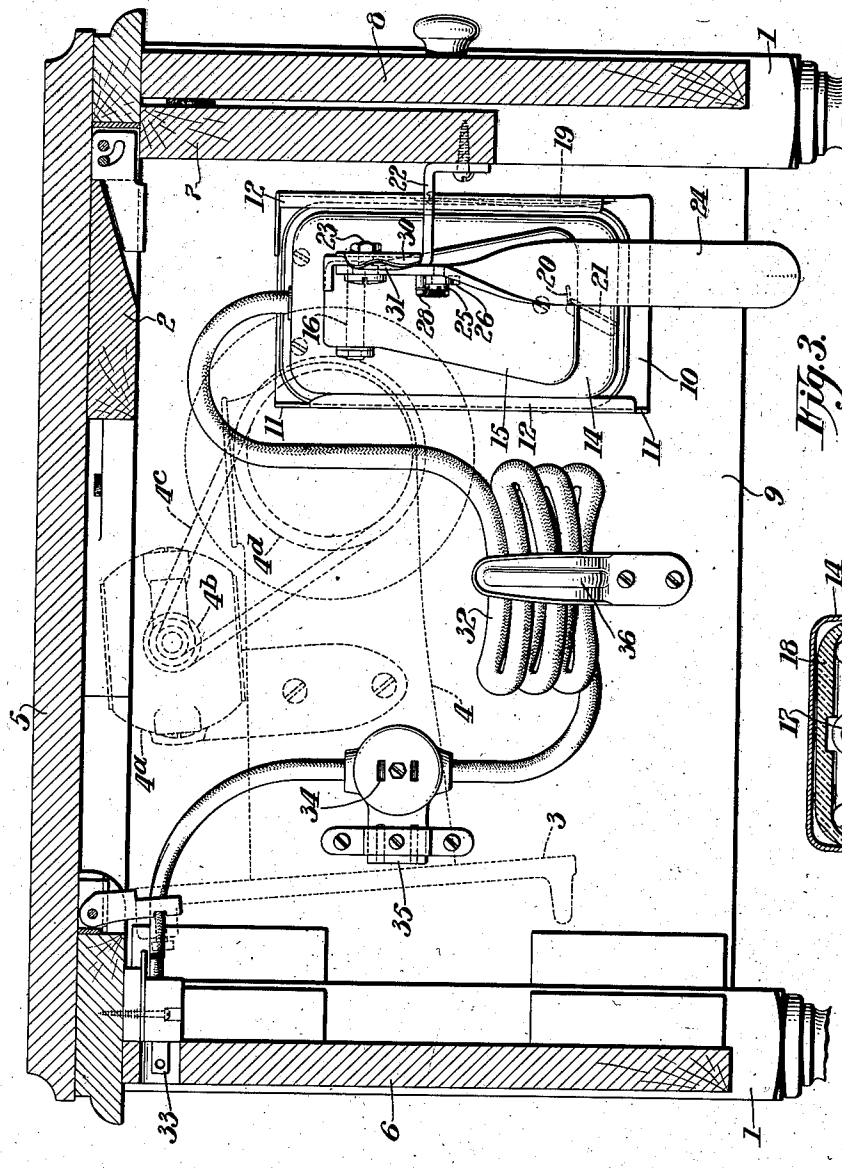


Fig. 3.

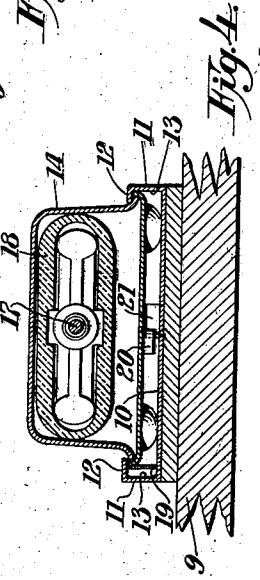


Fig. 4.

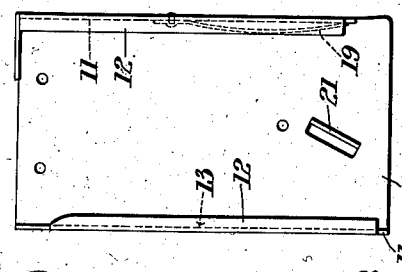


Fig. 5.

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ELECTRIC SEWING MACHINE CABINET

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Application May 24, 1935, Serial No. 23,187

8 Claims. (Cl. 311—16)

This invention relates to electric sewing machine cabinets or tables and has for an object to provide an electric sewing machine cabinet or table with a sewing machine motor-controller and a knee-shift device for operating it; the parts being so constructed and arranged that the controller may be readily detached from the table and placed upon the floor for foot operation without disturbing the knee-shift mechanism.

The invention also aims to provide an electric sewing machine cabinet or table which, when not in use, has the esthetic appeal of an attractive article of furniture, with no conspicuous elements of mechanization, and which when opened for use will permit of the control of the sewing machine either by knee or by foot, at the will of the operator.

With the above and other objects in view, as will hereinafter appear, the invention comprises the devices, combinations, and arrangements of parts hereinafter set forth and illustrated in the accompanying drawings of a preferred embodiment of the invention, from which the several features of the invention and the advantages attained thereby will be readily understood by those skilled in the art.

In the accompanying drawings, Fig. 1 is a front elevation of a portion of an electric sewing machine cabinet or table embodying the invention. Fig. 2 is a longitudinal vertical sectional view through the table showing the motor-controller and knee-shift elements of the table in rear elevation. Fig. 3 is a transverse vertical sectional view through the table showing the motor-controller and knee-shift elements carried thereby. Fig. 4 is a transverse section through the motor-controller and its support, and Fig. 5 is a face view of the motor-controller support.

In the drawings 1 represents the legs of a drop-head sewing machine cabinet or table having the usual apertured top 2 for reception of the base 3 of the sewing machine head 4 when raised to operative position above the top 2. The table also has the usual cover-leaf 5, rear wall 6, front wall 7, hinged door 8 and end walls, one of which is shown at 9; said walls defining a cavity below the top 2 for reception of the sewing head 4 when not in use. The sewing head 4 carries the driving motor 4^a the pulley 4^b of which is connected by the belt 4^c to the balance wheel pulley 4^d of the sewing machine.

Screwed to the end wall 9 is the controller support 10 in the form of a flat sheet-metal plate having its side marginal portions 11 bent at right angles to the plane of the plate and formed with overhanging lips 12 defining a slideway 13 for reception of the ribbed casing 14 of the conventional motor-controller having an operating pedal 15 hinged at 16 on the casing 14 and connected to the pull-rod 17 of the usual carbon compression type rheostat 18 housed within the casing 14. A controller of this type is disclosed in U. S. Patent No. 1,777,988, of Oct. 7, 1930.

Mounted on one of the side walls 11 of the controller support 10, within the controller-receiving slideway 13, is a leaf-spring 19 which yieldingly urges the controller casing 14 toward the opposed side wall 11; the width of the slideway 13 being somewhat greater than the width of the controller casing to permit of a certain amount of side play of the controller within the slideway.

The controller casing 14 has struck out from its bottom wall a tongue or lug 20 which engages the upper end of an inclined tongue or lug 21 struck from the supporting plate 10 and locks the controller casing 14 in operative position within the slideway 13.

To remove the controller unit from the supporting plate 10 it is merely necessary to shift the controller laterally toward the leaf-spring 19 sufficiently to disengage the lug 20 from the end of the inclined lug 21, whereupon the controller may be slid downwardly out of the slideway 13 in the plate 10 and placed upon the floor for foot-operation.

Screwed to the front wall 7 of the cabinet, near the lower edge thereof, is a bracket 22 to which is freely pivoted at 23 the knee-shift lever 24 which in its pendant or operative position is within the range of the operator's knee. Pivotally mounted on the knee-shift lever 24 by means of the screw 25 is the thrust element or bar 26 the free end of which is received in the depression or socket 27 in the controller pedal 15. Mounted on the knee-shift lever 24 is a stop-pin 28, Fig. 2, against which the bar 26 is weakly biased by the spring 29. The knee-shift lever 24 and parts carried thereby may be shifted to a horizontal position within the table cavity, as shown in dotted lines in Figs. 1 and 2, where they are concealed from view. The stop-pin 28 is so positioned that when the knee-shift lever is swung downwardly to operative position, the free end of the thrust member finds and enters the socket 27 in the controller pedal 15. A leaf-spring 30 having a rounded face 31 is carried by the bracket 22 in position for its face 31 to bear flatwise against and frictionally retain the knee-shift lever 24 in its inoperative con-

cealed position. The rounded face 31 of the spring 30 does not engage the lever 24 when the latter is in its pendant working position.

The controller is connected by the conductor cord 32 to the current supply plug-connector 33 and is connected in series with the motor plug receptacle 34 and in multiple with the sewing machine light plug receptacle 35 in accordance with the usual practice. The conductor cord 32 which is long enough to reach to the controller when placed upon the floor, may be looped and held by the hook 36 when the controller is placed in the support 10.

It will be obvious to those skilled in the art to which the invention appertains that modifications may be made in the details of construction and in the forms and relative arrangements of parts without departure from the spirit of the invention which is not limited to such details and matters of form or otherwise than the prior art and the appended claims may require.

Having thus set forth the nature of the invention, what we claim herein is:—

1. The combination with an electric sewing machine table, of a sewing machine motor controller of the foot-operated type detachably mounted as a unit on said table, said controller unit having a base, a pedal member and a rheostat controlled by movement of said pedal member, and knee-shift mechanism mounted on said table independently of said controller unit and in position to operatively engage said pedal member.

2. The combination with an electric sewing machine table, of knee-shift mechanism mounted on said table and including a thrust-member, and an electric sewing machine motor-controller detachably mounted as a unit on said table independently of said knee-shift mechanism and in position to be operatively engaged by said thrust member, said motor-controller unit having a base adapting it to rest for use upon the floor, a pedal member, and a rheostat controlled by movement of said pedal member.

3. A sewing machine table having a top and side wall members defining a cavity below said top, a sewing machine motor-controller mounted in said cavity and detachable from said table as a unit, said controller unit comprising a casing having a base, a rheostat within said casing, and a pedal member movable toward and away from said base to operate said rheostat, and a knee-shift device mounted within the cavity of said table independently of said controller unit and in position to engage the pedal member of the latter, said knee-shift device including a knee-engaged member shiftable from an operative position within range of the knee of an operator to an inoperative position within said table cavity.

4. The combination with an electric sewing machine table, of a knee-shift mechanism mounted on said table and having a pivotally mounted lever adapted to be engaged by the knee of an operator and a thrust element pivoted on said lever, and an electric sewing machine motor-controller mounted on said table and having a movable control member positioned to be engaged by said thrust element.

5. A drop-head electric sewing machine table having legs, a top and side wall members defining a cavity for reception of a sewing machine head when not in use, a knee-shift lever pivotally carried by said table, an endwise movable thrust-bar pivoted at one end to said lever, a sewing machine motor-controller mounted in said table and having a movable control member positioned to be engaged by the other end of said thrust-bar, said knee-shift lever being swingable about its pivot and in a direction away from said motor-controller to a concealed position within said cavity.

6. The combination with a sewing machine table, of a knee-shift lever pivotally carried by said table, a thrust member pivotally carried by said lever, a spring for biasing said thrust member about its pivot, stop means for limiting the movement of said thrust-member under the influence of said spring, and a sewing machine motor-controller carried by said table and having a movable control member positioned to be engaged by said thrust-member.

7. The combination with a sewing machine table and a sewing machine motor-controller having a flat base and a control element movable toward and away from the plane of said base, said table having a slideway to detachably receive said motor-controller with its base in a substantially vertical position, and a knee-shift device carried by said table in position to operatively push against said control element.

8. A drop-head electric sewing machine table having legs, a top, front, back and end walls defining a cavity for reception of the sewing head when not in use, a motor-controller support secured to an end wall of the table within said cavity, a motor-controller of the foot-operated type mounted on and detachable as a unit from said support, said motor-controller unit comprising a base adapted to rest for use upon the floor, a pedal, and a rheostat connected to be operated by movement of said pedal, and a knee-shift device pivotally carried by a front wall of said table within said cavity for operating the pedal of said motor-controller.

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