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E. A. COTTON ET AL
SEWING MACHINE CABINET

2,887,350

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2 Sheets-Sheet 1

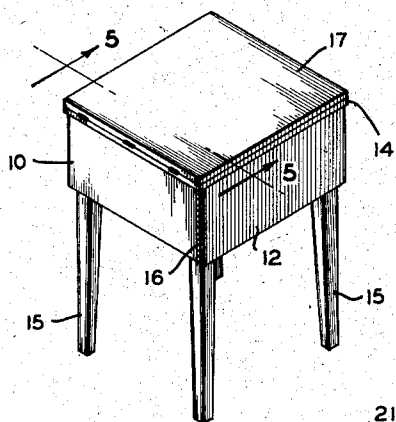


FIG. 1

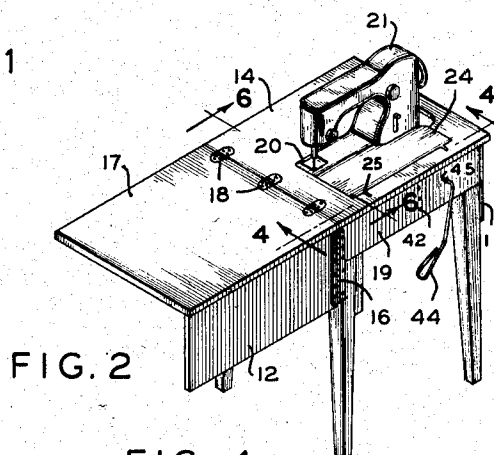


FIG. 2

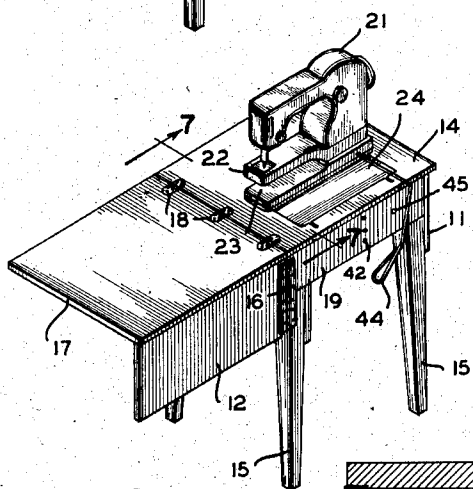


FIG. 3

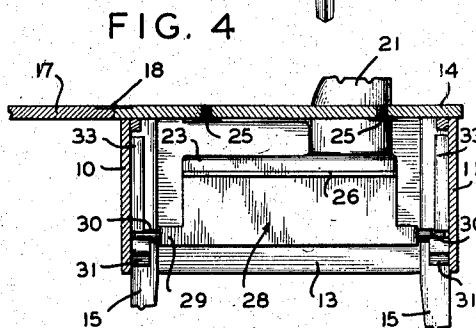


FIG. 4

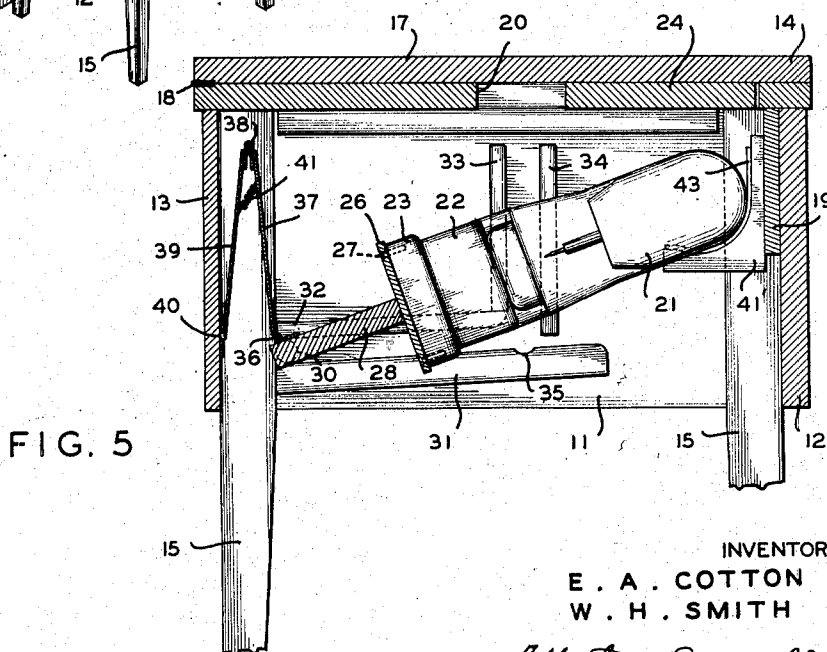


FIG. 5

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E. A. COTTON ET AL
SEWING MACHINE CABINET

2 Sheets-Sheet 2

FIG. 6

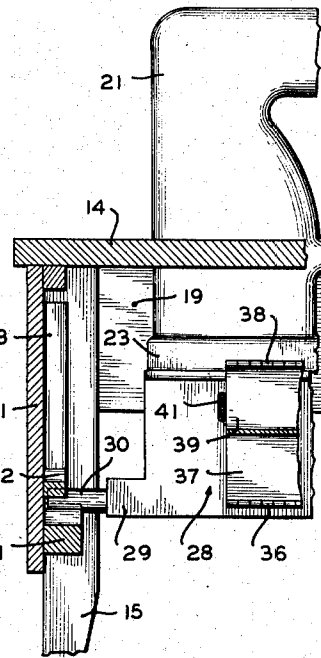


FIG. 8

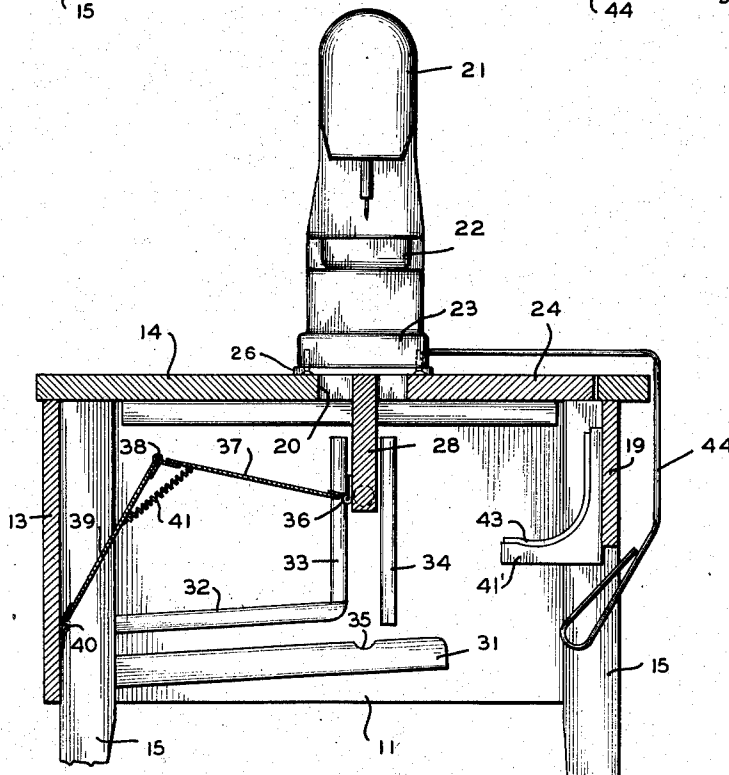


FIG. 7

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1

2,887,350

SEWING MACHINE CABINET

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4 Claims. (Cl. 312—29)

This invention relates to sewing machines and to cabinets with which such machines are used, and especially to drop-head type sewing machines and cabinets used with them which provide a work table when the head of the machine is down or collapsed and which provide a work surface when the head of the machine is in elevated operative position.

The invention is concerned especially with machines for performing certain operations including work requiring the use of a free arm or special type of sewing machine and to cabinets used with such machines for holding the sewing heads either in concealed inoperative position or in exposed operative positions.

Drop-head sewing machines have lacked flexibility essential for the performance of certain operations due to the fact that the heads of the machines have been limited to a single elevated operative position. They have not been constructed to hold a free arm machine used in sewing sleeves and the like and the heads of the machines have not been supported in the cabinet so that they could be used in more than one operative position.

It is an object of the invention to provide a relatively simple and inexpensive sewing machine cabinet which will have increased usefulness in that it will support a free arm or other type of sewing machine in multiple operative elevations in order to perform work of different types on a single machine.

Another object of the invention is to provide a cabinet for drop-head type sewing machines with mounting means for the machine in the cabinet which will permit the head of the machine to move from a collapsed position within the cabinet to a first exposed operative position while being held solidly and also can be moved to a second exposed operative position at a higher elevation and there held solidly, making it possible to use a free arm machine in connection with such cabinet.

A further object of the invention is to provide a sewing machine cabinet which will not reveal the nature of the cabinet when it is closed but with a top movable from a position covering the work surface to an extended position to supplement the work surface and with a side member which can be moved to allow greater space for the operator and at the same time form a support for the extension of the top.

Other objects and advantages of the invention will be apparent from the following description taken in conjunction with the accompanying drawing wherein:

Fig. 1 is a perspective illustrating one application of the invention with the parts in collapsed or folded position;

Fig. 2, a similar view with the parts unfolded or extended and with the head of the machine in position for sewing flat work;

Fig. 3, a similar view with the head of the machine additionally elevated for sewing sleeves and the like;

Fig. 4, a longitudinal vertical section on the line 4—4 of Fig. 2;

2

Fig. 5, an enlarged transverse vertical section on the line 5—5 of Fig. 1;

Fig. 6, an enlarged transverse vertical section on the line 6—6 of Fig. 2;

Fig. 7, an enlarged similar view on the line 7—7 of Fig. 3; and

Fig. 8, an enlarged fragmentary vertical longitudinal section on the line 8—8 of Fig. 6.

Briefly stated, the invention comprises a hollow substantially rectangular cabinet having four legs, a foldable top which when opened forms an extension of the work surface, a hinged side member movable to allow additional leg room and at the same time to form a support for the top. Also the cabinet is constructed to allow a sewing machine head to be raised to a position of use and then folded into the cabinet. The head of the machine is mounted on a multiple hinged support portion so that it can be disposed in exposed position of use at two elevations and can be used with a free arm sewing machine head.

With continued reference to the drawings the sewing machine cabinet of the present invention comprises end members 10 and 11, side members 12 and 13 and a top 14, all mounted on legs 15. The side member 12 is mounted by means of a piano hinge 16 so that it can be disposed in a position closely adjacent to the legs on one side of the cabinet or it may be swung 180 degrees to underlie and support a cover 17 fastened by hinges 18 to the table top 14.

An additional sub-side member 19 connects the legs at the front side of the machine so that when the side member 12 is in extended position additional height clearance will be afforded for the knees of the operator of the sewing machine thus permitting the operator to sit closer to the machine with the knees beneath the table.

The cabinet is provided with an opening 20 for the reception of a sewing machine head 21 having a free arm 22 spaced above the bottom portion of the machine 23, and in order to permit application and removal of the head 21 into and from the opening 20. The top 14 is provided with a pivoted section 24 mounted by means of hinges 25 so that the upper surface of the section is substantially in the plane of the upper surface of the top 14. Thus the head 21 may be disposed in operative upright position as illustrated in Figs. 2, 3, 4, 6, 7 and 8.

The cabinet is of a size to contain the sewing machine head 21 and in order to mount the head a base 26 is provided to which the head may be secured by fasteners 27, the base 26 having a centrally attached mounting bar 28 lengthwise along its bottom with an extension 29 at each end the extremities of which are enclosed by metal sleeves or pivots 30 of reduced diameter in order for each to form a bearing for the mounting bar on which the head of the machine may be supported. The sleeved portion of each end of the mounting bar 28 is disposed in a substantially L-shaped guideway defined by a substantially horizontally disposed slightly inclined lower member 31, a spaced substantially parallel member 32, and a pair of spaced upright members 33 and 34, the member 33 forming substantially a continuation of the member 32 and the member 34 extending transversely of the guideway formed by the members 31 and 32. Thus the sleeves 30 may roll along the members 31 until they are beneath the guideways defined by the members 33 and 34 whereupon the mounting bar can be raised. The guide members 31 are provided with recesses 35 located below the guideway formed by members 33 and 34, one at each end of the machine in which the pivots 30 are adapted to rest with the head 21 of the machine in upright position for use in sewing flat work. The sewing

3

head of the machine may, therefore, move from an upright position to a substantially prostrate, inoperative position depending on the location of the sleeve 30. To provide guiding means for the head of the machine during its movement from an upright operative position to a substantially prostrate inoperative position, multiple hinge means are employed, including a small piano hinge 36, which is attached by suitable fasteners to the mounting bar 28 and to a plate 37 connected by a hinge 38 with a second plate 39 which in turn is connected by a hinge 40 with the rear side 13 of the cabinet. A coil spring 41 connects lower sides of the plates 37 and 39 to cause the pivot members 30 to properly follow the L-shaped guideways. The length of the plates 37 and 39 is such that when they are extended to substantially a right angle the pivots 30 will be disposed in the recesses 35. In this position the head of the machine will be in substantially the position shown in Fig. 2 assuming of course that the pivoted top segment 24 has been raised and lowered into engagement with said head.

The opening 20 is of a width slightly less than the width of the base 26 and is directly over the guideway between the upright members 33 and 34; consequently when the hinged top section 24 is raised and the head 21 of the machine elevated to its lowermost position of use and the top section 24 lowered the head of the machine will be in solid position with the pivots 30 resting in the recesses 35, see Fig. 6. Then by merely raising the head of the machine until the base 26 is above and the mounting bar 28 is within the opening 20, the base 26 will overlie said opening at each side and be supported solidly in an elevated position of use with the free arm above the table top of the cabinet, as seen in Fig. 7, thus making it possible to sew sleeves and the like without difficulty.

When the head of the machine is confined within the cabinet it is desirable to support the end opposite the base and for this purpose a bracket 41' may be attached preferably centrally on the inner face of the sub-side member 19 and this bracket may be secured in place by means of fasteners not shown. If desired the bracket 41' may be provided with a cushioning felt 43 to prevent damage to the head of the machine.

A control 44 is provided which may have an operating portion located in a position to be engaged by the knee of the operator. The control 44 is detachable and when the head is in the lower position of use it will be located in an opening 45 in the sub-side member 19 as shown in Figs. 1 and 6.

It will be apparent from the foregoing that a relatively simple sewing machine cabinet is provided of practical construction and by means of which a sewing head of a machine may be used in two positions and at other times may be stored and concealed in protected position within the cabinet and with the cover of the cabinet available for use as a work table.

It will be obvious to those skilled in the art that various changes may be made in the invention without departing from the spirit and scope thereof and therefore the invention is not limited by that which is illustrated in the drawing and described in the specification, but only as indicated in the accompanying claims.

What is claimed is:

1. In combination with a sewing machine cabinet and a drop head sewing machine useable in multiple operative positions, a mounting assembly for hingedly connecting the sewing machine head to the cabinet and permitting its movement from a stored position within the cabinet to one of two vertically elevated operative positions above and supported by the cabinet, said mounting assembly comprising a mounting bar depending from the

4

sewing machine, guide means on said cabinet engaging said mounting bar for restraining it during movement of the machine between its stored and multiple positions of use, and foldable resilient connecting means anchored in said cabinet and to said mounting bar facilitating positioning of said sewing machine, said mounting bar extending lengthwise of the sewing machine and terminating in bearing extensions at opposite ends, said guide means comprising a pair of spaced L-shaped guideways within the cabinet each engaged by one of the bearing extensions, one side of said guideway being disposed substantially horizontal and the other side being disposed substantially vertical, and recessed portions on the horizontal side of said guideway opening toward the substantially vertical other side thereof and providing the sole support for the mounting bar and sewing machine in one operative position of use.

2. In combination with a sewing machine cabinet and a drop head sewing machine useable in multiple operative positions, a mounting assembly for hingedly connecting the sewing machine head to the cabinet and permitting its movement from a stored position within the cabinet to one of two vertically elevated operative positions above and supported by the cabinet, said mounting assembly comprising a mounting bar depending from the sewing machine, guide means on said cabinet engaging said mounting bar for restraining it during movement of the machine between its stored and multiple positions of use, and foldable resilient connecting means anchored in said cabinet and to said mounting bar facilitating positioning of said sewing machine, said mounting bar extending lengthwise of the sewing machine and terminating in bearing extensions at opposite ends, said guide means comprising a pair of spaced L-shaped guideways within the cabinet each engaged by one of the bearing extensions, one side of said guideway being disposed substantially horizontal and the other side being disposed substantially vertical, and recessed portions on the horizontal side of said guideway opening toward the substantially vertical other side thereof and providing the sole support for the mounting bar and sewing machine in one operative position of use, said foldable, resilient connecting means comprising a pair of hinged plates disposed between the L-shaped guideways and hingedly connected transversely of said cabinet and mounting bar, and a coil spring extending between intermediate under-surface portions of said hinged plates.

3. The structure of claim 1 in which said cabinet includes an opening in its top formed partially by a pivoted section, said drop head including a portion extendible through said opening when it is disposed in said one operative position of use, said top of the cabinet maintaining it against lateral movement, and means on said drop head engageable on the upper surface of said top in the other operative position of use thereof.

4. The structure of claim 1 in which said cabinet includes a support bracket therein spaced from said resilient connecting means for aiding to support the drop head when stored within the cabinet.

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