

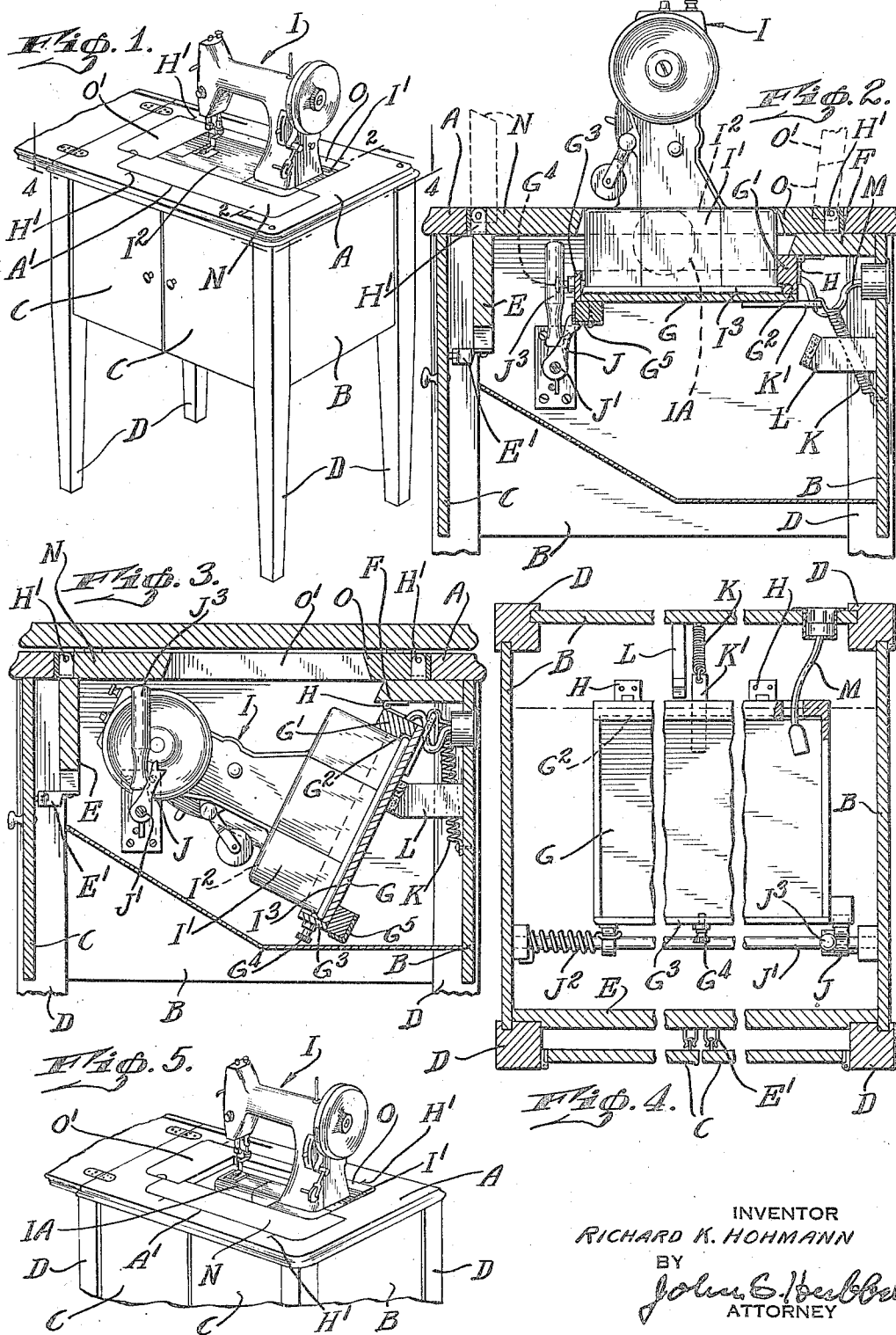
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R. K. HOHMANN

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CONVERTIBLE CABINET AND PORTABLE SEWING MACHINE

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INVENTOR
RICHARD K. HOHMANN

BY

John G. Hubbard
ATTORNEY

UNITED STATES PATENT OFFICE

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CONVERTIBLE CABINET AND PORTABLE SEWING MACHINE

Richard K. Hohmann, Jamaica, N. Y., assignor to
Sears, Roebuck and Co., Chicago, Ill., a corporation of New York

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The general object of the present invention is to provide means for the detachable mounting of a portable sewing machine of any usual or conventional form in a cabinet so that the machine may then be used as an ordinary cabinet mounted sewing machine. More specifically, the object of the present invention is to provide a cabinet of the drop head type adapted for the detachable mounting therein of a portable sewing machine.

As those skilled in the art understand, there are many users of ordinary portable sewing machines, who would prefer to use cabinet mounted sewing machines instead of portable sewing machines, but for the storage and transportation advantages of the portable sewing machine. Many users of portable sewing machines have real need to make use of the portability features of such machines, only during periods of use short in comparison with the periods during which they would prefer to make use of a cabinet mounted sewing machine. The present invention permits such a user to readily convert her machine back and forth between the condition in which the machine is an ordinary portable sewing machine, and the condition in which the machine is supported and usable just as is an ordinary cabinet mounted drop head sewing machine.

In its preferred form, the present invention comprises a cabinet in which a portable sewing machine of conventional form may be detachably but securely mounted, quickly and easily, and without taxing the strength or mechanical skill of the ordinary housewife, and from which the portable sewing machine can be removed with equal readiness and dispatch.

The various features of novelty which characterize my invention are pointed out with particularity in the claims annexed to and forming a part of this specification. For a better understanding of the invention, however, its advantages, and specific objects attained with its use, reference should be had to the accompanying drawing and descriptive matter in which I have illustrated and described a preferred embodiment of the invention.

Of the drawing:

Fig. 1 is a perspective view of a preferred embodiment of the invention, with a cabinet mounted, drop head sewing machine in position for operation;

Fig. 2 is a section on the line 2—2 of Fig. 1;

Fig. 3 is a section taken similarly to Fig. 2,

but with the sewing machine in its drop head position within the cabinet;

Fig. 4 is a horizontal section on the plane indicated by the line 4—4 of Fig. 1; and

Fig. 5 is a partial view taken similarly to Fig. 1, illustrating a cabinet mounted sewing machine adapted to support work on a so-called cylinder arm, instead of on the flat sewing machine work bed shown in Figs. 1, 2 and 3.

In the form shown in the drawing, the cabinet structure comprises an upper portion of boxlike form including a horizontal top member A, vertical side and back panels B, a bottom b, and doors C at the front side of the boxlike structure. The parts A, B and C are positively connected to and supported by leg members D, and the front leg members are connected by a vertical platelike member E at the innerside of, and spaced a small distance away from the doors C, when the latter are in their closed position. The member E supports latching members E' for the doors C. The latter, when open, make it possible for the operator to extend her knees into the cabinet structure in convenient position for operating the machine.

Beneath the cabinet top A, and adjacent the rear panel B, is a horizontal plate F rigidly secured to the adjacent portions of the cabinet structure. A sewing machine supporting member G is connected by hinges H to the cabinet member F, to swing back and forth between the positions shown in Figs. 2 and 3. In the position shown in Fig. 2, a portable sewing machine I of conventional form mounted on the support G has its base portion I' extending upward through an opening formed for the purpose in the cabinet top A, with the flat sewing bed top surface of said base portion, flush with the top surface of the cabinet top A. In the position shown in Fig. 3, the entire sewing machine is within the cabinet structure and below its top member A.

In the condition of the parts shown in Fig. 2, the flat upper sewing machine supporting surface of the member G is horizontal, and is spaced below the upper surface of the cabinet top member A by a distance, ordinarily a couple of inches or so, equal to the distance which the flat work bed of the sewing machine is elevated above the bottom surface of the sewing machine framework. In the construction illustrated, the member G has an uprising back wall G' formed at its lower front edge with a horizontal groove G² adapted to receive the outwardly projecting rib or flange I³ customarily provided at the bottom of a conventional portable sewing machine.

At its front edge and preferably at its side edges, the member G is also provided with an uprising flange portion G³ adapted to fit against the corresponding edge portions of the rib I³. As shown, a clamping screw G⁴ extending through the front flange G³, is adapted to be forced against the front side of the base portion of the sewing machine, to thereby releasably clamp the latter securely in place on the member G. As those skilled in the art will understand, the sewing machine supporting surface of the member G and the sewing machine securing provisions associated therewith, may be varied as required to accommodate portable sewing machines of varying forms.

The sewing machine support G is releasably secured in the position shown in Fig. 2 by a locking dog J in the form of an arm carried by a horizontal shaft J' mounted in the cabinet structure and parallel to the front wall of the latter. As shown, a spring J² coiled about the shaft J' biases the latter for angular movement in the clockwise direction, as seen in Fig. 2, into its locking position. A handle arm J³ secured to the shaft J' forms a convenient means for turning the shaft in the direction to move the dog J out of operative engagement with the support G. As shown, the dog J is provided at its free end with shoulders at right angles to one another and adapted to respectively engage the front and under end surfaces of a metal faced engaging block G⁵ secured to the underside member G adjacent its front edge.

A counterbalancing spring K attached at its lower end to the rear cabinet panel B and attached at its upper end to a portion of an arm K' secured to the member G which is at the right hand side of the axes of the hinges H connecting the support G to the cabinet part F. The spring K thus serves to counterbalance a portion of the weight of the support G and the sewing machine mounted thereon. In its lowered position, shown in Fig. 3, the support G abuts against a support or stop member L attached to the rear panel B. As shown the latter also supports electric circuit parts M for the electric driving motor of the sewing machine I.

When the base portion of the portable sewing machine is of the conventional form, providing a flat work bed I², as shown in Figs. 1, 2 and 3, it is desirable to have no free space between the side walls of the base portion and the opening A' formed in the top plate A when the machine is in use. Clearance between the sewing machine and the margin of the opening A' is needed, however, to accommodate the movement of the sewing machine between the positions shown in Figs. 2 and 3, and occasionally also to permit access to the underbed sewing machine parts for bobbin replacement and other purposes. To take care of the conditions just mentioned, I advantageously provide an opening A' in the top plate A, which has most of its marginal edge spaced away from the adjacent vertical walls of the sewing machine base portion I', and provide one or more bridging table parts each movable into and out of a position in which it has its upper side flush with the top surface of the cabinet top A and closes the space between a corresponding portion of the margin of the opening A', and the base portion I' of the sewing machine.

The form and number of such bridge parts may be varied as conditions make desirable. In the advantageous form of the invention shown

in the drawing, there are two such parts, N and O, connected by hinges H' to the cabinet top wall part A, to turn relatively to the latter between their full and dotted line positions shown in Fig. 2. In its full line position, the part N bridges the clearance space provided between the front edge of the opening A', and the adjacent portion of the sewing machine base I' and the member O in its full line position bridges the clearance space provided between the rear edge of the opening A' and the adjacent portion of the sewing machine base I'. As shown, the bridge part O also comprises a portion adapted to bridge a space between the front end of the sewing machine base portion I' and the adjacent portion of the opening A' and through which bobbin replacements may be effected when the member O is turned into the vertical position shown in dotted lines in Fig. 2. As shown, also, the part N includes a portion engaging the rear end of the sewing machine base I'. As will be apparent, the clamping screw G⁴, shown as having a knurled head, constitutes a device readily operable by a housewife or other user of the machine, to releasably lock the portable sewing machine in its seat on the member G. With the construction shown, ample access to the locking device G⁴ is provided when the member N is turned into its vertical position shown in dotted lines in Fig. 2. With the sewing machine seat of the member G surrounded by the uprising portion G³ and back wall G', and with the base portion flange I³ of the sewing machine frame or head extending into the groove or recess G² in the back wall G', the sewing machine frame is normally biased by gravity against movement out of its seat, as well when the frame is in its down position shown in Fig. 3, as when in its elevated position shown in Fig. 2.

While my invention is well adapted for use with a portable sewing machine of any usual or conventional type or form, the drawing illustrates the use of a convertible sewing and darning machine which forms the subject matter of the copending application Serial No. 311,486, filed jointly by Frederick Osann and myself on December 29, 1939. That machine is characterized by the fact that the rectangular boxlike base portion I², above the flange I³, provided for ordinary flat sewing and shown in Figs. 1, 2 and 3, is a removable part and when removed, exposes a so-called cylinder arm IA, shown in Fig. 5, in which the underbed sewing machine parts are mounted and on which stockings and other tubular work parts may be supported, as is customary in stocking darning machines. When the flat work bed part I² is removed, as shown in Fig. 5, there is ample space between the cylinder arm IA and the adjacent edges of the bridging or flap parts N, O and O', for the placement of tubular work pieces on, and their removal from the free end of the cylinder arm.

While in accordance with the provisions of the statutes, I have illustrated and described the best form of embodiment of my invention now known to me, it will be apparent to those skilled in the art that changes may be made in the form of the apparatus disclosed without departing from the spirit of my invention as set forth in the appended claims and that in some cases certain features of my invention may be used to advantage without a corresponding use of other features.

Having now described my invention, what I

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

1. A drop head cabinet for detachably supporting a portable sewing machine, comprising an upper boxlike portion with an opening in its top wall, a member within said portion having a seat for a portable sewing machine, and hinged at one side to said cabinet adjacent one side of said opening to turn up into and down from a position in which a sewing machine mounted in said seat extends upward through said opening and a readily operable self contained means mounted on said member at the margin of said seat for releasably locking a portable sewing machine in said seat.

2. A drophead sewing machine cabinet comprising an upper box-like portion with an opening in its top wall, a member within said portion formed with a seat for a portable sewing machine and with an uprising portion at one side of said seat with a recess therein opening toward said seat, a portable sewing machine mounted in said seat and having a lateral projection extending into said recess, said member being hinged to said cabinet adjacent one side of its said opening to turn up into and down from a position in which the sewing machine mounted in said seat extends upward through said opening, and means mounted on said member and readily operable through said top wall opening for releasably locking said sewing machine in said seat.

3. A drophead sewing machine cabinet comprising an upper box-like portion with an opening in its top wall, a member within said portion formed with a seat for a portable sewing machine and with an uprising portion extending along the margin of said seat at opposite sides thereof, said uprising portion being formed with a recess at one side of and opening toward said seat, a portable sewing machine mounted in said seat and having a lateral projection extending into said recess, said member being hinged to said cabinet adjacent said one side of said seat to turn up into and down from a position in which said sewing

machine mounted in said seat extends upward through said opening, and readily operable means mounted on said member at a distance from said recess for releasably locking said sewing machine in said seat.

4. A drophead sewing machine cabinet comprising an upper box-like portion with an opening in its top wall, a member within said portion formed with a seat, a portable sewing machine removably mounted in said seat, said member being hinged at one side to said cabinet adjacent one side of its said opening to turn up into and down from a position in which said sewing machine extends upward through said opening, a readily operable device mounted on said member for releasably locking said sewing machine in said seat, and a part hinged to said top portion at the side of the opening adjacent said readily operable means, and adapted to turn between one position in which it bridges a space between the margin of said opening and the sewing machine and a second position in which said space is unbridged and provides access to said device through said top wall opening.

5. A drophead sewing machine cabinet having a top wall formed with an opening, a sewing machine frame comprising a cylinder arm work support, standard, overhanging arm and supplemental bed supporting portion and mounted in said cabinet for movement between one position in which it is below said top wall and a second position in which said frame extends through said opening, and a movable work bed part adapted, when said machine is in said second position, to occupy a position in which it is supported and accurately positioned by said supporting portion and cooperates with said top wall to form a work bed extending away from said cylinder arm at each side of the latter, or to be displaced from said position and thereby permit the work to be passed about said cylinder arm support.

RICHARD K. HOHMANN.