

July 18, 1950

N. E. COLEGROVE
SEWING MACHINE

2,515,338

Filed April 3, 1947

2 Sheets-Sheet 1

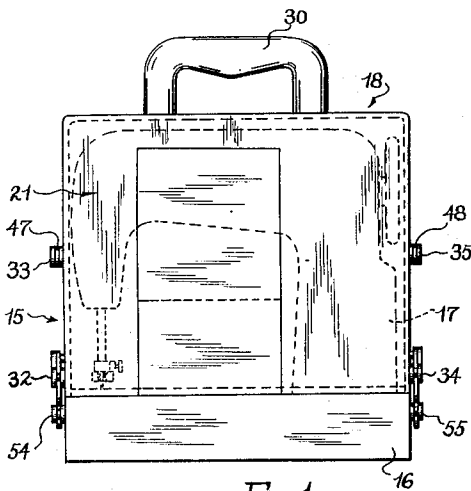


Fig. 1

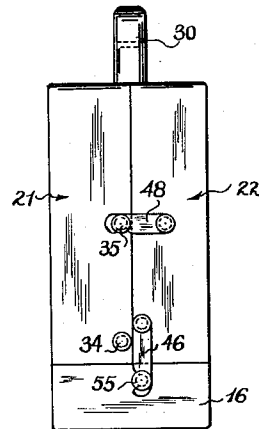


Fig. 2

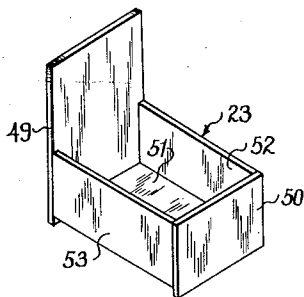


Fig. 5

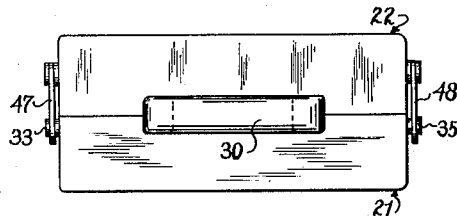


Fig. 3

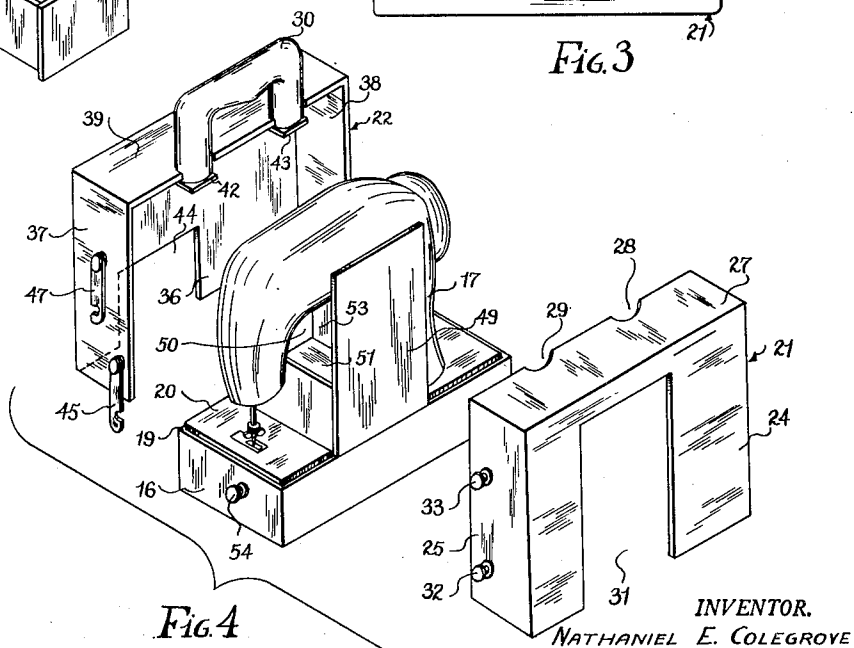


Fig. 4

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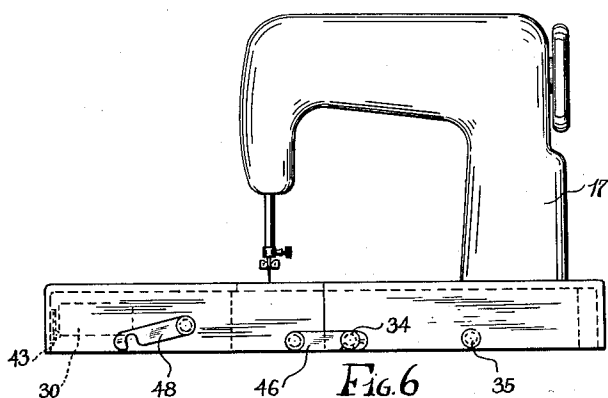


Fig. 6

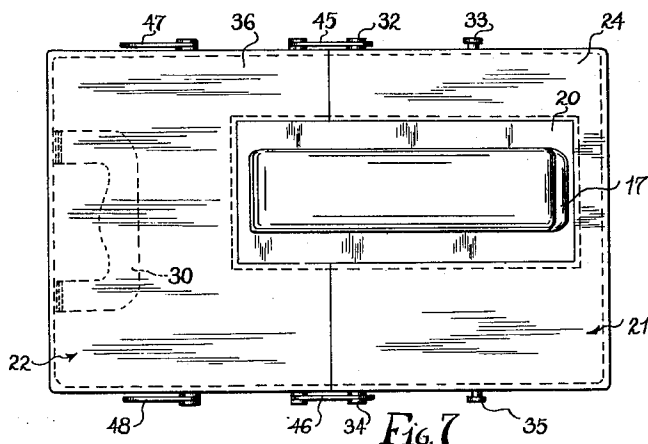


Fig. 7

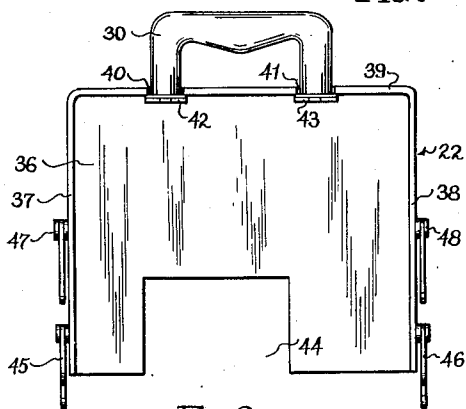


Fig. 8

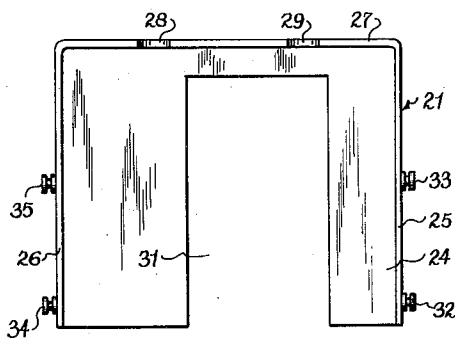


Fig. 9

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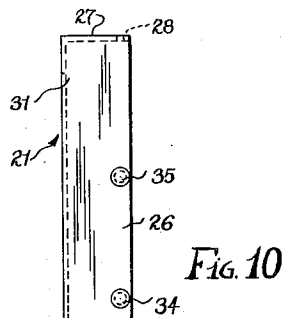


Fig. 10

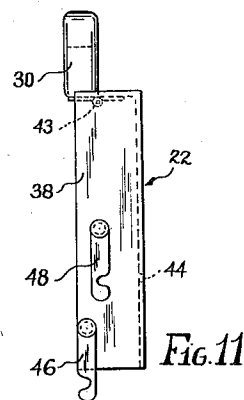


Fig. 11

UNITED STATES PATENT OFFICE

2,515,338

SEWING MACHINE

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land, Ohio, a corporation of Delaware

Application April 3, 1947, Serial No. 739,233

16 Claims. (Cl. 45—68.2)

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This invention relates to a sewing machine and more particularly to a portable sewing machine provided with a housing or cover which may be positioned about the head of the machine to form a carrying case, or positioned about the bed of the machine to form an increased working surface.

An object of the invention is to provide an improved portable sewing machine having a housing or cover that cooperates with the bed of the machine to form a carrying case which is pleasing in appearance and is smaller in size than conventional portable machines but which permits the sewing head to be of conventional size.

Another object of the invention is to provide a novel and improved carrying case for a portable sewing machine whose outside dimensions are only slightly greater than the width and height of the sewing machine head whereby a relatively small compact case is provided for a sewing head of conventional size.

A further object of the invention is to provide a new and improved portable sewing machine having a cover or carrying case such that the bed of the sewing machine provides an integral part of the case when positioned about the head of the machine, and the case includes removable portions or sections which interlock with the bed to increase the working surface of the machine when the case is open.

A still further object of the invention is to provide a new and improved portable sewing machine having a cover or carrying case comprising separable sections which cooperate with the bed of the machine, when assembled in carrying relationship, to provide an attractive and compact carrying case with a storage compartment for the rheostat and accessories of the machine, certain of the separable sections interlocking with the bed of the machine when the case is open to provide a continuation of the upper surface of the bed of the machine thus increasing the working surface.

An additional object of the invention is to provide a new and improved cover or housing for a portable sewing machine, the cover comprising separable portions or sections which cooperate with the bed of the sewing machine, when the cover is positioned about the head of the machine, to provide an attractive and compact carrying case; certain of the separable sections being adapted to interlock with the bed of the machine, when the case is open, to provide a continuation of the upper surface of the bed of the machine thus increasing the working surface,

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The invention further resides in certain novel features, details of construction, combination and arrangements of parts, and further objects and advantages thereof will be apparent to those skilled in the art to which it pertains from the following description of the preferred embodiment thereof, described with reference to the accompanying drawings in which similar reference numerals designate corresponding parts throughout the several views and in which:

Fig. 1 is a front elevational view of the preferred embodiment of the novel and improved portable sewing machine with its cover or carrying case in its assembled or carrying position;

Fig. 2 is an end elevational view of the new and improved portable sewing machine illustrated in Fig. 1;

Fig. 3 is a top plan view of the new and improved portable sewing machine illustrated in Figs. 1 and 2;

Fig. 4 is an exploded perspective view of the novel cover or carrying case for the portable sewing machine of this invention showing the mode of assembling the several parts about the head of the machine to provide a closed housing or carrying case;

Fig. 5 is a perspective view of a portion of the novel carrying case forming a storage compartment for a rheostat, accessories or other parts of the sewing machine;

Fig. 6 is a front elevational view of the preferred embodiment of the new and improved portable sewing machine with its carrying case in open position and with parts thereof assembled about the bed of the machine to form an extension of the top surface of the bed and thereby provide an increased working surface;

Fig. 7 is a top plan view of the sewing machine and case illustrated in Fig. 6;

Fig. 8 is a side elevational view of the rear portion of the preferred embodiment of the improved carrying case, the view illustrating the interior of this portion of the case;

Fig. 9 is a side elevational view of the front portion of the preferred embodiment of the improved carrying case, the view illustrating the interior of this portion of the case;

Fig. 10 is an end elevational view of the front portion of the carrying case, the view illustrating the left side of Fig. 9; and

Fig. 11 is an end view of the rear portion of the carrying case, the view illustrating the right-hand side of Fig. 8.

As shown in the drawings, the portable sewing machine of this invention, generally designated

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15, comprises a bed 16, a sewing head 17 supported upon the upper surface of said bed, and a cover or carrying case 18. The bed 16 is preferably substantially rectangular in configuration and its width is only slightly greater than the width of the head 17 which is of conventional construction. The cover or carrying case 18 is also preferably substantially rectangular in configuration and its outside dimensions are only slightly greater than those of the sewing machine head 17 enclosed therein. The novel carrying case or cover is preferably formed of relatively thin, rigid material such as plywood, plastic materials, light weight metal or the like, thus forming a hollow shell the lower edge of which is adapted to rest upon a shoulder 19 extending around the bed 16 adjacent its upper surface 20. This shoulder may be provided in a variety of different ways but is preferably formed by surrounding the four sides of the bed by the same material as that of which the cover or case proper is constructed, the top edge of this material surrounding the bed being terminated below the top level of the upper surface 20 of the bed a distance substantially equal to the thickness of the material. Therefore, the portion 16 not only forms the bed of the machine but also constitutes the bottom and a portion of the sides of the housing for the sewing machine which is completed by the cover or carrying case 18.

The cover or carrying case 18 comprises three separable sections of generally rectangular configuration. These sections include a front portion or member 21, a rear portion or member 22, and a box-like insert 23 having panels cooperating with openings in the sides of the front and rear portions 21 and 22 respectively. The front and rear portions or members preferably each have a width substantially equal to one-half the width of the bed 16 of the machine, and this dimension is also substantially the same as the height of the bed.

The front portion or member 21 of the illustrated case is composed of a side panel 24 having a length equal to the length of the bed of the machine and a height slightly greater than the distance from the top of the shoulder 19, surrounding the bed of the machine, to the highest point of the head. Integral with, or fastened to the panel 24 are end portions or flanges 25, 26 and a top portion or flange 27, extending at right angles with respect to the panel 24 and each having a width substantially equal to the height of the bed of the machine. The top flange or portion 27 is provided with two substantially semicircular notches or recesses 28 and 29 for receiving one-half of a carrying handle 30 as hereinafter described. The panel 24 is provided with a relatively large rectangular opening 31 extending upwardly from the lower edge of the panel, this opening having a width equal to the width of the top surface 20 of the bed of the machine and a length less than the length of said top surface of the bed. The end portions or flanges 25 and 26 of the front portion or member 21 are each provided with a pair of vertically spaced projecting latch buttons or portions 32, 33 and 34, 35 respectively, of conventional construction. The buttons 32 and 34 are substantially in horizontal alignment and are located relatively close to the lower edge of the front portion or member 21. The buttons 33 and 35 are also substantially in horizontal alignment but are located intermediate the top and bottom of the portion or section 21.

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The rear portion or member 22 of the carrying case is likewise preferably formed by a rectangular side panel 36 having end flanges or portions 37 and 38 and a top flange or portion 39 integral with or attached to the panel 36. The width of these flanges is preferably substantially equal to the width of the flanges 25, 26 and 27 of the front portion or member 21 and also equal to the height of the bed of the machine. The top flange 39 of the rear portion or member 22 is provided with a pair of substantially semicircular openings or recesses 40 and 41, spaced to align with the corresponding openings or recesses 28 and 29 in the top flange 27 of the front member 21 when the carrying case is positioned about the head 17 of the sewing machine. The previously mentioned handle 30 is pivoted to the inner surface of the flange 39 of the rear portion of the carrying case, by suitable means such as hinges 42 and 43. This handle is adapted to extend exteriorly of the cover portion 22 with its lower ends positioned within the openings 40 and 41, as indicated in Fig. 8, or to be swung to a position within the confines of the rear portion 22 as indicated in Fig. 7.

The panel 36 of the rear portion 22 is also provided with a rectangular opening 44, extending upwardly from the lower edge of the panel. This opening has a width equal to the width of the top surface 20 of the bed 16 of the sewing machine and a length equal to the difference between the length of the top surface 20 of the bed and the length of the opening 31 in the panel 24 of the front portion of the carrying case. Preferably, these openings 31 and 44 in the front and rear portions of the carrying case are disposed closer to one flange than to the other as indicated in Figs. 8 and 9 although they may, of course, be symmetrically disposed. The flange 37 of the rear portion 22 of the carrying case is provided adjacent its lower edge with a pivoted latch or hook 45 and a similar latch or hook 46 is provided on the flange 38 in horizontal alignment with the latch 45. Intermediate the top and bottom of the flanges 37 and 38 are provided similar pivoted latch or catch members 47 and 48, respectively.

The removable compartment or portion 23 of the carrying case includes spaced, vertically extending front and rear panel members or portions 49 and 50, constructed of the same material as that used with the other portions of the carrying case and preferably having the same thickness. The vertically extending panel member or portion 49 is substantially rectangular and its width and weight are equal to the width and height of the opening 31 in the front portion 21 of the carrying case. The panel member or portion 50 is also substantially rectangular and its width and height are equal to the width and height of the opening 44 in the rear portion 22 of the case. These panel members are connected by a bottom member 51 and side members 52 and 53 each having a length equal to the width of the assembled carrying case less the thickness of the material forming the panel portions 49 and 50. The bottom member 51 is connected with the panel members or portions 49 and 50 above the lower edges thereof a distance at least equal to the height of the top surface 20 of the bed above the shoulder 19 thereabout. The sides 52 and 53 of the removable compartment or container are shown as being flush with the outside edges of the front and rear panel portions 49 and 50, respectively, and the heights of these side portions 52 and 53 are

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the same as the height of the rear panel 50. However, the sides 52 and 53 may be spaced inwardly slightly from the outside edges of the panel portions 49 and 50, and the heights of these side portions 52 and 53 may be such that their upper edges terminate below the upper edge of the panel 50, if desired.

The construction of this container or compartment 23 is, therefore, such that it may readily be slipped between the overhanging portion of the head 17 of the machine and the top surface 20 of the bed and, when so positioned, the front and rear panel portions 49 and 50, respectively, will interlock with the top of the bed as shown in Fig. 4. This removable container or compartment provides a storage space for the rheostat and/or accessories for the sewing machine when the latter is to be transported or stored.

With the container or compartment positioned as illustrated in Fig. 4, the front and rear portions 21 and 22 of the carrying case may then be assembled about the sewing machine head 17 when the handle 30 has been positioned in its upwardly extending position. This is accomplished by fitting the opening 31 in the front portion 21 of the cover or case about the front panel 49 of the compartment 23, and the opening 44 of the rear portion 22 about the rear panel 50. The lower edges of these two sections or portions 21 and 22 then rest upon the shoulder 19, extending around the bed 16, and interlock with the panel members 49 and 50 to provide a smooth exterior, as indicated in Figs. 1, 2 and 3, with bed of the machine forming the bottom and a portion of the sides of the complete carrying case. With the carrying case thus assembled, the latch 45 of the rear portion 22 of the case is moved into engagement with a button 54 provided upon one end of the bed 16 of the machine and the latch 46 of the rear portion 22 is moved into engagement with a corresponding button 55 upon the opposite end of the bed of the machine. The latches 47 and 48, respectively, are then moved into engagement with the cooperating buttons 33 and 35, respectively, of the front portion 21 of the carrying case and the case will then be locked together as indicated in Figs. 2 and 3 so that the machine may be easily carried by means of the handle 30.

When the machine is to be placed in operation, the latches 47 and 48 are disengaged from their corresponding buttons 33 and 35, and likewise the latches 45 and 46 are disengaged from their corresponding buttons 54 and 55. The front and rear portions 21 and 22 are then removed from about the sewing machine head 17 and the container or compartment 23 is removed from its position upon the top surface 20 of the bed of the machine. The front and rear members or portions 21 and 22 of the case are then positioned with their respective rectangular openings 31 and 44 fitted about the top surface 20 of the bed of the machine as indicated in Figs. 6 and 7, the handle 30 having been first pivoted inwardly of the rear portion 22 as indicated in dotted lines in Fig. 7. In this position, the shoulder 19, provided by the material surrounding the bed 16, forms a support for the panel sides of the front and rear portions 21 and 22 adjacent the bed of the machine, and these portions are locked together by an engagement of the latches 45 and 46 with the buttons 32 and 34, respectively. Hence, the panel sides 24 and 36 of the front and rear portions of the carrying case now form a smooth continuation or extension of

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the upper surface 20 of the bed of the machine thus providing a greatly increased working surface. Since the front and rear portions 21 and 22 of the carrying case completely surround the bed of the machine when thus positioned, they reduce any tendency for the machine to "walk" or move over the surface of the table or other support upon which it is placed and, moreover, the two halves of the working surface thus formed cannot become accidentally separated due to vibration or sliding movement of the machine and its working surface over the table or other support. The machine may again be enclosed for storage or carrying by simply releasing the latches 45 and 46 from engagement with the buttons 32 and 34 and reassembling the case as previously described.

The improved sewing machine of this invention is, therefore, provided with an extremely compact carrying case without the necessity of reducing the size of the head of the machine, the bed of the machine forming a part of the assembled case. Moreover, the case, when open, cooperates with the bed of the machine to provide an increased working surface and to prevent displacement of the machine during operation. In addition, the construction is such that the case may be economically produced by mass production methods and of relatively inexpensive materials.

While the sewing machine bed and the case have been described as being substantially rectangular in configuration, it will be apparent that the corners thereof may be rounded if desired without altering the invention. Also, while the front member or portion of the case has been described as having a relatively large opening 31 and the rear portion as having the relatively small opening 44, it will be apparent that these two portions may be interchanged. Also, if desired, the size of the openings in each may be of like dimensions with corresponding changes in the size of the front and rear panels 49 and 50 of the container or compartment 23. In addition, securing means of other types than the pivoted latches and cooperating buttons disclosed may be employed.

Other advantages and modifications of the invention will occur to those skilled in the art and therefore the invention is not to be considered as limited to the exact details of construction herein illustrated and described but only as required by the spirit and scope of the appended claims.

Having thus described the invention, I claim:

1. The combination with a portable sewing machine comprising a head and a bed having a shoulder extending therearound adjacent its upper surface, of a removable hollow cover adapted to fit over said head with the lower edge of said cover resting upon the shoulder of said bed so that said bed forms the bottom and a portion of the sides of a housing for the sewing machine which is completed by said cover, the said shoulder cooperating with the cover to prevent displacement of the cover transversely of the bed, and means to detachably secure said cover to said bed when the former is positioned on the latter.

2. The combination with a portable sewing machine comprising a head and a bed having a shoulder extending therearound adjacent its upper surface, of a removable hollow cover adapted to fit over said head with the lower edge of said cover resting upon the shoulder of said

bed so that said bed forms the bottom and a portion of the sides of a housing for the sewing machine which is completed by said cover, the said cover including two separable portions each having an opening therein extending upwardly from the lower edge thereof, the width of each of said openings being equal to the width of the bed at the upper surface thereof and the combined length of the two openings being equal to the length of the bed at the upper surface thereof so that the said cover may be removed from its position about said head and the separable portions fitted around said bed to provide a continuation of the upper surface of the latter, and means to detachably secure the two portions of said cover together when surrounding said bed and to detachably secure said portions together and to said bed when forming the housing for the machine.

3. The combination as defined in claim 2 and in which said bed and separable portions of said cover member are substantially rectangular and the width of each of said separable portions is equal to the height of the bed of the machine.

4. The combination as defined in claim 2 and further comprising a carrying handle for said cover and means pivotally connecting said handle to one of said separable portions of the cover in a manner to extend exteriorly thereof when the separable portions are positioned about said head and to extend interiorly of said one of the separable portions when the said portions are positioned to surround said bed.

5. The combination as defined in claim 2 and further comprising members adapted to be fitted in said openings of the separable portions of the cover when the portions are positioned about said head thereby forming a completely closed housing for the machine.

6. The combination as defined in claim 2 and further comprising a pair of panel members adapted to be fitted in the said openings of the separable portions of the cover when the said portions are positioned about said head, and means connecting said panel members together in spaced relationship corresponding to the width of said bed, the said connecting means being spaced above the lower edges of said panel members to permit the latter to rest upon the shoulder surrounding said bed at opposite sides thereof whereby the panel members are positively retained in place when positioned within the openings of said separable portions and the latter are secured to each other and to said bed.

7. The combination as defined in claim 6 and in which the said connecting means for said panel members includes a bottom portion and upstanding side portions forming a container for storage of accessories for the sewing machine.

8. The combination with a portable sewing machine comprising a head and a relatively narrow rectangular bed having a shoulder extending therearound adjacent its upper surface, of a removable hollow case adapted to fit over said head with the lower edge of said case resting upon the shoulder of said bed; the said case including two separable members each having a width equal to the height of said bed and each of said members having a rectangular opening in the side thereof extending upwardly from the lower edge of the member, the width of each of said openings being equal to the width of the bed at upper surface thereof and the combined length of the two openings being equal to the length of the bed at the upper surface thereof so that the case

may be removed from its position about said head and the separable members fitted about said bed to form an extension of the upper surface of the latter, panel portions adapted to fit in the said openings of the separable members of the case when the members are positioned about the head of the machine, means adapted to extend through the space between the head and the bed of the machine and rigidly connecting said panel portions in parallel relationship spaced a distance equal to the width of the bed of machine at the upper surface thereof, said connecting means being spaced above the lower edges of the said panel portions to permit the latter to rest upon the shoulder surrounding said bed on opposite sides thereof whereby the panel portions are retained in place when positioned within the openings of said separable members and the latter are positioned about said head, and means to detachably secure the two separable members together when surrounding said bed and to detachably secure said members together and to said bed when surrounding the head of the machine.

9. The combination as defined in claim 8 and in which the said connecting means for said panel portions includes a bottom portion and upstanding side portions forming a container for storage of accessories of the sewing machine.

10. A case for a portable sewing machine having a bed provided with a shoulder extending therearound adjacent its upper surface and a sewing head extending upwardly from the upper surface of said bed, said case comprising two completely separable hollow members adapted to be fitted about the head of said machine with their lower edges resting upon the shoulder of the machine bed so that said bed forms the bottom and a portion of the sides of the case for the sewing machine which is completed by said separable members, and means to detachably secure said members to each other and to said bed.

11. A case for a portable sewing machine or the like, comprising a bed provided with a shoulder extending therearound adjacent its upper surface, two separable hollow members adapted to be fitted together with their lower edges resting upon the shoulder of the bed so that said bed forms the bottom and a portion of the sides of the case which is completed by said separable members, each of said separable members having an opening therein extending upwardly from the lower edge thereof, the width of each of said openings being equal to the width of the bed at the upper surface thereof and the combined length of the two openings being equal to the length of the bed at the upper surface thereof so that the said separable members may be removed from their positions upon said bed and the separable members fitted around said bed to provide a continuation of the upper surface of the latter, and means to detachably secure the two separable members of said case together when surrounding said bed and to detachably secure said members together and to said bed when positioned thereon.

12. A case of the type defined in claim 11 and in which the bed and the said separable members of said case are substantially rectangular and the width of each of said separable members is equal to the height of the bed.

13. A case as defined in claim 11 and further comprising a carrying handle for said case and means pivotally connecting said handle to one of said separable members of the case in a manner to extend exteriorly thereof when the separable

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portions are positioned upon said bed and to extend interiorly of the said one of the separable members when the members are positioned to surround said bed.

14. A case of the type defined in claim 11 and further comprising panel portions adapted to be fitted in said openings of the separable members of the case when the members are positioned upon the bed thereby forming a completely closed housing for a machine mounted on said bed.

15. A case of the type defined in claim 11 and further comprising a pair of panel portions adapted to be fitted in the said openings of the separable members of the case when the members are positioned upon the bed, and means connecting said panel portions together in spaced relationship corresponding to the width of the bed, the said connecting means being spaced above the lower edges of said panel portions to permit the latter to rest upon the shoulder surrounding said bed at opposite sides thereof whereby the panel portions are positively retained in place when

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positioned within the openings of said separable members and the latter are secured to each other and to said bed.

16. A case of the type defined in claim 15 and in which the said connecting means for said panel portions include a bottom portion and upstanding side portions forming a container for storage of accessories for a machine mounted on the bed.

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