Nov. 20, 1951 H. A. TRUMFIO 2,575,537

COMBINATION CARRYING CASE AND STAND FOR PORTABLE MACHINES

Filed Oct. 27, 1949 2 SHEETS—SHEET 1

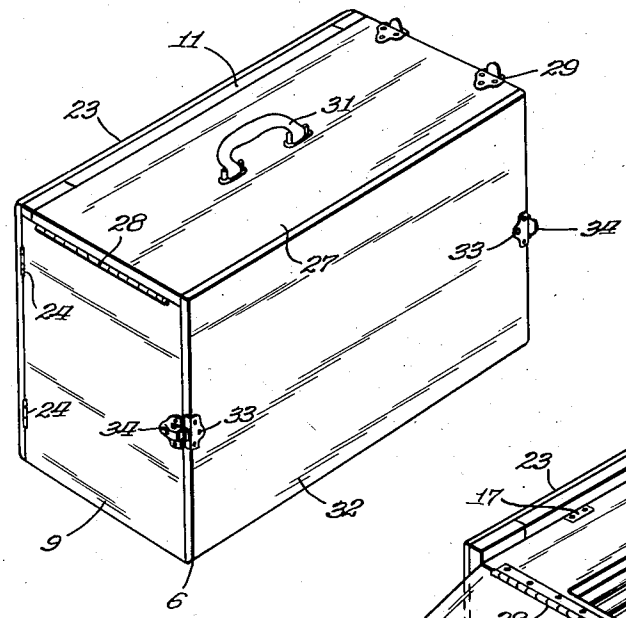


Fig. 1.

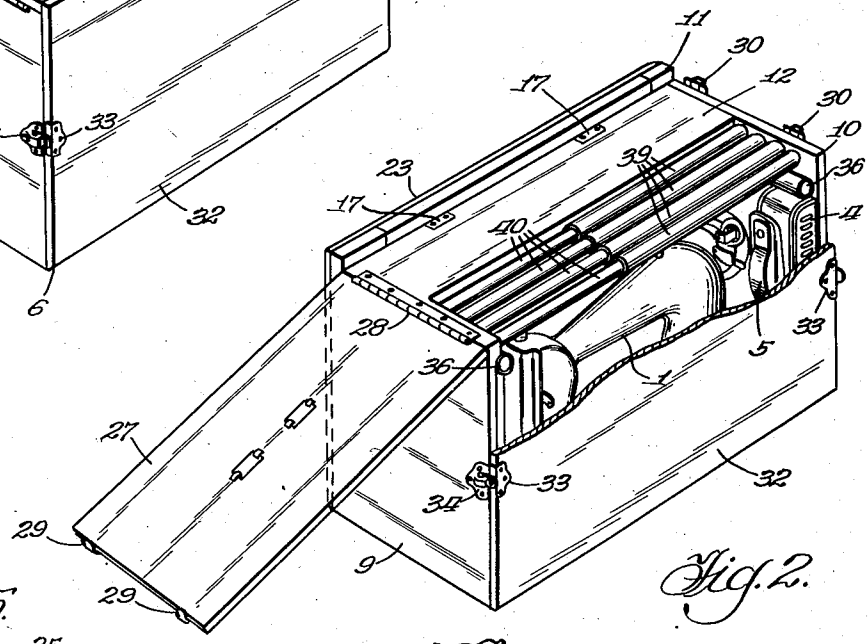
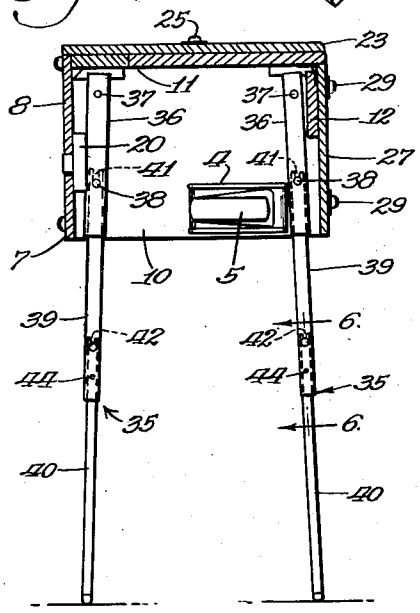


Fig. 2.

Fig. 5.



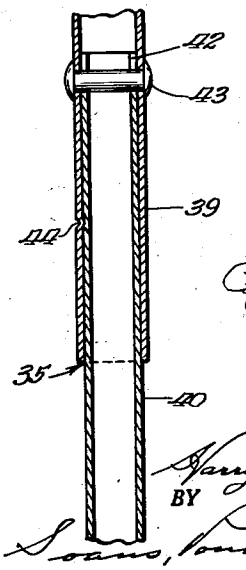


Fig. 6.

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COMBINATION CARRYING CASE AND STAND FOR PORTABLE MACHINES

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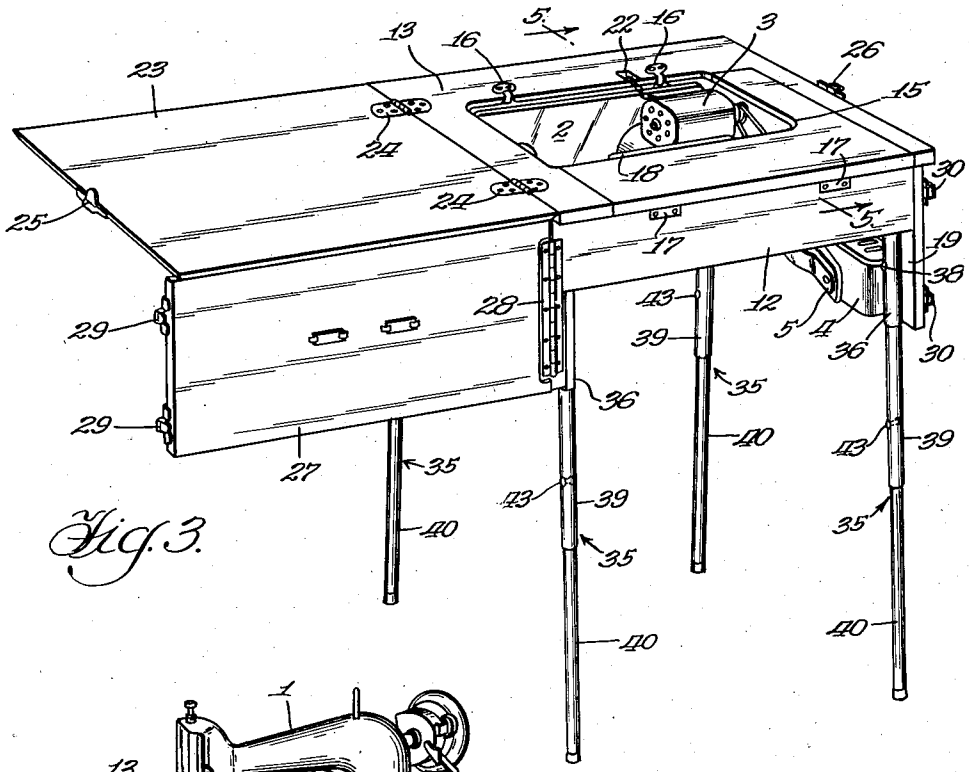


Fig. 3.

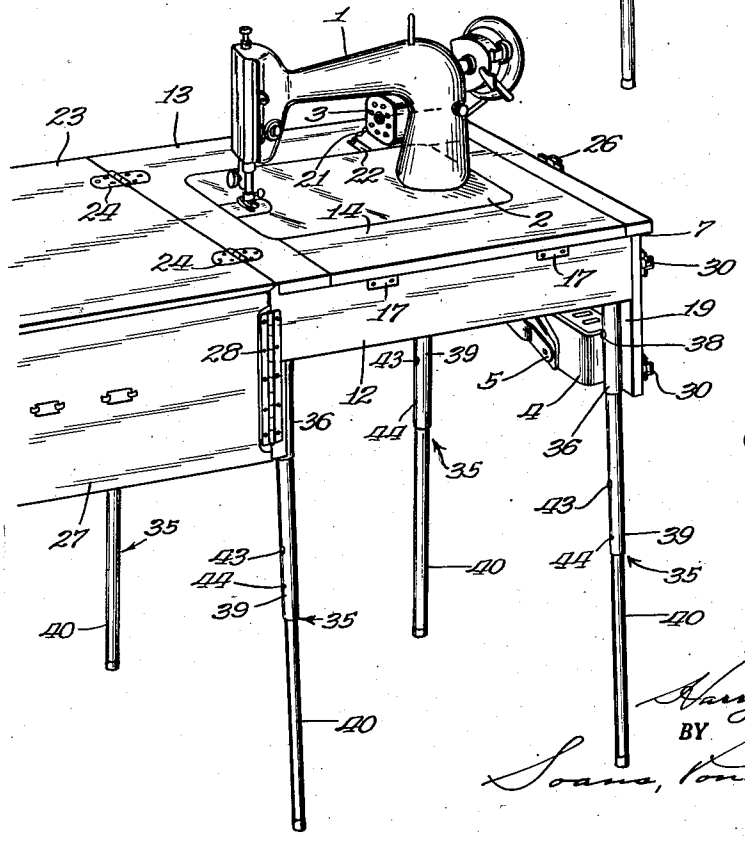


Fig. 4.

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COMBINATION CARRYING CASE AND STAND FOR PORTABLE MACHINES

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8 Claims. (Cl. 312—30)

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This invention relates to portable machine carrying cases which are convertible into a stand for supporting the machine in operative position.

The convertible cases heretofore in use have been expensive to manufacture, exceedingly cumbersome, and difficult to convert from one form to the other.

The main objects of this invention are to provide a light-weight combination carrying case and stand of simple construction which can be readily handled and which can be converted from one form to another by one person without assistance and without the use of tools; to provide an improved case of this kind which when closed has the compact form of a suitcase and when open may be used either as an occasional table or as a stand for supporting the machine housed therein; to provide in a device of this kind an improved form of case which is adapted to completely conceal the machine housed therein when the structure is used as an occasional table and which may be readily opened to permit access to the machine when such access is desired; to provide an improved convertible case which will afford a maximum amount of work surface when it is opened for use as a stand; to provide in a device of this kind an improved form of collapsible supporting legs which are sturdy in construction and which are adapted to be housed within the case when not in use; and to provide an improved combination carrying case and stand which is neat, sturdy and comparatively inexpensive for use particularly with portable sewing machines, typewriters and motion picture projectors.

An illustrative embodiment of this invention is shown in the accompanying drawings, wherein:

Fig. 1 is a perspective view of the improved carrying case in closed position;

Fig. 2 is a similar view but showing the top wall of the case in open position and part of the front wall broken away to show the interior of the case;

Fig. 3 is a perspective view showing the case in fully open position with the legs attached thereto;

Fig. 4 is a fragmentary view similar to Fig. 3 but also showing the sewing machine elevated to operative position;

Fig. 5 is a vertical transverse section showing the device as it appears when used as an occasional table; the view being taken generally on the line 5—5 of Fig. 3 but with the sewing machine removed and with the top and front panels of the case in closed position; and

Fig. 6 is an enlarged fragmentary section of one of the supporting legs, the view being taken on the line 6—6 of Fig. 5.

This improved convertible case is adapted for

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use in connection with portable sewing machines, typewriters, motion picture projectors, and various types of business machines but the construction illustrated in the drawings is particularly designed for use with an electric sewing machine 1 having the usual base plate 2, electric motor 3, control box 4, and knee operated switch arm 5.

In the form shown, the improved convertible case comprises an elongated rectangular box 6 which may be made of wood or of any other suitable material which possesses the necessary strength while still being of light weight.

The improved box 6 includes a rigid frame 7 comprising a rear wall 8, two end walls 9, 10, a top wall 11, and a narrow apron 12 extending across the front of the frame. The top wall 11 comprises a fixed shelf section 13 and a hinged section 14 centrally recessed, as shown at 15, to receive the machine which is hingedly secured to the shelf section by hinges 16. The section 14 is secured to the apron 12 by hinges 17, and its inner edge is provided with a ledge 18 for supporting the forward end of the base plate 2 when the machine is in operative position.

The box is of sufficient size to permit the machine to be completely housed therein when it is lowered to inoperative position.

The lower edge of the apron 12 and the forward edges of the end walls 9, 10, define an opening 19 to accommodate the knees of the person using the machine, and the control box 4 is mounted on the inner face of the end wall 10 so as to position the switch arm 5 close to the right hand side of this opening. The control box 4 is electrically connected with a terminal box 20 mounted on the rear wall 8 and adapted to be connected with the electric motor 3 by a conductor wire 21 extending through a slot 22 in the shelf 13.

One of the side walls of the box forms a lid 23 which is adapted to overlie and conceal the sections 13, 14 when the device is used as an occasional table, as shown in Fig. 5. One end of the lid is hinged to the top section 13 by hinges 24 so as to permit the lid to be swung to an extended position in coplanar relation to the top wall 11, in which position it serves as a work supporting table. Coacting latch elements 25, 26 are mounted respectively on the outer end of the lid 23 and on the frame for locking the lid in closed position.

Extending across the front of the frame is a wall panel 27 which is connected to the end wall 9 by a hinge 28 so that when it is swung outwardly into open position it underlies and helps to support the lid 23 as shown in Figs. 3 and 4.

The top wall 11 projects forwardly beyond the apron 12 a distance equal to the thickness of the panel 27 so that when the box is closed the outer

face of the panel 27 is flush with the edge of the wall 11. The panel 27 is locked in its closed position by coacting latch elements 29, 30 mounted respectively on the outer end of the panel 27 and on the end wall 10.

When the machine is in its folded position, its weight is carried by the hinges 16 and by the wall 8 against which the base plate 2 rests. For this reason, when the box is used as a carrying case, the rear wall 8 becomes the bottom of the box and the panel 27 forms the top of the box, and, therefore, the panel 27 is provided with a carrying handle 31. When this improved box is used in connection with other types of machines, it may be found desirable to attach the handle to one of the other walls of the box.

Extending across the bottom of the frame is a panel 32 which is removably connected to the end walls 9, 10, by latch elements 33, 34. This panel is completely removed from the frame when the box is used as a stand or occasional table.

The box is converted into a stand or table by means of collapsible legs 35 adapted to be inserted in sockets 36 which are mounted in the corners of the frame. These sockets may be in the form of metal tubes which are secured to the end walls 9, 10 by bolts 37, 38. The sockets at each end of the frame diverge downwardly, as shown in Fig. 5, so as to give greater stability to the supporting legs, each of which comprises a pair of telescoping tubular sections 39, 40.

The upper ends of the leg sections 39 are slotted as shown at 41 to receive the bolts 38, and the upper ends of the leg sections 40 are slotted as shown at 42 for receiving bolts 43 which pass through the sections 39. The sections 39, 40 are also frictionally held against accidental separation by knobs 44 pressed inwardly from the lower portion of the sections 39.

As clearly illustrated in Fig. 2, the two sockets adjacent the front opening 19 form ledges for supporting the legs within the opening 19 when the box is used as a carrying case. The bolts 43 are so positioned that when the sections 40 are inserted in the upper ends of the sections 39, instead of in the lower ends therof, the legs may be collapsed so as to be adapted to fit within the opening 19, in which position they are held against displacement by the apron 12 and by the panel 27.

The operation of converting this improved structure from one form to another is believed to be obvious from the foregoing description.

Although but one specific embodiment of the invention has been herein shown and described, it will be understood that details of the construction shown may be altered without departing from the spirit of the invention as defined by the following claims.

I claim:

1. In a combination carrying case and stand for a portable machine, a rectangular box having a rigid frame comprising top, rear, and end walls, the top wall forming a shelf adapted to support the machine in operative position, a lid hinged at one end to said frame so as to be adapted in one position to overlie and completely conceal said shelf and being swingable into extended position in coplanar relation with said shelf to form a continuous work supporting surface, said frame having an opening between the front edges of said end walls to accommodate the knees of a person using the machine, a front wall panel hinged at one end to said frame so as to be adapted when closed to cover said opening and being adapted when opened to underlie said top lid in extended position, a bottom wall panel removably secured to said frame, corner sockets mounted within said frame, said bottom wall panel in its closed position covering the lower ends of said sockets, and collapsible supporting legs adapted to be inserted in said sockets for supporting said frame when the box is used as a stand, said legs when collapsed being adapted to fit within the box.

2. In a combination carrying case and stand for a portable machine, a rectangular box having a rigid frame comprising top, rear, and end walls, the top wall forming a shelf adapted to support the machine in operative position, a lid hinged at one end to said frame so as to be adapted in one position to overlie and completely conceal said shelf and being swingable into extended position in coplanar relation with said shelf to form a continuous work supporting surface, cooperating latch means on said lid and frame for locking said lid in its closed position, said frame having an opening between the front edges of said end walls to accommodate the knees of a person using the machine, a front wall panel hinged at one end to said frame so as to be adapted when closed to cover said opening and being adapted when opened to underlie said top lid in extended position, other cooperating latch means on said front wall panel and frame for locking said front wall panel in its closed position, a bottom wall panel removably secured to said frame, corner sockets mounted within said frame, and collapsible supporting legs adapted to be inserted in said sockets for supporting said frame when the box is used as a stand, said legs when collapsed being adapted to fit within the box and to be supported on the sockets of the front corners of the frame.

3. In a combination carrying case and stand for a portable machine, a rectangular box having a rigid frame comprising top, rear, and end walls, the top wall forming a shelf adapted to support the machine in operative position, a lid hinged at one end to said frame so as to be adapted in one position to overlie and completely conceal said shelf and being swingable into extended position in coplanar relation with said shelf to form a continuous work supporting surface, said frame having an opening between the front edges of said end walls to accommodate the knees of a person using the machine, a front wall panel hinged at one end to said frame so as to be adapted when closed to cover said opening and being adapted when opened to underlie said top lid in extended position, collapsible supporting legs adapted when collapsed to fit within said box, and attaching means within said frame for detachably securing said legs to the box at the corners thereof, part of said attaching means forming a support for the collapsed legs within said box.

4. In a combination carrying case and stand for a portable machine, a rectangular box having a rigid frame comprising top, rear, and end walls, the top wall forming a shelf adapted to support the machine in operative position, a lid hinged at one end to said frame so as to be adapted in one position to overlie and completely conceal said shelf and being swingable into extended position in coplanar relation with said shelf to form a continuous work supporting surface, said frame having an opening between the front edges of said end walls to accommodate the knees of a person using the machine, a front wall panel hinged at one end to said frame so as to be adapted when closed to cover said opening and being adapted

when opened to underlie said top lid in extended position, latch means for locking said lid in its closed position, other latch means for locking said front wall panel in its closed position, collapsible supporting legs adapted when collapsed to fit within said box, and attaching means within the corners of said frame for detachably securing said legs to said box, the attaching means within the two front corners forming supporting ledges for the collapsed legs within the box.

5. In a combination carrying case and stand for a portable machine, a rectangular box having a rigid frame comprising top, rear, and end walls, the top wall forming a shelf adapted to support the machine in operative position, a lid hinged at one end to said frame so as to be adapted in one position to overlie and completely conceal said shelf and being swingable into extended position in coplanar relation with said shelf to form a continuous work supporting surface, said frame having an opening between the front edges of said end walls to accommodate the knees of a person using the machine, a front wall panel hinged at one end to said frame so as to be adapted when closed to cover said opening and being adapted when opened to underlie said top lid in extended position, a bottom wall panel removably secured to said frame, corner sockets mounted within said frame, the corner sockets at the front of the frame forming ledges spaced inwardly from said front wall panel at respectively opposite ends of said opening, and collapsible supporting legs adapted to be inserted in said sockets for supporting said frame when the box is used as a stand, said legs being collapsible to fit within said opening and to be supported on said ledges when the box is used as a carrying case.

6. In a combination carrying case and stand for a portable machine, a rectangular box having a rigid frame comprising top, rear, and end walls, the top wall forming a shelf adapted to support the machine in operative position, a lid hinged at one end to said frame so as to be adapted in one position to overlie and completely conceal said shelf and being swingable into extended position in coplanar relation with said shelf to form a continuous work supporting surface, a narrow apron extending across the front of said frame between said end walls, the lower edge of said apron and the forward edges of said end walls defining an opening, a front wall panel hinged at one end to said frame so as to be adapted when closed to conceal said opening and said apron, cooperating latch means on said front wall panel and on said frame for locking said panel in its closed position, corner sockets within said frame, two of said sockets being spaced inwardly from said front wall panel to form ledges at respectively opposite sides of said opening, and supporting legs adapted to be inserted in said sockets for supporting said frame when the box is used as a stand, said legs being collapsible so as to be adapted to fit within said opening and to be supported on said ledges when the box is used as a carrying case.

7. In a combination carrying case and stand for a portable machine, a rectangular box having a rigid frame comprising top, rear, and end walls, the top wall forming a shelf adpted to

support the machine in operative position, a lid hinged at one end to said frame so as to be adapted in one position to overlie and completely conceal said shelf and being swingable into extended position in coplanar relation with said shelf to form a continuous work supporting surface, said frame having an opening between the front edges of said end walls to accommodate the knees of a person using the machine, a front wall panel hinged at one end to said frame so as to be adapted when closed to cover said opening and being adapted when opened to underlie said top lid in extended position, a bottom wall panel removably secured to said frame, latch means on said frame for locking said lid, front wall panel and bottom wall panel in their closed positions, corner sockets mounted within said frame, two of said sockets at the front of said frame forming ledges spaced inwardly from said front wall panel at the opposite sides of said opening, and supporting legs adapted to be inserted in said sockets for supporting said frame when the box is used as a stand, said legs being collapsible to fit within said opening for support by said ledges when the box is used as a carrying case.

8. In a combination carrying case and stand for a portable machine, a rectangular box having a rigid frame comprising top, rear, and end walls, the top wall forming a shelf adapted to support the machine in operative position, a lid hinged at one end to said frame so as to be adapted in one position to overlie and completely conceal said shelf and being swingable into extended position in coplanar relation with said shelf to form a continuous work supporting surface, said frame having an opening between the front edges of said end walls to accommodate the knees of a person using the machine, a front wall panel hinged at one end to said frame so as to be adapted when closed to cover said opening and being adapted when opened to underlie said top lid in extended position, a bottom wall panel removably secured to said frame, latch means on said frame for locking said lid, front wall panel and bottom wall panel in their closed positions, a carrying handle secured to said front wall panel, corner sockets mounted within said frame, two of said sockets at the front of said frame forming ledges spaced inwardly from said front wall panel at the opposite sides of said opening, and supporting legs adapted to be inserted in said sockets for supporting said frame when the box is used as a stand, said legs being collapsible to fit within said opening for support by said ledges when the box is used as a carrying case.

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