Aug. 5, 1941. J. C. NEWTON 2,251,753

PORTABLE TOOL CASE

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Fig. 1.

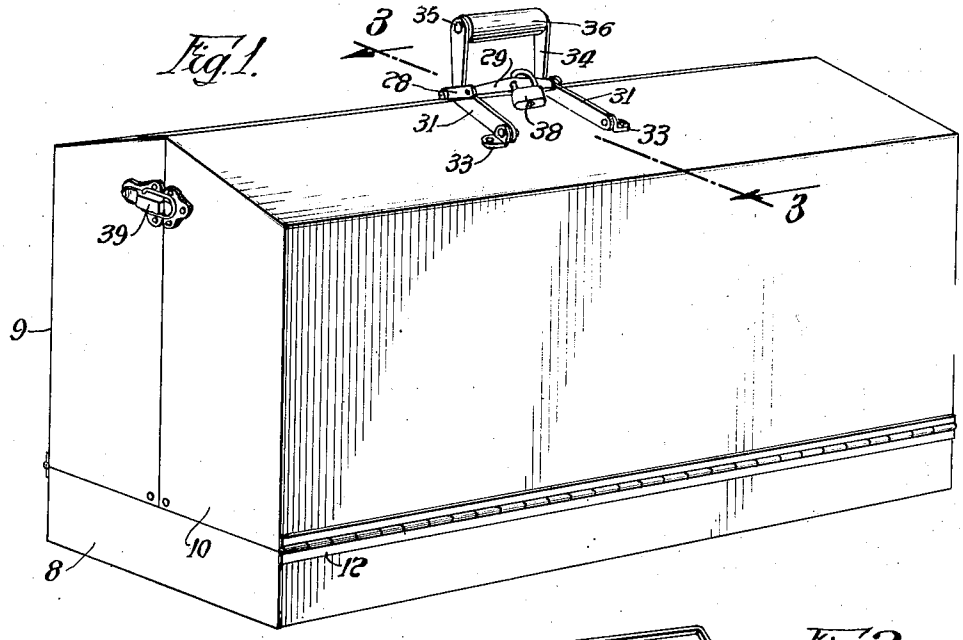
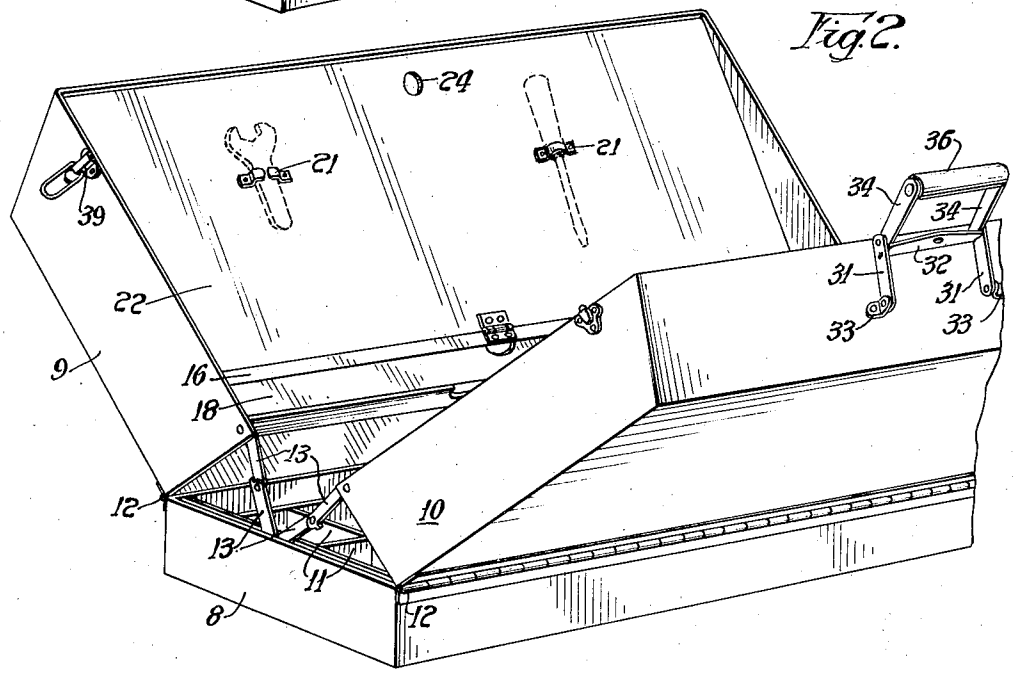


Fig. 2.



Inventor:
John C. Newton,
By:
Parker, Carlson, Pitzner & Hubbard.
Attorneys.

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Fig. 3.

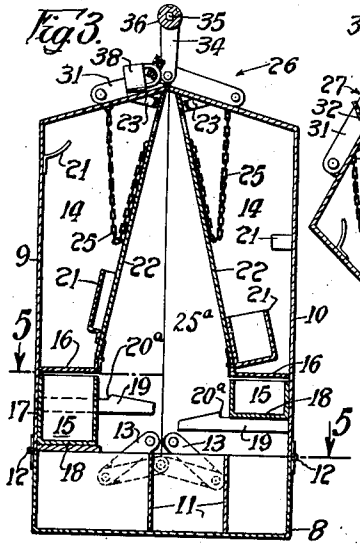


Fig. 4.

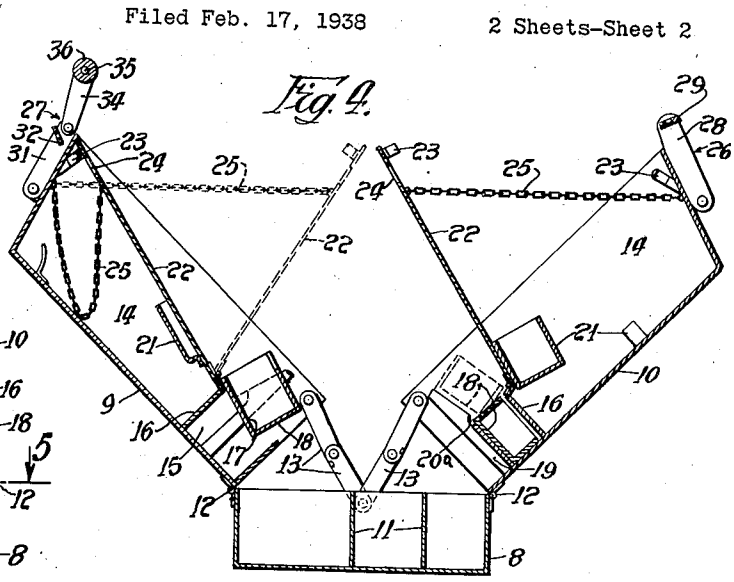
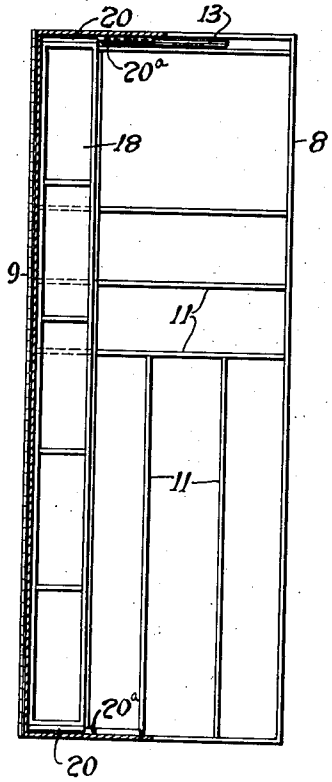


Fig. 5.



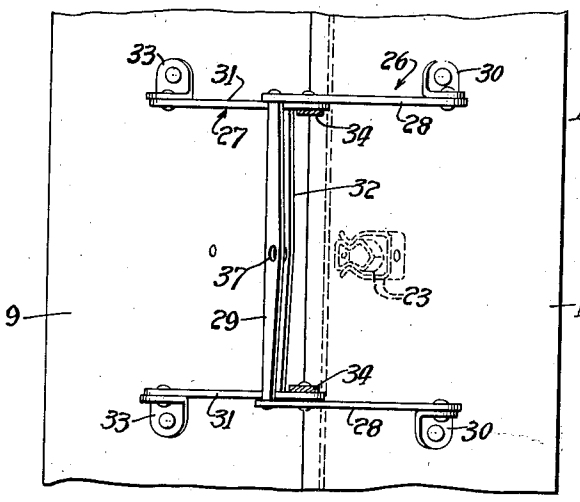
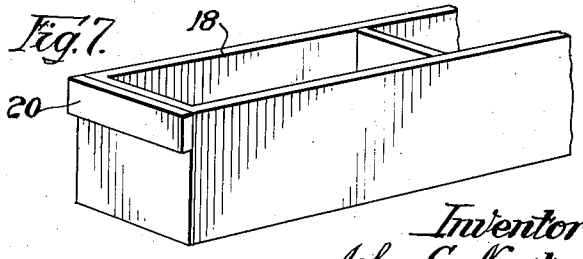


Fig. 6.

Fig. 7.



Inventor:
John C. Newton,
By:
Parker, Carlson, Pettigrew & Hubbard
Attorneys.

Patented Aug. 5, 1941 2,251,753

UNITED STATES PATENT OFFICE

2,251,753

PORTABLE TOOL CASE

John C. Newton, Oak Park, Ill.

Application February 17, 1938, Serial No. 190,945

8 Claims. (Cl. 206—16)

The invention relates to cases for tools such as those used by mechanics, carpenters and other artisans, and more particularly to an improved tool case of the portable type.

One object of the invention is to provide a tool case of the above character which, while of compact construction, has a large tool carrying capacity and in which each tool may be held in its own individual space and in a position such that the tools are conveniently displayed for visual inspection and readily accessible for use when the case is opened.

Another object is to provide a tool case of the type having outwardly opening side sections wherein the carrying handle serves additionally as a latch to hold the side sections closed so that any possibility of the case becoming accidentally opened while being carried is effectively avoided.

Still another object is to provide a novel combined carrying handle and latching device for portable tool cases or the like which is of simple and sturdy construction, which is inexpensive to manufacture and which is efficient in operation.

With the foregoing and other objects in view, the invention resides in the construction, combination and arrangement of the parts as will be described in detail hereinafter, reference being had to the accompanying drawings which disclose the preferred embodiment of the invention. It is to be understood, however, that various changes and modifications may be made by those skilled in the art without departing from the spirit and scope of the invention as expressed in the appended claims.

Referring to the drawings:

Figure 1 is a perspective view of a tool case embodying the features of the invention.

Fig. 2 is a perspective view of the tool case with the side sections opened.

Fig. 3 is a transverse sectional view of the case taken along the line 3—3 of Fig. 1.

Fig. 4 is a transverse sectional view of the case taken along the same line as Fig. 3 and showing the side sections in open position.

Fig. 5 is a sectional view taken along the line 5—5 of Fig. 3.

Fig. 6 is a top view of the case showing details of the carrying handle and latch mechanism.

Fig. 7 is a detail view of one of the trays with which the case is fitted.

The improved tool case may be made of sheet metal, wood or other suitable material. As herein shown, it comprises generally a rectangular box-like base section 8 and opposed complementary side sections 9 and 10. The base section 8 is of sufficient depth to provide storage space for miscellaneous supplies or tools that are not readily accommodated on supporting fixtures. Preferably, the base is divided into a series of separate compartments by suitable partitioning members 11.

The side sections 9 and 10 are preferably identical in form. As herein shown, each comprises a rectangular box-like body with the bottom wall and a side wall omitted. These sections are mounted above the base with their open sides facing, so that together they constitute the upper portion of the complete case.

The side sections are secured respectively to opposed side edges of the base 8 by hinges 12 so as to open outwardly and to meet substantially at the center line of the base when closed together. Jointed links 13 connected between the base and the cover sections limit the outward movement of the latter so that when the case is opened, the side sections are held in an upwardly and inwardly opening position and the tools stored within the base 8 are fully exposed to view.

In the particular case illustrated, each side section is divided into a relatively large upper compartment 14 and a substantially smaller lower compartment 15 by a partitioning member 16 extending longitudinally of the section. The compartments 15 are particularly adapted to accommodate sliding drawers or trays 17 and 18 suitable for holding tools or supplies, such as bolts, nuts, cotter pins, nails, etc.

The trays 17 and 18 may be supported in any suitable manner so as to slide into and out of their respective compartments. As herein shown, support for the trays is provided by wood or metal strips in the form of cleats 19 secured to the end walls of the cover sections which form ledges for holding the trays. The trays may rest directly on the cleats or may be provided with projecting cleat-engaging members 20 at each end as shown in Fig. 7.

The cleats 19 are preferably formed so as to prevent the trays from accidentally sliding out of their compartments when the case is closed and for supporting the trays in a withdrawn position. To this end, each cleat is formed with a shoulder or abutment 20a on its upper edge adapted to engage the forward edge of the tray or cleat-engaging member 20 and acting as a stop to prevent movement of the tray out of the

compartment. When the tray is to be withdrawn, it is lifted sufficiently to clear the shoulder 20a and may then be pulled forwardly and out of the compartment.

As will be seen by reference to Fig. 3, the projecting end of the cleat 19 is formed with its upper edge inclined at an angle with respect to the upper edge of the portion within the tray compartment. The tray when withdrawn may be supported in an upright position on this projecting portion of the cleat, and due to the inclination thereof, it is held in a position such that its upper rear edge engages the partitioning member 16, as shown in Fig. 4. The tray is therefore prevented from accidentally sliding back into the compartment. It may be replaced in the compartment when desired, however, by simply tilting it sufficiently to pass under the partitioning member.

The upper compartment 14 of the side section provides ample storage space for a wide variety of tools. These may be conveniently carried on tool-retaining fixtures 21 secured to the walls of the section. A number of different fixtures have been shown by way of illustration, but it will be appreciated that these may vary in form according to the particular type of tools to be stored in the case.

Additional mounting space for tools is provided by a swinging tool support 22 which, in the present instance, forms a cover or lid for the open side of the upper compartment 14. The support 22 is preferably hinged at its lower edge to the partitioning member 16 in a manner such that it may be swung outwardly toward the opposite side section when the case is opened. It may be fitted with the tool-retaining fixtures 21 on both sides as shown in Figs. 2 and 4. These, with the fixtures mounted within the compartments 14 and the compartments of the base 8, provide an individual space for each of a large number of tools.

Each support 22 is fitted with a suitable spring catch 23 adapted to hold it in closed position. A suitable gripping member such as a finger hole 24 in the support adjacent the catch provides a means by which the catch may be disengaged and the support swung to its open position. Movement of the support is limited by a flexible member in the form of a chain 25 connected between the side section and the support. The chains 25 are preferably of suitable length to hold the supports in a position for readily displaying the contents of the compartments 14 as well as the tools carried on the inner sides of the support.

Referring to Fig. 3, it will be observed that the partitioning members 16 and bottom walls of the side sections 9 and 10 are substantially narrower than the top walls of the sections. This provides increased accessibility to the base 8 as the base is substantially fully uncovered when the side sections 9 and 10 are swung to the open position shown in Fig. 4. Moreover, since the supports 22 are hinged to the forward edge of the partitioning members, they define a compartment 25a generally triangular in cross section which extends upwardly from the base 8 substantially to the top walls of the side sections. The space thus provided permits the storage of relatively large tools in the central portion of the base 8 and is also adapted to accommodate tools retained on the outer sides of the supporting members 22.

It will be apparent that the improved tool case has a large tool carrying capacity, and yet by reason of the novel construction and arrangement of the parts above described is capable of holding the tools in a manner such that they are readily accessible for inspection or use. Thus, when the side sections 9 and 10 are opened, the tools stored in the base are fully exposed. Further, the sections are held by the links 13 at an angle such that the tool supports 22 face inwardly and upwardly so that the tools retained thereon are all in plain view.

The tools stored in the compartments 14 and on the inner faces of the supports 22 likewise may be fully exposed by swinging the supports to open position. The supports are thus held at an angle such that the tools in the compartments, as well as those retained on the inner faces of the supports, are all in plain view.

For carrying the case, I provide a combined carrying handle and latching device of novel construction. In its preferred form, this device comprises generally a U-shaped member 26 pivotally secured to one side section and a cooperating member 27 pivoted to the other side section. The member 26 consists of side bars 28 rigidly connected at one end by a flat transverse bar 29. The bars 29 are pivoted to brackets 30 secured in any suitable manner to the top wall of the section 10 so that the member can swing transversely of the case and extend slightly beyond the center line of the case when the case is closed as shown in Figs. 3 and 6.

The member 27 preferably comprises two U-shaped elements, one having side bars 31 connected by a rigid cross bar 32 and pivoted on brackets 33 suitably secured to the top wall of the section 9. The other element has side bars 34 pivoted to the free ends of the side bars 31 of the first mentioned element closely adjacent the cross bar 32. The projecting ends of the side bars 34 are connected by a suitable cross pin 35 which may conveniently be enclosed by a tubular member 36 of wood or other suitable material which constitutes a carrying handle.

The member 27 is slightly narrower than the U-shaped member 26 and is mounted so that it may be inserted through the latter member and interlocked therewith when the sections 9 and 10 are closed together. When the members 26 and 27 are thus interlocked, the handle 36 is grasped and the side bars 36 are raised to a substantially vertical position in which they engage the cross bar 29 of the member 26 and thereby tend to draw the two side sections together. It will be apparent, therefore, that any liability of the case opening accidentally while being carried is effectively avoided by the above construction.

The combined carrying and latching device may also be utilized to lock the side sections 9 and 10 in closed position. To this end, the cross members 29 and 32 are formed with suitable holes 37 adapted to register when the carrying members are interlocked. A padlock 38 or the like is inserted through the holes, thus preventing opening the case. Other latching means such as draw bolts 39 may be provided for holding the case closed independently of the lock.

It will be apparent from the foregoing that the invention provides a portable tool case of novel and improved construction. The case is constructed and arranged to utilize the available space to best advantage and thus has a relatively large storage capacity for its size. Individual mounting space is provided for each tool so that they may be found when required for use, or

their absence may be quickly detected upon visual inspection. The various elements of the case are so constructed and arranged that the tools are conveniently displayed for such inspection and are readily accessible for use upon opening the case so that no time need be lost in hunting for a desired tool.

The improved case also embodies novel means constituting a combined carrying handle and latching means which effectively prevents accidental opening of the case while being carried. The combined handle and latch device is simple and sturdy in construction, inexpensive to manufacture and very effective in operation.

I claim as my invention:

1. A tool case comprising, in combination, a rectangular box-like base section open at the top, complementary box-like side sections hinged to opposite sides of the base section to open outwardly and effective to completely cover the base section when closed together, said base section and said side sections forming compartments for the storage of tools, a swinging tool supporting member hinged to each side section to cover the compartment of the associated section when in closed position and to open toward the center of the case, means for limiting the opening movements of the side sections effective to hold the sections when opened in a position so as to expose whatever tools that may be stored in the base section or retained on the outer sides of said supporting members, and means for limiting the opening movements of said supporting members effective to hold the members when opened in a position to expose tools which may be retained in the compartments of the side sections and on the inner sides of the members.

2. A tool case comprising, in combination, a rectangular box-like base section open at the top, complementary box-like side sections hinged to opposite sides of the base section to open outwardly and effective to completely cover the base section when closed together, said base section and said side sections forming compartments for the storage of tools, a swinging tool supporting member hinged to each side section to cover the compartment of the associated section when in closed position and adapted to open toward the center of the case, said supporting members being spaced apart when the case is closed to define a compartment in the central portion of the case capable of accommodating relatively large tools stored in the base or tools retained on the outer sides of the supporting members, and means for limiting the opening movements of the side sections and supporting members effective when the case is opened to hold the same in a position to display whatever tools are stored in said compartments or retained on said supporting members.

3. A tool case comprising, in combination, a rectangular box-like base section open at the top, complementary box-like side sections hinged to opposite sides of said base to open outwardly and to close together to completely cover the base section, a partitioning member in each side section dividing the section into upper and lower compartments, a tray slidably supported in each lower compartment, a tool supporting member hinged to the partitioning member of each side section and effective to close the section, said partitioning members being substantially narrower than the top walls of the respective side sections so that the partitioning members are disposed at an angle to the base section to define therewith a relatively large compartment of generally triangular cross section which extends from the base substantially to the top walls of the side sections, said trays conforming in width to the width of said partitioning members whereby the base section is substantially completely uncovered when the side sections are swung to open position.

4. A tool case having, in combination, a base section, a side section hinged to said base section and adapted to be tilted outwardly at an angle to the base section, a compartment extending longitudinally of the side section, a tray adapted to slide into and out of said compartment, and guide means for said tray comprising cleats secured to the end walls of the section adjacent the bottom of said compartment, said cleats having a portion within the compartment presenting ledges for supporting the tray in a substantially vertical position when the case is closed and a portion without the compartment presenting ledges disposed at an angle to said first mentioned ledges whereby to hold the tray in an upright position when withdrawn from the compartment with the side section in tilted position.

5. A tool case comprising, in combination, a rectangular base section, side sections hinged to opposite sides of said base section and adapted to be tilted outwardly at an angle to the base section when the case is opened, trays for each side section, and tray supporting elements forming ledges on the end walls of said side sections for slidably supporting the trays, said elements being formed with angularly related upper edge portions effective respectively to hold a tray in open and closed positions.

6. A tool case comprising, in combination, a rectangular box-like base section open at its upper end, complementary side sections hinged to opposite sides of said base section to open outwardly, means for limiting the outward movement of said side sections to a position defining an angle with the side walls of the base section, a tray for each side section, and tray supporting and guiding elements carried on the walls of the sections, said elements being formed with abutments operative to hold the tray against accidental withdrawal from the section.

7. In a portable tool case, in combination, a base section, a pair of side sections hinged to said base section to swing outwardly and to close together, and a combined carrying handle and latching device for the case comprising a U-shaped member pivoted on one side section, a cooperating member including spaced side bars each pivoted at one end on the other side section and adapted to be inserted through said U-shaped member to interlock with the same, and a carrying handle secured between the free ends of said side bars operative to force the bars into engagement with the cross piece of said U-shaped member and thereby draw the side sections together when the case is lifted by means of said handle.

8. A combined carrying handle and latching device for portable tool cases of the type having opposed side sections hinged to swing outwardly and to close together, said device comprising, in combination a generally U-shaped member adapted to be pivotally secured to one section of the case, a second member adapted to be pivoted to the other section of the case and insertable through said U-shaped member when the sections are closed together, said second member including a pair of spaced side bars each pivoted

at one end on said other section, a second pair of side bars each pivoted to the free end of one of said first bars, and a cross piece connecting the free ends of said second bars to form a carrying handle for the case, said second pair of bars being movable to a substantially vertical position by said handle to engage the cross piece of said U-shaped member and thereby draw the two sections of the case together when the handle is raised to carrying position.

JOHN C. NEWTON.