PORTABLE DESKTOP

Inventors: Allan Villapanda, San Dimas, CA (US); Tony To, Westminster, CA (US); Helena Lam, Thousand Oaks, CA (US); Cuong Phu Bui, Agoura, CA (US)

Correspondence Address:
TOPE-MCKAY & ASSOCIATES
23852 PACIFIC COAST HIGHWAY #311
MALIBU, CA 90265 (US)

Appl. No.: 11/586,484
Filed: Oct. 24, 2006

Related U.S. Application Data
Provisional application No. 60/730,442, filed on Oct. 24, 2005.

Publication Classification
Int. Cl.
A47B 000200 (2006.01)
U.S. Cl. .......................................................... 108/43

ABSTRACT
A portable desktop is described. The portable desktop includes an openable container having a cover and a bottom housing. The cover is hingedly connected with the bottom housing. A prop is hingedly connected with the cover for adjusting an opening of the openable container. Additionally, the bottom housing has notches therein for allowing the prop to adjust the opening by affixing with the notches. A ledge is attached with the first cover to prevent an object from sliding off the cover. When closed, the cover and bottom housing operate as a container to hold objects therein. When opened, a user may place an object against the cover to use the cover as a desktop.
PORTABLE DESKTOP

[0001] PRIORITY CLAIM

[0002] The present application is a non-provisional application, claiming the benefit of priority of U.S. Provisional Application No. 60/730,442, filed on Oct. 24, 2005, titled, “Portable Desktop.”

BACKGROUND OF THE INVENTION

[0003] (1) Field of Invention

[0004] The present invention relates to a work surface and, more particularly, to a case that is openable to operate as a portable desktop

[0005] (2) Description of Related Art

[0006] Desks have long been known in the art. Desks are typically large, furniture-like structures. The structures are often used as a work space with a writing surface thereon and a storage compartment therein. Existing desks do not allow for portability and placement of the desktop upon a user’s lap.

[0007] Thus, a continuing need exists for a portable desktop that can be placed upon a user’s lap to function as a work surface.

SUMMARY OF INVENTION

[0008] The present invention relates to a portable desktop. The portable desktop has an operable container with a cover and a housing. The cover is hingedly connected with the bottom housing. A is hingedly connected with the cover by a prop hinge for adjusting an opening of the operable container. The bottom housing has multiple notches therein for allowing the prop to adjust the opening by affixing with the multiple notches. When closed, the cover and bottom housing operate as a container to hold objects therein. When opened, a user may place an object against the cover to use the cover as a desktop.

[0009] In another aspect, the portable desktop has a ledge attached with the cover. The ledge prevents objects from sliding off the cover.

[0010] In yet another aspect, the portable desktop has a retention mechanism and a retention mechanism spring connecting the retention mechanism with the cover. A user may lift the retention mechanism away from the cover and place objects between the retention mechanism and the cover; the retention mechanism spring then causes the retention mechanism to force said objects against the cover and hold said objects rigidly in place.

[0011] In yet another aspect, the portable desktop has a cover outer-raised portion and a cover outer-recessed portion. The cover outer-raised portion and the cover outer-recessed portion form a shelf, allowing a user to place media in the cover outer-recessed portion such that said media rests against the cover outer-raised portion.

[0012] In yet another aspect, the portable desktop has a media crossbar that spans the cover outer-recessed portion. A user may place media in the cover outer-recessed portion and brace said media with the media crossbar to, for example, hold open the pages of bound books.

[0013] In yet another aspect, the portable desktop has a handle connected with the cover. A user may grip the handle and carry the portable desktop like a briefcase when the portable desktop is closed.

[0014] In yet another aspect, the portable desktop has a securing mechanism, for example a latch, connected with the cover. The securing mechanism has a securing mechanism release mechanism. A securing mechanism slot is also formed in the bottom housing. A user can insert the securing mechanism into the securing mechanism slot, preventing the portable desktop from coming open when it is closed and selectively operate the securing mechanism release mechanism to open the portable desktop.

[0015] In yet another aspect, the portable desktop’s securing mechanism release mechanism is operated whenever a user presses the retention mechanism against the cover.

[0016] In yet another aspect, the portable desktop has a second prop hingedly connected with the cover by a second prop hinge. A second set of multiple notches is formed in the bottom housing for affixing with the second prop. Additionally, a prop crossbar is connected with the prop and the second prop. The user can simultaneously engage the prop and the second prop with multiple notches.

[0017] In yet another aspect, the portable desktop has a bottom housing recessed portion and a bottom housing raised portion. The multiple notches are formed therein in the bottom housing raised portion. A cover inner-raised portion and a cover inner-recessed portion are also formed in the cover. Further, a cover groove portion is formed in the cover inner-raised portion. The operable container is delimited by the cover inner-raised portion and the bottom housing raised portion, and a user can store the prop in the cover groove portion when closing the portable desktop.

[0018] Finally, as can be appreciated by one in the art, the present invention also comprises a method for forming and using the portable desktop described herein.

BRIEF DESCRIPTION OF THE DRAWINGS

[0019] The objects, features and advantages of the present invention will be apparent from the following detailed descriptions of the various aspects of the invention in conjunction with reference to the following drawings, where:

[0020] FIG. 1 is a front view illustration of the portable desktop in an open position;

[0021] FIG. 2 is a front view illustration of the portable desktop in a closed position;

[0022] FIG. 3A is a side-view illustration of the portable desktop in an open, inclined position;

[0023] FIG. 3B is a side-view illustration of portable desktop in an open, inclined position with the cover and bottom housing made partially transparent to emphasize how the user seats the prop in the multiple notches;

[0024] FIG. 3C is a side-view illustration of the portable desktop in an open, inclined position with the cover made partially transparent to emphasize how media would be placed in the cover outer-recessed portion;
[0025] FIG. 4A is a side-view illustration of the portable desktop in a closed position;

[0026] FIG. 4B is a side-view illustration of the portable desktop in a closed position with the cover and bottom housing made partially transparent to emphasize how the prop is stored when the portable desktop is in a closed position;

[0027] FIG. 5A is a side-view illustration of the portable desktop in a closed position with the cover and bottom housing made partially transparent to emphasize how the securing mechanism interacts with the securing mechanism slot to keep the portable desktop closed;

[0028] FIG. 5B is a side-view illustration of the portable desktop in a closed position with the cover and bottom housing made partially transparent to emphasize how the securing mechanism interacts with the securing mechanism slot when opening the portable desktop; and

[0029] FIG. 5C is a side-view illustration of the portable desktop in a closed position with the cover and bottom housing made partially transparent to emphasize that the securing mechanism is independent of the retention mechanism spring, allowing the user to selectively hold and release media regardless of whether the securing mechanism is affixed in the securing mechanism slot.

DETAILED DESCRIPTION

[0030] The present invention relates to a work surface and, more particularly, to a case that is openable to operate as a portable desktop. The following description is presented to enable one of ordinary skill in the art to make and use the invention and to incorporate it in the context of particular applications. Various modifications, as well as a variety of uses in different applications will be readily apparent to those skilled in the art and the general principles defined herein may be applied to a wide range of embodiments. Thus, the present invention is not intended to be limited to the embodiments presented, but is to be accorded the widest scope consistent with the principles and novel features disclosed herein.

[0031] In the following detailed description, numerous specific details are set forth in order to provide a more thorough understanding of the present invention. However, it will be apparent to one skilled in the art that the present invention may be practiced without necessarily being limited to these specific details. In other instances, well-known structures and devices are shown in block diagram form, rather than in detail, in order to avoid obscuring the present invention.

[0032] The reader's attention is directed to all papers and documents which are filed concurrently with this specification and which are open to public inspection with this specification, and the contents of all such papers and documents are incorporated herein by reference. All the features disclosed in this specification (including any accompanying claims, abstract, and drawings) may be replaced by alternative features serving the same, equivalent or similar purpose, unless expressly stated otherwise. Thus, unless expressly stated otherwise, each feature disclosed is one example only of a generic series of equivalent or similar features.

[0033] Furthermore, any element in a claim that does not explicitly state “means for” performing a specified function, or “step for” performing a specific function, is not to be interpreted as a “means” or “step” clause as specified in 35 U.S.C. Section 112, Paragraph 6. In particular, the use of “step of” or “act of” in the claims herein is not intended to invoke the provisions of 35 U.S.C. 112, Paragraph 6.

[0034] Please note, if used, the labels left, right, back, top, bottom, forward, reverse, clockwise and counter clockwise have been used for convenience purposes only and are not intended to imply any particular fixed direction. Instead, they are used to reflect relative locations and/or directions between various portions of an object.

[0035] (1) Description

[0036] FIG. 1 is a front view illustration of the portable desktop in an open position.

[0037] The portable desktop is an openable container comprising a cover 100 and a bottom housing 102. The cover 100 is attached with the bottom housing 102 through a hinge 104, allowing the cover 100 and bottom housing 102 to pivot around the hinge 104. A prop 106 is attached with the cover 100 via a prop hinge 108. It should be noted that the prop 106, the cover 100, and the bottom housing 102 are separately formed and attached with each other using standard hinging techniques.

[0038] As can be appreciated by one of ordinary skill in the art, the prop 106 can be any suitable adjustment mechanism for allowing a user to adjust the width of the angle between the cover 100 and the bottom housing 102.

[0039] Multiple notches 110 are formed in the bottom housing 102 so that the prop 106 can be positioned against any of the multiple notches 110. A user can selectively place the prop 106 within any of the multiple notches 110 to maintain the cover 100 in an inclined position with respect to the bottom housing 102.

[0040] A bottom portion of the retention mechanism 112 (not shown in FIG. 1) includes a securing mechanism 114. The securing mechanism 114 is formed so that when the portable desktop is in a closed position, the securing mechanism 114 fits inside the securing mechanism slot 116 on the bottom housing 102. When closed, the securing mechanism 114 becomes affixed within the securing mechanism slot 116 to secure the cover 100 against the bottom housing 102.

[0041] A handle 118 is formed on the bottom housing 102. When the portable desktop is in a closed position, the handle 118 allows a user to carry the portable desktop like a briefcase. One of ordinary skill in the art can appreciate that the handle 118 can be attached to any portion of the portable desktop provided it allows the user to carry the portable desktop in a balanced position when closed. In particular, the handle 118 could be attached to the cover 100.

[0042] The bottom housing includes a bottom housing recessed portion 120 and a bottom housing raised portion 122 surrounding the bottom portion recessed portion 120. The multiple notches 110 and the securing mechanism slot 116 are formed in the bottom housing raised portion 122.

[0043] The cover includes a cover inner-raised portion 124 and a cover inner-recessed portion 126. The cover inner-raised portion 124 includes a cover groove portion 128 (not shown in FIG. 1 for clarity). The cover groove portion 128 extends out from the cover inner-raised portion 124 sub-
stantially perpendicular to the cover 100. The prop 106 can be rotated inside the cover groove portion 128 via the prop hinge 108 such that, when the portable desktop is closed, the cover inner raised portion 124 and the bottom housing raised portion 122 make contact against one another without interference -from the prop 106.

[0044] The portable desktop is depicted here as having a prop crossbar 130. One of ordinary skill in the art can appreciate that the cover groove portion 128 must accommodate the prop crossbar 130; for example, the cover groove portion 128 could be made with slots or notches where the prop crossbar 130 would otherwise contact the cover groove portion 128.

[0045] When the portable desktop is in a closed position, the bottom housing recessed portion 120 and the cover inner-recessed portion 126 form a substantially-closed container for storing any items that the user may wish to store.

[0046] FIG. 2 is a front view illustration of the portable desktop in a closed position. A cover outer-raised portion 132 surrounds a cover outer-recessed portion 134. Media may be placed in the cover outer-recessed portion 134 for recreational purposes, examples of which include but are not limited to reading, writing, drawing, and painting.

[0047] A media crossbar 136 spans the cover outer-recessed portion. Shorter media can be supported by the media crossbar 136 alone. The retention mechanism 112 includes a retention mechanism spring 138 (not shown in FIG. 2) that pulls the retention mechanism 112 towards the cover 100. Taller media can be supported or held when a user lifts the retention mechanism 112 and places the media under the retention mechanism 112 such that the retention mechanism 112 holds the media against the cover outer-recessed portion 134.

[0048] A ledge 140 extends from the cover 100. Items can be placed on the ledge 140 when the portable desktop is in an open position, whereby the ledge 140 prevents such items from falling or rolling off the portable desktop.

[0049] A securing mechanism release mechanism 142 is incorporated with the retention mechanism 112. A user can activate the securing mechanism release mechanism 142 while the securing mechanism 112 (not shown in FIG. 2) is affixed in the securing mechanism slot 116 (not shown in FIG. 2); this allows the user to lift the cover 100 and bring the portable desktop to an open position. The securing mechanism release mechanism 142 is independent of the retention mechanism spring 138. Thus, the user can activate the securing mechanism release mechanism 142 to open the portable desktop, even while media is held by the retention mechanism 112 as described above.

[0050] FIG. 3A is a side-view illustration of the portable desktop in an open, inclined position.

[0051] FIG. 3B is a side-view illustration of portable desktop in an open, inclined position with the cover 100 and bottom housing 102 made partially transparent to emphasize how the user seats the prop 106 in the multiple notches 110. As can be appreciated by one of ordinary skill in the art, both the positions of the multiple notches 110 and the length of the prop 106 can be formed to give an arbitrary set of incline angles in which the portable desktop can be used. It will further be appreciated that, although the number of multiple notches 110 is depicted here as four, that number is arbitrary.

[0052] FIG. 3C is a side-view illustration of the portable desktop in an open, inclined position with the cover 100 made partially transparent to emphasize how media would be placed in the cover outer-recessed portion 134.

[0053] FIG. 4A is a side-view illustration of the portable desktop in a closed position.

[0054] FIG. 4B is a side-view illustration of the portable desktop in a closed position with the cover 100 and bottom housing 102 made partially transparent to emphasize how the prop 106 is stored when the portable desktop is in a closed position. The prop 106 is contained within the cover groove portion 128, allowing the cover inner raised portion 124 and the bottom housing raised portion 122 to make contact against one another without interference from the prop 106.

[0055] FIG. 5A is a side-view illustration of the portable desktop in a closed position with the cover 100 and bottom housing 102 made partially transparent to emphasize how the securing mechanism 114 interacts with the securing mechanism slot 116 to keep the portable desktop closed. As an example of a specific securing mechanism, FIG. 5A, 5B, and 5C show a retractable securing mechanism pin 144 engaging a portion of the securing mechanism slot 116; note that the securing mechanism release mechanism 142 is not depressed with respect to the retention mechanism 112. As can be appreciated by one of ordinary skill in the art, many such securing mechanisms are well known, and this example using a retractable securing mechanism pin does not limit the portable desktop.

[0056] FIG. 5B is a side-view illustration of the portable desktop in a closed position with the cover 100 and bottom housing 102 made partially transparent to emphasize how the securing mechanism 114 interacts with the securing mechanism slot 116 when opening the portable desktop. Note that the securing mechanism release mechanism 142 is depressed with respect to the retention mechanism 112, and, accordingly, the retractable securing mechanism pin 144 is retracted. This creates clearance between the securing mechanism 114 and the securing mechanism slot 116, allowing the user to easily open the portable desktop.

[0057] FIG. 5C is a side-view illustration of the portable desktop in a closed position with the cover 100 and bottom housing 102 made partially transparent to emphasize that the securing mechanism 114 is independent of the retention mechanism spring 138, allowing the user to selectively hold and release media regardless of whether the securing mechanism 114 is affixed in the securing mechanism slot 116.

What is claimed is:

1. A portable desktop, comprising:
   an openable container having a cover and a bottom housing, the cover being hINGEly connected with the bottom housing; and
   a prop hingedly connected with the cover by a prop hinge for adjusting an opening of the openable container, whereby when the container is closed, the cover and bottom housing operate as a container to hold objects
therein and when the container is opened, a user may place an object against the cover to use the cover as a desktop.

2. A portable desktop as set forth in claim 1, wherein the bottom housing has multiple notches therein for allowing the prop to adjust the opening by affixing with at least one of the multiple notches.

3. A portable desktop as set forth in claim 1, further comprising a ledge attached with the cover, the ledge being operable to prevent an object from sliding off the cover.

4. A portable desktop as set forth in claim 1, further comprising:

   a retention mechanism; and

   a retention mechanism spring connected with the retention mechanism and the cover, whereby a user may lift the retention mechanism away from the cover and place objects between the retention mechanism and the cover, the retention mechanism spring causing the retention mechanism to force said objects against the cover and hold said objects rigidly in place.

5. A portable desktop as set forth in claim 1, further comprising:

   a cover outer-raised portion; and

   a cover outer-recessed portion, whereby the cover outer-raised portion and the cover outer-recessed portion form a shelf, allowing a user to place media in the cover outer-recessed portion such that said media rests against the cover outer-raised portion.

6. A portable desktop as set forth in claim 5, further comprising a media crossbar that spans the cover outer-recessed portion, whereby a user may place media in the cover outer-recessed portion and brace said media with the media crossbar to, for example, hold open the pages of bound books.

7. A portable desktop as set forth in claim 1, further comprising a handle connected with the cover, whereby a user may grip the handle and carry the portable desktop like a briefcase when the portable desktop is closed.

8. A portable desktop as set forth in claim 1, further comprising:

   a securing mechanism connected with the cover, the securing mechanism having a securing mechanism release mechanism; and

   a securing mechanism slot formed in the bottom housing, whereby a user can insert the securing mechanism into the securing mechanism slot, preventing the portable desktop from coming open when it is closed and selectively operate the securing mechanism release mechanism to open the portable desktop.

9. A portable desktop as set forth in claim 8, where the securing mechanism release mechanism is operated whenever a user presses the retention mechanism against the cover.

10. A portable desktop as set forth in claim 1, further comprising:

    a second prop hingedly connected with the cover by a second prop hinge;

    a second set of multiple notches formed in the bottom housing for affixing with the second prop, and

    a prop crossbar connected with the prop and the second prop, whereby the user can simultaneously engage the prop and the second prop with multiple notches.

11. A portable desktop as set forth in claim 1, further comprising:

    a bottom housing recessed portion;

    a bottom housing raised portion, the multiple notches being formed therein;

    a cover inner-raised portion;

    a cover inner-recessed portion; and

    a cover groove portion formed in the cover inner-raised portion, whereby the openable container is delimited by the cover inner-raised portion and the bottom housing raised portion, and a user can store the prop in the cover groove portion when closing the portable desktop.

12. A portable desktop as set forth in claim 1, further comprising:

    a retention mechanism; and

    a retention mechanism spring connected with the retention mechanism and the cover, whereby a user may lift the retention mechanism away from the cover and place objects between the retention mechanism and the cover, the retention mechanism spring causing the retention mechanism to force said objects against the cover and hold said objects rigidly in place.

13. A portable desktop as set forth in claim 12, further comprising:

    a cover outer-raised portion; and

    a cover outer-recessed portion, whereby the cover outer-raised portion and the cover outer-recessed portion form a shelf, allowing a user to place media in the cover outer-recessed portion such that said media rests against the cover outer-raised portion.

14. A portable desktop as set forth in claim 13, further comprising a media crossbar that spans the cover outer-recessed portion, whereby a user may place media in the cover outer-recessed portion and brace said media with the media crossbar to, for example, hold open the pages of bound books.

15. A portable desktop as set forth in claim 14, further comprising a handle connected with the cover, whereby a user may grip the handle and carry the portable desktop like a briefcase when the portable desktop is closed.

16. A portable desktop as set forth in claim 15, further comprising:

    a securing mechanism connected with the cover, the securing mechanism having a securing mechanism release mechanism; and

    a securing mechanism slot formed in the bottom housing, whereby a user can insert the securing mechanism into the securing mechanism slot, preventing the portable desktop from coming open when it is closed and selectively operate the securing mechanism release mechanism to open the portable desktop.

17. A portable desktop as set forth in claim 16, where the securing mechanism release mechanism is operated whenever a user presses the retention mechanism against the cover.
18. A portable desktop as set forth in claim 17, further comprising:

- a second prop hingedly connected with the cover by a second prop hinge;
- a second set of multiple notches formed in the bottom housing for affixing with the second prop; and
- a prop crossbar connected with the prop and the second prop, whereby the user can simultaneously engage the prop and the second prop with multiple notches.

19. A portable desktop as set forth in claim 18, further comprising:

- a bottom housing recessed portion;
- a bottom housing raised portion, the multiple notches being formed therein;
- a cover inner-raised portion; and
- a cover groove portion formed in the cover inner-raised portion, whereby the openable container is delimited by the cover inner-raised portion and the bottom housing raised portion, and a user can store the prop in the cover groove portion when closing the portable desktop.

20. A method of forming a portable desktop, comprising acts of:

- hingedly connecting a cover and a bottom housing to form an openable container;
- hingedly connecting a prop with the cover by a prop hinge for adjusting an opening of the openable container;
- forming multiple notches in the bottom housing for allowing the prop to adjust the opening by affixing with the multiple notches, whereby when closed, the cover and bottom housing operate as a container to hold objects therein, and, when opened, a user may place an object against the cover to use the cover as a desktop.

21. A method as set forth in claim 20, further attaching a ledge with the cover, the ledge being operable to prevent an object from sliding off the cover.

22. A method as set forth in claim 20, further comprising acts of:

- connecting a retention mechanism spring with the cover; and
- connecting the retention mechanism spring with a retention mechanism, whereby a user may lift the retention mechanism away from the cover and place objects between the retention mechanism and the cover, the retention mechanism spring causing the retention mechanism to force said objects against the cover and hold said objects rigidly in place.

23. A method as set forth in claim 20, further comprising acts of:

- forming an outer-raised portion in the cover; and
- forming an outer-recessed portion in the cover, whereby the outer-raised portion in the cover and the outer-recessed portion in the cover form a shelf, allowing a user to place media in the cover outer-recessed portion such that said media rests against the cover outer-raised portion.

24. A method as set forth in claim 23, further attaching a media crossbar with the outer-recessed portion in the cover such that the media crossbar spans the outer-recessed portion in the cover, whereby a user may place media in the outer-recessed portion in the cover and brace said media with the media crossbar to, for example, hold open the pages of bound books.

25. A method as set forth in claim 20, further attaching a handle with the cover, whereby a user may grip the handle and carry the portable desktop like a briefcase when the portable desktop is closed.

26. A method as set forth in claim 20, further comprising acts of:

- hingedly connecting a second prop with the cover, the securing mechanism having been formed with a securing mechanism release mechanism; and
- forming a securing mechanism slot in the bottom housing, whereby a user can insert the securing mechanism into the securing mechanism slot, preventing the portable desktop from coming open when it is closed and selectively operate the securing mechanism release mechanism to open the portable desktop.

27. A method as set forth in claim 20, further comprising acts of:

- hingedly connecting a second prop with the cover;
- forming a second set of multiple notches in the bottom housing for affixing with the second prop; and
- attaching a prop crossbar with the prop and the second prop, whereby the user can simultaneously engage the prop and the second prop with multiple notches.

* * * * *