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Support for an Electronic Device

Abstract

A holder for an electronic device. The holder including a base member, an extension member extending from the base member and a connection member supported by the extension member. The connection member including a connection mechanism for securing an electronic device thereto. The holder is anchored to an environment and secures the electronic device in the environment so that a user may easily and conveniently view a display of the electronic device in a hands-free manner.

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Background/Summary

FIELD

[0001] This specification relates to supports for supporting and positioning hand-held electronic

devices so that a display screen of the device is properly oriented and within view of a user.

BACKGROUND

[0002] Hand-held electronic devices such as cell phones and tablets are very commonly owned today. Sometimes a user may want to view the device's display while the device is being held by a support device or holder mounted to the nearby environment (e.g., mounted on a vehicle dashboard, a kitchen surface, etc.). For example, a driver of a vehicle whose hands are otherwise occupied may want to occasionally glance at a cellular phone when the vehicle is stopped in order to review directions on the cellular phone screen.

[0003] As a device may also be supported by such a holder for an extended period of time, the holder may include a charging device where the charging device may be wireless or pluggable into the phone charge port. If the holder is mounted in/to a vehicle, power (e.g., from a charge port in the vehicle) may be supplied (e.g., via a charging cord) to the phone while it is supported by the holder.

[0004] It would be beneficial to have an electronic device support or holder capable of supporting an electronic device in a convenient viewing position in an environment and include a charging cable concealed within the holder for charging the electronic device while being held.

BRIEF DESCRIPTION OF THE INVENTION

[0005] The present invention includes a base member. The base member may be connected to an environment structure such as a kitchen counter, an interior of an automobile, or to any other environment where a user may want to (hands-free) view a screen of an electronic device. The device may further include an extension member connected to the base member. At least a portion of the extension member may extend away from the base member. A connector is connected to the extension member so that the connector is engageable with the electronic device to secure the electronic device in a convenient viewable position. An electronic device charger is supported by the connector. A charging cable extends between a power outlet in the environment structure and the electronic device charger to supply power to the electronic charging device while the device is supported by the holder and viewable by the user.

Description

BRIEF DESCRIPTION OF THE DRAWINGS

[0006] Embodiments will now be described by way of non-limiting example with reference to the accompanying drawings in which:

[0007] FIG. 1 is a top front perspective view of the holder of the present invention.

[0008] FIG. 2 is rear view of the holder of FIG. 1.

[0009] FIG. 3 is bottom perspective view of the holder of FIG. 1.

[0010] FIG. 4 is a side view of the holder of FIG. 1.

[0011] FIG. 5 is a front perspective view of the holder of FIG. 1 in an automobile interior environment.

DETAILED DESCRIPTION

[0012] As shown in FIGS. 1-4, disclosed herein is a holder or support **10** for positioning an electronic device to be viewed by a user while being charged. The device includes a base member **100**. Base member **100** includes an insertion portion **110** and a flange portion **120**. Insertion portion **110** may be elongated such that its nominal length L is at least three times its nominal width W . Insertion portion **110** may further include an upper flange end **113** and a lower insertion end **115**. Insertion portion **110** may taper down in width from upper flange end **113** toward to lower insertion end **115** which is a terminal end. Insertion portion **110** may also include ribs **130** that extend longitudinally in the direction of taper and are laterally spaced and located periodically along its length L . Ribs **130** may strengthen a sidewall of insertion portion **110** and tapering of insertion

portion **110** may allow insertion end **115** to be more easily inserted into a receiving portion (e.g., receptacle **405**) in the environment (e.g., in a automobile interior). Insertion portion **110** may also include an opening and passage **140** through which an electrical cable **360** may passed. Flange portion **120** extends laterally outward from insertion portion **110** so that when base portion **100** is inserted into an opening for securement, an upper surface portion **160** of flange portion **120** covers the interface between securement receptacle **405** and insertion portion **110**. The securement opening into which insertion portion **110** is inserted may be in any number of use environments including a vehicle, a kitchen, an office, etc.

[0013] Holder **10** further includes an extension member **200** which is connected to insertion portion **110** and extends away from flange portion **120** of insertion portion **110**. Extension portion **200** may also include an opening or passage through which an electrical cable **360** may be passed. Holder **10** may also include a connector member **300**. Connector member **300** may be (but need not be) round or disk shaped and form a recess (e.g., disk shaped) for receiving a correspondingly shaped electronic member **350**. A wall **310** of connection member **300** may be interrupted at a lower part of connection member **300** to allow for passage of electrical cable **360** therethrough. Extension portion **200** may taper down from flange portion **120** toward connector member **300**. A pin **225** may pass through a portion of extension member **200** and a portion of connector member **300**. Pin **225** may allow connection member **300** to pivot relative to extension member **200** in directions **D1** and **D2** shown in FIG. 4.

[0014] The shaped electronic member **350** may be an electric device charger and may be a wireless charger. The charger **350** may also include a magnet for attracting and securing the electronic device to be charged thereto. As mentioned previously, an electrical cable **360** extends between charger **350** and a power supply port in the environment (e.g., a automobile interior). Electrical cable **360** may extend from a lower portion of charger **350** through a passage in wall **310** of connector member **300**, through opening or passage **240** in extension member **200** and through opening **140** in insertion member **110**. An end of cable **360** may be terminated with an electronic connector **362** (e.g., a USBC connector). Connector **360** may be routed through the vehicle (e.g., through the automobile center console **400**) to a power receptacle located there in (e.g., USBC, USB, etc.).

[0015] FIG. 5 shows a view of an automobile interior from the rear of a vehicle. A center console **400** includes a rest surface **430** for resting objects thereon. Rest surface **430** may also include a wireless charger thereunder for charging electronic devices (e.g., cell phones, watches, etc) placed flat on surface **430**. Rest surface **430** may also include an opening or receptacle **405** where other small items may be stored. Alternatively, receptacle **405** may serve as a receptacle for receiving insertion portion **110** of holder **10**. Receptacle **405** includes an inner opening that comes into contact with ribs **130** of insertion portion **110** so that holder **10** fits snugly in receptacle **405** when insertion portion **110** is fully inserted into receptacle **405**. Furthermore, as mentioned above, flange portion **120** covers receptacle **405** to conceal the interconnection. With cable **360** now extending from opening **140**, cable **360** can be routed through the center console to a power supply port (e.g., hidden in a center console storage compartment). Center console **400** may also include cushioned flip-up compartment doors **422** leading to a storage compartment thereunder (not shown). One or more cup holders **410** may be included for holding at least one cup **420**. A front dashboard display **450** may also be mounted in the vehicle interior.

Claims

1. A holder for an electronic device comprising: a base member, the base member connectable to an environment structure, an extension member connected to the base member, at least a portion of the extension member extending away from the base member, a connector connected to the extension member, the connector engageable with the electronic device to secure the electronic device in a

convenient viewable position, an electronic device charger, the electronic device charger supported by the connector, a charging cable, the charging cable extending between a power outlet in the environment structure and the electronic device charger to supply power to the electronic device charging device.

2. The holder of claim 1, wherein the electronic device charger is a wireless charger.

3. The holder of claim 1, further including a passage through at least one of the base and extension member within which the charging cable passes.

4. The holder of claim 1, wherein the connection member is pivotable relative to the extension member to secure an electronic device at various viewing angles.

5. The holder of claim 1, wherein the base further includes a tapered insertion portion.

6. The holder of claim 5, wherein the insertion portion includes a plurality of downwardly extending ribs.

7. The holder of claim 1, further including an electrical cable passing through the base member.

8. In combination, a vehicle center console and a holder for an electronic device comprising: a center console of a vehicle including a receptacle, a holder including a base member, the base member connectable to the center console, an extension member connected to the base member, at least a portion of the extension member extending away from the base member, a connector connected to the extension member, the connector engageable with the electronic device to secure the electronic device in a convenient viewable position, an electronic device charger, the electronic device charger supported by the connector, a charging cable, the charging cable extending between a power outlet in the environment structure and the electronic device charger to supply power to the electronic device charging device.

9. The combination of claim 8 wherein, the receptacle is an elongate receptacle.

10. The combination of claim 8, wherein the receptacle defines a closed pocket with inward facing walls and an opening at a top thereof capable of holding items placed in the opening for a user's convenience.

11. The combination of claim 8, wherein a length of the receptacle is at least three times a width of the receptacle.

12. The combination of claim 8, wherein the center console further includes a cupholder, the cupholder disposed forward and/or lower than the receptacle so as not to interfere with a cup being placed in the cupholder.

13. The combination of claim 8, wherein the center console further includes a rest surface for resting objects thereon.

14. The combination of claim 13, wherein a wireless charger is disposed under the rest surface so that electronic devices placed on the rest surface may charge wirelessly.

15. The combination of claim 10, wherein the opening is in the same plane as the rest surface.

16. The combination of claim 8, wherein the holder further includes an insertion member and the insertion member is received in the receptacle.

17. The combination of claim 15, wherein the holder further includes an flange member that extends laterally from an end of the insertion member, the flange member limiting the extent of insertion of the insertion member and overlapping the receptacle.

18. The combination of claim 8, wherein the connector is pivotable relative to the extension member.

19. The combination of claim 9, wherein the charging cable passes through at least one passage in the holder and through the center console to a power supply receptacle.

20. In combination, a vehicle center console and a holder for an electronic device comprising: a center console of a vehicle including a receptacle, a holder including a base member, the base member connectable to the center console, an extension member connected to the base member, at least a portion of the extension member extending away from the base member, a connector connected to the extension member, the connector engageable with the electronic device to secure

the electronic device in a convenient viewable position, an electronic device charger, the electronic device charger supported by the connector, a charging cable, the charging cable extending between a power outlet in the environment structure and the electronic device charger to supply power to the electronic device charging device, wherein the receptacle is an elongate receptacle, the receptacle defining a closed pocket with inward facing walls and an opening at a top thereof capable of holding items placed in the opening for a user's convenience, wherein a length of the receptacle is at least three times a width of the receptacle.
