United States Patent [19]

Thaler et al.

[11] **3,924,294**

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[54] **HINGE**

[75] Inventors: **Arnold Thaler; Dan Platt,** both of Miami, Fla.

[73] Assignee: **Topp Electronics, Inc.,** Miami, Fla.

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[52] **U.S. Cl.** **16/174;** 16/143; 16/149; 16/179; 220/340

[51] **Int. Cl.²** **E05D 1/06**

[58] **Field of Search** 16/171, 172, 174, 179, 16/138, 139, 140, 141, 143, 149, 159; 220/335, 340, 334, 337, 338; 312/284, 208, 327, 329

[56] **References Cited**

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Primary Examiner—George H. Krizmanich
Attorney, Agent, or Firm—Clarence A. O'Brien; Harvey B. Jacobson

[57] **ABSTRACT**

A hinge particularly intended for mounting a dust cover on a turntable base, and the like, has a first member pivotally receivable in a holder provided on a second member. The holder is formed by a pair of spaced, parallel projections arranged extending perpendicularly and codirectionally from the base and terminating in parallel flanges extending obliquely from the projections. The first member, which is advantageously a portion of a dust cover, is arrangeable in a position parallel to the projections and a position parallel and abutting the flanges. The first member may be locked in the latter position by being wedged between one flange and a tab provided on the projection associated with the one flange.

6 Claims, 9 Drawing Figures

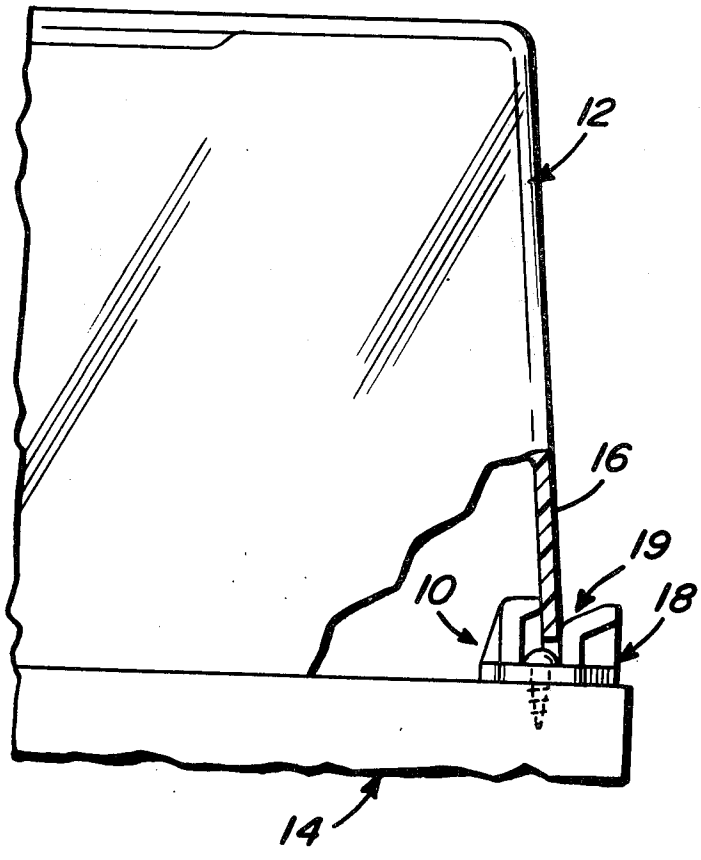
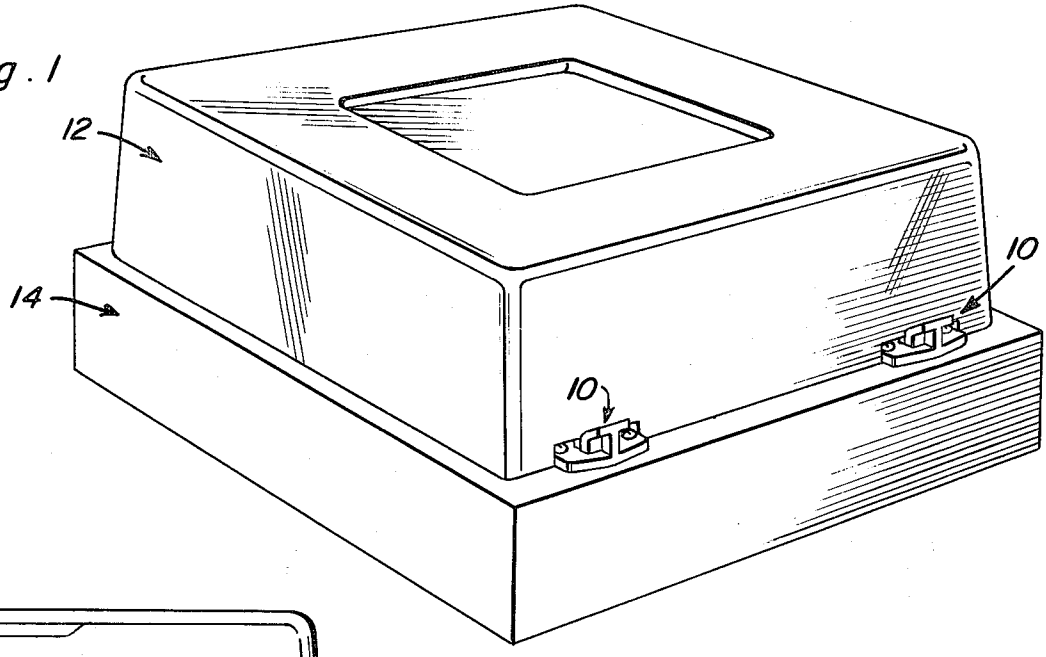


Fig. 1



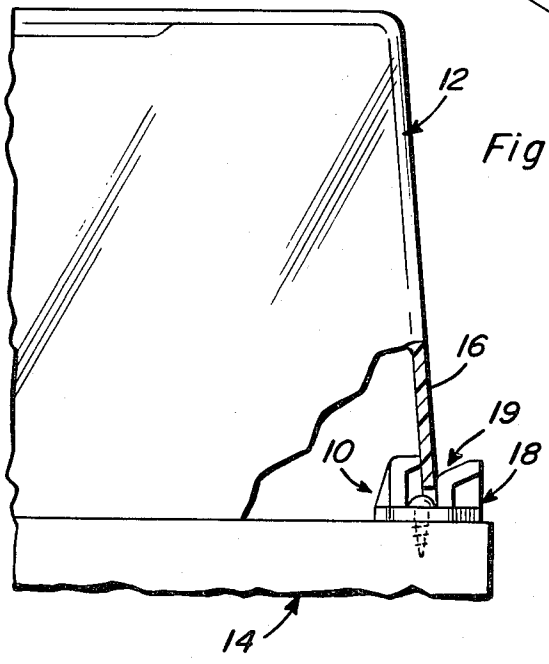


Fig. 2

Fig. 3

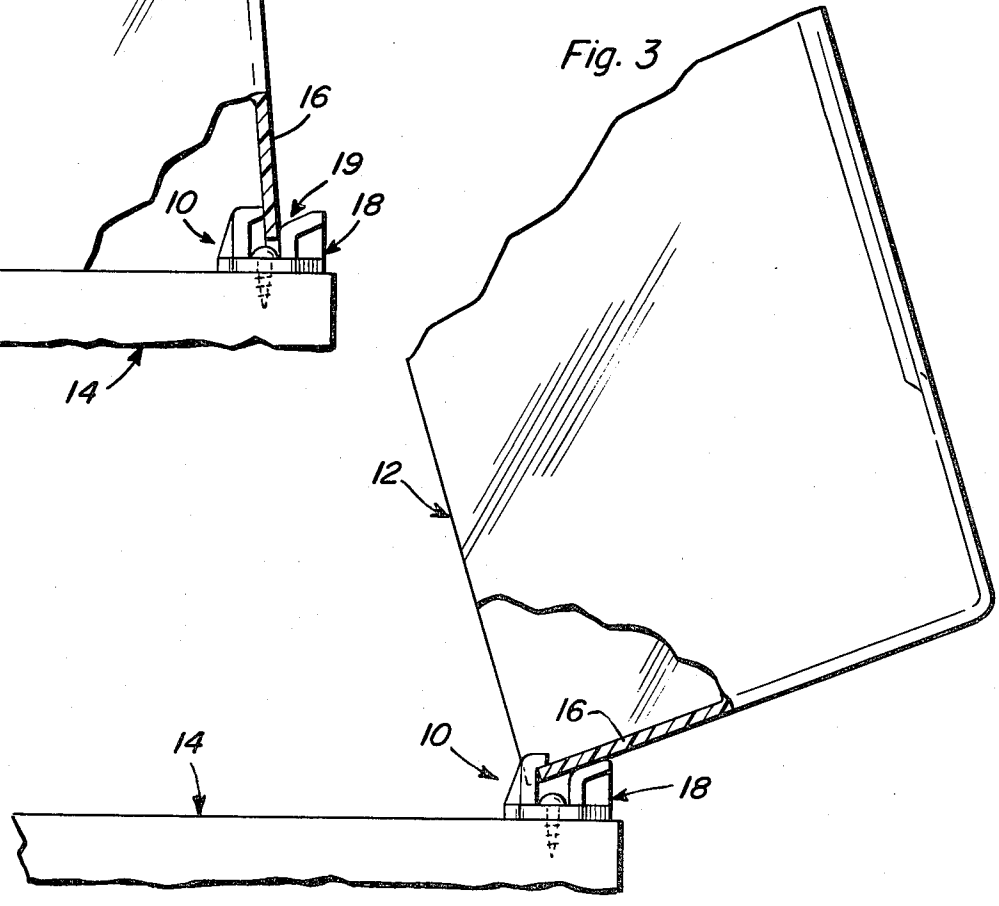


Fig. 4

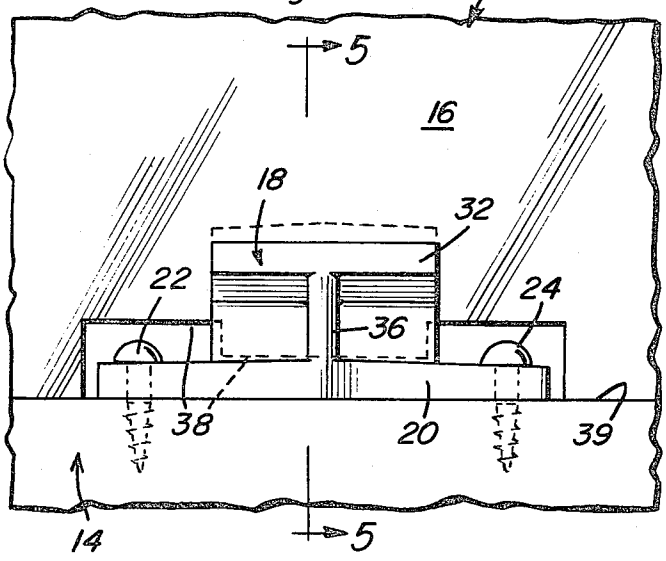


Fig. 5

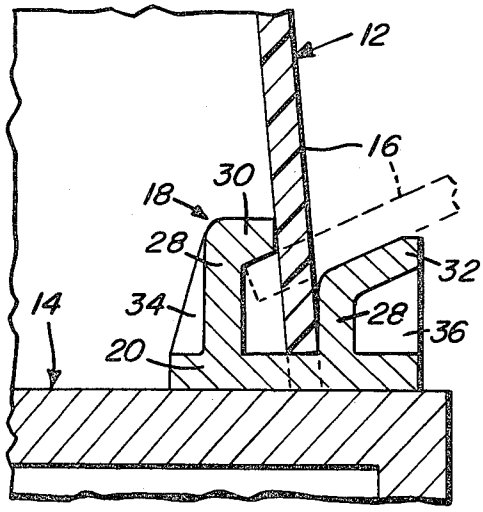


Fig. 6

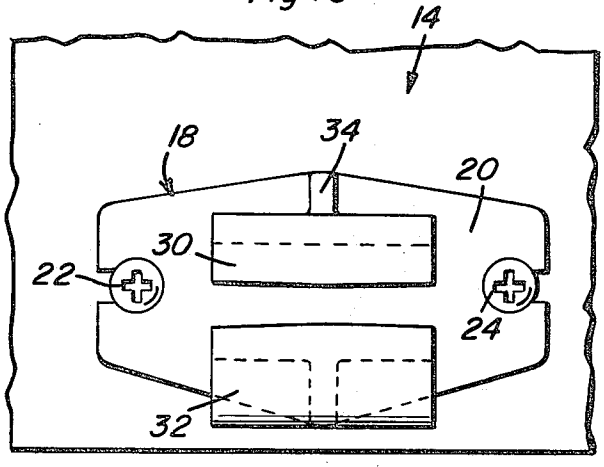


Fig. 7

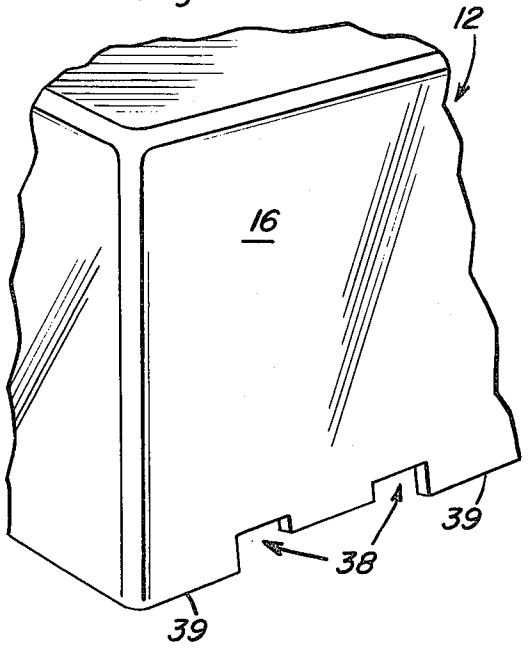


Fig. 8

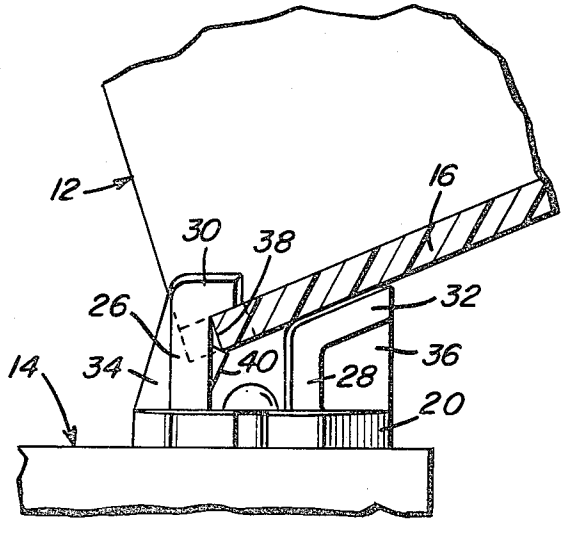
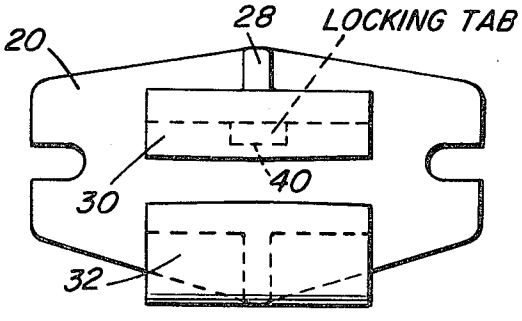


Fig. 9



HINGE

BACKGROUND OF THE INVENTION

1. Field of the Invention

This invention relates generally to a hinge, and particularly to a hinge permitting easy separation of hinged elements.

2. Description of the Prior Art

The very sensitive and extremely delicate modern mechanical sound reproducing equipment generally uses a "dust cover" to protect the turntable, tone arm, and other elements projecting from a housing of the equipment. These dust covers are usually a transparent member provided with a cavity arranged for fitting over the projecting elements on the associated equipment, and are either separate from and merely rest on the equipment housing, or are hinged to the equipment housing by a conventional hinge. It is desirable, however, to have the dust cover arranged on the equipment housing so as to be either removable therefrom or pivotal with respect thereto, as one prefers.

SUMMARY OF THE INVENTION

It is an object of the present invention to provide an improved hinge of simple yet rugged construction.

It is another object of the present invention to provide a hinge which permits easy separation of hinged elements.

It is yet another object of the present invention to provide a hinge especially suited for mounting a dust cover on an equipment housing.

These and other objects are achieved according to the present invention by providing a hinge having: a first member, and a second member provided with a holder for receiving the first member and permitting same to pivot with respect to the second member. Advantageously, the first member is a planar portion of a dust cover.

The second member includes a substantially planar base, while the holder preferably is formed by first and second spaced, parallel planar projections extending perpendicularly and codirectionally from the member base. First and second flanges extend in parallel, codirectional relationship obliquely from the free ends of the first and second projections, respectively. The first flange is advantageously arranged extending toward, or in the general direction of, the second projection. In this manner, the first member, which is preferably a substantially planar portion of a dust cover, and the like, is arranged between the projections, and is selectively and sequentially arrangeable in a position parallel to the projections and in a position parallel to and abutting the flanges.

A, for example, wedge-shaped tab is advantageously provided on the first projection so as to extend toward the second projection for selectively cooperating with the first flange and locking the first member between the first flange and the tab.

These together with other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming a part hereof, wherein like numerals refer to like parts throughout.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a perspective view showing an equipment housing and dust cover hinged together by hinges according to the present invention.

FIG. 2 is a fragmentary, side elevational view, partly cut away and in section, showing in detail the relationship of parts shown in FIG. 1.

FIG. 3 is a fragmentary, side elevational view, partly cut away and in section, similar to FIG. 2 but showing the dust cover in a moved position.

FIG. 4 is a fragmentary, rear elevational view showing in detail a hinge according to the present invention.

FIG. 5 is a fragmentary, sectional view taken generally along the line 5—5 of FIG. 4.

FIG. 6 is a fragmentary, top plan view showing a hinge according to the present invention.

FIG. 7 is a fragmentary, perspective view showing a dust cover having a cut-out portion suitable for forming part of a hinge according to the present invention.

FIG. 8 is a fragmentary, side elevational view, partly cut away and in section, similar to FIG. 3, but drawn to a larger scale and showing a modified embodiment of a hinge according to the present invention.

FIG. 9 is a top plan view showing the modified hinge of FIG. 8.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

Referring now more particularly to FIGS. 1 through 3 of the drawings, the reference numeral 10 designates a hinge according to the present invention which is illustrated as tying a conventional dust cover 12 to a conventional equipment housing 14 with which cover 12 is associated. Hinge 10 is formed by a first member 16 in the form of a planar portion of dust cover 12, and a second member 18 provided with a holder 19 arranged for receiving member 16 and permitting same to pivot with respect to member 18. As can best be seen from FIG. 2 of the drawings, member 16 may be easily withdrawn from holder 19 for separating cover 12 from housing 14.

Referring now to FIGS. 4 through 6 of the drawings, member 18 includes a base 20 mountable on housing 14 in a conventional manner as by screws 22 and 24 received in suitable slots provided in longitudinal end portions of the generally diamond-shaped base 20. Holder 19 is mounted on base 20, and includes first and second spaced, parallel, planar projections 26 and 28 extending perpendicularly and codirectionally from base 20. First and second flanges 30 and 32 are arranged extending in parallel, codirectional relationship obliquely from the free ends of projections 26 and 28, respectively, with the first flange 30 arranged extending toward the second flange 32. Webs 34 and 36 are advantageously provided for rigidifying the connections between the base, projections, and flanges.

As mentioned above, member 16 is substantially planar and is arranged between projections 26 and 28. Specifically, member 16 is selectively and sequentially arrangeable in a position such as shown in FIG. 2 of the drawings wherein member 16 is parallel to projections 26 and 28, and in a position as shown in FIG. 3 of the drawings wherein member 16 is parallel to and abuts flanges 30 and 32. That is, portion 16 rests on top of flange 32 and is engaged beneath flange 30 so as to be retained in a cover-open position as shown in FIG. 3.

By proper design, cover **12** will be stable in the FIG. **3** position.

FIG. **7** of the drawings shows how member **16** is preferably modified with a suitable cut-out **38** arranged for fitting over base **20** of member **18.** In this manner, the lower edge **39** of member **16** will be flush with housing **14** when cover **12** is in its closed or FIG. **2** position. The tongue portion of cut-out **38** permits member **16** to extend to the upper surface of base **20** when member **16** is arranged in holder **19** of member **18.**

It is desirable to modify a hinge **10** according to the present invention in the manner shown in FIGS. **8** and **9** of the drawings so as to effectively lock cover **12** in its open, or FIG. **3,** position. Accordingly, FIG. **8** shows a view similar to FIG. **3,** but with a substantially wedge-shaped tab **40** provided on projection **26** and arranged extending toward projection **28** for selectively locking member **16** between flange **30** and tab **40.** This locked position is the position shown in FIG. **8** of the drawings. When a tab **40** is so provided, the tongue portion of cut-out **38** will be effectively wedged between tab **40** and flange **30** so as to prevent cover **12** from falling to its closed, or FIG. **2,** position, or from being accidentally jarred loose from its seat between flanges **30** and **32.**

As can be readily appreciated from the above description and from the drawings, a hinge according to the present invention provides a multi-purpose device which retains a cover **12** on an associated equipment housing **14** when the cover is in its closed position, and holds the cover **12** in a desired open position. Further, cover **12** can be removed from housing **14** as desired by withdrawing member **16** from holder **19.**

The foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly all suitable modifications and equivalents may be resorted to, falling within the scope of the invention.

What is claimed as new is as follows:

1. A hinge, comprising, in combination:

a. a first member; and

b. a second member provided with holder means for receiving the first member and permitting same to pivot with respect to the second member, the second member including a substantially planar base, and the holder means including:

i. first and second spaced, parallel, planar projections extending perpendicularly and codirectionally from the base; and

ii. first and second flanges extending in parallel, codirectional relationship obliquely from the free ends of the first and second projections, respectively, the first flange extending toward the second projection.

2. A structure as defined in claim **1,** wherein the first member is substantially planar and is arranged between the projections, the first member selectively and sequentially arrangeable in a position parallel to the projections and in a position parallel to the flanges.

3. A structure as defined in claim **2,** wherein the second member further includes a wedge-shaped tab provided on the first projection and arranged extending toward the second projection for selectively locking the first member between the first flange and the tab.

4. A structure as defined in claim **3,** wherein the base of the second member is selectively mountable on an equipment housing, and the first member is a planar portion of a dust cover and is provided with a cut-out portion arranged for fitting over the base of the second member.

5. A structure as defined in claim **1,** wherein the second member further includes a wedge-shaped tab provided on the first projection and arranged extending toward the second projection for selectively locking the first member between the first flange and the tab.

6. A structure as defined in claim **1,** further including an equipment housing and associated dust cover, and wherein the second member is selectively mountable on the equipment housing, and the first member is a planar portion of the dust cover.

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