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(54) **COMPACT DISC HOLDER WITH  
MAGNETIC MEANS**

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(57) **ABSTRACT**

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The present invention is to provide a compact disc holder, which comprises a seat disposed in a first concealment member and including at least one projecting latch having a diameter conformed to a center hole of a compact disc such that the compact disc is adapted to securely put on the latch, a first magnetic member disposed in a center of the latch, and a second concealment member including a metal member formed of magnetic material or a second magnetic member disposed proximate a center of the latch. Thus, the first and second concealment members are capable of being lockingly engaged together to close the holder adapted to securely adhere to any flat metal piece formed of magnetic material (e.g., door of refrigerator, case of electronic device installed in office, or a board) for exhibition.

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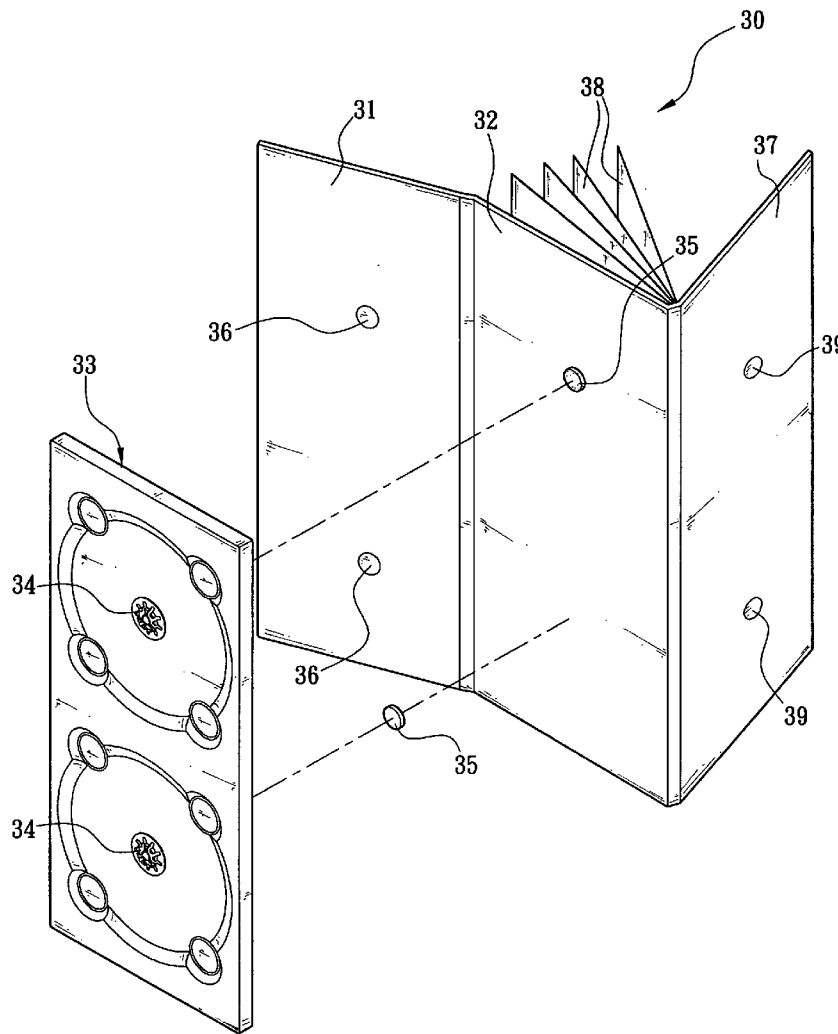
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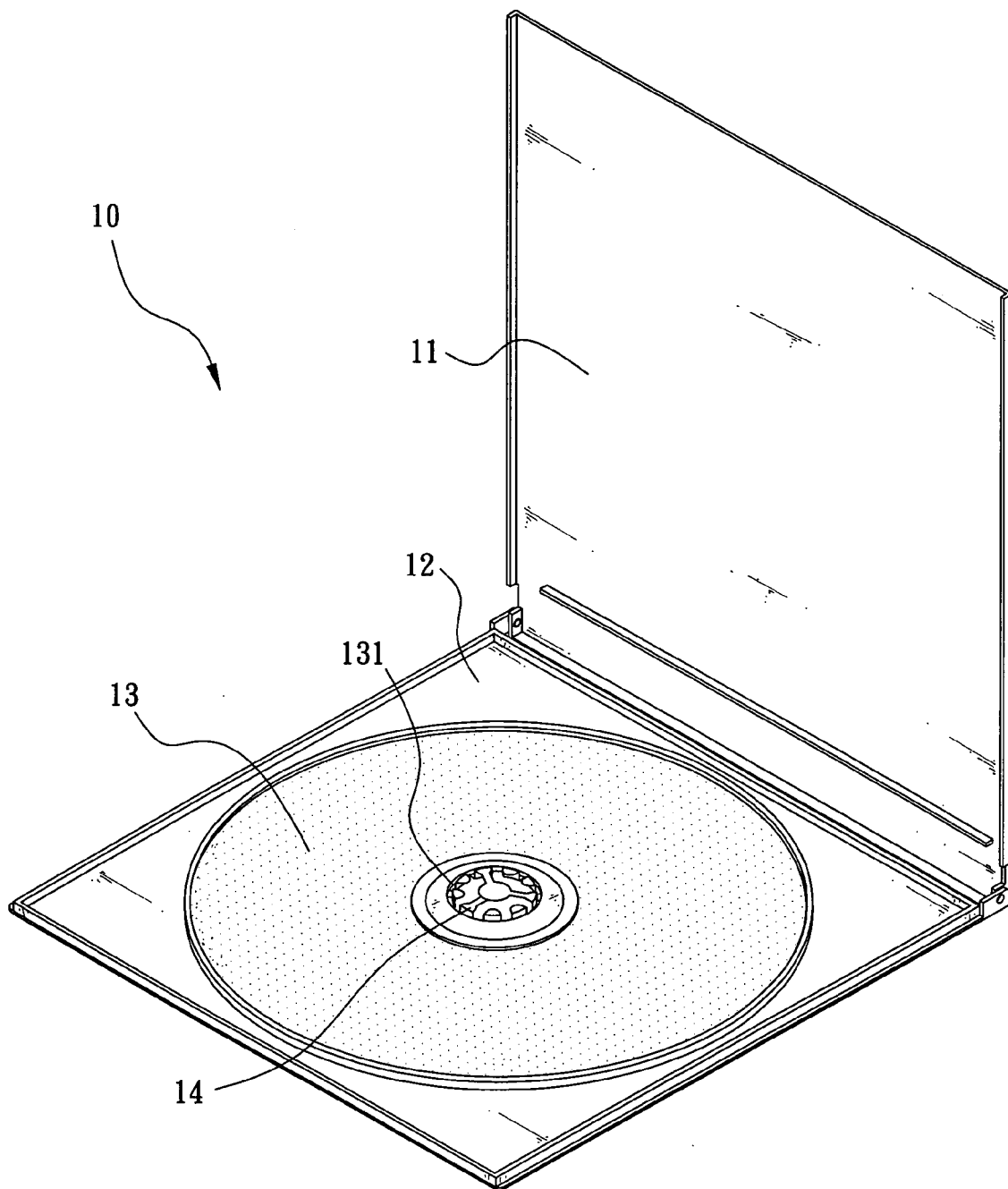


FIG. 1 (Prior Art)

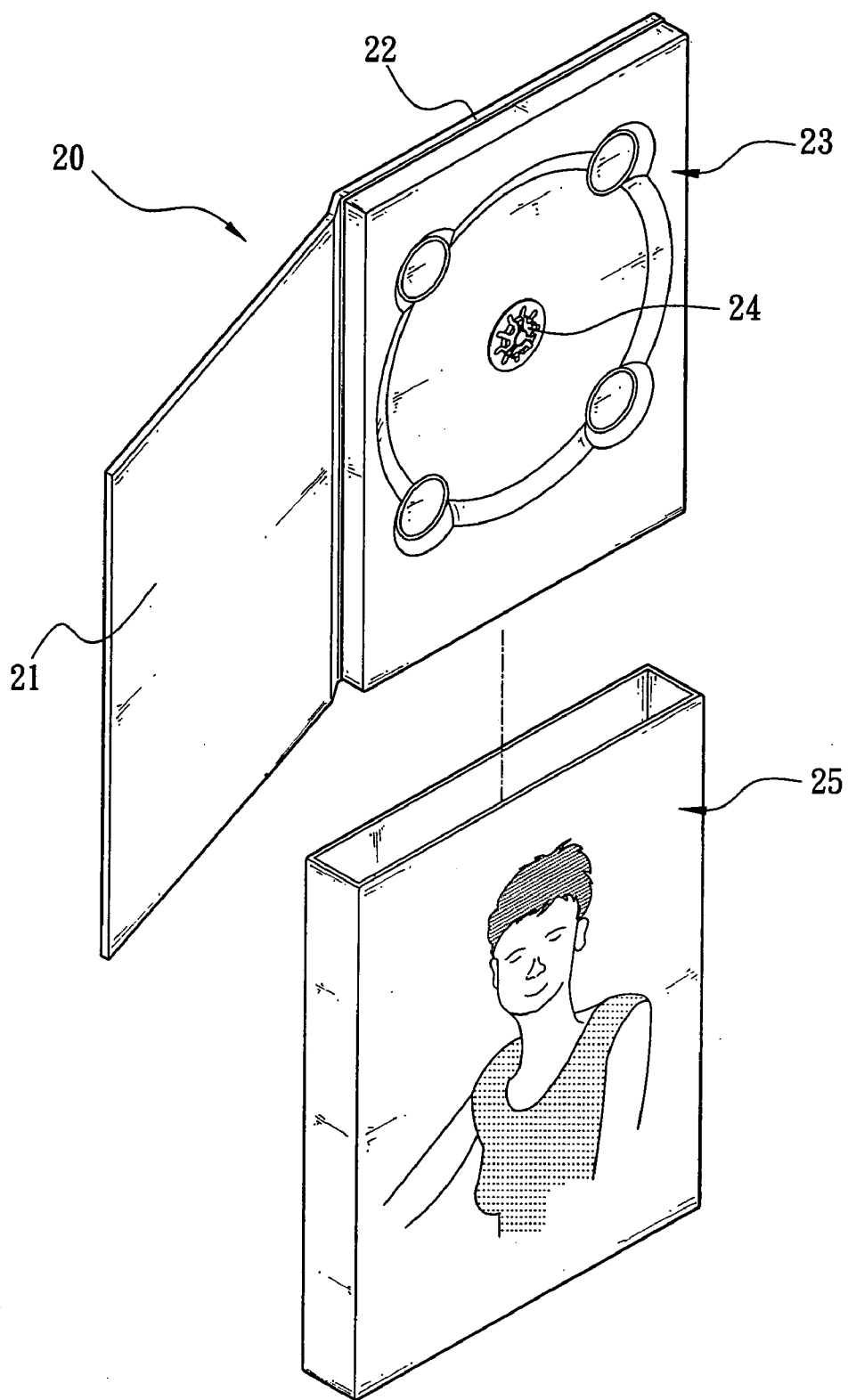


FIG. 2 (Prior Art)

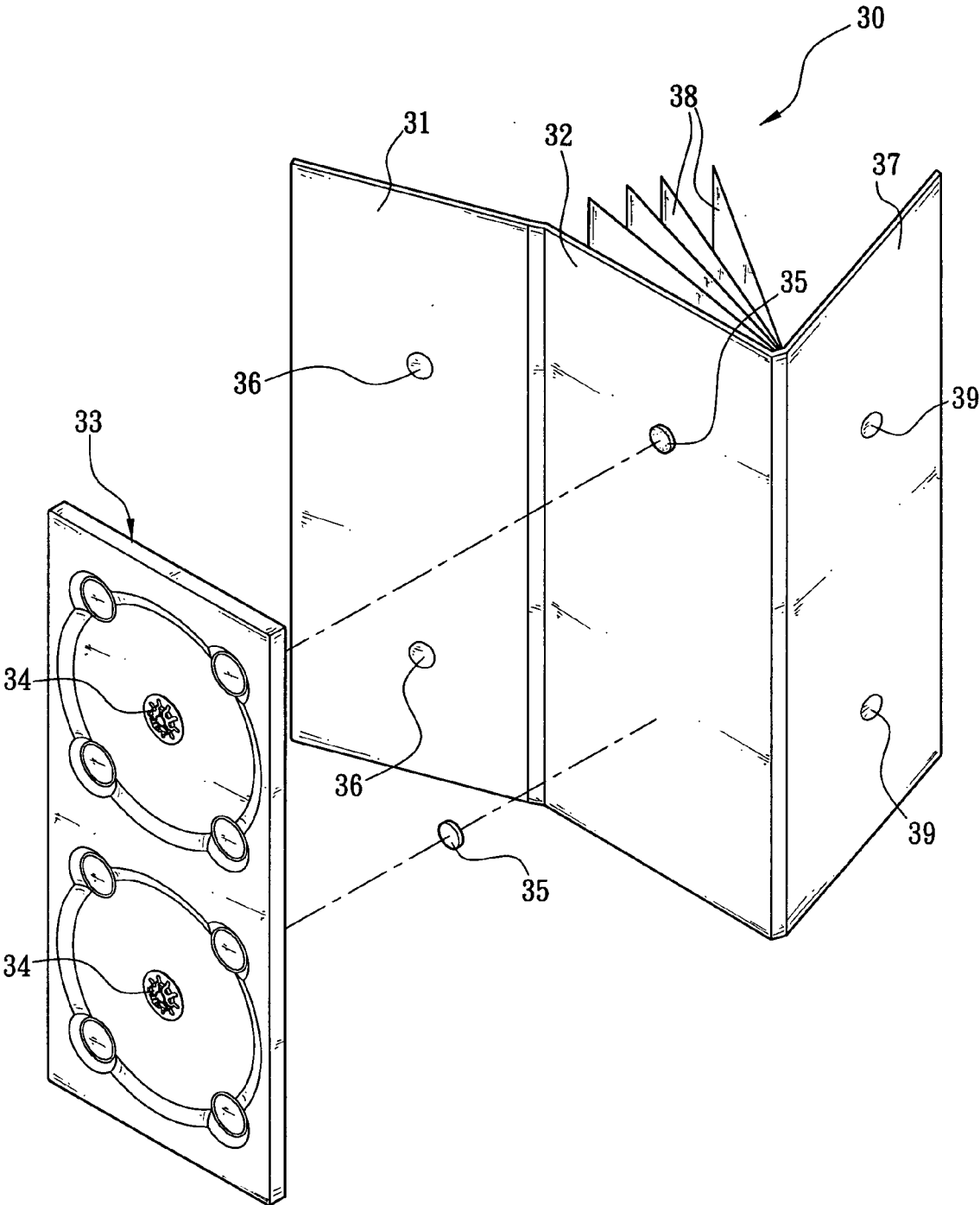


FIG. 3

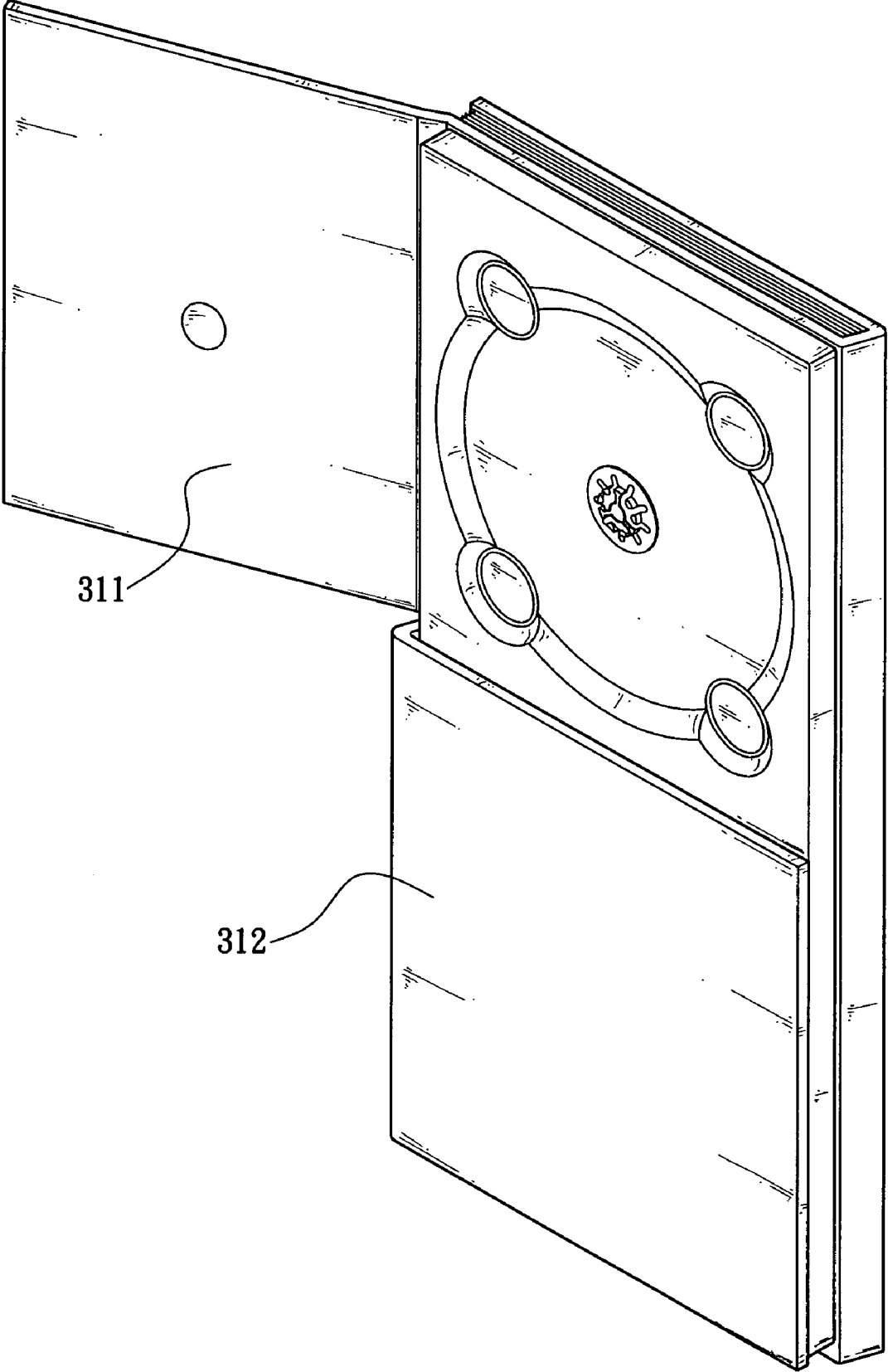


FIG. 4

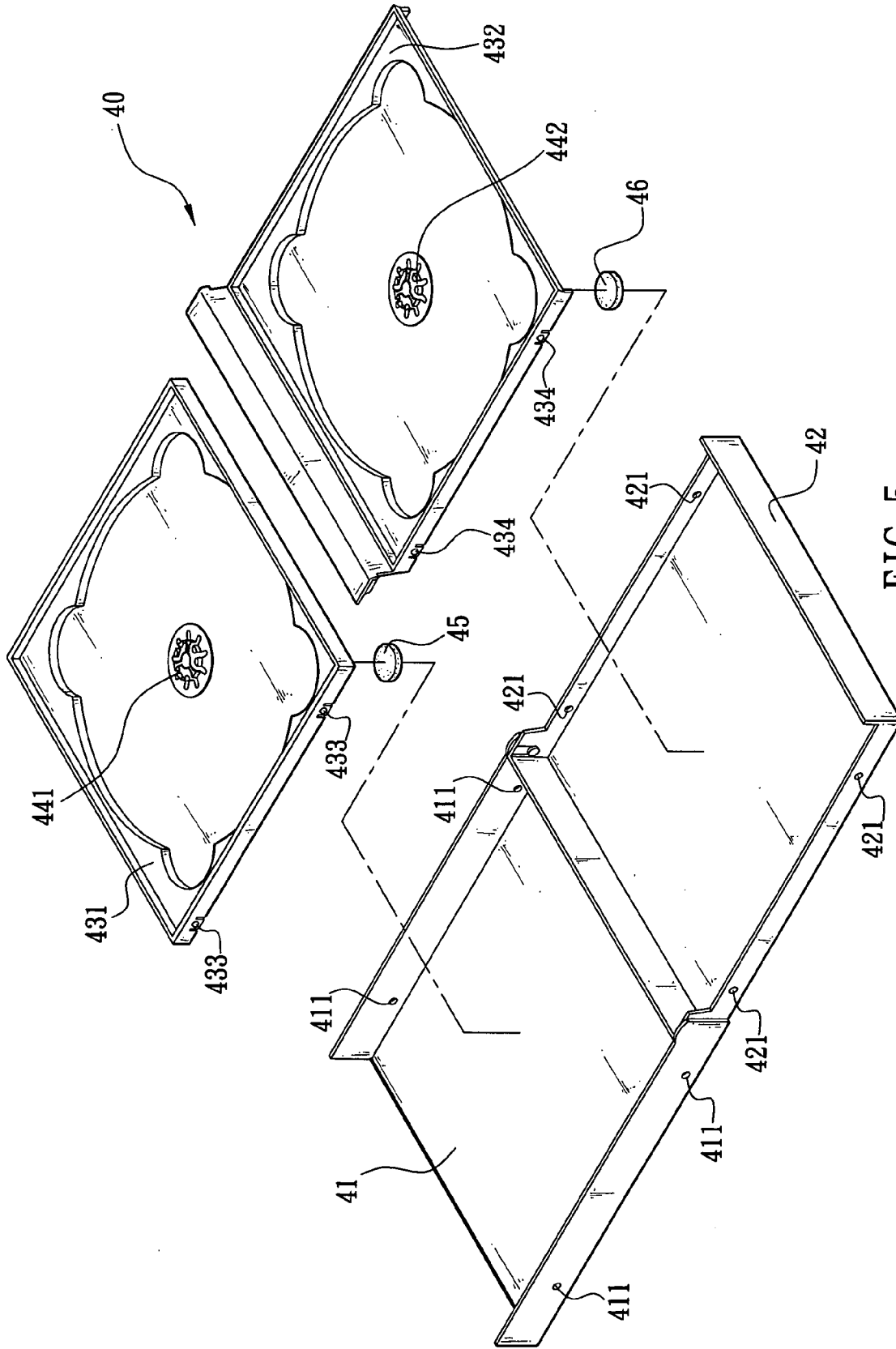


FIG. 5

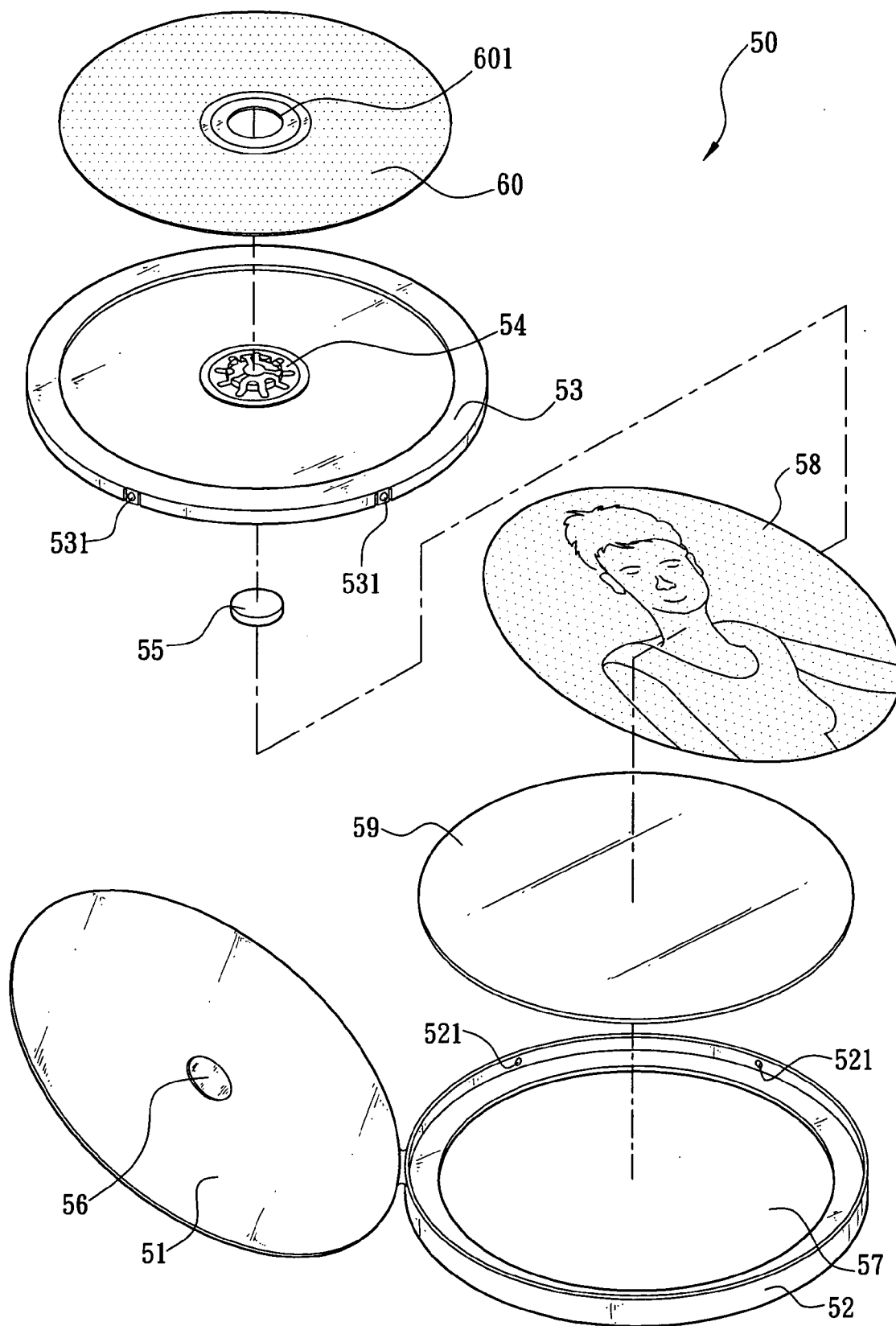


FIG. 6

## COMPACT DISC HOLDER WITH MAGNETIC MEANS

### FIELD OF THE INVENTION

[0001] The present invention relates to compact disc holders and more particularly to such a compact disc holder having magnetic means with improved characteristics.

### BACKGROUND OF THE INVENTION

[0002] Compact discs (e.g., CDs, DVDs, etc.) are high-capacity storage components. Also, compact discs are easy to store and are not subject to damage by moisture. Recently, compact discs are widely popular among manufacturers of the art and consumers. Compact discs are thus used as media for storing image, music, and data. A standard compact disc, as the type of being widely used, has a diameter about 12 cm, a thickness about 1 mm, and a storage space of about 650 MB to about 750 MB. For DVD, it typically has a storage space of about 7 GB to about 8 GB. Conventionally, a device for holding compact disc(s) is formed of hard plastic material. The device is called compact disc holder **10** as shown in **FIG. 1** in its open position. The parallelepiped compact disc holder **10** comprises a cover **11** and a base **12** hingedly connected to the cover **11** at one edge. A space for storing a compact disc **13** is thus defined by the closed cover **11** and base **12**. A circular latch **14** is formed on a center of an inner surface of the base **12**. A hole **131** at center of the compact disc **13** is adapted to put on the latch **14** for anchoring the compact disc **13** on the inner surface of the base **12**. Such compact disc holders **10** are the most widely used compact disc holders. It, however, may occupy a relatively large space due to its size (e.g., length about 14.3 cm, width about 12.2 cm, and thickness about 1 cm). Moreover, its material is fragile. Thus, the holder tends to break or the hinge between the cover **11** and the base **12** may break when it falls on the ground or collides with a foreign object. As a result, it is no longer useful or there is no way of closing the holder. The purpose of protecting the stored compact disc **13** is not achieved.

[0003] In view of the above drawback, some manufacturers of the art use cardboard having aesthetic printing as material for manufacturing compact disc holder **20** as shown in **FIG. 2**. The compact disc holder **20** comprises two integral rectangular members **21** and **22** formed of cardboard wherein one rectangular member **22** (i.e., base) includes a projected rectangular seat **23** formed on its inner surface, and a circular latch **24** formed on a center of the seat **23** such that a center hole of a compact disc is adapted to put on the latch **24** for anchoring the compact disc on the seat, and the other rectangular member **21** (i.e., cover) is sized and shaped to close onto one rectangular member **22** by flexibly bending. It is shown that there is no hinge means provided between the rectangular members **21** and **22** since the cardboard for manufacturing the compact disc holder **20** has desired flexibility and resilience in nature. Thus, the compact disc holder does not tend to break at either rectangular member **21** or **22** or at a joining portion between the rectangular members **21** and **22** when it falls on the ground or collides with a foreign object. Hence, it still can maintain a good use condition. However, there are no mating members provided between the rectangular members **21** and **22**. Thus, it is very possible of dropping a compact disc placed on the seat **24** when opening the compact disc holder **20** by

opening the rectangular members **21** and **22** if sufficient care is not taken. The fallen compact disc may be damaged or even useless due to collision with the ground or scrape on the surface of the compact disc. Hence, a separate parallelepiped enclosure **25** is produced in the process of manufacturing the compact disc holder **20**. The enclosure **25** is shaped to snugly receive the compact disc holder **20**. Thus, the chance of accidentally opening the rectangular members **21** and **22** is greatly reduced.

[0004] Moreover, after compact discs being commercially available, people gradually use compact discs (e.g., CD-WOs or CD-RWs) to record image, music, and data requiring large memory space for storage or giving the recorded compact discs to other people. Thus, people may use camcorders to record pictures and sound when a major event (e.g., wedding anniversary, birthday party, concert, alumni association meeting, news conference, or the like) takes place. The recorded pictures and sound are then edited by adding appropriate description and music prior to recording on a compact disc by using multimedia software. People like to give the recorded compact disc(s) to friends and relatives. This is currently the most modern and memorial gift. Thus, it is desirable to provide a novel compact disc holder having advantages of being small, structurally simple, easy to open or close, easy to place a picture or photograph therein, and convenient in exhibition in order to overcome the inadequacies of the prior art.

### SUMMARY OF THE INVENTION

[0005] It is an object of the present invention to provide a compact disc holder comprising a first concealment member and a second concealment member. A seat for storing one or more compact discs is provided on an inner surface of either concealment member (e.g., the first concealment member) facing that of the remaining concealment member (e.g., the second concealment member). The seat includes at least one projecting latch having a diameter conformed to a center hole of a compact disc such that the compact disc is adapted to securely put on the latch. A first magnetic member is disposed in a center of the latch. The second concealment member includes a metal member formed of magnetic material or a second magnetic member disposed proximate a center of the latch. In a case of the second concealment member closed onto the first concealment member, the first magnetic member and the corresponding metal member (or second magnetic member) are magnetically engaged together. Thus, the first and the second concealment members are lockingly engaged to close the holder without involving any mating members. Hence, structure of the compact disc holder is greatly simplified. Magnetic force exerted by the magnetic members is adapted to securely adhere the compact disc holder to any flat metal piece formed of magnetic material (e.g., door of refrigerator, case of electronic device installed in office, or a board) for exhibition. Thus, a person may easily access a compact disc held by the holder. Alternatively, a plurality of compact disc holders are adapted to stack on a desktop or placed side by side by magnetically engaging together in order to facilitate storage and maintenance.

[0006] It is another object of the present invention to provide one or more female locking members in each of the concealment members, and one or more male locking members in the seat wherein the male locking members are



adapted to lockingly engage the female locking members for securing the seat onto an inner surface of a corresponding one the concealment members. Also, a photograph or picture is adapted to snugly fit in the seat placed on the second concealment member.

[0007] It is a further object of the present invention to provide a circular opening on either concealment member such that the compact disc holder can serve as a magnetic frame for securely adhering to a flat magnetic metal piece after placing a photograph or picture in the seat on the second concealment member. Thus, a person may see the photograph or picture through the opening.

[0008] The above and other objects, features and advantages of the present invention will become apparent from the following detailed description taken with the accompanying drawings.

#### BRIEF DESCRIPTION OF THE DRAWINGS

[0009] **FIG. 1** is a perspective view of a conventional compact disc holder in its open position;

[0010] **FIG. 2** is an exploded perspective view of another conventional compact disc holder in its open position;

[0011] **FIG. 3** is an exploded perspective view of a first preferred embodiment of compact disc holder according to the invention;

[0012] **FIG. 4** is a perspective view of the assembled compact disc holder shown in **FIG. 3** where another configuration thereof is shown;

[0013] **FIG. 5** is an exploded view of a second preferred embodiment of compact disc holder according to the invention; and

[0014] **FIG. 6** is an exploded view of a third preferred embodiment of compact disc holder according to the invention.

#### DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

[0015] Referring to **FIG. 3**, a compact disc holder **30** in accordance with a first preferred embodiment of the invention comprises a first rectangular member **32** and a second rectangular member **31** both formed of cardboard. The first and the second rectangular members **32** and **31** are integral, have the same size, and are adapted to either close together or open with respect to each other. At least one seat **33** (one is shown) is adapted to dispose in a space formed by closing the second rectangular member **31** onto the first rectangular member **32**. In the first embodiment, a compact disc holder **30** capable of storing two compact discs (not shown) is shown and described as an exemplary example. A seat **33** for holding two compact discs is provided on an inner surface of the first rectangular member **32**. The seat **33** comprises two circular projecting latches **34** spaced along its longitudinal centerline. The latch **34** has a diameter conformed to a center hole of a compact disc such that the compact disc is adapted to securely put on the latch **34**. Also, two magnetic members **35** in the shape of circular projection are spaced along a longitudinal centerline of the inner surface of the first rectangular member **32**. Each magnetic member **35** is aligned with a corresponding latch **34**. Further, two metal members formed of magnetic material (or second magnetic members) **36** in the shape of disk are spaced along a longitudinal center line of an inner surface of the second

rectangular member **31**. Each metal member (or second magnetic member) **36** is aligned with corresponding latch **34** and magnetic member **35**. In a case of the second rectangular member **31** closed onto the first rectangular member **32**, the magnetic members **35** and the corresponding metal members (or second magnetic members) **36** are magnetically engaged together. Thus, the first rectangular member **32** and the second rectangular member **31** are lockingly engaged to close the holder **30** without involving any mating members. Hence, structure of the compact disc holder **30** is greatly simplified. Magnetic force exerted by the magnetic members **35** is adapted to securely adhere the compact disc holder **30** to any flat metal piece formed of magnetic material (e.g., door of refrigerator or computer case) for exhibition. Thus, a person may easily access a compact disc held by the holder. Alternatively, a plurality of compact disc holders are adapted to stack on a desktop or placed side by side by magnetically engaging together in order to facilitate storage and maintenance.

[0016] Referring to **FIG. 3** again, in the first embodiment the first rectangular member **32** and the second rectangular member **31** are integrally formed at a flexible joining edge such that the second rectangular member **31** is adapted to close onto the first rectangular member **32** for closing the holder or pivot away from the first rectangular member **32** for opening the holder. However, the invention is not limited to such in practice. To the contrary, those skilled in the art may separately produce the rectangular members **31** and **32** or divide the second rectangular member **31** into two independent members (e.g., cover halves) **311** and **312** as shown in **FIG. 4**. Each cover half **311** or **312** is adapted to protect a corresponding compact disc stored in the holder. For complying with the compact disc holder **30** of the invention, only requirements are that the rectangular members **31** and **32** are sized and shaped to be able to close together for forming a space therebetween, and elements such as the seat **33**, the magnetic members **35**, and the metal members (or second magnetic members) **36** are provided for storing at least one compact disc. Moreover, in the first embodiment the rectangular members **31** and **32** formed of cardboard are simply taken as a preferred form. However, the invention is not limited to such in practice. To the contrary, those skilled in the art may use other plastic materials or foam plastics to form the rectangular members **31** and **32**. For complying with the compact disc holder **30** of the invention, only requirements are that the rectangular members **31** and **32** are sized and shaped to be able to close together for forming a space therebetween, and elements such as the seat **33**, the magnetic members **35**, and the metal members (or second magnetic members) **36** are provided for storing at least one compact disc.

[0017] Referring to **FIG. 3** again, the compact disc holder **30** described in the first embodiment further comprises a third rectangular member **37** integrally formed with the first rectangular member **32**. The third rectangular member **37** is sized and shaped to close onto the adjacent first rectangular member **32**. Also, a plurality of sheets **38** of paper (e.g., ones printed with lyrics or a manual with description) are provided in a space defined by the first rectangular member **32** and the third rectangular member **37** and are fastened together along a joining edge therebetween. Further, two metal members formed of magnetic material (or third magnetic members) **39** in the shape of disk are spaced along a longitudinal center line of an outer surface of the third rectangular member **37**. Each metal member (or third magnetic member) **39** is aligned with corresponding magnetic member **35**. In a case of the third rectangular member **37**

closed onto the first rectangular member 32, the magnetic members 35 and the corresponding metal members (or second magnetic members) 39 are magnetically engaged together. Thus, the first rectangular member 32 and the third rectangular member 37 are lockingly engaged to close the holder 30. After reviewing content printed on the sheets 38 by opening the third rectangular member 37, a user may simply close the third rectangular member 37 onto the first rectangular member 32 to sealingly close the holder without involving any mating members. Hence, the sheets 38 can be protected. Otherwise, it may be damaged or stained. Hence, structure of the compact disc holder is greatly simplified by the invention. Also, a plurality of sheets 38 of paper (e.g., ones printed with play, lyrics, or description) are provided in a space. Thus, the sheets 38 are protected in the space and an easy review of content thereof is made possible.

[0018] Referring to FIG. 5, a compact disc holder 40 in accordance with a second preferred embodiment of the invention is shown. The parallelepiped holder 40 comprises a cover 41 and a base 42 both formed of transparent hard plastics. The cover 41 is hingedly connected to (or integrally formed with) the base 42 at one edge such that, for example, the cover 41 is adapted to close onto the base 42 for closing the holder or pivot away from the base 42 for opening the holder. Each of the cover 41 and the base 42 has an internal space. A rectangular seat 431 for storing at least one compact disc (not shown) is adapted to dispose in the cover 41 and a second rectangular seat 432 for storing at least one compact disc (not shown) is adapted to dispose in the base 42 respectively. A circular projecting latch 441 is formed on a center of an inner surface of the seat 431 and a second circular projecting latch 442 is formed on a center of an inner surface of the second seat 432 respectively. The latch 441 or 442 has a conformed diameter for permitting a center hole of a compact disc to securely put thereon. A magnetic element 45 in the shape of disk is provided on a bottom center of the latch 441 and a metal element formed of magnetic material (or second magnetic element) 46 in the shape of disk is provided on a bottom center of the second latch 442 respectively. In a case of the cover 41 closed onto the base 42, the magnetic element 45 and the corresponding metal element (or second magnetic element) 46 are magnetically engaged together. Thus, the cover 41 and the base 42 are lockingly engaged to close the holder 40 without involving any mating members. Further, the closed holder 40 is adapted to adhere to a flat metal piece formed of magnetic material for exhibition. Alternatively, a plurality of compact disc holders are adapted to stack on a desktop by magnetically engaging together in order to facilitate storage and maintenance.

[0019] Referring to FIG. 6, a compact disc holder 50 in accordance with a third preferred embodiment of the invention is shown. The circular holder 50 comprises a cover 51 and a base 52 both formed of transparent hard plastics. The cover 51 is hingedly connected to (or integrally formed with) the base 52 at a peripheral point such that, for example, the cover 51 is adapted to close onto the base 52 for closing the holder or pivot away from the base 52 for opening the holder. The base 52 has an internal space. A circular seat 53 for storing at least one compact disc (one is shown) 60 is adapted to dispose in the base 52. A circular projecting latch 54 is formed on a center of a top surface of the seat 53. The latch 54 has a conformed diameter for permitting a center hole 601 of the compact disc 60 to securely put thereon. A magnet member 55 in the shape of disk is provided on a bottom center of the latch 54 and a metal element formed of magnetic material (or second magnet member) 56 in the

shape of disk is provided on a center of an inner surface of the cover 51. In a case of the cover 51 closed onto the base 52, the magnet member 55 and the corresponding metal element (or second magnet member) 56 are magnetically engaged together. Thus, the cover 51 and the base 52 are lockingly engaged to close the holder 50 without involving any mating members. Further, the closed holder 50 is adapted to adhere to a flat metal piece formed of magnetic material for exhibition. Note that in the third embodiment a circular opening 57 is formed on the base 52. Size of the opening 57 is less than that of the seat 53. A photograph (or picture) 58 is adapted to snugly fit in the seat 53 placed on the base 52 such that the compact disc holder 50 can serve as a frame. Next, it is possible of adhering the holder 50 to a flat metal piece formed of magnetic material such that a person may see the photograph (or picture) 58 through the opening 57. Moreover, a transparent sheet 59 is provided between the photograph (or picture) 58 and the base 52 for protecting the photograph (or picture) 58. As such, portion of the photograph (or picture) 58 exposed on the opening 57 is prevented from being stained or damaged.

[0020] Note that in the above embodiments shown in FIGS. 5 and 6 female locking members (e.g., holes) 411, 421, and 521 are provided in the cover 41, the base 42, and the base 52 which are adapted to receive the seats 431, 432, and 53 respectively. Correspondingly, male locking members (e.g., protrusions) 433, 434, and 531 are provided in the seats 431, 432, and 53 respectively. The female locking members 411, 421, and 521 are adapted to matingly engage the male locking members 433, 434, and 531 for securing the seats 431, 432, and 53 onto inner surfaces of the cover 41, the base 42, and the base 52 respectively. Further, a photograph (or picture) is adapted to place between a space between the seats 431, 432, and 53 and the corresponding cover 41, base 42, and base 52 respectively. Note that locations and the number of the magnetic members, the magnetic elements, the magnet members, and the metal members formed of magnetic material described in the above embodiments may be altered or adjusted depending on applications as long as the latches for fastening compact discs are able to magnetically engage corresponding members (e.g., covers, bases, and seats) by magnetic means as contemplated by the inventor to be the scope protected by the invention.

[0021] While the invention herein disclosed has been described by means of specific embodiments, numerous modifications and variations could be made thereto by those skilled in the art without departing from the scope and spirit of the invention set forth in the claims.

What is claimed is:

1. A holder for storing one or more compact discs comprising:

a first concealment member;

at least one seat disposed on an inner surface of the first concealment member, the seat including at least one projecting latch having a diameter conformed to a center hole of the compact disc such that the compact disc is adapted to securely put on the latch, and a first magnetic member proximate a center of the latch; and

a second concealment member having an edge integrally formed with a corresponding edge of the first concealment member, the second concealment member having size and shape conformed to that of the first concealment member for being adapted to close onto the first

concealment member for forming a first internal space for receiving the seat, and the second concealment member including a first metal member formed of magnetic material or a second magnetic member disposed corresponding to the latch.

2. The holder of claim 1, wherein the first concealment member includes an opening having a size less than that of the seat.

3. The holder of claim 2, further comprising a transparent sheet disposed between the first concealment member and the seat.

4. The holder of claim 1, further comprising a third concealment member having an edge integrally formed with a corresponding edge of the first concealment member, the third concealment member having size and shape conformed to that of the adjacent first concealment member for being adapted to close onto the first concealment member for forming a second internal space, and a plurality of sheets of paper adapted to dispose in the second internal space wherein the third concealment member includes a second metal member formed of magnetic material or a third magnetic member disposed corresponding to the latch.

5. The holder of claim 1, further comprising one or more female locking members disposed in the first concealment member, and one or more male locking members disposed in the seat wherein the male locking members are adapted to lockingly engage the female locking members for securing the seat onto an inner surface of the first concealment member.

6. The holder of claim 4, further comprising one or more female locking members disposed in the first concealment member, and one or more male locking members disposed in the seat wherein the male locking members are adapted to lockingly engage the female locking members for securing the seat onto an inner surface of the first concealment member.

7. The holder of claim 1, wherein the second concealment member is divided into two independent cover halves each for protecting a corresponding compact disc, each of the cover halves having conformed size and shape for being adapted to close onto the first concealment member.

8. The holder of claim 4, wherein the second concealment member is divided into two independent cover halves each for protecting a corresponding compact disc, each of the cover halves having conformed size and shape for being adapted to close onto the first concealment member.

9. A holder for storing one or more compact discs comprising:

a first concealment member;

at least one first seat disposed on an inner surface of the first concealment member, the first seat including at least one projecting first latch having a diameter conformed to a center hole of the compact disc such that the compact disc is adapted to securely put on the first latch, and a first magnetic member proximate a center of the first latch;

a second concealment member having an edge integrally formed with a corresponding edge of the first conceal-

ment member, the second concealment member having size and shape conformed to that of the first concealment member for being adapted to close onto the first concealment member for forming a first internal space; and

at least one second seat disposed on an inner surface of the second concealment member, the second seat including a first metal member formed of magnetic material or a second magnetic member disposed corresponding to the first latch.

10. The holder of claim 9, wherein the second seat further includes at least one projecting second latch disposed corresponding to the first latch, the second latch having a diameter conformed to a center hole of the compact disc such that the compact disc is adapted to securely put on the second latch, and a second metal member formed of magnetic material or a third magnetic member disposed proximate a center of the second latch.

11. The holder of claim 9, further comprising a third concealment member having an edge integrally formed with a corresponding edge of the first concealment member, the third concealment member having size and shape conformed to that of the first concealment member for being adapted to close onto the first concealment member for forming a second internal space, and a plurality of sheets of paper adapted to dispose in the second internal space wherein the third concealment member includes a third metal member formed of magnetic material or a fourth magnetic member disposed corresponding to the first latch.

12. The holder of claim 10, further comprising a third concealment member having an edge integrally formed with a corresponding edge of the first concealment member, the third concealment member having size and shape conformed to that of the first concealment member for being adapted to close onto the first concealment member for forming a second internal space, and a plurality of sheets of paper adapted to dispose in the second internal space wherein the third concealment member includes a third metal member formed of magnetic material or a fourth magnetic member disposed corresponding to the first latch.

13. The holder of claim 9, further comprising one or more female locking members disposed in each of the concealment members, and one or more male locking members disposed in each of the seats wherein the male locking members are adapted to lockingly engage the female locking members for securing each of the seats onto an inner surface of a corresponding one the concealment members.

14. The holder of claim 10, further comprising one or more female locking members disposed in each of the concealment members, and one or more male locking members disposed in each of the seats wherein the male locking members are adapted to lockingly engage the female locking members for securing each of the seats onto an inner surface of a corresponding one the concealment members.

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