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(54) **DETACHABLE COVER FOR BOREHOLES
IN RACK AND WALL UNITS**

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(71) Applicant: **Philipp Jung**, Hagen (DE)

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(72) Inventor: **Philipp Jung**, Hagen (DE)

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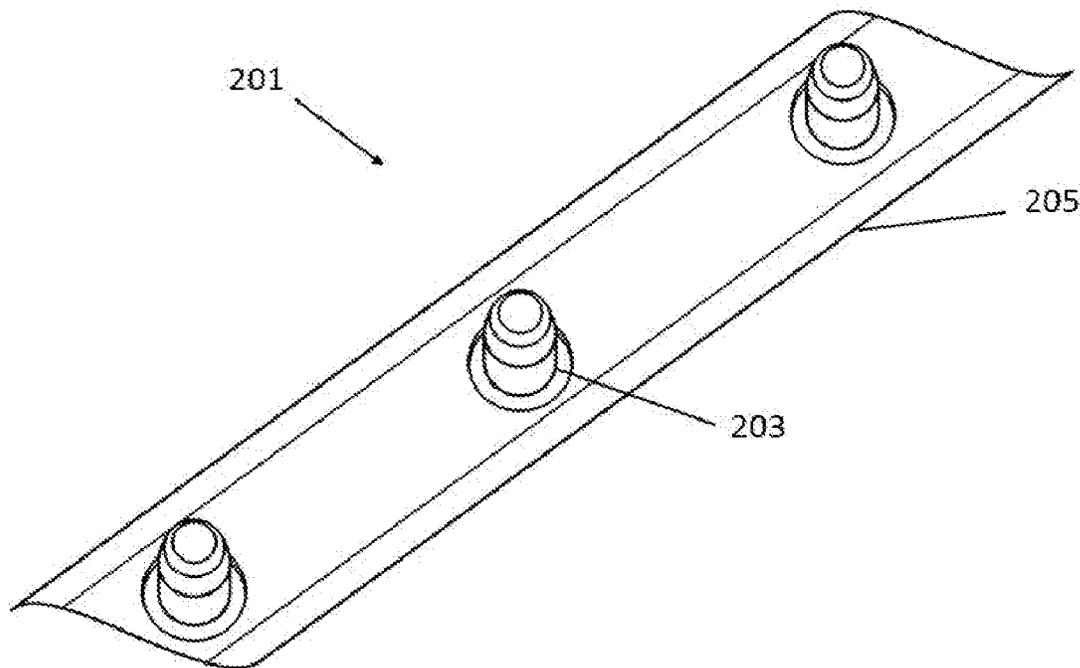
(57) **ABSTRACT**

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The present application relates to a detachable cover for lining a plurality of boreholes on a furniture, said detachable cover having a track disposed onto a rear surface of said cover; and a plurality of studs attached to said track, wherein said plurality of studs are attached to said track in an adjustable manner and methods for using the like.

(30) **Foreign Application Priority Data**

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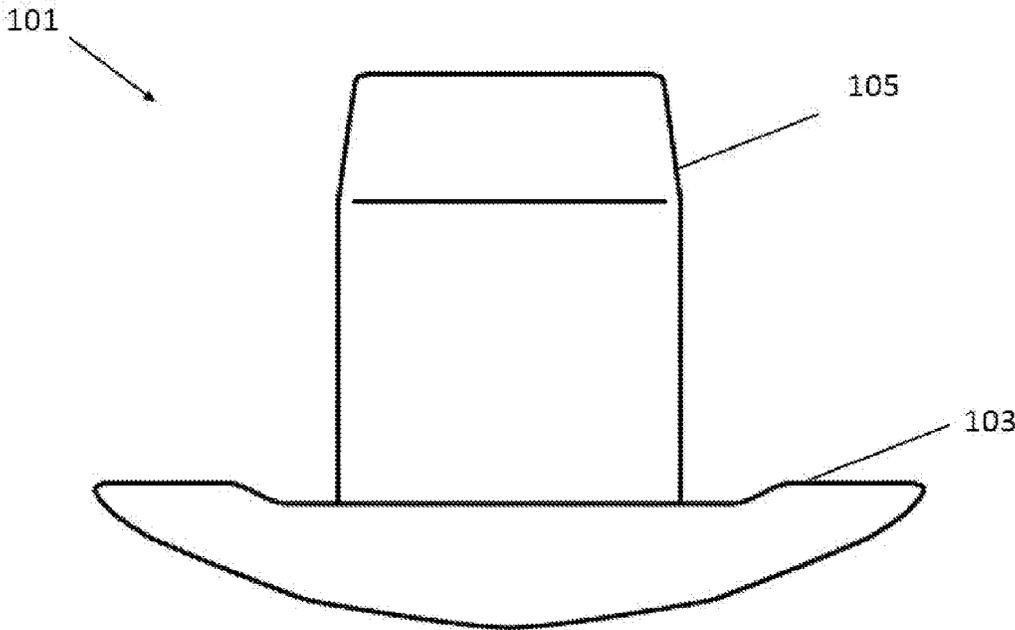


Figure 1

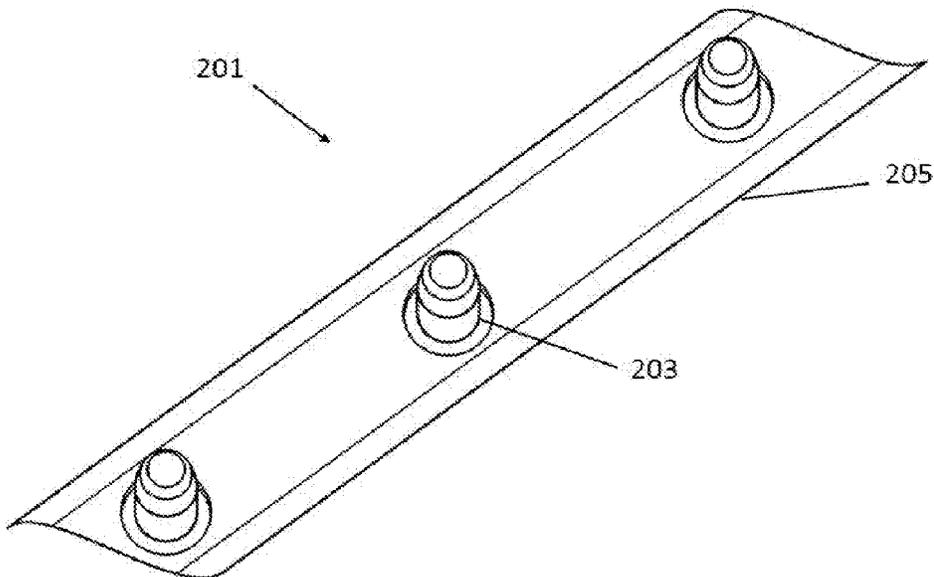


Figure 2

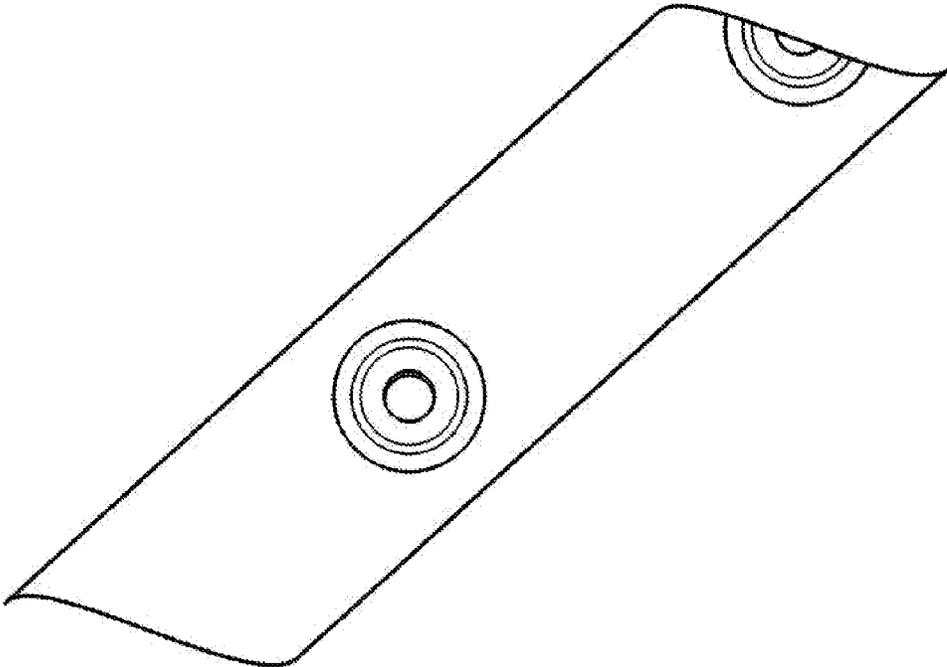


Figure 3

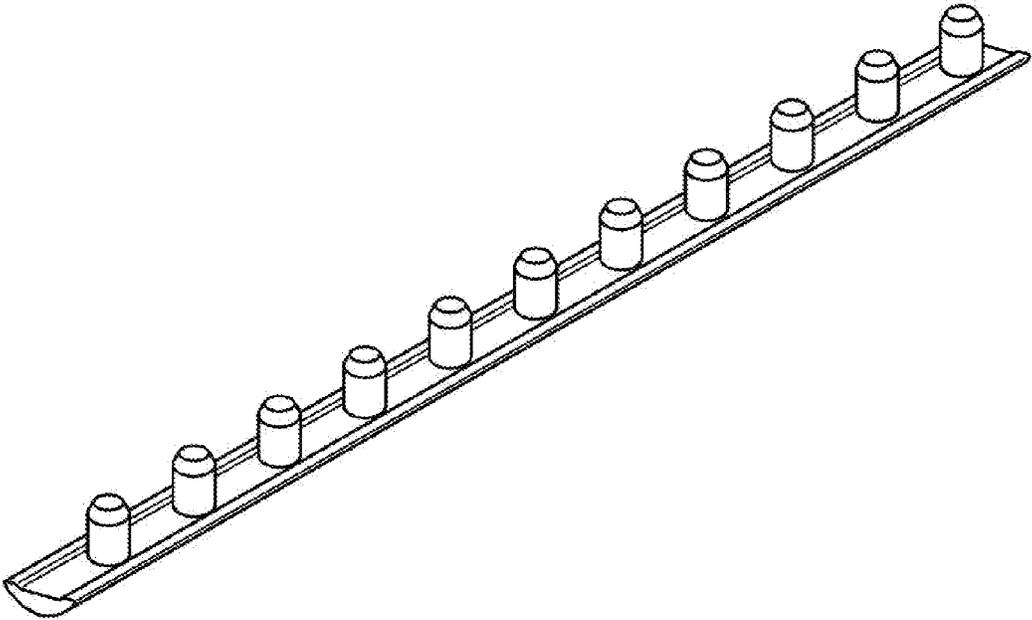


Figure 4

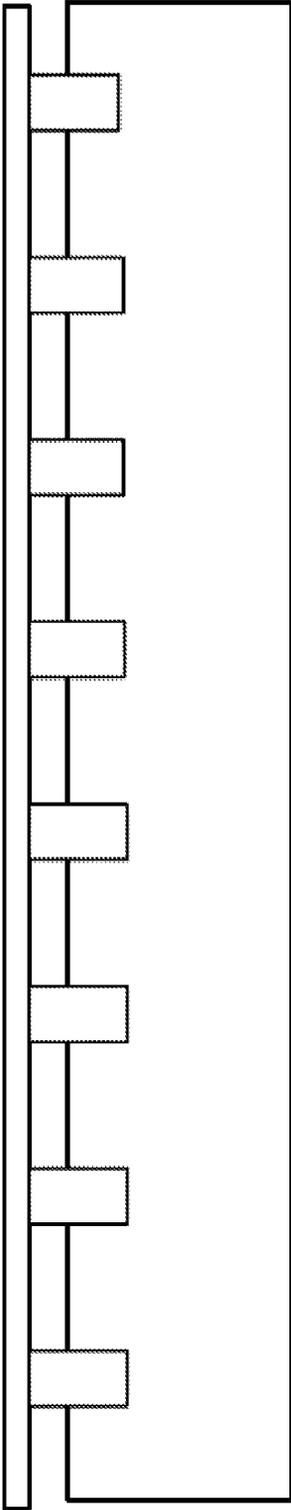


Figure 5

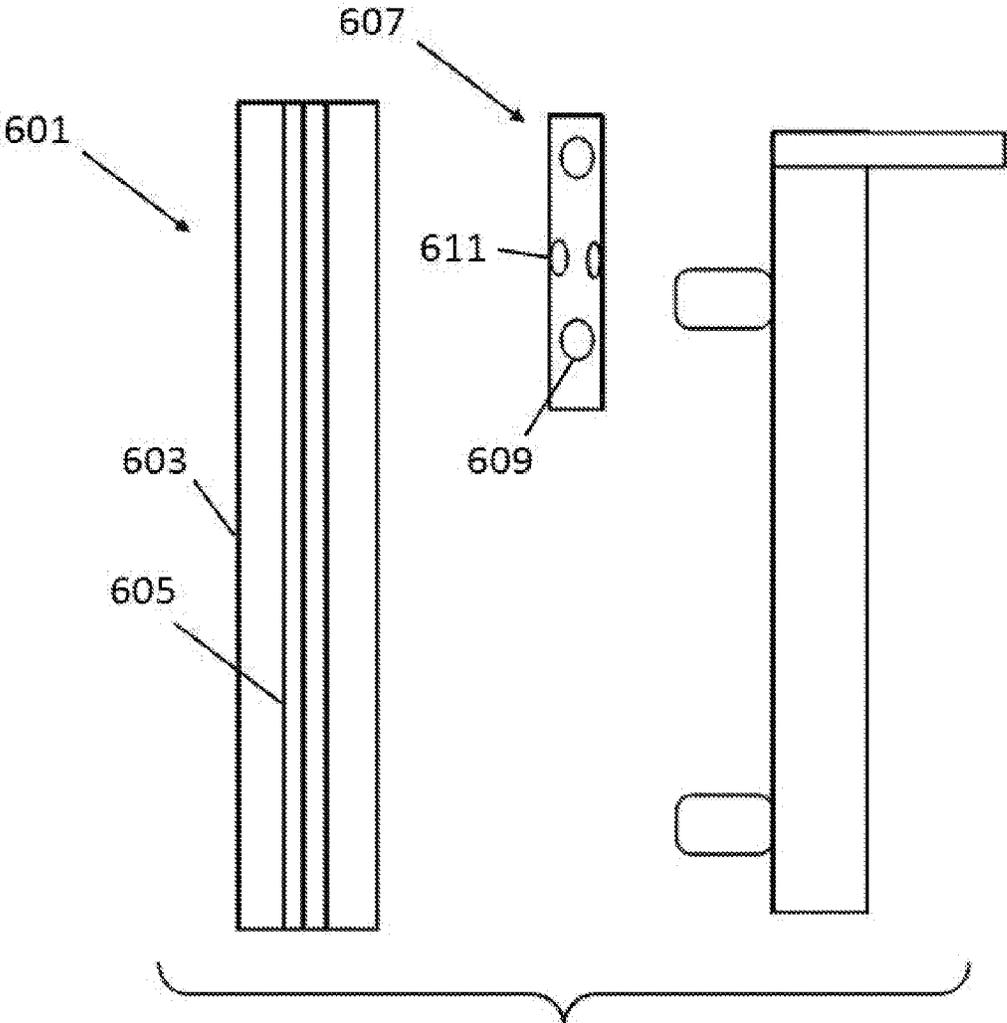


Figure 6

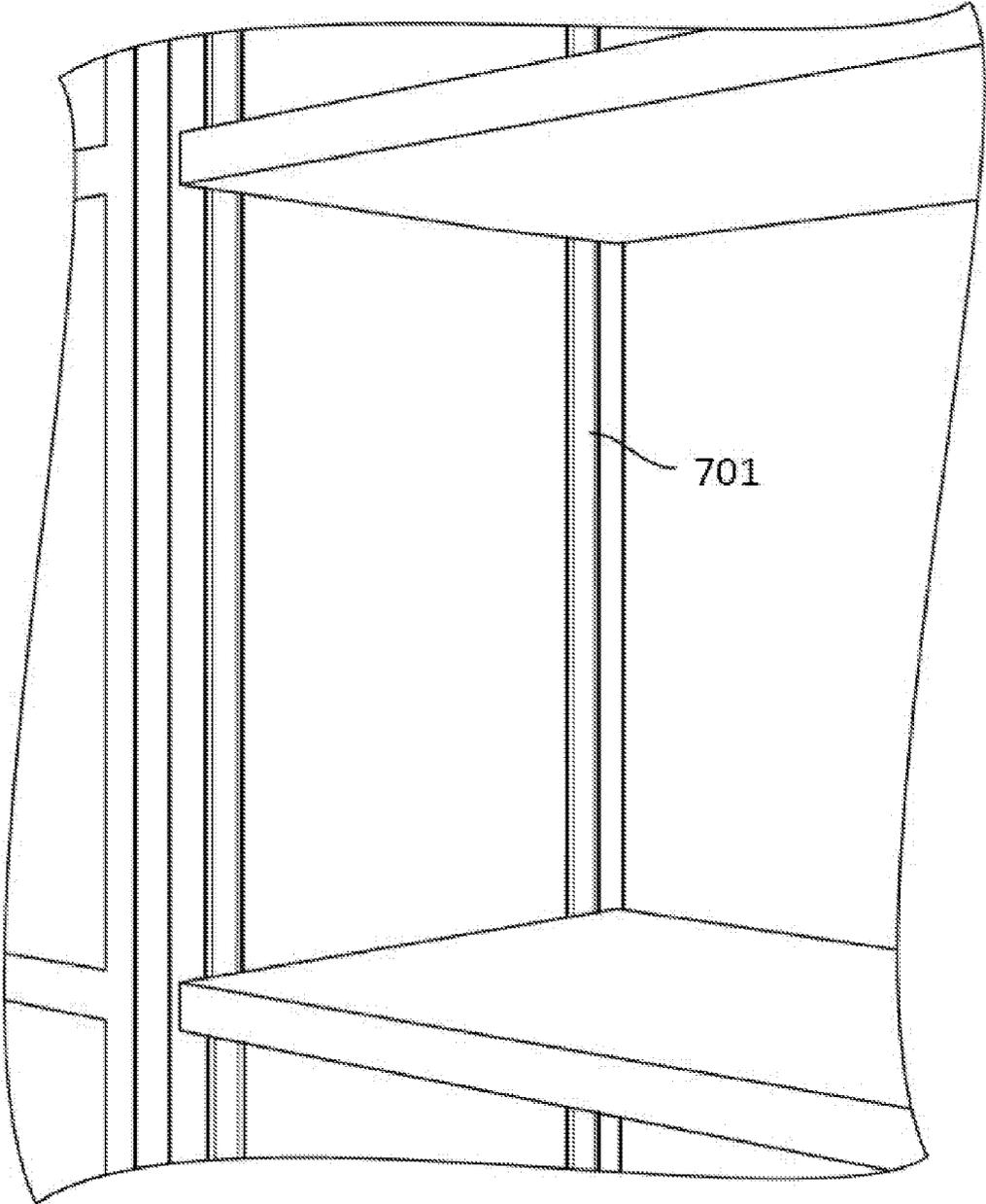


Figure 7A

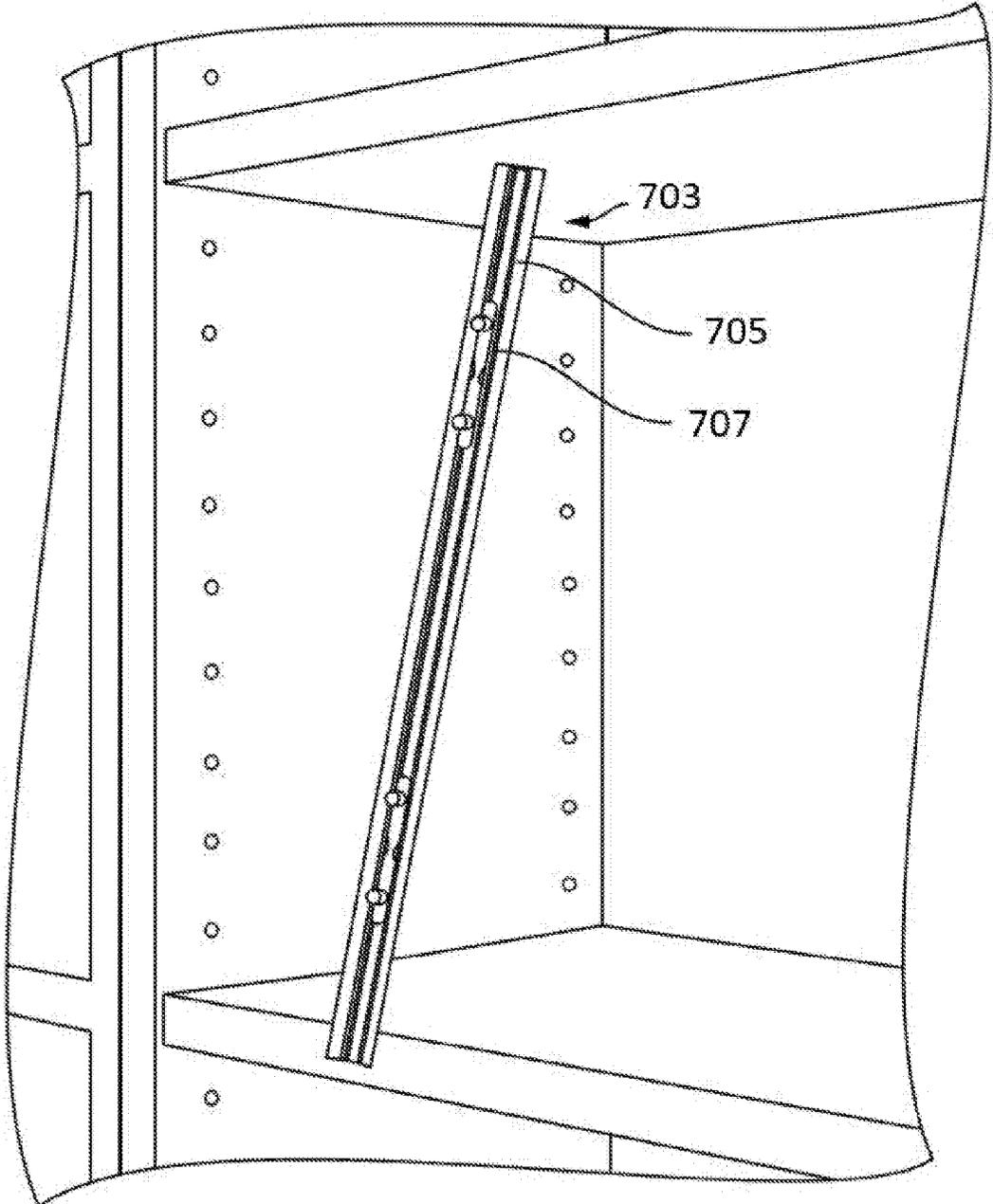


Figure 7B

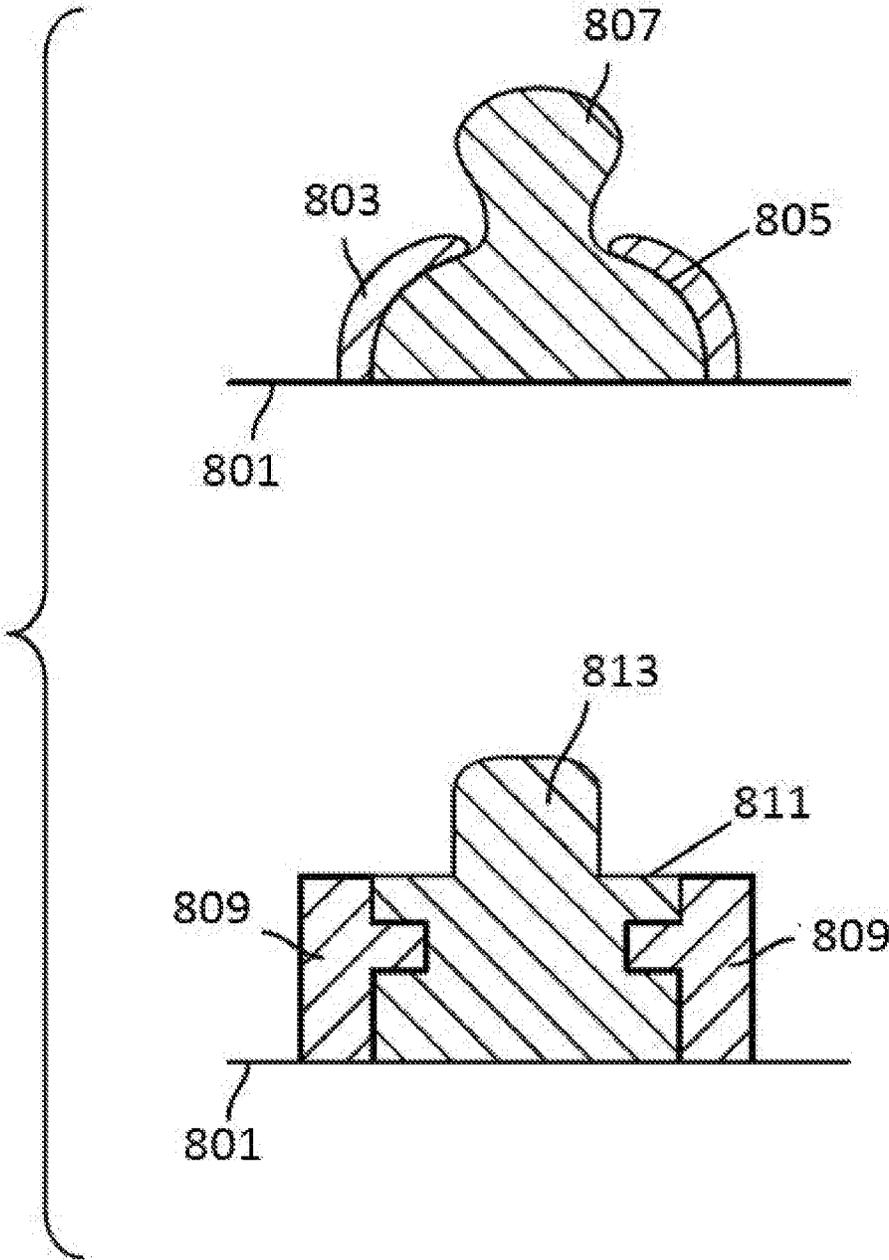


Figure 8

DETACHABLE COVER FOR BOREHOLES IN RACK AND WALL UNITS

CROSS-REFERENCE OF RELATED APPLICATION

[0001] This application claims priority to German patent application number 10 2015 012 696.2, filed on Oct. 2, 2015; the entire contents of which are hereby incorporated by reference.

FIELD OF THE INVENTION

[0002] The present invention relates to a detachable cover for lining one or more boreholes in furniture.

BACKGROUND OF THE INVENTION

[0003] Certain types of furniture contain bores or bore holes for the installation of shelves, rack floors, door hinges, and similar extensions. In such furniture, unused bores remain exposed resulting in an unsightly appearance. Typical solutions for covering exposed boreholes involve the application of individual pegs or studs to the exposed bore so as to cover the exposed bore. One or more studs can be applied to one or more bores either individually, or in parallel when the studs are reversibly attached to a strip. In the latter instance, the strip is removed following application of the studs into the respective bore hole(s).

BRIEF SUMMARY OF THE INVENTION

[0004] An embodiment of the invention can include a cover for concealing unutilized boreholes in furniture in order to improve the visual appearance of the furniture.

[0005] An embodiment of the present invention relates to a detachable cover for lining a plurality of boreholes on a furniture, said detachable cover having a track disposed onto a rear surface of said cover; and a plurality of studs attached to said track, wherein said plurality of studs are attached to said track in an adjustable manner.

DESCRIPTION OF THE FIGURES

[0006] Exemplary embodiments of the invention will be now described in greater detail below with reference to the accompanying drawings, in which:

[0007] FIG. 1 is an end view of an embodiment of a single stud.

[0008] FIG. 2 is a partial view of one side of an embodiment of a cover with integrated studs.

[0009] FIG. 3 is a zoomed in view of the cover of FIG. 2.

[0010] FIG. 4 is a perspective view of an embodiment of a cover having integrated studs that are spaced apart at a uniform distance.

[0011] FIG. 5 is a side view of an embodiment of a cover having integrated studs that are spaced apart at a uniform distance attached to a shelf wall.

[0012] FIG. 6 is a view of an embodiment of a cover having a track for adjustable studs (left-most image) and views of a tailed clip with two studs (middle and right image).

[0013] FIG. 7A shows an embodiment of a detachable cover attached to a shelf wall.

[0014] FIG. 7B is a view of a side of an embodiment of a cover having a track for slidable studs and also having two sets of slidable studs positioned onto the track.

[0015] FIG. 8 shows cross-sectional views of alternative embodiments of track and stud configurations of the cover of FIGS. 7A and 7B showing the track and a stud positioned on the track.

DETAILED DESCRIPTION OF THE INVENTION

[0016] Some embodiments of the current invention are discussed in detail below. In describing the embodiments, specific terminology is employed for the sake of clarity. However, the invention is not intended to be limited to the specific terminology so selected. A person skilled in the relevant art will recognize that other equivalent components can be employed and other methods developed without departing from the broad concepts of the current invention. All references cited anywhere in this specification, including the Background and Detailed Description sections are incorporated as if each had been individually incorporated.

[0017] The terms “bore” and “borehole” are used interchangeably throughout.

[0018] The terms “cover” and “strip” are used interchangeably throughout.

[0019] The terms “stud”, “peg”, “pin”, “plug” or “protruding member” are used interchangeably throughout.

[0020] The terms “track”, “thread” or “rail” are used interchangeably throughout.

[0021] Embodiments of the invention can easily and completely cover boreholes in a detachable manner. This has the advantage that the outer appearance of the furniture is not negatively impacted by the bores. In addition, some embodiments of the invention can be customized via the use of alternatively colored or patterned strips. In some embodiments, the cover is manufactured either out of plastics or metal. In some embodiments, the cover is either pre-cut in a calibrated manner, or can be cut post-purchase by a consumer. In such cases, the cover can be cut to fit a desired length. One of ordinary skill in the art will appreciate from this disclosure that the covers described herein can be customized in a variety of ways that would be apparent.

[0022] Unlike existing solutions with single studs, embodiments of the invention described herein can cover a plurality of boreholes so that a homogeneous visual appearance is created and the need for extensive single plugs is eliminated.

[0023] In addition, unlike existing systems for covering boreholes, the instantly described pegs or studs only serve to fix the cover. In some embodiments, the cover remains in the body of furniture as an ornamental element. In some embodiments, the pegs and cover can be readily detached from the boreholes and furniture. In such cases, the boreholes remain undamaged and can readily be used for the installation of extensions to the furniture.

[0024] An embodiment of the present invention includes a detachable cover for lining a plurality of boreholes on a furniture, said detachable cover having a track disposed onto a rear surface of said cover; and a plurality of studs attached to said track, wherein said plurality of studs are attached to said track in an adjustable manner.

[0025] Some embodiments of the present invention include a detachable cover having a track configured such that a sliding engagement is formed between at least one of a plurality of studs and said track.

[0026] Some embodiments of the present invention include a detachable cover with a track is configured such

that a sliding engagement is formed between each of a plurality of studs and said track.

[0027] Some embodiments of the present invention include a plurality of studs, wherein each of said plurality of studs comprise a base and a shaft attached to said base, wherein said base is coupled to a track and said shaft extends out from said base and from said track.

[0028] Some embodiments of the present invention include a plurality of studs, wherein said plurality of studs includes a tailed clip comprising two or more studs attached to one another, and wherein said tailed clip is attached to a track in an adjustable manner.

[0029] Some embodiments of the present invention include a tailed clip attached to a track in a slidable manner

[0030] Some embodiments of the present invention include two or more studs spaced apart at a distance corresponding to a distance between two or more plurality of boreholes on a furniture.

[0031] Some embodiments of the invention include a method of lining a plurality of boreholes on a furniture comprising applying a detachable cover to at least one of said plurality of boreholes, wherein said detachable cover comprises a track disposed onto a rear surface of said cover; and a plurality of studs attached to said track, and wherein said plurality of studs are attached to said track in an adjustable manner.

[0032] In an embodiment of the invention, a stud of the detachable cover is implemented as depicted in FIG. 1. In such an embodiment, the stud 101 comprises a base 103 and a shaft 105. The base is wider than the shaft. The stud is attached to the cover by the base. When in use, the shaft is inserted into a borehole in a detachable manner. The shaft is designed such that the borehole forms a tight-fit around the shaft, allowing the base of the stud and cover to remain attached to the borehole until detachment of the cover is desired.

[0033] In an embodiment of the invention, the detachable cover is implemented as depicted in FIGS. 2-5. In such an embodiment, the detachable cover 201 has studs 203 that are permanently mounted onto a rear surface 205 of the detachable cover. The cover is in the form of a linear strip. The studs are positioned along an axis of the rear surface of the strip and are spaced apart at a predetermined distance as is seen in FIGS. 2 and 4. In some embodiments, the distance that the studs are spaced apart by corresponds to the distance between adjacent boreholes on a piece of furniture. As seen in FIG. 5, in such an embodiment each stud fills a corresponding borehole when the cover is mounted onto the furniture. When mounted, the studs bring the rear surface of the cover in contact or in close-contact with the surface of the furniture having the boreholes.

[0034] In some embodiments of the invention, the detachable cover is implemented as depicted in FIGS. 6, 7A and 7B. As depicted in FIGS. 6 and 7B, the cover 601 and 703, respectfully, has a centrally positioned track 605 and 705 disposed on a rear surface 603. The track is positioned along an axis and extends along the entire length or most of the length of the cover. A pair of slidable studs 707 is attached to the track. FIG. 7A shows an image of an embodiment of a cover 701 mounted onto a shelf.

[0035] As shown in FIGS. 6 (middle and left images) and 7B, in some embodiments two or more studs 609 are joined to form a mounting or tailed clip 607. In some embodiments, the studs are spaced apart by a predetermined distance. This

distance corresponds to the distance between adjacent boreholes on a piece of furniture. In some embodiments, the mounting or tailed clip has a side-cut or break-point 611 so that the individual studs can be separated from each other. This side-cut or break-point is positioned at a point between the two studs. This allows for the studs to be separated so that individual boreholes spaced apart at varying distances can be filled. In some embodiments, the mounting or tailed clip comprises a base region and two or more shaft regions. The base region is wider than each of the two or more shaft regions. As seen in FIG. 7B, in some embodiments the base region of the mounting or tailed clip attaches the two or more shaft regions in a slidable manner to a track disposed on a rear surface of a cover. The mounting or tailed clip or individual studs can be moved along the track.

[0036] In one embodiment of the invention, the detachable cover may be implemented as depicted in FIG. 8. FIG. 8 shows cross-sectional views of alternative stud and track configurations on a strip or cover 801. In the top panel, parallel members of the track 803 curve around the base of a stud 805 to contain the stud 807 in an adjustable (e.g. slidable) manner. In the bottom panel, the base of the stud 811 and the track 809 are configured to integrate with one another such that the stud 813 is contained in an adjustable (e.g. slidable) manner within the track.

[0037] One of ordinary skill in the art will appreciate from this disclosure that any number of interlocking geometries can be used to interlock the stud and the track in a manner that allows the stud to slide within the length of the cover.

[0038] In an embodiment of the invention, the cover is supplied with studs in regular distances whereupon the distances of the studs correspond to the boreholes in the body of the furniture. In some embodiments the studs have a diameter of between 1 and 10 mm, and more preferably 5 mm. In some embodiments the depth of the studs is between 3 and 13 mm, and more preferably 8 mm. In some embodiments the width of the cover is at least between 1 and 10 mm and more preferably 5 mm in order to cover the boreholes completely. With these studs the cover is fixed in the boreholes which are in the body of the furniture.

[0039] In some embodiments the cover can be applied in the furniture industry in every body of furniture with prefabricated boreholes in order to cover them respectively to individualize the body of furniture according to the imaginations of the consumer.

[0040] In some embodiments, for example described in connection with FIGS. 7B and 8, the cover is a sectional strip with a continuous internal rail which is centrally situated on the underside of the strip. In order to establish stability and firmness, the plugs are slightly wider in diameter than the corresponding boreholes. In such an embodiment, the plugs have to be pressed into the corresponding boreholes. In such an embodiment, the stud comprises a shaft that protrudes from the rack. This shaft has a bulge at the plug and is connected to the underside of the strip by the continuous rail when pressurized.

[0041] In some embodiments, for example described in connection with FIG. 7B, a mounting or tailed clip with 2 plugs is used. This allows for greater stability. In such an embodiment, the mounting or tailed clip comprises a side-cut so that the 2 plugs can be separated. This is particularly useful when mounting onto a furniture with boreholes of varying or alternative spacing that is distinct from that of the joined plugs. In some embodiments, this side-cut is posi-

tioned in the middle of the mounting or tailed clip; this allows a user to break the mounting clip, thus releasing each of the 2 joined plugs. This allows for the plugs to be separated so that individual boreholes spaced apart at varying distances can be filled. The strips can differ in color, form and coating.

[0042] In some embodiments, the cover, track and/or studs can be made of light-weight and flexible materials such as plastic or rubber or any combination thereof. In some embodiments, the cover, track and/or studs can be made of a metal or combination of metals. Methods of manufacture depending on the material used are readily apparent to one of ordinary skill in the art. For example, injection molding or three-dimensional printing can be employed.

[0043] The following claims are thus to be understood to include what is specifically illustrated and described above, what is conceptually equivalent, what can be obviously substituted and also what essentially incorporates the essential idea of the invention. Those skilled in the art will appreciate that various adaptations and modifications of the just-described preferred embodiments can be configured without departing from the scope of the invention. The illustrated embodiments have been set forth only for the purposes of example and should not be taken as limiting the invention. Therefore, it is to be understood that, within the scope of the appended claims, the invention may be practiced other than as specifically described herein.

1. A detachable cover for lining a plurality of boreholes on a furniture comprising:
a track disposed onto a rear surface of said cover; and
a plurality of studs attached to said track,

wherein said plurality of studs are attached to said track in an adjustable manner.

2. The detachable cover of claim 1, wherein said track is configured such that a sliding engagement is formed between at least one of said plurality of studs and said track.

3. The detachable cover of claim 1, wherein said track is configured such that a sliding engagement is formed between each of said plurality of studs and said track.

4. The detachable cover of claim 1, wherein each of said plurality of studs comprise a base and a shaft attached to said base, wherein said base is coupled to said track and said shaft extends out from said base and from said track.

5. The detachable cover of claim 1, wherein said plurality of studs includes a tailed clip comprising two or more studs attached to one another, and wherein said tailed clip is attached to said track in an adjustable manner.

6. The detachable cover of claim 5, wherein said tailed clip is attached to said track in a slidable manner.

7. The detachable cover of claim 5, wherein said two or more studs are spaced apart at a distance corresponding to a distance between two or more of said plurality of boreholes on a furniture.

8. A method of lining a plurality of boreholes on a furniture comprising applying a detachable cover to at least one of said plurality of boreholes, wherein said detachable cover comprises:

a track disposed onto a rear surface of said cover; and
a plurality of studs attached to said track, and
wherein said plurality of studs are attached to said track in an adjustable manner.

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