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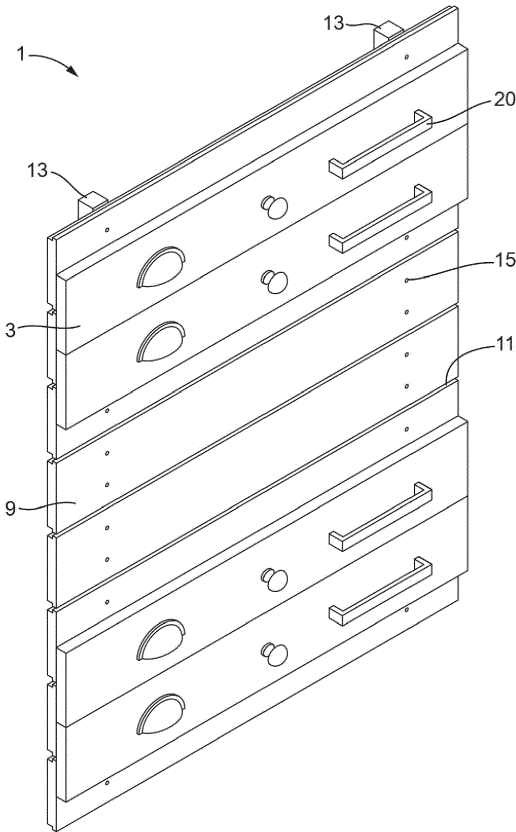
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(54) **A STORAGE SYSTEM AND METHOD**

(57) A storage system 1 for storing items 20, the storage system 1 comprising: a plurality of backing panels 9 spaced apart by a predetermined distance to define a slot 11 between adjacent backing panels; a front panel 3 having a projection (19, Fig. 4) from its rear surface, the projection (19) slidably receivable within the slot 11 and configured to engage a rear surface of each adjacent backing panel 9, the projection (19) thereby securing the front panel 3 relative to the slot 11. Methods (500, 600, Figs. 5, 6) of manufacturing a storage system and interchanging items are also described.

Fig. 2



Description

Technical Field

[0001] The present disclosure relates to a storage system and is particularly, although not exclusively, concerned with a storage system being configured for easy assembly as well as easy exchange and rearrangement of stored items.

Background

[0002] It is common to store items on a wall or a stand such that the whereabouts of each item can be determined and the items readily accessed. Similarly, it is common to display items (e.g., in a shop) on a display stand such that those items can be viewed, removed, inspected and replaced.

[0003] Such items to be stored or displayed may have a variety of dimensions, such that the means for storing the items may be bespoke to the items stored. Accordingly, when the items are replaced by other items of differing dimensions, and/or when the arrangement of the items changes, this may entail the replacement of the existing bespoke storage means by a further bespoke storage means. The previous storage means may therefore become redundant which can lead to material wastage.

[0004] Additionally, it is often time-consuming to assemble a storage means (e.g., when fitting-out a new retail premises). Further, it is often time-consuming to exchange or rearrange items stored by a storage means (e.g., when a range of products is changed in part or in full).

[0005] Improvements are therefore desired in the art of storage.

Statements of Invention

[0006] The present inventors have determined that by providing a storage system having particular features, the interchangeability and ease of assembly of the storage system are improved. Further, the time required to reconfigure the storage system is reduced.

[0007] According to an aspect of the present disclosure, there is provided a storage system for storing items. The storage system may comprise a plurality of cross members (e.g., backing panels). The cross members may be spaced apart by a predetermined distance. A slot or slit or channel may be defined between adjacent backing panels. The system may further comprise a front panel, e.g., a display panel for displaying items. The front panel may be suitable for storing items. The front panel may have a projection or fixing from its rear surface. The fixing may have a shaft with an enlarged head at its free end. The fixing may be slidably receivable (e.g., laterally) within the slot. The shaft of the fixing may engage the slot. The enlarged head may prevent the front panel from

being pulled away from the cross member. The enlarged head may be configured to engage a rear surface of each adjacent backing panel, the projection thereby securing the front panel relative to the slot. This aspect may be used in conjunction with and/or form part of any of the following aspects.

[0008] According to an aspect of the present disclosure, there is provided a storage system for storing items, the storage system comprising: a plurality of backing panels spaced apart by a predetermined distance to define a slot between adjacent backing panels; a front panel having a projection from its rear surface, the projection slidably receivable within the slot and configured to engage a rear surface of adjacent backing panels (e.g., each adjacent backing panel), the projection thereby securing the front panel relative to the slot. This aspect may be used in conjunction with and/or form part of any other aspect.

[0009] The slot may be defined by separate components, e.g., the slot may be complex. The slot may not be unitary, e.g., formed in a single component.

[0010] The front panel may be suitable for storing items. The front panel may have a front surface for storing items (e.g., retaining, receiving, and/or securing items).

The front panel may comprise a storage item, e.g., plurality of storage items. The or each storage item may be provided from a front surface of the storage panel. The storage items may be attached to the front panel by a fastener extending through a rear surface of the front panel towards (e.g., to) a front surface. The projection may comprise the fastener. The storage system may comprise a plurality of front panels.

[0011] The slot may comprise at least one free or open end from which direction the projection may be inserted.

The slot may be open at either end (e.g., in the absence of side elements).

[0012] The slot may be tapered towards front surface (e.g., in the depth direction) of the backing panel. For example, the cross sectional dimensions of the slot may decrease towards the front surface of the backing panel which the front panel may abut. The edges of the backing panel (e.g., upper and lower major edges) may be stepped such that the slot tapers towards front surface, e.g., in the depth dimension. The stepped edges of the backing panel (e.g., ledges thereof) may define rear surfaces of the slot. The backing panels may comprise elongate ledges provided on its major edges (e.g., upper and lower major edges).

[0013] The backing panels may be substantially planar and/or provided in substantially the same plane as one another. The backing panels may be provided substantially parallel with one another. Adjacent backing panels may be discontinuous and/or non-contiguous (e.g., not adjoin or touch one another) For example, the backing panels may be provided at a regular interval greater than their height dimension.

[0014] The or each slot may comprise continuous dimensions (e.g., a uniform cross section) along its length.

The slot may comprise an elongate channel.

[0015] The storage unit may comprise at least three backing panels spaced apart by the predetermined distance to define at least two slots of substantially the same (e.g., continuous) dimensions. Each of the at least two slots may be configured to slidably receive the projection of the front panel. The at least two slots (e.g., all of the slots) may be parallel with one another. The slots may be provided in the same vertical plane as the backing panels. The slots may extend substantially horizontally. The at least two slots (e.g., all of the slots) of the storage system may be configured to receive any projection of any front panel. The front panels may thereby be interchangeable within the slots.

[0016] The system may comprise side elements configured to enclose the ends of the or each slot (e.g., after receipt of the front panel). The side elements may prevent the front panels from being inserted too far or being slid out of the slot.

[0017] The projection may be slidable laterally, along the slot (in a length direction of the slot). The or each projection may comprise a head at its free end and/or a neck extending between the head and the rear surface of the front panel. The projection may be provided along a particular line or plane of the front panel. For example, the projection may be provided along a centreline or midline of the front panel. A plurality of projections may be provided along the line (e.g., the centreline) of the front panel. The projections may be aligned (e.g., provided along a single line). The line may extend along the front panel in parallel with its long edges, such as a third or a quarter of the way (along its height dimension) from an edge. The or each projection may be configured to be received by a single slot.

[0018] When the storage system comprises a plurality of front panels, each front panel may comprise a projection or a plurality of projections provided along the same particular line or plane (e.g., centreline or midline). For example, the front panels, including their protrusions may be identical, except for the items retained on their front surfaces.

[0019] The projection may comprise a fastener. The projection may comprise a fastener used for securing an item to the front panel. The projection may be intended to solely engage the slot (e.g., the projection may not fasten an item to the front panel).

[0020] The projection may comprise a neck of dimension less than a minimum slot dimension and a head at its free end of dimension greater than the minimum slot dimension. The projection may extend from only one side of the front panel (e.g., may not penetrate a thickness of the front panel). Alternatively, the projection may penetrate the front panel and attach an item to the front panel.

[0021] The projection may be elongate. The projection may extend along the front panel, e.g., extend along a centreline of the front panel.

[0022] The front panel may be substantially planar. The length of the neck of the projection may be substantially

equal to the distance from the rear surfaces of the slot to the respective front surface of the backing panels. In a received position, the front panel may substantially abut the backing panels which define the slot into which the projection of the front panel is received. The front panels may thereby be in a plane substantially parallel with the plane of the backing panels. The or each front panel may obscure portions of the adjacent backing panels summing to a whole backing panel. For example, when a protrusion is provided along a centreline of the front panel, the front panel may obscure substantially half of each backing panel defining the respective slot. When the system comprises a plurality of front panels, the front panels may collectively obscure the backing panels and their slots.

[0023] The slot, and thus the backing panels, may thereby support (e.g., bear the weight of) the front panel.

[0024] The storage system may comprise a component to which the backing panels are secured, e.g., a pillar or a column. The component may be attachable to a wall or a stand or larger item for retaining the storage system in an upright position. The pillar may be configured to support the backing panels. The pillar may have a planar or flat front face (e.g., the front face may not comprise projections). The pillar may comprise pre-drilled holes, e.g., at alternating separations, such as within a front face. The storage system may comprise multiple pillars, which may be identical to one another.

[0025] The backing panels may comprise pre-drilled holes in a uniform layout. The backing panels may be identical to one another.

[0026] The backing panels may comprise substantially the same width and/or height dimensions as the front panels (optionally the backing panels having marginally smaller height according to the slot dimensions). The or each slot may be configured to be engaged by / receive a single front panel. The or each front panel may be configured to engage a single slot (e.g., by being provided along a single line, its projections may be configured to engage a single slot). In a received position, the backing panels and the or each front panel may form contiguous end surfaces. Side panels may abut and/or be attached to the contiguous end surfaces.

[0027] According to another aspect of the present disclosure, there is provided a storage system comprising: a plurality of backing panels spaced apart by a predetermined distance to define a slot between adjacent backing panels, each adjacent backing panel comprising a rear surface, wherein the slot is configured to slidably receive a projection of a front panel such that the projection engages the rear surfaces to thereby secure the front panel relative to the slot. This aspect may be used in conjunction with and/or form part of any other aspect.

[0028] According to another aspect of the present disclosure, there is provided a front panel for storing items, the front panel comprising: a projection from its rear surface, wherein the projection is slidably receivable within the slot so as to engage rear surfaces of the slot, the

projection thereby securing the front panel relative to the slot. This aspect may be used in conjunction with and/or form part of any other aspect.

[0029] According to another aspect of the present disclosure, there is provided a method. The method may comprise interchanging items stored by the storage system. The method may comprise sliding a first front panel along a slot so as to remove the first front panel from the storage system; sliding a second front panel along the slot so as to insert the second front panel into the slot. This aspect may be used in conjunction with and/or form part of any other aspect. The method may interchange the storage panels which retain the items to be stored.

[0030] According to another aspect of the present disclosure, there is provided a method. The method may be a method of assembling, manufacturing, and/or building a storage assembly. The method may comprise fixing a plurality of backing panels with a predetermined separation to define a slot between adjacent backing panels; providing a front panel having a front surface for storing, retaining, receiving and/or supporting items and having a projection from its rear surface; and/or sliding the projection along the slot to engage a rear surface of adjacent backing panels defining the slot to thereby retain the front panel relative to the slot. This aspect may be used in conjunction with and/or form part of any other aspect.

[0031] The method may comprise pre-drilling a series of holes in a pillar. The holes may be pre-drilled having an alternating separation. The holes may be drilled using a jig. The method may comprise drilling a second pillar in the same manner so as to provide identical holes.

[0032] The method may comprise pre-drilling an array of holes in a backing panel (e.g., in each of a plurality of backing panels). The holes may be pre-drilled having a symmetric position in each corner of the backing panel. The holes may be drilled using a jig. The method may comprise drilling a second backing panel in the same manner so as to provide identical holes.

[0033] The method may comprise erecting the or each pillar into an upright position. The method may comprise inserting dowelling into the holes of the or each pillar. The method may comprise aligning the dowelling of the pillar with the holes of the backing panel. The method may comprise pushing the backing panels against the pillars such that the dowelling is received into the respective aligned holes of the backing panel.

[0034] To avoid unnecessary duplication of effort and repetition of text in the specification, certain features are described in relation to only one or several aspects or embodiments of the invention. However, it is to be understood that, where it is technically possible, features described in relation to any aspect or embodiment of the invention may also be used with any other aspect or embodiment of the invention.

Brief Description of Drawings

[0035] For a better understanding of the present inven-

tion, and to show more clearly how it may be carried into effect, reference will now be made, by way of example, to the accompanying drawings, in which:

Figure 1 is a perspective view of a storage system according to the present invention;

Figure 2 is a perspective view of the storage system of Fig. 1 in a partly disassembled configuration;

Figure 3 is a side view of the storage system of Fig. 1 in a partly disassembled configuration;

Figure 4 is a rear perspective view of a front storage panel according to the present invention; and

Figures 5 and 6 are example methods according to the present invention.

Detailed Description

[0036] The Figures described below are exemplary not limiting, the scope of the invention being limited only by the claims.

[0037] Fig. 1 shows a storage system 1 in an assembled configuration in which a plurality of storage items 20 is stored by the system 1.

[0038] The system 1 comprises a plurality of laterally extending front panels 3 provided side-by-side along a height direction of the system 1. The front panels 3 are substantially planar and have substantially uniform thickness. Each front panel 3 is configured to retain at least one item 20 to be stored by the system 1.

[0039] In the embodiment shown, each storage panel 3 retains three items 20 provided substantially along a centreline of the storage panel 3. The items 20 are attached to the front panels 3 by means of fasteners 17 (described in relation to Fig. 4). However, it will be understood that the items 20 may be retained by the respective front panels 3 by any suitable means.

[0040] The front panels 3 are provided between side elements 5 which extend in the height direction along lateral edges of the system 1. The side elements 5 retain each front panel within its respective slot 11 (Figs. 2 and 3) by preventing the front panels 3 from being slid laterally out of the respective slot 11.

[0041] The system 1 comprises upper and lower elements 7 which space the uppermost and lowermost front panels 3 from the upper and lower edges of the system 1 respectively. For example, the upper and lower elements 7 may space the uppermost and lowermost front panels 3 from a floor and a ceiling such that the items 20 are provided at a more user-friendly elevation.

[0042] The storage system 1 is attachable to a wall or other structure such that it may be retained upright in a substantially vertical position, e.g., with the front panels 3 substantially vertical.

[0043] Fig. 2 shows the storage system 1 in a partly

disassembled configuration, in which the side elements 5 have been removed, and three front panels 3 have been removed. Fig. 3 shows a side view of the system 1 once the nearest side element 5 has been removed. The upper and lower ends of the system 1 have been truncated in Figs. 2 and 3 in order to show clearly the internal structure of the system 1.

[0044] The system 1 comprises a plurality of backing panels 9 to the rear of the front panels 3. The backing panels 9 are substantially planar and have generally uniform thickness, with the exception of the stepped edges described below.

[0045] The backing panels 9 are spaced apart by a pre-determined distance and provided substantially in parallel and in the same plane as one another (preferably a substantially vertical plane). Opposing faces of adjacent backing panels 9 thereby define an elongate slot 11 therebetween, such that the system 1 comprises a series of laterally extending slots 11 existing in substantially the same plane as the backing panels 9. The slots 11 throughout the system 1 have corresponding (e.g., the same) dimensions and geometry. In a preferred example, the slots 11 extend substantially horizontally.

[0046] The backing panels 9 comprise stepped edges (stepped upper and lower laterally extending edges in the orientation shown in Figs. 2 and 3) such that each slot 11 is wider towards the rear of the backing panel 9 and narrows towards the front. In particular, backing panels 9 comprise a rear face of shorter height dimension (relative to Figs. 2 and 3) than the front face of the backing panel 9. Part way (e.g. half-way) along its thickness dimension (e.g., left to right in Fig. 3), the backing panels 9 comprise a step or ledge on either major edge. The step extends along the entire lateral dimension of the backing panel 9.

[0047] The slot 11 thereby comprises a wider portion towards the rear of the system 1, and a narrower portion towards the front of the system and which intersects the front surface of the backing panel 9. The wider portion of the slot 11 may be enclosed by a pillar 13, described below. The wider portion and the narrower portion of the slot 11 extend from one side of the backing panel 9 to the other, such that each slot 11 comprises two open ends. The opposing side of the system 1 may comprise a mirror image of Fig. 3.

[0048] In a preferred example, the front surface of the backing panel 9 and the front panel 3 comprise substantially the same height dimension. For example, the front panel 3 and the backing panel 9 may be formed from the same components, e.g., such that the front panel 3 also comprises a stepped edge, which may be obscured in an assembled configuration.

[0049] The backing panels 9 are secured to a support 13 (e.g., a pillar 13) extending longitudinally behind the backing panels 9. The support 13 is configured to support the backing panels 9 such that the backing panels 9 remain fixed in position. In the embodiment shown, the backing panels 9 are secured to two vertically extending

pillars 13 which are provided towards either lateral side of the system 1.

[0050] The backing panels 9 are secured to the support 13 by means of fasteners passing through fastening holes which are provided at fixed locations in each backing panel 9. These fastening holes may be pre-drilled, as described later. In a preferred example, the backing panels 9 are fastened to the pillar 13 by means of dowelling inserted in a right-left direction relative to Fig. 3. The supports 13 may be attached to a wall or other structure, e.g., to retain the system 1 in an upright position.

[0051] With reference to Fig. 4, the rear surface of a front panel 3 is described. The rear surface comprises a number of countersunk fasteners 17 which secure the items 20 on the opposing major surface (not shown) to the front panel 3. The fasteners 17, and thus the items 20, are provided along a centreline of the front panel 3.

[0052] The front panel 3 further comprises a projection 19 extending from its rear surface. The projection 19 comprises a head at its distal end relative to the rear surface of the front panel 3 (e.g., its free end) and a neck therebetween. The projection 19 may comprise a bolt, screw or similar. The projection 19 is provided along a centreline of the front panel 3, such that the projection 19 is aligned with the countersunk fasteners 17.

[0053] The neck is narrower in dimension than the head. The width dimension of the neck corresponds to (e.g., is marginally smaller than) a narrowest dimension of the slot 11, and the width dimension of the head corresponds to (e.g., is marginally smaller than) a widest dimension of the slot 11 (e.g., widest dimension in the height direction). The length of the neck and the length of the head are selected according to the dimension of the slot 11, e.g., the dimensions of the step in the thickness direction.

[0054] In the embodiment shown, the front panel 3 comprises two projections 19 provided towards either end of the panel 3 and provided along a centreline of the panel 3 (e.g., centred relative to the height of the panel).

[0055] The projection 19 is slidably receivable within the slot 11 in a lateral direction (e.g., along the length of the slot), starting from an open end of the slot 11. In particular, the head is receivable within the wider part of the slot 11, and the neck of the projection 19 is receivable within the narrower part of the slot.

[0056] A forward-facing surface of the head (e.g., a surface of the head facing away in Fig. 4) is configured to engage the ledge of adjacent stepped edges of adjacent backing panels 9.

[0057] As such, the projection 19 is configured to retain the front panel 3 relative to the slot 11 and thus the backing panel 9. If the front panel 3 comprises a plurality of projections 19 along the lateral dimension (e.g., centreline), or a laterally extending elongate projection 19, the front panel 3 may be retained in a fixed orientation relative to the slot 11.

Assembly

[0058] With reference to Fig. 5, there is provided a method 500 of assembling a storage assembly 1. The method 500 comprises fixing 502 a plurality of backing panels 9 with a predetermined separation to define a slot 11 between adjacent backing panels 9; providing 504 a front panel 3 for storing items 20 and having a projection 19 from its rear surface; and sliding 506 the projection 19 along the slot to engage a rear surface of each adjacent backing panel 9 to thereby retain the front panel 3 relative to the slot 11.

[0059] In use, a projection 19 of a front panel 3 is inserted into an open lateral end of a slot 11. In particular, the head of the projection 19 is received in the wider part of the slot 11 so as to engage rearward facing surfaces of the slot 11, and the neck of the projection is received in the narrower part of the slot 11.

[0060] The front panel 3, and thus the projection 19, is slid laterally along the slot 11. When the front panel 3 comprises a plurality of projections 19, the further projections 19 of the panel 3 also engage the same slot 11.

[0061] Due to the engagement of the ledges of the stepped slot 11 by the head of the projection 19, the front panel 3 is retained relative to the slot 11, the backing panels 9 and thus the storage system 1.

[0062] As the backing panels 9 are provided with a predetermined separation and so the slots 11 are all uniform, any front panel 3 may engage any slot 11, such that any front panel 3 may be placed at any elevation (e.g., any of the discrete elevations) of the system 1.

[0063] The side element 5 provided at a far side of the system 1 may prevent the front panels 3 from being pushed out the other side of the slot 11 (e.g., in the embodiment that the slot comprises 11 a continuous channel without ends).

[0064] In the engaged position, the front panel 3 may abut the backing panel 9 (e.g., a substantially planar contact may be formed therebetween). As the projections 19 are symmetric and provided along a centreline, front panels 3 may be inserted upside down and there may be no difference to the engagement of the slot 11.

[0065] A user may continue inserting front panels 3 into slots 11 until the slots 11 of the system 1 are fully occupied. Upon full occupation of the slots 11, the side element 5 at the near side of the system may be replaced.

[0066] With reference to Fig. 6, there is provided a method 600 of interchanging or exchanging items stored by the storage system 1. The method 600 comprises sliding 604 a first front panel 3 along a slot 11 so as to remove the first front panel from the storage system 1. The method 600 further comprises sliding 606 a second front panel 3 along the slot 11 so as to insert the second front panel 3 into the slot 11. The method 600 may additionally comprise removing 602 a side element 5 (e.g., before removal of the first front panel 3). The method 600 may additionally comprise replacing 608 the side element 5 (e.g., after insertion of the second front panel 3).

[0067] The second front panel 3 may have been removed from a different slot 11. Alternatively, the second front panel 3 may comprise new items 20 which are to be stored by the system 1.

Manufacture

[0068] During manufacture, each backing panel 9 is provided with pre-drilled fastening holes 15 at fixed locations within the backing panel 9. As shown in Fig. 2, the pre-drilled fastening holes 15 are provided at fixed, symmetric locations towards each corner of the backing panel 9.

[0069] Similarly, each pillar 13 is provided with a series of pre-drilled fastening holes (not shown) which are provided at fixed locations along the pillar. In the embodiment shown, the pre-drilled fastening holes within the pillar 13 are provided with an alternating separation reflecting the distance between holes within the same backing panel 9 and holes between adjacent backing panels 9 with which the holes in the pillar 13 are intended to align during assembly.

[0070] As the locations of the holes in the pillars 13 and the backing panels 9 are the same for each pillar 13 and backing panel 9 respectively, these holes may be drilled using a jig or other highly regularised, efficient process. The present invention thereby permits rapid manufacture of a storage system 1.

[0071] In a preferred example, the pre-drilled holes 15 are configured to receive dowelling (e.g., dowelling and glue) to secure the backing panels 9 to the pillars 13. The use of dowelling may permit faster assembly of the system 1 than the use of alternative fastening means (e.g., screws).

Advantages

[0072] By providing stepped edges to the backing panels 9 rather than flat edges, the backing panels 9 may be secured in abutment with the pillars 13, without preventing the head of the projection 19 from engaging a rear surface of adjacent backing panels 9. In effect, the provision of stepped edges permits a stronger connection between the backing panel 9 and the pillar 13. Further, stepped edges permit the slot 11 to extend continuously from one end of each panel 9 to the other, without interruption (e.g., by a pillar 13).

[0073] Although the provision of slots between panels 9 rather than within a unitary component may appear to be a more complex construction (e.g., it is generally preferable to provide a feature within one component rather than multiple), this feature permits rapid manufacturing and assembly. For example, to provide a slot having a ledge on either side within the interior of a single component would require the machining of re-entrants. However, by providing a stepped edge is more straightforward and can be machined faster. The accuracy required to achieve reliable slots 11 is achieved by the use of a jig

for drilling the holes in the pillar 13 and the panel 9.

[0074] Further, by providing slots 11 between backing panels 9 rather than within one component, the overall spatial efficiency of the storage system 11 is increased.

Alternatives

[0075] Although the illustrated embodiments show the items 20 aligned along the centreline of the front panel 3, this does not form an essential part of the invention (e.g., is optional).

[0076] In an embodiment not shown, the projection 19 may be elongate (e.g., rather than a discrete bolt) and may extend along a lateral dimension of the front panel 3. For example, projection 19 may extend along the centreline of the rear surface of the front panel 3 such that the projection 19 may engage the slot 11 along a line (e.g., a substantial portion of the length of the slot 11). Further, the or each projection 19 may be provided along a line or plane other than the centreline. For example, the projections 19 may be provided along a line offset from the centreline, which extends in parallel with a long edge of the front panel 3, such as a line a quarter or a third of the height dimension away from a long edge of the front panel 3.

[0077] In a further embodiment not shown, the backing panels 9 may comprise multiple steps.

[0078] Although the illustrated items 20 comprise handles on a shop display, it will be understood by the skilled person that the dimensions of the panel 3 may be varied and the items 20 stored by the panels 3 may be varied without departing from the present invention. For example, larger and heavier items may require front panels 3 and backing panels 9 of larger dimensions.

[0079] In an embodiment not shown, the or each projection 19 may comprise a fastener 17 which also secures an item to the front panel 3. For example, each projection 19 may comprise a fastener 17. Alternatively, only some projections 19 may comprise a fastener 17.

[0080] Each backing panel 9 may comprise only a single laterally extending step, such that each backing panel may define only a single side of a single slot 11. Accordingly, the backing panels 9 may have approximately half the height dimension of the backing panels 9 and only every other space between adjacent backing panels 9 may define a slot 11.

Statements

[0081] The invention may be defined by the following statements which form part of the present disclosure:

Statement 1. A storage system for storing items, the storage system comprising:

a plurality of backing panels spaced apart by a predetermined distance to define a slot between adjacent backing panels;

a front panel having a projection from its rear surface, the projection slidably receivable within the slot and configured to engage a rear surface of each adjacent backing panel defining the slot, the projection thereby securing the front panel relative to the slot.

Statement 2. The storage system of statement 1, wherein the slot is tapered towards a front surface of the adjacent backing panels defining the slot.

Statement 3. The storage system of any preceding statement, wherein the adjacent backing panels defining the slot comprise stepped edges.

Statement 4. The storage system of any preceding statement, wherein each backing panel defines one side of each of two slots.

Statement 5. The storage system of any preceding statement, wherein each backing panel comprises two opposing stepped edges.

Statement 6. The storage system of any preceding statement, wherein the slot comprises at least one free end from which end the projection may be inserted

Statement 7. The storage system of any preceding statement comprising at least three backing panels spaced apart by the predetermined distance to define at least two slots of substantially the same dimensions, such that each of the at least two slots is configured to slidably receive the projection of the front panel.

Statement 8. The storage system of any preceding statement, wherein the projection comprises a head at its free end and a neck extending between the head and the rear surface of the front panel.

Statement 9. The storage system of any preceding statement, wherein the front panel comprises:

a plurality of projections provided along a centreline of the front panel; or

a projection extending along a centreline of the front panel.

Statement 10. The storage system of any preceding statement, wherein the projection comprises a neck of dimension less than a minimum slot dimension and a head at its free end of dimension greater than the minimum slot dimension.

Statement 11. The storage system of any preceding statement, wherein the projection comprises a fas-

tener.

Statement 12. The storage system of any preceding statement, wherein the front panel comprises a front surface for retaining items.

Statement 13. The storage system of any preceding statement, wherein the front panel comprises a plurality of storage items.

Statement 14. The storage system of any preceding statement, wherein the storage items are attachable to the front panel by a fastener extending through a rear surface to a front surface of the front panel.

Statement 15. The storage system of any preceding statement, wherein the projection comprises a fastener which secures an item to a front surface of the front panel.

Statement 16. The storage system of any preceding statement, wherein the backing panels are provided in substantially the same plane and parallel with one another such that the slot comprises uniform dimensions along its length.

Statement 17. The storage system of any preceding statement, wherein the backing panels comprise substantially the same width and height dimensions as the front panels.

Statement 18. The storage system of any preceding statement comprising a plurality of slots, wherein the slots are substantially parallel.

Statement 19. The storage system of any preceding statement, wherein the backing panels are provided in a vertical plane, the or each slot extending horizontally within the vertical plane.

Statement 20. The storage system of any preceding statement, further comprising a pillar configured to support the backing panels, the pillar comprising pre-drilled holes.

Statement 21. A method of interchanging items stored by the storage system of any preceding statement, the method comprising:

sliding a first front panel along a slot so as to remove the first front panel from the storage system;

sliding a second front panel along the slot so as to insert the second front panel into the slot.

Statement 22. The method of statement 21, further comprising:

removing a side element to permit sliding of the first front panel; and/or

replacing the side element to prevent sliding of the second front panel.

Statement 23. A method comprising:

fixing a plurality of backing panels with a predetermined separation to define a slot between adjacent backing panels;

providing a front panel for storing items and having a projection from its rear surface;

sliding the projection along the slot to engage a rear surface of each adjacent backing panel defining the slot to thereby retain the front panel relative to the slot.

Statement 24. The method of statement 23, comprising pre-drilling a series of holes in a pillar, using a jig, the holes having alternating separation.

Statement 25. The method of statements 23 or 24, comprising pre-drilling an array of holes in each of the plurality of backing panels, using a jig, the holes having a uniform layout in each backing panel.

[0082] It will be appreciated by those skilled in the art that although the invention has been described by way of example, with reference to one or more exemplary examples, it is not limited to the disclosed examples and that alternative examples could be constructed without departing from the scope of the invention as defined by the appended claims.

Claims

1. A storage system for storing items, the storage system comprising:

a plurality of backing panels spaced apart by a predetermined distance to define a slot between adjacent backing panels;

a front panel having a projection from its rear surface, the projection slidably receivable within the slot and configured to engage a rear surface of each adjacent backing panel defining the slot, the projection thereby securing the front panel relative to the slot,

wherein the front panel is configured to engage a single slot and the or each slot is configured to receive a single front panel.

2. The storage system of claim 1, wherein the slot is tapered towards a front surface of the adjacent back-

ing panels defining the slot.

3. The storage system of claims 1 or 2, comprising at least three backing panels spaced apart by the pre-determined distance to define at least two parallel slots of substantially the same dimensions, such that each of the at least two slots is configured to slidably receive the projection of the front panel. 5
4. The storage system of any preceding claim, comprising a plurality of front panels, each front panel comprising a projection provided on a centreline of the front panel. 10
5. The storage system of any preceding claim, wherein the backing panels comprise substantially the same width and height dimensions as the front panel. 15
6. The storage system of any preceding claim, wherein the or each front panel comprises: 20
 - a plurality of projections provided along a centreline of the front panel; or
 - an elongate projection extending along a centreline of the front panel. 25
7. The storage system of any preceding claim, wherein the front panel comprises a front surface for retaining items. 30
8. The storage system of any preceding claim, wherein the or each projection comprises a fastener which secures an item to a front surface of the front panel.
9. The storage system of any preceding claim, wherein the backing panels are provided in substantially the same plane and parallel with one another such that the slot comprises uniform dimensions along its length. 35
10. The storage system of any preceding claim, wherein in a received position, the backing panels and the or each front panel form contiguous end surfaces. 40
11. The storage system of any preceding claim, further comprising a pillar configured to support the backing panels, the pillar comprising pre-drilled holes in a planar front face. 45
12. A method of interchanging items stored by the storage system of any preceding claim, the method comprising: 50
 - sliding a first front panel along a slot so as to remove the first front panel from the storage system; 55
 - sliding a second front panel along the slot so as to insert the second front panel into the slot.

13. The method of claim 12, further comprising:

- removing a side element to permit sliding of the first front panel; and/or
- replacing the side element to prevent sliding of the second front panel.

14. A method comprising:

- fixing a plurality of backing panels with a pre-determined separation to define a slot between adjacent backing panels;
- providing a front panel for storing items and having a projection from its rear surface;
- sliding the projection along the slot to engage a rear surface of each adjacent backing panel defining the slot to thereby retain the front panel relative to the slot, wherein the front panel is configured to engage a single slot and the or each slot is configured to receive a single front panel.

15. The method of claim 14, comprising:

- pre-drilling a series of holes in a pillar, using a jig, the holes having alternating separations; and/or
- pre-drilling an array of holes in each of the plurality of backing panels, using a jig, the holes having a uniform layout in each backing panel.

Fig. 1

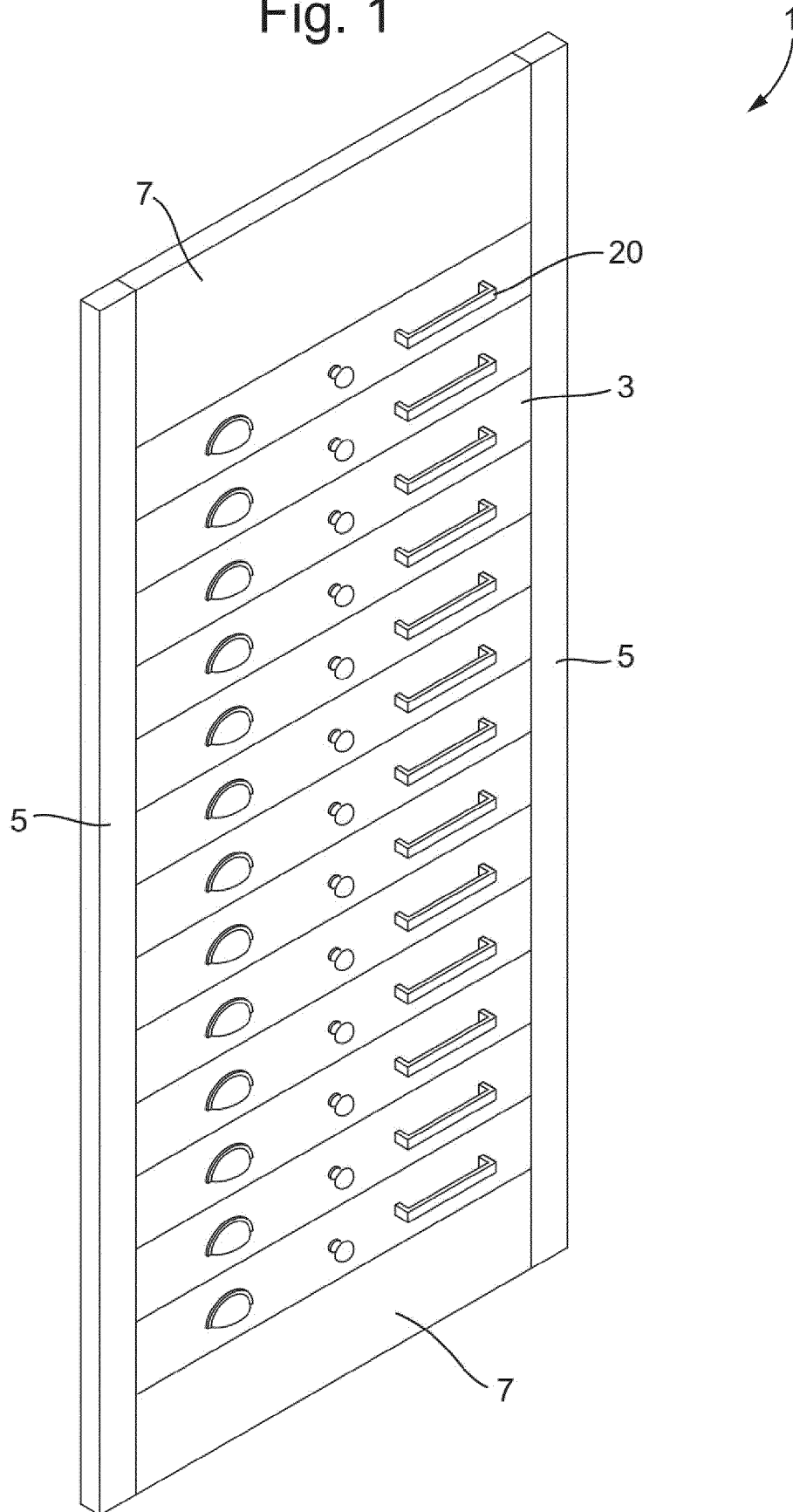


Fig. 2

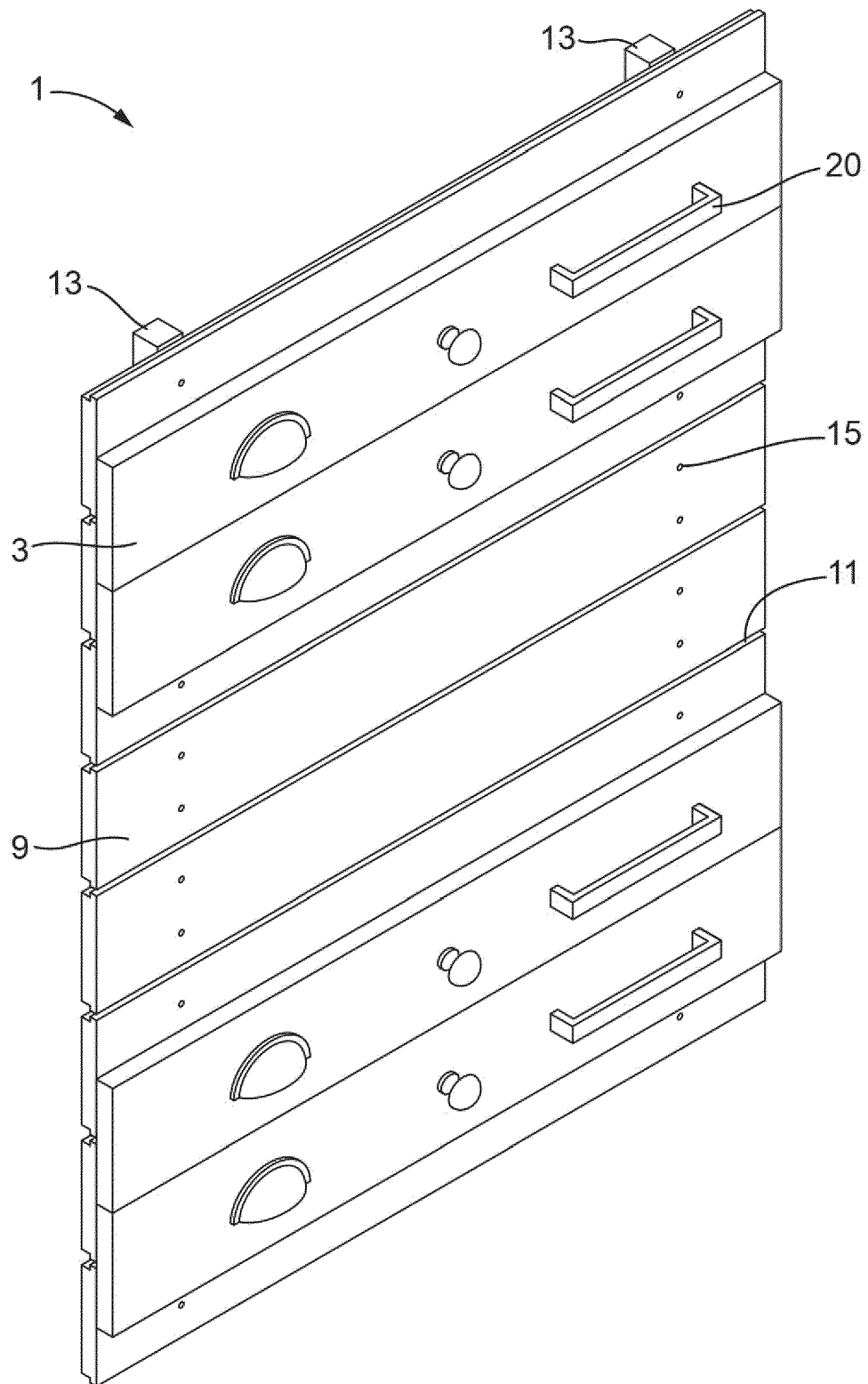


Fig. 3

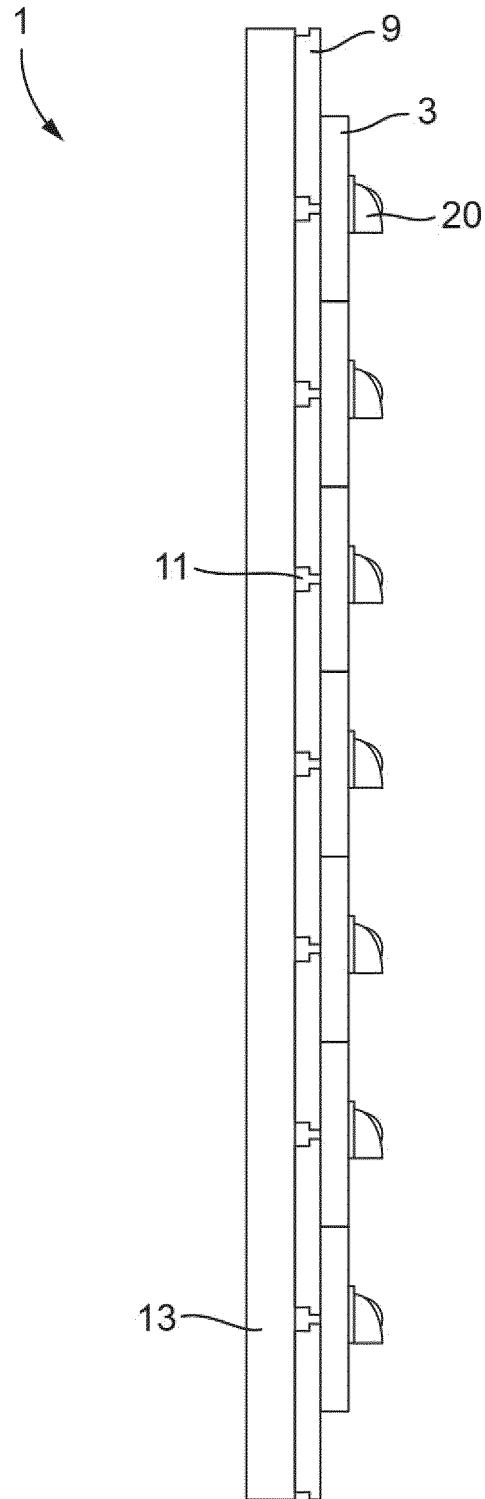


Fig. 4

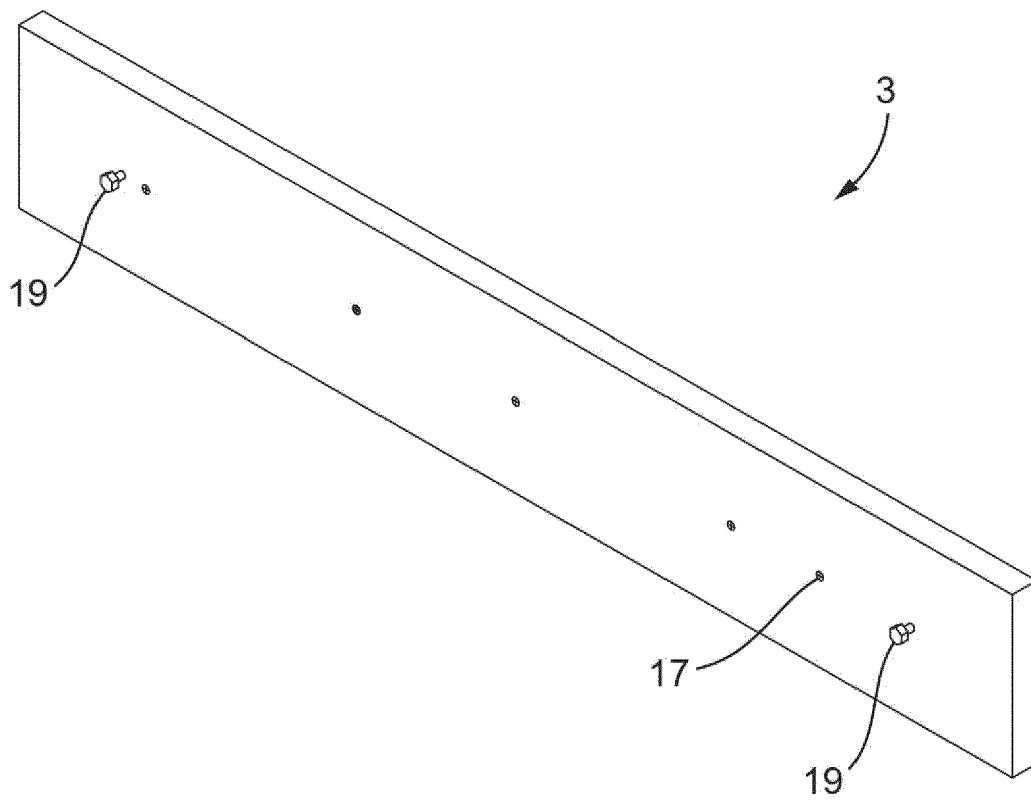


Fig. 5

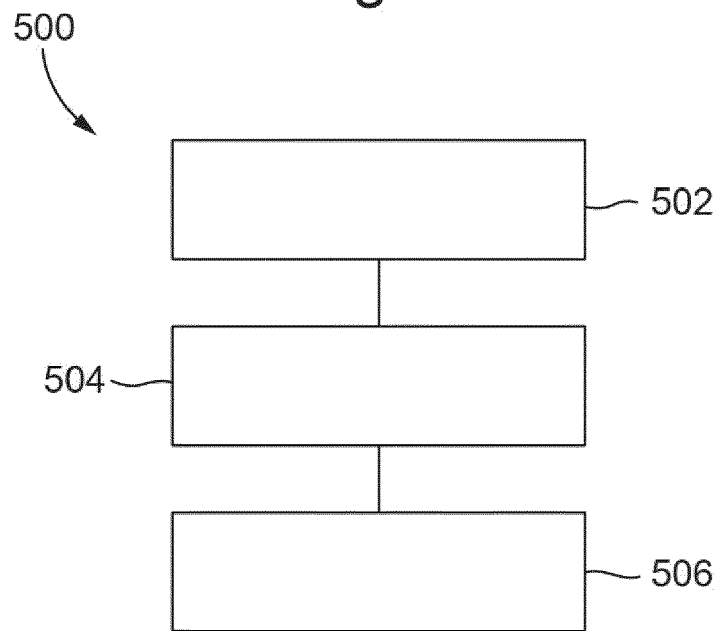
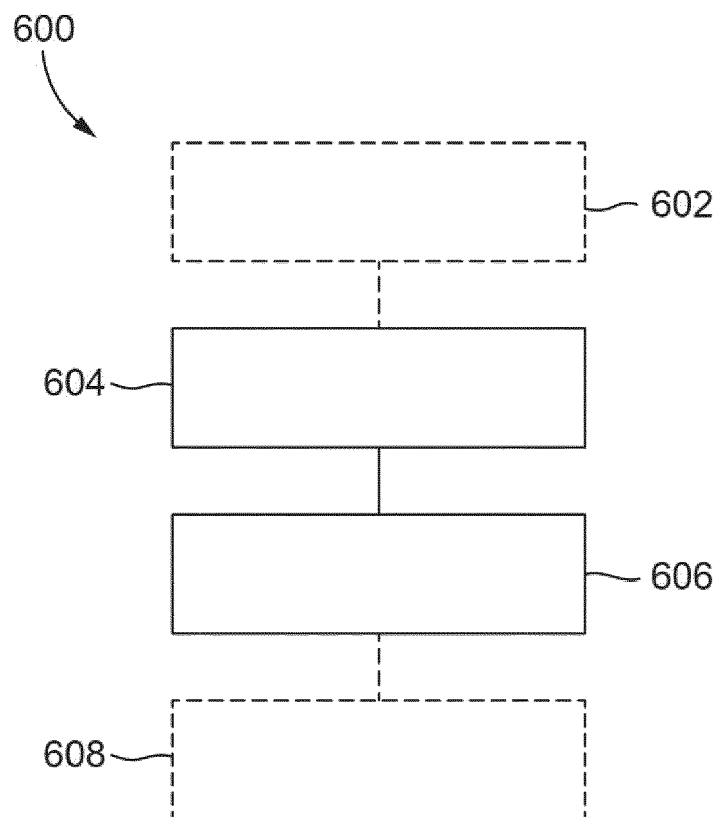


Fig. 6





EUROPEAN SEARCH REPORT

Application Number

EP 24 15 0895

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EPO FORM 1503 03.82 (P04C01)

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			TECHNICAL FIELDS SEARCHED (IPC)
			A47F G09F E05B A47B
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 22 May 2024	Examiner Martinez Valero, J
CATEGORY OF CITED DOCUMENTS			
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	

ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.

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5 This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
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22 - 05 - 2024

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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82