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(12) # EUROPEAN PATENT APPLICATION

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(54) **Device for storing an article hanging on at least one strip, and a hang strip for same.**

(57) The invention relates to a device for storing an object, for example a drawing, suspended from at least one strip, comprising a frame having two guide members parallel spaced form each other, and coupling means for coupling the strip ends to said guide members for sliding in longitudinal direction of said guide members, and is characterised in that the coupling means comprise: a slot arranged in a tubular guide member and directed towards the guide member located opposite; and a coupling member arranged at an end of the strip which is formed and arranged as such that when said strip is in a substantially horizontal plane, its coupling member can be inserted in the slot and is locked in the tubular guide member in a position located in an upright plane, and further to the suspending strip therefor.

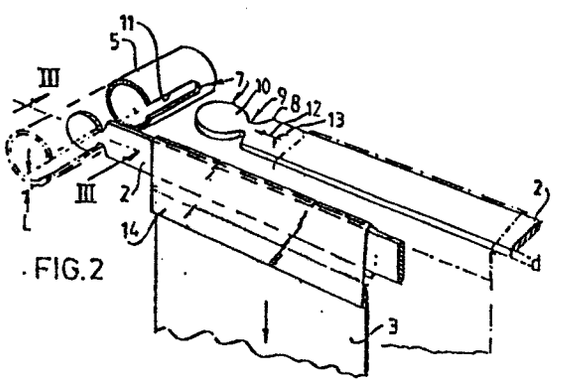

FIG.2

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Device for storing an article hanging on at least one strip, and a hang strip for same

The invention relates to a device for storing an object, for example a drawing, suspended from at least one strip, comprising a frame having two guide members parallel spaced from each other, and coupling means for coupling the strip ends to the guide members for sliding in longitudinal direction of said guide members.

Such a device is known. The coupling means comprise for example a carriage guided in the guide members which is provided along the whole of its width with pins onto which a great number of objects are slotted. The use of such a carriage has the drawback that not all of the capacity of the carriage can be used, while extra steps must moreover be taken to enable the removal of the required object from among a great number of objects slotted onto the pins.

In another known device the coupling means consist of hooks which rest while hooking on the guide members. In unforeseen circumstances the hooking means can become disengaged from the guide members and the object with the strip coupled to it fall to the bottom of the device.

The invention has for its purpose to improve the devi-

ce of the type referred to in the preamble in that the capacity is enlarged while the suspended objects are substantially locked against undesired detachment from the guide members. In view of the fact that the device moreover can remain free of extending parts and the side walls can therefore be closed, a cheaper and more solid construction results.

This is achieved in accordance with the invention in that the coupling means comprise: a slot arranged in a tubular guide member and directed towards the guide member located opposite; and a coupling member arranged at an end of the strip which is formed and arranged as such that when the strip is in a substantially horizontal plane, its coupling member can be inserted in the slot and is locked in the tubular guide member in a position located in an upright plane. Under the influence of its own weight the suspended object forces the strip into a vertical position, and in this vertical position the strip is enclosed with the aid of the coupling members for sliding in the tubular guide members.

Preferably, the coupling member is connected to the strip via at least one constricted strip part and the heigth of the strip part corresponds with the heigth of the slot.

If the thickness of the strip corresponds with the slot height, the strip can be coupled simply to the guide members. The strip has a heigth of for example 8 mm and at the point of the constricted part a heigth of 4 mm, while the slot heigth is circa 5 mm.

A favourable embodiment results if the strip is provided with two constricted strip parts arranged at different strip edges and located at mutually differing intervals from the end, and if the guide member possesses corresponding, transversely directed tube edges, whereby a tubular guide duct is formed that is open towards the top.

The invention further relates to a suspending strip with which an object can be suspended in the device according to the invention. This suspending strip is charac-

terized by a coupling member arranged at an end of the strip which is formed and arranged as such that when the strip is in a substantially horizontal plane, the coupling member can be inserted in the slot and is locked in the tubular guide member in a position located in an upright plane.

The invention relates finally to an object supplied with a suspending strip intended for use in the device according to the invention.

Mentioned and other characteristics will be elucidated further on the basis of an embodiment of the device according to the invention with reference to the appended drawing.

In the drawing:

Fig. 1 is a device having drawings suspended therein on strips;

Fig. 2 is a perspective view of the coupling of a strip according to the invention in a guide member;

Fig. 3, 4, 5 and 6 each show a variant of the section along the line III-III form fig. 2; and

Fig. 7 and 8 show respectively a side and front view of yet another suspending strip in accordance with the invention.

Fig. 1 shows a device 1, in this case a drawing cabinet, for storing an object 3, for example a drawing or transparent paper, suspended on a strip 2. Device 1 comprises a frame 4 with two guide members 5 and 6 placed in parallel at an inverval from each other, with which the strips 2 are coupled for sliding via coupling means 7.

Fig. 2 shows in more detail the connection of strip 2 with guide member 5. The strip 2 is linked at an end 8 via a constricted strip part 9 to a coupling member 10 which in this case is disc-shaped.

The guide member 5 is provided with a longitudinal slot 11 directed towards the guide member 6 located opposite, the slot having a height h which corresponds with the strip thickness, d. h is for example 5 mm and d 2 mm.

From the position located in the horizontal plane

strip 2 with the coupling member 10 can be brougth into the position occupying an upright plane by placing coupling member 10 in the direction of arrow 12 through the slot 11 into the tubular member 5 and by then applying a quarter turn around its longitudinal axis as according to arrow 13. This position located in an upright plane is maintained as the weight of the object 3 forces the strip 2 into this position. The object 3 is provided for this purpose with a sleeve-like member 14 connected thereto through which strip 2 is projected.

Member 34 can consist of a separate element or a fold which is closed using adhesive means.

In view of the fact that the diameter of the disc-shaped coupling member is greater than the slot height h, the coupling member is enclosed in the guide member 5. Objects 3 suspended in device 1 are thus locked against unforeseen disengagement from guide members 5 and 6.

If, during the fitting the removal of a strip 2 provided with an object, the object falls into the device 1 it is guided via curved bottom plate 34 to the bottom of the device 1 at the front, from where it can be retrieved by way of a swing panel 15.

Fig. 3 shows a variant whereby the disc-shaped coupling member 10 is enclosed in a guide member 16 which has a substantially rectangular form. The strip 2 supports in guide member 16 with the constricted strip part 9 on a slot edge 17.

In fig. 4 the coupling member 18 of strip 19 has a form corresponding substantially with the space enclosed by the tube. The coupling member is again linked via a constricted strip part 20 to the rest of the strip 19. In this case strip 19 supports with its lower edge 21 on a tube wall 22 of the guide member 23.

Fig. 5 shows yet another embodiment of a strip 24 which consists of a wire frame 25 having a partition 26 arranged therein. Coupling member 27 has a round shape of bent wire which is enclosed in guide member 28.

Fig. 6 shows another embodiment of a strip 35 of plastic material. Strip 35 is provided with two constricted strip parts 37 and 38 which are each arranged in different strip edges 39 and 40 respectively, whereby the distance to the end 41 is smaller for the constricted strip part 37 than for the constricted strip part 38. In this case the tubular guide member 42 is provided with two tube edges 43 and 44 extending in transverse direction which are arranged and disposed such that the constricted part 37 co-operates with tube edge 43 at the same time as the constricted part 38 with tube edge 44. This achieves the advantage that guide member 42 forms a tubular guide duct open towards the top, so that during hooking in or hooking out of strip 35 the user has an overview of what he is doing. Namely whether the constricted strip parts accommodate the tube edges. Each tube edge 43 and 44 is provided with a plastic guide strip 45, 46. In order to provide the strip 35 with a greater rigidity it is preferable that over a great part of its length the strip is provided along the edge 39 with a bent over edge 47.

Fig. 7 and 8 show a strip 29 which namely at the point of the constricted strip parts 30 and 31 is symmetrical relative to the longitudinal axis. This also applies to the strip 2 shown in fig. 2 and 3.

If the strip is manufactured in a flexible material, for example metal or plastic, strip 2 with the object 3 attached to it can be easily slotted into the slots 11.

The capacity of the device 1 is enlarged considerably because only a strip width has to be free, in order to disengage the required object 3 and pull it out of the guide members by tilting the strip 2 connected to it and if necessary by deflection thereof.

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Claims

1. Device for storing an object, for example a drawing, suspended from at least one strip, comprising a frame having two guide members parallel spaced form each other, and coupling means for coupling the strip ends to said guide members for sliding in longitudinal direction of said guide members, characterised in that the coupling means comprise:
a slot arranged in a tubular guide member and directed towards the guide member located opposite; and
a coupling member arranged at an end of the strip which is formed and arranged as such that when said strip is in a substantially horizontal plane, its coupling member can be inserted in the slot and is locked in the tubular guide member in a position located in an upright plane.

2. Device as claimed in claim 1, characterised in that the coupling member is connected to the strip via at least one constricted strip part and the heigth of said strip part corresponds with the heigth of the slot.

3. Device as claimed in claim 2, characterised in that the strip is provided with two constricted strip parts arranged at different strip edges and located at mutually dif-

fering intervals from the end, and that the guide member possesses corresponding, transversely directed tube edges, whereby a tubular guide duct is formed that is open towards the top.

4. Device as claimed in claim 1-3, characterised in that the thickness of the strip corresponds with the slot heigth.

5. Device as claimed in claims 1-4, characterised in that the strip is manufactured in a flexible material, for example metal or plastic.

6. Device as claimed in any of the foregoing claims, characterised in that the strip is provided with a strengthening rib.

7. Suspending strip for a device as claimed in claims 1-6, having a coupling member arranged at an end of the strip which is formed and arranged as such that when said strip is in a substantially horizontal plane, its coupling member can be inserted in the slot and is locked in the tubular guide member in a position located in an upright plane.

8. Suspending strip as claimed in claim 7, characterised in that the coupling member is connected to the strip via at least one constricted strip part and the height of said strip part corresponds with the heigth of the slot.

9. Suspending strip as claimed in claim 7 or 8, characterised by two constricted strip parts arranged at different strip edges and located at mutually differing intervals from the end, and by tube edges extending in transverse direction which corresponds to the guide member.

10. Suspending strip as claimed in claims 7-9 attached to an object, for example a drawing.

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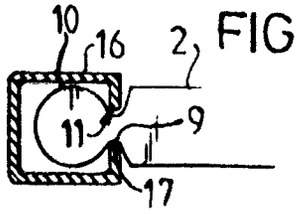

FIG.3

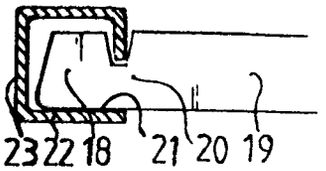

FIG.4

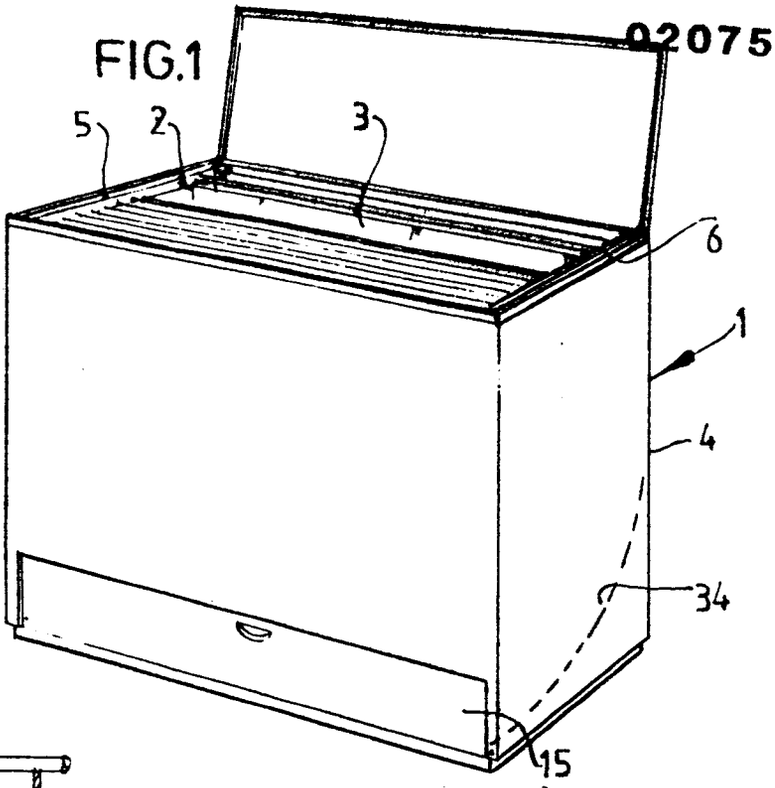

FIG.1

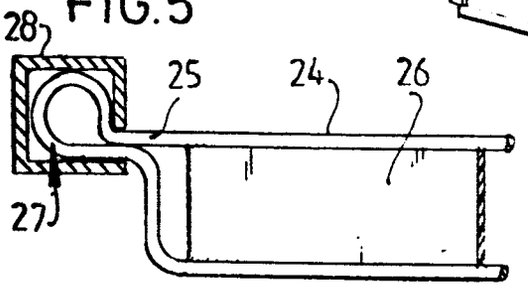

FIG.5

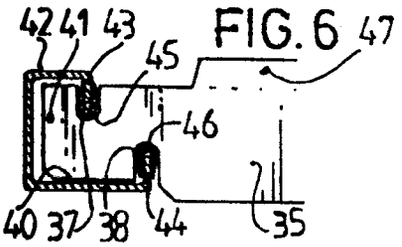

FIG.6

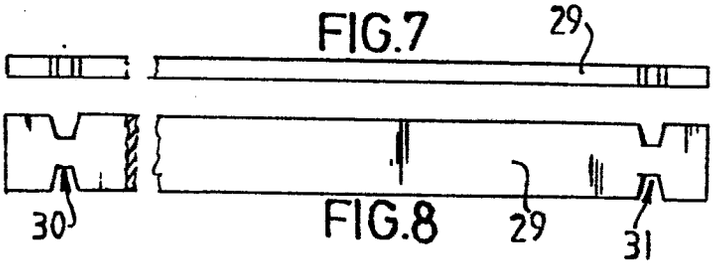

FIG.7 FIG.8

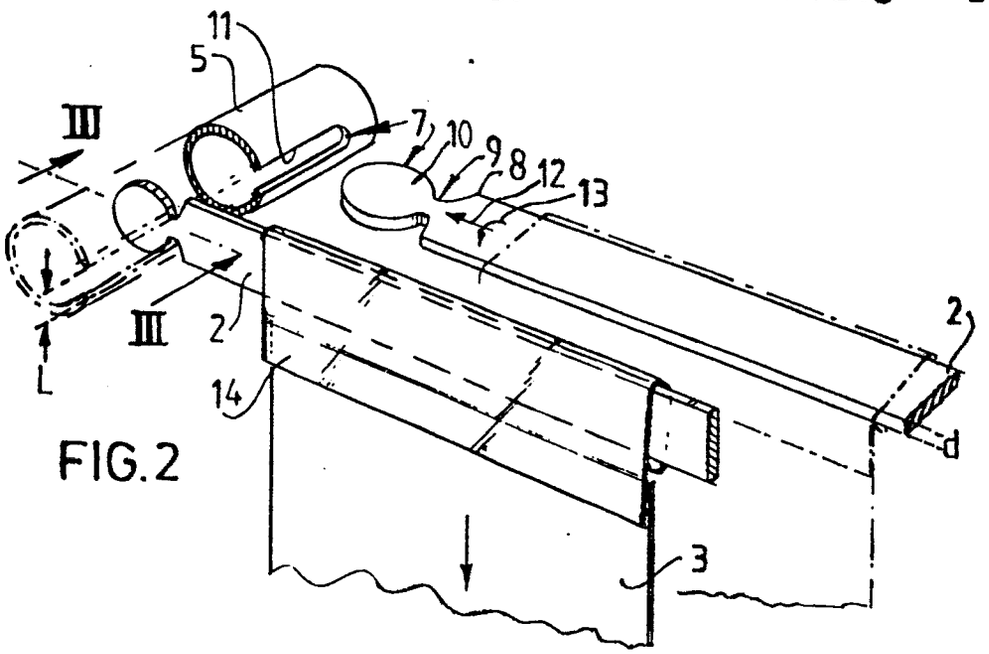

FIG.2