US 20040094682A1

(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2004/0094682 A1**

Waterman (43) **Pub. Date: May 20, 2004**

(54) **DEVICE FOR SUSPENDING OBJECTS**

(76) Inventor: **Marco Constantino Waterman**, Almere (NL)

Correspondence Address:
PEACOCK MYERS AND ADAMS P C
P O BOX 26927
ALBUQUERQUE, NM 871256927

(21) Appl. No.: **10/613,756**

(22) Filed: **Jul. 17, 2003**

Related U.S. Application Data

(63) Continuation of application No. PCT/NL02/00047, filed on Jan. 22, 2002.

(30) **Foreign Application Priority Data**

Jan. 22, 2001 (NL)..... NL 1017157

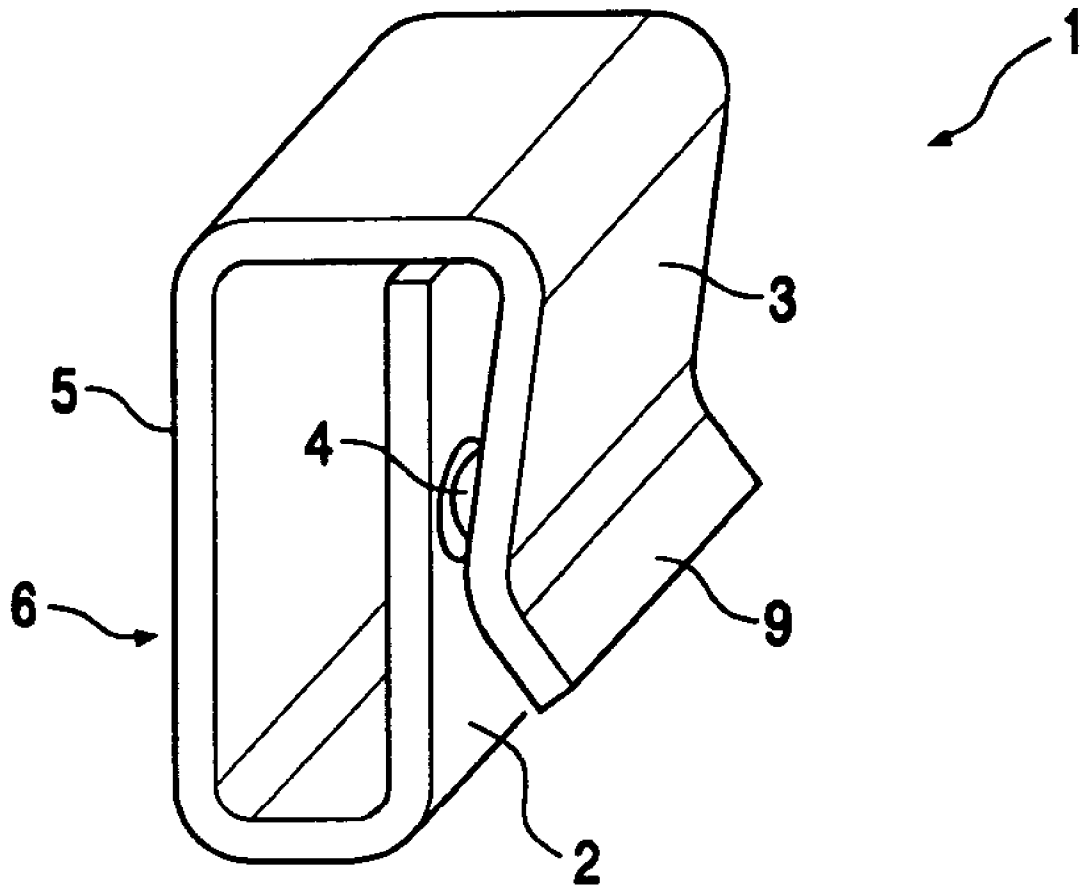
Publication Classification

(51) **Int. Cl.**[7] **A47F 5/00**

(52) **U.S. Cl.** **248/309.1**

(57) **ABSTRACT**

A device for hanging up objects such as towels. The device comprises at least two partially overlapping and substantially parallel elements, which are movable with respect to each other in a resilient way, wherein the resiliency is provided by an intrinsic property of the material of the device, such that the object is held between the elements. One of the elements is provided on its side which is facing towards the other elements with a thickening, the first element extends upwardly, and the end of the first element is positioned a short distance from the upper rim of the device.



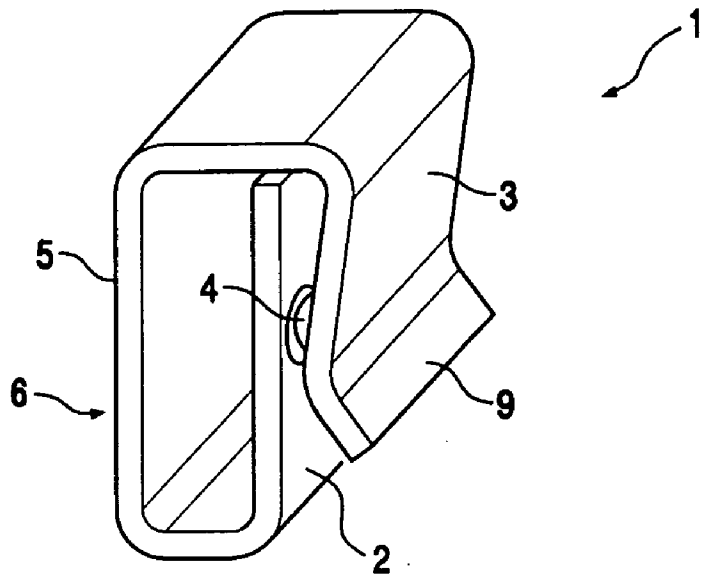


FIG. 1

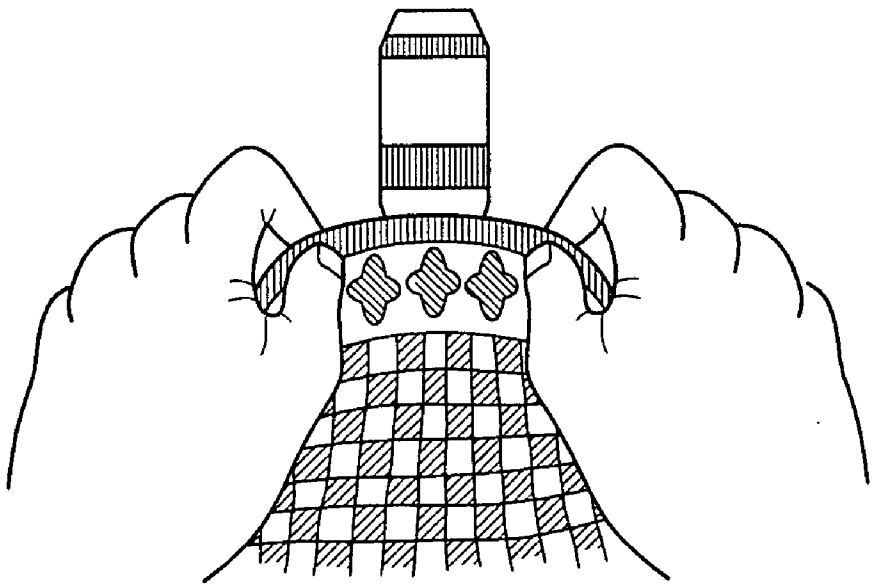


FIG. 2

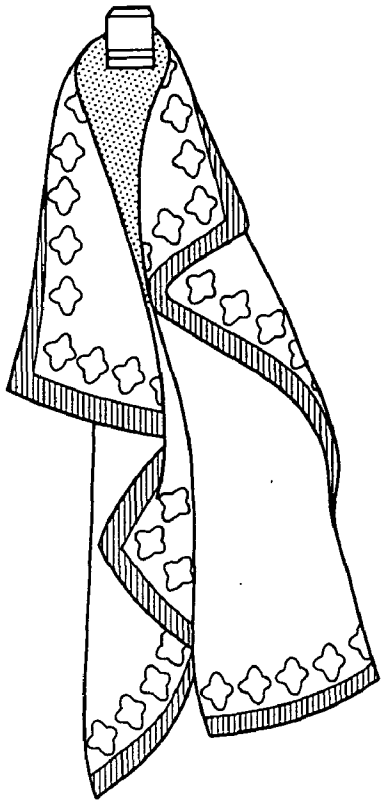


FIG. 3

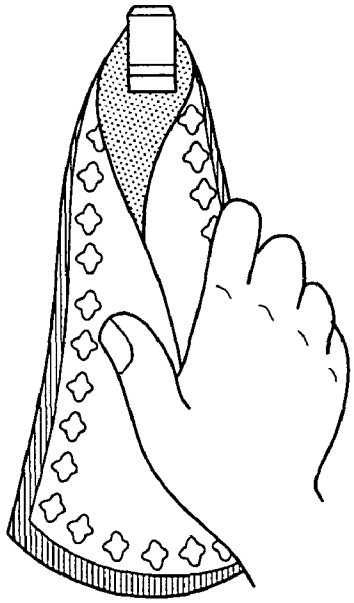


FIG. 4

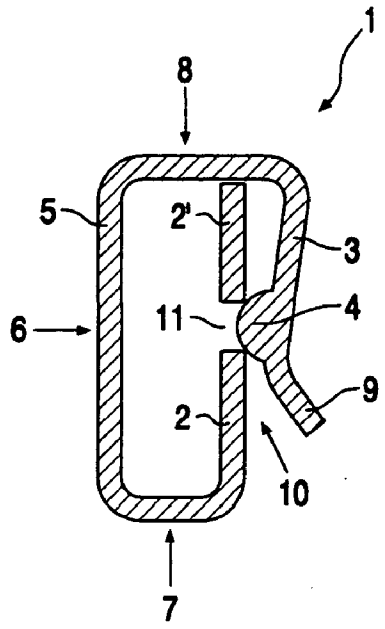


FIG. 5

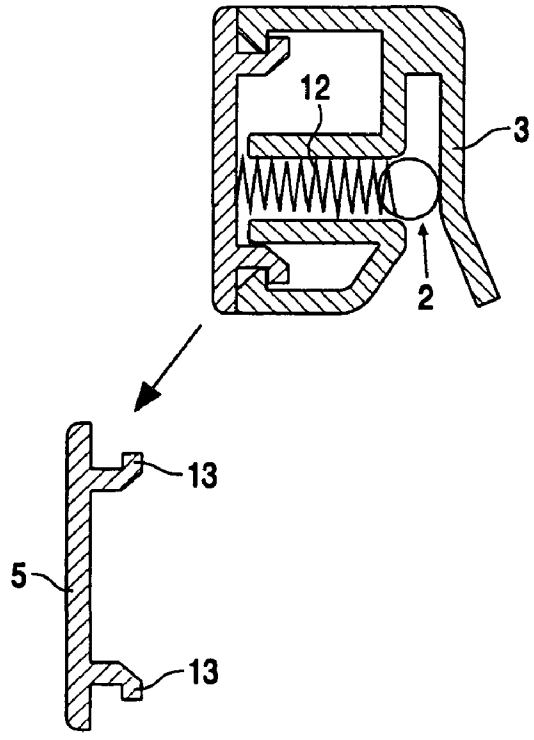


FIG. 6

DEVICE FOR SUSPENDING OBJECTS

[0001] The invention relates to a device for hanging up objects in accordance with claim **1**. More particularly, the invention relates to a device for hanging up towels and the like.

[0002] Such devices are known in practise for hanging up towels, for example for use in the kitchen. These comprise in general a hook, on which by means of a hanger provided at one side a towel can be hung up. The drawback with this is that first the hanger has to be found and which hanger can during use easily slide off the hook. Subsequently the whole procedure of finding the hanger and hanging the towel up again has to be repeated. In practise this has been shown to be an awkward method. This method has the additional drawback that after frequent use, the loop will wear and tear, so that the towel can no longer be hung up. There are also clamping devices, which by means of a tension spring are forced into a closed position, and from which, for example, towels and the like for use in the kitchen may be hung. The drawback with these is that one hand is needed for opening the clamping device against the tension of the spring and simultaneously the other hand is needed for inserting a portion of the towel between the clamping elements of this device. This, too, is an awkward method, because especially towels and the like will simply sink making it difficult to insert them into the clamping device. Another drawback is the fact that after some time the tension springs will weaken, rendering the device useless.

[0003] Therefore a need exists for an improved device that does not exhibit the above-mentioned drawbacks. It is an object of the invention therefore, to provide an improved device for hanging up objets, such as towels and like. A more particular object of the invention is to provide an improved device allowing an object to be gripped in a very simple manner without being able to dislodge. To this end the invention provides a device as mentioned in the preamble, possessing the features according to the characterizing part of claim **1**. This provides a very simple manner for hanging up an object.

[0004] According to the preferred embodiment, the device is produced from a resilient plastic material. This is a simple and economical way of obtaining the device and which possesses the desired properties.

[0005] According to another preferred embodiment, the elements are flat. This provides a relatively large contact surface so that each object can be hung firmly between the elements.

[0006] According to a further embodiment of the invention, one of the elements, on a part of the surface facing the other element is provided with a thickening. This creates an extra pressure point when an object is inserted between the elements. Especially in the case of a towel, this causes the hem of the towel to catch behind the thickening.

[0007] According to a further particular preferred embodiment, the first and the second element are each connected to a third element. The third element may be at a distance, but aligned with and parallel to the other two elements, for example, at the side of the first element that faces away from the second element. At its surface facing away from the first and second element, the third element then preferably forms a fastening surface. By means of, for example, an adhesive the device may be attached to a wall, for example, but other means of fastening are also possible. It is further preferred for the first element to be fastened to the third element along a bottom rim and to extend from there upward, and for the second element to be fastened to the third element along a top rim and to extend from there downward, substantially parallel to the first element. Since both the first and the second element are positioned at a distance from the third element, the inner element can be pressed slightly inward and the outer element can be pressed slightly outward when a towel or the like is clamped between the two elements. It is particularly preferable for the outermost element to be bent outward at its free end. This makes it especially easy to insert an object between those two elements in order to hang the same up.

[0008] The invention will now be further elucidated with reference to the drawings.

[0009] **FIG. 1** shows a perspective view of a device according to the invention.

[0010] **FIGS. 2, 3** and **4** show different stages during using the device according to the invention.

[0011] **FIGS. 5 and 6** show a cross-section of an alternative embodiment of the device according to the invention.

[0012] **FIG. 1** shows a device **1** for hanging up objects. The device represented in the figure comprises a first element **2** and a second element **3**. As shown in the figure, these two elements are disposed substantially parallel to one another. The distance between the two elements **2, 3**, in the resting position will depend on an object to be hung up and to be clamped between the two elements, as well as on the material from which the device is manufactured. Also of importance is the force required to force the elements apart. The distance between the two elements **2, 3** is preferably such that the two elements have to be at least slightly forced apart to allow the insertion of an object.

[0013] The device is preferably made from plastic. This allows the device to be very light while its production is also simple. An example of a plastic material that can conveniently be used is so-called plexiglas. This material is available in a form that, subject to thickness, a towel can easily be inserted between the two elements **2, 3** so that the same is clamped firmly between the two elements. In that case the material may have a thickness of, for example, 2 to 3 mm, and the breadth of the elements may be, for example, 25 mm. The height may be chosen as desired, but in any case, the force with which an object is clamped between the two elements must be sufficiently great. In practise, the required force and the size of the device can be established easily.

[0014] According to a preferred embodiment, one of the elements **2** or **3** is at its surface facing the other element **3** or **2**, respectively, provided with a thickening. This thickening **4** may be provided, for example, on the inside element **2** shown in the figure, but also as shown in **FIG. 5** at the inside of the outer element **3**.

[0015] As shown in **FIG. 5, a** further preferred embodiment is obtained when at the position of the thickening **4** the adjacent element, element **2** in **FIG. 5**, is provided with a hollowing or an opening. When an object, for example, a towel is inserted into the opening **10** between the elements

2, 3, and pushed abut, the elements 2 and 3 will be forced apart. In the case of a flexible material such as a towel, its hem will be allowed to be guided past the thickening 4, and released. The thickening 4 will then slightly push the object to be hung up into the opening 11 so that the same due to the resilience of the material will remain hanging. Due to the proper choosing of the resting position of the elements 2 and 3 in relation to one another the material will be allowed to be removed just as easily by pulling the object downward. This will cause the elements 2 and 3 to be forced apart slightly.

[0016] If the two elements 2 and 3 are attached to the third element 5 as shown in the FIGS. 1 and 5, the two elements 2, 3, when in use, will be at a distance from a wall. This is because the surface 6 of the device 1 is to be fastened to the wall. When, as represented in FIG. 2, a towel is inserted into the opening 10, the fingers will therefore not touch the wall. In this way hanging up the towel is facilitated.

[0017] Usually a towel is provided with a hem around its edge. Especially when the device comprises a thickening 4, as shown in FIG. 5, a hem will be inserted to above the thickening 4. When subsequently letting go of the towel, the same will, due to the weight of the material of the towel, hang downward causing the hem to slightly curl downward around the thickening 4. This causes an extra resistance which ensures that the towel will remain hanging in the device. This is clearly shown in FIG. 3.

[0018] In the embodiment represented in FIG. 5, the element 2 is connected with the third element 5 by means of a bottom rim 7, and the element 3 is connected with the third element 5 by means of a top rim 8. It can also be clearly seen that the end 2' of the element 2 is very closely disposed to the top rim 8. The advantage of this is that an object to be hung up and to be inserted between the elements 2, 3, for example, a towel will not be caught in the gap formed by the element 2 and the top rim 8. This would impede the removal of the object from the device. Advantageously the space between the end 2' and the top rim 8 is smaller than the thickness of the object. If a towel is being hung up, the distance will therefore have to be smaller than the thickness of the hem of the towel.

[0019] If the towel or any other object has to be removed from the device, this may be done in a manner represented in FIG. 4. Pulling the towel downward will cause the element 3 to be forced slightly outward and the element 2 slightly inward. Depending on the material from which the device is manufactured, the force to be exerted may be relatively limited.

[0020] If the device is made from plexiglas, the material having a thickness of approximately 3 mm, the device having a breadth of the above mentioned 25 mm, the pulling force for removing an object from the device will be approximately 1 kg. Depending on the object to be hung up, the force can be simply adjusted by varying the distance between the elements 2 and 3. If in a starting position this distance is 1 mm, the clamping force for an object to be hung will be greater than if this distance in a resting position is 3 mm. The presence of thickening 4 will also result in an increased clamping force. Of course, the type of material used is also of importance.

[0021] By bending the outer element at its free end 9 slightly outward an easy opening is created for the object to be hung up.

[0022] According to a particular embodiment of the invention, an object to be hung up is clamped between two elements, wherein one of the elements is pressed on by means of a spring element. This embodiment is shown in FIG. 6. By means of a spring element 12 a spherical element 2 is pressed towards element 3. An object to be inserted between the elements 2 and 3 pushes element 2 against the spring action and away from element 3. When letting go of the object to be hung up, the spring action causes the element 2 to push sufficiently hard against the object preventing it from falling out of the device. The element 5 is detachably connected with the elements 2 and 3, for example, by means of a stop catch in the form of coupling means 13.

[0023] The invention is not limited to the representations in the drawings and in the specification. For example, any suitable material may be used, for example, practically any kind of plastic, as well as metal or even wood, or plastics-coated metal (e.g. spring steal). Another possibility is that in the resting position the elements 2 and 3 rest against one another. It is also possible that the distance between the elements 2 and 3 in the resting position is not everywhere the same. For example, somewhere between the top rim 8 and the free end 9 the distance may have minimum value as shown in FIG. 1. The thickening may be provided near this minimal distance. This creates an extra space above the thickening for the accommodation of the hem of a towel.

[0024] The device may be used for hanging up other materials apart from towels, for example advertising posters and posters containing other communications.

[0025] Due to the fact that both elements in the embodiments shown in the figures are springy, a linear exertion of forces is obtained even if materials of different thicknesses are to be hung up by the device. Moreover, in such an embodiment the two elements hinge over a relatively small distance so that material fatigue will develop less quickly.

[0026] The invention thus provides a very simple device for hanging up, for example, towels without the necessity to find a hanger but where each of the edges of a towel may be used for hanging the same up.

What is claimed is:

1. A device for hanging up an object, comprising two at least partially overlapping and substantially parallel elements which are movable with respect to each other, wherein spring force is provided by an intrinsic property of a material of the device such that the object is held between the elements, wherein one of the elements is at its surface facing the other element provided with a thickening, wherein the first element extends upwardly, and wherein the end of the first element is positioned at a short distance from a top rim of the device.

2. A device according to claim 1, wherein the material comprises a resilient plastics material.

3. A device according to claim 1, wherein the parallel elements are flat.

4. A device according to claim 1, wherein the device comprises a spring element which clamps to the object to be hung between the parallel elements.

5. A device according to claim 1, wherein the parallel elements are each connected to a third element, said third element is provided at a side of the first parallel element that

faces away from the second parallel element or at the side of the second parallel element that faces away from the first parallel element.

6. A device according to claim 1, wherein during use a surface of the third element facing away from the parallel elements is a fastening surface; wherein the first parallel element along a bottom rim is attached to the third element and extends upwardly; and wherein the second parallel element along the top rim is attached to the third element and extends downwardly, substantially parallel to the first parallel element.

7. A device according to claim 6, wherein the first parallel element along the bottom rim is attached pivotably and resiliently, and the second parallel element is attached along the top rim pivotably and resiliently.

8. A device according to claim 5, wherein with respect to the third element, the one of the parallel elements which is positioned outwardly is bent at its free end outwardly.

* * * * *