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(54) **RECREATIONAL DEVICE**

(57) A recreational device (1) is provided, which comprises a sheet (2), including at least one image object (3) defining a perimeter (3a), main guides (30) placed along the perimeter (3a) suitable to facilitate the detachment of the image object (3) from the sheet (2) and folding lines (31) suitable to permit the folding of the image ob-

ject, wherein the folding lines (31) allow the formation of at least one support element (32), provided on a base surface (100) and wherein the support element (32) is elastically deformable and suitable to react in contrast to the base surface (100).

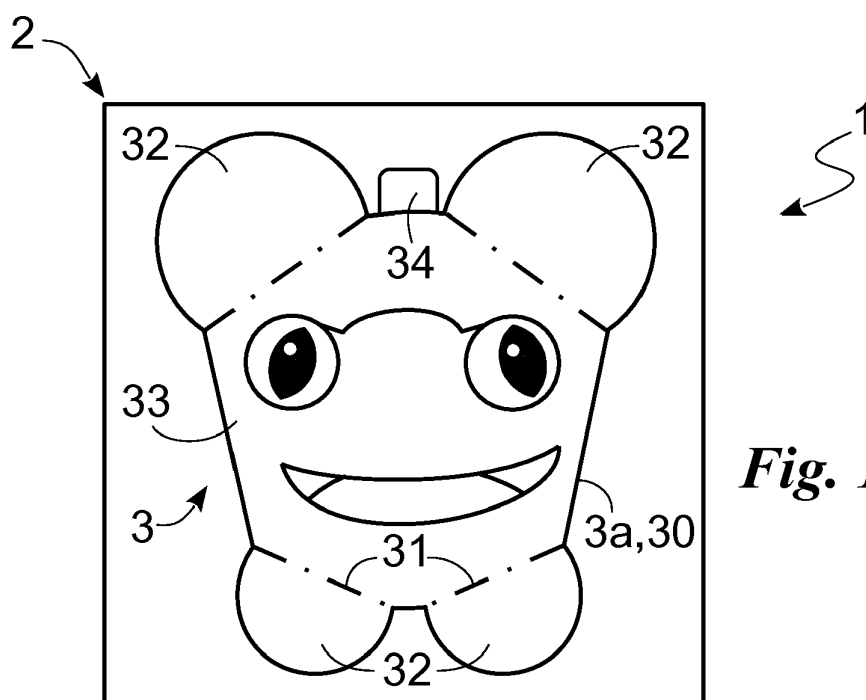


Fig. 1

Description

[0001] The present invention relates to a recreational device of the type specified in the preamble of the first claim.

[0002] In particular, the present invention relates to a device, which can be used in the context of recreational activities, especially for children.

[0003] Many recreational devices primarily used for the enjoyment of young people and especially children are known from the state of the art.

[0004] These devices favour the interaction between the various users by promoting group activities, which favour the development of children's sociality.

[0005] Toys currently on the market may consist of "surprises" that can be found in common everyday products such as, for example, food or others.

[0006] Kinder® surprises, as well as surprises that can be found inside packages of breakfast products such as Kellogg's® or Mulino Bianco®, are flagrant examples thereof.

[0007] Still other examples are items enclosed with publishing products, as well as other consumption promotions, like those related to supermarkets that present consumers with a sachet containing a gift for a certain amount of expenditure.

[0008] Items of various kinds can be found as "surprises" inside the products.

[0009] For example, collectible puppets or even assemblable objects of different shapes or even still playing cards, puzzles or simply constructed objects, such as toys especially known in the nineties as Pog®, which allow for expressing the innocent competitive vein that distinguishes most of the youngest.

[0010] The described prior art has a few major drawbacks.

[0011] In particular, common toys may be complex to produce and can therefore lead to considerable costs both for those who produce them and for those who buy them.

[0012] In addition, and also with reference to the simple surprises, they may have complex shapes that require subsequent manual processing: consider for example the classic hand-painted collectibles.

[0013] The latter then mainly have aesthetic functions.

[0014] Examples of such devices are disclosed in the patent documents US-A-4085933 and US-B-6488559.

[0015] They can be collected, exchanged or sold, but they almost exclusively perform an aesthetic function.

[0016] However, some other devices are so simple and indefinite that, after a short time, they are no longer used for the purpose for which they were designed.

[0017] In this context, the technical task underlying the present invention is to devise a recreational device, which is capable of substantially obviating the above-mentioned drawbacks.

[0018] Within the scope of said technical task an important objective of the invention is to achieve a recrea-

tional device that is simple and therefore inexpensive to manufacture.

[0019] Another important object of the invention is to provide a custom and/or customizable device, defining one or several specific features and thus favouring the fun and sociality of those employing the device, therefore mainly children.

[0020] The technical task and the specified objectives are achieved by means of the recreational device as claimed in the appended claim 1. Preferred embodiments are described in the dependent claims.

[0021] The features and advantages of the invention will be clarified in the following detailed descriptions of a few preferred embodiments of the invention, with reference to the accompanying drawings, in which:

Fig. 1 shows the recreational device in the non-folded configuration on a sheet;

Fig. 2 is a perspective view of a finger pressing on the device at the start of the jump;

Fig. 3 illustrates the operation of the recreational device in the folded configuration; and

Fig. 4 shows a perspective view of the release of a finger pressing on the recreational device.

[0022] In the present document, the measures, values, shapes and geometric references (such as perpendicularity and parallelism), when associated with words like "about" or other similar terms such as "almost" or "substantially", are to be understood as unless measurement errors or inaccuracies due to production and/or manufacturing defects and, especially, unless a slight difference from the value, the measure, the shape, or the geometric reference with which it is associated. For example, these terms, if associated with a value, preferably indicate a difference not exceeding 10% of the value itself.

[0023] Furthermore, when used, terms such as "first", "second", "higher", "lower", "main" and "secondary" do not necessarily identify an order, a priority relationship or a relative position, but can simply be used to distinguish more clearly the different components from each other.

[0024] With reference to the Figures, the recreational device according to the invention is indicated as a whole by the numeral **1**.

[0025] The recreational device **1** comprises a sheet **2**.

[0026] The sheet **2** is a sheet of any shape and size preferably having a square surface, the base side of which is comprised between 5 cm and 2 dm, and defined by a thickness comprised between 0.1 mm and 1 mm.

[0027] The sheet **2** may also be made of any material. For example, it can be made of paper or even metal or other materials. The sheet **2** is preferably made of an elastically and plastically deformable material, for example a polymer material.

[0028] In particular, it may therefore be made of PET, polypropylene or polystyrene and much more.

[0029] It also comprises at least one image object 3.

[0030] The image object 3 is defined by a portion of the surface of the sheet 2 comprised within a perimeter 3a.

[0031] This perimeter 3a describes image objects 3 of variable shapes and dimensions.

[0032] The image object can have any drawing or colour within the perimeter 3a defining the image object 3 or may alternatively have the same features of the portion of the sheet 2 outside the perimeter 3a.

[0033] For example, it can be a frog, or even a kangaroo or other animals or puppets, or characters included and not included in children's imagination.

[0034] Main guides 30 are also present at the perimeter 3a.

[0035] The main guides 30 are means suitable to favour, and therefore easily allow, the detachment of the image object 3 from the sheet 2 at the aforesaid perimeter 3a.

[0036] Therefore, these main guides may be dashed slots, commonly found, for example, in the tearing area of writing pad sheets, or preferably notches which trace the lines of the perimeter 3a and penetrate the sheet 2 by a depth less than the thickness of the sheet 2.

[0037] Folding lines 31 are also preferably present inside the image object 3.

[0038] The folding lines 31 are means for favouring or inducing the folding of the surface of the image object 3 at said lines.

[0039] They may therefore be drawn lines or dashes, or may have notches, or may be imaginary lines that can be guessed from the shape of the image object 3.

[0040] The secondary guides are preferably notches, which unite distinct points of the perimeter 3a and have a depth, for example, much less than the thickness of the sheet 2.

[0041] These folding lines 31 thus divide the image object into two portions, of which, for example, the smaller forms a support element 32 and the larger is the central body 33.

[0042] The folding lines may be one or more.

[0043] Preferably, the folding lines 31 are four and therefore divide the image object 3 into a central body 33 and four support elements 32.

[0044] The support elements 32 can have any shape or size. They are, for example, semicircles whose diameters are defined by the folding lines 31.

[0045] Preferably, the support elements 32 consist of two pairs of different sizes.

[0046] The central body 33 can have any shape or size. However, it is preferably trapezoidal, but could also be oval or rhomboidal or square, octagonal and much more.

[0047] The support elements 32 are thus preferably arranged at the angles of the trapezoid and adapted to be folded along the folding lines 31.

[0048] In particular, the support elements 32 are preferably adapted to be plastically deformed: once folded along the folding lines 31, they retain, at least partially,

the folding imparted by the user.

[0049] Therefore, the image object 3 is, for example, a trapezoid having a pair of support elements 32 at the smaller base, defining the front of the image object 3, and a pair of support elements 32 at the larger base, with dimensions exceeding the front support elements 32, defining the rear of the image object 3.

[0050] Also, preferably, the support elements 32 are spaced apart by a length at least comprised between 1 cm and 2 cm.

[0051] Preferably, the recreational device 1 further comprises interaction portions 34.

[0052] Such interaction portions 34 are for example defined by the perimeter edges of the central body 33 and are adapted to allow an external body, e.g. a finger, to press the image object 3.

[0053] The interaction portions 34 are preferably flaps, i.e. protuberances having variable shapes and sizes protruding from the central body 33.

[0054] For example, a flap, if any, can be arranged in the area behind the central body 33, or more than one flap can be placed at selected points.

[0055] Preferably, the support elements 32 thus constitute elements for contact with a possible base surface 100.

[0056] This base surface 100 is defined by any support surface used for the leap of the device: it may be, for example, a floor or a table or be defined by an irregular surface or much more.

[0057] Moreover, the support elements 32 are, inasmuch as for example of the same material of the sheet 2, preferably elastic and plastic.

[0058] For example, the support elements 32 represent the legs of a frog and the central body 33 represents the back of a frog.

[0059] The operation of the recreational device 1, previously described in structural terms, is as follows.

[0060] As a result of the detachment of the image object 3 from the sheet 2 and of the folding of the support elements 32 with respect to the central body 33, the recreational device 1 preferably has the central body 33 raised with respect to the base surface 100 by means of the support elements 32 plastically deformed.

[0061] These support elements are for example elastic. Therefore, by applying a force, for example by means of a finger, above the surface defined by the central body 33, the recreational device 1 substantially behaves as a spring.

[0062] As a result of what has just been said, when the applied force is released, the recreational device is able to make a leap proportional to the force applied and directed like the force, but in the opposite direction.

[0063] For example, a finger can be applied on the rear part of the central body 33 and preferably on the flap defining the interaction portion 34, and the image object 3 can be sprung forward by pressing and sliding the same finger backwards.

[0064] Therefore, the recreational device 1 is, for ex-

ample and preferably, a stylized model of a jumping frog.

[0065] The invention comprises a new method.

[0066] The method of manufacturing the recreational device 1 is characterised by notching the sheet 2 along main guides 30, optionally notching the folding lines 31, detaching the image object 3 from the sheet 2 along the perimeter 3a and by means of the main guides and, finally, folding the support elements 32 along the folding lines 31.

[0067] In particular, the first two steps are carried out before the marketing of the recreational device 1, while the subsequent steps can preferably be carried out by the user and therefore, for example, by the child who wants to play with the recreational device 1.

[0068] The recreational device 1 according to the invention achieves important advantages.

[0069] In fact, the recreational device 1 has all the features required for marketing.

[0070] It is customized and/or customizable, versatile from a graphical point of view so that it is for example possible to change the appearance of the same with an indelible pen.

[0071] Moreover, the device 1 advantageously combines good functionality with aesthetics.

[0072] Being able to make the device jump may, for example, intrigue to a greater extent the end users, mainly children, as it offers a tool with which to compete.

[0073] It is possible to make the device 1 jump with different intensities and different directions and this facilitates its use in activities entailing confrontation, thus favouring the sociality among the users involved.

[0074] There are additional advantages to the afore-said features.

[0075] In particular, the device also allows users to have a try at shaping and modifying the same starting from the non-folded, non-detached sheet configuration.

[0076] This allows even the younger users to be gratified, ensuring a substantial ease of shaping the folded configuration.

[0077] Finally, the object uses common materials and has a structure that is so simple as to be extremely functional, yet with considerably reduced costs compared to any toy or surprise or the like of the current state of the art.

[0078] The structure also allows the device 1 to be easily positioned inside foodstuffs, as well as in the form of items enclosed with publishing products or in supermarket gift bags referred to by way of example in the introduction.

[0079] The invention is subject to variations falling within the scope of the inventive concept as defined by the claims.

[0080] For example, the drawings defining the image object 3 may be different from the frog mentioned by way of example, or even different types of folded configurations may be defined.

[0081] For example, the number of support elements 4 may vary.

[0082] In this context, all the details are replaceable by

equivalent elements and any type of materials, shapes and dimensions may be present.

5 Claims

1. A recreational device (1) comprising:

- an image object (3), made from a flat sheet (2), and defining a perimeter (3a),
- folding lines (31) to permit the folding of said image object (3),

and characterised in that:

- said folding lines (31) allow the folding of said sheet (2) and the formation of a plurality of support elements (32), defining portions of said perimeter (3a), and available on a base surface (100),
- said support elements (32) are curved elements suitable to ensure contact with said base surface (100),
- an interaction portion (34) consisting of a portion of said perimeter (3a) not coinciding with said support elements (32) and suitable to allow a finger to press said object image (3) when said support elements (32) are plastically deformable,
- said support element (32) being elastically deformable and suitable to react in contrast to said base surface (100).

2. The recreational device according to one or more of the preceding claims, in which said sheet (2) is plastically and elastically manually deformable.

3. The recreational device according to the preceding claim, wherein said sheet (2) is made of a polymer material.

4. The recreational device according to one or more of the preceding claims, wherein said support elements (32) are spaced apart by a length comprised between 1 cm and 2 cm.

5. The recreational device according to one or more of the preceding claims, wherein said support elements (32) are convex.

6. The recreational device according to one or more of the preceding claims, wherein said interaction portion (34) comprises a flap protruding from a central body (33).

7. The recreational device according to the preceding claim, wherein said image object (3) comprises a central body (33) and four of said support elements

(32) protruding from said central body (33).

8. The recreational device according to one or more of the preceding claims, wherein said support elements (32) and said central body (33) define a spring. 5
9. A method for making a recreational device (1) comprising a sheet (2), including an image object (3) defining a perimeter (3a), main guides (30) placed along said perimeter (3a) suitable to facilitate the detachment of said image object (3) from said sheet (2) and folding lines (31) suitable to permit the folding of said image object (3), said folding lines (31) allowing the formation of at least one support element (32), said support element (32) being provided on a base surface (100) and said support element (32) being elastically deformable and suitable to react in contrast to said base surface (100), the method being **characterised in that** it comprises at least the steps of: 10 15 20
- notching said sheet (2) along said main guides (30),
 - detaching said image object (3) from said sheet (2) along said perimeter (3a) and by means of said main guides (30), 25
 - folding said support element (32) along said folding lines (31).
10. A method for making a recreational device (1) comprising at least a step of notching said folding lines (31). 30

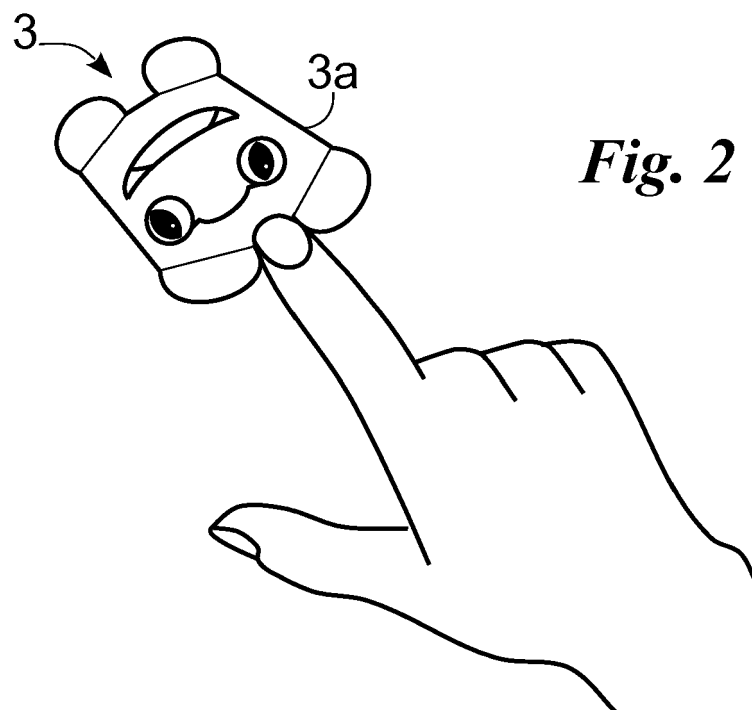
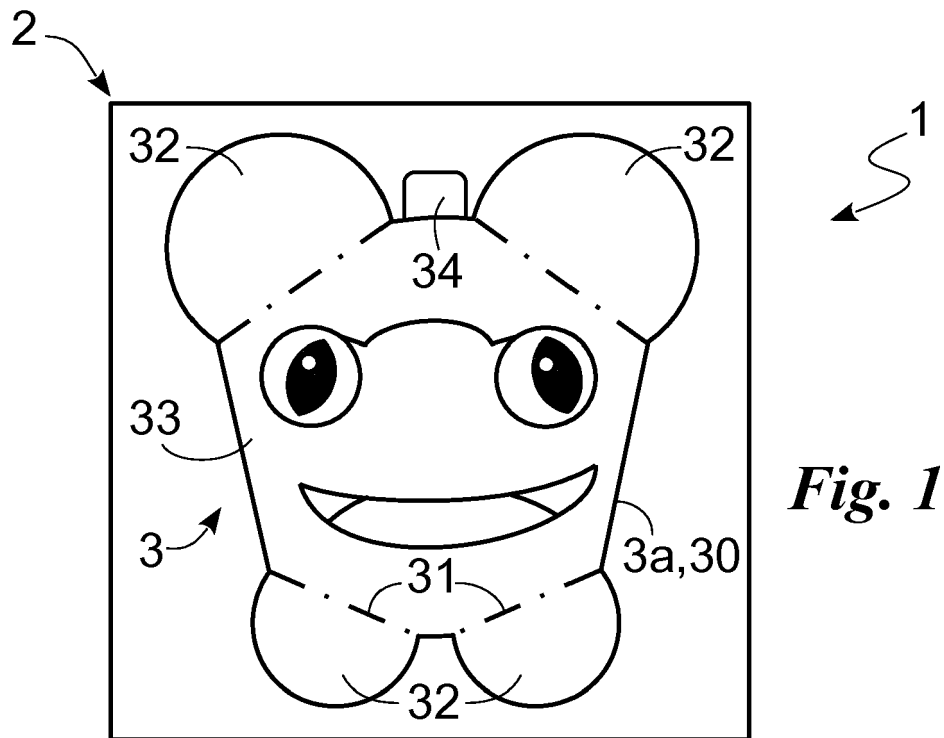
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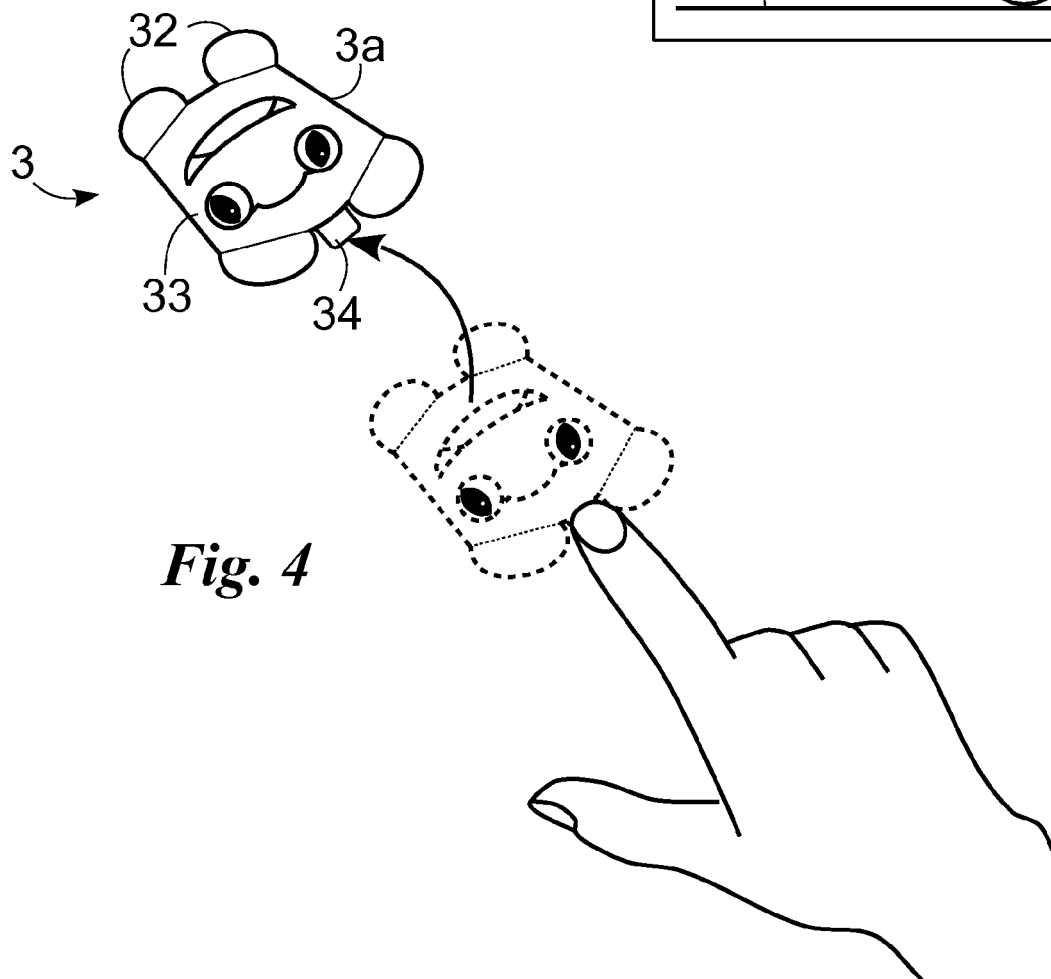
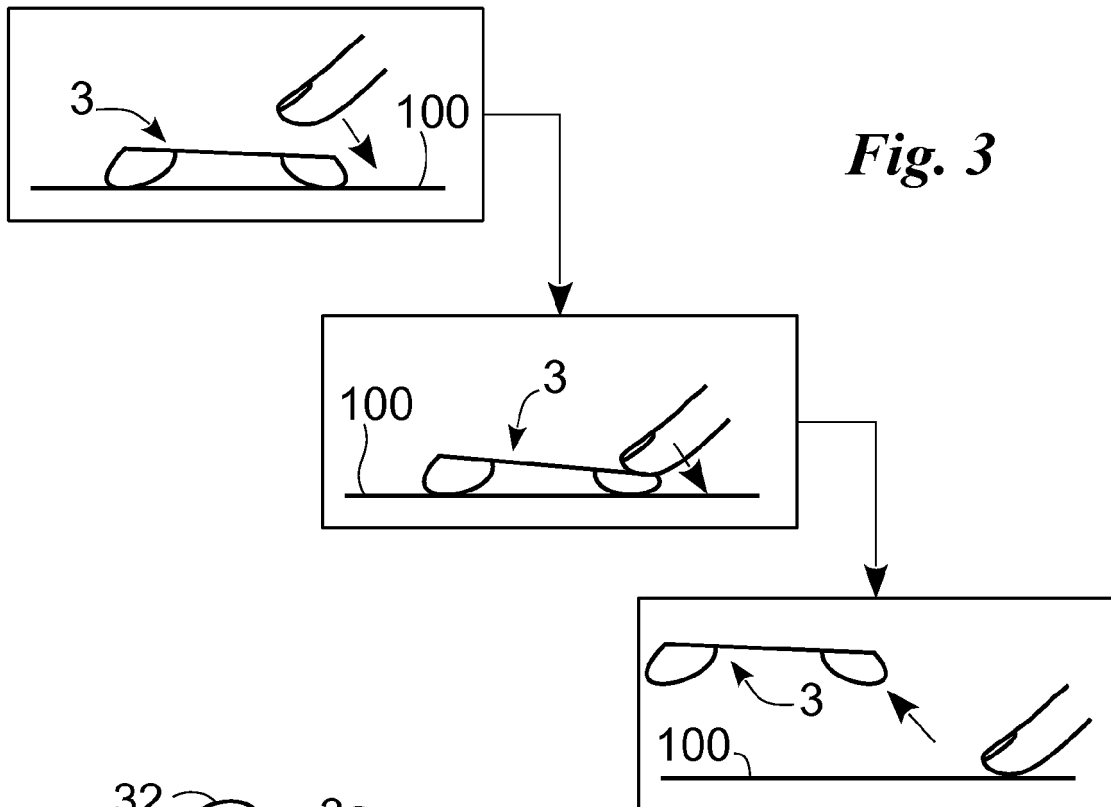
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EUROPEAN SEARCH REPORT

Application Number
EP 17 17 1381

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EPO FORM 1503 03.82 (P04C01)

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	US 4 085 933 A (CURRIE DAVID W) 25 April 1978 (1978-04-25) * column 2, line 64 - column 4, line 2; figures *	1-10	INV. A63H11/06
X	US 6 488 559 B1 (HINTZ PEARL [US]) 3 December 2002 (2002-12-03) * column 4, line 25 - column 5, line 34; figures *	1-10	
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A	US 2 817 925 A (KELLEY HOWARD E) 31 December 1957 (1957-12-31) * column 2, line 56 - column 6, line 52; figures *	1-10	
A	CN 201 823 306 U (JIANFENG LIN) 11 May 2011 (2011-05-11) * the whole document *	1-10	TECHNICAL FIELDS SEARCHED (IPC) A63H
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 9 October 2017	Examiner Lucas, Peter
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09-10-2017

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REFERENCES CITED IN THE DESCRIPTION

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