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(54) **ONE-HAND-HOLDING AID FOR TABLET PERSONAL COMPUTER**

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(57) **ABSTRACT**

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A one-hand-holding aid for tablet personal computer (PC) mainly includes a handhold member pivotally connected at a proximal end to a back of a tablet PC. The handhold member is provided at the proximal end with a tightness-adjustable fastening band for conveniently binding around a user's wrist or elbow. The user may stably and safely hold the tablet PC with only one hand by gripping at the handhold member and binding the fastening band around the wrist or elbow, and turn the tablet PC to any desired direction and angle during operation without the risk of dropping the tablet PC. Even with the handhold member, the tablet PC may still be used on a desktop and connected to a keyboard as desired.

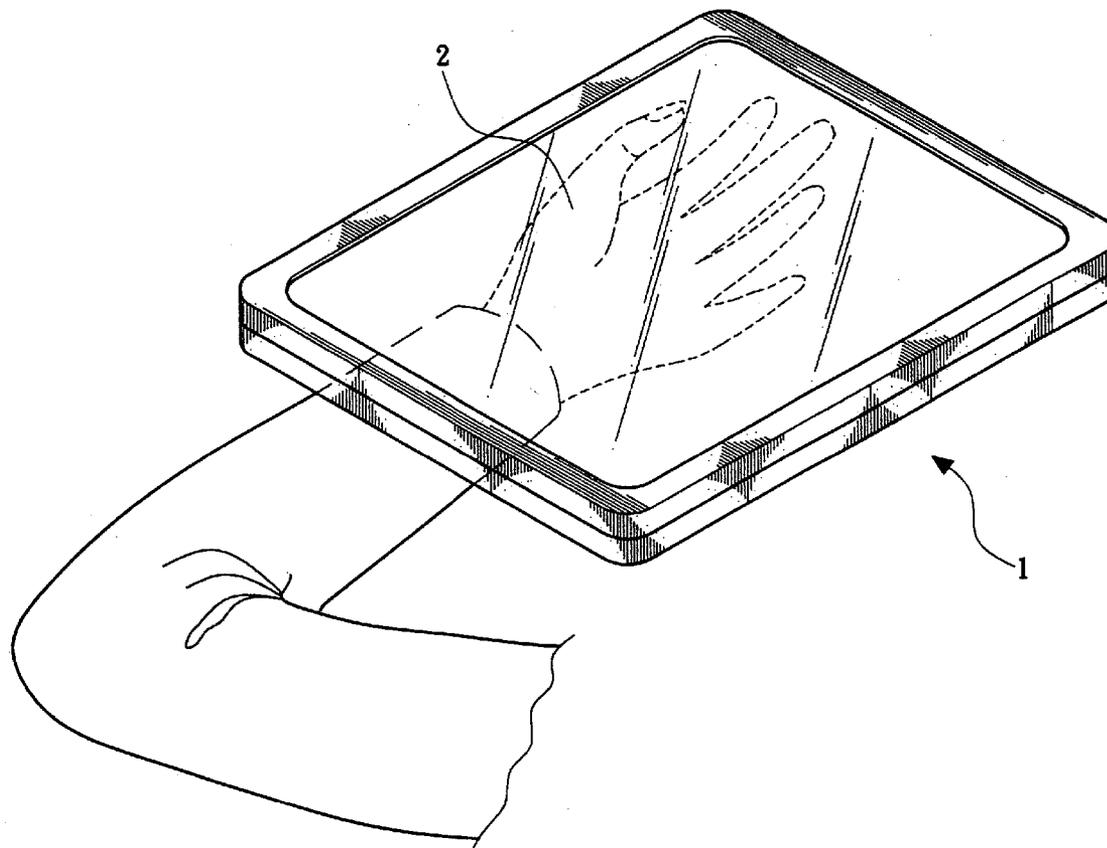
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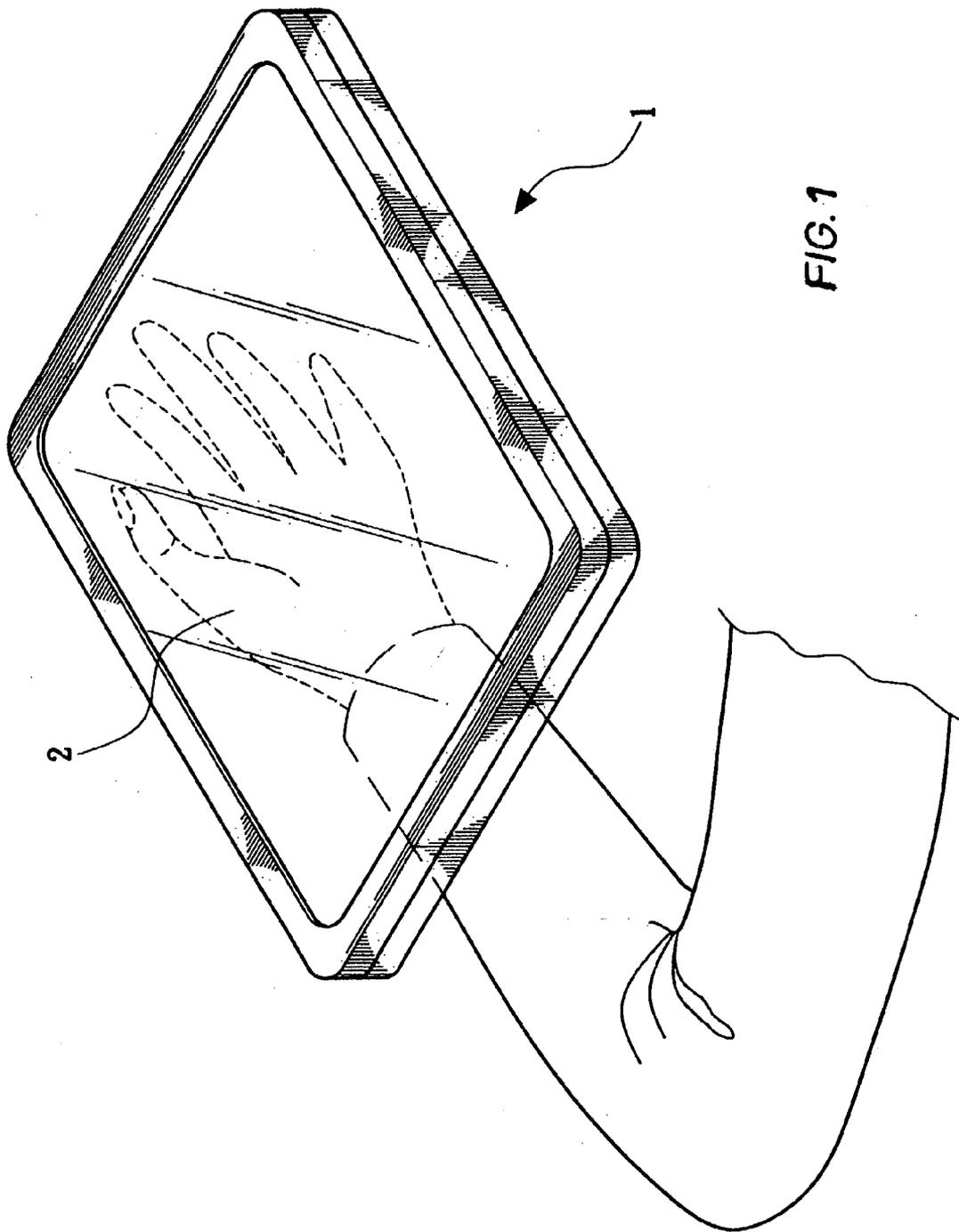


FIG. 1

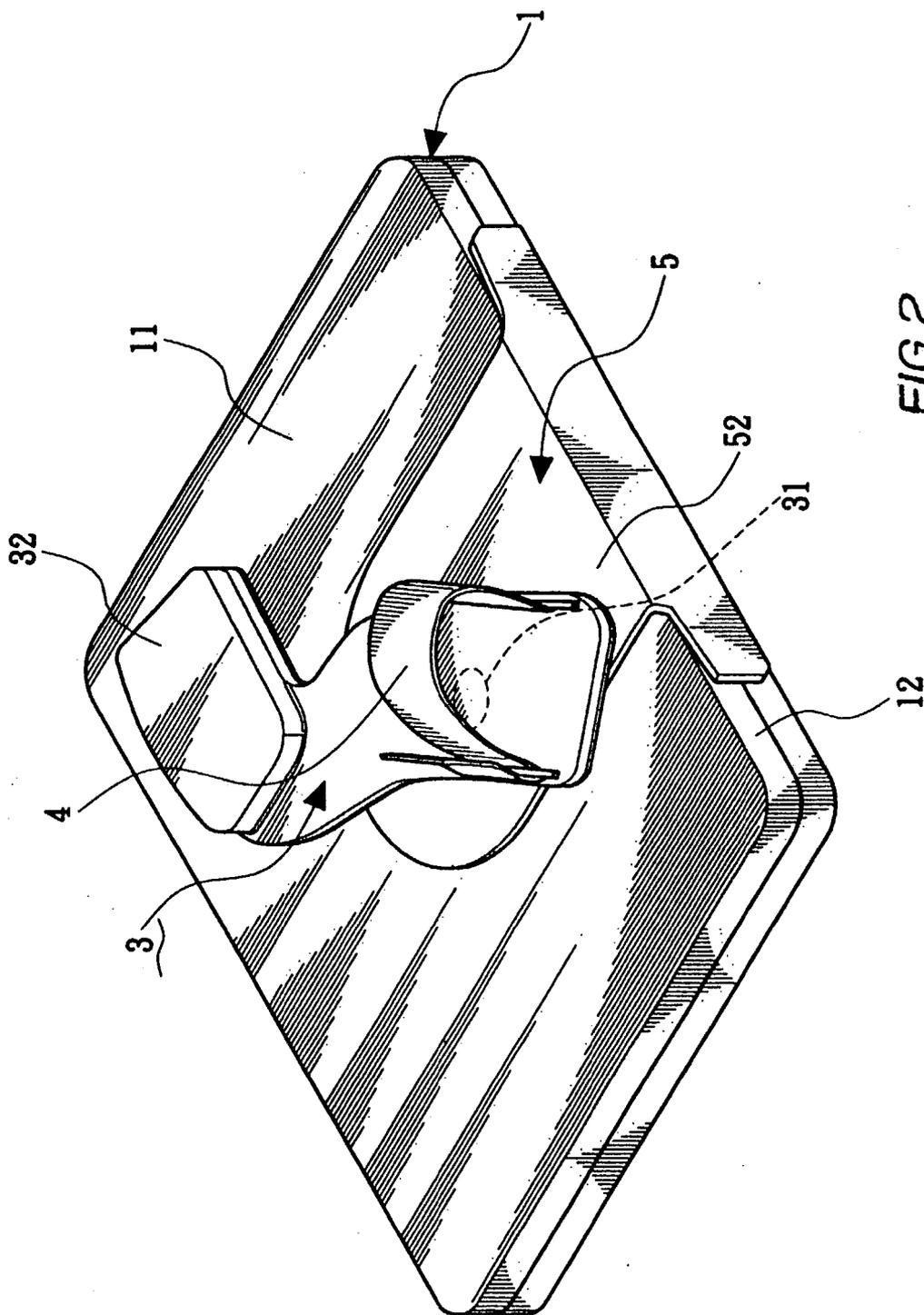


FIG. 2

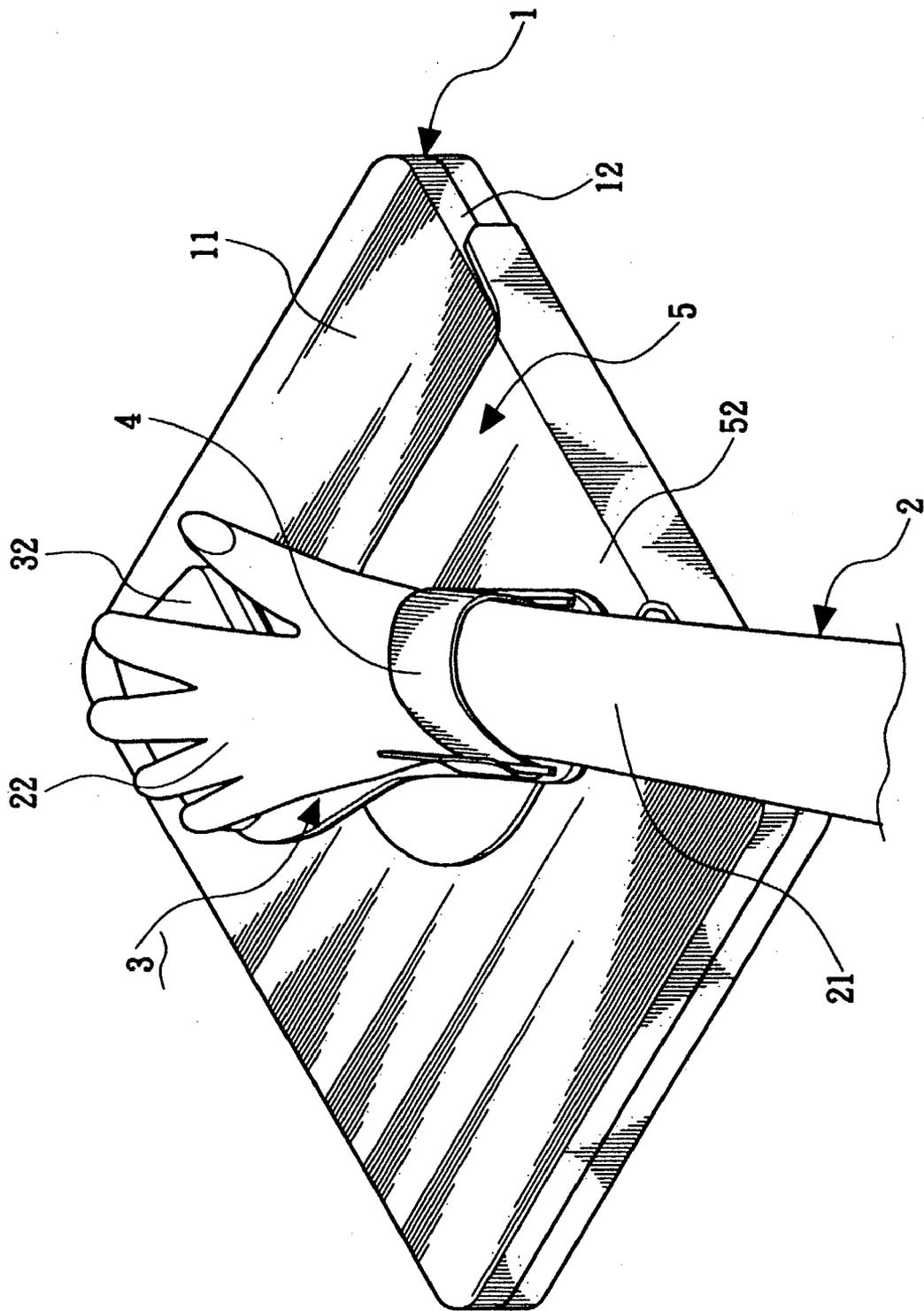


FIG. 3

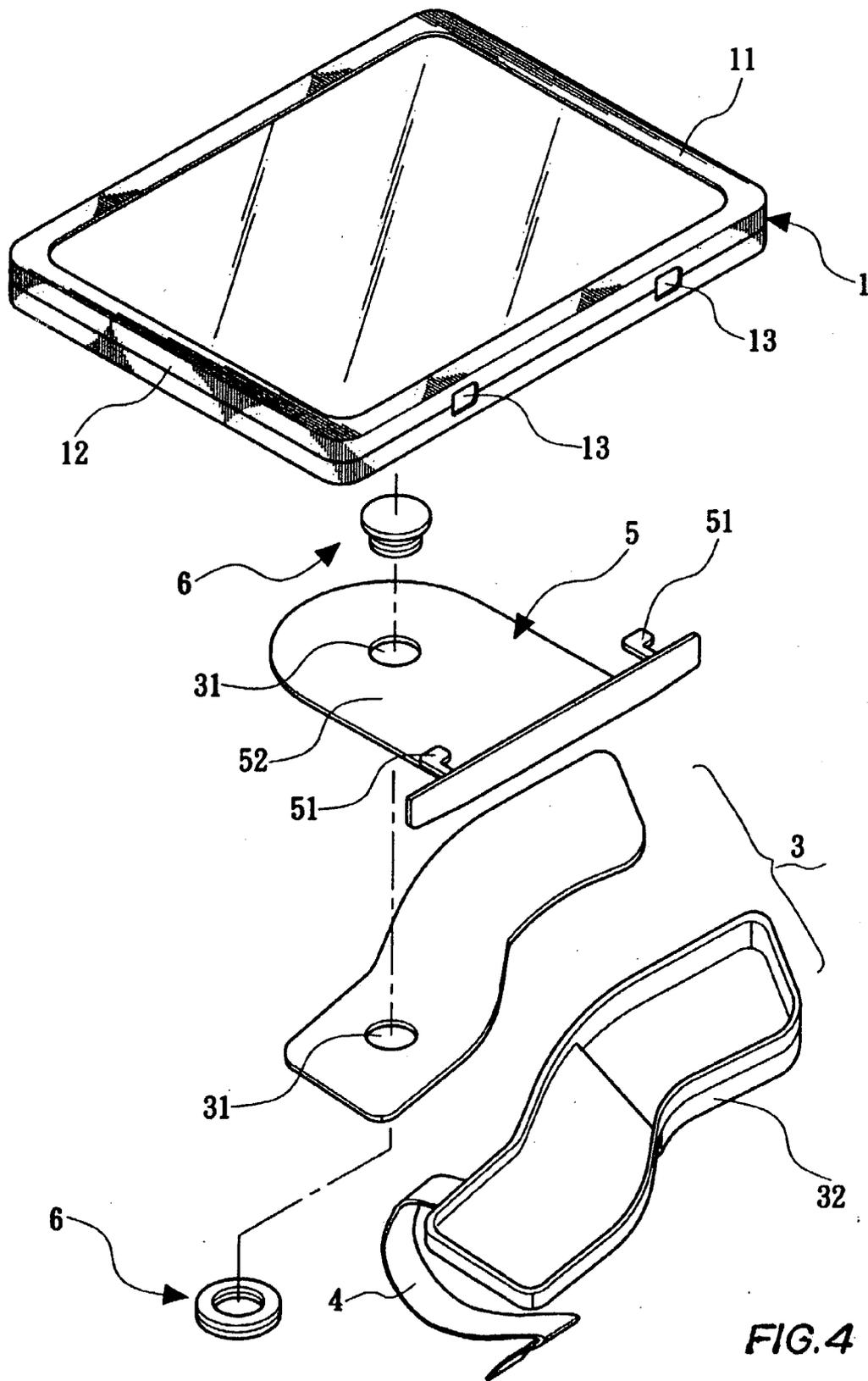


FIG. 4

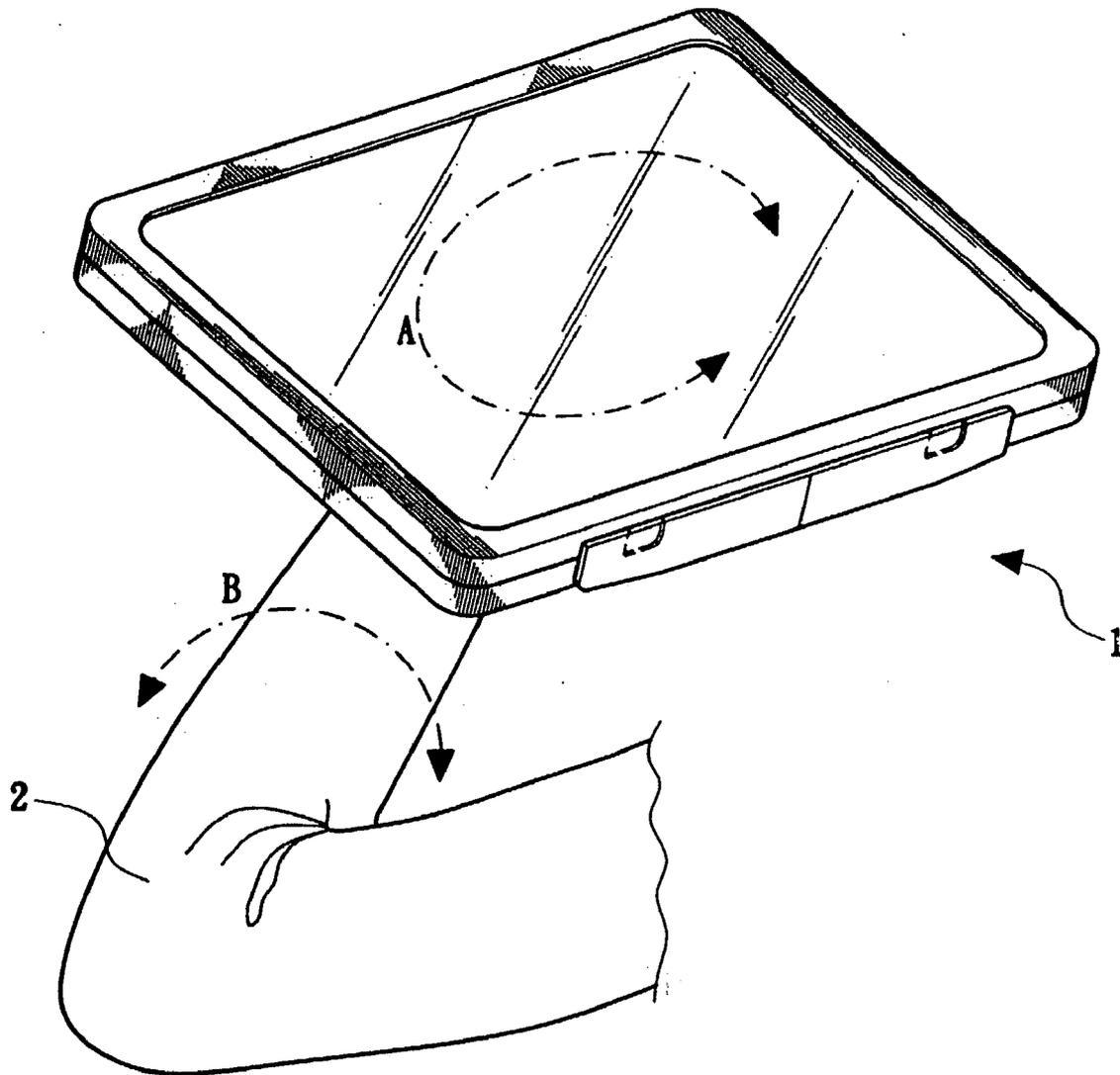


FIG. 5

**ONE-HAND-HOLDING AID FOR TABLET PERSONAL COMPUTER**

**FIELD OF THE INVENTION**

[0001] The present invention relates to a one-hand-holding aid for tablet personal computer (PC), and more particularly to a holding aid pivotally connected to a rear side of a tablet PC and including a fastening band for binding around a user's wrist, so that the user may stably hold the tablet PC with only one hand while freely turns the tablet PC to any desired direction and angle for best operation thereof.

**BACKGROUND OF THE INVENTION**

[0002] Please refer to **FIG. 1** in which a tablet PC **1** is shown. The tablet PC has been quickly developed and become as popular as the desktop and the laptop computer. There are a lot of different brands and specifications for the tablet PC. Unlike the laptop or other portable computer, the tablet PC **1** includes only a rectangular tablet body without any keyboard. The user operates the tablet PC **1** by making selection directly on a front display thereof. Alternatively, the tablet PC **1** may be laid on a desktop for use. In the latter case, the tablet PC **1** is set in a frame on the desktop to connect to a keyboard, and is used just like a general desktop computer. However, most users would use one hand **2** to support the tablet PC **1** at a rear side thereof, as shown in **FIG. 1**, and use the other hand to make selection and other operations on the front display or to turn the tablet PC **1** to a different direction for showing data on the display to other people. That is, one of the features of the tablet PC **1** is it may be held with one hand **2**. However, due to its area and weight, the tablet PC **1** could not always be easily and stably held with only one hand **2**, particularly when the tablet PC **1** is to be held at a certain angle. It is also uneasy to turn the tablet PC **1** supported on one hand **2** to different direction or angle for showing the display thereof to some other people. Any negligence in handling the tablet PC **1** would dangerously drop and accordingly damage it. This is a disadvantage in using the tablet PC **1**.

**SUMMARY OF THE INVENTION**

[0003] A primary object of the present invention is to provide a one-hand-holding aid for tablet PC to overcome the above-mentioned disadvantage in using the tablet PC. To achieve the above and other objects, the present invention mainly includes a handhold member pivotally connected at a proximal end to a back of a tablet PC. The handhold member is provided at the proximal end with a tightness-adjustable fastening band for conveniently binding around a user's wrist or elbow. The user may stably and safely hold the tablet PC with only one hand by gripping at the handhold member and binding the fastening band around the wrist or elbow. In this manner, the tablet PC held by the user with only one hand may be turned to any desired direction and angle during operation without the risk of dropping.

[0004] Another object of the present invention is to provide a one-hand-holding aid for tablet PC, so that the tablet PC is pivotally connected at a back to a handhold member, and may still be used on a desktop and connected to a keyboard as desired without being affected by the handhold member.

**BRIEF DESCRIPTION OF THE DRAWINGS**

[0005] The structure and the technical means adopted by the present invention to achieve the above and other objects

can be best understood by referring to the following detailed description of the preferred embodiments and the accompanying drawings, wherein

[0006] **FIG. 1** shows a typical manner of holding a tablet PC with one hand while operating it;

[0007] **FIG. 2** is a perspective view showing a one-hand-holding aid for tablet PC according to an embodiment of the present invention;

[0008] **FIG. 3** shows the manner of using the holding aid of the present invention to hold a tablet PC with only one hand;

[0009] **FIG. 4** is an exploded perspective view of the present invention; and

[0010] **FIG. 5** also shows the use of the present invention to hold a tablet PC with only one hand.

**DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS**

[0011] Please refer to **FIGS. 2 and 3**. The one-hand-holding aid for tablet PC according to the present invention mainly includes a handhold member **3** pivotally connected at a proximal end to a back **11** of the tablet PC **1** via a pivot pin **31**, so that the handhold member **3** may be freely turned to any angle relative to the tablet PC **1**. The handhold member **3** is provided at a distal end with a raised portion **32** to serve as a handle for a user's palm **22** to grip at. A fastening band **4** is provided at the proximal end of the handhold member **3** for conveniently binding around the user's one arm near a wrist **21** or an elbow thereof. To use the one-hand-holding aid of the present invention, the user may easily bind the wrist **21** of one hand **2** to the handhold member **3** with the fastening band **4**. This ensures the tablet PC **1** to be angularly inclined without easily dropping due to any impact. The user may then grip at the raised portion **32** with the palm **22** while using fingers to press against the back **11** of the tablet PC **1**, so that the tablet PC **1** may be stably held in a desired direction for operation conveniently. With the pivotal pin **31** and the fastening band **4**, the user is allowed to turn the tablet PC **1** on one hand **2** by any angle to a desired direction, as shown by the arrow A in **FIG. 5**, or to a desired inclination, as shown by the arrow B in **FIG. 5**, for showing data on the front display of the tablet PC **1** to other people around the user. The one-hand-holding aid of the present invention allows the tablet PC **1** to be operated in the most convenient, simplest, and safest manner.

[0012] **FIG. 4** is an exploded perspective view of the present invention. Since there are differences in casing designs among tablet PC's **1** of different brands, a carrier member **5** matching with the casing design of the tablet PC **1** is designed for attaching to the back **11** of the tablet PC **1**. For example, the tablet PC **1** may be provided on one edge **12** of its casing with retaining slots **13**, and the carrier member **5** may be correspondingly provided at predetermined positions with hooks **51** for engaging with the retaining slots **13**, so that a plate **52** of the carrier member **5** having a predetermined width closely bears against the back **11** of the tablet PC **1** to firmly connect the carrier member **5** to the tablet PC **1**. A pivot screw **6** is extended through the carrier member **5** and the handhold member **3** to form the pivot pin **31** of the handhold member **3**, so that the handhold member **3** could be pivotally turned relative to the plate **52**. Since the

pivot pin 31 is formed from the pivot screw 6, the handhold member 3 may be connected to the carrier member 5 in different tightness through adjustment of the pivot screw 6.

[0013] When the tightness between the handhold member 3 and the carrier member 5 has been properly adjusted, the tablet PC 1 may be pivotally turned relative to the handhold member 3 without becoming loosely and freely rotatable. That is, the pivot screw 6 allows the tablet PC 1 to stop at any desired position relative to the handhold member 3, just like a display of a laptop computer that could be pivotally turned and stopped at any desired angular position relative to the keyboard. Since the pivot screw 6 is a known art, it is not discussed in details herein.

[0014] As can be seen from FIG. 4, the handhold member 3 may be formed from an upper and a lower injection-molded plastic part, so that the handhold member 3 defines a hollow space therein to facilitate assembling of the pivot screw 6 and the fastening band 4 to the handhold member 3. The raised portion 32 may be an integrally molded portion of the handhold member 3 to reduce an overall manufacturing cost of the present invention. The handhold member 3 and the raised portion 32 may have configurations, including an angle contained between the raised portion 32 and the pivot pin 31, an overall height of the raised portion 32, etc., that are designed according to the body engineering, so that the handhold member 3 is suitable for all general users. The fastening band 4 provided at the proximal end of the handhold member 3 may be easily adjustably bound around the user's wrist or elbow using, for example, a buckle adapted to adjust the length of the band 4 or a magic tape, such as Velcro tape, so that the user's hand 2 bound by the fastening band 4 would not easily separate therefrom.

[0015] The carrier member 5 is not necessarily connected to the tablet PC 1 through engagement of the hooks 51 with the retaining slots 13. Different connection manners may be designed depending on the configurations of the casing of the tablet PC 1 and/or the edge 12. It is also possible to omit the carrier member 5 and to provide a recess on the back 11 of the tablet PC 1 for receiving the pivot screw 6 therein. When the one-hand-holding aid of the present invention is not connected to the tablet PC 1, the existence of the recess would not have any influence on the use of the tablet PC 1. Whenever it is desired, the user may directly mount the pivot screw 6 to the recess and connect the handhold member 3 to the pivot screw 6 to provide the one-hand-holding aid on the tablet PC 1. That is, the handhold member 3 is an optional item that may be easily mounted to the tablet PC 1 completely depending on the user's actual need.

[0016] Since the handhold member 3 is pivotally turnable relative to the tablet PC 1, and the retaining slots 13 are provided on the edge 12 at positions that would not interfere with any socket or jack that are also provided on the edge 12 for connection of a keyboard thereto, the tablet PC 1 may be connected to and used with a keyboard without being affected by the handhold member 3 at all. That is, it is no need to dismount the handhold member 3 from the tablet PC 1 when the tablet PC 1 is to be used as a desktop computer.

[0017] The following are some advantages of the one-hand-holding aid of the present invention:

[0018] 1. It has simple structure and may be provided as an optional item of the tablet PC to effectively ensure the use of the tablet PC in a convenient and safe manner.

[0019] 2. The fastening band 4 may be flexibly adjusted and the handhold member 3 may be pivotally turned to meet the user's hand size and personal preference in operating the tablet PC 1. That is, the fastening band 4 and the handhold member 3 are suitable for most users and would not have any influence on the designed functions of the tablet PC 1.

[0020] 3. The one-hand-holding aid has simple structure and may be mounted on all tablet PC's 1 of different brands, and is therefore suitable for mass-production to reduce the manufacturing cost thereof.

[0021] The present invention has been described with a preferred embodiment thereof and it is understood that many changes and modifications in the described embodiment can be carried out without departing from the scope and the spirit of the invention as defined by the appended claims.

What is claimed is:

1. A one-hand-holding aid for tablet PC, comprising a handhold member pivotally connected at a proximal end to a back of a tablet PC via a pivot pin, so that said handhold member may be freely turned to any angle relative to said tablet PC; said handhold member being provided at a distal end with a raised portion for a user to grip thereat, and at the proximal end with a fastening band for conveniently binding around a user's one arm near a wrist or an elbow thereof; whereby the user may easily bind said fastening band around the wrist or elbow of one hand while gripping at said raised portion to stably hold said tablet PC with only one hand and conveniently adjust said tablet PC to any desired direction or angle.

2. The one-hand-holding aid for tablet PC as claimed in claim 1, further comprising a carrier member provided between the back of said tablet PC and said handhold member; said carrier member including a plate having a predetermined width and provided with hooks, such that said carrier member is adapted to closely bear against the back of said tablet PC and firmly connect thereto through engagement of said hooks with retaining slots correspondingly provided on a case of said tablet PC; and said carrier member being connected to said handhold member via a pivot screw, such that said pivot screw forms said pivot pin at the proximal end of said handhold member and allows said handhold member to pivotally turn relative to said carrier member.

3. The one-hand-holding aid for tablet PC as claimed in claim 1, wherein said fastening band is provided with means for conveniently adjusting an overall length of said fastening band, such that said fastening band may be bound around the user's wrist or elbow in an optimal tightness.

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