

## ERGONOMIC COMPUTER MOUSE

## FIELD OF THE INVENTION

This invention relates to a healthier computer mouse, more specifically, an ergonomically-improved computer mouse which can stimulate therapeutic points in the palm of the hand to relieve user fatigue.

## BACKGROUND OF THE INVENTION

In a personal computer, a computer mouse is moved on a surface body to input positioning of a cursor on a computer screen and is frequently used to facilitate the input and selection options.

However, the long-time use of a personal computer causes user fatigue, for example eyestrain or stiffness in the shoulders in the human body. When the personal computer is operated by the use of the mouse, movement of the mouse in various directions is needed, which makes user fatigue quite remarkable and a significant problem.

In order to eliminate the above disadvantages, the present invention has as an object to provide a mouse having a main body and a click button including projection bodies on the main body and the click button for stimulating therapeutic points on the user's hand.

According to this invention, the fatigue can be diminished and possibly banished since the therapeutic points in the palm of the hand are stimulated by the projection bodies when the palm is put on the upper surface of the mouse. Thusly, the ergonomics of the mouse are improved.

## BRIEF DESCRIPTION OF THE DRAWINGS

Fig. 1 is a side view of a mouse according to this invention.

Fig. 2 is a plan view of the mouse according to this invention.

Fig. 3 is a view illustrating the therapeutic points of the hand.

Fig. 4 is a view showing a preferred form of a projection body according to this invention.

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Fig. 5 is a view showing another embodiment of the form of the projection body.

Fig. 6 is a view showing a further embodiment of the form of the projection body.

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#### DETAILED DESCRIPTION

A preferred embodiment of this invention will now be specifically described in detail hereinafter in reference to the drawings. Figs. 1 to 6 illustrate the embodiment of this invention. In Figs. 1, 2, denoted at 2 is a  
10 mouse used in a personal computer (not shown). This mouse 2 has a main body 4 and left and right click buttons 6-1, 6-2. An electrical communication cord 8 is connected to the main body 4 for communicating the mouse with the computer.

15 A main body-side projection body 10-1 protrudes from an upper surface 4a of the main body 4 and it is positioned in substantially the center part of the palm when the hand is placed onto the mouse 2 to operate the mouse. The main body-side projection body 10-1  
20 stimulates the therapeutic point Rokyu A located substantially in the center part of the palm, as shown in Fig. 3, to relieve eyestrain or languor.

Left and right button projection bodies 10-2, 10-3 protrude upwardly from the upper surfaces of the left and  
25 right click buttons 6-1, 6-2, respectively. The left and right button projection bodies 10-2, 10-3 stimulate each of the therapeutic points Jusens B of the forefinger and middle finger of the hand using the left and right click bottom 6-1, 6-2, which, for example, reduce blood  
30 pressure.

The projection body 10 preferably has one of the forms shown in Figs. 4-6 as examples. That is, a protruding end portion 12 sharply protrudes upwardly, as shown in Fig. 4, is formed on the projection body 10.  
35 The projection body 10 has a triangular cross section and essentially a cone shape. The end portion 12 has a



rounded uppermost end to comfortably contact a user's hand.

5        Otherwise, a spherical ball portion 14, as shown in Fig. 5, is formed on the upper tip end of the projection body 10.

      Further, a spherical ball portion 16, as shown in Figure 6, is formed on the upper tip of the projection body 10, which has a fine rugged surface 16a formed on the surface of the ball portion 16.

10        The operation of this preferred embodiment will be described hereinafter.

      In the use of the personal computer, when the palm of the hand is put on the upper surface of the mouse to hold the mouse, the Rokyu therapeutic point A in  
15        substantially the center part of the palm contacts the main body-side projection 10-1, while the Jusens therapeutic points B of the forefinger and the middle finger also contact the left button projection body 10-2 and the right button projection body 10-3, respectively.

20        When the mouse is operated in various directions, the main body-side projection 10-1 stimulates the Rokyu A therapeutic point, and the left and right button projection bodies 10-2, 10-3 also stimulate the Jusens B therapeutic points of the forefinger and the middle  
25        finger, respectively. Thus, by only operating the mouse 2, the eyestrain, the stiffness of shoulders, or the languor can be naturally relieved, or the blood pressure can be reduced, to relieve or possibly banish the user's fatigue.

30        According to the form of the projection body 10 in Fig. 4, the therapeutic points can be strongly and precisely stimulated by the protruding end portion 12 to reduce or banish fatigue. Further, according to the form of the projection body 10 in Fig. 5, the therapeutic  
35        points can be more widely stimulated by the ball portion 14 than the Fig. 4 form of the end portion 12. Still further, according to the form of the projection body 10



in Fig. 6, the therapeutic points can be widely stimulated by the ball-shaped of end portion 16, and also effectively stimulated by the rugged or jagged surface 16a to actively reduce and possibly banish fatigue in the user. The jagged surface 16a having multiple peaks and valleys along the peripheral surface of the end portion 16. Thus the projection bodies 10 may be selected according to the desired therapeutic effect on each of the therapeutic points.

10        Three projection bodies 10 are provided in the mouse 2 in the above embodiment, but three or more projection bodies 10 can be optionally provided in prescribed therapeutic positions.

15        The therapeutic points of the hand can be directly stimulated by the use of the projection bodies 10 of the mouse 2 even when the mouse 2 is not operated with the personal computer.

20        As is apparent from the above detailed description, according to this invention, projection bodies for stimulating the therapeutic points are provided on the main body and click button(s) of a mouse, whereby the therapeutic points can be stimulated by the projection bodies of the mouse to reduce or possibly banish fatigue from the human body.

25        Although a particular preferred embodiment of the invention has been disclosed in detail for illustrative purposes, it will be recognized that variations or modifications of the disclosed apparatus, including the rearrangement of parts, lie within the scope of the present invention.

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The embodiments of the invention in which an exclusive property or privilege is claimed are defined as follows:

- 5           1.    A computer mouse comprising a main body and a click button, said main body and said click button including projection bodies for stimulating therapeutic points on a hand of a user.
- 10           2.    A computer mouse comprising a main body and at least one button, at least one of said main body and said button including means for stimulating at least one therapeutic point on a hand engaging one of said main body and said button.
- 15           3.    The computer mouse according to Claim 2, wherein said stimulating means includes a projection protruding upwardly from said main body to stimulate a Rokyū therapeutic point on a palm of a user's hand.
- 20           4.    The computer mouse according to Claim 3, wherein said projection has generally a cone shape with a rounded upper end portion.
- 25           5.    The computer mouse according to Claim 3, wherein an upper end portion of said projection has a spherical shape.
- 30           6.    The computer mouse according to Claim 5, wherein said upper end portion has a jagged surface to improve contact with a hand of a user.
- 35           7.    The computer mouse according to Claim 2, wherein said stimulating means includes a projection protruding upwardly from said one button to stimulate a Jusen therapeutic point on a finger of a user's hand.



8. The computer mouse according to Claim 7,  
wherein said projection has a cone shape with a rounded  
upper end portion.

5 9. The computer mouse according to Claim 7,  
wherein an upper end portion of said projection has a  
spherical shape.

10 10. The computer mouse according to Claim 7,  
wherein said upper end portion has a jagged surface to  
improve contact with a hand of a user.

15 11. The computer mouse according to Claim 2,  
wherein said stimulating means includes a first  
projection protruding upwardly from said main body to  
stimulate a first therapeutic point on a user's palm and  
a second projection protruding upwardly from said one  
button to stimulate a second therapeutic point on a  
user's palm.

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