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Two-in-One Collapsible Mouse and Touchpad

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Two-in-One Collapsible Mouse and Touchpad

ABSTRACT

On some foldable laptops, it is possible for the user to detach the touchpad and use it on the side in tabletop mode. However, some users prefer the curved, ergonomic feel of a conventional mouse. Currently, a laptop user who wants the mouse experience needs to utilize a mouse that is separate from the laptop. This disclosure describes a bendable, rectangular surface that, when flat, serves as a touchpad, and, when arched, serves as a mouse. For example, the surface can be utilized for a laptop or other device as a detachable trackpad that provides the curvature of a physical mouse when used in tabletop mode.

KEYWORDS

- Detachable touchpad
- Detachable mouse
- Collapsible mouse
- Foldable mouse
- Foldable laptop
- Convertible laptop
- Ergonomics
- Human-Computer Interface

BACKGROUND

On some foldable laptops, it is possible for the user to detach the touchpad and use it on the side in tabletop mode. However, some users prefer the curved, ergonomic feel of a conventional mouse. Currently, a laptop user who wants the mouse experience needs to utilize a mouse that is separate from the laptop.

DESCRIPTION

This disclosure describes a bendable, rectangular surface, which, when flat, serves as a touchpad, and, when arched, serves as a mouse.

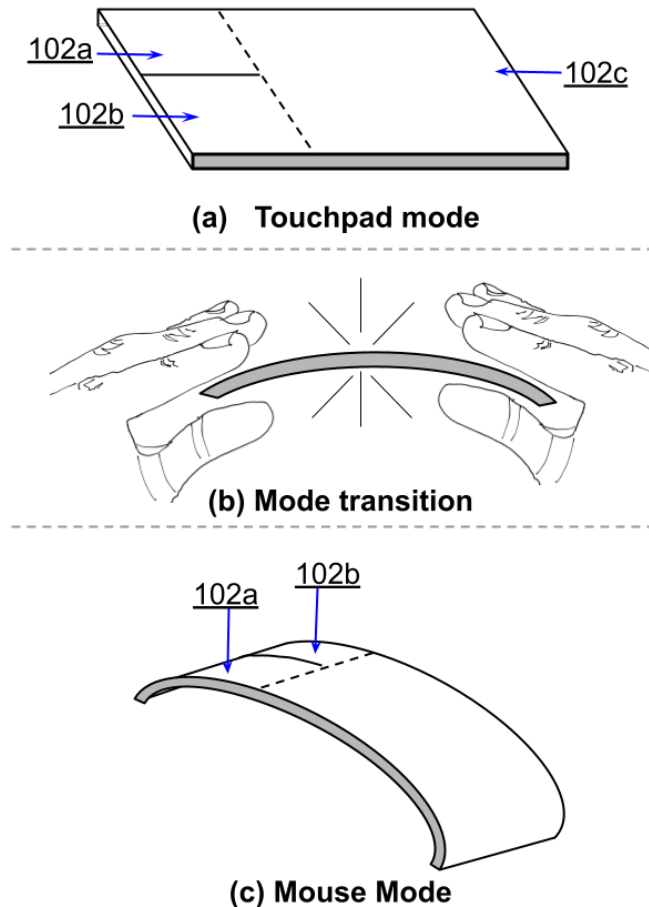


Fig. 1: A two-in-one touchpad/mouse

Fig. 1 illustrates a two-in-one touchpad/mouse, per the techniques of this disclosure. Fig. 1(a) illustrates the touchpad mode, where the entire surface clicks in unison, e.g., the sub-surfaces 102a-c all act as a single surface that can be utilized to perform a mouse click action. Fig. 1(b) illustrates a side view of a touchpad-to-mouse transition, effected by the user bending the touchpad such that it snaps into an arched shape. Once the arched mouse shape is attained, an internal mechanical hinge maintains the shape. The user can reverse the bend to achieve the flat

touchpad surface. Fig. 1(c) illustrates the mouse mode, where the sub-surfaces 102a and 102b click as independent buttons, while the sub-surface 102c is disabled from receiving clicks or other input.

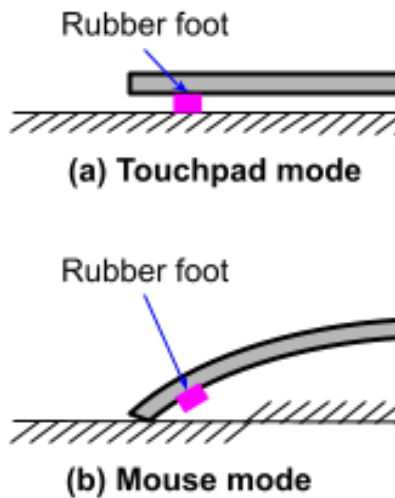


Fig. 2: Rubber feet on the two-in-one touchpad/mouse

Fig. 2 illustrates rubber feet on the two-in-one touchpad/mouse. In touchpad mode, illustrated in Fig. 2(a), the rubber feet grip the surface on which the touchpad rests. In mouse mode, the arch of the mouse lifts the rubber feet off the table-top to ensure smooth movement of the mouse.

CONCLUSION

This disclosure describes a bendable, rectangular surface that, when flat, serves as a touchpad, and, when arched, serves as a mouse. For example, the surface can be utilized for a laptop or other device as a detachable trackpad that provides the curvature of a physical mouse when used in tabletop mode.