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(54) **INPUT DEVICE WITH A CUSTOMIZABLE CONTOUR**

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See application file for complete search history.

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(57) **ABSTRACT**

Certain embodiments of the invention include an input device (e.g., a computer mouse) including a processor, a housing including a top side, the housing configured to support a user's hand, and a detachable cover plate configured to attach to the top side of the housing and support a user's hand. The cover plate can include a shape memory polymer (SMP) disposed thereon, where the SMP is pliable and operable to conform to the user's hand when a temperature of the SMP is at or above a threshold value. Furthermore, the SMP can be firm and non-conforming when the temperature of the SMP falls below the threshold value. A heating unit controlled by the processor can be configured to control the temperature of the shape memory polymer. The detachable cover plate can include the shape memory polymer disposed in areas configured to contact a user's palm and thumb.

9 Claims, 10 Drawing Sheets

