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202A and right key set 202B further provides a user with the ability to shield display screen 208 from glare caused by light source 330 without hindering use of PDA 200. For example, when PDA 200 is grasped in a natural and comfortable manner such as is illustrated in FIG. 3, right hand 306 (as well as a user's left hand) necessarily tends to shield PDA 200 from light source 330 as illustrated by shadow 307. Body casing configurations of the prior art, however, include display screens that are disposed above the keypad, leaving the display screen vulnerable to distracting glare. It should be noted that the novel configuration of body casing 216 is such that even as thumb 307 and index finger 309 are used to enter data via right key set 202B and finger mouse 205 respectively, right hand 306 (as well as a left hand) is nonetheless continually positioned so as to block unwanted and distracting light from light source 330.

FIG. 4 illustrates a PDA incorporating advantageous aspects of the present invention, in accordance with a second embodiment. PDA 400 is shown being grasped by right hand 306. PDA 400 is similarly configured to PDA 200, however, PDA 400 includes left finger mouse 405A in addition to right finger mouse 405B. Both left finger mouse 405A and right finger mouse 405B may be activated concurrently, or either may be selectively activated based upon user preference. Additionally, PDA 400 includes body casing 416 having left key set 402A disposed near left side 419A and right key set 402B disposed near right side 419B. Each of left key set 402A and right key set 402B are arranged in two or more concentric circles and/or arches. Depending upon implementation, left key set 402A may include all alphabetical characters, whereas right key set 402B may include all numeric and/or special characters. Similarly, both left key set 402A and right key set 402B may include alphanumeric characters that are organized in a variety of positional relationships. Furthermore, left mouse button 403A is formed in the shape of an oval rather than a triangle as illustrated in FIG. 2 and FIG. 3. It should be noted that data input keys and mouse buttons of a variety of shapes and sizes may similarly be utilized.

FIGS. 5A-E illustrate a PDA incorporating advantageous aspects of the present invention, in accordance with a third embodiment. PDA 500 includes upper body portion 550 having an outer end 552 and an inner end 554. Upper body portion 550 further includes left key set 502A and right key set 502B. PDA 500 also includes lower body portion 551 having inner end 555 and outer end 553, as well as display screen 508. In one embodiment, upper body portion 550 and lower body portion 551 are pivotally coupled together by hinges 542 and 544. It should be noted that a single hinge or multiple hinges might also be used. Similarly, connection mechanisms other than hinges may be used to allow movement of outer end 552 towards and away from outer end 553 while inner ends 554 and 555 remain in a substantially fixed location relative to each other. Such a hinged configuration not only provides advantageous positioning of display screen 508 below the left and right key sets, but also enables a user to close PDA 500 thereby shielding display screen 508 from exposure to damage and dust for example.

Thus, a palm-sized handheld device having an ergonomic inverted keyboard has been disclosed. In the foregoing specification, the invention has been described with refer-

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ence to specific embodiments thereof. It will, however, be evident that various modifications and changes can be made thereto without departing from the broader spirit and scope of the invention. The specification and drawings are, accordingly, to be regarded in an illustrative rather than a restrictive sense.

What is claimed is:

1. A personal digital assistant comprising:

a body casing having a top end and a bottom end;  
a display screen having a top edge, a bottom edge, a left side, a right side, and proximately disposed near said bottom end of the body casing;

a first plurality of input keys of a QWERTY keypad proximately disposed above said top edge of said input display screen, near said top end of the body casing and said left side of said input display screen, in an ergonomically rotated manner forming an angle that measures approximately 45 degrees with respect to said top edge of said display screen; and

a second plurality of input keys of the QWERTY keypad proximately disposed above said top edge of said input display screen, near said top end of the body casing and said right side of said input display screen, in an ergonomically rotated manner, forming an angle that measures approximately 45 degrees with respect to said top edge of said display screen.

2. A personal digital assistant comprising:

a body casing having a top end and a bottom end;  
a display screen having a top edge, a bottom edge, a left side, a right side, and proximately disposed near said bottom end of said body casing;

a first plurality of input keys of a QWERTY keypad proximately disposed above said top edge of said display screen, near said top end of said body casing and said left side of said input display screen, in a first ergonomic concentric arrangement; and

a second plurality of input keys of said QWERTY keypad proximately disposed above said top edge of said display screen, near said top end of said body casing and said right side of said input display screen, in a second ergonomic concentric arrangement.

3. A personal digital assistant comprising:

a body casing having a top end and a bottom end;  
a display screen proximately disposed near said bottom end;

a plurality of input keys of a QWERTY keypad proximately disposed near said top end above said input display screen, wherein said body casing further comprises a left side to the left of said display screen between said top end and said bottom end, and a right side opposite said left side and to the right of said display screen between said top end and said bottom end, and said plurality of input keys comprises a first set of keys and a second set of keys, wherein said first set of keys are further situated near said left side of said body casing to facilitate ergonomic access by a left thumb and said second set of keys are situated near said right side of said body casing to facilitate ergonomic access by a right thumb.

4. The personal digital assistant of claim 3, wherein said top and bottom ends each having dimensions of approximately 3.5 inches and said left and right sides each having dimensions of approximately 2.5 inches.

5. The personal digital assistant of claim 3, further comprising a finger mouse.