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(12) United States Patent

Mayfield et al.

(54) APPARATUS FOR CLEANING VIEW SCREENS AND LENSES AND METHOD FOR THE USE THEREOF

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- (51) Int. Cl. G06F 1/16 (2006.01)H05K 5/00 (2006.01)H05K 7/00 (2006.01)B08B 1/00 (2006.01)A45C 11/00 (2006.01)G06F 1/32 (2019.01)B08B 11/04 (2006.01)H04M 1/21 (2006.01)(Continued)

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1/0266 (2013.01)

(58) Field of Classification Search

CPC . G06F 1/32; G06F 1/16; G06F 1/1601; G06F 1/1603; G06F 1/1605; G06F 1/1607; G06F 1/1609; G06F 1/1611; B08B 1/006;

B08B 1/002

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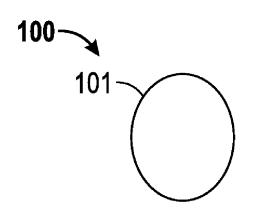
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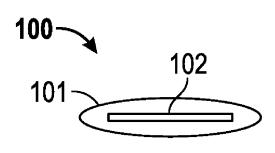
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(57) ABSTRACT

A lens and/or a view screen of an electronic device having at least one case can be cleaned by wiping the view screen with a cleaning component wherein the cleaning component is configured to selectively couple to the at least one case or some other substrate using a magnetic attractive force. The cleaning devices may have secondary applications such as securing fly fishing lures, activating or deactivating a device having a magnetic switch, or preventing sunglasses from sinking. They may also be manufactured without a cleaning component for use with the secondary applications.

19 Claims, 13 Drawing Sheets







Related U.S. Application Data

continuation of application No. 14/343,665, filed as application No. PCT/US2012/049562 on Aug. 3, 2012, now abandoned.

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- (51) **Int. Cl.** *H04B 1/3816* (2015.01) *H04M 1/02* (2006.01)

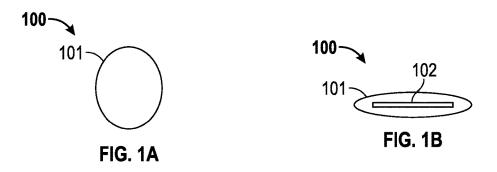
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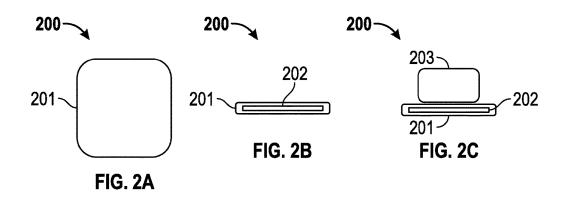
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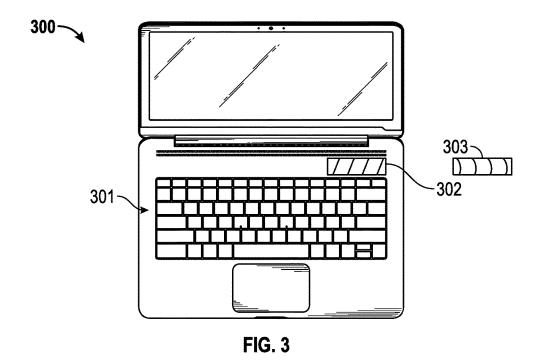
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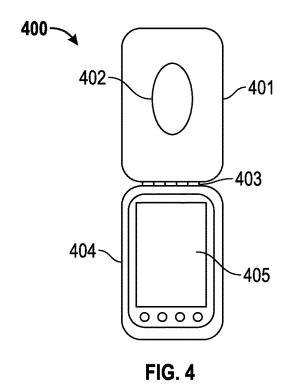


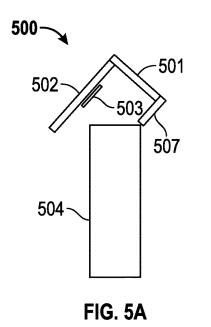












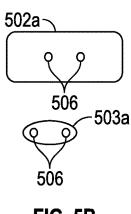
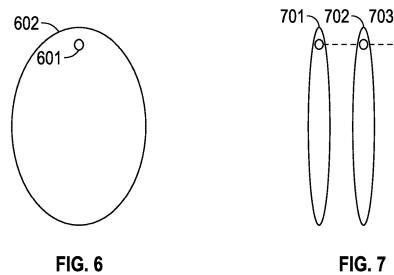


FIG. 5B



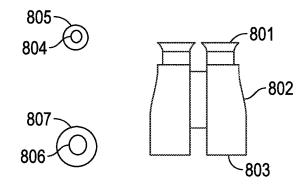


FIG. 8

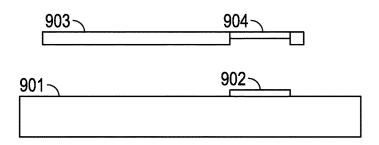


FIG. 9



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