

pull or retract the slide mechanism back. Such designs typically rely on the spring to pull the eject button back to a "ready to eject" position. Other test strip eject mechanisms utilize a rotational cam acting on a sled to eject a test strip.

5 **[0005]** The background description provided herein is for the purpose of generally presenting the context of the disclosure. Work of the presently named inventors, to the extent it is described in this background section, as well as aspects of the description that may not otherwise qualify as prior art at the time of filing, are neither expressly nor impliedly admitted as prior art against the present disclosure.

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SUMMARY ~~OF THE INVENTION~~

[0006] In ~~a first~~stone aspect of the present disclosure, a fluid testing medical device is provided, comprising a test strip eject mechanism comprising a sled for receiving and transporting an analyte test strip, wherein the sled slides to
15 transport the test strip into and out of contact with a connector of the medical device, the strip eject mechanism comprising an actuation button, ~~and~~and a lever having a distal end movably engaged with the button, the lever configured to rotate about a fulcrum, wherein the lever further comprises a proximal end movably engaged with the sled, the device configured such that a user's insertion
20 of a test strip onto the sled and in an insertion direction into the device causes the sled to contact the lever arm and the lever arm to contact and move the actuation button in an outward direction of the medical device and into a position where the actuation button can be actuated by the user.

[0007] In one ~~embodiment~~example of the first aspect, the sled of the
25 device can be configured to move in a sled movement distance, the actuation button is

configured to move in an actuation button distance, and the ratio of the sled movement distance to the actuation button distance is from 1 to 5.

[0008] In another [embodimentexample-of-the-first-aspect](#), the ratio of the sled movement distance to the actuation button distance is from 3 to 5.

5 [0009] In another [embodimentexample-of-the-first-aspect](#), the ratio of the sled movement distance to the actuation button distance is from 3.7 to 3.9.

[0010] In another [embodimentexample-of-the-first-aspect](#), the device can include a lever lock which presses against and is frictionally engaged with the lever.

10 [0011] In another [embodimentexample-of-the-first-aspect](#), the lever lock is further configured to press against and be frictionally engaged with the sled.

[0012] In another [embodimentexample-of-the-first-aspect](#), the lever lock is further configured to press against and be frictionally engaged with the
15 actuation button.

[0013] In another [embodimentexample](#) of the first aspect, the lever lock is further configured to press against and be frictionally engaged with the actuation button.

[0014] In another [embodimentexample-of-the-first-aspect](#), the lever
20 lock includes a tab that contacts the actuation button.

[0015] In another [embodimentexample-of-the-first-aspect](#), the lever lock includes a tab that contacts the actuation button.

[0016] In [a-secondanother](#) aspect of the present disclosure, a fluid testing medical device is disclosed [which-comprisescomprising](#) a test strip eject
25 mechanism comprising a sled for receiving and transporting an analyte test strip, wherein the sled slides to transport the test strip into and out of contact with a connector of

the medical device, the strip eject mechanism comprising an actuation button, [and](#) a lever having a distal end movably engaged with the button, the lever configured to rotate about a fulcrum, wherein the lever further comprises a proximal end movably engaged with the sled, the device configured such that a user's actuation of the actuation button causes the actuation button to move the lever such that the lever rotates on its fulcrum and moves the sled in an outward direction to eject the test strip from the device.

[0017] In one [embodimentexample of the second aspect](#), the sled of the device can be configured to move in a sled movement distance, the actuation button is configured to move in an actuation button distance, and the ratio of the sled movement distance to the actuation button distance is from 1 to 5.

[0018] In another [embodimentexample of the second aspect](#), the ratio of the sled movement distance to the actuation button distance is from 3 to 5.

[0019] In another [embodimentexample of the second aspect](#), the ratio of the sled movement distance to the actuation button distance is from 3.7 to 3.9.

[0020] In another [embodimentexample of the second aspect](#), the device can include a lever lock which presses against and is frictionally engaged with the lever.

[0021] In another [embodimentexample of the second aspect](#), the lever lock is further configured to press against and be frictionally engaged with the sled.

[0022] In another [embodimentexample of the second aspect](#), the lever lock is further configured to press against and be frictionally engaged with the actuation button.

[0023] In another ~~embodiment~~example of the second aspect, the lever lock is further configured to press against and be frictionally engaged with the actuation button.

5 [0024] In another ~~embodiment~~example of the second aspect, the lever lock includes a tab that contacts the actuation button.

[0025] In another ~~embodiment~~example of the second aspect, the lever lock includes a tab that contacts the actuation button.

10 [0026] In ~~a third~~another aspect of the present disclosure, a method is provided of using a fluid testing medical device ~~including~~comprising a test strip eject mechanism ~~including~~comprising a sled for receiving and transporting an analyte test strip, wherein the sled is configured to slide to transport the test strip into and out of contact with a connector of the medical device, ~~where the method includes~~comprising: configuring the strip eject mechanism to comprise an actuation button, ~~and~~and a lever having a distal end movably engaged with the
15 button, the lever configured to rotate about a fulcrum, wherein the lever further comprises a proximal end movably engaged with the sled; and inserting a test strip onto the sled and in an insertion direction into the device to thereby cause the sled to contact the lever arm and the lever arm to contact and move the actuation button in an outward direction of the medical device and into a position
20 where the actuation button can be actuated by the user at a later time.

[0027] This section provides a general summary of the disclosure, and is not a comprehensive disclosure of its full scope or all of its features. Further areas of applicability will become apparent from the description provided herein. The description and specific examples in this summary are intended for