US 20200276386A1

(19) United States

(12) Patent Application Publication

Kamen et al.

(10) Pub. No.: US 2020/0276386 A1

(43) Pub. Date: Sep. 3, 2020

(54) **PATCH-SIZED FLUID DELIVERY SYSTEMS AND METHODS**

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(21) Appl. No.: **16/876,992**

(22) Filed: **May 18, 2020**

Related U.S. Application Data

(60) Division of application No. 15/489,144, filed on Apr. 17, 2017, now Pat. No. 10,653,833, which is a (Continued)

Publication Classification

(51) **Int. Cl.**

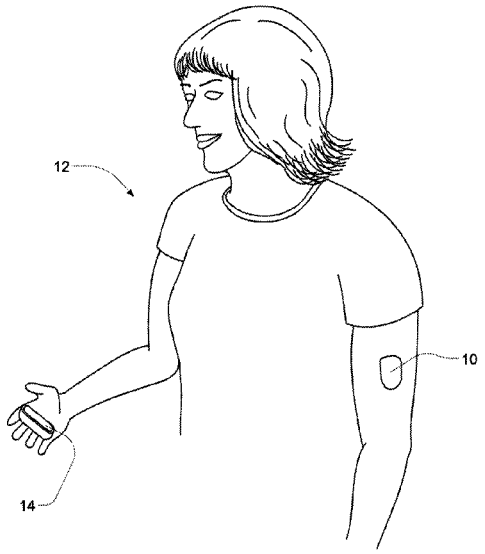
A61M 5/168 (2006.01)

F04B 43/02 (2006.01)

(Continued)

(52) **U.S. Cl.**

CPC ***A61M 5/16809*** (2013.01); ***F04B 43/02*** (2013.01); ***A61M 5/14586*** (2013.01); ***G05D 7/0647*** (2013.01); ***G05D 7/0676*** (2013.01); ***F04B 43/09*** (2013.01); ***F04B 43/1253*** (2013.01); ***A61M 5/14224*** (2013.01); ***A61M 5/14248*** (2013.01); ***A61M 5/16886*** (2013.01); ***A61M 5/172*** (2013.01); ***G08C 17/02*** (2013.01); ***H04B 7/2609*** (2013.01); ***A61M 5/168*** (2013.01); ***G05B 23/02*** (2013.01); ***A61M 5/1452*** (2013.01); ***A61M 5/14244*** (2013.01); ***A61M 5/142*** (2013.01); ***A61M 5/158*** (2013.01); ***A61M 5/1723*** (2013.01); ***A61B 5/0024*** (2013.01); ***A61B 5/6833*** (2013.01); ***A61M 5/16831*** (2013.01); ***A61M 5/5086*** (2013.01); ***A61M 5/14212*** (2013.01); ***A61M 5/16813*** (2013.01); ***G01F 22/00*** (2013.01); ***A61M 5/1413*** (2013.01); ***A61M 5/162*** (2013.01); ***A61M 5/14216*** (2013.01); ***A61M 5/365*** (2013.01); ***A61M 5/16804*** (2013.01); ***A61B 5/1427*** (2013.01); ***A61J 1/20*** (2013.01); *Y10T 29/49236* (2015.01); *Y10T 29/494* (2015.01); *Y10T 29/49826* (2015.01); *Y10T 29/49412* (2015.01); *Y10T 29/49828* (2015.01); *A61M 2005/14268* (2013.01); *A61M 2205/0266* (2013.01); *A61M 2205/0294* (2013.01); *A61M 2205/18* (2013.01); *A61M 2205/3331* (2013.01); *A61M 2205/3375* (2013.01); *A61M 2205/3546* (2013.01); *A61M 2205/3576* (2013.01); *A61M 2205/8237* (2013.01); *A61M 2206/22* (2013.01); *A61M 2209/045* (2013.01); *A61M 2207/00* (2013.01); *A61B 2560/0412* (2013.01); *A61M 2005/16863* (2013.01); *A61M 2205/04* (2013.01); *A61M 2205/502* (2013.01); *A61M 2205/52* (2013.01); *A61M 2205/3379* (2013.01); *A61M 2005/14208* (2013.01); *A61M 2205/50* (2013.01); *A61M 2205/3523* (2013.01); *A61M 2205/3569* (2013.01); *A61M 2205/3592* (2013.01); *A61M 2205/3303* (2013.01); *A61M 2230/201* (2013.01); *A61M 2005/1585* (2013.01); *A61M 2005/1586* (2013.01); *A61M 2205/3337* (2013.01); *A61M 2205/3368* (2013.01); *A61M 2005/14252* (2013.01); *A61M 2005/1583* (2013.01); *A61M 2005/14506* (2013.01); *A61M 2005/1402* (2013.01); *A61M 2205/16* (2013.01); *A61M 2205/581* (2013.01); *A61M 2205/582* (2013.01); *A61M 2205/583* (2013.01); *A61M 2205/8206* (2013.01)

(57) **ABSTRACT**

A patch-sized fluid delivery device may include a reusable portion and a disposable portion. The disposable portion may include components that come into contact with the fluid, while the reusable portion may include only components that do not come into contact with the fluid. Redundant systems, such as redundant controllers, power sources, motor actuators, and alarms, may be provided. Alternatively or additionally, certain components can be multi-functional, such a microphones and loudspeakers that may be used for both acoustic volume sensing and for other functions and a coil that may be used as both an inductive coupler for a battery recharger and an antenna for a wireless transceiver. Various types of network interfaces may be provided in order to allow for remote control and monitoring of the device.