

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
08 July 2021 (08.07.2021)



(10) International Publication Number
WO 2021/138193 A1

(51) International Patent Classification:

A61B 5/097 (2006.01) *A61B 5/1455* (2006.01)
A61B 5/08 (2006.01) *G01N 33/497* (2006.01)
A61B 5/083 (2006.01)

(21) International Application Number:

PCT/US2020/066833

(22) International Filing Date:

23 December 2020 (23.12.2020)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

62/955,555 31 December 2019 (31.12.2019) US

(71) Applicant: **CARROT, INC.** [US/US]; 1400A Seaport
Blvd, Suite 501, Redwood City, California 94063 (US).

(72) Inventors: **JAMESON, Allen**; 572 S. Taaffe St, Sunny-
vale, California 94086 (US). **UTLEY, David S.**; 3725
Jefferson Court, Redwood City, California 94062 (US).
HALL, Matthew; UCL Great Ormond Street Institute of
Child Health, 30 Guilford Street, London WC1E 6BT (GB).

(74) Agent: **HAN, Johny U.** et al.; LEVINE BAGADE HAN
LLP, 2400 Geng Rd, Suite 120, Palo Alto, California 94303
(US).

(81) Designated States (*unless otherwise indicated, for every
kind of national protection available*): AE, AG, AL, AM,
AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ,
CA, CH, CL, CN, CO, CR, CU, CZ, DE, DJ, DK, DM, DO,
DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN,
HR, HU, ID, IL, IN, IR, IS, IT, JO, JP, KE, KG, KH, KN,
KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD,
ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO,
NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW,

(54) Title: USE OF CO VALUES IN SMOKING CESSATION

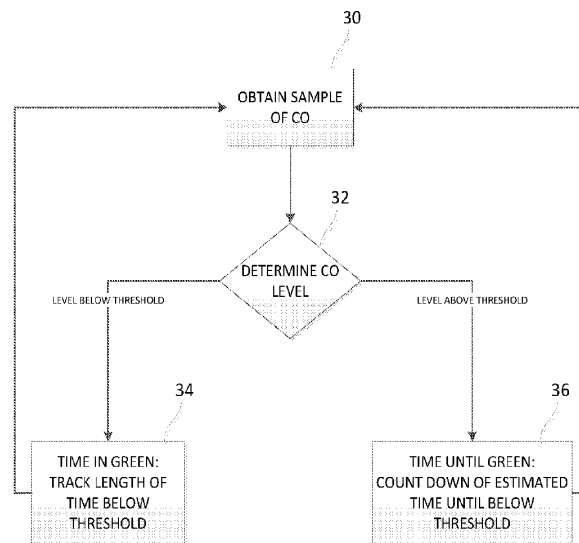


FIG. 3

(57) **Abstract:** Use of co values in smoking cessation are described where an apparatus may be configured to encourage smoking cessation in a user. The apparatus may include a sampling unit which receives a sample breath and determines a level of exhaled carbon monoxide from the sample breath. The sampling unit may be programmed to initiate a first timer for tracking a cumulative time upon a determination that the level of exhaled carbon monoxide is below a predetermined threshold. The sampling unit may also be programmed to initiate a second timer for tracking a countdown time upon a determination that the level of exhaled carbon monoxide is above the predetermined threshold, wherein the countdown time corresponds to a second length of time until the carbon monoxide level within the body of the user is expected to dissipate below the predetermined threshold.

[Continued on next page]

SA, SC, SD, SE, SG, SK, SL, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, WS, ZA, ZM, ZW.

(84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, ST, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

- *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*
- *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*

Published:

- *with international search report (Art. 21(3))*