

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
28 September 2023 (28.09.2023)



(10) International Publication Number
WO 2023/180486 A1

(51) International Patent Classification:

G06Q 10/087 (2023.01) G06Q 20/02 (2012.01)
H04L 9/00 (2022.01)

(21) International Application Number:

PCT/EP2023/057562

(22) International Filing Date:

23 March 2023 (23.03.2023)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

2204293.1 25 March 2022 (25.03.2022) GB
2206682.3 06 May 2022 (06.05.2022) GB

(71) Applicant: NCHAIN LICENSING AG [CH/CH]; Grafenauweg 6, 6300 Zug (CH).

(72) Inventors: MEE, Andrew James; C/o Murgitroyd & Company, Murgitroyd House, 165-169 Scotland Street, Glasgow G5 8PL (GB). RAND, Ricky Charles; C/o Murgitroyd & Company, Murgitroyd House, 165-169 Scotland

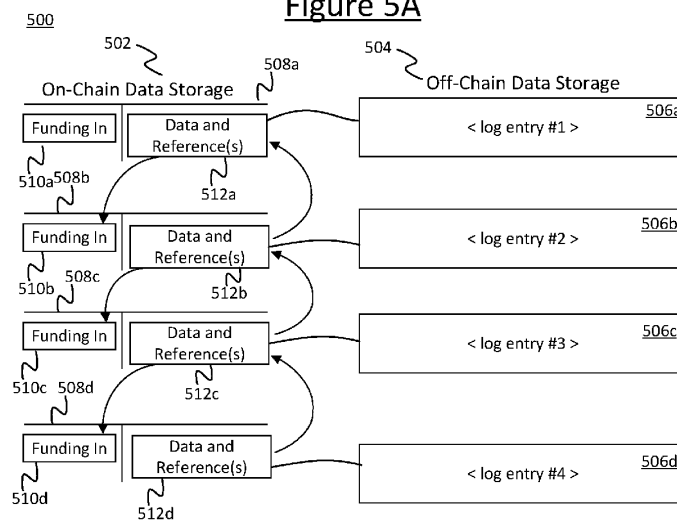
Street, Glasgow G5 8PL (GB). CLARK, Paul; C/o Murgitroyd & Company, Murgitroyd House, 165-169 Scotland Street, Glasgow G5 8PL (GB). DAVIES, Jack Owen; C/o Murgitroyd & Company, Murgitroyd House, 165-169 Scotland Street, Glasgow G5 8PL (GB). ZHANG, Wei; C/o Murgitroyd & Company, Murgitroyd House, 165-169 Scotland Street, Glasgow G5 8PL (GB). WOODS, Alex; C/o Murgitroyd & Company, Murgitroyd House, 165-169 Scotland Street, Glasgow G5 8PL (GB).

(74) Agent: MURGITROYD & COMPANY; Murgitroyd House, 165-169 Scotland Street, Glasgow G5 8PL (GB).

(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, CV, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IQ, IR, IS, IT, JM, JO, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, MG, MK, MN, MU, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, ST, SV, SY, TH,

(54) Title: ORDERED, APPEND-ONLY DATA STORAGE

Figure 5A



(57) Abstract: A computer implemented method for adding a current transaction associated with a set of transactions in a blockchain system. The method comprising the steps of generating a first state data, wherein the first state data is based on a first transaction reference to a first transaction and/or a second transaction reference to a second transaction, generating the current transaction comprising the first state data, and submitting the current transaction to the blockchain.

[Continued on next page]

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, CV, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SC, 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, ME, 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).

Published:

— with international search report (Art. 21(3))