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- (72) Inventor; and
(71) Applicant : NI, Min [US/US]; 1050 Creekdale Dr., Clarkston, Georgia 30021 (US).
- (74) Agent: VAZQUEZ, Rene; 18296 St. Georges Ct., Leesburg, Virginia 20176 (US).
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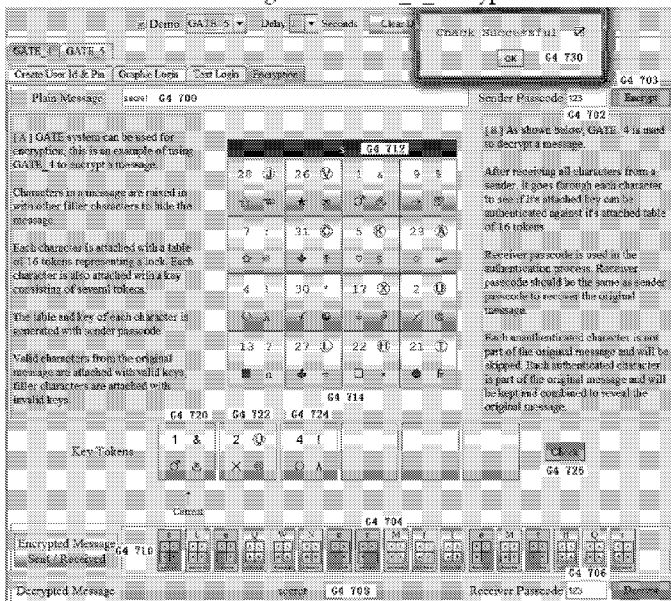
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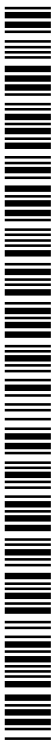
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(54) Title: INTERCEPTION-PROOF AUTHENTICATION AND ENCRYPTION SYSTEM AND METHOD

Fig. 15A GATE_4 Encryption



(57) Abstract: An interception-proof authentication and encryption system and method is provided that utilizes passcodes with individual pins that are made up of symbols from a set of symbols, and tokens that contain at least two symbols from the set of symbols used for the passcode. Multiple tokens (a token set) are presented to a user, with some or all of a users pre-selected pins (symbols) randomly inserted into some or all of the tokens. The user selects a token from the token set for each pin position in the passcode. The user is authenticated based on the selected tokens. Because each selected token may or may not contain one of the pre-selected pins in the users passcode, and also contains other randomly generated symbols that are not one of the pre-selected pins in the users passcode, someone that observes which tokens the user has chosen cannot determine what the users actual passcode is.



INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER

IPC(8) - H04L 9/30 (2017.01)

CPC - G07F 7/1008, G06Q 20/341, G06Q 20/40975, H04L 9/08, H04L 9/32, H04L 9/3223, G06F 21/64, H04L 63/123, H04L 9/32, H04L 63/0428, H04L 63/08, H04L 9/3271

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

See Search History Document

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

See Search History Document

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

See Search History Document

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X ----- Y	US 2015/0121493 A1 (CHEN et al.), 30 April 2015 (30.04.2015), entire document, especially Abstract; para [0006]-[0008], [0018]-[0019]	1-5, 11-15 ----- 6-10, 16-20, 22-26, 33-37
X ----- Y	US 2011/0167102 A1 (MATZKEL et al.), 07 July 2011 (07.07.2011), entire document, especially Abstract; para [0027]-[0028], [0067], [0069], [0089], [0094], [0122], [0134]	21, 27-32, 38-42 ----- 6-10, 16-20, 22-26, 33-37

Further documents are listed in the continuation of Box C.

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Name and mailing address of the ISA/US

Mail Stop PCT, Attn: ISA/US, Commissioner for Patents
P.O. Box 1450, Alexandria, Virginia 22313-1450
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Authorized officer:

Lee W. Young

PCT Helpdesk: 571-272-4300
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