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(54) Title: SYSTEM FOR ELECTRICALLY TESTING MOBILE DEVICES AT A CONSUMER-OPERATED KIOSK, AND ASSOCIATED DEVICES AND METHODS

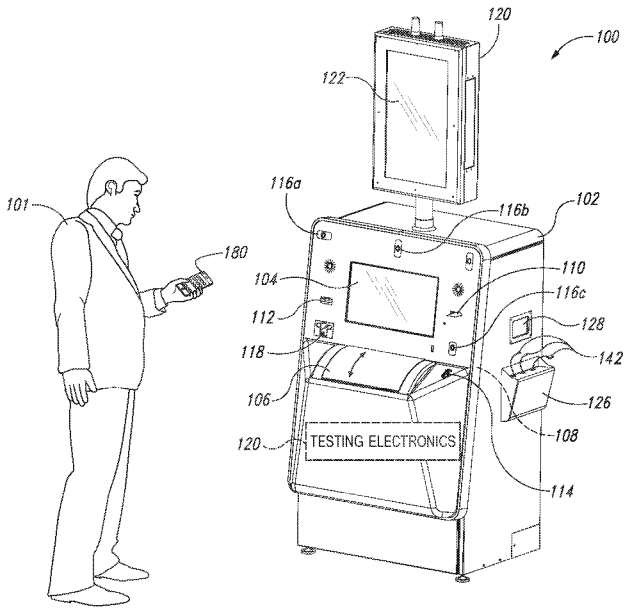


Fig. 1

(57) Abstract: A system for recycling a mobile device. A system configured in accordance with one embodiment of the present technology includes an electrical connector and testing electronics. The electrical connector is configured to be electrically connected to a mobile device, and the testing electronics are configured to produce an electrical measurement by measuring an electrical attribute associated with a hardware component of the mobile device over the electrical connector. The system is further configured to valuate, identify, and/or authenticate the mobile device based at least in part on the electrical measurement.

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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).

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— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))*

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INTERNATIONAL SEARCH REPORT

International application No
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A. CLASSIFICATION OF SUBJECT MATTER
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G06Q30/02
ADD.
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)
H04M G06Q G07F

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

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 2010/040116 A1 (BOWLES MARK [US]; VAN ROOYEN PIETER [US]; LIBRIZZI MICHAEL [US]) 8 April 2010 (2010-04-08) paragraphs [0013] - [0090]; figures 1-7 -----	1-5,9, 11,20-22

☐ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
4 February 2016	26/04/2016

Name and mailing address of the ISA/	Authorized officer
European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016	Agreda Labrador, A

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2015/053457

Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. ☐ Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.

2. ☐ As all searchable claims could be searched without effort justifying an additional fees, this Authority did not invite payment of additional fees.

3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:

4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-5, 9, 11, 20-22

Remark on Protest

☐ The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.

☐ The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.

☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-5, 9, 11, 20-22

Claims 4 and 22 solve the problem of more accurately testing the power source of the mobile device by the special technical feature of testing a charging circuit of said device.
For convenience, claims 1, 2, 3, 5, 9, 20 and 21 have been grouped together with claims 4 and 22 and claim 11, although directed to solve a different problem, could be searched together with the claims of this group.

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2. claims: 6-8, 23, 24

Claims 6 to 8 solve the problem of how to test a hardware component of the mobile device by the special technical features of a power line to provide a test voltage to the hardware component and a current measuring circuit to measure an electrical current drawn by the hardware component in response to the test voltage. For convenience, claims 23 and 24 have been grouped together with claims 6-8.

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3. claims: 10, 12

Claims 10 and 12 solve the problem of allowing the test to be applied to different types of devices , by the special technical feature of a look-up table comprising reference quantities based on a make and/or a model of the mobile device.

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4. claims: 13-19

Claims 13 to 19 solve the problem of allowing the processor or a controller to connect to the mobile device , by the special technical feature of a switch controlled by the controller for toggling between two states.

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5. claims: 25, 26

Claims 25 and 26 solve the problem of allowing to detect a dummy device, by the special technical feature of a sending test packets, in particular random test packets as the test signal.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No
PCT/US2015/053457

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 2010040116 A1	08-04-2010	CA 2739633 A1	08-04-2010
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