



- (51) International Patent Classification:
G06F 17/00 (2006.01)
- (21) International Application Number:
PCT/US2014/048209
- (22) International Filing Date:
25 July 2014 (25.07.2014)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
61/858,880 26 July 2013 (26.07.2013) US
61/910,953 2 December 2013 (02.12.2013) US
- (71) Applicant: HELMER, INC. [US/US]; 14400 Bergen Boulevard, Noblesville, Indiana 46060 (US).
- (72) Inventors: LARKNER, Thomas J.; 6198 Salisbury Lane, Noblesville, Indiana 46062 (US). FERRER, David A.; 17680 Shaelynn Court, Westfield, Indiana 46074 (US). SMITH, Jesse M.; 18775 Cromarty Circle, Noblesville, Indiana 46062 (US). SMITH, Dennis H.; 11426 Burkwood Drive, Carmel, Indiana 46033 (US). CLOUD, Adam A.; 1493 Conner Street, Noblesville, Indiana 46060 (US).

LOCKWOOD, Mark D.; 2215 Samantha Drive, Dubuque, Iowa 52002 (US). LOEFFELHOLZ, Mark G.; 260 Apple Street, Dubuque, Iowa 52003 (US). EDWARDS, James Robert; 2211 North Riverview, Bellevue, Iowa 52031-1063 (US).

(74) Agent: SIMMONDS, Scott M.; Barnes & Thornburg LLP, 11 South Meridian Street, Indianapolis, Indiana 46204 (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, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, JP, KE, KG, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, 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, SA, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH,

[Continued on next page]

(54) Title: MEDICAL PRODUCTS STORAGE DEVICE INCLUDING ACCESS CONTROL

(57) Abstract: An apparatus and method for storing medical products such as pharmaceutical and medical products in climate controlled storage devices includes climate control systems in communication with inventory access and tracking systems.

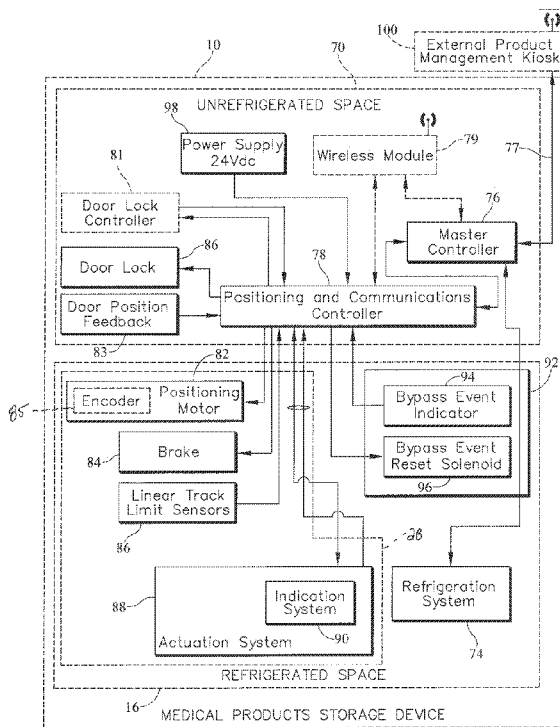


FIG. 3

WO 2015/013625 A3



GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, 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).

Published:

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

Declarations under Rule 4.17:

- *of inventorship (Rule 4.17(iv))*

(88) Date of publication of the international search report:

2 April 2015

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US2014/048209

A. CLASSIFICATION OF SUBJECT MATTER
 IPC(8) - G06F 17/00 (2015.01)
 CPC - G06F 19/3462 (2014.12)
 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)
 IPC(8) - A47B 88/00; A61J 7/00; G06F 17/00, 19/00; G07F 11/62 (2015.01)
 CPC - A47B 88/20; G06F 19/3462; G07F 11/002, 11/62 (2014.12) (keyword delimited)

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
 USPC - 70/85, 277; 221/125, 126, 127, 130, 151, 152, 208; 312/209, 270.3, 319.5, 330.1, 333; 340/568.1, 570; 700/214, 231, 241, 242

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
 PatBase, Google Patents, Google
 Search terms used: medical, pharmaceutical, drug, pill, prescription, cabinet, tray, drawer, lock, latch, catch, solenoid, electric, gantry

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 2011/0202170 A1 (DAWES et al) 18 August 2011 (18.08.2011) entire document	1-34, 36-50, 56-100, 102-116, 122-132, 198-233, 235-249, 255-260
Y	US 5,025,950 A (TROUTEAUD et al) 25 June 1991 (25.06.1991) entire document	1-34, 36-50, 56-100, 102-116, 122-132, 198-233, 235-249, 255-260
Y	US 2004/0113786 A1 (MALONEY) 17 June 2004 (17.06.2004) entire document	8-26, 29-30, 45-50; 56, 75-77, 95-96, 111-116, 122, 208-210, 228-231, 244-249, 255
Y	US 4,560,088 A (TAN) 24 December 1985 (24.12.1985) entire document	19-23, 90-92, 223-225
Y	US 2007/0244598 A1 (SHOENFELD) 18 October 2007 (18.10.2007) entire document	37-50, 56, 103-116, 122, 236-249, 255
Y	US 2,501,932 A (BUDAI et al) 28 March 1950 (28.03.1950) entire document	47-50, 56, 113-116, 122, 246-249, 255
A	US 2013/0175286 A1 (ADVANTAGE PHARMACY SERVICES LLC) 11 July 2013 (11.07.2013) entire document	1-132, 198-260
A	US 2,123,803 A (REGENHARDT) 12 July 1938 (12.07.1938) entire document	1-132, 198-260

Further documents are listed in the continuation of Box C.

* Special categories of cited documents:	"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
"A" document defining the general state of the art which is not considered to be of particular relevance	"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
"E" earlier application or patent but published on or after the international filing date	"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
"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)	"&" document member of the same patent family
"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	

Date of the actual completion of the international search 20 January 2015	Date of mailing of the international search report 04 FEB 2015
--	--

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 Facsimile No. 571-273-3201	Authorized officer: Blaine R. Copenheaver PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774
---	---

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US2014/048209

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 Continuation Sheet Attached

- 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 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.:
1-132 and 198-260

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.

Continuation of Box III

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1. In order for all inventions to be examined, the appropriate additional examination fees need to be paid.

Group I, claims 1-132 and 198-260 are drawn to a storage device for medical products.

Group II, claims 133-197 are drawn to a storage device with an oscillating platform.

Group III, claims 261-269 are drawn to a storage tray.

Group IV, claims 270-343 are drawn to a storage device with targeting, detecting and reading indicia function.

Group V, claims 344-392 are drawn to an electromagnetic storage device.

The inventions listed in Groups I - V do not relate to a single general inventive concept under PCT Rule 13.1, because under PCT Rule 13.2 they lack the same or corresponding special technical features for the following reasons:

The special technical features of Group I, an actuation assembly including an array of actuators, each of the actuators of the being associated with a respective storage container, each of the actuators being independently actuatable to secure or release the respective storage container with which the respective actuator is associated, are not present in Groups II - V; the special technical features of Group II, an oscillating platform supporting the plurality of storage spaces, the oscillating platform operable to selectively oscillate the storage spaces, and, thereby, oscillate products stored in a respective storage space, are not present in Groups I or III - V; the special technical features of Group III, a storage tray comprising a base, a front wall extending upwardly from the base, a back wall extending upwardly from the base, a first lateral side wall extending upwardly from the base and between the front wall and back wall; a receiver positioned adjacent the back wall and outboard of the storage container enclosure; a handle positioned adjacent the front wall and outboard of the storage container enclosure; a hook extending downwardly from the base; and a tab extending upwardly from each of the first and second lateral side walls, are not present in Groups I, II, IV or V; the special technical features of Group IV, an optical unit in communication with the control system and having a field of view, the optical unit supported by the cabinet and capable of targeting, detecting, reading indicia that passes through field of view, are not present in Groups I - III or V; and the special technical features of Group V, a plurality of electromagnets, each of the electromagnets being positioned in a respective storage space and independently energizable to act on the ferrous member of a respective storage container, are not present in Groups I - IV.

Groups I - V share the technical feature of a storage container. However, this shared technical feature does not represent a contribution over the prior art. Specifically, US 6,788,997 B1 to Frederick disclose a medical cabinet with adjustable drawers (Abstract) comprising a storage container (170; col. 63, lines 30-47).

Further, Groups I, II, IV and V share the technical features of a control system, and a cabinet enclosing a plurality of storage spaces. However, these shared technical features do not represent a contribution over the prior art. Specifically, US 6,788,997 B1 to Frederick disclose a medical cabinet with adjustable drawers (Abstract) comprising a control system (344; col. 50, lines 56-67), and a cabinet (550) enclosing a plurality of storage spaces (559).

And, Groups I, II, and V share the technical features of a plurality of storage containers, each storage container associated with one of the storage spaces. However, these shared technical features do not represent a contribution over the prior art. Specifically, US 6,788,997 B1 to Frederick disclose a medical cabinet with adjustable drawers (Abstract) comprising a plurality of storage containers (col. 50, lines 48-55), each storage container associated with one of the storage spaces (559; col. 32, lines 31-53; Figs. 55 and 57).

Since none of the special technical features of the Group I - V inventions are found in more than one of the inventions, unity is lacking.