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{117253}{54-110720:130300}{071211}

SUPPLEMENTAL APPENDIX

Appeal No. 2011-1195
(Serial No. 11/161,741)

UNITED STATES COURT OF APPEALS
FOR THE FEDERAL CIRCUIT

IN RE JIE XIAO

Appeal from the United States Patent and Trademark Office,
Board of Patent Appeals and Interferences.

SUPPLEMENTAL APPENDIX UNDER FED. CIR. R. 30(f) FOR APPELLEE - DIRECTOR OF THE UNITED STATES PATENT AND TRADEMARK OFFICE

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July 12, 2011

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Briefcase having Combination Lock

DESCRIPTION

Related Applications

[Para 1] [0001] This application claims the benefit of U. S. Provisional Application No. 60/700,236, filed on July 18, 2005, and titled "Briefcase having combination lock."

BACKGROUND

[Para 2] [0002] The present invention relates generally to briefcases having combination locks.

[Para 3] [0003] A briefcase generally can include one or more combination locks. While most of combination locks use number labels to indicate positions of each tumbler ring on the lock, it is recognized that combination locks using letter labels may have some advantages that are absent in combination locks using number labels. For example, a combination lock using letter labels can use a word rather than a string of numbers to represent the "password" combination for opening the lock. Ideally, if each tumbler ring on a lock has twenty-six positions and each position is labeled with one of the twenty-six alphabetical letters, then, any desired word (with number of letters not more than the number of the tumbler rings) can be used as the "password" combination for opening the

lock. In reality, however, many combination locks have tumbler rings each have fewer than twenty-six positions (e.g., only ten positions).

[Para 4] [0004] When a combination lock have tumbler rings each have fewer than twenty-six positions, a subset of twenty-six letters are used to indicated the positions of each tumbler ring on the lock. For example, if each tumbler ring has only ten positions, then, a set of ten letters can be used to indicate the positions of each tumbler ring. With only ten letters for each tumbler ring, not all desired words can be selected as the "password" combination for opening the lock.

[Para 5] [0005] In this application, applicant describes a new method for making combination locks. With a combination lock as described therein, a large number of words can be spelled on the combination lock. Such kinds of combination lock can be installed in briefcases.

SUMMARY

[Para 6] [0006] In one aspect, this application is directed to a briefcase that includes at least one combination lock. The combination lock includes a group of at least three tumbler rings. Each tumbler ring is operable to rotate and to settle at one of multiple predetermined positions. Each tumbler ring has multiple labels thereon and each of the multiple labels corresponds to one of the multiple predetermined positions. In the combination lock, each tumbler ring has thereon a wild-card position-label and multiple alphabetical-letter position-labels. Each of the multiple alphabetical-letter position-labels is a single alphabetical-letter. The wild-card position-label is configured for representing any alphabetical-letters.

[Para 7] [0007] In specific implementations, the group of at least three tumbler rings can be configured to rotate around an axis. Each tumbler ring can have thereon multiple position-labels consisting of a wild-card position-label and multiple alphabetical-letter position-labels. A wild-card position-label can include a star position-label ("*'), a dollar sign position-label ("$'), a logo position-label, or a blank position-label. The group of at least three tumbler rings can be a group of four tumbler rings. The group of at least three tumbler rings can be a group of five tumbler rings.

[Para 8] [0008] In another aspect, this application is directed to a method of configuring a briefcase that includes at least one combination lock. The at least one combination lock has a plurality of tumbler rings. Each tumbler ring has a plurality of position-labels. Each position-label on a given tumbler ring indicates one of the multiple predetermined positions that the given tumbler ring is configured to settle at. The method includes selecting one wild-card position-label and multiple alphabetical-letter position-labels for each tumbler ring of the combination lock on the briefcase. Here, each of the multiple alphabetical-letter position-labels is a single alphabetical-letter. The one wild-card position-label is selected for representing any alphabetical-letters.

[Para 9] [0009] As specific implementations, the method can include selecting any one of a star ("*"), a dollar sign ("$"), a blank, and a logo as a wild-card position-label for each tumbler ring of the at least one combination lock on the briefcase. The method can include selecting randomly a subset of alphabetical-letters from the twenty-six alphabetical-letters as the multiple alphabetical-letter position-labels for each tumbler ring of the at least one combination lock on the briefcase. The method can include selecting a subset of alphabetical-letters from the twenty-six alphabetical-letters based on a design algorithm as the multiple alphabetical-letter position-labels for each tumbler ring of the at least one combination lock on the briefcase.

[Para 10] [0010] In one implementation, the design algorithm can include finding a list of most frequently used letters regardless where a letter is used in a word based on a selection of a group of words. The design algorithm can also include selecting a subset of alphabetical-letters from the list of most frequently used letters.

[Para 11] [0011] In another aspect, this application is directed to a briefcase that includes at least one combination lock. The combination lock includes a group of at least three tumbler rings configured to rotate around an axis. Each tumbler ring has multiple position-labels thereon and is operable to be set at a settled position selected from multiple predetermined positions. Each one of the multiple position-labels corresponds to one of the multiple predetermined positions. In the combination lock, the multiple position-labels include a wild-card position-label and multiple alphabetical-letter position-labels. Each of the multiple alphabetical-letter position-labels is a single alphabetical-letter. The wild-card position-label is configured for representing any alphabetical-letters.

[Para 12] [0012] As specific implementations, the multiple position-labels can consist of a wild-card position-label and multiple alphabetical-letter position-labels each being a single alphabetical-letter. In one implementation, the briefcase includes two combination locks. Each of the two combination locks includes a group of at least three tumbler rings configured to rotate around an axis. Each tumbler ring has multiple position-labels thereon and is operable to be set at a settled position selected from multiple predetermined positions. Each one of the multiple position-labels corresponds to one of the multiple predetermined positions. In each combination lock, the multiple position-labels include a wild-card position-label and multiple alphabetical-letter position-labels. Each of the multiple alphabetical-letter position-labels is a single alphabetical-letter. The wild-card position-label is configured for representing any alphabetical-letters.

Brief Description of the Drawings

[Para 13] [0013] The present invention will be understood more fully from the detailed description and accompanying drawings of the invention set forth herein. However, the drawings are not to be construed as limiting the invention to the specific embodiments shown and described herein. Like reference numbers are designated in the various drawings to indicate like elements.

[Para 14] [0014] FIG. 1A and FIG.1B illustrate a combination lock having four tumbler rings that have wild-card position-labels.

[Para 15] [0015] FIG. 2 is an example of a table illustrating each of the four tumbler rings has ten positions in which each of nine positions is labeled with an alphabetical-letter and one position is labeled with a wild-card.

[Para 16] [0016] FIG. 3 is an example of a table illustrating each of the four tumbler rings has ten positions in which each of ten positions is labeled with an alphabetical-letter.

[Para 17] [0017] FIG. 4 is another example of a table illustrating each of the four tumbler rings has ten positions in which each of nine positions is labeled with an alphabetical-letter and one position is labeled with a wild-card.

[Para 18] [0018] FIG. 5 is an example of a briefcase that includes two combination locks.

DETAILED DESCRIPTION

[Para 19] [0019] FIG. 1A and FIG.1B illustrate a combination lock 100 having four tumbler rings (20, 40, 60, and 80) that have wild-card position-labels (e.g., 45, 65, or 85). In the figures, each tumbler ring (20, 40, 60, or 80) can rotate around an axis. Each tumbler ring (20, 40, 60, or 80) can be settled at one of multiple predetermined positions. In one implementation, each tumbler ring can be settled at one of ten possible positions. On each tumbler ring, there are multiple position-labels. Each of the multiple position-labels indicates one of the multiple positions that a tumbler ring can settle at. For example, when a tumbler ring can be settled at one of ten predetermined positions, the tumbler ring can be marked with ten position-labels and each of the ten position-labels indicates one of the one of ten predetermined positions.

[Para 20] [0020] In FIG. 1A and FIG.1B, each tumbler ring has a wild-card position-label (e.g., 45, 65, or 85) and multiple alphabetical-letter position-labels (e.g., 22, 42, 62, or 82). Each of the multiple alphabetical-letter position-labels is a single alphabetical-letter. The wild-card position-label can be a star "*", dollar sign "$", a company log, or simply a blank. Other selections of the wild-card position-label are also possible.

[Para 21] [0021] In one implementation, when each tumbler ring can be settled at one of ten possible positions, each tumbler ring can have one wild-card position-label and nine alphabetical-letter position-labels. The nine alphabetical-letter position-labels can be randomly selected from the twenty-six alphabetical-letters. The nine alphabetical-letter position-labels can be selected from the twenty-six alphabetical-letters based on certain design algorithm.

[Para 22] [0022] As one particular example, FIG. 2 is an example of a table illustrating each of the four tumbler rings has ten positions in which each of nine positions is labeled with an alphabetical-letter and one position is labeled with a wild-card. In FIG.2, tumbler 1 has one wild-card position-label 25 in the form of a star "*" and nine alphabetical-letters 22

consisting of W, S, F, C, B, L, D, H, and P; the wild-card card "*" can represent any of the twenty-six alphabetical-letters that are not listed on Tumbler 1. Tumbler 2 has one wild-card position-label 45 in the form of a star "*" and nine alphabetical-letters 42 consisting of O, A, I, E, U, T, L, R, and H; the wild-card card "*" can represent any of the twenty-six alphabetical-letters that are not listed on Tumbler 2. Tumbler 3 has one wild-card position-label 65 in the form of a star "*" and nine alphabetical-letters 62 consisting of R, M, L, N, A, E, S, O, and I; the wild-card card "*" can represent any of the twenty-six alphabetical-letters that are not listed on Tumbler 3. Tumbler 4 has one wild-card position-label 85 in the form of a star "*" and nine alphabetical-letters 82 consisting of D, E, M, T, P, N, K, L, and H; the wild-card card "*" can represent any of the twenty-six alphabetical-letters that are not listed on Tumbler 4.

[Para 23] [0023] The result of selecting alphabetical-letter position-labels as show in a table 200 in FIG. 2 is obtained by modifying a result of selecting alphabetical-letter position-labels as shown in FIG. 3. The table 300 in FIG. 3 is related to a method as described in U.S. patent No. 6,621,405 (see, for example, Fig. 2 of U.S. patent No. 6,621,405). After replacing the tenth favorable alphabetical-letter for each tumbler ring with a wild-card position-label in the form of a star "*", one can convert table 300 in FIG. 3 into table 200 in FIG.2. More specifically, the tenth favorable alphabetical-letter for Tumbler 1, G, is replaces with a star "*"; the tenth favorable alphabetical-letter for Tumbler 2, N, is replaces with a star "*"; the tenth favorable alphabetical-letter for Tumbler 3, C, is replaces with a star "*"; and the tenth favorable alphabetical-letter for Tumbler 4, G, is replaces with a star "*".

[Para 24] [0024] The result as show in FIG. 2 has several advantages over the result as show in FIG. 3. First, some words that cannot be spelled with the result in FIG. 3 can now be spelled with the result in FIG. 2. As specific examples, using the result of FIG. 2, one can spell "BLUE" as "BL*E", spell "DOOR" as "DOO*", and "HERO" as "HER*"; in contrast, none of

these words (BLUE, DOOR, or HERO) can be spelled using the result in FIG. 3. Therefore, such feasibility of using a wild-card to represent letters that are not expressly listed on tumbler rings can be quite useful. Second, words with number of letters less than the number of tumbler rings can now be spelled. More specifically, three-letters words can be spelled even a lock has four tumbler rings. As an example, using the result of FIG. 2, one can spell "CAR" as ""CAR*", "SUN" as "SUN*", "TOP" as "*TOP"; such feasibility is particular useful when large number of tumbler rings (e.g., six tumbler rings) are used in a combination lock. In addition, the result of FIG. 2 can be used to spell large number of foreign words, and the result of FIG. 2 can also be used to spell some special words that are not listed in dictionaries but that have particular meanings to a user.

[Para 25] [0025] In one implementation, when each of the four tumbler rings has a wild-card position-label, any four-letter words can be theoretically spelled, because the wild-card can theoretically represent any of the twenty-six letters. In a trivial example, "B***" can represent any four-letter words starting with a first letter "B"; in practice, however, a user may want to use "BL*E" to represent "BLUE" rather than using "B***" to represent "BLUE."

[Para 26] [0026] In an implementation of combination lock as shown in FIG. 1A and FIG.1B, four tumbler rings are used. In other implementations, three or five tumbler rings can be used. Still in other implementations, more than five tumbler rings can be used.

[Para 27] [0027] In some implementations, the multiple alphabetical-letter position-labels can be selected from the twenty-six alphabetical-letters based on a design algorithm that is somewhat related to the method as described in U.S. patent No. 6,621,405. In some other implementations, multiple alphabetical-letter position-labels can also be selected based on a design algorithm that is not so much related to the method as described in U.S. patent No. 6,621,405. Still in other implementations, the multiple alphabetical-letter position-labels can be randomly selected from the twenty-six alphabetical-letters.

[Para 28] [0028] In one implementation, when each of the four tumbler rings has ten possible positions, an example design algorithm can include two steps. In the first step, ten most favorable letters for each of the four tumbler rings can be selected using a method related the method as described in U.S. patent No. 6,621,405. In the second step, only the top nine most favorable letters are retained; the tenth most favorable letter is discarded and is replaced with a wild card, such as a star ("*"), a dollar sign ("$"), a logo, or simply a blank.

[Para 29] [0029] In another implementation, when each of the four tumbler rings has ten possible positions, an example design algorithm can include two steps. In the first step, nine most favorable letters for each of the four tumbler rings can be selected using a method related the method as described in U.S. patent No. 6,621,405. In the second step, a wild card is used as the tenth most favorable letter to form a total of ten position-labels along with the other nine most favorable letters.

[Para 30] [0030] In another implementation, when each of the four tumbler rings has ten possible positions, an example design algorithm can include four independent steps. In the first independent step, the most frequently used letters that can be used as the first letter of a word are selected; these top nine most-frequently-used letters and a wild card are used for the ten position-labels for the first tumbler rings. In the second independent step, the most frequently used letters that can be used as the second letter of a word are selected; these top nine most-frequently-used letters and a wild card are used for the ten position-labels for the second tumbler rings. In the third independent step, the most frequently used letters that can be used as the third letter of a word are selected; these top nine most-frequently-used letters and a wild card are used for the ten position-labels for the third tumbler rings. In the fourth independent step, the most frequently used letters that can be used as the fourth letter of a word are selected; these top nine most-frequently-

used letters and a wild card are used for the ten position-labels for the fourth tumbler rings.

[Para 31] [0031] In still another implementation, when each of the four tumbler rings has ten possible positions, an example design algorithm can include two independent steps. Both of the two independent steps depend on a study on what is the most frequently used letters in a group of words. Different studies based on different selections of the group of words (e.g., in Webster dictionary, in press, or in literature) may yield different lists of most frequently used letters. In one specific example, a study found that most frequently used letters follows the following list: "etaoinsrhldcumfpgwybvkxjqz." Based on this list of most frequently used letters, in the first independent step, the top fourteen most-frequently-used letters are selected and the five vowels are discarded; the resulted nine letters, "tnsrhldcm," are selected as the alphabetical-letter position-labels for the first tumbler ring. In the second independent step, the top nine most-frequently-used letters, "etaoinsrh," are selected as the alphabetical-letter position-labels for each of the second, third, and fourth tumbler rings. FIG. 4 shows a table 400 that lists the position-labels for each of the four tumbler rings based on the design algorithm as described above. In table 400 as shown in FIG.4, each of the four tumbler rings has ten positions in which each of nine positions is labeled with an alphabetical-letter and one position is labeled with a wild-card.

[Para 32] [0032] Based on above teachings, people skilled in the art can use other design algorithms to select multiple alphabetical-letters, and subsequently, use a wild-card along with the selected multiple alphabetical-letters as the position-labels for each of the tumbler rings.

[Para 33] [0033] FIG. 5 shows an example of a briefcase 500 that includes two combination locks 100A and 100B. Each of the two combination locks (100A, or 100B) includes four tumbler rings, 20, 40, 60, and 80. Each tumbler ring (20, 40, 60, or 80) can be settled at

one of multiple predetermined positions. On each tumbler ring, there are multiple position-labels. Each of the multiple position-labels indicates one of the multiple positions that a tumbler ring can settle at. Each tumbler ring has a wild-card position-label (e.g., 45) and multiple alphabetical-letter position-labels. Each of the multiple alphabetical-letter position-labels is a single alphabetical-letter. The wild-card position-label can be a star "*", dollar sign "$", a company log, or simply a blank. Other selections of the wild-card position-label are also possible.

[Para 34] [0034] In FIG. 5, when each of the two combination locks (100A, or 100B) includes four tumbler rings, large number of eight-letters words can be spelled. For example, assume that the position-labels for the four tumbler rings on each combination lock (100A, or 100B) are selected based on table 400 on FIG. 4, then, "SUITCASE" can be spelled as "S*ITCASE"; where the wild-card "*" is used to represent letter "U" that can not be found on tumbler ring 40 in combination lock 100A.

[Para 35] [0035] In the implementation as shown in FIG.5, briefcase 500 includes two combination locks. In other implementations, briefcase 500 can include one combination lock. Still in other implementations, 500 can include more than two combination locks.

[Para 36] [0036] The present invention has been described in terms of a number of implementations. The invention, however, is not limited to the implementations depicted and described. Rather, the scope of the invention is defined by the appended claims.

What is claimed is:

[Claim 1] 1. A briefcase comprising a combination lock, wherein a combination lock comprises:

a group of at least three tumbler rings, each tumbler ring operable to rotate and to settle at one of multiple predetermined positions and having multiple position-labels thereon each corresponding to one of the multiple predetermined positions, and wherein each tumbler ring has thereon a wild-card position-label and multiple alphabetical-letter position-labels each being a single alphabetical-letter; the wild-card position-label is configured for representing any alphabetical-letters.

[Claim 2] 2. The briefcase of claim 1, wherein the group of at least three tumbler rings is configured to rotate around an axis.

[Claim 3] 3. The briefcase of claim 1, wherein each tumbler ring having thereon multiple position-labels consisting of a wild-card position-label and multiple alphabetical-letter position-labels.

[Claim 4] 4. The briefcase of claim 1, wherein a wild-card position-label includes a star position-label ("*").

[Claim 5] 5. The briefcase of claim 1, wherein a wild-card position-label includes a dollar sign position-label ("$").

[Claim 6] 6. The briefcase of claim 1 , wherein a wild-card position-label includes a blank position-label.

[Claim 7] 7. The briefcase of claim 1 , wherein a wild-card position-label includes a logo position-label.

[Claim 8] 8. The briefcase of claim 1 , wherein a group of at least three tumbler rings comprises:

a group of four tumbler rings.

[Claim 9] 9. The briefcase of claim 1 , wherein a group of at least three tumbler rings comprises:

a group of five tumbler rings.

[Claim 10] 10. A method of configuring a briefcase, the briefcase comprising at least one combination lock that includes a plurality of tumbler rings each having a plurality of position-labels, each position-label on a given tumbler ring on the at least one combination lock indicating one of the multiple predetermined positions that the given tumbler ring is configured to settle at, the method comprises:

selecting one wild-card position-label and multiple alphabetical-letter position-labels for each tumbler ring of the combination lock on the briefcase, each of the multiple alphabetical-letter position-labels being a single alphabetical-letter, the one wild-card position-label being selected for representing any alphabetical-letters.

[Claim 11] 11. The method of claim 10, comprises:

selecting any one of a star ("*") , a dollar sign ("$") , a blank, and a logo as a wild-card position-label for each tumbler ring of the at least one combination lock on the briefcase.

[Claim 12] 12. The method of claim 10, comprises:

selecting randomly a subset of alphabetical-letters from the twenty-six alphabetical-letters as the multiple alphabetical-letter position-labels for each tumbler ring of the at least one combination lock on the briefcase.

[Claim 13] 13. The method of claim 10, comprises:

selecting a subset of alphabetical-letters from the twenty-six alphabetical-letters based on a design algorithm as the multiple alphabetical-letter position-labels for each tumbler ring of the at least one combination lock on the briefcase.

[Claim 14] 14. The method of claim 13, wherein the design algorithm comprises:

finding a list of most frequently used letters regardless where a letter is used in a word based on a selection of a group of words; and

selecting a subset of alphabetical-letters from the list of most frequently used letters.

[Claim 15] 15. A briefcase comprising a combination lock, wherein a combination lock comprises:

a group of at least three tumbler rings configured to rotate around an axis, each tumbler ring having multiple position-labels thereon and operable to be set at a settled position

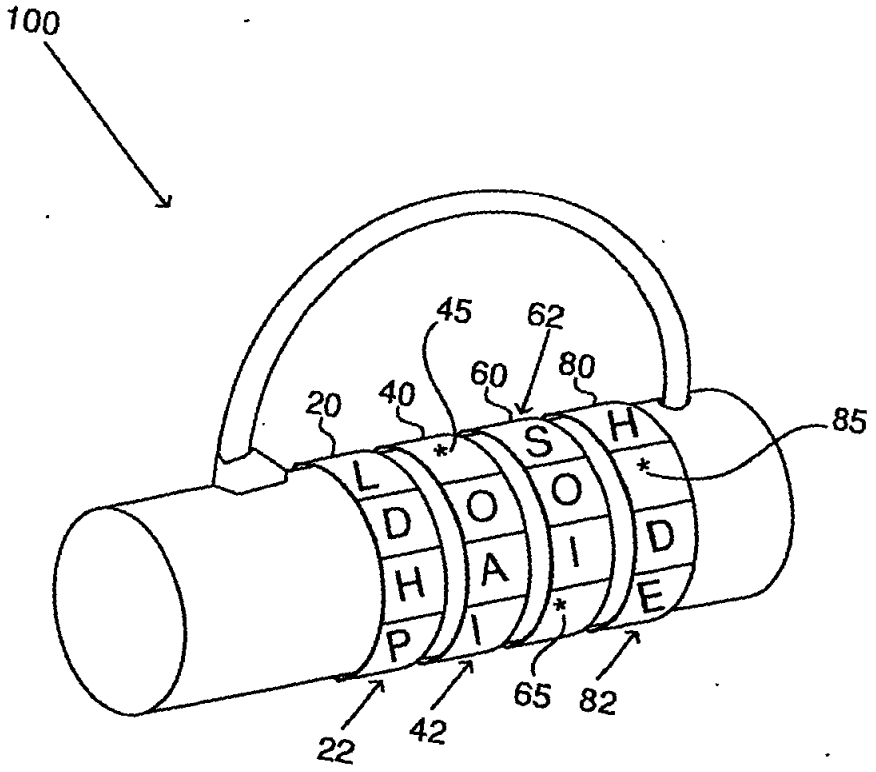
selected from multiple predetermined positions, each one of the multiple position-labels corresponding to one of the multiple predetermined positions, and wherein the multiple position-labels comprises a wild-card position-label and multiple alphabetical-letter position-labels each being a single alphabetical-letter, and the wild-card position-label is configured for representing any alphabetical-letters.

[Claim 16] 16. The briefcase of claim 15, wherein the multiple position-labels consists of a wild-card position-label and multiple alphabetical-letter position-labels each being a single alphabetical-letter.

[Claim 17] 17. The briefcase of claim 15, comprising two combination locks wherein each of the two combination locks comprises:
a group of at least three tumbler rings configured to rotate around an axis, each tumbler ring having multiple position-labels thereon and operable to be set at a settled position selected from multiple predetermined positions, each one of the multiple position-labels corresponding to one of the multiple predetermined positions, and wherein the multiple position-labels comprises a wild-card position-label and multiple alphabetical-letter position-labels each being a single alphabetical-letter, and the wild-card position-label is configured for representing any alphabetical-letters.

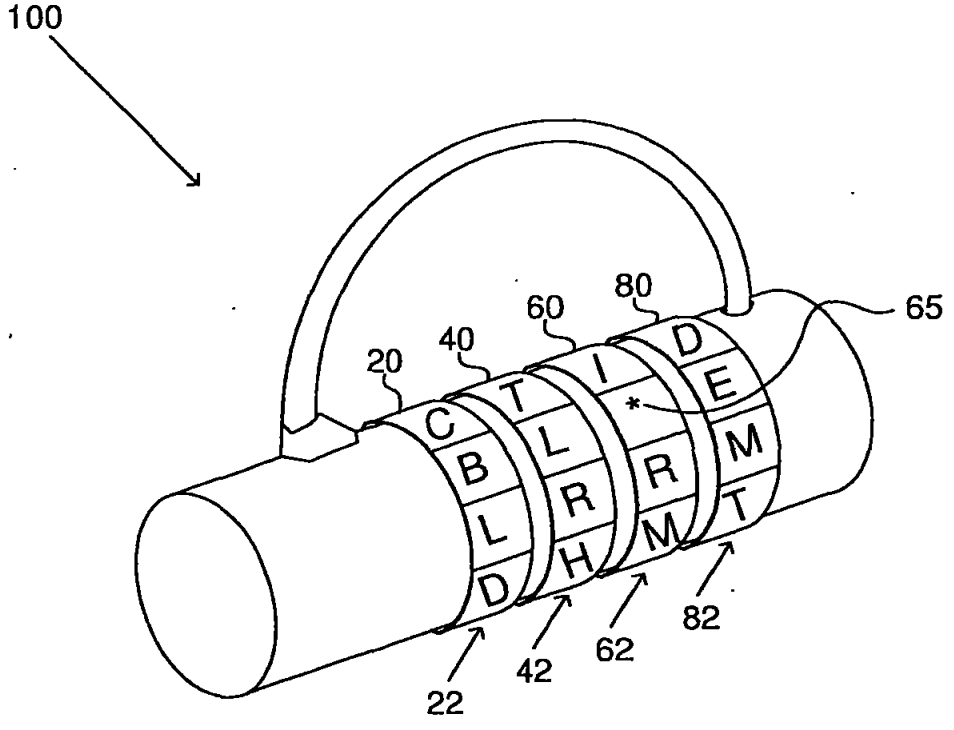
ABSTRACT

A briefcase includes at least one combination lock. The combination lock includes a group of at least three tumbler rings. Each tumbler ring is operable to rotate and to settle at one of multiple predetermined positions. Each tumbler ring has multiple labels thereon and each of the multiple labels corresponds to one of the multiple predetermined positions. In the combination lock, each tumbler ring has thereon a wild-card position-label and multiple alphabetical-letter position-labels. Each of the multiple alphabetical-letter position-labels is a single alphabetical-letter. The wild-card position-label is configured for representing any alphabetical-letters.



DOOR

FIG._1A



BLUE

FIG._1B

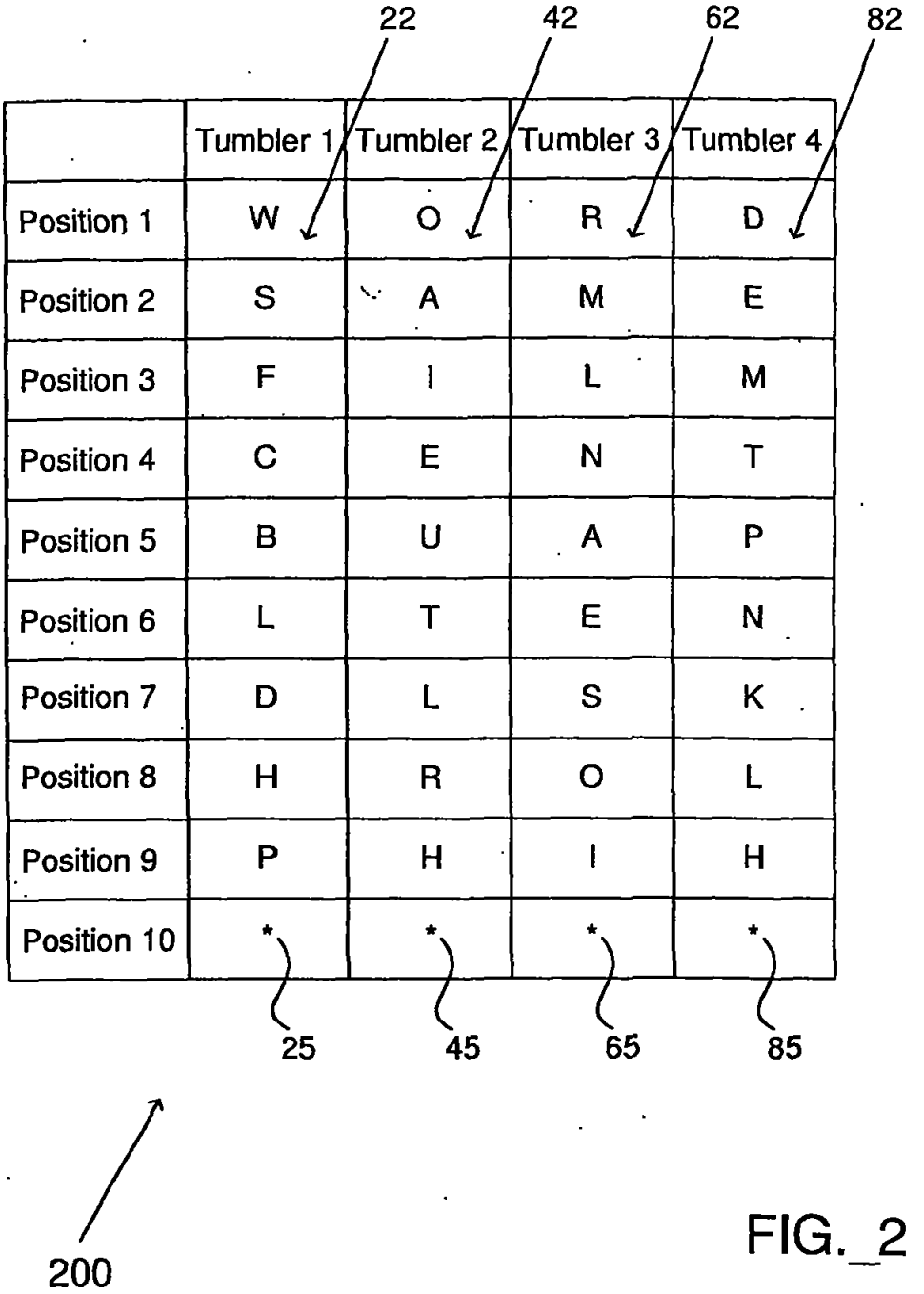
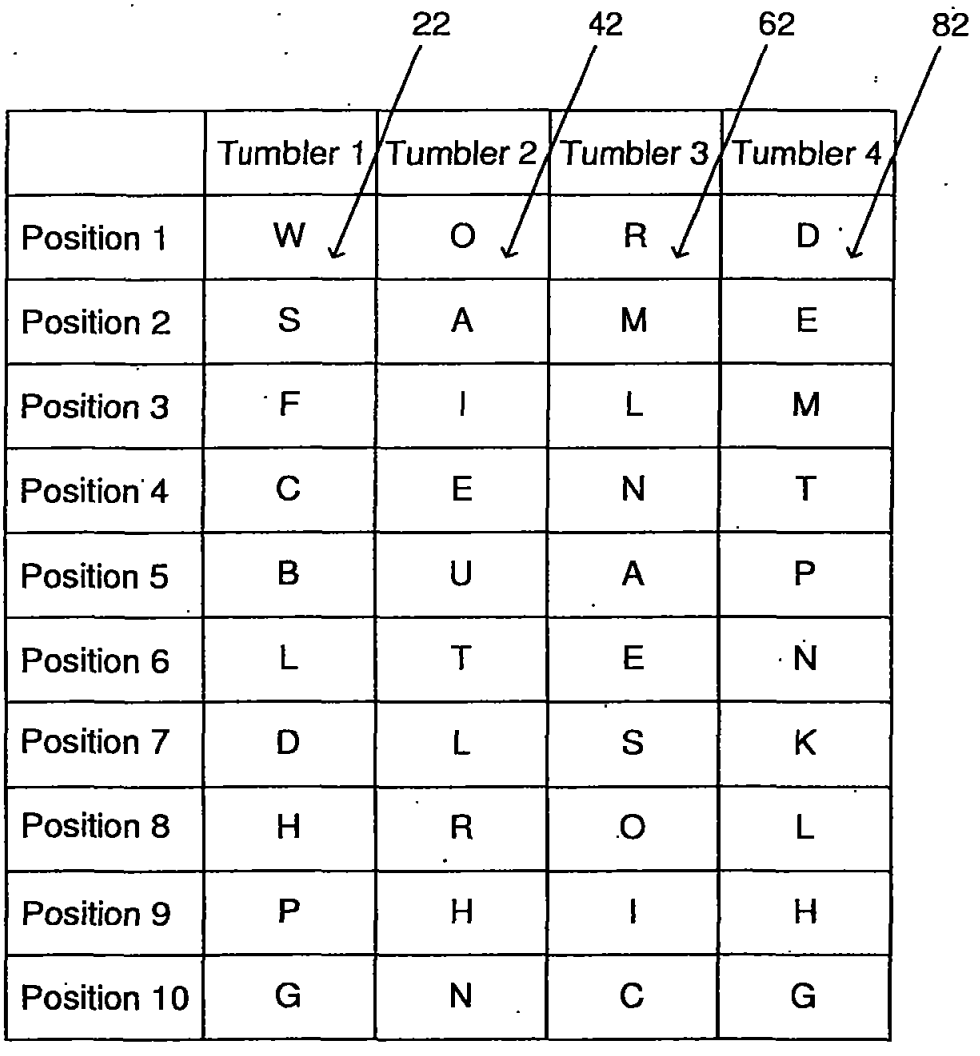

22
42
62
82
Tumbler 1
Tumbler 2
Tumbler 3
Tumbler 4
Position 1
W
O
R
D
Position 2
S
A
M
E
Position 3
F
I
L
M
Position 4
C
E
N
T
Position 5
B
U
A
P
Position 6
L
T
E
N
Position 7
D
L
S
K
Position 8
H
R
O
L
Position 9
P
H
I
H
Position 10
*
*
*
*
25
45
65
85
200

FIG._2



	Tumbler 1	Tumbler 2	Tumbler 3	Tumbler 4
Position 1	W	O	R	D
Position 2	S	A	M	E
Position 3	F	I	L	M
Position 4	C	E	N	T
Position 5	B	U	A	P
Position 6	L	T	E	N
Position 7	D	L	S	K
Position 8	H	R	O	L
Position 9	P	H	I	H
Position 10	G	N	C	G

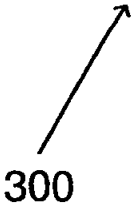


FIG._3

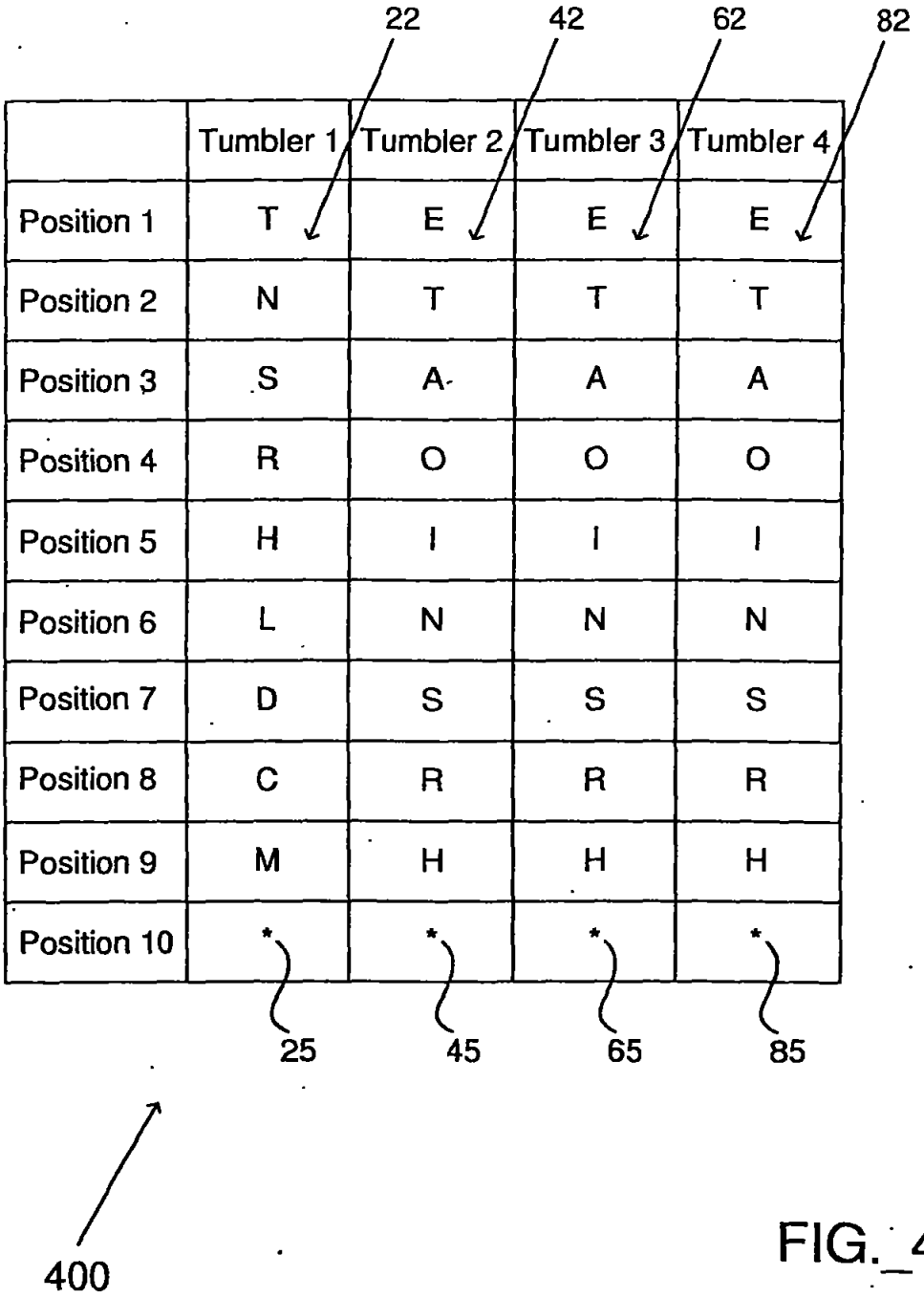

22
42
62
82
Tumbler 1
Tumbler 2
Tumbler 3
Tumbler 4
Position 1
T
E
E
E
Position 2
N
T
T
T
Position 3
S
A
A
A
Position 4
R
O
O
O
Position 5
H
I
I
I
Position 6
L
N
N
N
Position 7
D
S
S
S
Position 8
C
R
R
R
Position 9
M
H
H
H
Position 10
*
*
*
*
25
45
65
85
400

FIG. 4

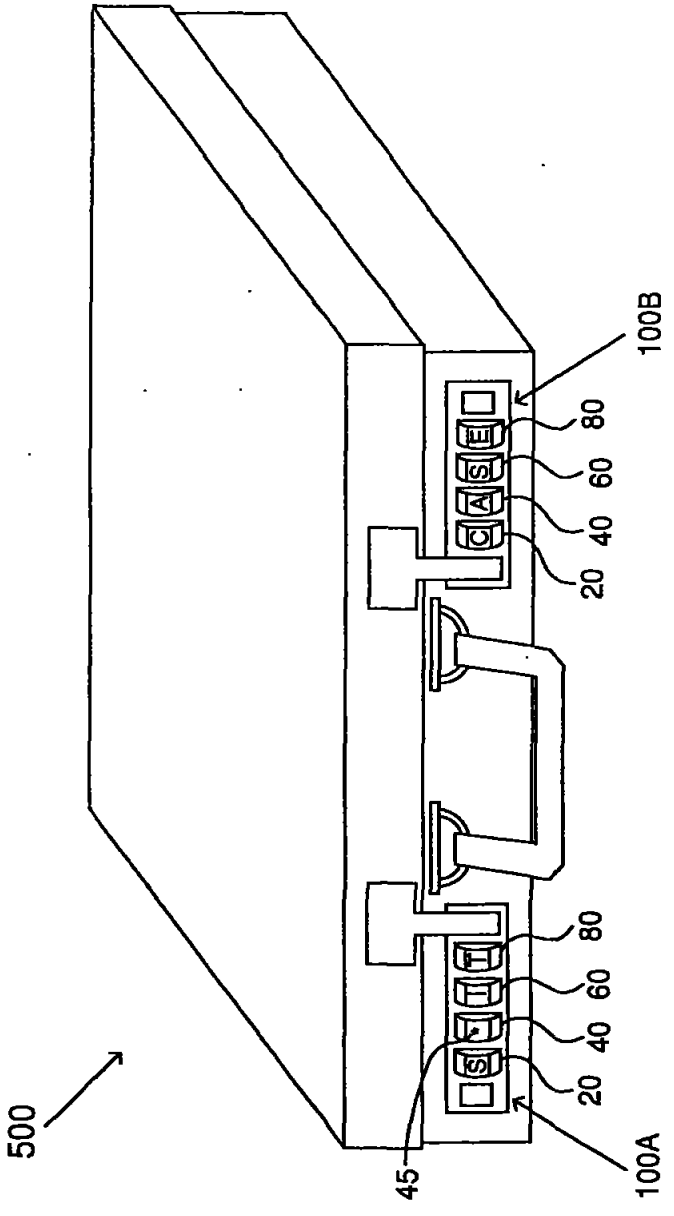


FIG._5

Office Action Summary	Application No.	Applicant(s)	
	11/161,741	XIAO, JIE	
	Examiner	Art Unit	
	Kristina R. Gluchowski	3676	

– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 July 2007*.

2a)☐ This action is FINAL. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2 and 4-18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-2, 4-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

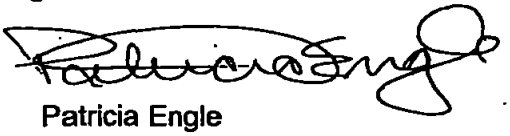
1. In view of the appeal brief filed on 7/8/07, PROSECUTION IS HEREBY REOPENED. New grounds of rejection are set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:



Patricia Engle

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> **(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.**

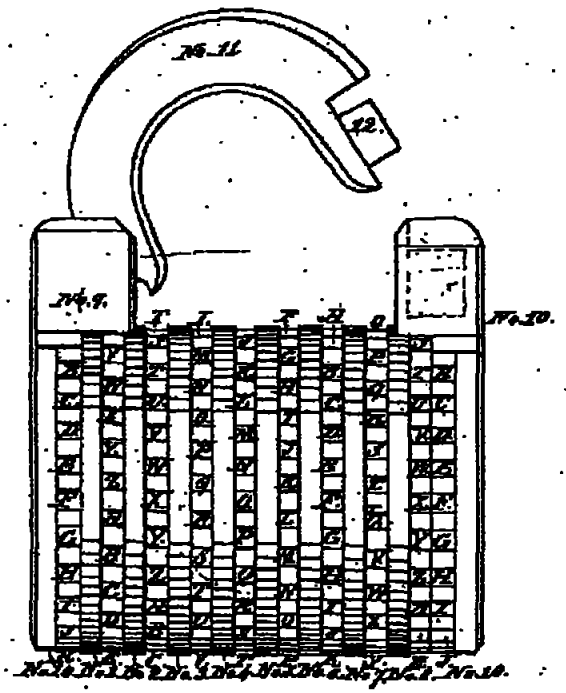
2. The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. **Claims 1-2, 4-9 and 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gray (US 2,261) in view of Remington (US 4,395,892) and further in view of Fiegener (US 2006/0169007).**

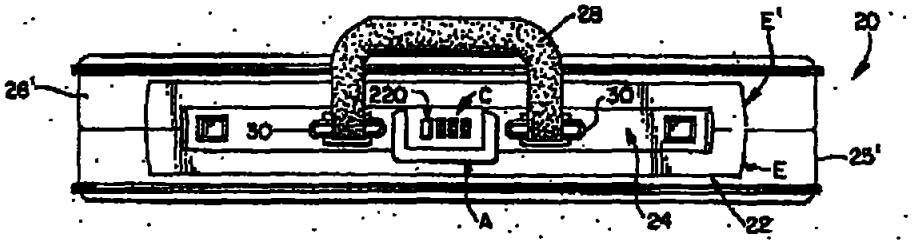
4. Regarding claims 1 and 15-16, Gray shows a combination lock comprising a group of a group of at least three tumbler rings (1-8), each tumbler ring operable to rotate and to settle at one of multiple predetermined positions and having multiple position-labels thereon each corresponding to one of the multiple predetermined positions (lines 50-51), and wherein each tumbler ring has thereon only one wild-card position-label and multiple alphabetical-letter position-labels each being a single English alphabetical-letter. The Examiner would like to note that any of the twenty-six letters on each of the Gray tumblers could represent the "wild card position label". The wild card position label is considered printed matter (see response to arguments below concerning printed matter). Gray fails to show the device being used in combination with a briefcase. Remington shows that a combination lock in combination with a briefcase is old in the combination lock art. It would have been obvious to one of ordinary skill in the art to combine the Gray combination lock, with a briefcase as shown by Remington in

order to increase security against unwanted access to the inside of the case. Gray fails to show a wild-card position label different from any one for the twenty-six English alphabetical letters. Fiegener shows that it is well known in the art that a "label" can be any symbol, letter, number or color that is distinguishable from another (see paragraph [0041]) and considered a mere design choice. See the Gray and Remington devices below.



Gray device

FIG. 1



Remington device

5. Regarding claim 2, Gray shows the group of at least three tumbler rings is configured to rotate around an axis.

6. Regarding claims 4-7, Fiegener shows that it is well known in the art that a "label" can be any symbol, letter, number or color that is distinguishable from another (see paragraph [0041]) as applied to claim 1 above.

7. Regarding claim 8, Gray shows a group of four tumbler rings.

8. Regarding claim 9, Gray shows a group of five tumbler rings.

9. Regarding claim 17, adding two of Grays combination locks to a briefcase as opposed to one would have been obvious to one of ordinary skill in the art since it has been held that mere duplication of essential working parts of a device involves only routine skill in the art. It is well known and common place in the lock art that increasing the number of locking mechanisms on a device increases the security of the device.

10. **Claims 10-12 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gray in view of Fiegener.**

11. Regarding claims 10-12, the method as claimed is rejected by Gray in view of Fiegener as applied claims 1-2 and 4-7 above. Gray in view of Feigener disclose applicant's claimed device and therefor disclose the method claimed in claims 10-12.

12. Regarding claim 18, gray in view of Feigener teaches the combination lock as applied to claim 1 above.

13. **Claims 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gray and Fiegener and further in view of Basche (US 6621405).** Gray and Fiegener teach applicant's inventive concept and therefore the claimed method of claim 10 but fail to teach selecting letters based on a design algorithm and list. Basche teaches that it is well known in the combination lock art to use a design algorithm and generated lists to create passwords for combination locks (see columns 3-4; lines 60-66, 1-10 and steps following line 10). It would have been obvious to one of ordinary skill in the art to computer generate the selection of password using design algorithms in order to provide a lock with numerous password options (see column 3, lines 20-22).

Response to Arguments

14. Applicant's arguments regarding the U.S.C. rejection with Basche are moot in view of the new rejection above.

15. Regarding the argument that the examiner failed to establish a prima facia case of obviousness, the examiner respectfully disagrees and brings attention to the rejection above where the examiner shows that one would change the letter of Gray as a matter of design choice and that one would add a lock to a briefcase to deter unwanted access to the device.

16. Regarding the argument that the examiner fails to appreciate applicant's invention, the examiner disagrees and reminds applicant that although the examiner may appreciate and understand applicants claimed invention, only claimed subject matter is examined. The examiner would like to note that the Gray device is fully capable of performing any function of applicant's **claimed** device and draws attention to the last sentence of page 7 in applicant's arguments where applicant admits "Gray is capable of making any password applicant's device is capable of".

2. Regarding the argument that the examiner failed to evaluate the advantages of applicant's invention, the examiner respectfully disagrees and reminds applicant that although the claims are interpreted in light of the specification, limitations, and advantages, from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

3. The arguments regarding *In re Dailey* are moot.

4. Regarding the arguments that the wild-card position label plays a critical role, the examiner respectfully disagrees. The wild-card position **label** is printed matter. Printed matter does not distinguish the invention from the prior art in terms of patentability. Printed matter is only given patentable weight when a functional relationship exists between the printed matter and the substrate to which it is attached. In this case, as the examiner understands it, the **label** is not the patentably distinct matter, the function and alignment of the tumbler wheels appears to be what applicant believes patentably distinct. The examiner suggests adding limitations directed at the substrate, the tumbler wheels, and their alignment in the various positions of the combination lock.

5. Regarding the argument that the examiner did not evaluate applicant's objective evidence, the examiner would like to note that there is no "evidence" on the record. The "subjective evidence" that applicant relies upon is considered a mere opinion statement. There is no affidavit on the record showing or supporting evidence and therefor the "evidence" referred to the in the arguments is considered an opinion statement.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. WO 91/11580, Website selling master lock #1524D.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kristina R. Gluchowski whose telephone number is 571-272-7376. The examiner can normally be reached on Monday-Friday, 7am-4:30pm, alternating Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patricia Engle can be reached on (571) 272-6660. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

KRG
October 4, 2007

PATRICIA ENGLE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600

CERTIFICATE OF SERVICE

I certify that on July 12, 2011, I caused two copies of the foregoing SUPPLEMENTAL APPENDIX UNDER FED. CIR. R. 30(f) FOR APPELLEE - DIRECTOR OF THE UNITED STATES PATENT AND TRADEMARK OFFICE to be sent by first-class mail to:

Jie Xiao
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Holbrook, NY 11741
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Lynne E. Pettigrew
Associate Solicitor