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APPELLANT'S BRIEF

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

BRIEF OF APPELLANT

FILED
U.S. COURT OF APPEALS FOR
THE FEDERAL CIRCUIT

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JAN HORBALY
CLERK

JIE XIAO

CORRECTED

Jie Xiao
P.O.Box 946
Holbrook, NY 11741
631.730.7405

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TABLE OF CONTENTS

TABLE OF CONTENTS	i
TABLE OF AUTHORITIES	iii
STATEMENT OF RELATED CASES	1
STATEMENT OF JURISDICTION	1
ABBREVIATIONS	2
STATEMENT OF THE ISSUE	3
STATEMENT OF THE CASE	4
STATEMENT OF FACTS	6
I. The Invention	6
II. The Cited References	6
1. Gray	6
2. Fiegenger	6
3. Remington	6
4. Basche	7
SUMMARY OF ARGUMENT	8
ARGUMENT	10
1. Absence of hindsight reasoning, the Board has not provided any apparent reason for the alleged substitution of known elements	10

2. Appellant's improvement creates new and unexpected results	14
3. Not only the Board has made impermissible hindsight reasoning, the Board also has erroneously relied upon a "per se" rule	17
4. The Board fails to distinguish Appellant's lock from the measuring receptacle in <i>Miller</i> for the purpose of determining unobviousness; the Board's newly created "mental distinction" doctrine is not in consonance with the principles of <i>KSR</i>	21
5. The PTO's repetitive failure of establishing a prima facie case of obviousness further tends to prove Appellant's invention is not obvious	26
CONCLUSION	28

TABLE OF AUTHORITIES

Cases:

<i>In re Miller</i> , 418 F.2d 1392 (C.C.P.A. 1969)	5,9,18,19, 20,21,22,26,28
<i>KSR Int'l Co. v. Teleflex Inc.</i> , 550 U.S. 398 (U.S. 2007)	8,13,21,23,24,26,27,28
<i>Ruiz v. A.B. Chance Co.</i> , 357 F.3d 1270 (Fed. Cir. 2004)	12
<i>Examination Guidelines Update: Developments in the Obviousness Inquiry After KSR v. Teleflex</i> , 75 FR 53643 (Sep. 1, 2010)	18

Statutes & Other Authorities:

35 U.S.C. §134	1
35 U.S.C. §142	1
28 U.S.C. §1295 (a)(4)(A)	1
35 U.S.C. §141	1
35 U.S.C. §103(a)	3,8,17,23,26,28

STATEMENT OF RELATED CASES

No other appeal in or from the same proceeding was previously before this or any other appellate court. No case is known to Appellant to be pending in this or any other court that will directly affect or be directly affected by this Court's decision in the pending appeal.

STATEMENT OF JURISDICTION

1. The statutory basis for jurisdiction of the Board of Patent Appeals and Interferences ("Board") for hearing the appeal of the examiner's rejection is 35 U.S.C. §134.

2. The board issued a Decision on Appeal on Oct. 26, 2010.

3. The appeal is timely, as the Notice of Appeal was filed by Express Mail on Dec 18, 2010 to the Director of the U.S. Patent and Trademark Office, and this case docketed at this Court on Feb.1, 2011. See, 35 U.S.C. §142.

4. This Court has jurisdiction pursuant to 28 U.S.C. §1295 (a)(4)(A) and 35 U.S.C. §141.

ABBREVIATIONS

The following are abbreviations used herein:

Board	Board of Patent Appeals and Interferences
PTO	United States Patent and Trademark Office
Gray	US 2,261 Sep. 18, 1841
Remington	US 4,395,892 Aug. 2, 1983
Basche	US 6,621,405 B1 Sep. 16, 2003
Fiegenger	US 2006/0169007 A1 Aug. 3, 2006
POSITA	people having ordinary skill in the art
Board's decision	the decision rendered by Board of Patent Appeals and Interferences on Oct. 26, 2010
Reply Brief	Reply Brief of July 10, 2008
Examiner's Answer	Examiner's Answer of May 29, 2008
Second Appeal Brief	Appeal Brief of January 18, 2008
Non-Final Rejection	Non Final Rejection of Oct, 10, 2007
First appeal Brief	Appeal brief of July 8, 2007
Final Rejection	Final Rejection of Dec. 6, 2006

STATEMENT OF THE ISSUE

Whether a patent claim is unobvious under 35 U.S.C. §103(a) when (1) the patent claim involves an improvement that is more than the predictable use of prior art elements according to their established function and (2) the Patent and Trademark Office has not been able to establish a prima facie case of obviousness?

STATEMENT OF THE CASE

This is an appeal from the Board's decision of claims 1, 2 and 4-18 (A124-A128).

The claimed subject matter is related to a combination lock. Claim 1, reproduced below, is illustrative of the claimed subject matter (A124):

1. A briefcase comprising a combination lock, wherein the 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 only one wild-card position-label and multiple alphabetical-letter position-labels each being a single English alphabetical-letter, and the wildcard position-label is different from any one of the twenty-six English alphabetical-letters and is configured for representing any one of the twenty-six English alphabetical-letters.

During Appellant's appeal to the Board, Appellant argued that the Examiner did not establish a prima facie case of obvious regarding Appellant's claims, for the following reasons: (1) the Examiner erred in arguing that Appellant's "wild card position-label" is "a matter of design choice" (A147-A150, A137; A120-A121, A72); (2) the Examiner erred in arguing that the wild-card position label is printed matter and does not have "patentable weight" (A190-A191, A184-A185); (3) the Examiner erred in arguing that "the prior art

teaches Appellant's claimed limitations" (A185) and in arguing Gray has taught the "wild card position label"(A180-A181, A192-A193); and (4) Appellant's lock is indistinguishable from the measuring receptacle in *In re Miller*, 418 F.2d 1392 (C.C.P.A. 1969), for the purpose of determining unobviousness (A190, A153-A155).

The Board affirmed the Examiner's rejection. The Board insists that Appellant's claims are obvious for the reason that (1) Appellant's invention involves "merely the substitutions of elements known to be interchangeable or an alteration in the size... yielding a predictable result" (A5-A6) and (2) Appellant's "wild card position-label" does not "patentably distinguish the claimed device over the prior art"(A6) because it is "a distinction that is discernible only within the human mind"(A6).

Appellant hereby appeals the Board's decision to this court.

STATEMENT OF FACTS

I. The Invention

Appellant's lock as claimed solved a specific problem of conveniently selecting any desired word as the "password" for the lock when each tumbler ring has less than twenty-six positions. The specific need to provide a solution to such specific problem has never been hitherto recognized.

II. The Cited References

1. Gray discloses a combination lock having revolving rings 1-8 each of which has twenty-six letters and twenty-six spaces resulting in 52 divisions. Each of the 52 divisions may form part of the line that must be attained in order to open the lock. Each of the end plate 9, 10 has twenty-two letters and twenty-two blank spaces which may form part of that line (A210, ll. 24-83).

Gray discloses that the divisions may be designated by letters, figures, other marks or blank spaces (A210, ll. 89-103).

2. Fiegenger teaches that letters, numbers, ciphers, symbols, colors, patterns, textures or any combination thereof may be used as position indicia on a combination lock (A253, para [0041]).

3. Remington teaches that it is known to incorporate combination locks into briefcase (A212, Fig. 1).

4. Basche discloses a combination lock wherein a mathematical algorithm (A231, Fig.4A; A232, Fig. 4B) is employed for selecting less than twenty-six letters for the positions on each tumbler ring while “the tumbler rings are optimized in such a way as to be able to spell the largest number of possible words from a supplied word list” (A234, Col. 4, ll. 3-8).

SUMMARY OF ARGUMENT

The Board has not established a prima facie case of obviousness, because the Board improperly relied upon hindsight reasoning, erroneously used a “per se” rule, and failed to follow the principles of *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398 (U.S. 2007). Specifically, absence of hindsight reasoning, the Board has not provided any apparent reason for the alleged substitution of known elements. In addition, the Board apparently has created a new “mental distinction” doctrine without citing any legal authority.

Appellant’s lock as claimed should be unobvious under 35 U.S.C. §103(a). Under *KSR*, “a court must ask whether the improvement is more than the predictable use of prior art elements according to their established function.” *KSR*, at 417. In Appellant’s lock, the only one non-alphabetical symbol on each tumbler ring plays the “wild card” function that differs from the “established function” of just a position label. Appellant’s combination lock also involves more than the predictable use of prior art elements, because the number of possible combinations that can be derived from the references is so large as to render the claimed combination unpredictable. Furthermore, the improvement on the lock creates new and unexpected results, and such improvement is more than the predictable use of prior art elements. Additionally, Appellant’s lock is

indistinguishable from the measuring receptacle in *In re Miller* for the purpose of determining unobviousness.

ARGUMENT

1. Absence of hindsight reasoning, the Board has not provided any apparent reason for the alleged substitution of known elements

The Board's assertion that "a letter in Gray's lock could constitute a wild card" (A6) for representing any one of alphabetical letters for a tumbler ring is purely based on hindsight reasoning. Contrary to the Board's assertion that "Appellant has not addressed the Examiner's position that a letter in Gray's lock could constitute a wild card" (A6), in the first Appeal Brief and in the Reply Brief, Appellant has already pointed out that the Examiner has used impermissible hindsight reasoning in the above stated Examiner's assertion (A116-A118, A74; A192-A193, A180-181). Gray has not taught or suggested that a letter on its lock should be used as a "wild-card" for representing other alphabetical letters. In fact, there are no prior art references that have taught or suggested the idea of using one particular alphabetical letter on each tumbler ring of a combination lock to represent any one of the twenty-six alphabetical letters. The Board's assertion that "a letter in Gray's lock could constitute a wild card" (A6) (i.e., the idea of using one particular alphabetical letter to represent any one of twenty-six alphabetical letters) is merely a hindsight modification or hindsight variation of Appellant's idea of using a non-alphabetical symbol on

each tumbler ring to represent any one of the twenty-six alphabetical-letters for a combination lock.

Because there are no references that have taught or suggested the idea of using only one particular alphabetical letter on each tumbler ring of a combination lock to represent any one of twenty-six alphabetical letters, there is no apparent reason to only substitute one alphabetical letter for each tumbler ring with a non-alphabetical symbol. In fact, it is Appellant who identified a specific need to invent a lock that enable a user to conveniently select any desired word as the "password" for the lock when each tumbler ring on a combination lock has less than twenty-six positions. This specific need provides a motivation of using one and only one "wild-card" on each tumbler ring, and such motivation has not been recognized by other people before Appellant's invention. Absence of this motivation of using one and only one "wild-card" on each tumbler ring, all alphabetical letters on a tumbler ring are all equivalent in function regardless of whether "a letter in Gray's lock could constitute a wild card" (A6), and people having ordinary skill in the art ("POSITA") would substitute them in many different ways. For example, for a combination lock with four tumbler rings, a POSITA could just substitute one letter -- using only one non-alphabetical symbol on a combination lock, and the POSITA could put this one non-alphabetical symbol on the first, or on the second, or on the third,

or on the fourth tumbler ring. That is, there are 4 different ways¹ to make one substitute on the combination lock. If a POSITA would like to substitute two letters, there could be 10 different ways² to make the substitution -- on any one of the four tumbler rings, there could be one non-alphabetical symbol, two non-alphabetical symbols, or no non-alphabetical symbol at all. If a POSITA would like to substitute many letters (e.g., ten letters, or twenty letters), the number of possible different ways of making the substitutes can be very large.

“In making the assessment of differences, section 103 specifically requires consideration of the claimed invention ‘as a whole.’ ...The ‘as a whole’ instruction in title 35 prevents evaluation of the invention part by part.” *Ruiz v. A.B. Chance Co.*, 357 F.3d 1270, 1275 (Fed. Cir. 2004). Appellant’s apparatus as claimed is not a simple substitution of one element for another, because Appellant’s apparatus as claimed is not just a single tumbler ring but it includes a combination of multiple tumbler rings. When there are large numbers of possible substitutes that can be derived from the combination of references, Appellant’s apparatus as claimed should be more correctly considered as a combination of elements rather than as simple substitution of one known

¹ The substitution can be made on first ring (1-0-0-0), second ring (0-1-0-0), third ring (0-0-1-0), or fourth ring (0-0-0-1).

² The substitution can be made in following ways: (2-0-0-0), (0-2-0-0), (0-0-2-0), (0-0-0-2), (1-1-0-0), (1-0-1-0), (1-0-0-1), (0-1-1-0), (0-1-0-1), and (0-0-1-1).

element for another. Despite the Board would like to characterize Appellant's apparatus as "involve[ing] merely the substitutions of elements known to be interchangeable" (A5-A6), Federal Circuit's precedents related to the combination of elements should be similarly applied to those cases where there are large numbers of possible substitutes that can be derived from the combination of references.

"[A] patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art. ... [I]t can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does." *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (U.S. 2007). In this case, the Board has not find any apparent reason to combine the elements in the way the claimed new invention does – that is, to combine just one non-alphabetical symbol with alphabetical letters on each tumbler ring, given the fact that there are large numbers of possible substitutions or combinations that can be derived from the combination of references (A148). Thus, the Board has failed to establish a prima facie case of obviousness based on the reasoning that Appellant's apparatus "involves merely the substitutions of elements known to be interchangeable" (A5-A6).

2. Appellant's improvement creates new and unexpected results

While the Board provides no apparent reason for the alleged substitution, Appellant found some good reasons to select the claimed apparatus from large number of possible apparatus that can be provided by the combination of references. Appellant's lock as claimed solved a long-standing, but not well-known, problem of selecting any desired word as the "password" for a combination lock in a convenient, simple and intuitive way when each tumbler ring on the combination lock has less than twenty-six positions. Despite the fact that there is long felt need for increasing the number of words that can be used as the "password" for the lock, there is no evidence indicating that the specific need to invent a lock that enable a user to conveniently select any desired word as the "password" has been recognized by any other people before Appellant's invention. Basche did not recognize such specific need, because Basche merely recognized the need to invent a lock that can "spell the largest number of possible words from a supplied word list" (A234, Col. 4, ll. 3-8). As the Board admitted, "Basche simply describes an alternative solution to a similar problem" (A8) and "Basche does not discourage or even discuss pursuing the path claimed by Appellant" (A8).

The Board also fails to recognize the specific need to pursue the path claimed by Appellant. The Board reasoned that "in the absence of a required

letter an individual could designate one particular letter to represent another” (A7-A8). It appears that the Board may have provided an alternative solution to fulfill the specific need of selecting any desired word as the “password” on a combination lock when each tumbler ring has less than twenty-six positions. The Board’s such alternative solution is based on hindsight reasoning -- that is, after Appellant taught the Board a hitherto unrecognized specific need and provided a novel solution, the Board merely presented a hindsight modification or hindsight variation of Appellant’s solution to fulfill the same specific need that has just been discovered by Appellant.

In addition, the Board’s solution of “designat[ing] one particular letter to represent another” (A8), though provided in hindsight, is still not as good as Appellant’s solution. Using one particular designated alphabetic letter on each tumbler ring to represent other alphabetic letters will cause increased mental burden or confusion. At least for a group of users who are familiar with the old fashioned Microsoft DOS operating system or the UNIX operating system, they may find the solution of using a non-alphabetic symbol (e.g., using the star “*”) to represent the missing letters easy to remember and convenient to use. For the reason that the Board fails to appreciate the advantages of using a non-alphabetic symbol to represent the missing letters for each tumbler ring, the advantages associated with the claimed apparatus are therefore unobvious to the

POSITA, because it is expected the skill level of the Board is above the skill level of POSITA for this invention.

Furthermore, in addition to Basche and the Board, the Examiner also fails to recognize the specific need to invent the apparatus as claimed. The Examiner repetitively fails to appreciate the advantages of the Appellant's invention (A150-A152, A118-A119, A74). Such failure to appreciate the advantages of the Appellant's invention provides some objective evidence indicating these advantages can possibly be unobvious to the POSITA. In the Board's decision, the Board asserted that the "lack of appreciation of the advantages of the invention by the Examiner would not provide any objective evidence of nonobviousness" (A6). Appellant respectfully disagrees. The Board confused between the relevance of the evidence with the weight of the evidence. Because the skill level of a real person (e.g., a particular Examiner) is related to the skill level of the POSITA, the Examiner's failure to appreciate the advantages of the Appellant's invention certainly is relevant to the question of whether these advantages are unobvious to the POSITA. As to its weight, such evidence may not constitute conclusive evidence. Nevertheless, such evidence can not be completely ignored, unless the Board can conclusively establish that the skill level of the Examiner is below the skill level of the POSITA.

3. Not only the Board has made impermissible hindsight reasoning, the Board also has erroneously relied upon a “per se” rule

Despite the fact that no other people has recognized the specific need to invent the apparatus as claimed before Appellant’s invention and the fact that the Board failed to appreciate the advantages of the apparatus as claimed, the Board yet still concluded that the apparatus as claimed is obvious under 35 U.S.C. §103(a). The Board’s such ironic conclusion can only stem from the Board’s erroneous reasoning. Indeed, the Board made at least two errors in its reasoning: (1) hindsight reasoning, and (2) improper use of a “per se” rule

The Board made the error of hindsight reasoning, because the Board has relied upon Appellant’s solution and Appellant’s discovered specific need as blueprints to come up with a hindsight modification or hindsight variation of Appellant’s solution. It is generally accepted that recognizing a specific need or discovering a specific problem can be an important aspect of an invention. Thomas J. Watson, the Founder of IBM, once said, “The ability to ask the right question is more than half the battle of finding the answer.” In determining whether Appellant’s invention is obvious to the POSITA, the question of whether the specific need to invent the claimed apparatus has been hitherto recognized should not be neglected. The Board should not use the specific need discovered by Appellant as a blueprint in its hindsight reasoning.

The Board also made the error by overly relying upon a “per se” rule. With hindsight reasoning, the Board asserted that “[m]odifying Gray to include only one position label different from any alphabetical letter involves merely the substitutions of elements known to be interchangeable or an alteration in the size of Gray's device yielding a predictable result and would have been obvious to one having ordinary skill in the art” (A5-A6). The Board further justified its use of a “per se” rule by completely discounting a synergy effect that enables the non-alphabetical symbol on each tumbler ring to play an additional function when used in combination with other existing elements. The Board reasoned that “[t]erming such a position a ‘wild-card’ position involves a distinction that is discernible only within the human mind and therefore does not patentably distinguish the claimed device over the prior art” (A6).

Appellant respectfully submits that the Board should have followed the PTO’s guidelines and should have provided more detailed reasoning and analysis in its use of a “per se” rule. “When considering obviousness, Office personnel are cautioned against treating any line of reasoning as a per se rule.” *Examination Guidelines Update: Developments in the Obviousness Inquiry After KSR v. Teleflex*, 75 FR 53643, 53645 (Sep. 1, 2010). Furthermore, even if a claimed apparatus involves merely the substitutions of elements, such claimed apparatus still can not be deemed as obvious per se, as the holding of *In re*

Miller, 418 F.2d 1392 (C.C.P.A. 1969) has suggested. The claimed apparatus in *In re Miller* involves only the substitutions of one label with another label, but the court still held that this claimed apparatus is unobvious. The famous invention of the “Post It” note involves only the substitutions of fully adhesive glue with semi-adhesive glue, but it is generally agreed that such invention is not obvious.

Appellant respectfully submits that the famous invention of “Post It” note and the invention in *In re Miller* may possibly suggest some general principles regarding the obviousness of certain apparatus inventions. Even where a claimed apparatus appears in hindsight to involve merely the substitutions of a few elements from a leading apparatus, the claimed apparatus may nevertheless be nonobvious if one or more substituting elements create a synergy effect that enables these one or more substituting elements to play an additional function when used in combination with other non-substituted elements, and such function enables the claimed apparatus to provide a solution to a specific problem where the specific need to provide a solution to such specific problem has never been recognized.

In the example of the “Post It” note, when the semi-adhesive is used in combination with the paper, the synergy effect of such combination enables the “Post It” note to provide a solution to a specific office worker’s problem where

the specific needs to provide a convenient and easy solution to such specific office worker's problem had never been recognized before the invention of the "Post It" note. This specific office worker's problem can be characterized as how to detachably put a note on a piece of paper or the surface of office furniture without creating damages to the paper or the office furniture and without using additional fasteners.

In another example, even though the measuring receptacle in *In re Miller* appears in hindsight to involve merely the substitutions of the volumetric label with certain "false label", the measuring receptacle is nevertheless unobvious, because when the "false label" is used in combination with ordinary measuring vessels, the synergy effect of such combination enables "[t]he disclosed invention has for its purpose the solving of the domestic culinary problem of measuring the ingredients from a cookbook recipe in something other than the full recipe." *In re Miller*, at 1393. The specific need to provide a convenient, simple and intuitive solution to such specific domestic culinary problem has never been recognized before *Miller's* invention.

In the instant case, Appellant's apparatus involves the application of a new principle -- the idea of using a non-alphabetical symbol on each tumbler ring of a combination lock to represent any one of the twenty-six alphabetical letters. Such symbol certainly can not be used as a "wild-card" in isolation.

When such symbol is placed on each tumbler ring, however, there exists a synergy effect that enables a user to conveniently select any desired word as the “password” for the combination lock when each tumbler ring has less than twenty-six positions. The specific need to provide a convenient, simple and intuitive solution to the specific problem of using any desired word as the “password” has never been recognized before Appellant’s invention.

4. The Board fails to distinguish Appellant’s lock from the measuring receptacle in *In re Miller* for the purpose of determining unobviousness; the Board’s newly created “mental distinction” doctrine is not in consonance with the principles of *KSR*

Appellant argued before the Board that “unless Applicant’s lock in the instant case can be distinguished from the measuring receptacle in *In re Miller* for the purpose of determining unobviousness, Appellant’s lock should be deemed as unobvious” (A190). The Board responded that “[t]he distinction lines in the fact that any printed matter, letter, figure, number, other mark or blank space may serve as a ‘wild-card’ without any alteration of how the lock functions since what symbol constitutes a ‘wild-card’ is a distinction that is discernible only to the human mind. In contrast, changing the label of the measuring receptacle in *In re Miller* would result in measuring a different quantity” (A7). Appellant respectfully disagrees with the Board’s reasoning.

First, Applicant's lock involves physical changes from existing devices. Applicant's lock that has only one non-alphabetical symbol on each tumbler ring is physically different from any existing combination lock and it is not just "a distinction that is discernible only to the human mind" (A7). Such Applicant's lock has not been taught or suggested by any cited references, despite the Board's erroneous hindsight reasoning.

Second, using a non-alphabetical symbol on each tumbler ring as a "wild-card" creates some advantageous and unexpected results and it enables Applicant's lock to provide a convenient, simple and intuitive solution to a specific problem of using any desired word as the "password". Such advantageous and unexpected results should be evaluated when making the obviousness determination.

Third, much like the hindsight reasoning that "a letter in Gray's lock could constitute a wild card", the Board's assertion that "any printed matter, letter, figure, number, other mark or blank space may serve as a 'wild-card' " is also based on hindsight reasoning. Even if we assume *arguendo* that the Board with its hindsight reasoning can simply characterize Applicant's invention as "involve[ing] merely the substitutions of elements known to be interchangeable" (A5-A6) and even if we assume *arguendo* that the alleged substitution appears to the user as merely involving some changes in appearance, any advantageous and

unexpected results due to these changes in appearance should be evaluated by the Board in its obviousness determination. There are large numbers of computer GUI (“Graphic User Interface”) inventions with implementation changes that appears to the user as merely involving some changes in appearance. The Board certainly can not dismiss this kind of computer GUI invention as merely involving the “distinction that is discernible only within the human mind and therefore does not patentably distinguish the claimed device over the prior art” (A7).

When determining whether a claimed apparatus is obvious under 35 U.S.C. §103(a), the Board can not neglect the advantageous and unexpected results of a physical improvement of the claimed apparatus by simply characterizing such physical improvement as “a distinction that is discernible only within the human mind and therefore does not patentably distinguish the claimed device over the prior art” (A7). The Board apparently has created a new “mental distinction” doctrine without citing any legal authority, and such newly created “mental distinction” doctrine is also not in consonance with the principles of *KSR*. In *KSR*, the Supreme Court emphasizes that “a court must ask whether the improvement is more than the predictable use of prior art elements according to their established functions.” *KSR*, at 417.

In Appellant's lock, the use of only one non-alphabetical symbol on each tumbler ring is not a "predictable use of prior art elements according to their established function." *Id.* The established function of a non-alphabetical symbol when placed on a tumbler ring of a combination lock -- as taught by Fiegner -- is that such non-alphabetical symbol can be used merely as a position label. In the instant case, such non-alphabetical symbol, when used in the lock as claimed, plays an additional function. The additional function of such non-alphabetical symbol is that it can be used to represent any one of alphabetical letters that is missing on a tumbler ring and to enable a user to conveniently select any desired word as the "password" for the combination lock when each tumbler ring has less than twenty-six positions. There are no prior art references that have taught or suggested that a non-alphabetical symbol on a tumbler ring of a combination lock should play such additional function. Such additional function differs from the established function of a position label.

In addition, Appellant's combination lock involves "more than the predictable use of prior art elements," *KSR*, at 417, because the number of possible combinations that can be derived from the references is so large as to render the claimed combination unpredictable. For example, for a combination lock with four tumbler rings each of which can settle on ten positions, there can

be ten thousand possible combinations³ that can be derived from the combinations of the elements found in Grey and Fiegenger, but Appellant has only selected one particular combination, in which there is only one non-alphabetical symbol on each of the four tumbler rings. When the number of possible combinations from the prior art elements is very large and there is no apparent reason that has been hitherto recognized by any other people to select only one particular combination, it would be difficult to comprehend why this one particular combination should be “the predictable use of prior art elements.” Id.

Furthermore, Appellant’s improvement on the lock creates new and unexpected results and therefore “the improvement is more than the predictable use of prior art elements.” Id. At least for the reason that the Examiner and the Board failed to appreciate the advantages of the Appellant’s invention, the new results stem from Appellant’s improvement on the lock should be deemed as unexpected. For a group of users who are familiar with the old fashioned Microsoft DOS operating system or the UNIX operating system, they may find

³ If each tumbler ring can have one, two, three, or up to ten non-alphabetical symbols, there are 10,000 possible choices (i.e. $10 \times 10 \times 10 \times 10$). In contrast, if each tumbler ring has one and only one non-alphabetical symbol, there will be only one possible choice (i.e. $1 \times 1 \times 1 \times 1$). Here, in the counting of the choices, different kinds of non-alphabetical symbols (e.g., “*”, “#”, “\$”, ... etc) are not distinguished, even though different kinds of non-alphabetical symbols are allowed to be used on the same or different tumbler rings.

Appellant's lock provides a convenient, simple and intuitive way for using any desired word as the "password" on a combination lock.

In summary, for the reasons stated above, Appellant's lock as claimed involves an improvement that is "more than the predictable use of prior art elements according to their established function," *KSR*, at 417; therefore, it should be unobvious under 35 U.S.C. §103(a). Additionally, Appellant's lock is indistinguishable from the measuring receptacle in *In re Miller* for the purpose of determining unobviousness.

5. The PTO's repetitive failure of establishing a prima facie case of obviousness further tends to prove Appellant's invention is not obvious

During previous proceedings before the PTO, the PTO has repetitively failed to establish a prima facie case of obviousness. First, the PTO failed to realize that the wild-card position-label in Appellant's lock plays a critical role in the function of the lock, and erroneously characterized Appellant's lock as merely involving "design choice" (A147-A150, A120-A121, A72). Second, the PTO repetitively failed to realize that that such wild-card position-label is functionally related to the tumbler ring, and erroneously argued that the wild-card position label is "printed matter" (A190, A153-A155, A138; A190-A191, A184-A185). In addition, in the references cited by the PTO, there is no

teaching, suggestion, or motivation for providing an improved lock on which “each tumbler ring has thereon only one wild-card position-label and multiple alphabetical-letter position-labels” (A192-A193).

In the Board’s decision, the Board attempted to characterize Appellant’s invention as a case that “involves merely the substitutions of elements known to be interchangeable” (A5-A6). The Board again failed to establish a prima facie case of obviousness, because the Board improperly relied upon hindsight reasoning, erroneously used a “per se” rule, and failed to follow the principles of *KSR*.

Appellant respectfully submits that the PTO’s repetitive failure of establishing a prima facie case of obviousness tends to prove Appellant’s invention is not obvious.

In addition, during the prosecution process, the PTO has frequently come up with additional new arguments after responses from Appellant. The PTO’s unrestricted capability to come up with new arguments can create prejudice against Appellant’s invention. With each additional teaching from Appellant, an inventive aspect that initially is not obvious to the PTO could become increasingly easy to understand and increasingly “obvious” to the PTO. Therefore, the PTO’s capability to come up with new arguments may need to be restricted.

CONCLUSION

Appellant's lock as claimed is unobvious under 35 U.S.C. §103(a) at least for the following reasons: (1) Appellant's lock as claimed involves an "improvement that is more than the predictable use of prior art elements according to their established function," *KSR*, at 417; (2) Appellant's lock is indistinguishable from the measuring receptacle in *In re Miller* for the purpose of determining unobviousness; and (3) the PTO has hitherto repetitively failed to establish a prima facie case of obviousness, and in its the most recent decision, the PTO has failed once again because the Board improperly relied upon hindsight reasoning, erroneously used a "per se" rule, and failed to follow the principles of *KSR*.

Appellant respectfully requests this court to reverse the Board's decision.

Respectfully Submitted,



Jie Xiao
Pro Se Inventor

P.O.Box 946
Holbrook, NY 11741
631.730.7405

April 1, 2011

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte JIE XIAO

Appeal 2009-008575
Application 11/161,741
Technology Center 3600

Before: WILLIAM F. PATE III, STEFAN STAICOVICI, and KEN B.
BARRETT, *Administrative Patent Judges*.

PATE III, *Administrative Patent Judge*.

DECISION ON APPEAL¹

¹ The two-month time period for filing an appeal or commencing a civil action, as recited in 37 C.F.R. § 1.304, or for filing a request for rehearing, as recited in 37 C.F.R. § 41.52, begins to run from the “MAIL DATE” (paper delivery mode) or the “NOTIFICATION DATE” (electronic delivery mode) shown on the PTOL-90A cover letter attached to this decision.

STATEMENT OF CASE

Appellant appeals under 35 U.S.C. § 134 from a rejection of claims 1, 2 and 4-18. App. Br 3. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

The claims are directed to a briefcase having a combination lock. Claim 1, reproduced below, is illustrative of the claimed subject matter:

1. A briefcase comprising a combination lock, wherein the 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 only one wild-card position-label and multiple alphabetical-letter position-labels each being a single English alphabetical-letter, and the wild-card position-label is different from any one of the twenty-six English alphabetical-letters and is configured for representing any one of the twenty-six English alphabetical-letters.

REFERENCES

The prior art relied upon by the Examiner in rejecting the claims on appeal is:

Gray	US 2,261	Sep. 18, 1841
Remington	US 4,395,892	Aug. 2, 1983
Basche	US 6,621,405 B1	Sep. 16, 2003
Fiegenger	US 2006/0169007 A1	Aug. 3, 2006

REJECTIONS

Claims 1, 2, 4-9, and 15-17 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Gray, Remington and Fiegenger. Ans. 3.

Appeal 2009-008575
Application 11/161,741

Claims 10-12 and 18 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Gray and Fiegenger. Ans. 6.

Claims 13 and 14 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Gray, Fiegenger, and Basche. Ans. 6.

ISSUES

Appellant argues claims 1, 2, 4-9 and 15-18 as a group. App. Br. 5-14. We select claim 1 as the representative claim, and claims 2, 4-9 and 15-18 will stand or fall with claim 1. 37 C.F.R. § 41.37(c)(1)(vii). Appellant argues the patentability of claim 1 based upon the lock configuration. Specifically, the fact that each tumbler has “only one wild-card position-label and multiple alphabetical-letter position-labels.” No arguments are presented regarding the Examiner’s proposed combination with Remington’s briefcase or Basche’s algorithm. Although included under a separate subheading, Appellant argues the patentability of claims 10-14, which relate to the method for configuring the lock including “selecting one wild-card position-label and multiple alphabetical-letter position-labels for each tumbler ring,” for the same reasons argued with respect to claim 1. App. Br. 14-15. Thus, the sole issue for our consideration is whether the Examiner erred in concluding the claimed subject matter would have been obvious because the applied prior art would not have rendered obvious a lock having “one wild-card position-label and multiple alphabetical-letter position-labels” for each tumbler ring.

FINDINGS OF FACT

1. Gray discloses a combination lock having revolving rings 1-8. Il. 24-40.
Each ring 1-8 has a space between the letters resulting in 52 divisions

Appeal 2009-008575
Application 11/161,741

- which may form part of the line that must be attained in order to open the lock. Each end plate 9, 10 has twenty-two letters and twenty-two blank spaces which may form part of that line. ll. 49-83.
2. Gray discloses that the divisions may be designated by letters, figures, other marks or blank spaces. ll. 89-103.
 3. Fiegenger teaches that letters, numbers, ciphers, symbols, colors, patterns, textures or any combination thereof may be used as position indicia on a combination lock. P. 3, para. [0041].
 4. Remington teaches that it is known to incorporate combination locks into briefcases. Fig. 1.
 5. Basche discloses a combination lock wherein a method or algorithm is employed for selecting less than twenty-six letters for the positions on tumbler rings while maximizing the number of words in a given list that can be formed by those tumblers. Col. 4, ll. 3-8.

ANALYSIS

Gray discloses a combination lock having tumbler rings with multiple divisions, or “positions” and multiple labels thereon, including multiple English alphabetical letters. Fact 1. Gray also discloses that the divisions may be designated by indicia different from any English alphabetical letters. Fact 2. Gray does not disclose that there is only one position label different from any English alphabetical letter nor does Gray refer to those position labels that are different from English alphabetical letters as “wild-card” positions. Fiegenger teaches that it was known in the art to use labels different from any English alphabetical letter as position indicia on a combination lock. Fact 3. Modifying Gray to include only one position label different from any English alphabetical letter involves merely the substitutions of

Appeal 2009-008575
Application 11/161,741

elements known to be interchangeable or an alteration in the size of Gray's device yielding a predictable result and would have been obvious to one having ordinary skill in the art. Terming such a position a "wild-card" position involves a distinction that is discernible only within the human mind and therefore does not patentably distinguish the claimed device over the prior art.

Appellant argues that the Examiner has failed to establish a prima facie case of obviousness for the claimed subject matter on the ground that Appellant's lock is a matter of design choice, because the Examiner has not provided any reasons to support this conclusion. This argument is not persuasive. Firstly, Appellant has not addressed the Examiner's position that a letter in Gray's lock could constitute a wild card and Feigener demonstrates that a letter is interchangeable with some other label that is not a letter. *See* Fact 3; Non-Final Rej. 3-4. Appellant argues the Examiner's statement on page 6 of the Non-Final Rejection (para. 15) is merely conclusory but this statement merely references the reasons already articulated thereinabove. Appellant's argument concerning *In re Dailey* is moot since it is clear from the Non-Final Rejection that the Examiner does not rely upon *In re Dailey* to support the rejections presently before us for review. Non-Final Rej. 7; App. Br. 6-8; Reply Br. 3.

Contrary to Appellant's assertion, even if true, the alleged lack of appreciation of the advantages of the invention by the Examiner would not provide any objective evidence of nonobviousness because the objective standard for determining obviousness is based upon a hypothetical person of ordinary skill in the art, not a particular Examiner. App. Br. 8-10.

Appellant relies upon *In re Wright* apparently for the proposition that secondary considerations or advantages from the Specification must be

Appeal 2009-008575
Application 11/161,741

evaluated in determining obviousness of the claimed invention. Appellant cites this general principal without pointing to any portion of the Specification the Examiner failed to afford weight to or consider in determining obviousness. App. Br. 10-11.

Appellant contends the Examiner is required to give patentable weight to the wild-card label. App. Br. 11-13; Reply Br 3-4. We note that although the Examiner argues the label is printed matter, and therefore not entitled to patentable weight, the Examiner makes this assertion only in the alternative. Ans. 4; Non-Final Rej. 3-4, 7. If no weight were afforded the symbol on the label there would have been no reason for the Examiner to rely upon Fiegenger for specifically teaching a label different from any English alphabetical letter as discussed above. The Examiner has shown that it is known in the art to use this specific printed matter on locks. Thus, even if the printed matter, the label, is functionally related to the lock, and entitled to patentable weight, it is not related to the lock in any new and unobvious way, because the combination of Gray and Fiegenger would have suggested it.

Appellant's argument that the "wild-card position label[s]" in this case are analogous to the "false label" in *In re Miller* is unpersuasive. App. Br. 11-13; Reply Br. 3. The distinction lies in the fact that any printed matter, letter, figure, number, other mark or blank space may serve as a "wild-card" without any alteration of how the lock functions since what symbol constitutes a "wild-card" is a distinction that is discernible only to the human mind. In contrast, changing the label of the measuring receptacle in *In re Miller* would result in measuring a different quantity. We cannot agree that the claimed invention solves a longstanding problem of selecting any desired word as a password because in the absence of a required letter

Appeal 2009-008575
Application 11/161,741

an individual could designate one particular letter to represent another.

Contra App. Br. 12; Reply Br. 5.

Appellant cites Basche as evidence of long-felt need, failure of others and teaching away. App. Br. 13-14; Reply Br. 6-7. Appellant does not cite any particular portion of Basche in support of these allegations. Basche simply describes an alternative solution to a similar problem. Basche does not discourage or even discuss pursuing the path claimed by Appellant. The fact that Basche solves a similar problem in a different way does not establish long-felt need, failure of others or teaching away because it does not relate to Appellant's claimed subject matter.

CONCLUSIONS OF LAW

The Examiner did not err in concluding the claimed subject matter would have been obvious because the applied prior art would not have rendered obvious a lock having "one wild-card position-label and multiple alphabetical-letter position-labels" for each tumbler ring.

DECISION

For the above reasons, the Examiner's rejections of claims 1, 2 and 4-18 are affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv) (2009).

AFFIRMED

mls

Appeal 2009-008575
Application 11/161,741

JIE XIAO
P.O. BOX 946
HOLBROOK, NY 11741

UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT
2011-1195 – IN RE XIAO

PROOF OF SERVICE

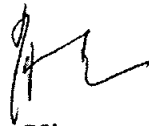
I, Jie Xiao, hereby certified that I served one original copy and eleven facsimile copies of Appellant's Appeal Brief to the United States Court of Appeals for the Federal Circuit on April 1, 2011.

I hereby certified that I also served two copies of the Appellant's Appeal Brief to Office of the Solicitor, U.S. Patent and Trademark Office on April 1, 2011 by priority mail with confirmation number 03103490000201047556 at US post office, addressed as follows:

Ms. Lynne E. Pettigrew & Mr. Scott C. Weidenfeller
U.S. Patent and Trademark Office, Office of the Solicitor
Mail Stop 8, P.O.Box 1450
Alexandria, VA 22313-1450

I certified that two copies of Corrected Appellant's Appeal Brief were served to Appellee on April 9, 2011 by priority mail at US post office to the same address.

Respectfully Submitted,



Jie Xiao
Pro Se Inventor
P.O.Box 946,
Holbrook, NY 11741
631.730.7405