

從技術效果的多樣性看要素 替代發明創造性的判斷

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一、由一個複審案例引出的不同觀點

1. 案例情況

發明名稱爲“注出容器”，申請號爲 200380100056.4 的專利申請涉及一種在不使外界空氣進入容器內部的情況下，實現容器內裝物注出的注出容器。容器主體螺紋接合基杯，借此，當裝配基杯時，基杯底部的突片受按壓推開狹縫，使得可靠而容易地打開狹縫以容許外界空氣進入外層和內層之間。

對比文件 1 公開了一種注出容器，基杯和容器主體凹凸卡接。本申請權利要求 1 所要求保護的技術方案與對比文件 1 公開的內容區別在於：前者基杯與容器主體爲螺紋連接，替代了後者的“凹凸卡接”。

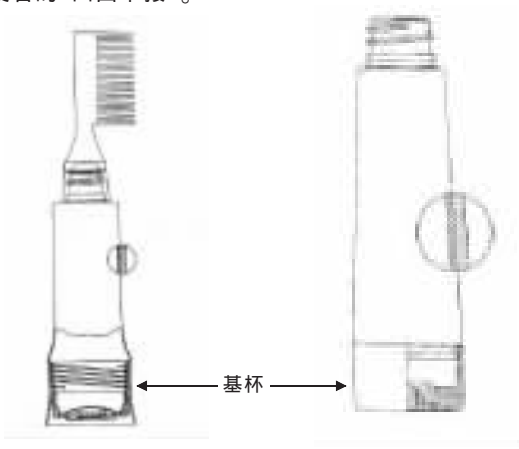


圖 1: 本申請的注出容器

圖 2: 對比文件的注出容器

2. 三種觀點和三個問題

對於本申請相對於對比文件 1 的創造性問題有以下三種觀點：

觀點 1：對比文件 1 已經公開了基杯與容器主體凹凸卡接，然而，凹凸卡接和螺紋連接都是本領域中常用的技術手段，

選擇“螺紋連接”代替“凹凸卡接”是容易想到的，因而不具備創造性。

觀點 2：權利要求 1 用“螺紋連接”替代“凹凸卡接”，這種替代取得了本領域技術人員在採用“凹凸卡接”時預料不到的技術效果，即技術效果 E1：增大了基杯與容器主體的連接結合合力；技術效果 E2：緩慢施力的過程可減小狹縫破開所需操作力。雖然上述效果是替代後必然帶來的，但對比文件沒有給出要實現上述效果的啓示，由此認定權利要求 1 具備創造性。

觀點 3：雖然實現上述替代後具有不同的技術效果，但一旦將螺紋結構應用到容器上後，必然產生這些效果。對比文件 1 雖然並未明確地給出採用螺紋連接結構的啓示，但同時也沒有明確地排斥或引導本領域技術人員基於一定的理由迴避“螺紋連接”方式，故必然存在着無差別選用兩種方式的可能性，這種選用無關乎創造性勞動，因此認定不具備創造性。

上述三種觀點的分歧在於觀點 1 主要考慮到替代後產生的相同技術效果，從而認定爲等效替代；觀點 2 考慮到替代後產生了不同技術效果，即預料不到的技術效果，從而認定爲不是等效替代；觀點 3 考慮到並沒有明確排斥或迴避“螺紋連接”方式，可無差別選用兩種方式之一，從而認爲無關乎創造性。

上述三種觀點都考慮了替代後產生的技術效果，似乎都有一定道理，但最後卻得出完全不同的結論，這種判斷上的分歧是如何產生的呢？原因就是技術效果的多樣性，而技術效果的多樣性則來源於現有技術本身的多樣性以及發明人在技術效果表達上的差異。

當發明要素替代後產生多個技術效果時，又會產生如下三個問題：

問題 1：《專利審查指南》中所說的要素替代中的等效替代指替代後產生的技術效果基本相同。如果替代後既有相同的技

術效果 E1,也有不同的技術效果 E2,這種替代是否屬於等效替代?

問題 2:當替代後存在不同的技術效果 E2 時,是否可以認定由於具有預料不到的技術效果而具備創造性?

問題 3:在本申請說明書中是否記載了不同的技術效果 E2 對其創造性的判斷有無影響?

要解答由上述分歧引申出的問題,需要參考其他國家關於要素替代發明和預料不到的技術效果的相關規定及其理論背景。

二、對三個問題的解答與分析

創造性的判斷屬於主觀的價值判斷,其標準既跟判斷主體的認知水平有關,也隨着經濟和技術的發展而不斷發展,並且與本國的經濟和技術水平相適應。關於創造性判斷,各國都有詳細的規定,我們可以嘗試從中尋找可以解答上述問題的相關內容。

關於問題 1,在歐洲專利局申訴委員會確立的案例法中,相關的規定是,“產生同類但質量或程度不同的技術效果,並不屬於等同手段的替換”;日本的相關規定表述為,“不同性質的效果或者即使性質相同但特別優越的技術效果,則認定具有創造性”。兩國的規定基本回答了問題 1,即,如果替代後產生了同類但質量或程度不同的技術效果,則這種替代不屬於等效替代。

關於問題 2,歐洲的相關規定是:“如果依據現有技術的發展,將不可避免地會以別無選擇(如單行道(one-way-street)情形)的方式出現該發明,此時預料不到的效果僅僅是附帶的獎勵式效果,不能用作創造性爭辯理由”。可見,歐洲對預料不到的技術效果附加了一個限制條件,即需要考慮預料不到的技術效果是否屬於附帶的獎勵式效果;如果在預期的更優效果的情況下額外產生了預料不到的技術效果,此時不因這種預料不到的技術效果而判定具備創造性。

關於問題 3,歐洲和日本均規定,預料不到的技術效果是否在說明書中記載不是創造性判斷中決定是否考慮該效果的主要因素。即使說明書中沒有記載,如果本領域技術人員能夠

從說明書和附圖中推導出該效果,就應予以考慮。

從上述國外的相關規定中,找到了三個問題的答案,其中對問題 1 和問題 3 的答案不存在爭議,但對於問題 2 的回答,歐洲的規定“將不可避免地會以別無選擇(如單行道(one-way-street)情形)的方式出現該發明,此時預料不到的效果僅僅是附帶的獎勵式效果,不能用作創造性爭辯理由”,是否應該引入我國的相關規定¹中,儘管業界有諸多探討²,但尚未發現有對這種規定的理論背景進行分析。下面筆者試從專利法經濟理論出發對這種判斷方式的合理性進行分析。

專利法經濟理論中有一種理論叫做專利引誘理論。專利引誘理論認為:如果專利只授予受到專利制度引誘而做出的發明,這將產生社會淨效益。根據這一理論,專利壟斷報償只給予真正受到專利制度引誘而做出發明的人,而對於因市場驅動而做出的發明創造,不能授予專利權,因為這將增加社會成本³。另外,從專利有着較長的保護期來看,也是不值得將這種價值不高,僅由市場和商業因素驅動下出現的技術授予專利權。

由此,也衍生出一種對創造性要求較高的判斷標準,即“如若不然”標準。國家知識產權局相關部門曾經提出,“建議在目前修改方案的基礎上,將《審查指南》中的創造性審查標準向“如若不然”的思路傾斜,以適當提高發明高度”⁴。其中的“如若不然”標準,就是指一項技術方案假如沒有獲得專利保護的期望和前景,就不值得就該技術授予專利權。也就是說,無專利保護預期的技術不具備創造性。

從這種觀點出發,歐洲關於獎勵式效果判斷中的“單行道”標準就有其合理性的一面。從發展趨勢來看,不可避免、必然出現的發明,即使存在其他附加的技術效果,也僅將其視為獎勵式的附加效果,而不會因此而使該發明明具備創造性。

根據上述分析,可以對上面的三種觀點作出以下評析。

三、對三種觀點的評析

觀點 1 只考慮了替代和被替代特徵相同的技術效果,即連接合力的技術效果,從而認定為等效替代,沒有考慮不同的技術效果。雖然替代特徵具有同類的連接效果,但這種替代既有預料不到的技術效果 E2,也有預料到的同類更優技術效果

E1。而觀點 1 刻意迴避了預料不到的技術效果和更優的技術效果，難以使申請人心悅誠服，甚至損害了申請人的利益。

觀點 2 片面強調從另一角度詮釋的技術效果，沒有具體分析其效果與主要技術效果之間的關係，簡單地將不同技術效果認定為預料不到的技術效果，從而將原本明顯即將出現的技術劃入專利保護範圍，這在一定程度上損害了公眾利益。

觀點 3 綜合考慮了兩方面的技術效果，但沒有對申請人所主張的其發明“具有預料不到的技術效果”給予正面回應。申請人明確陳述了螺紋連接方式具有的特殊效果，不屬於“無差別選用”的連接方式，觀點 3 認為申請人“沒有明確排斥或迴避”螺紋連接方式，則屬於“有罪推定”，並不能成為認定連接方式可以“無差別選用”的根據。因此，這種評述方式也難以使申請人心悅誠服。

筆者認為，對於本案申請人主張的兩個預料不到的技術效果，應該從多方面加以考慮。

首先，應全面考慮所有的技術效果，具體分析它們之間的關係，確定預料到的技術效果和預料不到的技術效果。本案中，先區分申請人提到的兩個技術效果，技術效果 E2 是與連接結合效果不太相關的技術效果，屬於預料不到的技術效果；而對於技術效果 E1，由於螺紋連接相對於凹凸卡接明顯具有結合合力大且更安全的優勢，所以可以判定技術效果 E1 屬於預料到的技術效果，並且是本領域普通技術人員可預料到的更優的技術效果。

其次，看技術效果質量、程度和種類是否相同，相同即為等效替代，否則不是等效替代。本案中，雖然發明呈現同類技術效果即連接效果，但其替代後產生的技術效果的質量和程度明顯不同，如眾所周知的，螺紋連接的結合合力較大，屬於連接功能中較優的選擇，所以不能認定為等效替代。

接下來，分析預料到的技術效果和預料不到的技術效果之間的關係，考量哪種技術效果是本領域中更受關注、更重要的。如本案中，連接方式替代後還產生了預料不到的技術效果 E2，即減小破開狹縫所需操作力的效果。基於本案中的基杯和容器主體的實際應用，可以確定技術效果 E1 即連接結合合力大的技術效果才是更受關注更重要的效果。

最後，如果更受關注更重要的效果是可預料到的，那麼依

據現有技術的發展，將不可避免的必然出現，此時其他預料不到的技術效果僅僅是這種必然趨勢所附帶的，不能因發明具有預料不到的技術效果而認為其具備創造性。如本案中，連接結合合力大的技術效果是可預料到的，用螺紋連接代替凹凸卡接是不可避免必然出現的，此時其他預料不到的技術效果僅僅是這種必然趨勢所附帶的，可以認定本案發明不具備創造性。

根據上述分析，筆者試對本案發明的創造性作如下評判：

權利要求 1 用“螺紋連接”替代“凹凸卡接”，這種替代既產生了預料到的更優的技術效果（更好的結合合力），也產生了預料不到的技術效果（減小破開狹縫所需操作力的效果）。在這兩種效果中，先要確定哪種技術效果是本領域更受關注、更希望獲得的效果。基於本案中的基杯和容器主體的實際應用，可以確定結合合力更大的連接效果才是更關鍵更重要的效果。由於螺紋連接顯然有着結合合力更大更安全的優勢，依據現有技術的發展，將不可避免的必然出現用“螺紋連接”代替“凹凸卡接”，此時上述預料不到的技術效果僅僅是這種必然趨勢附帶的產物，不能因本案發明具有這種預料不到的技術效果而認為其具備創造性。

四、小結

對要素替代發明創造性的判斷中，需要注意以下幾點：

1. 發明呈現與現有技術同類技術效果但產生的技術效果的質量不同或者程度不同時，不能認定為等效技術效果，不能判定為等效替代；

2. 在僅以預料不到的技術效果作為發明具備創造性的依據時應當注意，當請求保護的技術方案所產生的技術效果還包括“預料到的技術效果”時，如果隨着技術發展或市場發展不可避免、必然出現該發明，則可以判定該預料不到的技術效果只是這種必然發展趨勢的附帶產物，不能因該發明具有預料不到的技術效果而認為其具備創造性；

3. 在創造性判斷中是否考慮申請人所主張的新的技術效果與該技術效果在說明書中有無記載無關，只要本領域的普通技術人員能夠從說明書和附圖中推導出該效果，就應該予以考慮。

五、建議

現行《專利審查指南》與《審查操作規程》對於預料不到的技術效果及其涉及的創造性判斷標準在表述上不完全一致⁵，需要在兩者之間作適應性修改。在修改時，可以適當借鑒和引入前文所述國外專利法律實踐中成熟的做法。據此，可以對《專利審查指南》和《審查操作規程》作如下修改。

1. 在《專利審查指南》關於預料不到的技術效果的規定中，加入如下限制：

在僅以預料不到的技術效果作為發明具備創造性的依據時應當注意，請求保護的技術方案所產生的技術效果還包括“預料到的技術效果”時，如果隨着技術發展或市場發展不可避免、必然出現該發明，則可以判定該預料不到的技術效果只是這種必然發展趨勢的附帶產物，不能因該發明具有預料不到的技術效果而認為其具備創造性。

2. 對於如何認定預料不到的技術效果是必然發展趨勢的附帶產物，在《審查操作規程》中給出具體判斷標準：

在僅以預料不到的技術效果作為發明具備創造性的依據時，如果同時存在預料不到的技術效果和預料到的技術效果，在判斷預料不到的技術效果是否屬於必然發展趨勢的附帶產物時，需要考量哪種技術效果是本領域更關注的，更重要的。

如果預料到的技術效果是本領域更關注的，更重要的，則可以判定：由於存在這種預料到的更受關注的技術效果，隨着技術或市場發展不可避免必然出現這種發明，此時預料不到的技術效果僅僅是附帶產物，不能因其具有預料不到的技術效果而認為其具備創造性。

反之，如果預料不到的技術效果是本領域更關注的，更重要的或者至少同等重要，則無法判定必然出現該發明，此時不能認定預料不到的技術效果是附帶產物，則因其具有預料不到的技術效果而認為其具備創造性。■

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¹《專利審查指南》對於要素替代發明的創造性判斷規定為：(1)如果發明是相同功能的已知手段的等效替代，且沒有產生預料不到的技術效果，則該發明不具備創造性；(2)如果要素替代能使發明產生預料不到的技術效果，則發明具有創造性。

該指南在輔助性審查基準部分進一步規定：如果發明與現有技術相比具有預料不到的技術效果，則不必再懷疑其技術方案是否具有突出的實質性特點，可以確定發明具備創造性。

在國家知識產權局新修訂的《審查操作規程》中，還對“預料不到的技術效果”具備創造性的例外情況作了規定，即：僅以預料不到的技術效果作為發明具備創造性的依據時應當注意，請求保護的發明應當僅限於產生“預料不到的技術效果”的技術方案。如果請求保護的技術方案所產生的技術效果還包括“預料到的技術效果”，這樣的權利要求仍然被認為不具備創造性。

²見：李晨，“淺談對‘選擇發明創造性’的理解”，《審查業務通訊》，2010.2；謝蓉、張金毅，“EPO‘預料不到的技術效果’在創造性判斷中的作用探析”，《審查業務通訊》，2010.9；邱紅，“對創造性判斷過程中的‘預料不到的技術效果’的再思考”，《審查業務通訊》，2006.12。

³閻文軍，“專利權的保護範圍-權利要求解釋和等同原則的適用”，法律出版社，2007年4月第1版，第18頁。

⁴國家知識產權局條法司，《專利法及專利法實施細則第三次修改專題研究報告》上卷，知識產權出版社2006年版，第162頁。

⁵見註1《審查操作規程》中的例外規定。

Determination of Inventiveness of Invention of Element Substitution from the Perspective of Diversified Technical Effects

Zhao Yonghui and Lu Dejun

I. Different views arising from a case of reexamination

1. The case

The title of the invention in suit was “an ejection container”, and the patent application (200380100056.4) related to an ejection container for ejecting what was contained therein without allowing outside air to enter the container. The screw thread of the main body of the container connected the base cup, whereby when assembling the base cup, the protruding piece at the bottom of the base cup was pressed to open the slit to ensure easy opening of the slit to allow outside air to enter between the outer and inner layers.

Reference 1 disclosed an ejection container, with convex-concave clip connection of the base cup and the main body of the container. The technical solution of claim 1 of the patent in suit was different from reference 1 in that the base cup and main body of the container of the former were connected by screw thread connection in substitution of the convex-concave clip connection of the latter.

2. Three views and three questions

There are three views on the issue of inventiveness of the application in suit and the reference 1:

View 1: Reference 1 had disclosed the convex-concave clip connection of the base cup and main body of the container, but the convex-concave clip and screw thread connection were both technical means commonly used in the art, and substitution of screw thread connection for convex-concave clip was easy to be contemplated, so the application in suit did not possess inventiveness.

View 2: In claim 1 “screw thread connection” was used

in substitution of “convex-concave clip connection”, and the substitution achieved a technical effect unexpected when a person skilled in the art used the convex-concave clip connection, namely technical effect E1 of improved connection between the base cup and main body of the container; and the technical effect E2 of the gradual and slow process of exerting force reduced the force on the opening of the slit. While said effects resulted inevitably from substitution, from reference 1 one could not get inspiration on how to achieve them, so claim 1 was found possessing inventiveness.

View 3: While said substitution produced different technical effect, once the screw thread structure was applied to the container, it naturally produced the effect. While reference 1 did not clearly teach about the use of the screw thread structure, it did not clearly advise a person skilled in the art nor lead him to avoid, the mode of screw thread connection for some reasons; hence it is naturally possible to choose the two ways indistinctively, and the choice had nothing to do with inventiveness, so the invention was found not possessing inventiveness.

The three views are different in that view 1 mainly considers the identical technical effect resulting from the substitution, so the substitution is determined as one of equal effect; view 2 considers the different technical effect resulting from the substitution, namely the unexpected technical effect, so the substitution is determined as a non-equal effect; and view 3 considers the absence of advice not to use, or avoidance of use of the mode of “screw thread connection”, with the possibility to choose one of them indistinctively, so the substitution was found having nothing to do with inventiveness.

It seems somewhat reasonable that all the three views consider the technical effect resulting from the substitution, but they lead to entirely different conclusions. What has caused the different conclusions? The answer is the diversity of technical effects, which comes from the diversity of the existing technologies *per se* and the different expressions of the technical effects inventors use.

When invention elements substitution produces several technical effects, three questions arise:

Question 1: The substitution of equal effect within the element substitution mentioned in the Guidelines for Patent Examination means that the substitution produces substantially identical technical effect. If substitution has both the identical technical effect E1 and the different technical effect E2, is the substitution one of equal effect?

Question 2: When substitution produces different technical effect E2, is it possible for it to be determined as having inventiveness due to the presence of unexpected technical effect?

Question 3: Does the description of the application state whether the different technical effect E2 has impact on the assessment of its inventiveness?

To answer the questions arising from the divided views, it is necessary to make reference to provisions of other countries relating to element substitution inventions and unexpected technical effect, and the theory underlying them.

II. Answers to and analysis of the three questions

Assessment of inventiveness is a subjective evaluation, with its standards relating to one's subjective knowledge, constantly developing along with the economic and technological developments, and being compatible with the economic and technological level of the nation. In respect of inventiveness assessment, detailed provisions are set forth in all countries, and from them we can find answers to the above three questions.

For question 1, in the case law of the EPO Board of Appeal has been set forth the relevant provision that producing technical effect of the same class, but different quality or extent, is not substitution of equivalents. The relevant Japanese provision states that an effect of different character or even a technical effect identical in character, but specially advantageous, is determined as having inventiveness. These provisions of the EPO and the Japanese Patent Office have sub-

stantially answered question 1. That is, if substitution produces a technical effect of the same class, but different quality or extent, it is not a substitution of equivalents.

For question 2, the relevant provision of the EPO is that if according to the state of art, it is unavoidable for said invention to arise in the absence of alternatives (for example, in a one-way-street manner), then, the unexpected effect is merely an auxiliary rewarding effect, and should not be a ground for claiming inventiveness. This shows that in Europe, there has been imposed a limitation on unexpected technical effect, that is, it is necessary to consider whether an unexpected technical effect is an auxiliary rewarding effect. If an unexpected effect is produced in the case of an expected more advantageous effect, inventiveness is not found due to the unexpected technical effect.

For question 3, it is provided in Europe and Japan that whether an unexpected technical effect is mentioned in the description is not a main factor for deciding to consider said effect in inventiveness assessment. Even if it is not mentioned in the description, so long as a person skilled in the art can deduce the effect from the description and the appended drawings, the unexpected technical effect should be considered.

From the above foreign provisions, answers have been found to the three questions. The answers to questions 1 and 3 are not controversial. For the answer to question 2, however, while much study¹ has been conducted in the industry on whether the European provision that "it is unavoidable for said invention to arise in a one-way-street manner, then the unexpected effect is merely an auxiliary rewarding effect, and should not be a ground for claiming inventiveness"² should be incorporated in the relevant Chinese provisions², analysis is yet to be made of the theoretic background of the provision. In the following, the writer will be presenting a study on the rationality of the way of determination from the perspective of economic theory of the patent law.

In the economic theory of the patent law there is a theory known as patent inducement theory, which believes that grant of patent only to inventions developed as a result of inducement of the patent system will produce net social benefits. According to the theory, patent monopoly rewards are only given to those making inventions as a result of the inducement of the patent system, and the patent right is not granted to invention-creations as driven by the market since this will greatly increase the costs of the society³. Furthermore, as the rather long-term protection of a patent shows, it

is not worth patenting technologies of little value developed by the driving force of the market and commercial factors.

From this has been derived a more demanding standard for assessing inventiveness, namely the “if-not” standard. It was once suggested by some relevant department of the State Intellectual Property Office (SIPO) that on the basis of the on-going amendment to the Guidelines for Patent Examination, the standard for inventiveness examination be leading toward the “if-not” conception or thinking to properly raise the height of inventions⁴. By the “if-not” standard is meant that if a technical solution is prospectively not patentable, it is not worth patenting. In other words, a technology having no expectation to be protected by the patent does not possess inventiveness.

According to this point of view, the “one-way-street” standard in determining rewarding effect in Europe is reasonable to a certain extent in this regard. As the trend of development shows, inventions that are inevitable to emerge are merely deemed to have awarding, additional effect even if they have other additional technical effect which would not render them inventive.

According to the above analysis, comments can be made on the above three views as the following.

III. Comments on the three views

View 1 only considers the identical technical effect of substituting and substituted features, namely the technical effect of the connectiveness of the connection, and it is thus determined as substitution of equivalent effect, without considering the different technical effect. While the substituting feature has the effect of connection of the same class, the substitution has both the unexpected technical effect E2, and the expected, more advantageous technical effect E1 of the same class. But view 1 deliberately avoids the unexpected technical effect and the more advantageous technical effect, so it is difficult to convince the applicant, and even detrimental to his interests.

View 2 only stresses the technical effect interpreted from one angle without specifically analysing the relations between its effect and the main technical effect, and simply determines the different technical effect as an unexpected technical effect, thus a clearly emerging technology is put within the scope of patent protection, which is detrimental, to an extent, to the public interests.

View 3 has comprehensively considered the technical

effect of the two aspects, but failed to directly respond to the applicant’s claim that his invention “has unexpected technical effect”. The applicant clearly said that the screw thread connection had a special technical effect, and it was not a connection chosen without indistinctively any difference. For view 3, the applicant did not clearly reject, or avoid, the screw thread connection, which was “presumption of guilt”, and could not be the basis for determining that the connection could be chosen indistinctively. Accordingly, it is difficult for such comment to convince the applicant.

For the writer, the two unexpected technical effects as claimed by the applicant should be considered from several aspects.

First, all technical effects should be comprehensively considered, their relations specifically analysed, and the expected and unexpected technical effects identified. In the present case, for the two technical effects mentioned by the applicant, technical effect E2, a technical effect that was not very much relevant to the effect of the screw thread connection, was an unexpected technical effect. As for technical effect E1, since the screw thread connection, obviously more connective, was more advantageous over the convex-concave clip connection; hence it was possible to determine that technical effect E1 was an expected technical effect, and a more advantageous one that could be expected by any person skilled in the art.

Second, whether a technical effect is identical in terms of quality, extent and class should be found; if yes, it is substitution of equal effect, or it is not. In the present case, while the invention had the technical effect of the identical class, namely the effect of connection, the technical effect upon substitution was obviously different in quality and extent. As it is well known that the screw thread connection is more connective; it is a more advantageous choice in terms of the function of connection, so it should not be determined as a substitution of equal effect.

Third, the relations between the expected and the unexpected technical effects should be analysed, and which technical effect is the more noticeable and more important in the art considered. In the present case, the unexpected technical effect E2 was also produced after substitution of way of connection, that is, the effect of reduced effort to open the slit. On the basis of the practical application of the base cup and the main body of the container, it was impossible to be determined that the technical effect E1, namely the technical effect of more connectiveness, is the more notice-

able and more important effect.

Finally, if the more noticeable and more important effect is expectable, then according to the technological development, it is inevitable to emerge. Then, other unexpected technical effects are incidental to the inevitable trend. An invention should not be deemed to possess inventiveness because it produces unexpectedable technical effect. In the present case, the technical effect of more connectiveness is expectable. It is inevitable for screw thread connection to be substituted for convex-concave clip connection. Then, other unexpectedable technical effects are incidental to the inevitable trend, and it may be determined that the invention in suit does not possess inventiveness.

According to the above analysis, the writer would like to make the follow comments on the inventiveness of the invention in suit:

In claim 1 “screw thread connection” is substituted for “convex-concave clip connection”. The substitution achieves both the expected technical effect (better connection) and the unexpected technical effect (reduced operation necessary for breaking open the slit). In respect of the two technical effects, it is necessary to first determine which is more noticeable and desired in the art. According to the practical application of the base cup and the main body of the container, it may be determined that the more connective effect is the most critical and important one. Since the screw thread connection is obviously more advantageous in terms of connectiveness and safety, its substitution for “convex-concave clip connection” is something inevitable along with the development of the technology. Then the unexpectedable technical effect is merely an incidental product of the inevitable trend, and the invention in suit should not be determined as possessing inventiveness because it produces the unexpectedable technical effect.

IV. Conclusion

In assessing the inventiveness of inventions relating to substitution of elements, attention should be given to the following:

1. When an invention presents a technical effect of the same class as that of the prior art, but different in quality and extent, it should not be determined as having an equal technical effect, nor a substitution of equal effect.

2. When the inventiveness of an invention is determined only on the basis of the unexpected technical effect thereof,

it should be noted that, when the technical effects of a claimed technical solution also includes an “expected technical effect”, if with the developments of technology or market, said invention is inevitable to emerge, then it may be determined that said unexpected technical effect is merely an incidental product of the inevitable trend of development, and the invention should not be determined as possessing inventiveness because it produces the unexpectedable technical effect.

3. Whether to consider a new technical effect claimed by an applicant in assessing inventiveness has nothing to do with whether said technical effect is presented in the description or not. So long as a person skilled in the art can presume said effect from the description and the appended drawings, it should be considered.

V. Recommendations

The current Guidelines for Patent Examination and the Rules for Operation of Examination are not exactly consistent in the expressions of unexpectedable technical effects and their standards for assessing inventiveness⁵, which requires amendments to make them compatible. In making the amendment, the aforementioned mature practice in the patent law practice in foreign countries may be duly drawn on or introduced. Accordingly, following amendments are desirable to be made to the Guidelines for Patent Examination and the Rules for Operation of Examination:

1. To the provisions of the Guidelines for Patent Examination on unexpectedable technical effect following limitations are to be added:

When determining the inventiveness of an invention on the basis of the unexpected technical effect thereof, it should be noted that, when the technical effects of a claimed technical solution also include an “expected technical effect”, if with the inevitable developments of technology or market, said invention is inevitable to emerge, then it is possible to determine that said unexpected technical effect is merely an incidental product of the inevitable trend of development, and the invention in suit should not be determined as possessing inventiveness simply because it produced the unexpectedable technical effect.

2. Regarding how to determine that an unexpected technical effect is merely an incidental product of the inevitable trend of development, specific determination standards are to be set forth in the Rules for Operation of Exami-

nation.

When determining the inventiveness of an invention on the basis of the unexpected technical effect thereof, if there exist both unexpected and expected technical effects, determination of whether the unexpected technical effect is merely an incidental product of the inevitable trend of development requires consideration of which technical effect is more noticeable and more important in the art.

If the expected technical effect is more noticeable and more important in the art, it may be determined that due to the presence of the expected, more noticeable technical effect, and with the inevitable developments of technology or market, said invention is inevitable to emerge, then an unexpected technical effect is merely an incidental product of the inevitable trend of development. The invention in suit should not be determined as possessing inventiveness simply because it produces the unexpected technical effect.

Conversely, if the unexpected technical effect is more noticeable and more important in the art or at least one of equal importance, it is impossible to determine that the invention is inevitable to emerge, then it cannot be determined that an unexpected technical effect is an incidental product of the inevitable trend of development. The invention in suit should not be determined as possessing inventiveness simply because it produces the unexpected technical effect. ■

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¹ See Li Chen, Brief Discussion on Understanding of Inventiveness of Selective Inventions published in the Examination Newsletter, 2010, No. 2; Xie Rong and Zhang Jinyi, Exploration of Function of “Unexpected Technical Effect in Determination of Inventiveness in EPO, published in the Examination Newsletter, 2010, No. 9; Qiu Hong, Reflection on “Unexpected Technical Effect” in the Process of Determination of Inventiveness, published in the Examination Newsletter, 2006, No. 12.

² The provision of the Guidelines for Patent Examination on the determination of inventiveness of inventions relating to substitution of elements reads: (1) if an invention is a substitution of equal effect for a known means of the identical function and does not produce any unexpected effect, then the invention does not possess inventiveness; and (2) if element substitution makes it possible for an invention to produce an unexpected effect, then the invention possesses inventiveness.

It is further provided in the part on benchmark of auxiliary examination of the Guidelines for Patent Examination that if an invention,

compared with the prior art, produces an unexpected effect, one may not doubt the prominent substantive feature of the invention, and he may determine that the invention possess inventiveness. It is also provided for the exceptional circumstances “where unexpected effect possesses inventiveness” in the Rules for Operation of Examination as recently amended by the SIPO. That is, when determining the inventiveness of an invention on the basis of the unexpected technical effect thereof, it should be noted that, the claimed technical solution should be limited to technical solution producing “unexpected technical effect”, if the technical effects produced by the claimed technical solution also include “expected technical effects”, such claims are still found void of inventiveness.

³ Yan Wenjun, Scope of Protection of Patent Right: Claims Construction and Application of Doctrine of Equivalents, the Publishing House of Law, 2007, P.18.

⁴ The Legal Affair Department of the State Intellectual Property Office, Special Report on Third Amendment to the Patent Law and the Implementing Regulations Thereof, volume 1, the Publishing House of Intellectual Property, 2006, P.162.

⁵ See Supra Note 1, exceptional provisions.

歐盟：表演者和錄音製作者 版權保護延長至 70 年

儘管有八個成員國反對，歐盟委員會於 2011 年 9 月 11 日對歐盟版權保護指令作出修訂，對表演者和錄音製作者的版權保護由目前的 50 年延長至 70 年。

歐盟委員會在通過修訂後解釋說，表演者通常很早就開始他們的演藝事業，50 年的保護期不足以保證他們有生之年一直都能獲得保護，他們的晚年因此有可能面臨着收益銳減。這就是將保護期延長到 70 年的原因。

歐盟委員會表示，所有 27 個歐盟成員國必須在兩年之內將這項修訂內容加入到國內法中。

比利時、捷克、盧森堡、荷蘭、羅馬尼亞、斯洛文尼亞、斯洛伐克和瑞典在歐盟委員會的表決中投了反對票，奧地利和愛沙尼亞投了棄權票。 ■

(蕭海)