

### 3 QUESTIONS ABOUT OBVIOUSNESS

#### --Assessing Inventiveness in China

In China, to determine whether a claimed invention is inventive, the Guideline for Examination (“the Guideline”) adopts a 3-step-test and the climax and final step is to examine whether or not the claimed solution to the technical problem is obvious for one skilled person in the art.

This final obviousness examination, in essence, includes 3 nodes in logic and time sequence: “Where”— an objective technical problem exists; “Whether”— a person skilled in the art would know when confronting with the existing technical problem, and “How”—a motivation would prompt the artisan to improve the closest prior art and accordingly arrive at the claimed invention.

The above non-obviousness analysis is the ultimate consideration in the 3-step-test of inventiveness for judging whether the claimed invention has prominent substantive features, one statutory requirement provided by Article 22 of Chinese Patent Law. The other statutory requirement of Article 22 is whether the claimed invention represents notable progress.

From a practical perspective, this short article outlines general approaches to rebut a lack-of-inventiveness rejection.

#### THE GUIDELINE

The Guideline for Examination provides:

*“At this step, the examiner shall make a judgment, starting from the closest prior art (“D1” for short) and the technical problem actually solved by the invention, as to whether or not the claimed invention is obvious to a person skilled in the art. In the course of*

*judgment, what is to be determined is whether or not there exists such a technical motivation in the prior art as to apply the said distinguishing features to the closest prior art in solving the existing technical problem (that is, the technical problem actually solved by the invention (“objective technical problem” for short)), where such motivation would prompt a person skilled in the art (“PSITA” for short), when confronted with the technical problem, to improve the closest prior art and thus reach the claimed invention. If there exists such a technical motivation in the prior art, the invention is obvious and thus fails to have prominent substantive features.”*

The above provision is very similar to “Could-would approach” used in EPO which reads as below:

“In the third stage the question to be answered is whether there is any teaching in the prior art as a whole that would (not simply could, but would) have prompted the skilled person, faced with the objective technical problem, to modify or adapt the closest prior art while taking account of that teaching, thereby arriving at something falling within the terms of the claims, and thus achieving what the invention achieves”

#### VAGUENESS IN PROVISIONS

What, in fact, constitute the objective technical problem, the knowledge of an artisan when confronting with the problem, and the motivation to make a modification, as specified in the above provisions?

Firstly, Is “the objective technical problem” required to be existing in D1?

A patent examiner always arbitrarily rejects a claim for lacking inventiveness by combining D1 with other technical means disclosed in other prior art or customary means without considering whether “the objective technical problem” exists in D1.

However, the author believes the existence of “the objective technical problem” in D1 is an objective basis for one skilled person to improve D1.

For example (“Case 1” for short), a claimed invention is directed to a relief printing paper, which is easy to be off track after out from a printing machine. The inventor finds out that the problem is caused by the unqualified smoothness of the paper. To solve the problem, the inventor adds a filler so-called sodium bentonite to improve the smoothness.

An Examiner locates D1 which describes a printing machine and paper (the 1st step of the 3-step-test), and after comparison, determines the distinct feature of the claimed invention is a relief printing paper with sodium bentonite as a filler and the objective technical problem is to prevent the paper from being off track (the 2nd step of the 3-step-test). Accordingly, the Examiner asserts that the relief printing paper is very common and the sodium bentonite is known for its use in paper making, and in order to prevent the paper from being off track, it is obvious for a PSITA to use sodium bentonite as a filler so as to improve the paper’s smoothness (the 3rd step of the 3-step-test).

To rebut the examiner’s assertion, we would suggest the applicant considering whether or not D1 has the problem of paper being off track to be solved. If D1 is not in a technical branch of relief printing, does the problem of relief printing paper being off track exist in D1? Further, if the problem of printing paper being off track actually exists in D1, is the root cause the smoothness of the paper?

Secondly, does a PSITA confronting with the objective technical problem mean that the PSITA should recognize the objective technical problem?

A patent examiner may omit this question inadvertently and directly discuss the practicability of combining D1 with other technical means disclosed in other prior art or customary means. Consequently, Applicant may directly respond to the issue of practicability, which seems to admit the objective technical problem being known to the PSITA at the time of filing.

The author considers the objective technical problem recognized by a PSITA is a subjective precondition in the assessment framework. Only if the PSITA has become aware of the objective technical problem, the PSITA would face the objective technical problem; otherwise, why the PSITA would solve the problem?!

As in Case 1 mentioned above, the PSITA would not be able to solve the problem by using sodium bentonite as a filler to improve the paper’s smoothness, if the PSITA had not identified the problem of paper being off track, either coming from a printing machine or from raw material of paper?

Finally , what does “there exists such a technical motivation in the prior art to improve the closest prior art and thus reach the claimed invention” mean?

A patent examiner tends to treat this requirement as a pure objective inquiry, as reflected in the examiner’s opinion for Case 1 in which the examiner lists some objective elements “the relief printing paper is very common and the sodium bentonite is known for its use in paper making.”

However, the author believes the inquiry pertaining to this requirement is both objective and subjective, that is, once a PSITA had been given a clear indication of modification, and the

“motivation” is the one of applying a particular modification. If the above requirement is reworded as “there exists such a technical motivation in the prior art of how to improve the closest prior art and thus reach the claimed invention”, it may be clearer. Taken Case 1 for example, if there did not exist a prior teaching in the field of printing process that sodium bentonite can increase paper smoothness; the PSITA would not be motivated to improve D1 by obtaining a relief printing paper using sodium bentonite as a filler.

### THOUGHTS ON OBVIOUSNESS

The questions in essence are questions about Where, Whether and How. Where is the objective technical problem of D1; Whether a PSITA would be aware of the objective problem; and How the PSITA had been inspired by a clear indication to arrive at the claimed invention. The answers to the three questions are all necessary and in a time and logic sequence.

For Case 1, Where indicates the cause of the off track printing paper in D1 is the roughness of the paper, Know indicates the PSITA is aware of the cause, and How indicates some other prior art documents or the printing process as a whole provides a clear indication that the sodium bentonite can increase smoothness. Only with such Where, Whether and How, the PSITA would improve D1 to achieve the claimed relief printing paper with sodium bentonite as a filler.

However, without positive answers to Where, Whether, and How, the examination would be “man-made sandwich” as blow:

The upper piece of bread—the common technical problem of D1 and the claimed invention, generally being obtained by generalization of D1 and the claimed invention, and being the objective technical problem

determined in the second step of the 3-step-test. As in Case 1, there is no answer about whether the objective technical problem exists in D1 and whether the root cause of it is known by the PSITA.

The middle layer—the different element of D1 and the claimed invention, generally being the feature of the claimed invention. As in D1, the middle layer is the feature of using sodium bentonite as a filler.

The upper piece of bread—the common technical effect of D1 and the claimed invention, generally being achieved by the feature of the claimed invention, which sometimes is omitted. As in Case 1, the direct effect of the claimed feature to improve the smoothness of the paper.

Once a patent examiner uses the weapon of “man-made sandwich”, patent examiner has an advantage in the competition with patent applicant. Moreover, some description in prior art documents can be confusing, and the examiner tends to interpret them in a way not beneficial to patent applicant.

Often, patent applicant, to rebut the examiner’s rejection, simply questions D1 and the other cited prior art documents without elaborating about the relevant development of the prior art, which, in fact, is in a format of opinion without legal and factual reasoning and support.

### TIPS FOR REBUTTING OBVIOUSNESS

Hoping the provisions about obviousness being clearer, we suggest patent applicant or patent agent resolving the obviousness question on the basis of above three legal nodes Where, Whether and How, when rebutting the examiner’s lack-of-inventiveness rejection, accompanying with evidential support.

Taking Case 1 for example, we suggest patent applicant first inquiring what printing process is

used in D1 and whether there exists a problem of paper being off track after out from printing machine?

If the problem does exist, we suggest patent applicant investigating the relevant prior art to answer what causes the problem from the point of view of a PSITA, and if the paper is the cause, what the paper material is and how smooth it is. By answering these questions, patent applicant may point to the cause behind the objective technical problem with convincing reasons.

Finally, if the PSITA knows the root cause behind the objective technical problem, we suggest patent applicant investigating the relevant prior art to answer what inspirations are provided to the PSITA.

The author believes not only the examiner but also the patent applicant is a factfinder, because many inquiries are factual, in particular the examiner is not familiar with a particular technical background and development with features having special source and meaning.

Of course, the findings of fact are not easy, not mention to the prior art as a whole. Accordingly, it is important to obtain inputs from an inventor, who, however, is likely to address the rejection from technical but not legal point of view. Therefore, it is necessary

that a patent agent can give good guide and the guide maybe is not pertinent if the patent agent doesn't have much background information in the relevant technical field.

## SUGGESTIONS TO PATENT AGENTS

In the end, the following suggestions are put forward to the patent agents:

1. When responding to a rejection based on lack of inventiveness, a patent agent should ask not only questions about the conclusion, but also learn about the technology case by case and day by day and possess solid technical foundation by answering the questions by his/herself .

2. A patent agent should try best to give inventor a pertinent guide using his or her professional knowledge, so as to obtain more suitable and accurate technical facts from an inventor. By doing so, the patent agent will be able to rebut the examiner's rejection with counter-evidence and reasoning to the "man-made sandwich" rationales from the examiner, and thus to help patent examiner has a more accurate judgment about the difference between the claimed invention and the prior art so as to draw a more accurate conclusion about inventiveness.

*The newsletter is not intended to constitute legal advice. Special legal advice should be taken before acting on any of the topics addressed here. For further information, please contact one of the attorneys listed below. General e-mail messages may be sent using [ltbj@lungtin.com](mailto:ltbj@lungtin.com) which also can be found at [www.lungtin.com](http://www.lungtin.com).*

Amy ZHANG, attorney-at-law & patent attorney, partner: [ltbj@lungtin.com](mailto:ltbj@lungtin.com);

Qinghong XU, Ph.D., JD, partner: [xqh@mailbox.lungtin.com](mailto:xqh@mailbox.lungtin.com)

18th Floor, Tower B, Grand Place, No. 5 Huizhong Road, Chaoyang District, Beijing 100101, China

Tel: 86-10-8489 1188 Fax: 86-10-8489 1189

E-mail: [ltbj@lungtin.com](mailto:ltbj@lungtin.com) Website: [www.lungtin.com](http://www.lungtin.com)