



Analysis of the Invalidation of the Utility Model “Charger renting and selling machine”

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I Introduction

CNIPA published on April 26, 2019 the top ten cases of patent reexamination and invalidation of 2018, including four cases involving a patent for utility model. The invalidation of the utility model “Charger renting and selling machine” concerns a special rule specifying the inventiveness of a utility model. According to the CNIPA, this case has the typical significance that “It provides a reference for how to accurately grasp the technical teachings in similar technical fields in the creative judgment of utility models. When the most-related prior art discloses an overall architecture other than the subject name in the patent claims, the technical fields of the prior art and that of the patent are identified as similar technical fields, rather than being generalized as the same technical field. Specific technical teachings of the prior art in a similar technical field is required so that the prior art can be used to evaluate the inventiveness of a utility model.”

The criteria for evaluating the inventiveness of a utility model will be discussed below with reference to the invalidation of the utility model “Charger renting and selling machine”.

II Disputes in the determination of the inventiveness of utility model patents

By the late half of the 19th century, the system of creation-invention patents has become substantially improve and perfect. However, as a patent for creation-invention requires highly of inventiveness, a great number of small creations aiming to be practical yet not pertaining to design cannot be effective protected. This forms a blank between patent for creation-invention and design. In order to fill this blank area, in 1891, German enacted the first official Utility Model Protection Law. The protection



system for utility models is perfected along with time. Just like the system of creation-invention patents, the system of utility model patents is also a protection for technical solutions.

China does not have a separate law for the protection of utility models. The Chinese Patent Law provides protection for both patents for creation-invention and utility model. Judging by the objective of establishing the utility model system, the inventiveness requirements for utility model have always been lower than that for a creation-invention patent.

According to Article 22.3 of the Chinese Patent Law, “inventiveness means that, as compared with the prior art, the invention has prominent substantive features and represents a notable progress, and that the utility model has substantive features and represents a progress.” The Law indeed specifies different criteria for evaluating the inventiveness of invention and utility model. However, “substantive features” and “progress” are subjective concepts, and the definition of “prominent” and “notable” further increases the subjective factors, causing poor operability in practice.

In fact, on the practical level, there are no compelling and operable criteria for determining the inventiveness of utility models throughout the world currently. Each country basically adopts the criteria for evaluating an invention in practice. It is very difficult to fairly and reasonably specify the difference between the inventiveness of a utility model and that of an invention.

In the *Guidelines for Patent Examination*, in order to provide implementable criteria for evaluating the inventiveness of a utility model, Section 4 Chapter 6 specifies the difference between the inventiveness of a utility model and that of an invention: The difference in requirement of inventive step for a utility model and for an invention is mainly indicated by whether there exists a technical teaching in the prior art. In determining whether there exists a technical teaching in the prior art, a utility model differs from an invention in the field of prior art references and the number of prior art references.

Regarding the fields of prior art references, the *Guidelines for Patent Examination* specifies that for an invention, the examiner shall consider not only the technical field to which the invention belongs, but also the proximate or relevant technical fields, and those other technical fields in which the problem to be solved by the invention would prompt a person skilled in the art to look for technical means; for a utility model, the examiner will normally focus on the technical field to which the utility model belongs. Where there is a clear technical teaching, for example, where there is an explicit description in the prior art, to prompt a person skilled in the art to look for technical means in a proximate or relevant technical



field, the proximate or relevant technical field may be considered.

Regarding the number of prior art references, the *Guidelines for Patent Examination* specifies that for an invention application, one, two or more prior art references may be cited to assess its inventive step; for a utility model, normally one or two prior art references may be cited to assess its inventive step. Where the utility model is made just by juxtaposing some prior art means, the examiner may, according to the circumstance of the case, cite more than two prior art references to assess its inventive step.

Despite of the above provisions, the determination of inventiveness of utility model has always been a difficulty in the practice. The reason is that, on one hand, the above provisions of the *Guidelines for Patent Examination* contain controversy and ambiguity; on the other hand, the examination of utility model applications does not include substantive examination while the preliminary examination does not include examination of inventiveness. Thus, the determination of the inventiveness of utility model is only involved in invalidation and the subsequent administrative litigation procedures. As the inventiveness of utility model is examined far less than the inventiveness of creation-invention, there are far less chance for people to learn and talk about the inventiveness of utility model.

Regarding the two main differences in the criteria for determining the inventiveness of utility model and the inventiveness of invention, the number of prior art references seldom causes controversy and is not involved in the case discussed herein. Therefore, it is not discussed in this article. As for the fields of prior art references, the above provisions of the *Guidelines for Patent Examination* raise the following disputes.

Firstly, the above differences relate to “determining whether there exists a technical teaching in the prior art”, which is the third step of the “three-step method” for determining inventiveness.

It is known that that three-step method includes: (1) determining the closest prior art, (2) determining the distinguishing features of the invention and the technical problem actually solved by the invention, and (3) determining whether or not the claimed invention is obvious to a person skilled in the art (i.e., whether or not the prior art contains technical teachings).

The prior art used in the third step is generally restricted in the technical field of the utility model. When the prior art contains an explicit teaching, prior arts in a proximate or a relevant technical field may be taken into consideration. However, regarding the most-related prior art determined in the first step which is the basis of and is of great importance for the determination of inventiveness, the



Guidelines for Patent Examination does not specify whether the technical field is restricted like in the third step.

Secondly, the technical fields of the prior arts are divided into the technical field of the utility model, proximate technical fields, relevant technical fields, and the other technical fields. However, the standard for classifying the technical fields is not clarified.

Thirdly, the definition of “clear technical teaching” is not clear. The *Guidelines for Patent Examination* gives an example of “where there is a clear technical teaching, for example, where there is an explicit description in the prior art, to prompt a person skilled in the art to look for technical means in a proximate or relevant technical field”. However, it is not sufficient to determine what kind of technical teachings can be counted as “clear technical teaching”.

The Decision of Invalidation of the “Charger Renting and Selling Machine” and the typical significance of this case claimed by the CNIPA involved the above three disputed aspects. Brief introduction of this case and analysis of the disputes are described in the following parts of this article.

III Case Summary

In the invalidation case of “Charger Renting and Selling Machine”, claim 1 of the patent at issue is as follows: a charger renting and selling machine, comprising a cabinet, the cabinet having more than one charging module storage compartment configured to store a mobile charging module, the cabinet further including a payment management module, a master control circuit module, an electronic valve module, and a power module; the payment management module identifying and managing fees paid by a user and connecting the master control circuit module to provide detection and identification signals to the master control circuit module; the master control circuit module managing and controlling the electronic valve module; the electronic valve module controlling the charging module storage compartment to open and providing the master control circuit module with storage detection signals indicating whether the mobile charging module is put back into the charging module storage compartment; the power supply module configured to supply power for the payment management module, the master control circuit module, and the electronic valve module and to charge the mobile charging module.

Evidence 1 discloses a battery charging and exchanging cabinet providing battery charging and



exchanging services for electric vehicles or electric trolleys. It has substantially the same overall architecture with the rental machine of claim 1, comprising a cabinet, more than one charging module storage compartment, a payment management module, a mater control circuit module, an electronic valve module, and a power module. Moreover, the function of each module and the connection relationship between the modules are disclosed by Evidence 1. Claim 1 is distinguished from Evidence 1 in the claimed subject matter. Claim 1 of the patent at issue claims a charger renting and selling machine for storing a mobile charging module and renting and selling the mobile charging module; Evidence 1 discloses a battery charging cabinet storing a battery and performing battery exchange.

Evidence 3 discloses a paid rental system of mobile charging module for renting a mobile charging module so that a user can take away the mobile charging module to power or charge a portable electronic apparatus and return the mobile charging module after use, so as to flexibly and conveniently power or charge a portable electronic apparatus.

The Decision of Invalidation states the following opinions. Evidence 3 teaches to rent a mobile charging module. Under the teaching of Evidence 3, one skilled in the art can easily conceive the idea of restructuring the battery charging and exchanging cabinet of Evidence 1 so that the cabinet stores mobile charging modules to realize renting of mobile charging modules. As for the selling, it is a common business mode that can be easily realized on the basis of renting, and does not make contribution to the technology in view of the overall technical solution. Therefore, claim 1 does not possess inventiveness over Evidence 1 in combination with Evidence 3.

IV Assessment

1. Regarding the first dispute

Based on the above-mentioned provisions of the *Guidelines for Patent Examination*, in determining the inventiveness of utility model, the most-related art is selected in the same way as in determining the inventiveness of invention; the prior art in a proximate technical field can be directed cited.

In this case, the Reexamination Board pointed out in the Decision of Invalidation that “Regarding the field of Evidence 1, the mobile charging module is essentially an assembly consisting of a rechargeable battery and a power management function module. Both the electric vehicle battery and the mobile charging module are a power component that is rechargeable and capable of supplying power to other



devices. Viewing from the technical field of rechargeable batteries, Evidence 1 and this patent at least pertain to a proximate technical field.” Moreover, the Reexamination Board directly cites Evidence 1 as the most-related prior art without further discussing whether the prior art provides explicit technical teaching.

Regarding the technical field of the most-related prior art, in practice, different trial authorities may have different opinions.

In the case of “Gripe Dynamometer” (No. 19 ZXZ (2011)), the Supreme People’s Court points out that the inventiveness standards for creation-invention patent and for utility model patent are different; thus the technical field of the prior art references cited for comparison should also be different; this is an importance aspect of the differences between the inventiveness standards for creation-invention patent and for utility model patent. In this case, the Supreme People’s Court holds that, not just the prior art reference used in determining the technical teaching in the third step, but all the prior art references cited for the determination of the inventiveness of a utility model should be subject to the same restriction.

In the case No. 70 XZ (2016) of Supreme Court, the utility model patent at issue relates to a frequency control hydrodynamic coupling electrically driven feed pump; Evidence 4 relates to a rotational speed control device for electrical drive apparatus, in particular a fluid load of, blower, pump, etc. Evidence 4 is cited in the Decision of Invalidation as the most-related prior art to state that claim 1 does not possess inventiveness.

In the litigation, the patentee argued that the patent at issue belongs to a completely different technical field from Evidence 4; thus, it is inappropriate to cite Evidence 4 as the most-relate prior art to prejudice the inventiveness of the patent at issue. The court of first instance held the following opinions: firstly, both the patent at issue and Evidence 4 are speed controlled hydrodynamic coupling, belonging to the same technical field; secondly, even if the patent at issue belongs to a different technical field from Evidence 4, since Evidence 4 specifies a rotational speed control device for electrical drive apparatus adapted for a fluid load of, blower, pump, etc. and the patent at issue relates to a water pump, Evidence 4 prompts one skilled in the art to apply the technical solution thereof to the technical field of water pump.



In the second instance, the patentee continued to argue for the above reason. The court of second instance gave the same opinion as the court of first instance did.

In the cases described above, the courts at various levels all hold that the technical field should be considered in determining the most-related prior art. Generally, prior art references in the technical field of the utility model patent at issue should be paid more attention. However, if there are explicit teachings, a prior art reference in a proximate or relevant technical field can also be taken into consideration.

2. Regarding the second dispute

The criteria for determining the technical field greatly affects the criteria for determining the inventiveness of utility model. With a greater scope covered by “the same technical field”, the number of prior art references in the same technical field with the utility model increases; and thus, the inventiveness requirements for utility model become closer to those for invention.

Regarding the technical field, the *Guidelines for Patent Examination* stipulates the following: “The technical field of an invention or utility model shall be the specific technical field to which the claimed technical solution of the invention or utility model pertains or is directly applied, rather than a general or adjacent technical field or the invention or utility model per se. The specific technical field usually relates to the lowest position in which the invention or utility model may be classified according to the International Patent Classification.” The *Guidelines for Patent Examination* further provides an example: as for an invention relating to an excavator cantilever, the inventive feature of which is a change from rectangular section in the background art to elliptic section for the cantilever, the technical field to which the invention pertains should be an excavator, especially an excavator cantilever, rather than a building machine which is the general technical field.

Despite of such provisions, the determination of technical field has never been easy in practice.

In the above-mentioned case No. 70 XZ (2016) of Supreme Court, neither of the first-instance judgment and the second-instance judgment specifies whether the patent at issue and Evidence 4 belong to the same technical field or proximate technical fields.

In the case of “Gripe Dynamometer”, the patent at issue relates to a gripe dynamometer while Evidence



2 relates to an electronic scale. There have been different views during the trial with regard to the technical field. The Patent Reexamination Board holds that the sensors of the two are biased in the same direction and have the same structure; the only difference is that the objects applying the force are different in the measurement. In a general sense, both the patent at issue and Evidence 2 pertain to the technical field of dynamometer. The court of first instance agrees with the Patent Reexamination Board. The court of second instance holds that the patent at issue and Evidence 2 differ in objective of invention; and the direction of force is different in the patent at issue and Evidence 2; thus, the patent at issue and Evidence 2 pertain to different technical fields. The Supreme People's Court gives the opinion that they pertain to proximate technical fields.

In this case, the Supreme People's Court further specifies the general rules for determining the technical field, which is, "determination of technical field should be based on the disclosure of the claims. Generally, the technical field is determined according to the subject matter of the patent in view of the function and the use realized by the technical solution. Reference can be made to the lowest position in which the patent may be classified according to the International Patent Classification. A proximate technical field usually refers to a technical field in which the product has a function and use similar to those of the utility model patent. A relevant technical field usually means the functional technical field in which the distinguishing technical feature of the utility model patent as compared with the most-related prior art reference is applied."

Many times, in the review of an invalidation request, the Reexamination Board does not follow the above rules when determining the technical field of the prior art. For example, in the invalidation case No. 33159, the Reexamination Board asserts that although Reference 1 relates to a wall plate and the patent at issue relates to a switch panel, one skilled in the art should know that both wall plate and switch panel are common electric panels for buildings. The wall plate and the switch panel indeed have different functions, one used for supplying power for electrical equipment and the other used as a switch of electrical equipment. But they have similar structures, similar dimensions, as well as similar mounting positions. In addition, due to the structure, they both have the problem of deformation caused by the attachment. In other words, Reference 1 and the patent at issue pertain to the same technical field. In the invalidation case No. 31773, the patent at issue relates to a fruit and vegetable juice maker having temperature display function. Evidence 8 discloses a mixer. The Reexamination Board holds that



Evidence 8 and the patent at issue pertain to the same technical field. Moreover, one skilled in the art can easily conceive the idea of using the mixer of Evidence 8 for processing vegetables or fruits as a juice maker, which is just a choice of the object to be processed, without making creative efforts.

In the case of the charger renting and selling machine, the Reexamination Board asserted that, Evidence 1 and the patent at issue at least pertain to proximate technical fields in view of rechargeable battery. The Reexamination Board did not directly include Evidence 1 and the patent at issue in the same technical field. But, as seen from the expression “at least”, there is still a possibility that the Reexamination Board deems Evidence 1 and the patent at issue to be in the same technical field. Therefore, in this case, the Reexamination Board did not have a clear standard for determining the technical field.

3. Regarding the third dispute

In the case of the charger renting and selling machine, Evidence 1 of the proximate technical field is the most-related prior art reference; and Evidence 3 used in determining technical teachings pertains to the same technical field with the patent at issue. In such case, there is no need to discuss whether there is “clear teaching” in the prior art references. Therefore, this case is not a typical reference for the standard of “clear technical teaching”. The scope of “clear technical teaching” greatly affects the inventiveness standard for utility model. With a greater scope covered by “clear technical teaching”, the number of prior art references in the same or proximate technical field which can be cited to evaluate the inventiveness of the utility model increases; and thus, the inventiveness requirements for utility model become closer to those for invention. If “clear technical teaching” is limited to particular situations, the number of prior art references in the same or proximate technical field which can be cited to evaluate the inventiveness of the utility model will decrease dramatically; and thus, the inventiveness requirements for utility model becomes lower.

In the case of “Gripe Dynamometer”, the Supreme People’s Court asserts that when there is a clear technical teaching in the prior art to prompt a person skilled in the art to look for technical means in a proximate or relevant technical field, the proximate or relevant technical field may be considered. A clear technical teaching is a technical teaching that is explicitly disclosed in the prior art or a technical teaching that can be directly and unambiguously determined by a person skilled in the art from the prior



art. Portable digital display electronic scale can be considered as a proximate technical field of the patent at issue. However, as the prior art does not provide explicit technical teachings, the Patent Reexamination Board made a mistake of the applicable law when evaluating the inventiveness of the patent at issue by considering the measuring sensor of the portable electronic scale.

There are different views in the industry about how to understand the judgment of the Supreme People's Court in the case of "Gripe Dynamometer". However, based on the fact of the case of "Gripe Dynamometer" that the distinguishing technical feature is disclosed by the prior art reference and plays the same role in the prior art reference, it is insufficient to determine that the prior art reference provides a clear technical teaching.

In many circumstances, the Patent Reexamination Board, the court of first instance, and the court of second instance (Beijing Higher People's Court) understands the "clear technical teaching" as below: as long as the prior art reference explicitly disclose the technical means of the distinguishing technical feature, and the disclosed technical means plays the same role in the prior art reference as it does in the patent at issue, it should be deemed that the prior art reference provides a clear technical teaching and urges a person skilled in the art to seek for the technical means in the proximate or relevant technical field. In other words, the prior art reference in a proximate or relevant technical field can be directly cited to evaluate the inventiveness of utility model patent.

In March 2018, the Third Civil Trial Court of Beijing Higher People's Court published the Several Legal Problems to Be Noted in IP-related Trials (2018) and gives the following opinion with regard to the examination criteria for inventiveness.

According to the Guidelines for Patent Examination, the determination of inventiveness of a utility model should generally focus in the technical field of the utility model. However, if the prior art provides a clear teaching, the prior art reference in a proximate or relevant technical field can be considered. In practice, it is rare that the prior art provides a clear teaching. Therefore, this situation can be omitted from the consideration. To sum up, in determining the inventiveness of utility model, not only the prior art reference in the technical field of the utility model, but the prior art reference in a proximate or relevant technical field can be considered.

The above opinion of the Supreme People's Court, although weak in legal validity, represents the



opinion of most examiners and judges, and thus is worth studying.

There is also a view that “clear technical teaching” actually includes two requirements: on one hand, it is required that the reference document explicitly discloses the technical means; on the other hand, it also requires that the reference document explicitly teaches or suggests to use the disclosed technical means in the most-related prior art, or, although such teaching or suggestion is not disclosed in the reference document, it can be unambiguously determined from the reference document. For example, except the distinguishing technical feature, the prior art reference in the proximate or relevant technical field may further contain an explicit disclosure that teaches one skilled in the art to use the disclosed technical solution in the technical field of the utility model. Such disclosure may be, for example, “the present disclosure is not only applicable for the cover plate, but widely applied to cover plate members for covering various openings provided in construction machinery” (see No. 1890 XZZ (2014) of Higher People’s Court), “a rotational speed control device for electrical drive apparatus for fluid loads of blowers, pumps, etc.” (see No. 70 XZ (2016) of Supreme Court), and so on.

The above two views actually both acknowledge that the inventiveness requirement for utility model should be lower than that for invention, but diverge from each other with regard to how much the standard should be lowered.

In China, the legal effect of utility model patent right is the same as the invention. During enforcement, if the infringement is confirmed, the patentee of utility model enjoys the same remedy and damages as the patentee of invention. If the inventiveness standard for utility models is excessively low, it will be difficult to invalidate patent applications of very low innovation level. Such inequality between rights and obligations is unfair to the public and will inevitably limit the dissemination and utilization of technology, which has an adverse effect on scientific and technological progress and social development. Of course, the inventiveness standard for utility models should not be too high, either. Otherwise, the incentive effect of the patent law on technological innovation will be harmed. Therefore, it is very significant for the patentees and the public that the inventiveness standard for utility model patents is accurately and reasonably determined.

V Conclusion

This article sorts out different viewpoints on the three disputes in determining the inventiveness of



utility model patents with reference to the invalidation of “Charger renting and selling machine”. Although the invalidation case and the typical significance advocated by the CNIPA do not seem settle these three disputes, and does not raise clearer criterion for determining the inventiveness of utility model, it can at least be seen that the CNIPA attaches great importance to the criterion for determining the inventiveness of utility model. It remains to be seen how the criterion for determining the inventiveness of utility models develop in the future.