

On the Relationship Between Dependent and Basic Patented Inventions, Utility Models and Industrial Designs

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Abstract—The article examines the problems of legitimizing the dependence of some protected results of intellectual activity on others. The problem of homogeneity (linear dependence) and heterogeneity (nonlinear dependence) of the dependent result of an intellectual activity with the main result is solved. The problem of the existence of multiple dependence is revealed, i.e. the existence of groups of patentable technical solutions with features in the range of essential features of the main invention.

Keywords—basic and dependent inventions, multiple dependence, patents, inventions, utility models, industrial designs

I. INTRODUCTION

The legally significant phenomenon of dependence of some protected results of intellectual activity on others, known since the end of the 19th century, was legally enshrined in Russian legislation on intellectual property in 2014. A situation arises that requires an answer to the question of whether the dependent result of intellectual activity should be homogeneous with the main result (linear dependence) or the dependent result may be heterogeneous with the main one (nonlinear dependence).

In addition, there may be whole groups of patentable technical solutions, especially in the field of biotechnology and chemistry, the essential features of which or their equivalent features will somehow fall within the range of essential features of the main invention. The abovementioned testifies to the existence of multiple dependence, which is not

denied by its general formula and requires a legal response to this phenomenon. Speaking about multiple dependencies, one should turn to the question of the role of the claims, with the help of which the scope of legal protection is established, or, in other words, the range of legal monopoly of the patent holder for this or that technical solution. According to the rule enshrined in clause 3 of Art. 1358 of the Civil Code of the Russian Federation, the invention is recognized as used in a product or method if the product or the method contains/uses each feature of the invention given in the independent clause of the claims contained in the patent, or a feature equivalent to it and became known as such in this field of technology before priority date of the invention.

II. PROBLEM STATEMENT

Until March 12, 2014, the latest Russian legislation on intellectual property contained only a reminder of the existence of a dependent invention, but no legal definition was given. This notion was mentioned in clause 2 of Art. 1362 of the Civil Code of the Russian Federation and should have been applied for the purposes of granting a compulsory license, when the patent owner could not use his/her patented invention without violating the rights of the owner of another patent for an invention or utility model.

According to clause 1 of Art. 1358.1 of the Civil Code of the Russian Federation in its current edition, an invention, utility model, industrial design, the use of which in a product

or method is impossible without the use of another invention, another utility model or other industrial design protected by a patent and having an earlier priority, respectively, are a dependent invention, a dependent utility model, dependent industrial design.

An invention or utility model related to a product or method is also dependent if the claims of such an invention or such utility model differ from the claims of another patented invention or other patented utility model having an earlier priority only in the purpose of the product or method.

In the explanations contained in clause 125 of the Resolution of the Plenum of the Supreme Court of the Russian Federation dated April 23, 2019 No. 10 "On the application of part four of the Civil Code of the Russian Federation", the dependence formula, enshrined in Art. 1358.1 of the Civil Code of the Russian Federation, was further developed. According to par. 2 of the specified clause of this Resolution, if the independent claim of the defendant's patent, in addition to all the signs of the independent claim of the plaintiff's patent (for inventions that are also equivalent), has other signs, then the invention, utility model or industrial design of the defendant, taking into account clause 1 of Article 1358.1 of the Civil Code of the Russian Federation, is dependent.

From the definitions mentioned above it follows that dependence is characterized by the impossibility of using a protected technical solution or a solution to the appearance of a product without using another patented invention, utility model or industrial design. At the same time, another patent-protected invention, utility model, or industrial design, referred to as basic (main), should have an earlier priority. The effect of dependence of a protected result of intellectual activity disappears in case of termination of legal protection of the main result and the loss, in this connection, of the legal monopoly on its use. In such a situation, the dependent result becomes the main result. The effect of dependency will also occur if the patentee of the main and dependent results is the same person, but it will lead to different legal consequences of the mentioned effect compared to the case when the patentees of the main and dependent results are different persons.

In practice, there is a situation that requires an answer to the question whether the dependent intellectual result must be homogeneous with the main result (linear dependence) or whether the dependent result can be heterogeneous with the main result (non-linear dependence).

This situation has been known for quite a long time in developed Western legal systems. For example, in England, the problem is referred to as "patent thicket", which refers to "... an overlapping set of patent rights, requiring that those attempting to commercialize new technology obtain licenses from many rightsholders" [10]. Having the same understanding as in English law, this problem has been known in the United States since the "War of the Sewing Machine", i.e. since the 1850s. This so-called "war" was caused by the invention of sewing machine. It was the result of the consistent application of numerous complementary inventions, which, in turn, in the absence of effective legal regulation could not but lead to a large number of court proceedings in cases of patent infringement due to the presence of overlapping patent claims on the final result of intellectual activity [9].

The problem of "patent thickets" remains relevant not only in Russia, but throughout the world to this day in a wide variety of areas: in the production of smartphones [6], software [5], etc. From the economic and legal points of view, this problem is acute because its solution significantly affects the development of innovations and, consequently, the achievement of the main goal of patent system: development of new ideas. The effective resolution of the stated issue will determine how high the costs associated with the resolution of litigation or licensing activities will be borne by potential rightholders of inventions, utility models, and industrial designs [8; 4].

III. FINDINGS AND DISCUSSION

3.1. Within the meaning of the expression used by the legislator, respectively contained in par. 1 cl. 1 of Art. 1358.1 of the Civil Code of the Russian Federation, it seems that an unambiguous correlation has been established between dependent and main patented technical solutions and solutions for the appearance of products, which means that the dependent and main result must be homogeneous on the basis of belonging to the corresponding results of intellectual activity, which are granted legal protection and the list of which is enshrined in clause 1 of Art. 1225 of the Civil Code of the Russian Federation. In other words, an invention can be considered dependent only on the main invention, but not on the main utility model or the main industrial design, the utility model can be considered dependent only on the main utility model, but not on the main invention or the main industrial design, the industrial design can be considered dependent only on the main industrial design, but not on the main invention or the main utility model. In this case, there is a linear dependence that is legally significant.

3.2. From the general formula of linear dependence contained in clause 1 of Art. 1358.1 of the Civil Code of the Russian Federation, there is an exception introduced by the legislator when constructing the legal model of compulsory licensing. An exception in relation to the dependence of the invention on the main utility model is formulated in clause 2 of Art. 1362 of the Civil Code of the Russian Federation. This is a very important exception from the general formula of linear dependence, which allows us to conclude that nonlinear dependence, in addition to the dependence of the invention on the main utility model, is a legally indifferent fact and does not give rise to legal consequences.

3.3. To assess the situation associated with the impossibility of using dependent results of intellectual activity without using the main results, it is necessary to answer the question about the content of the concept of "use", enshrined in the current legislation.

3.4. The use of patented inventions, utility models and industrial designs is the main area of their application in an open goods and services market. The legal regime of such use is characterized by the presence of a legal monopoly (exclusive property rights to one or another result of technical or artistic design), certified by a patent.

The legally significant concept of using an invention, utility model or industrial design is used in the current Russian legislation on intellectual property in two meanings. It is obvious that the indicated values can and should also be applied to the concept of using an identical solution or a

solution that differs from the invention only in equivalent features. The content of the concept “use” in the first meaning is disclosed by the legislator in clause 2 of Art. 1358 of the Civil Code of the Russian Federation by listing specific ways of using an invention, utility model or industrial design in an open list. Definition of “use”: manufacturing and application of a product that embodies an invention, utility model or industrial design protected by a patent and formalized according to the rules; its storage, import into the territory of the Russian Federation, sales proposal, sale and other ways of introducing a product into civil circulation. All these actions in relation to material carriers, in which certain technical or artistic design solutions are implemented, can be freely performed by the patent holder himself. This rule reflects the positive side of the content of the exclusive property right to use a product, device, method (clause 1 of article 1358 of the Civil Code of the Russian Federation).

In contrast to the previously valid version of this article, the list of methods of use has undergone changes, which are as follows. First, while maintaining the positive rights of the patent holder, traditional for domestic legislation, the range of particular positions of their implementation has been expanded. The rights now apply to the product intended for the use in accordance with the purpose indicated in the claims in the form of using the product for a specific purpose. Secondly, according to the new edition of clause 1 of Art. 1358 of the Civil Code of the Russian Federation, a direct indication of the methods of use applies only to the actions named in clause 2 of this article. The previous edition of clause 1 recognized as methods of use the actions named in clause 3 of Art. 1358 of the Civil Code of the Russian Federation. However, this circumstance does not seem to play a special role, since there is a general permission to use an invention, utility model or industrial design in any way that does not contradict the law (Art. 1229, Clause 1, Art. 1358 of the Civil Code of the Russian Federation). Thus, a generalized characteristic of the content of the positive rights of the patentee to use an invention, utility model or industrial design within the meaning of the rules contained in clause 2 Art. 1358 of the Civil Code of the Russian Federation consists of the actions, which are acts of introduction of material carriers (products) into civil circulation, in which certain technical solutions or product solutions are implemented.

Another meaning of the use of an invention, utility model or industrial design is described by the legislator in the systematically connected provisions of clause 2, clause 3 of Art. 1354 of the Civil Code of the Russian Federation and clause 3 of Art. 1358 of the Civil Code of the Russian Federation. According to the new version of clause 3 of Art. 1358 of the Civil Code of the Russian Federation, an invention is recognized as used in a product or method if the product/method contains/uses each feature of the invention given in the independent paragraph of the claims contained in the patent, or a feature equivalent to it and became known as such in this field of technology before the priority date of the invention. A utility model is considered to be used in a product if the product contains every feature of the utility model given in an independent clause of the utility model claims contained in the patent. When establishing the use of an invention or utility model, the interpretation of the claims or utility model is carried out in accordance with clause 2 of Art. 1354 of the Civil Code of the Russian Federation.

Analysis of the norms formulated in clause 3 of Art. 1358 of the Civil Code of the Russian Federation shows that the generalized characteristic of recognizing the corresponding solution as used are actions that have as their content acts of implementation, or objectification (embodiment) of ideal technical solutions or product solutions into the corresponding material carriers. Thus, the term “use of an invention, utility model or industrial design” has a double meaning, or, in other words, the use of these objects allows two forms of implementation. The use of inventions, utility models, industrial designs in the first meaning can be conventionally called economic or quantitative, and in the second meaning – technical or qualitative. Obviously, use in a technical sense must always precede use in an economic sense. Moreover, without the use of a solution in the technical sense, it is impossible to carry out actions for the use, sale and introduction into circulation of products that embody (objectify) a solution. The exception is the actions referred to (within the meaning of clause 1 of Art. 1358 of the Civil Code of the Russian Federation) as the manufacture of a product in which an invention or utility model is used, and the manufacture of a product in which an industrial design is used. Thus, the scope of use, depending on the actual circumstances and the essence of the legal relationship, should be assessed either by quantitative or qualitative (essential) parameters.

The legal literature notes the problem of “patent overlap” in law: “... it remains unclear whether the patent holder has the right to use the patented object in accordance with the requirements of the law, when at the same time this act of use is actually an act of using another patent belonging to another person ...” [7].

The use of inventions, utility models and industrial designs, both in technical and economic terms, can be carried out not only by the patent owner himself, but also by any third party who has received the appropriate permission from the patent owner (paragraph 2, clause 1, article 1229 Civil Code of the Russian Federation), and not the protected result itself. The latter, as an ideal product, is inalienable in the physical sense and cannot in fact be available exclusively to the patent holder due to the fact that this result is known to an indefinite circle of people. Therefore, the main legal mechanism for obtaining the opportunity to use an invention, utility model and industrial design as ideal results of creative activity by third parties will be the transfer (provision) by the patent holder of his/her exclusive rights to use (rights to use) an object.

If a patent for an invention, utility model or industrial design belongs to several persons, the procedure for using these objects is determined by an agreement between these persons. In the absence of such an agreement, each of the patent holders can use the protected object at his/her own discretion. At the same time, the granting of a license or the alienation of an exclusive right is possible only with the consent of the rest of the patent holders (clause 4 of article 1358; clauses 2 and 3 of article 1348; clause 3 of article 1229 of the Civil Code of the Russian Federation).

3.5. Within the meaning of the rules enshrined in clause 2 of Art. 1358.1 of the Civil Code of the Russian Federation and clause 2 of Art. 1362 of the Civil Code of the Russian Federation, there are two options for using dependent results of intellectual activity. Moreover, both of them are provided

only for dependent inventions, but not for dependent utility models or industrial designs.

The first option is to obtain permission to use the dependent invention from the owner of the patent for the main result, which, according to the legislator, may be an invention or utility model. The legal model of such permission is based on a voluntary license, according to which the owner of a patent for the main result grants, on conditions consistent with established practice, to the owner of a patent for a dependent result the right to use the invention or utility model. Voluntary alienation of the exclusive right to the main result is also possible, although the legislator does not note such a possibility.

If permission to use has not been obtained, for example, through the conclusion of a voluntary license agreement on the use of the main protected result, then the second option for its use can be applied, which consists in obtaining a compulsory license. In this case, the owner of a patent for a dependent invention has the right to go to court with a claim against the owner of the first patent for the provision of a compulsory simple (non-exclusive) license to use the main invention or the main utility model in the territory of the Russian Federation. If this patentee, who has the exclusive right to such a dependent invention, proves that it is an important technical achievement and has significant economic advantages over the main invention or the main utility model, the court decides to grant him a compulsory license. At the same time, the right to use the main invention obtained under this license cannot be transferred to other persons, except for the case of alienation of the exclusive right to use the dependent invention or dependent utility model. Actions to grant and terminate the right to use an invention, utility model or industrial design under the terms of a compulsory license are subject to state registration by the Federal Service for Intellectual Property on the basis of a court decision.

As in the case of granting a compulsory license on the basis of non-use or insufficient use of an invention, utility model or industrial design, the compulsory licensing rules formulated in Art. 1362 of the Civil Code of the Russian Federation for the case of using a dependent patent, are overloaded with evaluative concepts and contain borrowed from Art. 31 of the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS Agreement) conditions by formulating an indication of the degree of technical importance of the dependent invention and its economic advantage as an additional criterion for obtaining a compulsory license.

It is clear that the owner of the main patent, if there is a dependent one, also cannot use his/her invention or utility model without violating the exclusive rights certified by the dependent patent. Thus, the exclusive right to use technical solutions protected by patents becomes paralyzed. To resolve such situation, a two-way license exchange scheme known as cross licensing is usually used. In this regard, the position of the Russian legislator, who has chosen an asymmetric model of cross-licensing, within which an unequal exchange of rights to use technical solutions is established, where an invention or utility model, the right to use of which is certified by the main patent, should be inferior to the dependent invention from the point of view of technical importance and economic advantages (paragraph 3, clause 2, article 1362 of the Civil

Code of the Russian Federation), is not entirely justified. At the same time, increased technical and economic requirements for an invention or utility model protected by the main patent are not imposed.

Western legal systems recognize the use of private law as the most effective solution for this problem. The previously mentioned Sewing Machine War came to halt when patent holders, whose patents were overlapping, merged and created a private patent pool to coordinate their rights, which existed until the expiration of the last patent in 1877 [7].

IV. PURPOSE OF THE STUDY

The problem of dependence of some protected results of intellectual activity on each other has a multifaceted nature and has existed in legal science for a long time. In this paper, we will be interested in the formulation of this problem from the point of view of the legal significance of the type of dependence (linear or nonlinear) and its solution within the framework of the current legislation of the Russian Federation on intellectual property. Analysis within the framework of the dependence of the results of intellectual activity, which include inventions, utility models and industrial designs, has not only theoretical, but also applied significance, since the law enforcement practice on this issue in Russia has not yet been sufficiently formed.

V. DISCUSSION

The research methodology consists in deciding whether not only the dependence of an invention on an invention, a utility model on a utility model, an industrial design on an industrial design, but also the following non-linear dependencies will have legal significance:

- dependence of the invention on the main utility model or the main industrial design;
- dependence of the utility model on the main invention or industrial design;
- dependence of the industrial design on the main invention or the main utility model.

The solution of the questions posed is carried out by analytical and comparative legal methods.

VI. FINDINGS

6.1. The linear dependence of the protected results is legally significant and is characterized by the homogeneity of the main and dependent results of intellectual activity. An invention can be considered dependent only on the main invention, but not on the main utility model or the main industrial design, the utility model can be considered dependent only on the main utility model, but not on the main invention or the main industrial design, the industrial design can be considered dependent only on the main industrial design, but not from the main invention or the main utility model. The non-linear dependence of the protected results is legally indifferent, with the exception of the case established by law and is characterized by the heterogeneity of the main and dependent results of intellectual activity.

6.2. The term “use” of an invention, utility model or industrial design in accordance with Russian legislation on intellectual property has a double meaning, or, in other words, the use of these objects allows two forms of implementation.

6.3. The use of inventions, utility models and industrial designs in the first meaning can be conventionally called economic or quantitative, and in the second meaning - technical or qualitative. Obviously, use in a technical sense must always precede use in an economic sense. Actions for use in the sense of the phrase contained in clause 1 of Art. 1358.1 of the Civil Code of the Russian Federation (“impossible without use”) mean in this case not “economic” use, the methods of which are defined in clause 2 of Art. 1358 of the Civil Code of the Russian Federation, but “technical” use, the characteristics of which are established in clause 3 of Art. 1358 of the Civil Code of the Russian Federation.

6.4. As a result of application, the invention is recognized as used in a product or method if the product/method contains/uses each feature of the invention given in the independent claim contained in the patent claims, or a feature equivalent to it and became known as such in this field before the priority date of the invention.

6.5. A utility model is considered to be used in a product if the product contains every feature of the utility model given in an independent clause of the utility model claims contained in the patent. An industrial design is recognized as used in a product if this product contains all the essential features of the industrial design or a set of features that make the same general impression on an informed consumer as the patented industrial design, provided that the products have a similar purpose.

VII. CONCLUSION

The term “use” of an invention, utility model or industrial design in accordance with Russian legislation on intellectual property has a double meaning, or, in other words, the use of these objects allows two forms of implementation.

The use of inventions, utility models and industrial designs in the first meaning can be conventionally called economic or quantitative, and in the second meaning – technical or qualitative. Obviously, use in a technical sense must always precede use in an economic sense.

The scientific and practical significance of the study is to identify a number of inaccuracies and gaps in the current

Russian legislation on intellectual property. We propose to use the findings of this study in improving the current legislation and apply them in the practice of jurisdictional authorities and patent attorneys.

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