

THE VALUE OF PATENTS AND IMPROVING PATENT PROTECTION OF INVENTIVE ACTIVITY

National Aviation University
Kosmonavta Komarova Avenue, 1, 03680, Kyiv, Ukraine
E-mails: civilne@meta.ua

Abstract.

Purpose: authors focus their attention to the drawbacks of the effective legislation and form the main directions of the effective legislation improvement in accordance with international law in the context of the patent law objects protection. **Methods:** this paper summarizes a number of studies which use patent data and research special features of legal regulation of inventive activity. **Results:** consider several issues of patenting the patent law objects and clarify legal nature of relations arose during registration of the rights to the patent law objects. **Discussion:** during the research the authors focus their attention to the drawbacks of the effective legislation and form the main directions of the effective legislation improvement in accordance with international law in the context of the patent law objects protection. Special attention is devoted to analysis of the main threats of the patent law violations and ways to overcome them.

Keywords: inventive activity, patent law, patent, invention, utility model, industrial design, legal protection.

1. Introduction

In the modern legal systems the phenomenon of “intellectual property” is widespread in various spheres of social relationships, so intellectual (creative) activity is a subject to legal regulation by various branches of law, in particular: civil, administrative, customs, fiscal, economic, international, etc.

The problem of legal regulation of intellectual property became topical at the end of XX and at the beginning of XXI centuries and intensified with the advent of new digital technologies, fast duplication, reproduction and use of intellectual property, change of its carrier and means of distribution (cable distribution, satellite broadcasting, etc.), new program means of protection of rights, new intellectual property objects and change of emphasis from industrial property to copyright and especially the related rights, with the advent of software protection of rights, as well as the emergence of new intellectual property.

2. Problem and its connection with scientific and practical tasks

In Ukraine the protection system of intellectual property objects is being formed, so the protection of intellectual property is far from being perfect. However, we can not underestimate the role of intellectual property nowadays, as in the nearest future production will become the means of implementation of intellectual property achievements.

With the development of the national economy, progress in science and technology has become one of the key areas, so intensification of inventive activity as a part of creative activity is of great importance ensuring proper development of society, science and technology and entry into international markets. In view of the above, in recent years we have seen a dynamic improvement of both the institutional protection system and the system of legal regulation of intellectual (creative) activities. The need for such improvement stems from large-scale infringements of intellectual property rights through plagiarism and other forms of copyright infringement. In addition, some unscrupulous users abuse

the rights to patent law objects: patent trolling, counterfeiting and other forms of infringement. Therefore, these challenges in the field of inventive activity need proper regulation and improvement of legal protection of inventive activity.

3. Analysis of result research

It should be noted that the issue of legal regulation of inventions, utility models and industrial designs was considered by both domestic and foreign civil law scholars, such as G. Androschiuk, Y. Buch, V. Medvedev, V. Meshcheriakov, O. Orliuk, O. Pilenko, O. Kravchenko, R. Shyshka and others, but some issues of patenting objects of patent law require improved procedures for their protection.

4. Setting objectives

The above provisions confirm the relevance of the study of the declared subject which purpose is to clarify legal nature of relations emerging in connection with registration of patent law objects.

5. Presenting main materials

In recent years particular emphasis in global social and economic development has been placed on intellectual activities. Such social activities as science, technique, culture, creative work have become top priorities in most developed countries. These new priorities require proper legal protection of all types of creative work.

Invention, it has been shown, is driven primarily not by genius or happenstance but rather by markets and the expectation of the profit that can be gained by securing the patent rights to new technologies. Zorina Khan of Bowdoin College and the late Kenneth Sokoloff at UCLA found that among the “great inventors” of the 19th century, “their patterns of patenting were procyclical [and] responded to expected profit opportunities.” And as Khan noted elsewhere, “Ordinary people [are] stimulated by higher perceived returns or demand-side incentives to make long-term commitments to inventive activity.”

By contrast, in countries without patent rights, Barro (1995) found that people have an “excessive incentive to copy” and insufficient incentive to invent for themselves. Moser (2004), meanwhile, reported that “inventors in countries without patent

laws focus on a small set of industries ... while innovation in countries with patent laws [is] much more diversified.”

The evidence that patents foster innovation is not confined solely to the U.S. or even to developed countries. In 2008, a study by the Organization for Economic Co-operation and Development (OECD) found that “stronger levels of patent protection are positively and significantly associated with inflows of high-tech product [and] expenditures on R&D” [1].

At the end of the last century many countries started to revise and update legislation on intellectual property, especially the laws concerning its legal protection. The new laws on intellectual property protection were adopted and many international organizations intensified their activities connected with legal protection of creative results in many countries.

The conclusion of the Parliamentary deliberation on the issue “Protection of Intellectual Proprietary rights in Ukraine: Problems of Legal Protection” was the following: at present the system of legal protection of intellectual property in Ukraine is at its final stage. The basis of national regulation of this important sphere was formed in 1990s. At the same time there arose serious drawbacks resulting in stagnation of national scientific development and creative and innovation activities. This situation complicated relations of Ukraine with the leading countries of the world, so it was necessary to look for new forms of cooperation and interaction in the sphere of intellectual property protection.

It is really difficult to solve the above mentioned problems as intellectual property relations are highly dynamic and versatile.

Legal nature of relations emerging in connection with acquisition of rights to inventions and utility models is related to legal essence of these objects and specifics of their legal protection which is associated with obtaining a title of protection (patent). Acquisition of patent by an inventor (or by another person, such as an employer) is a legal fact being the grounds for emergence of intellectual property rights to an invention (utility model).

Industrial designs have become specific objects of intellectual property due to their specific nature

which should satisfy both aesthetic and functional needs when applying on tangible products. Industrial designs are at the crossroads of art and technology, since developers of industrial products try to create products, the shape and appearance of which match consumers' aesthetic preferences and their expectations regarding functionality of these products [2].

Obtainment of the rights to invention, utility models and industrial designs requires a range of formalities, in particular: submission of duly executed application to the Patent Office of Ukraine, examination, issue and registration of relevant titles of protection, etc.

An application must contain: petition for invention, utility model or industrial design; description of invention or utility model; drawing (if it is referred to in the description); abstract; document confirming fee payment for application.

The application is sent to the Ukrainian Institute of Industrial Property. An application for the grant of patent is submitted under the established form. An applicant must specify one of two objects of industrial property (invention or utility model) in that section of application which contains request for the grant of patent.

The application for the grant of patent of Ukraine for invention or utility model has to meet the requirements established by the Rules of Execution and Submission of Application for the Grant of Patent of Ukraine for Invention or Utility Model Approved by the Order of the State Patent of Ukraine of November 17, 1994. The application for industrial design has to meet the requirements established by the Rules of Execution and Submission of Application for the Grant of Patent of Ukraine for Industrial Design Approved by the Order of the State Patent of Ukraine of January 15, 1995.

The application for the grant of patent must contain the applicant's name, his address and the author(s) of claimed proposal.

The description of invention and utility model is executed according to the established procedure. An invention or utility model is revealed fully and clearly in order to be understood by the specialist of the particular field. The description specifies the extent of legal protection, index of International pa-

tent classification, technical branch of invention or utility model, technical level, essence of invention or utility model, list of figures and drawing (if available), information confirming possible implementation of invention or utility model.

The patent claim of invention or utility model is based on the description and executed clearly and briefly according to the established procedure. The patent claim of invention or utility model is a brief verbal description of technical content of invention or utility model containing a set of features sufficient for achieving technical result specified by the applicant. If the proposal is recognized to be an invention the patent claim must be a single criterion determining the extent of invention use. Only the patent claim determines the fact of use or non-use of invention. The patent claim and description of invention or utility model must describe invention or utility model using the same ideas [3].

An abstract is drawn up only for informative purposes. It is not taken into account for another purpose, in particular for interpretation of the patent claim of invention or utility model and for evaluation of technical level.

After the application has been received by the Patent Office of Ukraine, in particular by the State Service of Intellectual Property, it is subjected to special examination. All applications are examined according to formal criteria (formal examination). In addition, application for invention is liable to substantive examination (qualification examination).

The aim of formal examination is to find out whether the claimed proposal is an object of invention, if the application complies with the law and contains the document confirming payment of fee.

If formal examination has revealed that all necessary documents are available and they comply with requirements the State Service of Intellectual Property is obliged to grant the patent or to make decision on substantive examination. The State Service of Intellectual Property informs an applicant if the application does not comply with the law. All revealed defects must be removed within two months from the date of receipt of notification by the applicant. If these defects are not removed within the above mentioned period the date of re-

ceipt of documents by the Patent Office will be the date of filing an application. If the application is not corrected it is considered to be unfiled.

The application is considered to be unfiled if its description refers to the drawings which are not available. If within a certain period the drawing is not enclosed the application is considered to be unfiled.

The State Service of Intellectual Property sends to the applicant its decision concerning the date of submitting an application only after the receipt of the document confirming payment of fee. If the above mentioned document has not been received the application is considered to be withdrawn.

According to the legislation, after the publication of information on application for invention the applicant is given provisional protection of the patent claim. The validity of provisional protection expires from the date of official publication of information on patent issue or termination of procedure in the Patent office. The validity of provisional protection of international application starts from the date of its international publication.

During the period of provisional protection of the claimed proposal an applicant is entitled to indemnity for losses owing to unauthorized use of invention by other persons. But an applicant is entitled to indemnity only in case if the person who used the invention had known about the publication of information on the application for invention or had received written notice (in the Ukrainian language).

Substantive examination (qualification examination) is carried out at the request of the applicant or any other person. The applicant has the right to take part in this examination, to amend and elaborate the application on his own initiative before the decision on application has been made. While publishing information on the application for the grant of patent to invention corrections and modifications are taken into account if they were received by the State Service of Intellectual Property 6 months before the date of publication.

The applicant may on his own initiative or at the request of the State Service of Intellectual Property take part personally or through his representative in

the discussion of issues connected with examination.

After submission of application and the document confirming the payment of fee the State Service of Intellectual Property carries out formal examination in order to determine whether the claimed object is an invention and whether the submitted application complies with statutory requirements. If the application for the grant of patent to invention complies with statutory requirements the State Service of Intellectual Property sends to the applicant the notice of conclusion of formal examination and possibility of qualification examination.

On the expiry of 18 months from the date of submitting the application for the grant of patent to invention and if priority is claimed the State Service of Intellectual Property publishes information on the application in its official bulletin in order to acquaint all interested persons with the application for invention. At the instance of the applicant the above mentioned information may be published before the set term. At the instance of the applicant his/her name is not mentioned when publishing information on the invention. After the publication any person may peruse the application materials.

After conclusion of examination the State Service of Intellectual Property has to decide whether the claimed proposal may be regarded as an invention (if it is patentable). Otherwise the application is rejected.

The applicant is entitled to withdraw the application at any stage of its consideration. He/she may also replace an application for invention with application for utility model and vice versa. Such replacement is allowed before the patent decision or rejection of patent application.

There are relevant national patent classifications while dealing with patent applications. The development of international cooperation in the field of industrial property necessitated the creation of international patent classification. This classification is based on the Strasbourg Agreement of 1971 adopted by the International Bureau of the World Intellectual Property Organization. The classification is divided into 8 sections:

A – satisfaction of vital personal needs;

B – engineering procedures, transportation;

C – chemistry, metallurgy;

D – textile, paper;

E – construction, mining engineering;

F – mechanics, lighting, heating, engines, pumps, weapons, explosives;

H – electricity

There are 118 classes, 617 subclasses and more than 55 000 groups [4].

The information on patent issue is published in the official bulletin on the basis of the decision of the State Service of Intellectual Property concerning the grant of patent to invention, utility model or industrial design. The description of invention and utility model and the drawing are published together with information on the patent issue.

A patent to invention or utility model is a document issued by the competent government authority certifying a claimed object to be invention or utility model, authorship and exclusive right of patent owner for invention or utility model.

However, this procedure that seems to be explicitly stated has its problematic aspects. Thus, intellectual property experts make a point that infringement of patent rights by abusing patent rights to utility models and industrial designs (so-called patent trolling) has increased. The reason for this abuse is the fact that a utility model patent is generally issued according to the results of the application formal examination, i.e. only accuracy of documents is checked. Compliance of the claimed industrial design with protectability criteria is responsibility of the applicant.

Amendments to the Customs Code of Ukraine adopted in 2012 cancelled the bail requirement - 5 thousand euro at first, and later - 1 thousand euro, in the case of inclusion of an intellectual property object into the Customs Register. As a consequence, in the shortest time unscrupulous applicants received patents to hangers, toothpicks, matches, details for the "Zhyguli" and other well known products, and trucks loaded with goods were crowded together in front of the customs barrier of Ukraine, which led to such a shameful phenomenon as patent trolling.

A paradoxical situation came about: bona fide traders recognized "trolls" patents invalid in court,

but they immediately registered similar patents. And it all started over again.

Various applicants began to register the same objects and include them to the Customs Register, which significantly reduced its value in terms of protection of bona fide entrepreneurs against import of counterfeit goods [5].

Thus, this situation requires immediate intervention by relevant authorities both at the stage of safeguard of patent law objects and protection of rights against illegal encroachment by patent trolls.

An important issue is the protection of patent objects according to the EU legislation, which will ensure promotion of inventions abroad. An applicant may patent his/her invention in the EU in several ways. A patent may be obtained by filing national applications to patent offices of the countries concerned (e.g. Germany, France, Poland, Great Britain). Such applications may be submitted within 12 months from the date of filing a national application (e.g. Ukrainian application) and within the framework of the national phase according to international patenting procedure. The second way is submission of a regional application to the European Patent Office. Unlike the EU trademark, the patent issued by the European Patent Office is not valid in all EU countries. It becomes automatically valid only on the territories of several countries that have signed the London Agreement (e.g., France, Germany, Great Britain). In order to obtain protection, EPO patent has to be additionally validated in most countries. Thus, in order to validate the patent in Poland, applicants have to provide to the Polish agency the patent documentation translated into Polish and to pay a fixed fee. In some cases, the cost of validation may exceed the original cost of obtaining EPO patent. Moreover, any patent has to be annually maintained in force and EPO patent has to be maintained in force separately in each country, and this may adversely affect the budget of a patent holder [6].

Thus, according to M. Ortynska, EPO patent is likely to facilitate protection obtainment in the EU, but the need for patent maintenance and validation separately in each country makes it not so attractive for business and does not justify its expectations. That is why so-called unitary patent has been developing for many years: this is a patent which will be valid on the territories of all EU member states

without validation. In order to maintain the patent in force, applicants are required to submit one application and pay a fee only once. Unfortunately, unitary patent is only a long-term project, and it may become a mirage due to Brexit [6].

6. Conclusions

Taking into consideration the above, we hope that the system of intellectual property protection will be enhanced through institutional changes and changes in legal regulation of inventive activity results. In addition, we believe that reform of the system of intellectual property protection launched in Ukraine will lead to real consolidation of the Ukrpatent and the State Intellectual Property Service in the form of the National Office of Intellectual Property which will become an effective authority of European type.

Special mention should be made of the reform system of judicial protection of intellectual property by creating a separate judicial level, in particular by constituting the High Court of Intellectual Property. All these changes should have a positive impact on the reform of intellectual property protection system.

We should proceed with caution in considering legislation that may have unintended consequences. Far better to focus on judicial reforms that “do no harm” to a patent system.

References

1. Kline D. (2014) Do Patents Truly Promote Innovation? [Electronic resource]. - Access mode: <http://www.ipwatchdog.com/2014/04/15/do-patents-truly-promote-innovation/id=48768/>.
2. Bondarenko O. (2013) Regards the problems of legal protection of industrial designs [Electronic resource]. - Access mode: http://kul.kiev.ua/images/chasop/2013_2/241.pdf.

3. Ministry of Education and Science of Ukraine (2001) On approval of the Rules of preparation and application for invention and utility model applications [Electronic resource]. - Access mode: <http://zakon5.rada.gov.ua/laws/show/z0173-01>.

4. Sopilko I., Philyk N., Zubrytska O., Kmetyk Kh., Trotsyuk N. (2015) Intellectual property: Legal protection: Kyiv, «NAU-druk» Publishing House, 288 p.

5. Benatov D. (2015) Patent trap for Ukraine designs [Electronic resource]. - Access mode: <http://www.epravda.com.ua/columns/2015/03/23/534575/>.

6. Ortynska M. (2016) Threat of rejection [Electronic resource]. - Access mode: http://ipstyle.ua/ru/articles/patents/ugroza_ottorzheniya.

7. Zubrytska O. V., Bolotna T. M., Philyk N. V. (2011) Intellectual property. Coursebook Kyiv, «NAU-druk» Publishing House, 236 p.

8. Philyk N. (2014) Intellectual property. Kyiv, Lesya MP, 344 p.

9. Byrkovych T.I., Bondar I. S., Shishka R.B., Philyk N.V. (2015) Intellectual property: copyright and legal aspect. Kyiv, Ed. Center KNUKM, 280 p.

10. Bagriy T.J., Byrkovych A.I., Byrkovych T.I. (2016) Use of intellectual property in advertising: teach. Guidances. Kyiv, lira-K, 520 p.

11. Gordon V. Smith & Russel L. Parr (2005) Intellectual Property: Valuation, Exploitation, and Infringement Damages, John Wiley & Sons, pp. 617–630.

12. Lehman, Bruce A. (1995-10-01). Intellectual Property and the National Information Infrastructure: The Report of the Working Group on Intellectual Property Rights. DIANE Publishing. p. 104. ISBN 978-0-7881-2415-0. Retrieved 2012-06-23.

13. Basics of Intellectual Property Protection in Ukraine: textbook. Kyiv, Concern "Publishing House" John Jure ", 2003, 235 p.

ЗНАЧЕННЯ ПАТЕНТІВ ТА ВДОСКОНАЛЕННЯ ПРАВОВОГО РЕГУЛЮВАННЯ ПАТЕНТНОЇ ОХОРОНИ ВІНАХІДНИЦЬКОЇ ДІЯЛЬНОСТІ

Національний авіаційний університет, проспект Космонавта Комарова, 1, 03680, Київ, Україна
E-mails: civilne@meta.ua

Мета: автори звертають увагу на недоліки чинного законодавства та формулюють основні напрямки удосконалення чинного законодавства відповідно до міжнародного права в контексті захисту об'єктів патентного права. **Методи:** узагальнення та дослідження особливостей правового регулювання винахідницької діяльності. **Результати:** розглянуті окремі питання патентування об'єктів патентного права та правова природа відносин, які складаються з приводу реєстрації прав на об'єкти патентного права. **Обговорення:** під час дослідження автори звертають увагу на недоліки чинного законодавства та формулюють основні напрямки вдосконалення законодавства відповідно до міжнародного права в контексті охорони об'єктів патентного права. Особлива увага приділена аналізу основних загроз порушень патентного законодавства та шляхів їх подолання.

Ключові слова: винахідництво, патентне право, патент, винахід, корисна модель, промисловий зразок, правова охорона.

ЗНАЧЕНИЕ ПАТЕНТОВ И СОВЕРШЕНСТВОВАНИЕ ПРАВОВОГО РЕГУЛИРОВАНИЯ ПАТЕНТНОЙ ОХРАНЫ ИЗОБРЕТАТЕЛЬСКОЙ ДЕЯТЕЛЬНОСТИ

Национальный авиационный университет, проспект Космонавта Комарова, 1, 03680, Киев, Украина
E-mails: civilne@meta.ua

Цель: авторы обращают внимание на недостатки действующего законодательства и формируют основные направления совершенствования действующего законодательства в соответствии с международным правом в контексте защиты объектов патентного права. **Методы:** обобщение и исследование особенностей правового регулирования изобретательской деятельности. **Результаты:** рассмотрены отдельные вопросы патентования объектов патентного права, а также правовая природа отношений, которые складываются по поводу регистрации прав на объекты патентного права. **Обсуждение:** в ходе исследования авторы обращают внимание на недостатки действующего законодательства и формируют основные направления совершенствования законодательства в соответствии с международным правом в контексте охраны объектов патентного права. Особое внимание уделено анализу основных угроз нарушениям патентного законодательства и путей их преодоления.

Ключевые слова: изобретательство, патентное право, патент, изобретение, полезная модель, промышленный образец, правовая охрана.