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List of abbreviations

“Art.” - Article

“AIA” - Leahy-Smith America Invents Act

“EEA” - European Economic Area

“EPC” - European Patent Convention.

“EPO” - European Patent Office

“EU” - European Union

“ISV” - independent software vendor

“LLC” - Limited liability company

“MUPS” - Multiple Unit Pellet System

“NPE” – non practicing entity

“R&D” - Research and Development

“SMBs” - small and medium sized businesses

“TFEU” - Treaty on the Functioning of the European

“TRIPS” - Agreement on Trade-Related Aspects of Intellectual Property Rights

“US” - United States of America

“UPC” - Unified Patent Court

“USC” - United States Code’s

“USPTO” - United States Patent and Trademark Office

“WTO” - world trade organization

Introduction

Patent trolling is obviously not a new problem nowadays but still remains relevant. Substantive of this can be precedents and multiple litigations not just in distant history but also is taken place in XXI century.

The first country, where question of patent trolling was rising, was United States.

One of the targets of our research is to study the history and to foresee the future of “patent trolling” phenomenon in EU, the USA and Ukraine. The following tasks we put in terms of this work are to investigate the case law in those countries, their legislation and compare the ways of solving this problem. The idea is to study the different patentability systems in the US, EU, Ukraine and to show why and how the EU and the US where building their relationships with ‘patent trolling’ Also we will develop a theme about the situation in Ukraine because in this country patent trolls are quite new phenomenon, that’s why we will compare the causes of appearance and the appropriate ways of dealing of patent trolling.

In the first part covers review of the concept and the theory: definition of patent trolling and related to this theme definitions, such as patent trolls, its origin, general dangers and effect of patent trolling etc. We will overview some theories of understanding of this phenomenon, distinguish features that characterize a patent troll as such. In this parts we will give an answer why patent trolls are so dangerous and what negative effect their activity has.

The second, third and fourth parts are separate overviews of systems of patentability in the EU, USA and Ukraine. In this parts will study the beginning of patent trolling history, actual situation in field of behavior of patent trolls. For better understanding reasons for different levels of activity of NPEs in certain countries, we will analyze the main issues and concept of patent system of each country. We will see how patent trolls act in practice by analyzing legal cases.

Eventually we will compare situations on field of patent rolling in EU, US and Ukraine, and come up with different ways to solve such problem as patent trolling.

Main part

1. The concept of patent trolling

Definition of patent trolling

Before we clarify what business as patent trolling is, we should give definition to ‘patent trolls’. This category is not simple to define and seems to be an ambiguous term that is discussed from different angles.

Collocation ‘patent troll’ includes two different notions ‘patent’ and ‘troll’. Let’s begin with ‘troll’. Troll is a monstrous, evilly disposed, man-like being who is well known on Scandinavian countries. This deceitful being was closely associated with nefarious and magical practices. In Scandinavian fairy tales under this creature is understood fearsome, ugly, like a nightmare gnome that lurked under bridges demanding a toll before the traveler would get permit to pass.¹ Trolls were popular character of many movies and cartoons. But in combination with concept of “patent” this word gets unexpected new meaning which is not related to the original etymology of ‘troll’.

It is well known that the ancestors of patent trolls were ‘submarine patents’. This is important to look through this phenomenon for better understanding of ‘patent trolling’ in general and to give as much correct definitions as we can. So Submarine patents are problems often associated with patent trolls. Submarine patents are patents that are kept in secret long after the date of invention and long after the market in an area of technology has been developed. Under current United States law, publication of a patent application can be delayed until a patent is actually granted, if one does not file corresponding foreign patent applications.

The term “submarine” means the floating object that remains under the water. A submarine patent is a patent whose issuance and publication are intentionally delayed by the applicant for an extended period of time, up to several years. Until 1995 this practice was possible in the United States, when the agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS) of the WTO entered into force, changing the basis of the patent’s term filing date from the ‘date of issuance’ to the ‘filing date’.

¹Terence H., ‘Wilbur Scandinavian Studies’ Troll, An Etymological Note Vol. 30, No. 3 (August, 1958), pp. 137-139

The first person who managed to give a definition of ‘patent troll’ was Peter Detkin. Being a former lawyer and assistant general counsel at Intel Corporation, a famous U.S. chip manufacturer, he was sued for libel for calling another company a patent ‘extortionist’. This situation was the impetus for the creation of the concept of ‘patent trolls’, in which he indicates them as ‘somebody who tries to make a lot of money off a patent that they are not practicing and have no intention of practicing and in most cases never practiced’.²

Anybody who attempts to enforce his or her patent protection in broad sense may be considered as a ‘patent troll’. There is also wide variety of locution which can be used to define ‘patent trolls’ such as ‘patent pirate’, ‘patent extortionist’, ‘patent parasite’ or ‘patent speculator’. These terms are more neutral: ‘patent licensing company’ or ‘non-practicing entity (NPE)’. The term NPE usually refers to ‘a patentee that does not make products or ‘practice’ its inventions’.³

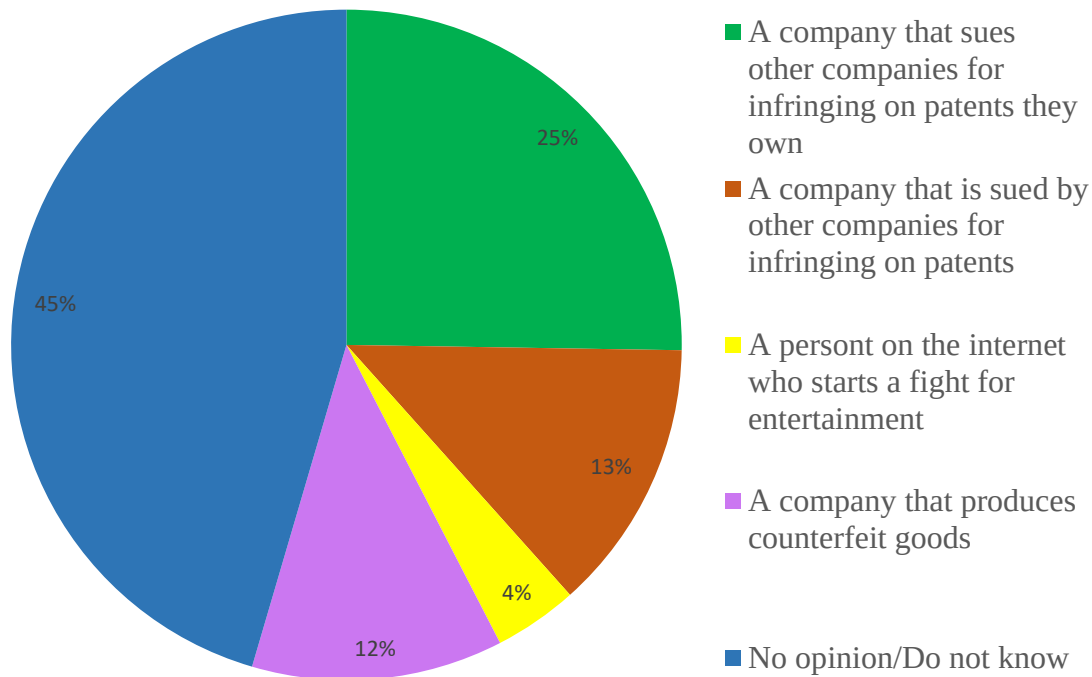
According to a new Morning Consult poll (a media and technology company at the intersection of politics, policy, Wall Street, and business strategy) ‘only a quarter of registered voters are familiar with the definition of ‘patent troll’’. A plurality, 45 percent, could not identify the correct description: a company that sues other companies for infringing on patents they own.⁴

² Brenda Sandburg, *supra* at 1

³ Colleen Chien, Of trolls, Davids, Goliaths, and Kings: Narratives and Evidence in the Litigation of High-tech Patents, in M. A. Lemley, Symposium: Frontiers In Empirical Patent Law Scholarship (North Carolina Law Review Association 2009), pp. 1577-1578

• ⁴ Fritz T. Burgher, ‘Patent Trolls Puzzle Voters’ Morning Consult (10 December 2014) <<https://morningconsult.com/2014/12/10/patent-trolls-puzzle-voters/>> accessed 13 April 2017

Patent Troll Definition Accuracy



As we can see, it is difficult to find a clear and common definition; the definition has therefore been “narrowed to exclude actors in the innovation enterprise who are engaged in significant research and development activities” Although being ‘Non-Practicing entities’ according to the definition, Universities for instance or other research companies are not considered to be ‘patent trolls’⁵ and ‘individual inventors who seek to commercialize their inventions’.⁶

In 2013 President Barack Obama suggested that patent trolls are ‘essentially trying to leverage and hijack somebody else’s idea and see if they can extort some money out of them’. ‘Extortionists’ is a term that he used to call them and declared that measures will be taken against ‘trolls’ so that startups have incentives to keep innovating.⁷

⁵ Mark. A. Lemley, Are Universities Patent Trolls?, *Fordham Intellectual Property, Media & Entertainment Law Journal*, Vol. 18, p. 611, 2008; *Stanford Public Law Working Paper No. 980776*. (April 11, 2007): < <http://ssrn.com/abstract=980776>, (last visited March 23th, 2017> accessed 11 April 2017

⁶ Colleen Chien, *supra* at 1578

⁷ Erin Fuchs ‘Obama Calls Patent trolls Extortionist Who ‘Hijack’ People’s Ideas’ *Business Insider* (15 February 2013) <<http://www.businessinsider.com/obamas-patent-comments-at-google-chat-2013-2>> accessed 23 March 2017).

Characteristics of a Patent Troll

Pure patent trolls can be characterized by 4 elements. Such a troll:

- (1) Has no significant assets except patents
- (2) Produces no products
- (3) Has attorneys as its most important employees, and
- (4) Acquires patents, but does not invent technology itself.⁸

There is a necessity to make clear that such entities do not make any investments in Research and Development (R&D), nor work on the product or practice of the patents they hold.⁹ Their activity is reduced to what they make essentially superficial claims of infringement. They want a ‘glittering pot of gold in exchange for doing absolutely nothing.’¹⁰ All characteristic, that we mentioned above, make to realize one important statement – patent trolls’ business model is entirely contrasting and directly proportional to that of the others subjects of the market.

⁸ *Patent Trolls : Fact Or Fiction?* : Hearing Before the Subcommittee On Courts, the Internet, and Intellectual Property of the Committee On the Judiciary, House of Representatives, One Hundred Ninth Congress, Second Session, June 15, 2006. Washington: U.S. G.P.O., 2006, p. 8.

⁹ Jennifer Kahaulelio Gregory, *supra* at 29

¹⁰ Brenda Sandburg, *supra* at 1.

Dangers of patent trolling

Businesses of small and medium size (SMBs) are the most common victims of patent trolling. Not capable of finding enough competence and resources for advocating during the lawsuit (which might be quite expensive for them), they stay among the most assailable audiences for such attacks. Insufficient supply of time and financial resources, which ought to be efficiently and profitably distributed, makes them crowd out funds designated for acquiring talents, R&D, and promotion services for growth and proliferation in order to cope with all judicial costs and procedures. That is why in case of startups, patent trolling might lead to bankruptcy (since small scales of these organizations don't allow pooling all the risks, any unexpected expense will be damaging to financial situation or reputation of a young firm). Even if litigation is unjust, SMBs have higher chances of settling than larger companies.

Nonetheless, giant firms have started considering reconciliation with trolls as the source of further permanent attacks rather than a faster way to get rid of them. That is why contemporary companies choose to fight back on a more constant basis and in the majority of cases, they succeed. However, active resistance from the business side has only badgered trolls and over the several years, their attacks over SMBs have become even more aggressive. Staying one of the key risk factors for the federal business climate, this phenomenon stays especially deleterious for the economy of the US, which views the development of new businesses as the main source of economic growth and innovation in the economy.

Among the latest recorded troll lawsuits, 80% were filed by owners of pathetically feeble patents against young companies having less than \$100 million in annual revenue. Only in 2005 more than 6 thousand litigations were filled and in most cases trolls were filing litigations against dozens (sometimes, even hundreds) of small companies. Even though the nature of these litigations was to gain the most with the lowest effort, they were still capable to completely destroy activities of any small company.¹¹

Amidst suggesting the cessation of current business operations or demolition of goods, which continue infringing patents, trolls exploit different strategies to gain from a

¹¹ Lee Chang, 'How to win the battle against patent trolls' (21 April, 2016) Entrepreneur News <https://thenextweb.com/entrepreneur/2016/04/21/startups-need-stay-sharp-comes-patent-trolls/#.tnw_gCM5J1Lr>_accessed 18 November 2017

convenient legal environment. Once they detected any form of contravention - they start to exploit their bargaining capabilities to force perpetrators to pay royalty fees. This can be managed both outside the courtroom and within it. These two strategies are not mutually exclusive as they are distinguished by the directness of employed approach.

The first strategy motivates trolls to resist business operations of violator using legal ways. Royalties negotiated by this way are much higher than what owners of patents could otherwise gain using ex-ante legal agreements. Here introductory and continuous injunctions stay among the most widely exploited means of legal negotiation (Lanjouw and Lerner, 2001). While the first type of injunctions can show their efficiency after only in a couple of days (although some processes can take over a year to pass), permanent ones can be filed only after the issuer was accused of main legal proceedings violations, which might take much longer. Nonetheless, the permanent injunction might be filed more rapidly, which might amaze the defendant, expecting to win the case and not anticipating to be considered violator at the first place.

Such interdicts are able to denounce the defendants by ceasing their current business operations. From the point of view of a company, these assaults are sources of excessive costs and they cannot be readily confronted by invoking the legal foundation of claimant's patent. This stays an exemplary counter response of defendants, sued for patent rights' violation. Particularly, the latter choice often requires more time than the outlet of a continuous injunction. Being the possible threat to the operating business (Hall and Ziedonis, 2001), such injunction may have a deathly outcome on the manufacturer before these countermeasures may become effective. The Research in Motion vs NTP lawsuit can serve as one of the brightest illustrations of this situation. Faced with the possibility of a continuous injunction, Research in Motion has negotiated to pay an irretrievable sum of \$612,5 million (although the USPTO, the United States Patent and Trademark Office has anticipatorily canceled all 5 patents of this case).¹²

It is evident that manufacturing firms are notably jeopardized by such legal strategies if they:

1. Have possibility of shutting down of temporarily halting their existing business;

¹² Joachim Henkel, Markus G.Reitzig, 'Patent Trolls, the Sustainability of 'Locking-in-to-extort' Strategies, and Implications for Innovating Firms' (17 December 2010) SSRN <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=985602> accessed 23 November 2017

2. Cannot readily reallocate to alternative techniques for maintaining their business in the run.

Today trolls heavily exploit the second alternative, which appears much juicier for them. The essence of this alternative is to require royalty payments or detriment awards (resulted from patent violation lawsuit) from manufacturers for a passed period of patent violation. One of the brightest examples was the case of Bruce Saffran vs Boston Scientific. Bruce was a radiologist, who sued BS for the patent violation, covering drug-covered heart stents. Bruce has agreed to a detriment awards rather than an injunction, receiving \$431 million in 2008. After some necessary legislative procedures, this case was finished in 2009, with the settlement amount of \$50 million. Although the strategy of pure detriment stays at the extremity continuum limit, a lot of troll incidents comprise elements of both injunction and determent. Freedom Wireless is a firm, which has once required the two of them while suing various telecommunications companies for prepaid services patent in 2000. Anyway, damages have played an important role, awarding \$128 million by a federal court in 2005.¹³

The clear conclusion is that trolls incorporate a weird strategy letting patents lay on the shelves without exploitation rather than vigorously heading to implement these innovations by further development or licensing to others. After some time they constantly monitor commerce in order to identify firms, who might use their inventions while designing their own products. As soon as they find such a manufacturer, they start contacting these users and force them to pay license fees as a reimbursement for exploiting the patented technology. Some manufacturers pay but if they refuse, the next place, where patent owners choose to come is a court judge, through whom they continue to force defendants to pay.

¹³ Joachim Henkel, Markus G.Reitzig, *'Patent Trolls, the Sustainability of 'Locking-in-to-extort' Strategies, and Implications for Innovating Firms'* (17 December 2010) SSRN <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=985602> accessed 23 November 2017

Effects of patent trolling

The activities of patent trolls result in heavy costs and harm innovation. There is evidence of significant harm. The Congressional Research Service and the White House presented many research studies proving that patent litigation harms innovation. There are three new experiential studies providing strong acknowledgment that patent litigation is reducing venture capital investment in startups and is reducing research and development spending, especially in small firms.¹⁴

It is important to pay attention to Harvard Business Review report, that suggests that ‘patent trolls cost defendant firms \$29 billion per year in direct out-of-pocket costs; in aggregate, patent litigation destroys over \$60 billion in firm wealth each year.’ It further said that, ‘these costs fall disproportionately on innovative firms: the more research and development a firm performs, the more likely it is to be sued for patent infringement, all else equal. And, although this fact alone does not prove that this litigation reduces firms’ innovation, other evidence suggests that this is exactly what happens.’

Confirming the facts which were presented by Harvard Business Review report, report of Executive Office of the President also pointed out similar observations ‘The practices of this group of firms, act to significantly retard innovation in the U.S. and result in economic ‘dead weight loss’ in the form of reduced innovation, income, and jobs for the American economy. Improving policy in this area is challenging because maintaining the incentives for innovation provided by patents requires allowing litigation when patents are infringed, and because practicing firms sometimes act badly.’¹⁵

These negative effects also were confirmed by three recent econometric studies. Firstly, Roger Smeets in his research investigated the impact of patent litigation on the subsequent corporate research and development intensity of alleged infringers. Comparing firms that were hit by extensive lawsuits to a carefully chosen comparable sample, he looked at research of small firms and their development. The conclusion was

¹⁴ James Bessen ‘The Evidence Is In: Patent Trolls Do Hurt Innovation’ Harvard Business Review (November 2014) <<https://hbr.org/2014/07/the-evidence-is-in-patent-trolls-do-hurt-innovation>> accessed 24 March 2017

¹⁵ Prableen Bajpai ‘The Impact Patent Trolls Have On Innovation’(11 February 2016) <<http://www.nasdaq.com/article/the-impact-patent-trolls-have-on-innovation-cm578479>> accessed 30 March 2017

that prior to the lawsuit, firms allocated 20% of their operating expenditures to research and development but during the years after the lawsuit. After controlling for other factors, they abridged that spending by 3% to 5% of operating expenditures, representing about a 19% abridgement in relative research and development spending. This conclusion was reached by isolating by Roger Smeets the effect of patent lawsuits from other factors that might also influence research and development spending.¹⁶

Secondly, Catherine Tucker in her research described why it is plausible to expect that there would be a relationship between observed patent litigation and venture capital funding of entrepreneurial activity. She estimates that lawsuits from frequent litigators (largely patent trolls) were responsible for a decline of \$22 billion in venture investing over a five-year period.¹⁷ This fact represents a 14% decline. So her analysis presents a negative and linear relation between the proportion of patent cases involving frequent litigators and venture capital investment.¹⁸

Thirdly, Harvard Business Review report distinguishes research of Harvard and the University of Texas, where recently examined research and development spending of publicly listed firms that had been sued by patent trolls. In this Working paper authors compared firms where the suit was dismissed, representing a clear win for the defendant, to those where the suit was settled or went to final adjudication, typically is much more expensive. They figured out that when lawsuits were not dismissed, firms abridged their research and development spending by \$211 million and abridged their patenting significantly in following years. The abridgement in research and development spending represents a 48% decline. As in the previous research, this comparison helped authors isolate the effect of lawsuits from other factors.¹⁹

Summarizing all previously mentioned the negative effect of patent litigation is:

- 1) This process costs inventors money;
- 2) Many venture capitals and inventors affirm that this materially has an effect on their business;

¹⁶ Smeets, Roger, Does Patent Litigation Reduce Corporate R&D? An Analysis of US Public Firms (April 28, 2014). <<https://ssrn.com/abstract=2443048>> accessed 4 April 2017

¹⁷ Smeets, Roger, Does Patent Litigation Reduce Corporate R&D? An Analysis of US Public Firms (April 28, 2014). <<https://ssrn.com/abstract=2443048>> accessed 4 April 2017

¹⁸ Tucker, Catherine E., The Effect of Patent Litigation and Patent Assertion Entities on Entrepreneurial Activity (June 22, 2014). <<https://ssrn.com/abstract=2457611>> accessed 4 April 2017

¹⁹ Smeets, Roger, Does Patent Litigation Reduce Corporate R&D? An Analysis of US Public Firms (April 28, 2014). <<https://ssrn.com/abstract=2443048>> accessed 4 April 2017

- 3) Innovators respond by investing less in research and development;
- 4) Venture capitalists respond by investing less in startups.

2. Patent trolling in EU

History and nowadays

Despite that fact that there was a considerable amount of patent troll activity in the European Union, its level has not increased to the level fixed in the U.S., in Ukraine or in Russia. Mainly there were just three NPEs that were involved in several legal patent proceedings in EU include the German based companies of ICom GmbH (ICom); Papst Licensing GmbH & Co. (Papst) and High Point SARL, which is located in Luxemburg and is a subsidiary of Inpro Licensing (High Point).²⁰

ICom owns a number of patents relating to mobile telecommunications technology which were obtained in 2007²¹ from Robert Bosch GmbH. ICom, aiming US \$2 billion in damages, brought an action against few companies, including Nokia, HTC Corp., T-Mobile GmbH and Apple for patent infringement in the District Court in Mannheim, Germany.²² That was one of the largest damage awards ever witnessed in German history. By the way, the courts in Mannheim, Düsseldorf and Munich are widely known for their velocity in deciding patent infringement cases, by virtue of Germany's bifurcated system where patent infringement and validity (revocation) actions are decided on separate tracks in different courts. For instance, in 8 months claimant may acquire permanent injunction in an effective patent infringement lawsuit in Germany, notwithstanding a decision on the validity (revocation) of a patent can take from 18 months to 2 years. Nevertheless, patent trolls should take into consideration some specific rules when bringing patent infringement actions in Germany, inasmuch as under German law, the non-prevailing party in legal dispute have the obligation to pay the legal fees (that can be quite significant) of the prevailing party in an amount proportional to the estimated value of the case.²³

In 2013 the EU conducted the agreement setting out the main principles and structure of the Unified Patent Court (UPC) that was signed by the various participating

²⁰ Lisa L. Mueller 'Patent Trolls: A View from Europe' Bric wall (24 February 2014) <<https://bricwallblog.com/2014/02/24/patent-trolls-a-view-from-europe/>> accessed 20 April 2017

²¹ ICom home page <http://www.ipcom-munich.com/home_en.html> accessed 25 April 2017

²² Erik Larson and James Lumley 'Nokia Wins U.K. Ruling Invalidating Two ICom Patents' Bloomberg, (20 January 2011 <<https://www.bloomberg.com/news/articles/2011-01-20/nokia-wins-london-appeals-court-ruling-invalidating-two-ipcom-patents>> accessed 25 April 2017

²³ Lisa L. Mueller 'Patent Trolls: A View from Europe' Bric wall (24 February 2014) <<https://bricwallblog.com/2014/02/24/patent-trolls-a-view-from-europe/>> accessed 20 April 2017

States.²⁴ Notwithstanding, the rules of procedure of this future litigation system are still being finalized. Two provisions, that are presented in the UPC agreement, may significantly influence the behavior of patent trolls before the UPC since being controversial.²⁵

Article 62 of the UPC Agreement contains the first provision related to provisional and protective measures, according to which, when requested to grant preliminary injunctions, seizures or delivery up orders, the UPC ‘may... require the applicant to provide any reasonable evidence in order to satisfy itself with a sufficient degree of certainty that the applicant is the right holder and that the applicant’s right is being infringed, or that such infringement is imminent.’²⁶

Lisa Mueller (a partner in Michael Best’s Intellectual Property Practice Group) explains that this provision confers a near endless degree of discretion regarding the extent to which a Patentee needs to prove its case, especially with respect to proof of infringement, in order to obtain the requested measures. This follows from the inclusion of the term ‘may’ of provision’s wording. But there is one point that confuses - some of the divisions of the UPC may demand a very low standard of evidence, making it rather elementary for any patent owner, including NPEs, to obtain such preliminary measures, with the risk of such measures being granted in cases where they are not truly justified.²⁷

Article 33 of the UPC Agreement establishes the other provision which is related to the competence of the first instance of the UPC. It states:

‘(a) the local division hosted by the Contracting Member State where the actual or threatened infringement has occurred or may occur, or the regional division in which that Contracting Member State participates; or

(b) the local division hosted by the Contracting Member State where the defendant or, in the case of multiple defendants, one of the defendants has its residence, or principal place of business, or in the absence of residence or principal place of business, its place of business, or the regional division in which that Contracting Member State participates.

²⁴ Agreement on a UPC (2013/C 175/01)

²⁵ ²⁵ Lisa L. Mueller ‘*Patent Trolls: A View from Europe*’ Bric wall (24 February 2014)

²⁶ Agreement on a UPC (2013/C 175/01), Art. 62

²⁷ Lisa L. Mueller ‘*Patent Trolls: A View from Europe*’ Bric wall (24 February 2014) <
<https://bricwallblog.com/2014/02/24/patent-trolls-a-view-from-europe/>> accessed 20 April 2017

An action may be brought against multiple defendants only where the defendants have a commercial relationship and where the action relates to the same alleged infringement.²⁸

A local division of the UPC does not have to wait for the outcome of the counterclaim for revocation, in case, it decides, at discretion, to proceed with the infringement action. This increases the probability that the local division will find a potentially invalid patent infringed, even though, the action itself nullifies the defensive effect of the counterclaim. We should mention that this action may enable patent trolls to obtain favorable infringement decisions on invalid patents, if exercised regularly.²⁹

On September 26, 2013, in New York Times was published a letter where was discussed how controversial the above two provisions were. This letter, which is addressed, *inter alia*, to the various EU institutions that work according to the UPC rules of procedure, warns about the risks of the above provisions. We can't but mentioned that the parties who sight this letter, are some of the world's largest corporations with measureless number of patents and a high figure of patent-related litigations worldwide. Those companies were Apple Inc., Google Inc, BlackBerry, Samsung Electronics Co. Ltd., Ltd., Cisco Systems Inc.,, Yahoo! Inc. and Microsoft. Tacking into consideration the fact that some of these companies are parties against one another in several patent-related litigations, the number of signatories, mentioned above, appears to be even more striking. Never the less, these companies had to take a joint position on the UPC. Moreover, the signatories stood for the adoption of rules of procedure that will 'allow operating companies to focus on innovation instead of litigation, thereby fostering economic growth and prosperity in Europe.'³⁰

²⁸ Agreement on a UPC (2013/C 175/01), Art. 33

²⁹ Lisa L. Mueller 'Patent Trolls: A View from Europe' Bric wall (24 February 2014) <<https://bricwallblog.com/2014/02/24/patent-trolls-a-view-from-europe/>> accessed 20 April 2017

³⁰ Lisa L. Mueller 'Patent Trolls: A View from Europe' Bric wall (24 February 2014)

Overview of legal basis

Main legislative act that establishes patentability in European Union is European Patent Convention (EPC). The conditions of patentability are envisaged in Article 52 of the EPC:

‘European patents shall be granted for any inventions, in all fields of technology, provided that they are new, involve an inventive step and are susceptible of industrial application.

3.Paragraph 2 shall exclude the patentability of the subject-matter or activities referred to therein only to the extent to which a European patent application or European patent relates to such subject-matter or activities as such.’³¹

Considering noticed above we can distinguish such criteria of patentability:

- any inventions, in all fields of technology
- new
- involve an inventive step
- are susceptible of industrial application
- licit

1. Invention.

In Article 52 para 2 EPC introduce a comprehensible distinction between ‘inventions’ and ‘discoveries’:

‘The following in particular shall not be regarded as inventions within the meaning of paragraph 1:

- a) discoveries, scientific theories and mathematical methods;
- b) aesthetic creations;
- c) schemes, rules and methods for performing mental acts, playing games or doing business, and programs for computers;
- d) presentations of information.’³²

In addition, the technical character of an invention is playing the preponderant role, since objects lacking technical nature are not patentable in the EU.³³

³¹ European Patent Convention, Art. 52

³² European Patent Convention, Art. 52 para 2

³³ *Nicolas Janssens de Bisthoven, Patent Trolls and Abusive Patent Litigation in Europe: What the Unitary Patent Package Can Learn From the American Experience?*, Stanford-Vienna TTLF Working Paper No. 19, <http://tlf.stanford.edu>. P29

2. Novelty

Patentability in Europe follows the ‘absolute novelty’ rule.

Article 54 EPC denote ‘An invention shall be considered to be new if it does not form part of the state of the art.’ By the state of art is mean ‘everything made available to the public by means of a written or oral description, by use, or in any other way, before the date of filing of the European patent application.’³⁴

Important in this question is priority clause, which is mentioned in the Article 54 para 3:

‘Additionally, the content of European patent applications as filed, the dates of filing of which are prior to the date referred to in paragraph 2 and which were published on or after that date, shall be considered as comprised in the state of the art.’³⁵

Alexander Harguth and Steven Carlson confirm that:

‘Everything that was made publicly available before the priority date of a patent application is relevant for assessing the novelty of an invention. It makes no difference where in the world the disclosure was made, or in which language. It is also irrelevant who made the disclosure. Even the applicant can destroy the novelty of his invention if he previously disclosed to the public, in whatever form, in writing, orally or over the internet’³⁶ So Europe has jurisdiction of ‘first to file’ not ‘first to invent’.

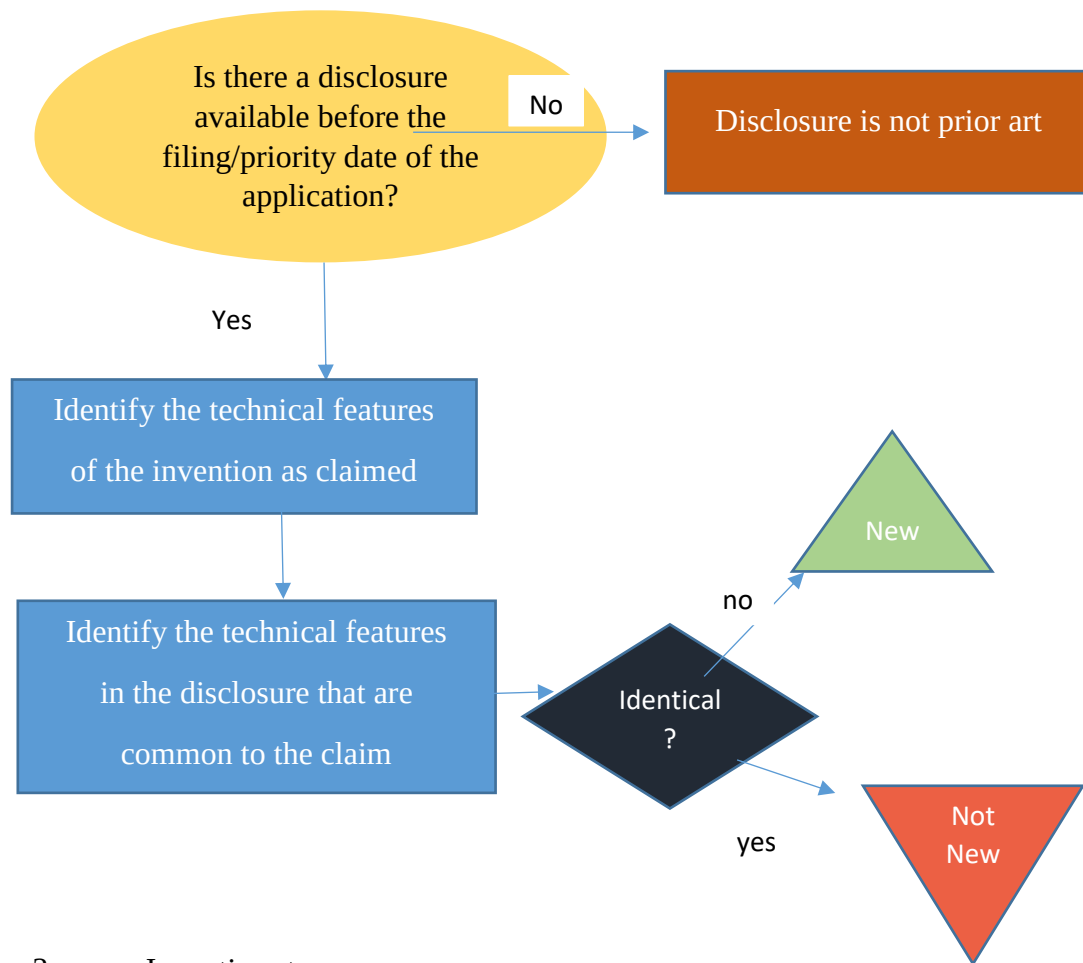
³⁴ European Patent Convention, Art. 54

³⁵ European Patent Convention, Art. 54, para 3

³⁶ Alexander Harguth & Steven Carlson, *supra* at 62-63

<https://www.adturtle.biz/LP_TA/index.cfm?T=437420> accessed 10 May 2017

Schema of checking the accuracy of innovation:



3. Inventive step

Article 56 of EPC establishes:

‘An invention shall be considered as involving an inventive step if, having regard to the state of the art, it is not obvious to a person skilled in the art. If the state of the art also includes documents within the meaning of Article 54, paragraph 3, these documents shall not be considered in deciding whether there has been an inventive step.’³⁷

It is required that the invention is not obvious, regarding the entire state of the art, for a skilled person and is an objective assessment.

The obviousness is decided by different ways:

- Various tests in different national systems

- One of the tests used by the German Patent Office is that every invention is a solution to a problem.

³⁷ European Patent Convention, Art. 56

- In the very first case heard by the EPO boards of appeal, the problem/solution approach was used to decide on the question of inventive step.

4. Amenability to Industrial Application

In European Union ‘amenability to industrial application’ clause is equivalent to the US ‘utility’ clause. In Article 57 of the EPC this clause is established as:

‘An invention shall be considered as susceptible of industrial application if it can be made or used in any kind of industry, including agriculture.’³⁸

In other words, the invention must have a concrete technical basis that could lead to ‘practical exploitation in the industry.’³⁹

According to the EPO, an invention is susceptible of an industrial application has generally been taken to be more or less automatically fulfilled up to 2005. Starting from 2005 according to decision T870/04 of the Boards of Appeal of the EPO it was held that ‘the mere fact that a substance can be made in some way does not necessarily mean that the requirements of Article 57 EPC are fulfilled, unless there is also some profitable use for which the substance can be employed.’⁴⁰

In case of discrepancy of an alleged invention with the generally accepted laws of physics, the industrial application requirement is related to the requirement of sufficiency of disclosure. For example the fact that a ‘patent application must disclose the invention in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art’⁴¹

5. Licit

Article 53 of the EPC:

‘European patents shall not be granted in respect of:

³⁸ European Patent Convention, Art. 57

³⁹ *Nicolas Janssens de Bisthoven, Patent Trolls and Abusive Patent Litigation in Europe: What the Unitary Patent Package Can Learn From the American Experience?*, Stanford-Vienna TTLF Working Paper No. 19, <http://ttlf.stanford.edu>.

⁴⁰ Decision of the Board of Appeal of the EPO, T 0870/04 – 3.3.8. <<http://www.epo.org/law-practice/case-law-appeals/recent/t040870eu1.html>> accessed 19 May 2017

⁴¹ *Case Law of the Boards of Appeal of EPO* <https://www.epo.org/law-practice/legal-texts/html/caselaw/2016/e/clr_i_e_1_1.htm> accessed 20 May 2017

a) inventions the commercial exploitation of which would be contrary to ‘ordre public’ or morality; such exploitation shall not be deemed to be so contrary merely because it is prohibited by law or regulation in some or all of the Contracting States...’⁴²

This clause seems to be self-evident but might not be overlooked. The legislator may consider some inventions unlawful and therefore to be non - patent-eligible subject matter.⁴³

The rights of patent holders.

In European Union, as in United States, the rights of patent holders are defended and they are not so much different. The European Patent Convention in Article 64 proclaims:

‘A European patent shall, subject to the provisions of paragraph 2, confer on its proprietor from the date on which the mention of its grant is published in the European Patent Bulletin, in each Contracting State in respect of which it is granted, the same rights as would be conferred by a national patent granted in that State.’⁴⁴

⁴² European Patent Convention, Art. 53

⁴³ *Nicolas Janssens de Bisthoven, Patent Trolls and Abusive Patent Litigation in Europe: What the Unitary Patent Package Can Learn From the American Experience?*, Stanford-Vienna TTLF Working Paper No. 19, <http://tlf.stanford.edu>.

⁴⁴ European Patent Convention, Art. 64

Cases in EU analyzing

Astra Zeneca v. Commission case

The pharmaceutical group ‘AZ’, which is active worldwide in the sector of the invention, development and marketing of innovative products, was formed by AstraZeneca plc group.⁴⁵

On 12 May 1999, Generics (UK) Ltd and Scandinavian Pharmaceuticals Generics AB complained to the Commission of AZ’s conduct aimed at preventing them from introducing generic versions of omeprazole on a number of EEA markets. By decision of 9 February 2000 the Commission extort AZ to submit to investigations at its premises in London and Södertälje.⁴⁶

On 25 July 2003, the Commission adopted a decision to initiate the procedure and on 29 July 2003 it sent a statement of objections to AZ. Following a number of oral and written exchanges between 2003 and 2005, the Commission on 15 June 2005 adopted the contested decision, in which it found that AstraZeneca AB and AstraZeneca plc had committed two abuses of a dominant position, thereby infringing Article 82 EC (now Article 102 TFEU) and Article 54 of the EEA Agreement.⁴⁷

According to Article 1(1) of the contested decision, the first abuse consisted in misleading representations to patent offices in Germany, Belgium, Denmark, Norway, the Netherlands and the United Kingdom and also before the national courts in Germany and Norway. The Commission considered in that regard that those representations formed part of an overall strategy designed to keep manufacturers of generic products away from the market by obtaining or maintaining supplementary protection certificates (‘SPCs’) for omeprazole to which AZ was not entitled or to which it was entitled for a shorter duration.⁴⁸ Under Article 1(2) of the contested decision, the second abuse consisted in the submission of requests for deregistration of the marketing authorizations for Losec capsules in Denmark, Norway and Sweden, combined with the withdrawal of Losec capsules from the market and the launch of Losec MUPS (‘Multiple Unit Pellet System’)

⁴⁵ *AstraZeneca AB and AstraZeneca plc v European Commission (Case C-457/10 P) para 15*
<<http://curia.europa.eu/juris/document/document.jsf?jsessionid=9ea7d0f130d5e79f7934f5cf43949c73b9920a35a916.e34KaxiLc3eQc40LaxqMbN4PaNqLe0?text=&docid=131490&pageIndex=0&doclang=EN&mode=lst&dir=&occ=first&part=1&cid=423992>>

⁴⁶ *AstraZeneca AB and AstraZeneca plc v European Commission (Case C-457/10 P) para 16*

⁴⁷ *AstraZeneca AB and AstraZeneca plc v European Commission (Case C-457/10 P) para 1*

⁴⁸ *AstraZeneca AB and AstraZeneca plc v European Commission (Case C-457/10 P) para 18*

tablets in those three countries. For those two abuses, the Commission imposed on the appellants jointly and severally a fine of EUR 46 million and on AstraZeneca AB a fine of EUR 14 million.⁴⁹

By application lodged at the Registry of the General Court on 25 August 2005, the appellants brought an action for annulment of the decision in issue. That action called into question the lawfulness of that decision with respect to the definition of the relevant market, the assessment of dominance, the first and second abuses of a dominant position and the amount of the fines.⁵⁰

By the judgment under appeal, the General Court upheld the contested decision in large part, however, it annulled Article 1(2) of the contested decision relating to the second abuse in so far as it found that the appellants had infringed Article 82 EC and Article 54 of the EEA Agreement by requesting the deregistration of the Losec capsule marketing authorisations in Denmark and Norway in combination with the withdrawal from the market of Losec capsules and the launch of Losec MUPS tablets in those two countries, inasmuch as it was found that those actions were capable of restricting parallel imports of Losec capsules in those countries. The General Court therefore reduced the amount of the fine imposed jointly and severally on the appellants to EUR 40 250 000 and the fine imposed on AstraZeneca AB to EUR 12 250 000 and dismissed the action for the remainder.⁵¹

The decision in this case as **Mr Advocate General Mazák convinced** should be:

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- dismiss the appeal brought by AstraZeneca AB and AstraZeneca plc;
- dismiss the cross-appeal brought by the European Federation of Pharmaceutical Industries and Associations (EFPIA);
- dismiss the cross-appeal brought by the Commission;
- order AstraZeneca AB and AstraZeneca plc to pay in respect of their appeal their own costs and the costs of the Commission;

⁴⁹ *AstraZeneca AB and AstraZeneca plc v European Commission (Case C-457/10 P) para 19*

⁵⁰ *AstraZeneca AB and AstraZeneca plc v European Commission (Case C-457/10 P) para 21*

⁵¹ *AstraZeneca AB and AstraZeneca plc v European Commission (Case C-457/10 P) para 22*

⁵² Opinion of Advocate General Mazák, *AstraZeneca AB and AstraZeneca plc v European Commission (Case C-457/10 P) para 151* <<http://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:62010CC0457&from=EN>>

- order EFPIA to bear in respect of its cross-appeal its own costs and the costs of the Commission;

- order EFPIA to bear in respect of the appeal brought by AstraZeneca AB and AstraZeneca plc its own costs;

- order the Commission to bear in respect of its cross-appeal its own costs.

As a result, the ECJ279 upheld the General Court's judgment and, in fine, the misuse of the patent system was recognized as a violation of article 102 TFEU.

Astra Zeneca v. Commission case was the clear example of misuse of the patent system as an 'abuse of dominance' and shows that competition law can be also instrument of defense from patent trolls.

As it was already mentioned in EU there were three main companies involved in patent trolling litigation. One of them IPCom GmbH was already discussed and now the turn for two others.

First case concerns Papst Licensing GmbH & Co., which owns a European patent concerning to road pricing systems. The German government employed Toll Collect GmbH (Toll Collect) to develop and place electrical road pricing system for trucks on German roads, in The Netherlands and neighboring countries. Papst sued Toll Collect in Switzerland and Germany regarding patent infringement and invalidity of the patent and damages. Besides, Toll Collect as well brought invalidity proceedings before the Dutch Court. The Dutch Court partially upheld validity of the patent and found infringement by Toll Collect.⁵³

Second case is about High Point SARLS, which protected the Dutch counterpart of EP 0 522 772B1 (relating to mobile communication networks) from KPN(the largest Dutch provider of telecommunications and information technology services). Eventually, the Dutch counterpart was found invalid by the District Court in The Hague. However, High Point sued E-Plus, Ericsson and Nokia Siemens Networks in Germany, Sprint Nextel (and others) in the U.S. and *KDDI Corporation* (a Japanese telecommunications

⁵³ Case 368320 / HA ZA 10-2069 *Toll Collect GmbH vs Papst Licensing GmbH & Co* [6 July, 2011] EP 513 <<http://www.eplawpatentblog.com/2011/July/Toll%20Collect%20-%20Papst%20EP%20513.pdf>> accessed 30 November 2017

company that provides mobile cellular services) in Japan. Interestingly, the German Federal Court upheld the validity of the German counterpart of EP 0 522 772B1.⁵⁴

⁵⁴ Case 352544 / HA ZA 09-3931 *HIGH POINT SARL vs KPN B.V.* [15 September, 2010] EP 772
<<http://www.eplawpatentblog.com/2010/September/VR%2009-3931%20High%20Point%20-%20KPN%20EP%20772%20UMTS-technik%5B1%5D.pdf>> accessed 30 November 2017

3. Patent trolling in Ukraine

History and nowadays

For Ukraine, being a ‘young’ country, theme of patent trolling is not so common but it is gaining momentum in the development and becoming serious due to its transfiguration. With the development of the country and business in it, not rapidly but step by step patent trolling is developing. Ukrainian virtuoso trolls turned out to be more inventive, turning innocuous patent trolling ‘in European way’ into business ‘in Ukrainian way’. Patent trolling in Ukraine has acquired new forms and has become a serious tool to block the activities of enterprises by their competitors. Level of patent trolling in this country is significantly lower than for example in United States but it has specific features:

1. Patenting of some minor units, aggregates, parts, spare parts for technology, for the purpose of making claims to real manufacturing companies that manufacture or import goods or products to the territory of Ukraine.
2. Registration on the territory of Ukraine of signs for goods, works and services owned by well-known manufacturing companies, with or without cybersquatting, for the purpose of further making claims to real manufacturing companies that import goods or products to Ukraine.

The reasons for the existence of patent trolling lie in the fact that when obtaining patents for products, their novelty is verified formally, as a result of which in Ukraine trolls receive patents for the items listed above. All that troll risks is the recognition of his patent as invalid, which, however, does not prevent him from obtaining such a patent repeatedly.

For better understanding how patent trolls works in Ukraine here is a typical example:

The importer wants to import pumps to Ukraine. He already has concluded contracts with consumers, received an advance payment. And the consumer in turn expects the arrival of the goods for further delivery to stores. But the expectations of the importer are not justified when it clears up that the goods were detained at customs for 20 days due to violation of intellectual property rights of some Mr. Patent Troll. The

importer's goods are idle, counteragents are dissatisfied and demand to return the advance, the importer is liable for breach of contractual obligations.

In Ukraine Patent trolls are not just searching for patent litigation but also make money from the information that they receive. Due to the example above Patent troll can be a competitor for importer. Target of patent troll is to block your goods at customs and hurt your business. And while the consignment of pumps ordered by the importer is idle, the competitor-troll is already carrying its goods to counterparties. In addition, the Patent Troll can legally obtain information from the customs office about the importer's supplier, the amount of imported goods and its price, as it is the owner of intellectual property rights, and the importer is their potential infringer. Such information for the competitor is invaluable, as it constitutes a commercial secret, which he can dump on the market.

So at least for such example we can discern the specific features that possess an activity of patent trolls in Ukraine.

Legal basis

As for the legislation, it cannot be said that the current legislation of Ukraine regarding protection of intellectual property is backward or loose. This legislation is quite modern. But the level of corruption in government bodies in general and in the field of intellectual property is such that it is not a problem to register for a small amount of money, for example, a shovel for stirring food, or a disposable lighter, or a toothpick, or a disposable metal clothes hanger, or a spray head.

The scheme of patent trolls is that the current legislation of Ukraine provides that when goods are imported, if claims for intellectual property are claimed, such goods are arrested before the final court decision on the patent troll case is made. Such courts can go on for a long time, the goods can deteriorate, go out of fashion, etc., and therefore, usually after the arrest of the goods, at the request of patent trolls, they themselves propose to pay ‘compensation’ for a quick settlement of a patent dispute or trademark dispute. And although the Ukrainian patent trolls are very liberal in the matter of pricing and the amount of hundreds of millions of dollars in one case, they can only dream, their actions seriously disturb the legal business and lead to tangible financial losses.⁵⁵

So we propose to overview the main legal acts of Ukrainian legislation that are related to protection of intellectual property rights especially patents protection.

Article 9 of the Constitution of Ukraine guarantees that *international treaties ratified by the Verkhovna Rada of Ukraine, are part of the national legislation of Ukraine*.⁵⁶ That means that to the national legislation of Ukraine that regulates and protects patents included such international treaties:

- Paris Convention (1883)
- Patent Cooperation Treaty (1970)
- Treaty on the Law of Trademarks (1994)
- Nice agreement (1957)
- Strasbourg agreement (1971)
- Budapest treaty (1977)

⁵⁵ Дарина Ганзиєнко ‘Патентний тролінг – загроза бізнесу в Україні’ Бізнес Новини (6 Квітня 2014) <<http://biz.nv.ua/ukr/experts/ganzienko/patentnij-trolling-zagroza-biznesu-v-ukrajini-931510.html>> accessed 13 June 2017

⁵⁶ Constitution of Ukraine, Art 9

- Patent Law Treaty (2000)

National Ukrainian intellectual property and patent legislation:

- Commercial Code of Ukraine;
- Civil Code of Ukraine;
- The Law of Ukraine ‘On Property’;
- The Law of Ukraine ‘On the basis of the state policy in science and scientific-technical activity’;
- ‘On the scientific and technical information’;
- ‘On Protection of Rights to Inventions and Utility Models’;
- ‘On the Protection of Industrial Designs’;
- Regulations on the State Patent Office of Ukraine and other legal acts.

According to the Law ‘On Protection of Rights to Inventions and Utility Models’ Chapter VII Protection of rights Art. 34. ‘Violation of the rights of the patent owner’- any encroachment on the rights of the patent owner under Article 28 of this Law is considered violation of the rights of the patent owner, which entails responsibility in accordance with laws of Ukraine. At the request of the patent owner the violation should be terminated and the infringer is obliged to compensate the patent owner damages.⁵⁷

According to the Art. 35 protecting the rights of an invention (utility model) provided in the court and the other with the law. Courts have jurisdiction over all legal relations arising from the use of this law. Courts in accordance with their competence, shall resolve disputes concerning:⁵⁸

- authorship of an invention (utility model);
- establish that use of the invention (utility model);
- establishing the patent owner;
- violation of the rights of the patent owner;
- conclusion and execution of license agreements;
- right of prior use;
- compensation.

⁵⁷ Ukrainian Law "On Protection of Rights to Inventions and Utility Models", Chapter VII, Art. 34

⁵⁸ Ukrainian Law "On Protection of Rights to Inventions and Utility Models", Chapter VII, Art. 35

To counter patent trolls in Ukraine is possible, because according to the Ukrainian legislation patents granted for used objects can be invalidated in court, and certificates for trademark registration can be annulled on the suit. First of all, you should file a claim for invalidating a troll patent or annulling a trademark registration certificate. The interested party has to provide evidence of the lack of novelty of the utility model or industrial design, prove the fact of earlier use of the trademark, or to evict the court that the interested person independently and, most importantly, before filing a patent application, utility model or trademark with the trolleys, had begun using the product father patented as an industrial design or manufacturing method or trademark, etc. This refers to the right of prior use, which is established by the court or in a counterclaim or as an assessment of the defendant's evidence. The right of prior use gives its subject the opportunity to continue manufacturing the product without obtaining permission from the owner of the patent / certificate and without paying a fee.

Theoretically, the patent troll can continue the attack and register a new patent, changing a small detail, and everything will begin anew. Thus, as it has been already noted above, the volume of the patent trolling market in Ukraine is not so significant and patent trolls are interested in long disputes, but want to get quick and big money.

Therefore, in the case where the patent troll sees an enterprise that is systematically protected, it will likely find a lesser victim. In this situation, even small expenses for legal support of cases in the field of intellectual property, monitoring of issued patents for the purpose of identifying 'foreign' patents for objects that produce or sell an enterprise, monitoring of the customs register of intellectual property objects, and timely application to courts. In cases of availability threats will help to ensure a stable and predictable business performance and will prevent significant costs.

It should be noted that the articles on the protection of industrial property appeared just in the Criminal Code of Ukraine in 2001. So the cases and the application of these articles raise many questions. Features of the Ukrainian legislation presupposes not true inventors - fraudsters to obtain patents and then legally make the life for competitors more difficult. However, the continuation of the legal structures is the ability with impunity to attract rival criminal liability for violation of the patents. And it seems quite absurd possibility of criminal prosecution and criminal liability for violation of exclusive

intellectual property rights for utility model and industrial design patents issued without prior arrangement.⁵⁹

The current system of criminal liability for violations of the rights arising from a patent is actually contrary to the nature of patent law, the Constitution of Ukraine and, possibly, the effect of criminal law in this part may be suspended by an appeal to the Constitutional Court.

The Law of Ukraine ‘On Protection of Rights to Inventions and Utility Models’ provides that violations of the rights of the patent owner shall entail liability provided by the legislation of Ukraine, which provides for such actions civil, administrative and criminal responsibility. Criminal liability provided by Article 177 of the Criminal Code of Ukraine. Illegal use of an invention, utility models, industrial designs, topographies of integrated circuits, plant varieties, innovations, misappropriation of authorship on them, or another intentional infringement of these objects if it caused material damage in the significant amount it shall be punishable by a fine of two hundred to thousands free minimum incomes, or correctional labor for up to two years, or imprisonment for the same term. The same actions, if repeated, or a conspiracy or caused material damage in a large amount shall be punishable by a fine of one thousand to two thousand non-taxable minimum incomes, or correctional labor for up to two years, or imprisonment for a term of two five. If actions, previously mentioned, are committed by an official through abuse of office or an organized group or if they caused material damage on especially large scale shall be punishable by a fine of two thousand to three thousand non-taxable minimum incomes, or imprisonment for a term of three to six years, with disqualification to hold certain positions or engage in certain activities for up to three years or without it.⁶⁰

There is note of Article 176 of the Criminal Code, which provides that material damage is considered to be inflicted in a significant amount if its size twenty or more times the non-taxable minimum incomes of citizens; on a large scale - if its amount equals

⁵⁹ Гареев С. Ш. Проблеми захисту патентних прав за допомогою кримінально-правових способів / С. Ш. Гареев // Актуальні проблеми держави і права. - 2009. - Вип. 51. - С. 156-164.:http://nbuv.gov.ua/UJRN/apdp_2009_51_25.

⁶⁰ Criminal Code of Ukraine, Art. 177

or exceeds income tax exemption and inflicted on especially large scale - if the size of a thousand and more times the untaxed minimum incomes.⁶¹

Actus reus is any action related to the illegal use of the invention. By using the intellectual property rights for the invention of the Law of Ukraine 'On Protection of Rights to Inventions and Utility Models' recognizes offering for sale, including via the Internet, sales, and import or other introduction into civil circulation or storage of the mentioned purposes of the product manufactured in base of invention.

The Constitution of Ukraine recognizes as the highest value individual freedom. The introduction of criminal responsibility for violation of such wrights is a mistake. If the patent is invalid, then as a society cannot turn to individual years spent in prison, but not because of investigative or judicial error, and the error in criminal law. In this case, even compensation is impossible for the unlawful actions of inquiry, investigation or prosecution, offenders sentenced as completely legal. The existing Criminal Code of Ukraine the possibility of conviction for patent infringement - a direct error of law that does not allow as procedural - to check the patentability of the invention being beyond the law enforcement authorities, and in fact - there is no absolute possibility to check the patentability of the invention in the trial reliably determine whether a patent valid.⁶²

Thus, the court cannot reliably established the guilt of the person being accused. It can be concluded that criminal liability for patent infringement, under the Criminal Code of Ukraine, contrary to Art. 62 of the Constitution of Ukraine, which provides: 'A person is guilty of a crime and cannot be subjected to criminal punishment until his guilt is proved through legal procedure and established a court conviction.'⁶³

No one is obliged to prove his innocence of a crime.

The charges cannot be based on evidence obtained illegally, as well as on assumptions. All doubts regarding proof of guilt of the person interpreted in his favor.

In case of cancellation of the verdict as unjust, the State compensates the material and moral damage inflicted by the groundless conviction.

⁶¹ Criminal Code of Ukraine, Art. 176

⁶² Гареев Є. Ш. Проблеми захисту патентних прав за допомогою кримінально-правових способів / Є. Ш. Гареев // Актуальні проблеми держави і права. - 2009. - Вип. 51. - С. 156-164.:http://nbuv.gov.ua/UJRN/apdp_2009_51_25.

⁶³ Constitution of Ukraine, Art. 62

In this case doubt on guilt of the person in doubt about the validity of the granted patent because of the inability to reach all of the level of technical development, including the facts of open use. These concerns do not allow under the Constitution of Ukraine condemn a person for patent infringement.

Undoubtedly, protection of intellectual property rights must exist. However, this kind of exclusive rights as the right to invention, utility model, industrial design can successfully be protected under civil law actually provided such institutes civil proceedings, as a preliminary maintenance and enforcement. In case of violation of the court's decision may have criminal responsibility for crimes against justice.⁶⁴

⁶⁴ Гареев Є. Ш. Проблеми захисту патентних прав за допомогою кримінально-правових способів / Є. Ш. Гареев // Актуальні проблеми держави і права. - 2009. - Вип. 51. - С. 156-164.:http://nbuv.gov.ua/UJRN/apdp_2009_51_25.

Case: Google Inc. vs ‘ГОУ ОГЛЕ’

Not only small and medium businesses become victims of patent trolls. So, one of the most famous cases of patent trolling in Ukraine is the registration of the ‘Go Ogle’ trademark, which allowed the troll to register the UA domain (google.ua). This domain for a long time belonged to the company ‘Go Ogle’. When we tried to go on the google.ua website, users were redirected to the ‘Кохаймось’ dating site.

The google.ua domain was delegated to the Ukrainian firm Go Ogle, which in 2006 was able to register trademarks of trade mark Google and Go Ogle in classes 9 (scientific instruments, computers, counters and counting machines) and 45 (social, security services, marriage Agency), resulting in obtaining control over the domain in the .UA zone.

The plaintiff in this case, which is numbered 20/368, is a Ltd ‘Go Ogle,’ and as the defendant (or rather the defendant-1) is the Ltd ‘Hostmaster’.

The subject of the claim – ‘invalidation of paragraph 3.2 of the Rules of domain .UA, recognition of the right to use the commercial name of domain names and Go-Ogle.UA GoOgle.UA’.

Google.ua history, thus becoming the new plot twists, the now suing Go Ogle against Hostmaster, moreover, stated quite modest claim: annulment of the provisions of the Rules of domain .UA that the registration of second level domains is solely an appropriate trade mark.

The process was started without Google Inc. consisting of members (which seems obvious, given the interests of the claimant), but the decision of the Economic Court of Kyiv 25.11.09 Google Inc. attracted to the case as a third party that does not claim independent demands on the subject of the dispute on the side of the defendant.⁶⁵

The company ‘Google Inc.’ (Google Inc.) appealed to the Economic Court of Kyiv with the claim of the obligations LLC ‘Go Ogle’ stop using commercial name ‘Google’ in the domain name of this company www.google.ua and liabilities LLC. ‘Hostmaster’, which owns the complex administrative responsibilities for .UA domain, stop domain name delegation www.google.ua named Ltd. ‘Go Ogle.’.

⁶⁵ Артур Оруджалієв ‘google.ua: як Гоу Огле судиться з Хостмайстером’

The decision of Economic Court of Kyiv satisfied the claim of 03.02.2009.

Decision of the Kiev Economic Court of Appeal on 17.03.2009 the appeal proceedings in the case suspended until resolution of the Kyiv Economic Court on the claim of 'Google Inc.' (Google Inc.) to. LLC. 'Go Ogle' and the State Department of Intellectual Property Ministry of education and Science of Ukraine to invalidate the certificate number 60594 Ukraine for trademark and service 'GoOgle'.

The company 'Google Inc.' (Google Inc.) appealed to the Supreme Economic Court of Ukraine with the appeal, which requests a ruling of the Kiev Economic Court of Appeal on 17.03.2009 canceled, and the case refer to the named court, referring to the incorrect application of Article 79 Commercial Procedure Code of Ukraine. In particular, the complainant notes that the appellate commercial court properly grounded inability to review the case to resolve the case to invalidate the certificate. In reference to the cassation appeal LLC 'Go Ogle' objection to the arguments of the complaint.⁶⁶

The story ended with the fact that Google has achieved the recognition of the purpose of registering this trademark dishonestly and the registration was canceled in court. However, the domain google.ua and remained behind the troll, and Google uses the local page google.com.ua.

This decision can become a precedent for other disputed domains in the .UA zone, for example, interfax.ua, fortune.ua, naftogaz.ua.

To address these issues more quickly in the future, undertaking 'Hostmaster' plans to move to Uniform Domain Name Dispute Resolution Policy, a single policy for resolving domain disputes in accordance with World Intellectual Property Organization Arbitration and Mediation Center practice.

⁶⁶ Decision of the Supreme Economic Court of Ukraine № 12/25 from 23 June 2009
<http://www.arbitr.gov.ua/docs/28_2381228.html> accessed 20 June 2017

4. Patent trolling in USA

History and nowadays

In the US, the counteraction to patent trolls has been going on for more than a century. At the turn of the XVII - XVIII centuries actively were patented various objects of agricultural purpose, which costed quite cheaply. They led to the refusal of inventors to use their developments and, as a result, the appearance in the relevant sphere of numerous 'sleeping patents'. Later, with the establishment of mass industrial production of agricultural tools, the patents in question were often violated. Seeing that inventions are actively involved in civil circulation and bring significant profits to producers, patent owners began to insist on their legal rights by filing numerous lawsuits. At the same time, buyers began to appear, who acquired 'sleeping patents' in order to initiate court proceedings and receive substantial payments from the offender. They were called 'patent sharks' and, as noted in the literature, preferred such a 'game of chance' to any regular business, seeking to derive maximum profit from investing scarce resources and efforts.

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The situation was the subject of proceedings at the level of the highest power structures of the United States. Agricultural producers, led by the non-governmental organization National Grange, tried to justify the need for legislative changes that suppress such activities, but faced serious opposition. Representatives of the creative and inventive circles argued that any reforms can only harm innovation. The most famous supporter of the status quo was T. Edison. According to the scientist, any restrictions on the rights of patent holders will not only act depressingly on inventors, but also hamper the improvement of existing discoveries. The report to Senate of Vice President Hannibal Hamlin, at the time of President A. Lincoln, stated with such words: 'We are dealing with complex disputes, but the difficulties are hardly sufficient grounds to abolish the patent in the country System.'

At that stage, the US patent system was not reformed. However, the search for mechanisms to combat trolls has not stopped. From time to time, at different levels, ideas were voiced to solve the problem. In particular, the provision on the need to protect the rights of a person who independently created an OIS after the priority date has become

⁶⁷ Magliocca G. *Blackberries and Barnyards: Patent Trolls and the Perils of Innovation* // Notre Dame Law Review. June 2007. P. 35.

fairly widespread. This position was actively advocated, in particular, by Samson Vermont, who stated that ‘an independent invention must’ defend ‘against accusations of patent infringement, according to the model of copyright and trade secrets’⁶⁸

However, this assertion is obviously erroneous. The legal regime of objects of copyright and patent law, know-how, determined by the specific nature of the results of intellectual activity, cannot be unified. So, in objects of copyright in contrast to the patent protected not content but form, which is unique. The existing of two identical objects of copyright is impossible. In turn, the objects of patent law are potentially repeatable. They can be created independently or reproduced on the basis of the known patent formula. In practice, for a third subject (for example, a judge), it is almost impossible to distinguish between these situations. At the same time, the legislator justifiably tries to encourage the first creator. In this regard, analogies of copyright and patent law are unacceptable. In any case, it seems that the protection of the rights of entities that created their own objects after the priority date is not appropriate. The risk of granting rights to a subject who has learned about development is significant only in connection with its disclosure. In practice, this will lead to an unacceptable infringement of the rights of patent holders and a reduction of incentives for innovation. In this regard, it is not surprising that such proposals have not found a response in the US legislative system. In the first half of XX century disputes concerning the activities of patent trolls have a bit subsided. Law enforcement practice as a whole was based on the provision: if there is a violation of the exclusive right, then a judicial ban on the application of the appropriate objects of intellectual property should follow. However, this approach was not unconditional. Typical in this respect is the case of *Continental Paper Bag Company v. Eastern Paper Bag Company* (1908)⁶⁹

The owner of the patent for the improvement of the device for the production of paper bags - Eastern Paper Bag Company - required that Continental Paper Bag Company cease to use this invention and pay it damages. The respondent company, in turn, argued

⁶⁸ *Samson Vermont, Independent Invention as a Defense to Patent Infringement*, 105 Mich. L. Rev. 475 484 (2006)

⁶⁹ *Continental Paper Bag Co. v. Eastern Paper Bag Co.* 210 U. S. 405 (1908). <<http://caselaw.findlaw.com/us-supreme-court/210/405.html>> accessed 1 July 2017

that an indefinite injunction should be refused due to the failure of the patent holder to use the patented invention.⁷⁰

The court of first instance recognized the patent as valid and violated. At the same time, it noted that the plaintiff never made any attempts to apply the object practically: neither directly nor through the licensing institute. However, he cannot refer to the lack of funds, since there is no doubt that he is a large and wealthy corporation. As a general conclusion, the court ruled that ‘there is no reason to doubt that the plaintiff refers to entities that accumulate patents in order to protect and exclude competitors,’ and refused to satisfy the claim.⁷¹

The appellate court denied the thesis that an unused patent does not have the right to protection represented by an extraordinary means - an injunction. The plaintiff's claims were found to be satisfying.⁷²

The US Supreme Court recognized the legitimacy of the plaintiff's claims on the issue: ‘... patent law, in accordance with the Constitution, gives patent holders exclusive rights to a patented invention. The patent holder has the right to deprive others of the opportunity to use the invention within the time prescribed by law’. Herewith, they were rejected, however, by excessive formalism in assessing the patent conflict, mandatory introduction of a prohibition, stipulated by the violation. It was found: ‘... speech in a similar dispute Is not about the construction of the law, but whether the behavior of the patent owner is contrary to public policy. The non-application of the invention for 17 years clearly does not correspond to technological progress. Meanwhile, at least disputable are the assertions of the defendant that the non-application of the invention was unreasonable, and that the rights of the community were affected.’⁷³

The court established a clear list of criteria for delineating the fair defense of exclusive rights and patent trolling in 2006 due to the eBay Inc. v. MercExchange L. L.C case.

⁷⁰ *Continental Paper Bag Co. v. Eastern Paper Bag Co.* 210 U. S. 405 (1908).
<<http://caselaw.findlaw.com/us-supreme-court/210/405.html>> accessed 2 July 2017

⁷¹ *Continental Paper Bag Co. v. Eastern Paper Bag Co.* 210 U. S. 405 (1908)
<<http://caselaw.findlaw.com/us-supreme-court/210/405.html>> accessed 2 July 2017

⁷² *Continental Paper Bag Co. v. Eastern Paper Bag Co.* 210 U. S. 405 (1908)
<<http://caselaw.findlaw.com/us-supreme-court/210/405.html>> accessed 3 July 2017

⁷³ *Continental Paper Bag Co. v. Eastern Paper Bag Co.* 210 U. S. 405 (1908).
<<http://caselaw.findlaw.com/us-supreme-court/210/405.html>> accessed 4 July 2017

MercExchange, which has a patent to facilitate the online sale of goods between private parties, has asked eBay to conclude a license agreement for the use of this facility. At the same time this company claimed that until now eBay illegally applied the specified business method in its activity. The companies did not reach an agreement during the negotiations, in consequences, MercExchange filed a lawsuit against eBay. The company eBay, in turn, tried to challenge the validity of the patent. The jury found that the patents were valid and violated, obliging eBay to pay damages to the plaintiff. At the same time, the request of MercExchange to issue a compulsory ban by the court of first instance was rejected. The general rule is that the injunction should be issued in the event of a violation. However, the court has the power to refuse to implement this measure of protection - provided that it satisfies the principle of fairness.

The verification of such conformity must be carried out on the basis of a four-level test:

- 1) whether the plaintiff has encountered irreparable harm in the absence of a ban;
- 2) whether the plaintiff suffices adequate remedies in accordance with the law in addition to the ban on the use of the object of intellectual property;
- 3) whether the prohibition corresponds to future public interests;
- 4) whether there is a balance of the hardships of the parties in favor of issuing a refusal.

Analyzing the case of MercExchange v. EBay from the position of these criteria, the court concluded that the refusal to grant a permanent injunction would not cause the plaintiff significant damage, since:⁷⁴

- a) the plaintiff does not practice his inventions, but only issues licenses;
- b) there are reasons to believe that he filed a lawsuit not to establish a ban, but to get compensation;
- c) the plaintiff has repeatedly expressed his willingness to enter into a licensing agreement with eBay, and, therefore, his interests can be adequately protected by compensation for damages.

At the appeal stage, the decision of the court of first instance was revised indicating that a deviation from the prohibition requirement is possible when the application of this

⁷⁴Clarence Thomas, *opinion of the Supreme Court of United States "Ebay Inc., et al., Petitioners v. MercExchange, L.L.C."* < <https://supreme.justia.com/cases/federal/us/547/388/opinion.html> > accessed 16 August 2017

protection measure violates the important public needs in objects of intellectual property. As for this case the condition is not fulfilled in it.⁷⁵

Finally, the dispute in question was referred to the US Supreme Court, which also proposed a four-level test to determine the need for an injunction:

- 1) whether the claimant causes irreparable damage to the absence of a court injunction;
- 2) whether the remedies available under the law are adequate and sufficient to compensate the plaintiff for infringement of his rights;
- 3) whether balance of hardship of plaintiff and defendant is ensured;
- 4) if the public interest is violated

Judge Anthony Kennedy noted that the nature of patents and the economic functions of patent holders can serve as grounds for departing from the historical practice of prohibition in the event of a violation. As such circumstances, he indicated, in particular:⁷⁶

- 1) the existence of non-practicing patent holders who do not intend to use patents and hold them solely for licensing purposes;
- 2) the possibility of an excessive instrument of influence - arises in a situation where a patented innovation includes a small component, the rights to which are patented by another entity;
- 3) potential unjustified and questionable granting of patents for business methods.

Ultimately, the court concluded that, in accordance with the circumstances of the case, there is no need to prohibit the use of the business method by the respondent.⁷⁷

After the eBay case, when establishing the fact of violation of the patent, the decision to forcibly prohibit the use of objects of intellectual property was brought by American courts in approximately 72% of cases. For the period from October 2008 to early 2009, the ban was applied in 17 out of 26 cases. At the same time, as a determining factor, the existence of competition between the plaintiff and the defendant in a certain

⁷⁵ John G. Roberts, Jr. concurring Supreme Court of United States "Ebay Inc., et al., Petitioners v. MercExchange, L.L.C." <<https://supreme.justia.com/cases/federal/us/547/388/concurrence2.html>> accessed 16 August 2017

⁷⁶ Anthony M. Kennedy concurring Supreme Court of United States "Ebay Inc., et al., Petitioners v. MercExchange, L.L.C." <<https://supreme.justia.com/cases/federal/us/547/388/concurrence.html>> accessed 16 August 2017

⁷⁷ Janutis R. M. The supreme court's undremarkeble decision in eBay Inc. v. MercExchange L. L.C. <www.lclark.edu/live/files/4810> accessed 15 August 2017

market was considered. If it was present, then the requirements to ban the use of objects of intellectual property were satisfied.⁷⁸

In 2013, in the US, the war against patent trolling was declared not only at the level of case law, but also within the framework of the law-making process. In connection with the fact that companies that are in the process of litigation against patent trolls have colossal legal costs, they often prefer to buy off trolls and not go to court. According to the University of Texas, about 90% of cases end at the negotiation stage.⁷⁹

In early 2013, Congressman Peter DeFazio presented to the US Congress a draft law (SHIELD Act), which places the trolls, if lost, in the process of reimbursing the company with which they are judging all the multimillion-dollar costs of litigation.⁸⁰

As for general development of lawsuits filed by patent trolls Daniel P. McCurdy in his article mention that:

‘From October 1, 1994 through September 30, 2002, 527 patent lawsuits were filed by or against the 219 NPEs currently identified and tracked by Patent Freedom. This represented 2.7 percent of patent lawsuits filed in the United States during that 8-year period. From October 1, 2003 through September 30, 2007, there were 1,210 lawsuits filed by or against these entities, representing approximately 8.4 percent of all patent lawsuits filed in that period, and exceeding 10 percent in 2006 and 2007.’⁸¹

Here is percentage of intellectual property-related lawsuits by non-practicing entities to total IP-related lawsuits.⁸²

⁷⁸ Mark Schwanhauser “EBay patent case settled” Mercury News, Bay Area News Group February 28, 2008 <<http://www.mercurynews.com/2008/02/28/ebay-patent-case-settled-2/>> accessed 18 August 2017

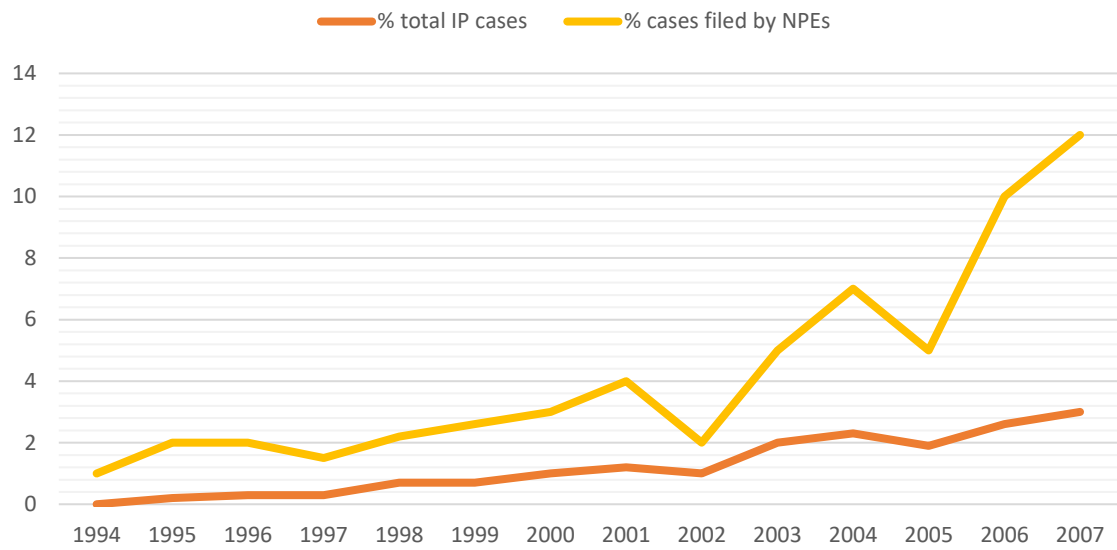
⁷⁹ John R. Allison, Mark A. Lemley, Joshua Walker “Patent Quality and Settlement Among Repeat Patent Litigants” (2011) The Georgetown Law Journal <<http://georgetown.lawreviewnetwork.com/files/pdf/99-3/AllisonLemleyWalker%20677-712.PDF>> accessed 19 August 2017

⁸⁰ Peter DeFazio official website <<http://defazio.house.gov/media-center/press-releases/wednesday-defazio-chaffetz-to-unveil-shield-act-to-combat-patent-trolls>> accessed 20 August 2017

⁸¹ Daniel P. McCurdy “Patent Trolls Erode the Foundation of the U.S. Patent System” (January 12th 2009) Science Progress <<https://scienceprogress.org/2009/01/patent-trolls-erode-patent-system/>> accessed 20 August 2017

⁸² Daniel P. McCurdy “Patent Trolls Erode the Foundation of the U.S. Patent System” (January 12th 2009) Science Progress <<https://scienceprogress.org/2009/01/patent-trolls-erode-patent-system/>> accessed 20 August 2017

Lawsuits by patent trolls on the rise



The biggest patent troll companies

The most successful company, which is known as Patent Troll in Chief, is Uniloc USA Inc. This company was founded in Australia in 1992. It is a copy protection and computer security software company. It is known as patent troll because of its controversial patent lawsuits.

Ric Richardson was the first chief executive in this company and exactly on his patented invention was based this company. The application of this patent was dated late 1992 but in the US just in 1996. Since application in Australia Uniloc established a three-year exclusive marketing agreement with IBM and later produced non-exclusive campaigns with many of the leading PC industry companies and publications, including CompUSA, Egghead, Software Etc., Commence, Ziff-Davis and others.⁸³

In 1993 Uniloc distributed 'Try and Buy' versions of software for multiple publishers via a marketing agreement with IBM. An initial success was the sale of thousands of copies of a software package (First Aid, developed by Cybermedia) distributed on the front cover of *Windows Sources* magazine in 1994. With patents already granted for the U.S. market and pending in several countries, Uniloc owned the rights to the technology that allowed for software to be locked by the ISV and unlocked by the potential consumer.⁸⁴

Richardson's invention was a unique new electronic software distribution technology that encompassed all of the advantages and power of electronic distribution and transaction management, and solved many of the problems faced in the high-tech market those days. It applied to the software publisher; independent software vendor (ISV); the PC supplier; original equipment manufacturer (OEM); the resellers who include distributors and retailers alike and the consumer.⁸⁵

1997 Uniloc established its headquarters in Huntington Beach in US. That year a US subsidiary was set up called Uniloc PC Preload to produce preloaded unlockable

⁸³ Corporate Profile of Uniloc

<<https://www.thefreelibrary.com/Corporate+Profile+for+Uniloc,+dated+Dec.+4,+1999.-a057934274>> accessed 21 August 2017

⁸⁴ Corporate Profile of Uniloc

<<https://www.thefreelibrary.com/Corporate+Profile+for+Uniloc,+dated+Dec.+4,+1999.-a057934274>> accessed 21 August 2017

⁸⁵ Alisa A. Dolak Angela S. Cooney "Uniloc v. Microsoft" New York State Science & Technology Law Center (6 February 2015) <https://www.youtube.com/channel/UCarPvE_LHKjHo_0wlHDSkww/videos> accessed 25 August 2017

editions of popular software products on new PCs. Distribution agreements were executed with eMachines and Toshiba. *Family PC* magazine also produced two months of magazines featuring unlockable software from Uniloc PC Preload on the cover in 2000.⁸⁶

In 2003, Uniloc Corporation set up a US subsidiary called **Uniloc USA**, which operates out of Rhode Island and Southern California. The company is currently licensing its patented technology to software publishers and entertainment companies including Sega.⁸⁷

Uniloc USA, Inc. v. Microsoft Corp.

In 2003 plaintiffs Uniloc USA, Inc. and Uniloc Singapore Private Limited (collectively referred to as ‘Uniloc’) have filed patent infringement action against Microsoft Corporation (‘Microsoft’) for allegedly infringing Uniloc's United States Patent Number 5,490,216 (‘the ‘216 Patent’), relating to technology designed to deter software piracy.⁸⁸

In true gladiatorial spirit reflecting the high stakes in this fight, the parties managed to disagree on the construction of no less than 24 claim terms, with the parties battling more vigorously over the construction of some terms than others. Considering the breadth and number of claim terms to be construed, for ease of discussion, the Court had adopted the structure of Microsoft's claim construction brief and grouped the claim terms into the following five categories: (1) licensee unique ID and its generation; (2) modes/mode switching means; (3) user interaction requirements; (4) claim 12 and its dependent claims; and (5) platform unique ID generating means.⁸⁹

A patent specification is defined in 35 U.S.C. § 112 as follows: ‘The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make

⁸⁶ Corporate Profile of Uniloc

<<https://www.thefreelibrary.com/Corporate+Profile+for+Uniloc,+dated+Dec.+4,+1999.-a057934274>> accessed 21 August 2017

⁸⁷ ‘SoftAnchor Customers’. *Uniloc.com*. 2009-05-12. Archived from the original on 2009-05-12. Retrieved 30 August 2017

⁸⁸ *Uniloc USA, Inc. v. Microsoft Corp.*, 447 F. Supp. 2d 177 (Dist. Court, D. Rhode Island 2006) para 1 <https://scholar.google.com/scholar_case?q=uniloc+microsoft&hl=en&as_sdt=2,5&as_vis=1&case=14398177835480061775&scilh=0> accessed 10 September 2017

⁸⁹ *Uniloc USA, Inc. v. Microsoft Corp.*, 447 F. Supp. 2d 177 (Dist. Court, D. Rhode Island 2006) <https://scholar.google.com/scholar_case?q=uniloc+microsoft&hl=en&as_sdt=2,5&as_vis=1&case=14398177835480061775&scilh=0> accessed 10 September 2017

and use the same, and shall set forth the best mode contemplated by the inventor of carrying out his invention.’⁹⁰

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.⁹¹

Although it was not relied upon, the Court notes that Uniloc's expert, David Klausner, opined that this construction is what one of ordinary skill in the art would understand the term licensee unique ID to mean. Pursuant to the June 9, 2006 joint submission, the parties have agreed that these claim terms should be construed synonymously. These terms are construed synonymously for the same reasons that the terms ‘licensee unique ID,’ ‘security key,’ ‘registration key,’ and ‘enabling key’ were construed synonymously.⁹²

The distinction between using the word ‘create’ or ‘generate’ to describe the function is ultimately one without a difference. But, to the extent that there is disagreement, the Court notes it has adopted ‘generate’ because it is consistent with the language of the claim terms themselves as well as the rest of the claim language.⁹³

So in 2006, US District Judge William Smith ruled in favor of Microsoft. Then Uniloc appealed and an appeals court overturned the Smith’s decision. The main argument confirming his decision was that there was a ‘genuine issue of material fact’ and that District Judge W.Smith should not have ruled on the case without hearing from a jury.⁹⁴

Then on April 8, 2009 a Rhode Island jury found Microsoft had violated the patent and conferred Microsoft to pay Uniloc \$388 million in damages.⁹⁵ After this success,

⁹⁰ 35 U.S.C. § 112 <<https://www.law.cornell.edu/uscode/text/35/112>> accessed 10 September 2017

⁹¹ *Gene Quinn ‘Introduction to patent claims’* (June 11, 2016) IPWatchdog, Online Intellectual Property Journal <<http://www.ipwatchdog.com/2016/06/11/introduction-patent-claims/id=69991/>> accessed 12 September 2017

⁹² *Uniloc USA, Inc. v. Microsoft Corp.*, 447 F. Supp. 2d 177 (Dist. Court, D. Rhode Island 2006) para 12 <https://scholar.google.com/scholar_case?q=uniloc+microsoft&hl=en&as_sdt=2,5&as_vis=1&case=14398177835480061775&scilh=0> accessed 10 September 2017

⁹³ *Uniloc USA, Inc. v. Microsoft Corp.*, 447 F. Supp. 2d 177 (Dist. Court, D. Rhode Island 2006) ‘It is so Ordered para 9’ <https://scholar.google.com/scholar_case?q=uniloc+microsoft&hl=en&as_sdt=2,5&as_vis=1&case=14398177835480061775&scilh=0> accessed 10 September 2017

⁹⁴ *Asher Moses ‘Aussie inventor’s \$445m Microsoft windfall wiped out’* (September 30, 2009) The Sunday Morning Herald <<http://www.smh.com.au/technology/biz-tech/aussie-inventors-445m-microsoft-windfall-wiped-out-20090930-gc77.html>> accessed 15 September 2017

⁹⁵ *Heidi Rosenberg ‘Uniloc awarded \$388 million in damages in major patent infringement case against Microsoft’* (April 15, 2009)

Uniloc filed new patent infringement suits against Sony America, McAfee, Activision, Quark, Borland Software and Aspyr Media.⁹⁶

However, on September 29, 2009 the decision against Microsoft was subsequently overturned by Judge Smith. He vacated the jury's verdict and ruled in favor of Microsoft again, saying the jury 'lacked a grasp of the issues before it and reached a finding without a legally sufficient basis'.⁹⁷ Uniloc was dissatisfied and appealed the judge's decision, alleging bias. In 2011 the jury verdict was reinstated against Microsoft. The US Court of Appeals for the Federal Circuit said that instead of using the usual '25 percent rule', the damage awards for infringement would need to be recalculated.⁹⁸

Another case that was with participant of Uniloc is against Mojang on July 20, 2012. It was an infringement upon patents claiming exclusive rights to a method of software license checking.⁹⁹

Markus Persson of Mojang has stated that he does not believe Minecraft infringes the Uniloc US patent no. 6,857,067 and that Mojang AB will defend the lawsuit. The same lawsuit was also filed against other Android game developers including Electronic Arts (maker of Bejeweled 2), Laminar Research (maker of X-Plane),¹⁰⁰ Distinctive Developments, Full Fat Productions, Gameloft, Halfbrick Studios, Madfinger Games, Polarbit and Square Enix.¹⁰¹

However there are a lot of undertakings who appears to be patent trolls. What is funny that sometimes companies who were struggle against patent trolls some time later

<<https://web.archive.org/web/20090420055028/http://www.uniloc.com/uniloc-v-microsoft-patent-infringement-case/>> accessed 15 September 2017

⁹⁶ Asher Moses 'Van man 1, Microsoft 0: now Aussie Ric's gunning for more tech giants' (August 5, 2010)) The Sunday Morning Herald <<http://www.smh.com.au/technology/technology-news/van-man-1-microsoft-0-now-aussie-rics-gunning-for-more-tech-giants-20100805-11ihy.html>> accessed 17 September 2017

⁹⁷ Nick Eaton 'Judge overturns Uniloc's record \$388m victory over Microsoft' (September 29, 2009) <http://blog.seattlepi.com/microsoft/2009/09/29/judge-overturns-unilocs-record-388m-victory-over-microsoft/?from=blog_last3> accessed 18 September 2017

⁹⁸ Ben Grubb, Asher Moses 'One man v Microsoft: a day in the Dickmobile, another day in court for Aussie inventor' (January 7, 2011) The Sunday Morning Herald <<http://www.smh.com.au/technology/biz-tech/one-man-v-microsoft-a-day-in-the-dickmobile-another-day-in-court-for-aussie-inventor-20110106-19h25.html>> accessed 17 September 2017

⁹⁹ Uniloc USA, Inc. et al v. Mojang AB <<https://insight.rpxcorp.com/lit/txedce-138589-uniloc-v-mojang-ab>> accessed 19 September 2017

¹⁰⁰ X-plane official web-site <<http://www.x-plane.com/x-world/lawsuit/details/>> accessed 23 September 2017

¹⁰¹ John Ribeiro 'Electronic arts, other game developers, sued for patent infringement' (July 22, 2012) PCWord

<https://www.pcworld.com/article/259652/electronic_arts_other_game_developers_sued_for_patent_infri> accessed 24 September 2017

could become such NPEs (e.t. Intel Corporation). In the table below is rate of NPEs with largest patent holdings:¹⁰²

Entity	US Publications	Patent Families
Intellectual Ventures	20-25k (Est)	-
Round Rock Research LLC	3510	1232
Rockstar Consortium LLC	3399	2842
Interdigital	2961	1522
Wisconsin Alumni Research Foundation (WARF)	2349	1741
Mosaid Technologies Inc	1996	1199
Rambus	1629	725
Tessera Technologies Inc	1332	675
Acacia Technologies	1238	496
Entity	US Publications	Patent Families
IPG Healthcare 50 l Limited	1096	1031
Walker Digital LLC	892	221
Wi-Lan	838	657
Global OLED Technology LLC	802	752
Commonwealth Scientific and Industrial Organization (CSIRO)	740	579
Scenera Research LLC	413	323
STC.UNM (aka Science & Technoloy Corporation @ UNM)	410	292
Intertrust Technologies Corp	323	47
Altitude Capital Partners	302	236
Innovative Sonic Ltd	253	181

¹⁰² Nicolas Janssens de Bisthoven, 'Patent Trolls and Abusive Patent Litigation in Europe: What the Unitary Patent Package Can Learn From the American Experience?', Stanford-Vienna TTLF Working Paper No. 19, <http://tlf.stanford.edu>

Interval Licensing LLC	237	119
Ip Venture Inc	208	63
Pendrell Corp (fka ICO Global Communications (Holdings) Ltd)	206	35
Cheetah Omni LLC	200	121
Alliacense	198	112
Illinois Computer Research (and other entities owned by James Parker et al)	197	120

Except companies which are patent trolls, it is also exiting who are their victims.

The victims of patent trolls can be all sizes and presented in many industries. Usually, the targeted entities are already existing companies, as the table below of the most pursued companies shows.¹⁰³

№	Company Name	2008	2009	2010	2011	2012	Total
1	Apple	18	26	34	43	44	165
2	Hewlett Packard	27	27	36	34	19	143
3	Samsung	12	10	21	43	37	123
4	Dell	8	28	23	36	19	114
5	Sony	13	22	20	32	22	109
6	AT&T	17	16	22	31	22	108
7	HTC	15	11	23	31	23	103
8	LG	13	10	23	29	24	99
9	Microsoft	16	22	12	30	16	96
10	Amazon.com	5	13	20	35	20	93
11	Verizon	13	13	17	25	24	92
12	Google	10	16	10	30	22	88
13	BlackBerry	15	11	13	28	20	87
14	Nokia	13	14	14	24	10	75
15	Panasonic	12	20	12	19	10	73

¹⁰³ Nicolas Janssens de Bisthoven, 'Patent Trolls and Abusive Patent Litigation in Europe: What the Unitary Patent Package Can Learn From the American Experience?', Stanford-Vienna TTLF Working Paper No. 19, <http://tlf.stanford.edu>

16	Toshiba	8	15	12	21	15	71
17	Sprint Nextel	12	14	8	18	15	67
18	Motorola Solutions	17	12	17	10	9	65
19	Cisco	9	13	15	16	8	61
20	Motorola Mobility		2	8	31	18	59
21	Asus Computer International	11	9	5	19	11	55
22	Acer	11	10	7	11	15	54
23	Sony Ericsson	7	9	11	20	6	53
24	Best Buy	4	12	13	17	6	52
25	Intel	10	15	14	5	8	52
26	Deutsche Telekom	9	10	9	16	7	51
27	Wal-Mart	7	5	12	16	11	51
28	Kyocera	8	7	10	13	10	48
29	eBay	4	7	9	15	12	47
30	IBM	4	13	12	10	8	47

But of course usually main target of patent trolls are profitable and successful companies from which they can gain more profits.

Overview of legal basis

As we can see from history the patent trolling gets going from the US so at overview of legal basis should be about the main reason of patent trolling – patentability in the United States: conditions, rights and obligations of patent holders.

The Patent Act (35 U.S. Code) governs getting and protection of patents in the United States. It is established the United States Patent and Trademark Office (the USPTO). Utility patent is the most common type of patent, which have a duration of twenty years from the date of filing, but are not enforceable until the day of issuance. Ornamental designs are protected under design patents and plant patents protect new varieties of asexually reproducing plants.¹⁰⁴

To obtain protection under U.S. law, the applicant should submit a patent application to the USPTO, where it will be reviewed by an examiner to determine if the invention is patentable. U.S. law grants to patentees the right to exclude others from making, using, or selling the invention.¹⁰⁵

In most cases, patent attorneys or patent agents, who have been experienced and trained, should draft patent applications. In fact, only patent attorneys and agents may legally draft patent applications for other parties, although inventors are allowed to draft and file their own patent applications.¹⁰⁶

Under U.S. patent law (35 USC §111) it is obligatory that patent application must name the actual inventor(s) of the invention and must be made in written form. The application must contain a detailed, written description of the invention, should include figures or drawings that show the invention, and must include one or more claims that particularly point out and distinctly claiming the invention. The most important parts of a patent application are:¹⁰⁷

- The identity of the patent inventor (§111 b(1) 35 USC)¹⁰⁸

¹⁰⁴ Daniel A. Tysver 'Patent law in United States' <<https://www.bitlaw.com/patent/>> accessed 27 September 2017

¹⁰⁵ Joe Runge 'What are the parts of patent application' (August, 2015) LegalZoom <<https://www.legalzoom.com/articles/what-are-the-parts-of-a-patent-application>> accessed 28 September 2017

¹⁰⁶ Lisa Sefcik 'How to draft patent application' Legal Beagle <<https://legalbeagle.com/5120488-draft-patent-application.html>> accessed 28 September 2017

¹⁰⁷ 35 USC, title 35, part II, chapter 11, § 111

¹⁰⁸ 35 USC, title 35, part II, chapter 11, §111 b(1)

- The specification (the part of the patent application that describes the invention) (§112 (a) 35 USC)¹⁰⁹
- The claims (which define the scope of the patent application) (§112 (b) (e) 35 USC)¹¹⁰
- The patent application drawings (§113 35 USC)¹¹¹
- The inventor's oath or declaration (§115 35 USC)¹¹²

Inventor.

According to U.S. patent law, a provisional application for patent shall be made or authorized to be made by the true inventor or inventors of the invention¹¹³. So the individual or, if a joint invention, the individuals collectively who invented or discovered the subject matter of the invention¹¹⁴ should be identified by the patent application. Not only is this a prerequisite for an enforceable patent, but anyone who falsely states that she/he is the inventor in a patent application is subject to criminal penalties. Nonetheless, innocent mistake about inventorship in a patent application might be corrected. For instance, accidentally omitting an inventor or accidentally naming a person as an inventor who was not an inventor of the invention claimed in the patent application.¹¹⁵

Often some careful consultation with a qualified patent attorney must be undertaken for the determination of who an inventor is. In case an invention was made by two and more persons, there is an opportunity for applying for a patent as joint inventors.¹¹⁶ Thus, a person who makes a financial contribution is not a joint inventor and cannot be joined in the patent application as an inventor. Moreover, executives or ‘team leads’ can’t be cold as an honorary inventor in a patent application in case there were not involved in the actual inventive process.¹¹⁷

There might be cases, when an inventor cannot be found or refuses to apply for a patent, a joint inventor or a person having an ownership interest in the invention, such as the inventor's employer, may apply for patent protection on behalf of the missing

¹⁰⁹ 35 USC, title 35, part II, chapter 11, §112 (a)

¹¹⁰ 35 USC, title 35, part II, chapter 11, §112 (b) (e)

¹¹¹ 35 USC, title 35, part II, chapter 11, §113

¹¹² 35 USC, title 35, part II, chapter 11, §115

¹¹³ 35 USC, title 35, part II, chapter 11, §111 (b)(1)

¹¹⁴ 35 USC, title 35, part II, chapter 10, § 100(f)

¹¹⁵ 35 USC, title 35, part II, chapter 11, §116(c)

¹¹⁶ 35 USC, title 35, part II, chapter 11, §116(a)

¹¹⁷ Steven E. Skolnick ‘A Practical Approach to Inventorship’ (2010)

<http://www.aipla.org/Test%20Document%20Library/2010/pppt/Gwin_Paper.pdf>

inventor.¹¹⁸ The patent application may be filed by legal representatives, such as an executor of the estate, in cases the inventor is dead.¹¹⁹

There is a possibility for a person to be an inventor without being the owner of the resultant patent. In cases an inventor is employed to invent things for their employer (such as an engineer hired to design new electronic components), the employer will usually be the owner of any patent or invention made by the inventor. Nonetheless, the signature of inventor is required for the patent application, and as a result the patent will be issued in the name of the inventor.¹²⁰

Specifications

A written description of the invention is the specification portion of a patent application, which also explains how to make and use the invention. It is essential that specification must be ‘enabling’ and it must describe the ‘best mode’ of the invention (35 U.S.C §112).¹²¹

According to the enablement requirement is directly related to the specification, or disclosure, which must be included as part of every patent application.¹²² The patent application must describe the invention in such full, clear, concise, and exact terms that any person skilled in the technological area to which the invention pertains will be able to make and use the invention.¹²³ The specification should completely describe the invention, and do it in such a way as to distinguish it from the prior art (old inventions), in order to meet this requirement

At least one specific embodiment of the invention must be completely described at the patent application, according to the best mode requirement, and must include the best mode contemplated by the inventor for carrying out her/his invention.¹²⁴

The specification contains not just the description of the invention but also a title, a brief abstract of the invention, an initial summary of the invention being claimed, and a brief description of the drawings.¹²⁵

¹¹⁸ 35 USC, title 35, part II, chapter 11, §116(b)

¹¹⁹ 35 USC, title 35, part II, chapter 11, §117

¹²⁰ Richard Stim ‘Who owns patent rights? Employer or Inventor’ NOLO <<https://www.nolo.com/legal-encyclopedia/who-owns-patent-rights-employer-inventor.html>> accessed 1 October 2017

¹²¹ 35 USC, title 35, part II, chapter 11, §112

¹²² Legal Information Institute ‘Patent’ <<https://www.law.cornell.edu/wex/patent>> accessed 2 October 2017

¹²³ 35 USC, title 35, part II, chapter 11, §112(a)

¹²⁴ 35 USC, title 35, part II, chapter 11, §112(a)

¹²⁵ 35 USC, title 35, part II, chapter 11, §112

Claims

There are usually one or more claims in the patent application, which particularly point out and distinctly claim the subject matter which the applicant regards as the invention. Only the patent claims define the exclusive right granted to the patent applicant; the rest of the patent is there to facilitate understanding of the claimed invention. The heart of any patent is these claims form which is issued from the application, as they describe the patent's breadth and coverage. Claims are basically brief descriptions of the subject matter of the invention. As a matter of fact, they recite all essential features necessary to distinguish the invention from what is old without including any unnecessary details.¹²⁶

While a patent application is examined by the Patent and Trademark Office, the examiner uses the claims to compare the application with the prior art and when the claims are written too broadly, the examiner will reject the claims as covering the prior art and a patent will be denied. At the same time when a claim is too narrow, the patent will have little value as it will not cover competitor's products.¹²⁷

Drawings

The patent application maybe accompanied with one or more drawings of the invention if it is essential for better understanding the invention. For example, majority of applications, including those for software patents, may include a drawing showing or describing (in a flow chart, for instance) the crucial features of the invention. According to legislation, the applicant shall furnish a drawing where necessary for the understanding of the subject matter sought to be patented. There is a comment necessity hire a competent draftsman to make the drawings, as drawings should fit a particular format.¹²⁸

‘Drawings submitted after the filing date of the application may not be used (i) to overcome any insufficiency of the specification due to lack of an enabling disclosure or otherwise inadequate disclosure therein, or (ii) to supplement the original disclosure thereof for the purpose of interpretation of the scope of any claim.’¹²⁹

¹²⁶ Gene Quinn ‘Understanding patent claims’ (July 12,2014) IPWatchdog
<<http://www.ipwatchdog.com/2014/07/12/understanding-patent-claims/id=50349/>> accessed 4 October 2017

¹²⁷ USPTO official web-site <<https://www.uspto.gov/web/offices/pac/mpep/s1824.html>> accessed 4 October 2017

¹²⁸ 35 USC, title 35, part II, chapter 11, §113

¹²⁹ 35 USC, title 35, part II, chapter 11, §113

So as we see, avoiding of filing the formal drawings, (those which meet all of the Patent and Trademark Office's requirements) is possible until the application has been examined and allowed.

Oath

The law requires the inventor to oath or declare that he believes himself to be the original and first inventor of the subject matter of the application.¹³⁰ In addition, law and the Patent and Trademark Office rules mention other required statements for oath. The oath or declaration must be signed by the inventor in person, or by the person entitled by law to file the patent application on the inventor's behalf.¹³¹

Article I, section 8, clause 8 of the American Constitution is the constitutional grant for all intellectual property law, and is therefore the legal basis of patent law.¹³² On September 16, 2011 a big reform of the American patent system was provided in the Leahy-Smith America Invents Act (AIA). It imposed “the most sweeping changes to the U.S. patent law in nearly 60 years.” Changes were also brought with regards to the United States Code’s (USC) sections relating to the conditions of patentability.¹³³

Section 101 of the U.S. Patent Act sets forth the general requirements for patent protection in a single sentence:

‘Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvements thereof, may obtain a patent, subject to the conditions and requirements of this title.’¹³⁴

But unfortunately, the actual test for patentability is more intricate than this article suggests. Under U.S. patent law, an invention is patentable only if it meets the following four requirements:¹³⁵

- The invention must be statutory
- The invention must be new

¹³⁰ 35 USC, title 35, part II, chapter 11, §115

¹³¹ *USPTO ‘AIA Inventor’s Oath or Declaration Quick Reference Guide’* <https://www.uspto.gov/sites/default/files/aia_implementation/inventors-oath-or-declaration-quick-reference-guide.pdf>

¹³² American Constitution Article I, section 8, clause 8 <<http://constitutionus.com/>>

¹³³ *John Villasenor ‘The comprehensive Patent Reform of 2011: Navigating the Leahy-Smith America Invents Act’* (September 8, 2011) Brookings <<https://www.brookings.edu/research/the-comprehensive-patent-reform-of-2011-navigating-the-leahy-smith-america-invents-act/>> accessed 6 October 2017

¹³⁴ 35 USC, title 35, part II, chapter 10, §101

¹³⁵ Legal Information Institute ‘Patent’ <<https://www.law.cornell.edu/wex/patent>> accessed 2 October 2017

- The invention must be useful
- The invention must be non-obvious

Or in other words the conditions in the US to patent an invention are: (1) an invention (patent-eligible subject matter), (2) novelty, (3) non-obviousness and (4) utility.

1. An invention

§ 101 of Title 35 of the USC governs:

‘Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.’¹³⁶

Pfaff v. Wells Electronics, Inc. emphasized that the main act of inventing is the conception part: ‘The primary meaning of the word ‘invention’ in the Patent Act unquestionably refers to the inventor’s conception rather than to a physical embodiment of that idea.’ Reduction to practice, however, shows that the invention and testing is completed (e.g. that the thinking part is done).¹³⁷

USPTO defines ‘invention’ as any art or process (*way of doing or making things*), machine, manufacture, design, or composition of matter, or any new and useful improvement thereof, or any variety of plant, which is or may be patentable under the patent laws of the United States.¹³⁸

In the United States Code are defined four categories of patent-eligible subject matter: Processes, machines, manufactures and compositions of matter.¹³⁹ To be patented in the U.S., an invention must fall within the four categories and outside the exceptions (laws of nature, natural phenomena and abstract idea).¹⁴⁰ That’s why not every invention is patentable.

2. Novelty

This clause is established in title 35 USC § 102 (a):

‘A person shall be entitled to a patent unless (1) the claimed invention was patented, described in a printed publication, or in public use, on sale, or otherwise available to the public before the effective filing date of the claimed invention; or (2) the claimed

¹³⁶ 35 USC, title 35, part II, chapter 10, §101

¹³⁷ Eric M. Dobrusin & Ronald A Krasnow, *‘Intellectual Property Culture: Strategies to Foster Successful Patent and Trade Secret Practices In Everyday Business* (2nd ed. 2012), p. 311

¹³⁸ USPTO <<https://www.uspto.gov/main/glossary/#invention>>accessed 2 October 2017

¹³⁹ USC, title 35, part II, chapter 10, §101

¹⁴⁰ *What Is a Patent?*, Chicago, Ill.: ABA Section of Intellectual Property Law, 2006, p. 11

invention was described in a patent issued under section 151, or in an application for patent published or deemed published under section 122(b), in which the patent or application, as the case may be, names another inventor and was effectively filed before the effective filing date of the claimed invention’¹⁴¹

As we can see since the America Invents Act, this article was completely modified. A patent must be new or novel in meaning that no one else can have come up with the same creation before; no single other reference has all the elements of the claim.¹⁴²

3. Non-obviousness

In § 103, of the 35 United States Code, which establishes third requirement, was also completely modified by the America Invents Act:

‘A patent for a claimed invention may not be obtained, notwithstanding that the claimed invention is not identically disclosed as set forth in section 102, if the differences between the claimed invention and the prior art are such that the claimed invention as a whole would have been obvious before the effective filing date of the claimed invention to a person having ordinary skill in the art to which the claimed invention pertains. Patentability shall not be negated by the manner in which the invention was made’¹⁴³

The U.S. rule of ‘non-obviousness’ was more negligent than the European ‘inventive step’ requirement.

4. Utility

Inventions to be patentable must have such attribute as ‘utility’ that mentioned in previously remembered title 35, § 101, USC. This requirement is an essential criterion of patentability in the United States, that implies that inventions must produce a ‘useful, concrete and tangible result’. To make it clear, ‘generally this criterion is not hard to meet as long as the claim makes sense.’¹⁴⁴

Next important element of patent regulation and legislation are right and obligations of patent holders.

The rights are provided by Article 28 of the TRIPS agreement. They are clearly defined in the U.S. statute as:

¹⁴¹ USC, title 35, part II, chapter 10, §102(a)

¹⁴² Charles R. Macedo, *The Corporate Insider's Guide to U.S. Patent Practice*, Oxford: Oxford University Press (2010). *Supra* at 17

¹⁴³ USC, title 35, part II, chapter 10, §103

¹⁴⁴ Charles R. Macedo, *supra* at 24.

‘The right to exclude others from making, using, offering for sale, or selling the invention throughout the United States or importing the invention into the United States.’

¹⁴⁵

Due to patent the patentee has an opportunity to stop others from using the invention without a contractual license (in other words without permit of patentee). In the U.S. term of patent rights lasts 20 years for utility patents and 14 years for design patents. So patentee rights are bounded by term and territorially limited exploitation monopoly. ¹⁴⁶

¹⁴⁵ USC, title 35, part II, chapter 10, §154(a)

¹⁴⁶ *What Is a Patent?, Chicago, Ill.: ABA Section of Intellectual Property Law, 2006*

Cases: Alice Corp. v. CLS Bank International, JPEG-Patent issues

Alice Corporation ('Alice') is owner of four patents on electronic methods and computer programs for financial-trading systems on which merchandises between two parties. They are to exchange payment, which are settled by a third party, in ways that bring down the risk that one party will perform while the other will not.¹⁴⁷

Alice asserted that CLS Bank International, who operate a global network that facilitates currency transactions, and CLS Services Ltd. began to use similar technology in 2002 and accused this Bank of infringement of their patents. The parties did not resolve the issue, so in 2007 CLS Bank filed suit against Alice, aiming a declaratory judgment that the claims at issue were invalid. Though Alice counterclaim, alleging infringement.¹⁴⁸

The patents that were in suit claim:

- 1) a method for exchanging financial obligations,
- 2) a computer system configured to carry out the method for exchanging obligations, and
- 3) a computer-readable medium containing program code for performing the method of exchanging obligations.

In 2007, CLS Bank brought a suit in the United States District Court for the District of Columbia against Alice Corporation desiring a declaratory judgment that Alice's patents were invalid and unenforceable and also that CLS Bank had not violate them. Alice countersued CLS Bank for violation of the patents. The District Court held that all of the claims were ineligible for patent protection under 35 U. S. C. §101 because they are directed to an abstract idea and also it decision was based on *Bilski v. Kappos*, 561 U. S. 593 case. The court declared that a method 'directed to an abstract idea of employing an intermediary to facilitate simultaneous exchange of obligations in order to minimize risk' is a 'basic business or financial concept,' and that a 'computer system merely 'configured' to implement an abstract method is no more patentable than an abstract method that is simply 'electronically' implemented.'¹⁴⁹

Alice appealed the decision to the United States Court of Appeals for the Federal Circuit.

¹⁴⁷ CLS Bank International v. Alice Corporation PTY. LTD, (p.2-3)

¹⁴⁸ CLS Bank International v. Alice Corporation PTY. LTD, (p.4)

¹⁴⁹ CLS Bank International v. Alice Corporation PTY. LTD, (p.4-5)

A panel of the appeals court decided by 2-1 in July 2012 to reverse the lower court's decision. But the members of the Federal Circuit abolish that decision and set the case for reargument *en banc*. It ordered that the parties and any *amici curiae* who cared to brief the matter, address the following questions:¹⁵⁰

- 1) what test should the court adopt to determine whether a computer-implemented invention is a patent-ineligible abstract idea;
- 2) whether the presence of a computer in a claim could ever make patent-ineligible subject matter patentable;
- 3) whether method, system, and media claims should be considered equivalent under §101.¹⁵¹

A panel of ten judges of the Federal Circuit issued seven different opinions, but no single opinion supported by a majority on all points. Seven of the ten judges upheld the district court's decision that Alice's method claims and computer-readable-medium claims were not patent-eligible. Five of the ten judges upheld the district court's decision that Alice's computer-systems claims were not patent eligible, and five judges disagreed. The panel as a whole did not get a compromise on a single standard to determine whether a computer-implemented invention is a patent-ineligible abstract idea.

Judge Rader filed 'additional reflections' to the ruling (not joined by any other judges) expressing his point of view on the patent statute as allowing very broad patentability under §101, and his awareness that natural laws are restricted to "universal constants created, if at all, only by God, Vishnu, or Allah." Referencing Einstein, he stated that "even gravity is not a natural law."¹⁵²

Judge Newman agreed in part and at the same time had a bit different opinion, calling for the Federal Circuit to clarify the interpretation of §101. Her position was that she would have held all of Alice's claims patent eligible.¹⁵³ Judges Linn and O'Malley were arguing that all claims were patent eligible and called for legislative action to address the 'proliferation and aggressive enforcement of low quality software patents'

¹⁵⁰ CLS Bank International v. Alice Corporation PTY. LTD, (p.2)

¹⁵¹ CLS Bank International v. Alice Corporation PTY. LTD, (p.4)

¹⁵² CLS Bank International v. Alice Corporation PTY. LTD, Additional Reflections of Chief Judge Rader

¹⁵³ CLS Bank International v. Alice Corporation PTY. LTD, NEWMAN, Circuit Judge, concurring in part, dissenting in part.

cited in the many *amicus curiae* briefs and put forward new laws to limit the term of software patents or limit the scope of such patents.¹⁵⁴

Alice decision

In interpreting § 101, which defines what kinds of thing may be patented, the Alice Court began:

‘We must distinguish between patents that claim the building blocks of human ingenuity and those that integrate the building blocks into something more, thereby transforming them into a patent-eligible invention.’¹⁵⁵

In this case, The Supreme Court looked back to *Mayo*. The Court sought a single, unifying legal analysis for determining whether a patent claimed a patent-ineligible abstract idea or instead a potentially patentable practical implementation of an idea.¹⁵⁶ For that it established a two-step process for assessing patent-eligible subject matter in the context of computer-related inventions. First step is to determine whether the patent claim at issue is directed to an abstract idea. If so, the Court distinguish a second step:

‘Consider the elements of each claim both individually and ‘as an ordered combination to determine whether the additional elements ‘transform the nature of the claim’ into a patent-eligible application.’¹⁵⁷

For this it is necessary to:

‘Search for an ‘inventive concept-i.e., an element or combination of elements that is sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the ineligible concept itself.’¹⁵⁸

So the Supreme Court represented the second step as a search for an ‘inventive concept’ to ensure that the patent amounts to ‘significantly more’ than an abstract idea. For this step, the Court made clear that the mere recitation of a generic computer cannot transform a patent-ineligible abstract idea into a patent-eligible invention. Stating an abstract idea ‘while adding the words ‘apply it’ is not enough for patent eligibility.’¹⁵⁹

¹⁵⁴ CLS Bank International v. Alice Corporation PTY. LTD, Dissenting-in-part opinion filed by MOORE, Circuit Judge, in which RADER, Chief Judge, and LINN and O’MALLEY, Circuit Judges, join.

¹⁵⁵ CLS Bank International v. Alice Corporation PTY. LTD *Id.* at 6

¹⁵⁶ Richard H. Stern ‘Alice v CLC Bank: US business methods and software patents marching towards oblivion?’ (2014) E.I.P.R., Issue 10, 2014 Thomson Reuters (Professional) UK Limited and Contributors <<http://docs.law.gwu.edu/facweb/claw/Alice-EIPR.pdf>>

¹⁵⁷ CLS Bank International v. Alice Corporation PTY. LTD *Id.* at 6

¹⁵⁸ CLS Bank International v. Alice Corporation PTY. LTD *Id.* at 6

¹⁵⁹ 573 U. S. ____ (2014) p13 <https://www.supremecourt.gov/opinions/13pdf/13-298_7lh8.pdf>

Claiming well-understood, routine, and conventional features specified at a high level of generality does not suffice for an ‘inventive concept.’ But the Supreme Court provided guidance and in addition it did not ‘labor to delimit the precise contours of the ‘abstract ideas’ category.’¹⁶⁰

Alice argued that intermediate settlement was an abstract idea asserting that the rule against patenting abstract ideas applied only to eternal verities-‘preexisting, fundamental truths’ that ‘exist in principle apart from any human action’¹⁶¹

The Court rejected the attempt to describe the exact boundaries of abstract ideas. It was enough that intermediate settlement was as abstract as hedging: we need not labor to delimit the precise contours of the ‘abstract idea’ concept in this case.

The Supreme Court has expressed that all inventions at some level ‘embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas.’¹⁶² One district judge has pointed out that “any claim, described at a certain level of generality, can be challenged as directed to an abstract idea.”¹⁶³

So the ruling continued with such points:

❖ A mere instruction to implement an abstract idea on a computer ‘cannot impart patent eligibility.’

❖ ‘The mere recitation of a generic computer cannot transform a patent-ineligible abstract idea into a patent-eligible invention.’

❖ ‘Stating an abstract idea ‘while adding the words ‘apply it’ is not enough for patent eligibility.’

❖ ‘Nor is limiting the use of an abstract idea to a particular technological environment.’¹⁶⁴

The Washington Post in its article about this case noted:

‘While the court struck down what was universally said to be a bad patent, it didn’t do much to say what kinds of software should be patentable. In other words, the court

¹⁶⁰ Sughrue Mion PLLC ‘Supreme Court: computer implementation of claims directed to abstract idea are patent-ineligible’ (June19, 2014)

¹⁶¹ 573 U. S. ____ (2014) p.10

¹⁶² 573 U. S. ____ (2014) p.1

¹⁶³ Sughrue Mion PLLC ‘Supreme Court: computer implementation of claims directed to abstract idea are patent-ineligible’ (June19, 2014)

¹⁶⁴ 573 U. S. ____ (2014) p.2

decided the most basic conflict in the case, but more or less declined to offer guidance for other, future cases.’¹⁶⁵

Todd Dickinson, the executive director of the American Intellectual Property Law Association also expressed his opinion that it supposed to be the most important patent case of the decade which turned out to be a little bit like fireworks that fizzled and didn't really seem to move the needle much either way. Patent reform advocates confirmed that in light of the court's limits, only legislation could really prevent the use of bad patents in litigation.¹⁶⁶

Richard H. Stern in his article mention that decision in *Alice Corp. v. CLS Bank International* case is incremental and it confirmed the line of decisions since *Bilski*, but did not go substantively beyond them. As to application of the rationale of *Mayo* to computer-implemented business methods should have been expected. However, the fact that *Alice* provides no detailed guidance on when computer implementation was effective to confer patent eligibility is not a surprise, although it had disillusioned many who had hoped, first in *Bilski* and then in *Alice*, for clear, categorical statements.¹⁶⁷

From analysis of this case he came to the conclusion:

‘It is sensible to make narrow, incremental rulings as to software patent eligibility, because at present we are not so well informed that we can speak with confidence in very broad terms. Which, if any, software patents are consistent with both encouraging software progress and avoiding its pre-emption remains to be seen. We may feel assured that software patents, and certainly all business-method patents, are a plague that ought to be extirpated, but we should remember *Cromwell's* entreaty to ‘think it possible that

¹⁶⁵ Brian Fung ‘The Supreme Court’s decision on software patents still doesn’t settle the bigger question’ (June 20, 2014) *The Washington Post* <https://www.washingtonpost.com/news/the-switch/wp/2014/06/20/the-supreme-courts-decision-on-software-patents-still-doesnt-settle-the-bigger-question/?utm_term=.2651f8dda6b3> accessed 15 October 2017

¹⁶⁶ Brian Fung ‘The Supreme Court’s decision on software patents still doesn’t settle the bigger question’ (June 20, 2014) *The Washington Post* <https://www.washingtonpost.com/news/the-switch/wp/2014/06/20/the-supreme-courts-decision-on-software-patents-still-doesnt-settle-the-bigger-question/?utm_term=.2651f8dda6b3> accessed 15 October 2017

¹⁶⁷ 2 See, e.g., *Robert Merges*, ‘Go ask Alice- what can you patent after *Alice v. CLS Bank?*’ (June 20, 2014), *SCOTUS* <blog, <http://www.scotusblog.com/2014/06/symposium-go-ask-alice-what-can-you-patent-after-a/ice-v-c!s-bank!>> *John Duffy*, ‘The uncertain expansion of judge-made exceptions to patentability’ (June 20, 2014), *SCOTUS* <blog, <http://www11scot11sblog.com/2014/06/opinion-analysis-the-11ncertain-expansio11-of-judge-made-exceptions-to-patentabilityl>> both accessed 20 October, 2017

you may be mistaken'. Therefore, recourse to the laboratory of case-by-case development is a prudent expedient.'¹⁶⁸

¹⁶⁸ Richard H. Stern 'Alice v CLC Bank: US business methods and software patents marching towards oblivion?' (2014) E.I.P.R., Issue 10, 2014 Thomson Reuters (Professional) UK Limited and Contributors <<http://docs.law.gwu.edu/facweb/claw/Alice-EIPR.pdf>>

5. Extraction of common and distinctive features of patent trolling in this Systems

This part we would start from the description of common features of patent trolling in law systems of EU, US and Ukraine.

First of all, there are four general elements, that are obvious and universal for three law systems being under analyses, by which pure patent trolls may be characterized:

- Has no significant assets except patents
- Produces no products
- Has attorneys as its most important employees
- Acquires patents, but does not invent technology itself.

The second common feature is defined by the size of damage that causes activity of patent trolls. Usually more than eighty percent of the patent troll lawsuits to emerge recently have been multi-defendant suits by patent holders with pitifully weak patents brought against companies with less than \$100 million in revenue. As a result of successful trolls' business strategy are heavy costs and harm of innovation. In EU the amounts reach \$2 million and more in one litigation. In US damages increase from \$50 million and in Ukraine they can be from \$500 000, just because patent trolling is a new phenomenon.

The following common feature (third one) is the duration of litigation concerning patent trolls activity. In US and Ukraine it can lasts from 2-3 years even much more. But this is not about EU with speed of German courts.

Apparently, this are probably all points that are similar in three systems. Now let's come to specific features that make the patent trolling activity in EU, U.S. and Ukrainian law systems according to background and activity.

The first thing, that is extremely important to mention is level of legal regulation of conditions of patentability and level of patent law and its protection in general. Out from this three systems the least protected and developed is Ukrainian system, not just since of law as documents and bounding rules but because of court system, corruption, incompetence of judges and popular distrust to legal system in general. However, Ukraine paten law is more similar with European than with US law. As for US and EU these two

systems are like in level of protection in patent law but sundry in systems of patentability and way by which rights of patent holders are protected. So here is a table of compare:

European Union	United States		
EPC: - Absolute novelty - Inventive step - Clarity - Support – strict basis - Sufficiency of disclosure	Title 35: - Novelty - Nonobviousness - Clear and definite - Written description - Enablement - Best mode - Duty of disclosure		
Novelty			
- The invention is new if it is not part of the state of the art, which comprises all matters made available to the public, without any limitation regarding time, space and form - 6 month grace period for direct fillings in some European countries	Prior art 35 USC 102(a)	Exception 35 USC 102(b)	Declaration in support of exception
	102 (a) (1): Disclosure anywhere of patent\application, publication, public use, on sale or otherwise available to the public before the effective filing date of claimed invention	102(b) (1) (A) Grace period for inventor originated discloser	37 CFR 1.130 (a) Declaration of attribution
		102(b) (1) (B) Grace period for intervening disclosure by third party	37 CFR 1.130 (b) Declaration of prior public disclosure
		102 (a) (2): U.S. Patent, U.S. Patent Application or PCT Application effectively filed before the effective filing date of the claimed invention	102 (b) (2) (A) Inventor originated disclosure
		102 (b) (2) (B) Intervening disclosure by third party	37 CFR 1.130 (b): Declaration of prior public disclosure

		102 (b) (2) (C) or 102 (c) Commonly owned disclosure. Joint research agreement.	37 CFR 1.104 (c) (4) (ii): Declaration of coownership
Inventive step			
- Overcoming inventive step rejections by the EPO (easier) - EPO’s problem-solution approach is formulaic and does not allow much room for interpretation		- Overcoming obviousness rejections - Unlike the US, a large number of references used to make the asserted combination can weaken an inventive step rejection	
Priority			
First to file Article 87 EPC states: • Any person who has duly filed, in or for • any State party to the Paris Convention for the Protection of Industrial Property or • any Member of the WTO • an application for a patent, a utility model or a utility certificate, or his successor in title, shall enjoy, for the purpose of filing a European patent application in respect of the same invention, a right of priority during a period of twelve months from the date of filing of the first application.		-First to invent. In the US, a slightly different approach was used until March 2013. In case of two applications for the same invention (a so-called interference), a determination is made who invented it first. This usually involves examining laboratory logbooks, establishing dates for prototypes, and so on. If person who filed later is found to have invented earlier, he may be awarded the patent. In March 2013 the Leahy-Smith America Invents Act came into effect and switched the US to a first –to-file system.	

The application ‘As Filed’	
❖ Specification, claims, and drawings ❖ Refers to the original language text ❖ If a national or regional phase entry, the PCT application ❖ In exceptional circumstances, cross-referenced documents mentioned in the specification	❖ Specification, claims, and drawings ❖ Refers to English language translation, if filed as part of the original application papers ❖ If a US national law phase entry, the PCT application ❖ Cross-referenced documents, sequence listings, computer listing, and other items if properly incorporated by reference in the specification.
❖ Two part claims	❖ One part claims

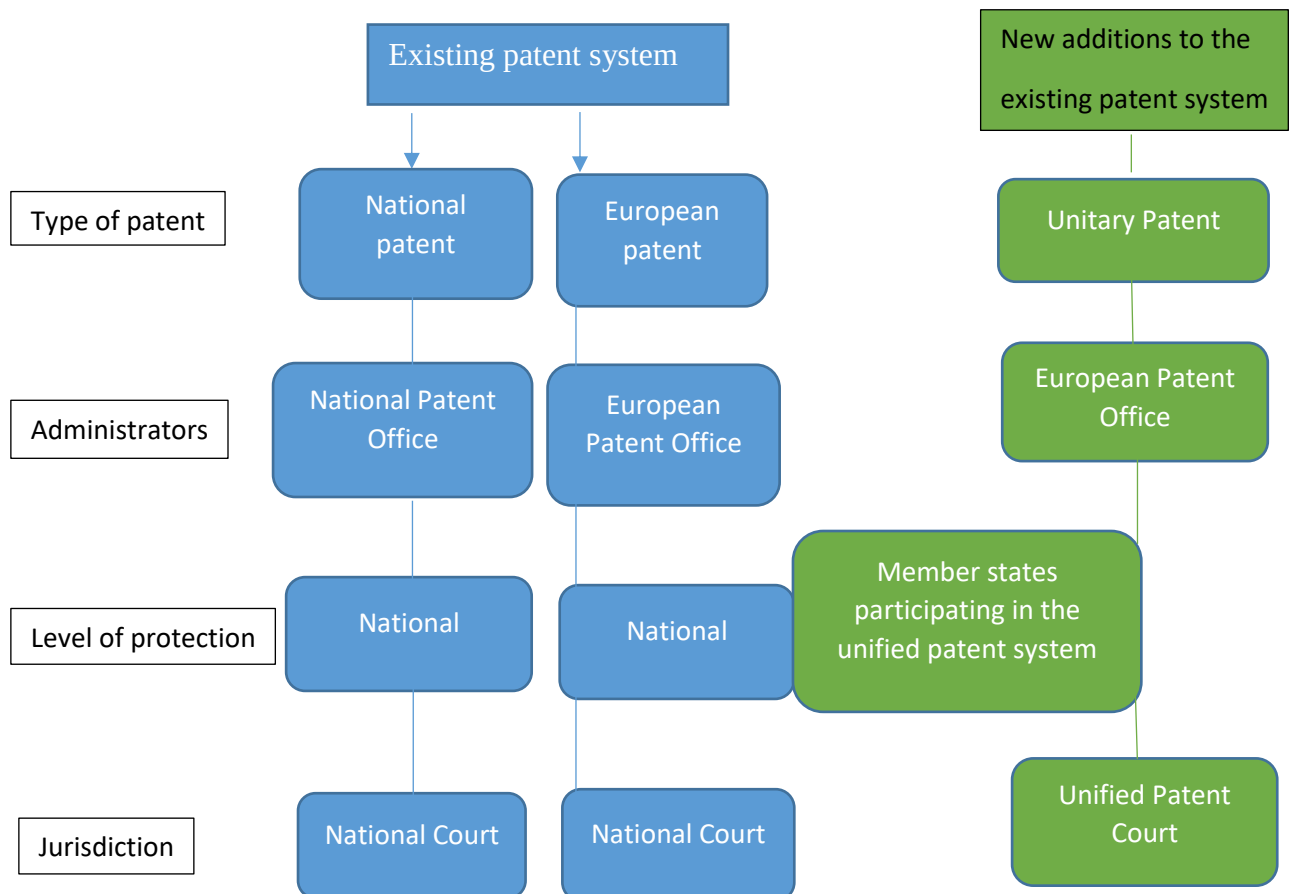
The second element that makes difference between three systems is their court systems that are dealing with patent cases. In the beginning we will look at Ukrainian courts, as the latest changes were made in 2017. The new special law was provided for the functioning of a separate court on intellectual property in the judicial system of Ukraine. It will consider cases according to the rules defined in the draft Economic Procedural Code, registered in the Parliament. Judicial statistics on the timing of disputes that arise in the area of intellectual property rights protection indicate that such a category of cases is heard from 2 years, and this is without regard to the terms, which the consideration is suspended in connection with the conduct of forensic examination. We should agree that on average judicial the consideration of the relevant cases takes 3-4 years.

However, patent trials in European countries resolve similar disputes for approximately 1.5-2 years. For example, the Federal Patent Court of Switzerland listens to them for 12 months, the Federal Patent Court of Germany - at most 18. The approach to considering intellectual disputes in each country is different. In the overwhelming majority (Great Britain, Germany), specialized courts only hear patent disputes without touching on cases of copyright and related rights.

So High Court on Intellectual Property deals with patent disputes, disputes regarding the protection of copyright and related rights as a court of first instance. At

court, an appeal court is created, which will review court decisions as a court of appellate instance. The Chamber of Commerce in the Supreme Court will exercise the powers of the cassation instance.¹⁶⁹

General system of where patent cases are considered looks like:



And finally, court system in US, that dealing with patent litigation, is quite simple. The legal proceeding should be start from the first level of court system - District courts. If the decision of the first instance is dissatisfying for the party, he has a right to appeal to the second institution of court system - United States Court of Appeals for the Federal Circuit, which is particularly known for its decisions on patent law, as it is the only appellate-level court with the jurisdiction to hear patent case appeals. Finally, the last

¹⁶⁹ Анастасія Комаха 'Яким буде порядок розгляду «інтелектуальних» спорів спеціалізованим судом' (13.05-19.05.2017) Закон і Бізнес < http://zib.com.ua/ua/128705-yakim_bude_poryadok_rozglyadu_intelektualnih_sporiv_speciali.html>

instance in court vertical is U.S. Supreme Court, which is competent to review the decision of appellate instance.¹⁷⁰

Third point of distinction is behavior itself of patent trolls and statistic of their activity. The most popular country by patent trolling was and remains US, whereas the second area where this phenomenon take place is EU Members and Ukraine poses the last place from our three systems. However, despite the last place in the ranking, behavior of patent trolls in Ukraine is sufficiently different from classic trolls' business strategy.

5. Patenting of some minor units, aggregates, parts, spare parts for technology, for the purpose of making claims to real manufacturing companies that manufacture or import goods or products to the territory of Ukraine.

6. Registration on the territory of Ukraine of signs for goods, works and services owned by well-known manufacturing companies, with or without cybersquatting, for the purpose of further making claims to real manufacturing companies that import goods or products to Ukraine.

The reasons for the existence of patent trolling lie in the fact that when obtaining patents for products, their novelty is verified formally, as a result of which in Ukraine trolls receive patents for the items listed above. All that troll risks is the recognition of his patent as invalid, which, however, does not prevent him from obtaining such a patent repeatedly.

¹⁷⁰ Молдован В.В. 'Судоустрій Україна, Велика Британія, Російська Федерація, США,ФРН,Франція. Судові органи ООН. (2012) Навчальний посібник – 346стр.

6. Different ways of solving such problem in this different systems

While the U.S. continues to work on measures to avoid or at least reduce the effect of litigation originating from patent trolls, the European Union institutions are working on the future centralized litigation system known as the Unified Patent Court. Different systems and countries in different ways try to find a solution of patent trolling problem. Here are some examples which we should take into consideration when are thinking about solution.

1. Debarment of 'Patent trolling'

In 2013 Vermont became the first state to pass legislation to attempt to halt patent trolling. Vermont's statute allows victims of patent trolling to sue in state court if the claim was made in bad faith. If the countersuit is successful, the patent troll has to pay court costs and fees accrued by the victim in addition to other damages. Since the passage of Vermont's bill, seventeen other states have passed similar legislation. State of Nebraska adopted the Nebraska Patent Abuse Prevention Act. State of New Jersey adopted Prohibition bad faith assertion of patent infringement.¹⁷¹

The European Union and Ukraine could take an act prohibiting excessive patent litigation, patent abuse and bad faith, that may be a direct way to sanction 'abusive' patent trolls, and in fine to eradicate them. If the legal document are well-structured and well-worded, they might impact on 'abusive patent trolls.' But will not harm trustworthy patent plaintiffs, e.g. small inventors and also some NPEs. Although it will be difficult to find the correct balance, the adoption of such document is advantageous. Article 42 of the UPC agreement already goes along the same lines, but arguably does not go far enough. The near future certainly holds new challenges, developments and evolutions with regards to this issue.¹⁷²

2. To strict 'Industrial Exploitation' Obligation.

In order to reduce patent troll operations in the U.S, in case we really wish to, a legislative tightening of industrial exploitation obligation could be helpful to prevent the

¹⁷¹ National Conference of State Legislatures '2014 Patent Trolling Legislation' (September 21, 2015) <<http://www.ncsl.org/research/financial-services-and-commerce/patent-trolling-legislation.aspx>> accessed 25 October 2017

¹⁷² Nicolas Janssens de Bisthoven, Patent Trolls and Abusive Patent Litigation in Europe: What the Unitary Patent Package Can Learn From the American Experience?, Stanford-Vienna TTLF Working Paper No. 19, <http://ttlf.stanford.edu>.

arrival of more of them in Europe. Possessing the advantage of being fearless to counter-claims, patent trolls 'misuse' the original patent protection philosophy while not exploiting their patents. NPEs will be turned into 'PEs' on the condition of standard rise of exploitation, with further grant compulsory licenses or lose their patent. As a result of legal strengthening this standard would eliminate not just abusive trolling activities, but also truthful IP valorization firms.

3. Increasing of taxation.

Increasing of taxation of trolling businesses at different levels, as legal measure, can reduce level of patent trolling activity. There are two sectors where taxes should be much higher:

- 1) the transfer of IP rights from practicing market players to NPEs;
- 2) annual fees that must be paid to keep the patent from expiring.

According to European law practice annual total fees appear to be much higher than in the US and Ukraine. This fact should be considered by U.S. and Ukrainian government in the anti-patent trolls changing process. This would create an additional unavoidable direct cost for NPEs and hence make the playground less attractive for them. Notwithstanding, the high tax rate would have an impact not just on violent patent trolls but also on a common patent holder, that should be clarified in order to avoid possible discrimination. As a result, patent protection might be more exorbitant for everybody, thereby it is conceivably not a perfect measure and a balance should be found.

4. Competition law as a way of protection from patent troll.

We already analyzed this way of protection in second chapter of this paper by describing a *Astra Zeneca v. Commission* case. This can not be the solution of the problem but also may have impact on their activity.

5. Disregard of such patents.

This suggestion also cannot be a complete solution but may be used as strategy to avoid 'treble damages.' In order, to adopt this strategy, companies should predict the future costs, by considering patent infringement claims as prospective transactional costs and thus establish sufficient funds to anticipate this problem.

Conclusion

Patent trolling appears to be one of the most frequently discussed problems in the sphere of patent law. Having analyzed numerous sources, we discovered that actual problem is present not just in developed countries as USA but also in less progressive as Ukraine, where level of patents and their quantity is currently rising.

Generally, we understood that phenomenon of patent trolling is originally American due to its beginning and history of development. Later this problem came to the EU countries and since not a long time ago it has become also Ukrainian problem.

For better understanding the phenomenon of patent trolling, we have overviewed the definition of patent trolling and its origin, distinguish features that characterize a patent troll as such, systems and conditions of patentability in the EU, USA and Ukraine (without what it is impossible to analyze the problem of patent trolling). Also we provided existing differences of three patent systems, compared situations on field of patent rolling in EU, US and Ukraine, and come up with different ways to solve such problem as patent trolling.

In our scientific research we came to some main conclusions that might be drawn from different researches, sources, theoretical, legal and court practice.

First conclusion concerns the concept of ‘patent trolling’, which includes three points: identification, dangers and effects of patent trolling. Identification of patent trolls is a difficult question because of a few reasons:

- 1) the use of the term in a very broad sense and consequently because of non-unified definition every patent plaintiff might be considered as a ‘patent troll.’
- 2) there are numerous contrasting attempts to define the concept of patent trolling, some of which might be disparaging or neutral.

From our point of view, the term ‘patent trolling’ should be used exclusively to define ‘abusive patent litigations’. In other cases, when party is not practicing its patent, another correct and neutral definition should be used – ‘non-practicing entity or shorted variant NPEs’.

Main danger of patent trolls, as far as we understand, is in their business strategy. They let their patents remain unused until they find parties who may be using the patented inventions in various products. The trolls contact the users and demand payment of license fees as compensation for permission to make use of the protected inventions. If

the contacted parties refuse to pay, the trolls usually choose to go to court to enforce their patent.

Many researches and studies that we have analyzed prove that the negative effect of patent litigation is:

- 5) This process costs inventors money;
- 6) Many venture capitals and inventors affirm that this has material effect on their business;
- 7) Innovators respond by investing less in research and development;
- 8) Venture capitalists respond by investing less in startups.

Our second conclusion concerns extraction of common and distinctive features of patent trolling in EU, USA, Ukrainian systems and at the beginning is the interpretation and application of patentability conditions in the following countries. As Ukrainian patent legislation is really common with EU main patent regulations, the great difference is more between U.S. patent system and EU. The U.S. ‘non-obviousness’ standard seems to be laxer than the European ‘inventive step’ requirement, and the U.S. concept of ‘utility’ is much broader than the European ‘Industrial application’ standard. ‘Software’ and ‘business methods’, that are questionable patent subject matter, seems to be unpatentable areas in the European Union, nevertheless are patentable subject matter in the United States. (See the multiple shifts of balance described in Chapter 5, p. 42.) This is important for our topic cause

Also the activity level of trolls in U.S., EU and Ukraine is obviously different and the most significant is presented in U.S.. This statistics is directly related to the conditions of patent legislation, quantity of patent production and its success. U.S. is a high patent developed country and here ‘patent trolling’ takes its beginning. The second place takes EU, but due to EU UPP, that contains more monetary and procedural advantages in comparison with the system before this package, EU generally coped with the problem of patent trolling. The third place from our three systems goes to Ukraine just because the question of patent trolling is a rising problem in this country and the scales of Ukrainian patent activity are not the same as in U.S. and EU.

The last but not the least conclusion, that we might draw from analyzing question of patent trolling and all patent legislation, is that “patent trolling” is not illegal activity because there is no law that strictly forbids such activity. This question is rather moral

and ethical in patent area than legal. Sometimes patent trolls are useful for weak patents or for small and medium-sized enterprises or for inventors who want to achieve equitable financial return using their patents. Hereby as we concerned, there might be no sense to forbid patent trolls but regulate and sanction their abusive patent activity.

Coming from the results of our scientific work, we should note that there is no single solution to the problem of patent trolling. We are convinced, that according to each specific situation, the way of straggling with abusive patent trolls activity should be chosen thoroughly and thoughtfully taking into consideration peculiarities of legislation and legal system.

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Annexes

ABSTRACT

Master Thesis presents a theoretical generalization of a scientific problem, the essence of which is to understand phenomenon of patent trolling in three different patent systems and find different effective ways to solve such problem as patent trolling.

As in the sphere of patent law, patent trolling appears to be one of the most frequently discussed problems, which is present not just in developed countries as USA but also in less progressive as Ukraine, where level of patents and their quantity is currently rising, in this work it is overviewed the definition of patent trolling and its origin, distinguished features that characterize a patent troll as such, systems and conditions of patentability in the EU, USA and Ukraine (without what it is impossible to analyze the problem of patent trolling). Also it is provided existing differences of three patent systems, compared situations on field of patent rolling in EU, US and Ukraine, and suggested different ways to solve such problem as patent trolling.

ABSTRAKT

Die theoretische Generalisierung der wissenschaftlichen Fragestellung, der Kern von deren in die Erfassung des Phänomens des Patentrollings in drei verschiedenen Patentsysteme und in die Suche effektiver Lösungen des Problems des Patentrollings besteht, wird in dieser Masterarbeit dargestellt.

In Bezug auf das Patentrecht, scheint das Patentrolling einer der meistdiskutierten Probleme zu sein, das nicht nur in entwickelten Ländern als die USA, sondern auch in weniger progressiven Staaten als die Ukraine, wo die Patentebene und Patentanzahl ist zurzeit steigend, existiert. Diese Arbeit gibt einen Überblick zur Definition und der Ursprung des Patentrollings, die hervorragenden Merkmale, die den Patent-Troll als solche charakterisieren, die Systeme und Bedingungen der Patentierbarkeit in der EU, in den USA und in der Ukraine (alle diese sind für Analysierung des Problems des Patentrollings notwendig). In die Arbeit werden die bestehenden Unterschieden der drei Patentsysteme beschrieben, die Situationen auf dem Gebiet vom Patentrolling in der EU, in den USA und in der Ukraine verglichen und verschiedene Lösungen des Problems des Patentrollings vorgeschlagen.