INTELLECTUAL PROPERTY PORTFOLIO MANAGEMENT

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Welcome friends, we are discussing about portfolio management of our IP assets. And when we are having large number of IP assets in our portfolio and it is possible for us to remember the names or we can do some kind of systematized planning that how those IP assets are available. Let us say the simplest way is one excel file where we can put all of them in one particular idea, maybe it is the date of filing of those patents, maybe the simplest can be the alphabetical idea. But think of the patent office, think of WIPO where lakhs, millions of patents are there.

So, how to remember or how to work with that huge database Therefore, a classification scheme is needed. Under that classification scheme, you will come to know that what type of patents are available. You will be able to do lot of analytical work with your portfolio only when you are able to systematically put them into one order. Process of putting your entire IP asset in a systematic manner is known as classification system.

So, in today's session, we are going to discuss about what is the international patent classification system. This is also known as IPC. It is not Indian Penal Code. It is International Patent Classification System which is developed by WIPO. And there are few other patent classification systems also.

But IPC is the most prominent one. And let us see that why this classification is important, what is the history of classification and what are the benefits of classification etc. All these things we are going to discuss in this particular stage. As in any subject area, today we are talking about IP but you see that classification is very common so that you can categorize different types of things into particular basics. Like we have classification of various IP assets under the headings of patent, trademark, copyright, design, GI.

So, that is also a type of classification that all IPs are not similar, they have some kind of unique characteristics and on the basis of that, that classification scheme is developed. Another very classical example of classification is in the library. you have millions of books in your library and then you have to classify books on the basis of some criteria. So, on the basis of subject and within subject then you follow the idea of alphabets and that is a decimal way of classification of books which is very popular standard way of classifying the books. So,

Same thing is applicable in the field of patent where this IPC system is followed and in this IPC system we are having a agreement which came in 1971 and this agreement basically is generated at WIPO and almost all the member countries of WIPO they follow this classification system of patent databases. two very popular system you will see. One is this IPC which we are going to discuss in detail. But since United States and Europe these are again two very important contributor to the IP regime. So, they have also developed one more classification system that is cooperative patent classification system.

So, you will see that patents will have two types of numbers given to them, one under the IPC series, another under the CPC series. Every patent you will see that it will have one IPC classification and another is classification under this CPC. And whether it is Indian patent, whether it is American patent, whether it is a Chinese patent by knowing this classification. You can see that the patent belongs to a particular category of subject, patent belongs to a particular category of application and therefore, we are able to create a patent family on the basis of this classification system. Primary purpose as now you could understand very easily is the effective search.

Your primary search is based on this patent classification. There are different types of classes, subclasses, etc. We will see and on the basis of what type of keywords you are giving. it will search in a particular class of the patent. So, patent families are created on the basis of classification systems and then your search becomes more effective and more efficient also.

Not only effective but efficient also because database is continuously increasing. More and more IP is created and therefore, how fast you are able to retrieve the required patent documents that is all about efficiency. So, not only effective, not only the correct IP you are going to get, but you are also going to get that correct IP in minimum amount of resources that is with respect to time, with respect to energy, etc. So, that is the primary

purpose, effective search. The second purpose of using this classification system is to place your patent documents in a particular orderly manner.

And that orderly manner may be in terms of let us say date of priority or application area. When we will be discussing about creating a landscaping of our patent database, we will see that only because of proper classification system, we are able to create these kind of orderliness in our patent database. Otherwise, it will become a very difficult thing. We may miss some of the important patents if they are not properly classified and you may see. it will require huge amount of effort to get some information from my database.

So, that is the orderliness which is possible because of the patent document, patent classification system. There are some secondary purpose also like selective dissemination of patent information. You have a huge database of patent 1, 2, 3, 4 up to let us say 100. And out of those, you know that only these three patents may be useful and that you can easily identify on the basis of this classification system. We will see that how selective dissemination of patent information is possible because of appropriate classification system.

Investigation of the state of the art that means this classification system which is probably we have discussed in the form of number one also that is prior art. So, you can use this classification system for developing a good prior art system for your new patents. When you have a proper classification scheme available with you you will also be able to know that how many technologies are currently available which can be used for industrial application purpose. So, this preparation of industrial property database that is also possible because of this classification scheme available to you.

Now, who all are involved in using the IPC database or IPC classification? So, classification is done by the examination experts in the patent office and they are actually when you are going to a filing of a patent the assignment of a particular examiner controller for your application is done on the basis of this classification scheme. Because if you are working in the field of electrical engineering And if the examiner has expertise in the agricultural field that examiner will not be able to do justice with your application of electrical engineering. So, this understanding that what is the domain of expertise of the examiner and what is the domain of the application the matchmaking happens because of this classification scheme and this

is also used by inventors, researchers, teachers, students, lawyers, global organizations, your small medium enterprises, startups etc. They are also very regular user of this IPC

system because of easy accessibility and easy traceability of your patent documents. Now, again just to understand. that why IPC is useful because IPC as we just understood that when we are using appropriate keywords and it helps you in narrowing your patent search and your search becomes more effective. you can easily get trends in the science and technology areas and this can be used for lot of IP analytics.

With proper IPC classification it can also help you in co-occurrences of classification course. So, that you can do a complete mapping to allow components of landscapes to be identified and explored. So, with this IPC system you are able to do proper IP landscaping. IP landscaping is a topic which we will be discussing separately in one full session. So, what is the meaning of IP landscaping and how landscapes are created, what type of information benefits we are going to get from landscaping that we will discuss in a separate session.

And you can also, we discussed in one of the session about value of quality versus quantity discussion. So, citation analysis of our patent is very important criteria to know the quality of our IP. And the citation analysis and patent classification, it can help us in identification of the main path or trajectories of emerging areas of science and technology. So, this is quality of the patent, quality of your IP plus IPC.

It helps you in getting the trend of science and technology. So, these are all important uses of IPC. Now, let us come to how IPC operates that is the most important part of this particular discussion. So, there are different types of class, section, class, subclass and groups and these are given some special symbols and titles and symbols are in the form of uppercase letters and numbers, titles are phrases describing the technical content or the scope of that particular IP.

For example, There are eight sections available. We are giving the example of section A. Section A is about human necessities. We will see that these are the eight sections. A means if a capital letter A, if the patent is starting with capital letter A, it means it is about human necessities.

If it is starting with B, it is about performing operations and transporting. If it is starting with C, it means it is about chemistry and metallurgy. If it is starting with D, it is about textile and paper. If it is starting with E, it means it is about fixed construction. If it is F, it is mechanical engineering, lighting, heating, weapons, blasting, etc.

G means physics and H means electricity. So, you see that all the inventions, all the inventions which are happening are classified under these eight sections. Please think can there be a new section requirement that your invention cannot be covered in any of these eight which are listed here. So, right now all the patents all the patents they may start

It is also possible we will see in few minutes that one patent may have two series of classifications, three series of classification that is also possible that a patent may have starting with H also and patent may start with C also. So, it is possible to have two sections for the same patent and more than two also sometime it may be let us say F also. So, it is not necessary that your patent is classified only in one section, your patent can be classified in more than one section also. So, for example, if it is a patent starting with letter capital letter A it is about human necessities which is followed by its class. These two digits are representing the class.

where in A if it is 47 it is about furniture domestic article that is the class of this. So, furniture domestic article are part of human necessities. Then the third letter is also coming here that is H which is part of furniture domestic article but it is furnishing for windows or doors. Another letter is coming, another group is coming 100 and that 100 is about curtain suspension devices. So, basically you understand that this product is all about some curtain suspension device where you are going to hold your curtains.

In that, to classify that invention perfectly, it is A47H1-00 and everything has a particular meaning. And without actually reading the title of the patent, you can understand that this is a patent which is related to human needs, furniture and so on. It is also difficult that you cannot remember all these things. Yes, you can remember these main eight sections that I think everybody can easily remember that section A is about human necessities and section H is about electricity and so on in the B, C, D, E, F, G. but so many other things like what are the class, subclass, group etcetera we cannot remember.

So, the readymade database is available and from there you can see that in which how to read the classification scheme. So, as you have seen that in this case we have section A again example of human necessities then as in the previous case we have 47. Now we see there are 2, 3 different examples. To give you the example of class 01, 21, 22.

Now 01 is about agricultural, forestry, animal related activities. 21 is about baking equipment for making. 22 is about butchering and meat treatment. So, there may be a long list we just see A 47 which is about furniture and domestic articles. So, you can consider that this list may have many items it may go up to 47 and more than that also.

So, these are the class symbols which is a two digit number. Maybe I do not know tomorrow if there is exhaust of the all the 2 digit numbers we may think or we need to think that okay can there be a new class which is not possible to represent by 2 digits maybe a 3 digit number will start for a new class if all the classes are exhausted up to 99. So, class title gives a broad indication of the content of the class so these are the examples of classes. After that you remember we had subclass that H if you remember A 47 H where we discussed that H means that it is a furnishing for windows or doors and this is now leading us to different type of subclasses like A 47 B, 47 C, 47 D. We already discussed that A 47 is furniture domestic article.

B, C, D and as we just saw that we have a case of A 47 H also. So, there must be E, F, G also. Now, B means tables, desk, office, furniture. C means chairs, sofas, beds. D means furniture specially adopted for children etc.

So, all these are different types of subclasses for which this patent is belonging. After that, you have main groups and subgroups. So, like in this example, this 1, 0, 0, this is group and subgroup. So, we will see that there are various examples of main groups. So, group symbols is a subclass symbol followed by 1 to 3 digits oblique and like this 31, 0, 0, 9, 0, 0.

9 oblique 02 these are examples of group and subgroups. So, here you see the main group is like XX oblique 00 this is XX that is 9 and that is 00. Further you can go for subgroups XXX oblique YY where these are the examples of subgroups what is in the denominator. So, here we have a full symbol now available with us A23G9-02. This is a complete classification symbol available to you and as you see on your screen A is the main that is human necessities which is coming from A to H. A have been understood that it is

human necessities. 23, you can remember we did not have A23, but A23 is example of class. So, 23 is the class. 23G, now G is subclass. And then finally comes main group and subgroup.

So, this 9 oblique 02, 9 is the main group part and 02 is the subgroup part. So, in this way we are able to completely decode our symbol. And one more example for your better understanding, like we have this number A47C100. So, A is again example of human necessities, 47 is furniture, C is belonging to chair. Now, 1 is main group and 00 is subgroup.

So, main group is chairs adapted for special purpose, that is the main group. And 00 is different type of numbers you can give, 02, 022, 028, 029. depending upon reclining easy chairs, independently adjustable supporting parts for changing a straight chair into an easy chair and so on. So, if I see that a symbol like A47C029, the complete description of this is, reclining or easy chairs having independently adjustable supporting parts for changing a straight chair into an easy chair by changing the length of the inclination of the legs.

So, this becomes the complete description of this particular you can say detailing because you see one dot is one thing, two dot is two thing, three dots is changing a state into easy chair and that is why this is the complete description of this particular classification scheme. We can now generalize this discussion that if you see this IPC classification section from A to H then classes then subclasses and then group and followed by a subgroup. as I was saying that there are multiple classification schemes which are possible for same patent document. So, we will take you to a live example and through that live example we will like to show you.

So, if we go to a live example and we will see that I am using Derwent database and you can see in this Derwent database we have searched a particular patent and This patent is all about battery systems for electrical vehicles. Now, here you see in this data that as per the IPC classification, it has 1, 2, 3, 4 classification numbers. See, on your screen you can see, it is C09J175-14, C09J163-10, And three classifications are starting with C and one classification is starting with H. So, the point which I am trying to say that a patent is not classified only under one section.

A patent can be classified in more than one section. This is just one example. which is a patent if you see incidentally it is a dead patent at this moment. So, there is no harm in discussing this patent if I scroll it up and if I see that what is the title of this particular patent you can see the title of the patent yeah. So, if you see the title of this patent so this is the title of the patent which is there.

So, by doing this anodysis with the title only will be very very difficult thing. It is a ultraviolet adhesive for a power battery comprises an oligomer acrylate active monomer photo initiator auxiliary where the oligomer comprises aromatic urethane acylate fatty acid epoxy acrylate. So, this is a paint kind of a thing which is required for a battery purpose. But it will be very difficult for everybody to understand this title itself. So, therefore, the classification scheme as we just saw, if we go down to see the classification

numbers of this particular patent, then you can easily understand that, okay, this is something related to C, that is chemicals and H is the electricity.

So, you will appropriately handle this particular patent as per its classification data. Can we go back to the PPT? So, that is the live example which we wanted to discuss that you can open any patent document and you will see this classifications are mentioned and all the portfolio management happens because of this classification scheme. When you have as we keep saying again and again when you have less number of IP in your portfolio probably this will not be of so interest. But whenever size increases then it will become a challenge and then this classification schemes becomes very very important.

The other kind of classification scheme which we discussed in the beginning of this session other than IPC that is cooperative patent classification. CPC. So, if you go to the same patent document we can see that in the same patent document there is one more classification number. So, if you see at the top if we see there were four type of IPC numbers were given and then in the lower part of this document, there are large number of CPC numbers are also given.

So, all the patents these days, they have IPC as well as CPC number because they are classified using both the classification schemes. So, if I see about CPC, so we can go to the PPT and we will see that the CPC is basically developed in partnership with the USPTO, United States Patent Office and European Patent Office, these two offices in their collaboration, partnership, this CPC system is developed. Now, CPC is also used by various national offices like Chinese Intellectual Property Office, this is CIPO, the Korean office also. And, Russian office also, Mexican office also.

So, there are multiple users because of US is using. So, almost many other countries start using this system of. Now, in CPC, they have 9 sections. In IPC, we discussed about 8 sections. Here, they have created one extra section that is Y.

our IPC, these sections are also divided into classes, subclasses, groups and subgroups. So, the main difference, the main difference is about creating a new class that is why. And therefore, the total number of classification entries also increase in case of CPC. It is around 2,50,000 the total number of entries which are there in CPC while you see if you can remember that the number of entries in IPC are around 80,000.

So, therefore, people say that IPC is used because it is WIPO's product. CPC is used because it gives you more flexibility. It is, I think, having three times more classification

entries as compared to IPC. So, that is why people say that CPC is more robust and that is the reason various national IP offices are also adopting this CPC classification scheme. So, A to H are similar to IPC but this Y is additional in case of CPC and there are large number of you can say items which are put under this Y category.

So, general tagging of new technological developments, cross sectional technologies because in the current environment there is a good scope of interdisciplinary, multidisciplinary researches. So, all those things are actually taken care by this Y section of CPC. So, CPC also has lot of other features also because various national offices are also using.

So, they use a lot of country code also about the origin of the particular IP and you see on this table that large number of applications are coming basically from United States, but various other offices are also now using the CPC schemes. So, around 72.8 million documents have been classified using the CPC scheme also. So, CPC, IPC two systems of classification are there and now at the USPTO and European Patent Office level there is a effort going on for reclassification of some of the IP assets. Because, it may happen that the classification which is done by your IPC and maybe even with the CPC also, it may not be the correct reflection of that particular IP. So, as

CPC has improved its you can say scope. So, there is a effort happening at USPTO and EPO to reclassify their IP assets so that you can have a good coverage of all the IP assets in the appropriate sections, classes, subclasses etc. So, it is a huge work which is happening there. This picture gives you the full idea that how this CPC reclassification process is happening and you are raising the request then preliminary scheme agreement happens and then in the project mode. this entire reclassification scheme is going on.

There is a classification department at EPO and USPTO and they are involved in reclasses or finalization of your the IP classification scheme. So, with this we come to end of this particular discussion that classification of your IP asset is very important and if you have good knowledge of the classification system you can effectively manage your IP portfolio. It will save lot of time, it will save lot of efforts and you will have a very good hand to provide customized reports about management of your IP assets. So, all the IP assets are having the classification of IPC or CPC and CPC is considered to be more robust because of

large number of entries which are possible in around 2,50,000. So, every IP asset is also classified under CPC system and there are scope of reclassification also under CPC

because of improved guidelines, changes in guidelines which keep happening in CPC. So, that you are labeled appropriately so that user can easily identify you with this we come to end of this very session thank you very much