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Overview of the Process for Seeking U.S. Patent Protection

Introduction:

As you may know, there are three (3) types of U.S. patents; utility patents, design patents and plant patents. Utility patents may be granted to anyone who invents or discovers any new and useful process, machine, article of manufacture, or composition of matter, or any new and useful improvement of the foregoing. Design patents may be granted to anyone who invents a new, original, and ornamental design for an article of manufacture. Plant patents may be granted to anyone who invents or discovers and asexually reproduces any distinct and new variety of plant. Once a patent is granted and during its term, its owner has a right to exclude others from making, using, selling, offering for sale in the U.S., or importing into the U.S. the claimed invention.

Utility Patent Applications:

Under U.S. patent law there are two (2) possible options for filing a utility patent application with the U.S. Patent and Trademark Office (“USPTO”) seeking protection of the structure and/or function of an invention; a provisional patent application and a non-provisional patent application. Both applications could be leveraged to seek utility patent protection outside the U.S., if desired.

A provisional patent application is a good vehicle for securing short-term (e.g., one year) patent pending status of an invention while you refine the technology or any improvements thereto, and/or investigate the patentability of your technology and/or improvements. Once filed, the provisional application will allow you to use the term “patent pending” and to disclose your invention without defeating claims for patent protection in the U.S. and abroad, to the extent your subsequent disclosure is limited to the subject matter disclosed in the provisional patent application. Also, the provisional application can be used as proof of earlier invention against a third party claim. So, while the provisional application will not be examined by any patent examiners, it can be leveraged to preserve protection while you further develop your technology and/or evaluate the likelihood of successfully obtaining patent protection. The provisional application remains confidential in USPTO records until later referenced, if at all, by a subsequent patent document (e.g., a non-provisional patent application claim priority to the provisional application’s filing date).

Generally speaking, the MKG, LLC (“MKG”) can prepare and file a U.S. provisional application at a cost in a range of about two thousand five hundred to three thousand five hundred dollars (\$2,500.00-\$3,500.00 USD). **Please note that this is an estimate and the actual cost will be based on the actual time spent in drafting the application.** We assume that the drafting process includes MKG’s

Overview of U.S. Patent Process (Continued)

preparing one (1) or two (2) draft applications based upon a written description that is provided by you, which at a minimum, outlines the important aspects of your inventions. As each application is different, we will review the documentation that you provide to us and give recommendations if additional information from you is needed to begin or complete the drafting of an application. Once finalized and approved by you, the provisional patent application would be filed with the USPTO.

On or before a one-year date from the filing of the provisional patent application, a new non-provisional patent application would need to be filed in the U.S. and abroad, should you decide to continue seeking patent protection of your invention. As you may know, the non-provisional patent application is a more complete technical disclosure of the invention and, after filing, would be examined by examiners of the USPTO and any foreign patent offices for which protection is sought. Typically, work required to prepare the non-provisional application for your invention can lead to costs in a range of about seven thousand five hundred to nine thousand dollars (\$7,500.00-\$9,000.00 USD) or more for an invention of average complexity. For a less complex invention, these costs may be in a range of about five thousand to six thousand dollars (\$5,000.00-\$6,000.00 USD). **Once again, please note that these are estimates and the actual cost will be based on the actual time spent in drafting the application by our attorneys.** MKG assumes that the drafting process will include preparing one (1) or two (2) draft applications based on a written description that is provided by you or a previously filed provisional application, which outlines the important aspects of your invention. Of course, we would work with you to minimize all costs and we would provide you with an estimate for drafting the non-provisional application.

While not mandatory, we typically recommend that a patentability search be conducted after the provisional application is filed and before the work on the non-provisional patent application begins. The aim of the search would be to determine whether your invention is new, non-obvious and thus eligible for patent protection in the U.S. and abroad. To assist in this effort, we would engage an experienced search agent familiar with the USPTO examination process to perform the search. We will provide the results of the search to you for your review and decision on how best to proceed. We estimate a cost of obtaining the search and reporting the results at about one thousand two hundred to about one thousand five hundred dollars (\$1,200.00-\$1,500.00 USD). Before engaging the searcher, we would obtain a cost estimate and your approval for conducting the search at that estimated cost. We would also request that the searcher's fee be paid in advance. We would estimate any attorney effort to analyze specific patents uncovered by the search to you upon your instruction to do so and once we have the results in hand. **Any attorney review and opinion as to patentability would be conducted at our hourly rates, and estimated once the search results are received from the search agent.** Typically an initial review and patentability opinion considering less than three (3) cited documents can be completed in about 3 attorney hours or about \$1,000.00 USD.

As patent protection is territorial (e.g., national). Therefore, a U.S. patent grants rights that are effective in the U.S. and its territories and possessions. It is possible to file patent applications outside the U.S. seeking protection of an invention

Overview of U.S. Patent Process (Continued)

in foreign jurisdictions and markets. There are two (2) processes for seeking utility patent protection outside the U.S.; an international patent application filed under provisions of the Patent Cooperation Treaty (PCT) and/or direct national patent applications filed in specific foreign jurisdictions. While filing fees for such application vary somewhat on the size of the application, generally speaking, a PCT application can be filed for at costs in a range of about three thousand five hundred to four thousand dollars (\$3,500.00-\$4,000.00 USD). This assumes that a non-provisional patent application has already been prepared and that the USPTO is selected as the international Search Authority. As discussed, additional costs may be incurred if another patent office is selected as the Search Authority. For example, if the European Patent Office is selected as the Search Authority an additional cost of about one thousand dollars (\$1,000.00 USD) typically applies. Direct filings of national patent applications typically can be done at a cost of about two thousand to about three thousand dollars (\$2,000.00-\$3,000.00 USD), and in some countries (e.g., Japan) or regions (Europe) costs can exceed five thousand dollars (\$5,000.00 USD), without including costs of translations into a national language of a respective patent office. Translation costs vary given the size of an application (e.g., words to be translated). In a typical application, translations can cost in a range of about four to five thousand dollars (\$4,000.00-\$5,000.00 USD). Given the variance in costs of seeking patent protection outside the U.S., we would work with you to identify countries or regions of interest and provide estimates to you for filing international patent applications in these countries or regions before taking on any work in that regard.

Design Patent Applications:

As noted above, a design patent protects only the ornamental appearance of an article, and does not protect its structure or utilitarian features. Therefore if an invention is a combination of both ornamental and utilitarian features, the utility or functional features of the invention can only be protected by a utility patent. So, two patent applications (e.g., a utility patent application and a design patent application) must be filed to fully seek protection for the inventive combination.

Generally speaking, a design patent application is relatively simpler to prepare than a utility patent application, and therefore, costs are less. For example, a specification of a design patent application follows a predefined form and includes one claim. In short, the drawings of a design patent are the critical component and formal drawings prepared by a patent draftsman are recommended prior to filing. The design patent application drawings are similar to those used in a utility patent application, except that the design patent drawings are targeted to illustrate the ornamental features of the invention rather than its utilitarian aspects.

Generally MKG can prepare and file a U.S. design patent application at a cost of about seven hundred and fifty dollars (\$750.00 USD) for MKG's fee, plus fees for a patent draftsman at a cost of about one hundred fifty dollars (\$150.00 USD) per sheet of formal drawings. Assuming six (6) sheets of drawings are prepared, a total draftsman's fee is typically about nine hundred dollars (\$900.00 USD). Please note

Overview of U.S. Patent Process (Continued)

that this is an estimate and the actual cost will be based on the actual time spent in drafting the application.

The following discussion provides an outline of the steps for seeking patent protection in the U.S.

I. Novelty Search: (Optional)

a. Purpose: To determine if the subject matter of the invention is already known, and thus, unpatentable.

b. Elements:

1. An inventor(s) provides a description of the invention (e.g., a completed Invention Disclosure Form) including any known devices or methods of solving the problem(s) addressed by the present invention.

2. An initial determination of a patent class is made based upon the inventor's description. A patent classification system attempts to categorize similar inventive subject matter. For example, electrical devices are placed in one family of classes while mechanical devices are in another.

3. An agent searches the catalogs of issued patents for subject matter that is in a similar class(es) as the inventor's disclosure and prepares a report of the findings.

4. An attorney reviews the agent's report and gives a prediction as to the patentability of the inventor's disclosure. That is, whether the invention can be distinguished from existing subject matter within the patent class(es).

c. Estimated Costs: Approximately \$2,200.00 to \$2,500.00 USD per search/invention, which includes the agent's fee of about \$1,200.00 to \$1,500.00 USD. Cost may vary in relation to the number and complexity of patents uncovered in the search. Typically, we provide a firm estimate of attorney time after the search results are received.

d. Other Options: A less costly, but limited, computer-based search may also be an option. For example, a patent attorney could perform "key word" searches of issued U.S. patents within a specified number of years. The search results are reviewed and a prediction as to the apparent patentability may be rendered. Costs: Approximately \$1,000.00 USD.

e. Timeframe: Typically once the invention disclosure is received a search agent can perform a manual search of the U.S. Patent and Trademark Office (USPTO) records in about 3-5 weeks. An attorney can review the search and provide a written report in about 2-3 weeks after receipt of the agent's report. Alternatively, a key word search and report can be completed in about 2-2.5 weeks.

II. Drafting a Utility Patent Application:

a. Purpose: To prepare an application for patent according to statutory requirements and the standards of the USPTO.

b. Elements:

1. An inventor(s) provides a detailed description of the invention (e.g., a completed Invention Disclosure Form) including any known devices or methods of solving the problem(s) addressed by the present invention. The inventor(s) also provides drawings or sketches of the invention, if appropriate.

2. An attorney reviews the information provided by the inventor and drafts a patent application conforming to the standards established by the USPTO. The application must be a sufficient technical disclosure such that one skilled in the relevant technology may practice the invention, after reading the application and any drawings, without undue additional effort or experimentation.

3. The inventor(s) reviews the application and, when acceptable, approves the application for filing in the USPTO.

4. A drafts person prepares any formal drawings of the invention for filing with the written application

c. Estimated Costs:

1. Attorney's time: approximately 25 to 30 hours per application at \$330.00 USD/hr or about \$7,500.00 to \$9,000.00 USD¹.

2. Drafts person's time: approximately ten (10) drawings at an estimated cost of \$150.00 USD per drawing sheet, or about \$1,500.00 USD.

3. Filing fees required by the USPTO depend on the status/size of the inventor(s) and number of claims within the application. Some inventors or entities owning an interest in the invention are given a 50% discount in USPTO fees². USPTO filing fees: approx. \$1,600.00 or \$730.00 USD (depending on the status of the applicant).

4. Estimated costs for the preparation and filing of a US non-provisional patent application, on average: \$10,000.00 to \$12,000.00 USD.

d. Other Options:

1. A streamlined application, e.g., one containing a sufficient but less technically descriptive disclosure, may be filed as a provisional patent application. Provisional patents have a term of one-year after which they expire. Before expiration, a non-provisional application (the process noted above) can be filed which claims the benefit of the provisional application's

¹ This estimate assumes an invention of above average complexity. Applications directed to less complex invention can be drafted in less time.

² If the business entity qualifies as a "small entity," e.g., a business entity having 500 or less employees, including affiliates and licensees, and if ownership of inventions developed by you remains in the small entity, the 50% discount would apply. The USPTO also recognizes "micro entity" status providing up to a 75% discount in USPTO fees.

Overview of U.S. Patent Process (Continued)

filing date. A provisional application is not examined by the USPTO and remains confidential in the USPTO for a specified period, but can be an effective tool for securing an earlier filing date.

2. Estimated cost of preparing a US provisional patent application is approximately \$2,500.00 USD to \$3,500.00 USD. The costs vary in relation to the amount of drafting necessary to put the invention disclosure into a minimum acceptable form for filing in the USPTO. Typically, there is about 8-10 hours of drafting. USPTO filing fees are either about \$260.00 or \$130.00 USD.

e. Timeframe: As noted above, a new U.S. non-provisional patent application can be drafted over the course of about 2-3 months. If immediate action is required to preserve patent rights or if a specific request is made, the process can be expedited to a few weeks. In such cases, schedules of the inventor(s) and the attorney(s) must be coordinated to ensure timely review of questions and draft applications. The expedited handling of a matter may result in more cost, as our attorneys cannot wait for an inventor or others to provide an initial description to save money and typically must continue drafting an application to meet the tight timeframe.

III. Examination of the Patent Application by the USPTO:

a. Purpose: To review the application for patent in light of the statutory and administrative requirements, for example, to confirm that the subject matter is within the scope of patentable items and that the subject matter is new and useful. The USPTO performs a search of its files for related subject matter. After the search, a number of documents (e.g., patents or other published materials) may be cited in opposition to a claim that the invention is new.

b. Elements:

1. USPTO review.

2. Issue one or more “office actions” detailing any deficiencies in the form of the application or citing similar subject matter which may bar the current invention from issuing to patent.

c. Costs: included within the filing fee outlined in part II.

d. Timeframe: Regrettably, this aspect of the process is out of the control of both the attorneys and inventors. Depending on the technical subject matter of the invention, USPTO examination schedules range from about 10 months to 2 years before assignment, review and a first Office Action is received from the USPTO.

IV. Prosecution of the Patent Application:

a. Purpose: To respond to any requirements, objections, or rejections by the one or more office actions issued by the USPTO during Step III.

Overview of U.S. Patent Process (Continued)

b. Elements:

1. An attorney reviews the Office Action received from the USPTO and reports the substance of the Office Action, the objections or rejections made by the USPTO and options for responding to the Office Action. The attorney's report will include copies of the Office Action and any cited patent documents. MKG asks that the inventor(s) and others review the Office Action or reporting letter and provides comments and instructions for proceeding.

2. With your instruction, the attorney prepares a response to each of the Office Action objections and rejections incorporating the inventor's comments and instructions as appropriate.

c. Estimated Costs:

1. The cost of prosecution is hard to predict until a USPTO Office Action is received. Typically, we would briefly review the Office Action and prior art documents cited by the Examiner, and formulate a strategy for responding to the action, with an estimate of the associated costs. The attorney's time to prepare a detailed recommendation per response is generally about 3 to 4 hours, so typical \$1,000.00 to \$1,320.00 USD (at hourly rate of \$330.00 USD/hr). Alternatively, we can report USPTO office actions "as is" for your initial review and provide a detailed recommendation only on your express request.

2. Once a strategy is agreed to between you and us, the attorney's time to prepare and file the response is generally about 10 to 12 hours per response. So, typically a response can be prepared for about \$3,300.00 to \$4,000.00 USD.

d. Timeframe: We strive to report receipt of office actions and suggested options for responding to each action within a few weeks of receipt. The USPTO typically assigns a 3 month, extendable period for responding to each action. Upon receipt of instruction from our client, we typically draft a response to an office action within a week or so.

NOTE: Steps III. and IV. Can repeat two or more times until the application is allowed (accepted for patent), withdrawn or abandoned by the inventor, or finally rejected by the USPTO.

V. **Reconsideration or Appeal: (Optional)**

a. Purpose: To seek an administrative or judicial review of a USPTO Final Rejection.

b. Elements: Vary, depending on the basis for rejection.

c. Estimated Costs: Vary, typically in excess of \$12,000.

Overview of U.S. Patent Process (Continued)

VI. Allowance and Issuance

a. Purpose: To notify the inventor(s) the application has been accepted by the USPTO as currently written and that it is, therefore, in a condition to issue as a U.S. patent.

b. Elements:

1. USPTO sends a Notice of Allowance to the inventor(s) or their attorney.

2. Attorney reviews Notice of Allowance, history of prosecution with USPTO, ensures USPTO records reflects all actions taken, identifies options for seeking additional patent protection (if any) and advises client of same.

3. Within a specified timeframe, the inventor(s) pays an issue fee and submits formal drawings (if required and not previously filed).

c. Estimated Costs:

1. Attorney's time: processing Notice of Allowance and reviewing formal drawings, approximately 1 hour, so \$330.00 USD.

2. An Issue Fee is required by the USPTO before the patent will issue. Once again, the fee depends on the status/size of the inventor(s). So, either \$480.00 or \$960.00 USD.

3. \$480.00 USD for paralegal's time for forwarding the Notice of Allowance, payment of issue, publication, and extra patent fees, forwarding Patent Letters, proofreading the front page and claims, docketing maintenance fees

3. Estimated total costs, typically \$1,290.00 to \$1,770.00 USD.

VII. Maintenance Fees:

a. Purpose: To maintain a patent in force beyond a specified date. A patent is enforceable for a maximum of 20 years after the date of filing the patent application. However, maintenance fees are required at 3½, 7½ and 11½ year periods from the date the patent is granted. Failure to pay a maintenance fee may result in the expiration of a patent. An expired patent is unenforceable.

b. Estimated costs: The USPTO maintenance fees themselves plus an administrative fee of \$200.00 USD per maintenance fee if MKG processes your payment. The USPTO fees are linked to the cost of living and are reconsidered by the USPTO annually. Currently, the fees are:

1. 3½ yr period: \$800.00 or \$1,600.00 USD.

2. 7½ yr period: \$1,800.00 or \$3,600.00 USD.

3. 11½ yr period: \$3,700.00 or \$7,400.00 USD.

Therefore, the governmental fee to keep a patent in force for its full term is currently \$6,300.00 or \$12,600.00 USD.

Overview of U.S. Patent Process (Continued)

Summary of Estimated Costs

<u>Category</u>	<u>Approximate Cost</u>
I. Novelty Search (Optional): “Key word” Search; or Search by Agent	\$1,000.00 USD \$2,200.00- \$2,500.00 USD
II. Drafting a Utility Patent Application: Provisional Application (Optional) Non-provisional Application	\$2,630.00 - \$3,760.00 USD \$10,000.00 - \$12,000.00 USD
III. Examination of the Patent by USPTO	Included in filing fee (typ. starts from about 2 to 3yrs from the filing of the application)
IV. Prosecution of the Application: Report and detailed recommendation Office Action Preparation and filing of Response response	\$1,000.00 to \$1,320.00 USD per \$3,300.00 to \$4,000.00 USD per
V. Reconsideration or Appeal (Optional)	Not Estimated
VI. Allowance and Issuance	\$1,290.00 to \$1,770.00 USD
VII. Maintenance Fees	\$6,300.00 - \$12,600.00 USD
Estimated Costs:	\$28,000.00 - \$40,000.00 USD

Please note that Steps III and IV in the process above may repeat (2 or more times) depending on the subject matter of the invention and the third party patents or patent applications cited against the pending application. Please also note that these fees are incurred over the life of the patent (20 years).

Once again, this is an overview of the typical process and an estimate of costs associated with obtaining a U.S. patent and maintaining the patent for its full term. Please recognize that the elements and costs associated with a particular step of the process, and thus the total costs, will vary.