Patents can be key ingredients in any recipe for success

When you come up with a new recipe, patent protection is seldom the next step in your thought process. But it probably should be. As with any invention, a recipe that passes the legal tests for patentability can be given patent protection.

Patents can be applied to 'recipes' across many industries, from food manufacturing and animal nutrition through to non-edible compositions, medicaments, and chemical and biotechnological technologies.

In New Zealand, in order for something to be patentable it must be novel and non-obvious (or "inventive") over what is already known.

Recipes are typically composed of two parts: an ingredient list, and instructions for how to use those ingredients to create a finished product. In general terms, these two parts can be more broadly described as a composition and a method respectively, terms which encompass a huge range of products and processes across many industries.

The patentable aspect of a recipe may lie either in the ingredients used (a compositionpatent), in the unique way of combining or treating those ingredients (a method patent), or both.

When is a recipe novel and inventive?

For novelty to be shown, the new recipe cannot have been publically disclosed anywhere, including the internet, before the patent application has been filed. In order for novelty to be destroyed by an earlier disclosure, the disclosure does have to be for the same recipe - a recipe with the same ingredients that uses a different method and produces a different result will not be counted as a previous disclosure. For this reason, novelty is the easier of the requirements to meet. Non-obviousness is more difficult to prove.

When a recipe is being assessed to determine whether it is non-obvious over what is already known, the decision will be made from the theoretical viewpoint of a "person having ordinary skill in the art". If it is found that a person of such skill would think that it would be obvious to select particular ingredients to achieve a certain result, or use a particular method to combine particular ingredients to end up with the desired finished product, then the recipe will not be patentable.

In a hypothetical scenario, a company may be looking to develop a new carrot flavoured sports drink. Simply substituting the orange flavouring in a known sports drink recipe for carrot flavouring is an obvious way to achieve this, and is therefore not patentable. While a carrot flavoured sports drink may be a novel concept, a person with ordinary skill requires no special inventive thought to remove the orange flavouring and substitute it with carrot flavouring.

While this basic substitution of similar ingredients isn't patentable, it may be a different case if a simple substitution didn't have the desired result and further work was required. Continuing with the sports drink example, our ordinarily skilled person discovered that carrot flavouring could only be added to achieve a palatable drink if the carrot was first pureed and combined with ingredient X under high pressure to extract specific stable flavouring components. This discovery was made

through experimentation and was quite unexpected, given flavouring changes are normally straightforward processes.

This discovery is now potentially patentable. The inventor has developed a new process or method for producing carrot flavoured drinking products which was not an obvious improvement. The inventor may therefore be able to protect a number of different aspects surrounding the drink:

- The method of both making the drink and extracting the carrot flavouring;
- The drink and/or extract itself when produced by that method;
- And potentially the combination of drink ingredients including the carrot extract which are palatable in sports drink form.
- This basic scenario can be applied to 'recipes' across many industries.

What are the benefits in gaining patent protection?

By gaining patent protection, our inventor will have a monopoly over the processes used to produce carrot flavoured sports drinks (and potentially all root vegetable flavoured sports drinks depending on the broadness of patent protection gained). If the product is a success, the patent holder has a number of options as to how they can proceed.

- The patented technology can be licensed to third parties to enable them to make their own carrot sports drinks using the patented process. In return, the patent holder can receive royalties or set payments for the use of the technology which will provide valuable income;
- The patent holder may use the technology themselves and gain a strong market monopoly as the sole supplier of carrot sports drinks. If necessary, the patent can be enforced against competitors trying to use the same process;
- The patent can be sold outright to a third party for a set price, allowing the new owner to use the patent and the associated rights at their discretion.

Are there other options?

Another option our inventor has is to keep the newly discovered combination of ingredients or process a trade secret. The advantages of this are they avoid any costs associated with patenting, and retain their monopoly for as long as they are able to keep the method confidential. A trade secret has the potential to be maintained indefinitely, provided sufficient action is taken to keep the secret. This means ensuring staff work on a need-to-know basis and minimising the number of people (usually only executives) who are privy to the entire secret.

If you are able to keep the trade secret and the product remains successful for over 20 years (which is the time a New Zealand patent runs) then you will be extending your monopoly and associated earnings over a greater period than you would have been able to had you decided to rely on patent protection. Classic examples of companies who have successfully done this are Coca-Cola and KFC with their "11 secret herbs and spices" recipe.

The downsides of using the trade secret method are first the risk a competitor may discover the process you are using (either through reverse engineering or other means) and begin to use it themselves. Without patent protection, you will have no means to stop them. Unfortunately, once you have started to publically sell your product, there is no option to apply for patent protection, as the novelty requirements described earlier will no longer be met.

Second, any income derived from the carrot sports drink will typically be generated by you. Without having a patent to license out to third parties or to sell the benefits of the discovery, it will determine what you as the trade secret holder can do with the technology.

The decision on which method is most suitable will be largely dependent on the circumstances and business objectives of the inventor or the inventor's employee.

Making an informed decision

While many new recipes will not be patentable - particularly if they use well known ingredients and techniques - it is always worth discussing any new developments with an IP advisor. They will be able to give you a good indication of whether you have a patentable recipe and will ensure you are aware of all the options available.

This article first appeard in FMCG magazine and was written by Jennifer Lucas. To contact Jennifer, please email her on jenniferl@jaws.co.nz or phone 09 914 6740.

Source: James & Wells Intellectual Property