



PLTW Engineering

12/Preparing and Applying for Patents

April 23, 2020



12/EDD

Lesson: 4/23/2020

Objective/Learning Target: Students will be able to explain what a patent is and what is required to apply for a patent.



What is a patent?

A patent for an invention is the grant of a property right to the inventor, issued by the United States Patent and Trademark Office.

What is granted is not the right to make, use, offer for sale, sell or import, but the right to exclude others from making, using, offering for sale, selling or importing the invention. Once a patent is issued, the patentee must enforce the patent without aid of the USPTO.



What is a patent?

U.S. patent grants are effective only within the United States, U.S. territories, and U.S. possessions. Under certain circumstances, patent term extensions or adjustments may be available.

The right conferred by the patent grant is, in the language of the statute and of the grant itself, “the right to exclude others from making, using, offering for sale, or selling” the invention in the United States or “importing” the invention into the United States.



How long are patent rights?

Generally, the term of a new patent is 20 years from the date on which the application for the patent was filed in the United States or, in special cases, from the date an earlier related application was filed, subject to the payment of maintenance fees.



Types of Patents

There are three types of patents:

- 1) **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 thereof.
- 2) **Design patents** may be granted to anyone who invents a new, original, and ornamental design for an article of manufacture.
- 3) **Plant patents** may be granted to anyone who invents or discovers and asexually reproduces any distinct and new variety of plant.



What can be patented?

A patent can be granted to any person who “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,” subject to the conditions and requirements of the law.

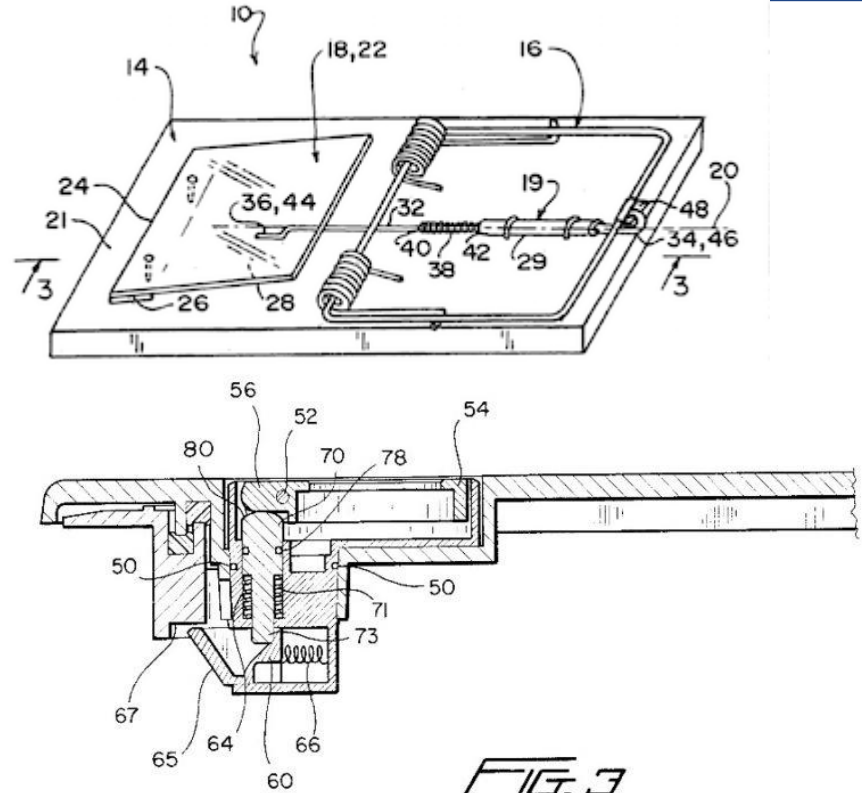
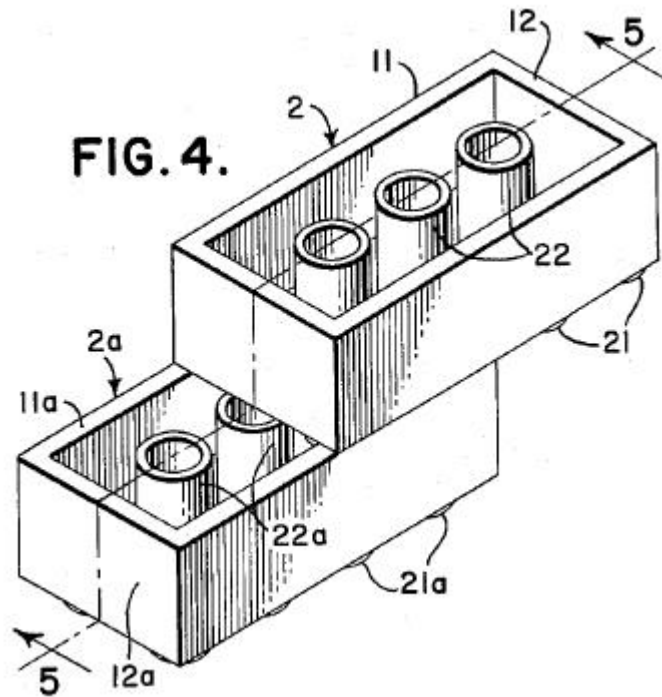


Documentation required to file a patent

A patent cannot be obtained upon a mere idea or suggestion. The patent is granted upon the new machine, manufacture, etc., as has been said, and not upon the idea or suggestion of the new machine. A complete description of the actual machine or other subject matter for which a patent is sought is required.

In addition to written description, patent drawings may be created in order to document the appearance of a product that is being patented for its design.

Examples of patent drawings





What is the cost to file a patent?

The cost to file a patent can vary greatly. The main factors that determine the costs associated with filing patents are:

Legal fees - lawyers specific to patents are often required to understand and fully provide the documentation needed. The cost of these services can range from \$500 to \$10,000.

Filing and Examination fees - these fees range between \$200 and \$500 dollars depending on the type of patent application.



How long does a patent last?

A provisional or utility patent can last up to one year, and gives the person filing for the patent time to submit other documentation needed to file for a full patent.

The maximum time a full fledged patent can last is 20 years.

There are also 4, 8, and 12 year patents that cost less in fees to obtain.



Quiz yourself

1. Does patent give the person who owns it the right to make the product patented, or does it exclude others from making it?
2. What is the maximum length of time a patent can last?
3. List 2 types of patents.
4. List 2 types of things that can be patented.
5. How much can legal fees for patents cost?
6. List 2 common things on the 3 examples of patent drawings.



Helpful links

[United State Patent and Trade Office guide to patents](#)

[Youtube video - Roadmap to filing a Patent Application](#)