

	Sciences et Technologies de l'Industrie et du Développement Durable		Term. STI2D
	COPYRIGHTS AND PATENTS		
	1-1 New products, Inventions and patents		

The Joy of Tech™

by Nitrozac & Snaggy



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<http://cdn.techlineinfo.com/wp-content/uploads/2012/08/apple-samsung-war.jpg>

1. What are copyrights and patents?

5 You see copyright dates in every book and on every other published work, and many products carry the patent symbol somewhere on their packaging. You also hear about copyrights and patents when there are questions about who owns the rights to a certain work or product. The United States government maintains copyright and patent programs to ensure everybody is able to profit from their original creative works. Of course, financial profit isn't the only reason to copyright or patent something: The programs are simply meant to give a creator legal control over when, where and how his or her creation is published or used in the United States. U.S. protection is extremely broad -- most kinds of creative work are copyrightable -- but it's also fairly amorphous, full of subjective interpretations and legal details.

10 The broadest creative-work protection the U.S. government offers is the **copyright**. Something that is copyrighted may not be reproduced, published or copied without permission from the copyright-holder. U.S. copyright law says that all "original works of authorship" created after January 1, 1978 in a fixed tangible form are protected for the duration of the creator's life plus 70 years. Companies hold copyrights for 95 to 120 years depending on whether or not the work has been published. A
15 huge variety of creative work falls under this "original works of authorship" criteria, but the [U.S. Copyright Office](#) groups copyrightable material into eight general categories:

- Literary works
- Pictorial, graphic, and sculptural works
- Musical works
- 20 • Sound recordings
- Dramatic works
- Pantomimes and choreographic works
- Motion pictures and other audio-visual works
- Architectural works

25 You cannot copyright works that do not have a tangible form. A dance, for example, must have the choreography written down before it can be protected by copyright. You also cannot copyright basic names, titles, short phrases, and lists of common-property information (phone books, periodic tables, etc.). Ideas are not protected by copyright; only the specific presentation of the ideas is copyrightable.

30 One of the coolest things about copyright protection is that it is automatic. If you create an original work in the United States, it is instantly copyrighted, without you doing anything except putting it into a tangible form. You can, however, take a few extra steps to make the copyright "stronger." The first thing to do is simply make a notice of copyright on your work. A copyright notice includes three basic elements:

- 35 • The word "Copyright," the abbreviation "Copr.," or the symbol "©"
- The year of first publication
- The name of the copyright holder

This question of the day answer, for example, is ©, How Stuff Works, 2000.

40 For a small fee, you can also register copyrighted material with the U.S. Copyright Office. This proves when you authored an original work, giving you much better legal footing in any copyright disputes. For registration forms and registration information, check out [this page](#) on the U.S. Copyright Office site.

Patents work a bit differently from copyrights, but you can think of them as copyrights for inventions (see [this page](#) to find out what constitutes an invention). All a patent really does is (to
45 give the patent-holder the right to stop others from producing, selling or using his or her invention. Unlike copyrights, patents protect the idea or design of the invention, rather than any tangible form of the invention, and so patenting something is a much trickier procedure than copyrighting something. To patent something you have invented (whether it's a product or some sort of process), you have to demonstrate that your invention is a significantly original creation -- that it is unique
50 enough to distinguish it from existing inventions and that it is innovative enough that it wouldn't be obvious to others. Patents provide protection for 20 years. After that, the invention is public property.

55 If you are interested in patenting an invention, the first thing to do is check for similar inventions in the [U.S. Patent and Trademark Office's Patent Database](#) (the Patent Office also employs people who will perform this service for you). If your invention has not already been patented or submitted for a patent, you can fill out a patent application. The procedures involved in applying for a patent are fairly complicated, so it may be a good idea to employ a patent lawyer at this stage in the process. For more information on obtaining a patent, check out [this page](#).

Source: <http://money.howstuffworks.com/question492.htm>.

Learn More

- [How Trademarks Work](#)
- [How Intellectual Property Works](#)
- <http://www.patentlens.net/daisy/patentlens/patentlens.html>

2. Understanding the text

1. Say in a few words what the first paragraph is about. In other words, explain its role and summarize it.
2. Where can we find a patent symbol?
3. Why creators generally have to copyright or patent their inventions?
4. Could you copyright a good idea of your own? If not, why so?
5. How long a copyright may last?
6. How old are Walt Disney movies? What is the link with the previous question?
7. What would be the copyright notice for this document?
8. What do you have to show when writing a patent?
9. Suppose you manage to design a new kind of computer, faster, nicer and cheaper than a PC or an iMAC. In this computer, what would be to copyright and what would be to patent?
10. Tell the pros and cons of a patent for a small company.
11. Do you know a company which didn't copyrighted its product, a product famous all over the world?

Video :< <http://videos.howstuffworks.com/multi-media-productions/1178-get-your-invention-heard-video.htm>> (coming soon...)

3. How to read a patent

In this short exercise, you'll have to find out various information in a patent. You may use this url: <<http://www.patentlens.net/daisy/patentlens/202.html>> or alternatively download "how to read a patent.pdf" from STI2D website.

The patent file to read is "US882691_Gearbox.pdf". It's also provided next page.

Fill the blanks below:

- This patent is being issued in (date).....
- Their inventors are (names).....
- They are working for (company).....
- The patent number is
- The patent application has been filled in (date)..... ,
- so it took.....years for the patent to be granted.

The innovation described is about

.....



US007882691B2

(12) **United States Patent**
Lemmers, Jr. et al.

(10) **Patent No.:** **US 7,882,691 B2**
(45) **Date of Patent:** **Feb. 8, 2011**

- (54) **HIGH TO LOW PRESSURE SPOOL SUMMING GEARBOX FOR ACCESSORY POWER EXTRACTION AND ELECTRIC START**
- (75) Inventors: **Glenn C. Lemmers, Jr.**, Loves Park, IL (US); **David S. Behling**, Belvidere, IL (US)

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(73) Assignee: **Hamilton Sundstrand Corporation**, Rockford, IL (US)

(Continued)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 886 days.

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GB 2 197 391 5/1988

(21) Appl. No.: **11/773,471**
(22) Filed: **Jul. 5, 2007**

OTHER PUBLICATIONS

(65) **Prior Publication Data**
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- (51) **Int. Cl.**
F02C 1/00 (2006.01)
F02C 3/10 (2006.01)
- (52) **U.S. Cl.** **60/39,163**; 60/802; 74/664; 475/6
- (58) **Field of Classification Search** 60/792, 60/802, 39.163, 786, 788; 74/664, 665 R, 74/661, 665 L, 665 M, 665 N; 475/6, 9, 475/10, 302, 207, 218
See application file for complete search history.

Primary Examiner—William H Rodriguez

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(57) **ABSTRACT**

A turbine engine includes low and high pressure spools. A high power take-off shaft is coupled to the high spool. An auxiliary component, such as a generator, is configured to be driven by the high power take-off shaft at a first speed. The low spool, in part, drives the auxiliary component, for example, by interconnecting the high power take-off shaft to a lower power take-off shaft through a speed summing gearbox. The gearbox drives the auxiliary component and increases the rotational speed of the auxiliary component from the first speed to the second speed. The low power take-off shaft also drives another generator, in one example. The turbine engine can be started by the low pressure generator, for example, in response to a command from a controller, which transforms the generator into a starter motor.

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9 Claims, 2 Drawing Sheets

