

## Chapter 2

### -- Patentability --

In this chapter, we will begin our discussion of patents. Patent law is, perhaps, the most complicated and least understood area of intellectual property. Because of the importance of patents to inventors and business managers, a majority of this text will focus on the fundamentals of patent law. We will begin by considering the various types of patents, what is and is not patentable and the basic requirements for obtaining a patent on an invention.

### -- Patent Types --

There are three types of patents: (1) utility patents, (2) design patents and (3) plant patents.

Plant patents are mentioned briefly and only for the sake of completeness. A plant patent protects an asexually bred plant and is generally of interest only to those specializing in herbology.

As the name implies, a design patent protects the way something looks. For example, a Mickey Mouse® wristwatch could be the subject of a design patent. The patent would not cover watches and could not be used to prevent someone from making or selling a watch. However, the patent would protect the design on the watch and could be used to prevent others from producing a watch that is similar in appearance.

In contrast, a utility patent is a patent that protects the functionality or hardware of an invention. A utility patent may also protect a method or process. When people speak of a “patent,” they are generally referring to a utility patent. Far more utility patents are sought and granted than design patents.

### -- Patentable Subject Matter --

Within the category of utility patents is a vast variety of subject matter. A utility patent can cover methods or processes, machines, manufactured articles, compositions of matter and improvements on any of these. In the words of one famous Supreme Court case, utility patents can be sought on anything under the sun that is made or done by mankind. For example, a utility patent can cover an electronic device, a chemical compound, a software application, a business method, a process for making breakfast cereal or genetically engineered life forms.

U.S. Patent No. 4,656,917 was issued in 1987 to Edward “Eddie” Van Halen for a harness that supports a guitar from a player’s waist so that both hands are free to play the guitar. A reproduction of the first figure from this patent appears on the following page.

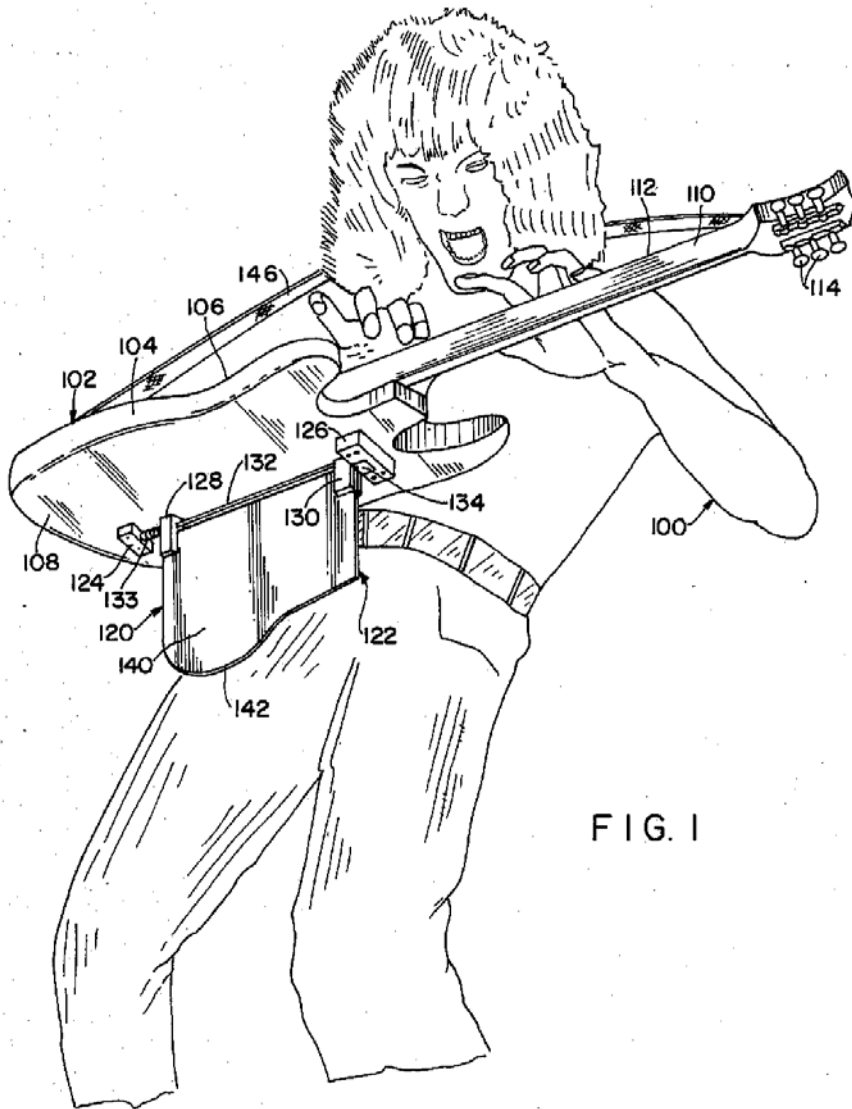


FIG. 1

U.S. Patent No. 6,019,689, issued to Hogan, covers a method of putting.



**United States Patent** [19] [11] Patent Number: **6,019,689**  
 Hogan [45] Date of Patent: **Feb. 1, 2000**

**U.S. Patent** Feb. 1, 2000 Sheet 2 of 7 **6,019,689**

[54] **METHOD OF PUTTING**

[75] Inventor: **Charles Nelson Hogan**, Phoenix, Ariz.  
 [73] Assignor: **Haley-Moley T.J.C.**, Redmond, Oreg.  
 [21] Appl. No.: **09/078,439**  
 [22] Filed: **May 13, 1998**  
 [51] Int. Cl. 7: **A63B 53/00**  
 [52] U.S. Cl.: **473/409, 473/243**  
 [58] Field of Search: **473/405, 407, 473/408, 409, 251, 255, 231, 238, 203, 340, 243, 241**

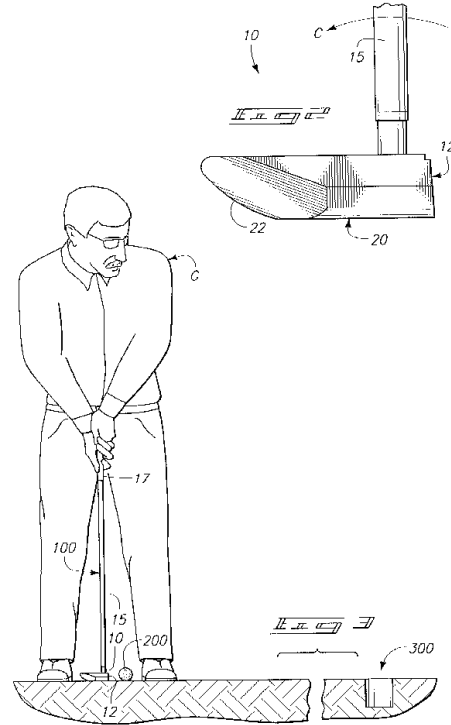
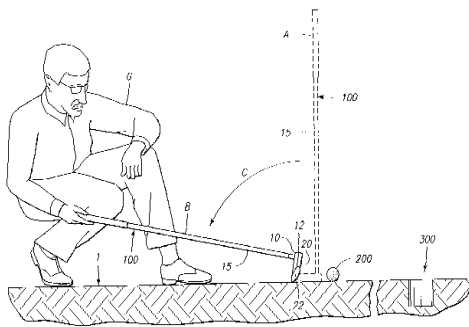
[56] **References Cited**  
**U.S. PATENT DOCUMENTS**  
 2,019,491 1/1900 Durrell et al. 473/241  
 2,095,375 8/1901 Bakorey 473/241  
 3,220,730 11/1965 Hise 473/209  
 3,486,755 12/1969 Hodge 473/293  
 4,317,568 3/1982 Gies 473/238  
 4,824,314 9/1989 Caskins 473/263  
 5,782,622 7/1994 Evans 473/292  
 5,707,299 1/1998 McKean 473/241

Primary Examiner—Steven Wong  
 Attorney, Agent, or Firm—Reidlaw, T.J.C.; John S. Reid

[57] **ABSTRACT**

A method for putting which achieves improved alignment between the face of the putter and the golf ball towards the desired initial line of progress of the golf ball. In the method, a putter is provided which has a head having a contoured portion of the heel allowing the head to be rotated about the ground from a position where the handle is generally upright to a position where the handle is generally inclined towards the ground. The putter head is provided with an alignment mark allowing a golfer to align the alignment mark, a golf ball, and a golf cup. A putter positioner such as a putter such that a golf ball is disposed between the face of the putter and a golf cup. The golfer then rotates the handle of the putter to a position inclined towards the ground such that the face of the putter is facing in a generally upward direction. The golfer then aligns along the alignment mark on the body of the putter to align the alignment mark with the golf ball in the direction of the golf cup. The golfer can at this point make further adjustments to the positioning of the head of the putter to account for variations in the ground between the golf ball and the cup. Once the golfer has achieved the desired alignment, the golfer rotates the handle of the putter to a generally upright position such that the face of the putter is essentially perpendicular to the ground. The golfer then grasps the putter, maintaining the achieved alignment, and hits the golf ball with the face of the putter to urge the golf ball in the general direction of the golf cup.

5 Claims, 7 Drawing Sheets



U.S. Patent No. 4,535,061 covers a genetically-engineered bacteria that was designed to consume and break down chemicals such as crude oil to help clean up an oil spill.

Given these examples and the broad statements that have been made about what can be patented, it is reasonable to ask if there is anything that cannot be the subject of a utility patent.

Until relatively recently, it was the stated policy of the U.S. Patent Office to refuse to grant patents on methods of doing business. This, however, changed in the landmark case of *State Street Bank v. Signature Financial Group* (Fed. Cir., July 23, 1998).

In the *State Street Bank* case, Signature Financial had obtained U.S. Patent No. 5,193,056. This patent covers a method of managing a group of mutual funds more

efficiently. For example, it was noticed that, within a family of mutual funds, two or more funds may be investing in the same stocks or other securities. If each of the funds purchases the securities separately, each transaction incurs separate transaction costs. However, if the several funds make one coordinated purchase of the securities, only one set of transaction costs is incurred.

Thus, the Signature Financial patent describes and claims a method of treating a family of mutual funds as the “spokes” of a wheel with purchases and other transactions being handled through a “hub” portfolio for greater efficiency.

United States Patent [01] 5,193,056  
 [02] Patent Number: 5,193,056  
 [03] Date of Patent: Mar. 5, 1993

[54] DATA PROCESSING SYSTEM FOR HUB AND SPOKE FINANCIAL SERVICES CONSTRUCTION  
 [57] Inventor: R. Todd Bost, Boston, Mass.  
 [73] Assignee: Signature Financial Group Inc., Boston, Mass.  
 [21] Appl. No. 441,777  
 [22] Filed: Mar. 11, 1991  
 [51] Int. Cl. G06F 15/28; G06F 13/00  
 [52] U.S. Cl. 360/400  
 [56] Field of Search: 360/400, 401  
 [58] References Cited  
 [59] Boston Business Journal, Nov. 11, 1991, "Signature sets patent for mutual fund wheel"; p. 8 (abstract only).  
 [60] BNA Securities Law Daily, Mar. 20, 1993, "Dinged ad: Brokers file request on so-called 'hub-and-spoke' fund."  
 [61] Financial Services Week, Apr. 20, 1992, "Hub-and-spoke fund: Three Regulatory Questions."  
 [62] Barron's, Feb. 17, 1992, Edition "Mutual Funds: Wheeling and Dealing"; p. 36 (column 3 published only).  
 [63] Barron's, Mar. 16, 1992, Edition "Mutual Funds: Wheeling and Dealing"; p. 36 (column 3 published only).  
 [64] Bost, "Signature Loans Hub and Spoke System in Van Eck Associates"; pp. 11, 12.  
 [65] DataPro: Dictionary of Software, Apr. 1991, McGraw-Hill Pub. Co., pp. 215-240 in D1-240.  
 [66] The Wall Street Journal, Jul. 13, 1992, Sebastian, "More  
 [67] Great Structure Funds as Partnership"; p. 21, Lillian J. (Eastern Edition).  
 [68] The Street, Computer Associates International, Inc., 1989, pp. J-416 to J-416.  
 [69] Primary Examiner—Roy N. Ewald, Jr., Attorney Examiner—David Blumley, Attorney Agent of Firm—Francis R. Edwards

# U.S. Patent No. 5,193,056

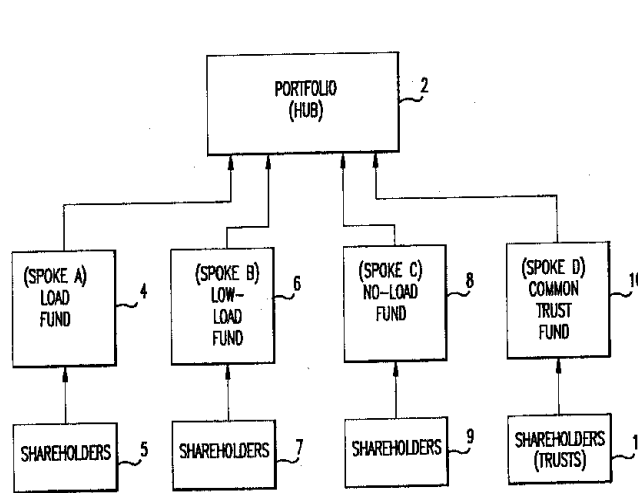
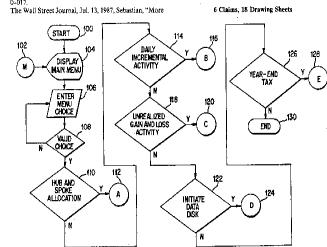


FIG. 1

State Street Bank was accused of infringing the patented Signature Financial method. In court, State Street Bank sought to invalidate the Signature Financial patent on the grounds that the patent covered an unpatentable business method. The court, however, upheld the State Street patent and declared that the policy against granting business method patents had been created by the U.S. Patent Office based on a

U.S. Patent Mar. 9, 1993 Sheet 1 of 18 5,193,056

misreading of the law. Consequently, the court declared, business methods are patentable.

Since then, business methods, particularly electronic and on-line business methods have been the subject of important patents. For example, Priceline.com holds U.S. Patent No. 5,794,207 on an on-line reverse auction system. eBay.com holds U.S. Patent No. 6,058,417 on an on-line auctioning method driven by users. CyberGold, Inc. holds U.S. Patent No. 5,794,210 for an advertising method that provides payment to users in exchange for viewing on-line ads.

This survey of specific examples of existing patents is intended to demonstrate that virtually any innovation is patentable. Unfortunately, many inventions are never developed or their value is never exploited simply because the inventors or managers who are aware of the inventions don't recognize the patentability of the invention.

This still leaves the question of what, if anything, is not patentable. The Supreme Court has identified three categories of subject matter that are unpatentable, namely "laws of nature, natural phenomena, and abstract ideas." However, we must draw a distinction between these things that are not patentable and applications of them which may be patentable.

For example, let's suppose that geysers are unknown and someone discovers the first known geyser in Yellowstone, Wyoming. A geyser is, of course, a natural phenomenon. Within the geyser, cracks in the earth's crust allow water to be heated by thermal energy escaping from the earth's core. The heated water then boils, vaporizes and expands. The heated water then rushes back to the surface and explodes into the air under pressure.

Because a geyser is a natural phenomenon, the discoverer could not obtain a patent on "geysers" and claim ownership of all existing geysers. However, the discovery of geothermal energy could lead to patents on methods of harnessing and using geothermal energy, even though the phenomenon of geothermal energy is not itself patentable.

A similar distinction can be drawn for both laws of nature and abstract ideas. By themselves they are not patentable. However, practical applications that result from them most likely are patentable.

### -- Legal Requirements for Patentability --

In order for any "invention" to be patented, it must meet three legal requirements; it must be (1) useful, (2) new and (3) unobvious. The statutory law governing U.S. Patents is found in Volume 35 of the United States Code (U.S.C.).

The first requirement, “usefulness,” is generally quite easy to meet. Most all inventions are “useful.” If an idea has no use, it will generally not be pursued. The concept of “usefulness” also relates to whether the invention is within the bounds of patentable subject matter. For example, an abstract idea, law of nature or natural phenomenon may not be of any particular use.

35 U.S.C. § 101 is entitled “Inventions patentable.” “Whoever 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 therefor, subject to the conditions and requirements of this title.” Note the requirement that the invention be “useful” in order to obtain patent protection.

As is commonly known, an invention must also be new or “novel” to merit patent protection. If an idea is already known, it is in the public domain or in a current patent and on its way to the public domain. And, once knowledge is in the public domain, it cannot be removed, meaning that it cannot be patented or re-patented. We grant patents to reward innovation, the creation of new knowledge. We do not grant patents on ideas that are already known, already part of the public store of knowledge.

35 U.S.C. § 102 specifies that invention must be novel, i.e., new to the public, to receive patent protection. For example, if an invention has been described in a previous patent, patent application or other publication, it cannot be patented. If the invention has been publicly demonstrated or sold more than a year before a patent application is filed, it cannot be patented.

**§ 102: Conditions for patentability; novelty and loss of right to patent.**

A person shall be entitled to a patent unless —

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for patent, or

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States, or

(c) he has abandoned the invention, or

(d) the invention was first patented or caused to be patented, or was the subject of an inventor’s certificate, by the applicant or his legal representatives or assigns in a foreign country prior to the date of the application for patent in this country on an application for patent or inventor’s certificate filed more than twelve months before the filing of the application in the United States, or

(e) the invention was described in—

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, . . . or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent . . . .

The term “prior art” is used to describe the universe of publications and public knowledge that exists before an alleged invention is made. If the “invention” is described in or covered by the prior art, it is not really an invention and cannot be protected by a patent. § 102 legally defines what can be prior art, namely, publications, patent applications, public knowledge, public use, offers for sale, etc.

The third requirement is that the invention be unobvious or non-obvious. The legal concept of obviousness is somewhat complicated. Assume for example that most of an invention is described in a previous publication. However, one or more features of the invention are not discussed in that previous publication. Under § 102, there is no single publication that describes the invention in its entirety. Thus, § 102 would not bar receipt of a patent, i.e., the invention is “novel.” However, further suppose that a second publication discusses, in a related context, the features of the invention that are missing from the first publication. If one were to look at both prior publications together, all the features of the invention would be discussed and it may be “obvious” to combine all the features of the invention in one device. Where this is the case, § 103 stipulates that no patent can be awarded.

While this example describes two prior art references that together describe the “invention,” any number of prior art documents can be combined to demonstrate that an invention is merely an obvious cobbling together of ideas that are already documented. However, when prior art references are being combined to reject an invention, there must also be some motivation or suggestion in the prior art that would lead someone to make the proposed combination. As you can imagine, there is much room for argument over whether an invention is or is not legally “obvious.”

**35 U.S.C. §103 Conditions for patentability; non-obvious subject matter.**

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.