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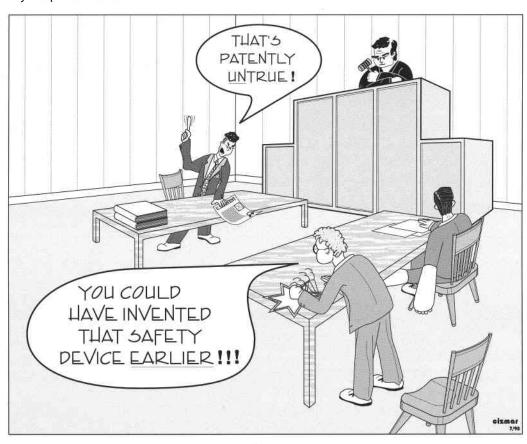
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Patents: Restoring Safety

by Ralph L. Barnett*

August 1998



Abstract

The law punishes manufacturers who embrace safety innovation and product improvement. The "new" is literally the enemy of the "old" in the sense that a new safety design may be used by the law to show that all past and current designs are defective. On the other hand, if the new design is patented, a special attribute precludes its invocation as a remedial measure for a safety problem which predated the patent.

I. Introduction

In the long term, technology generally moves forward. Automobiles are eventually fitted with seatbelts and these are followed by seat and shoulder harnesses. Vehicle interiors are padded and the air bag is installed to control frontal impacts. Newer designs incorporate side air bags to deal with transverse impacts. Despite occasional setbacks, society has applauded this progression of safety initiatives because it mitigates the yearly carnage from vehicle accidents. Assume that we enter this safety sequence just after the introduction of the frontal air bag on new cars. Does this automatically imply that the preexisting 100 million vehicles are defective, unreasonably dangerous or unsafe? When

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Steven R. Schmid, Ph.D. Food Processing Equipment a 1940 punch press is the subject of a product liability action, many plaintiffs want to show the jury the 1998 equivalent power press with all its bells and whistles.

Classic tort law took the position that newer designs could not be introduced because any probative value would be completely outweighed by the prejudicial effect on the trier of facts. It was argued quite eloquently that public policy demanded the exclusion of newer designs so that manufacturers would not be inhibited from introducing improvements into the stream of commerce for fear of reprisals and general courtroom bludgeoning. As time went by, this position was breached and many states began to admit the new designs into evidence for the limited purpose of establishing feasibility of a proposed safety device. The prejudicial effect was simply overwhelming and almost every defense attorney admitted feasibility rather than face the "newest model" in the courtroom. Finally, a few states have gone 180 degrees from the classic tort position; subsequent remedial measures are accepted as evidence that the original design is defective and unsafe.

Bearing in mind that a manufacturer's products may find their way into every state and forum, is it any wonder that manufacturers and distributors are paranoid about adding safety improvements into their product lines? We have exposed the worst face of the products liability system; it compromises public safety.

II. Patents

The delegates to our Constitutional Convention adopted, without debate, a provision for a United States patent system. That provision still stands as Article I, Section 8 of the Constitution:

"The Congress shall have power...To promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries."

The nature of the patent right reflects the Constitutional purpose of the patent system. A patent gives to the patentee the right to prevent others from making, using or selling his or her invention during the period in which the patent is in effect, 17 years. The idea is to provide a monopoly for a sufficient time to permit full commercial development and adequate reward for the inventor and his or her sponsors. In exchange for the exclusive right that is granted to the patentee, he or she is required to make a full and complete disclosure of the invention to the Government who, in turn, makes this information available to the public. The mechanism for this communication is the first part of the patent itself, the specification.

The Specification - "The specification is that part of the application describing the invention. It must be in such full, clear, concise and exact terms as to enable *any person skilled in the art or science* to which the invention or discovery appertains to make, construct, compound, and use the same. The withholding of any information essential to the working of the invention is sufficient to invalidate the patent."

The specifications may also be used to point out advantages of the invention, uses to which it may be put and the underlying theory governing the invention. These declarations are unessential; indeed, it is wholly immaterial to the validity of the patent whether or not the statements are correct, so long as the patentee has so set forth the thing to be done so that it can be reproduced by one skilled in the art.

To the nonspecialist it is always a surprise to learn that there is no answer to the question – What is an invention?

"The term is not defined in the patent statute except for the less-than-helpful statement that 'The term "invention" means invention or discovery.' The Patent Office Rules of Practice likewise fail to define invention. Moreover, the courts, after a number of unsatisfactory efforts, no longer attempt to define the term. Finally, all patent scholars are in general agreement that the term is incapable of exact definition."

Many guiding principles substitute for the lack of a definition of invention. It is common knowledge, for example, that an invention must be novel; no matter what kind of invention, it must produce some new result or function or some known result in a new or better way. Also, an invention must have utility. This requirement has been interpreted by the Courts to mean that the device must be operative to perform a purpose not against the public morals.

It is not generally known that the presence of invention is always determined from the result and never from the mental process of the inventor. One Court expressed the matter in this way:

"Invention is not always the offspring of genius; more frequently it is the product of plain hard work; not infrequently it arises from accident or carelessness; occasionally it is a happy thought of an ordinary mind; and there have been instances where it is the result of sheer stupidity. It is with the inventive concept, the thing achieved, not with the manner of its achievement or the quality of the mind that gave it birth, that the Patent Law concerns itself."

The notions of origin, novelty and usefulness, with their associated vagueness, are all attempts to describe what a patent *is*. We now address what a patent *is not*. Our brief discussion of the so-called negative rules of patentability is vital to this paper's thesis.

"NEGATIVE RULES BY WHICH PATENTABILITY IS DETERMINED"

"There is no general test to determine the presence of invention. Nor is there a general definition of an invention. Sometimes it is possible to say that invention of a high order is present. At other times it is possible to say that there is lacking invention. The intangible something which denotes invention, however, cannot be segregated and defined so as to aid in the determination of the matter of invention in those cases which lie in between the two extremes. Hence, the Courts have contented themselves by deciding individual cases on their own merits by means of a process of exclusion. As a result of the many adjudicated cases in which this process has been utilized, there has grown up a set of negative rules, which are to be applied in given situ-

ations to determine whether certain variations in old devices and processes do or do not arise to the dignity of invention."

Only the first of the twelve negative rules, "obviousness," need be considered here. The invention must not be an obvious modification or improvement of something already known. The patent statute is very specific on this point. It states that a patent "may not be obtained...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." In other words, the difference or change must have a particular quality – it must have a degree of ingenuity over and above that to be expected in the work of a skilled craftsman.

It is not invention to produce an article, device or process that any skillful mechanic or chemist could produce whenever required. The test is whether an ordinary person skilled in that particular art would spontaneously make the change represented by the invention. A person skilled in the art is a fictitious person who is supposed to know all that has been done in that field.

There is a general tendency in products liability to judge devices a posteriori (as a Monday morning quarterback) and simple inventions are sometimes claimed to be obvious. Simplicity must not be confused with obviousness. They are far from being synonymous terms in the patent law. Obviousness is evidence of lack of invention. If the advance in the art, however slight, appears obvious only after it has been made, this is no evidence of the lack of invention. In this conclusion the Supreme Court stated:

"Knowledge after the event is always easy, and problems once solved present no difficulties, indeed, may be represented as never having had any, and expert witnesses may be brought forward to show that the new thing which seemed to have eluded the search of the world was always ready at hand and easy to be seen by a merely skillful attention. But the law has other tests of invention than subtle conjectures of what might have been seen and yet was not."

III. Adopting Patented Product Improvements

If a device has been patented, the negative rules of patentability establish that the device could not have been produced by ordinary skill in the art. Indeed, the requirement that the specifications be so clear and complete that anyone skilled in the art can produce the invention is entirely consistent with the negative rule of obviousness. Attempts to introduce an invention into a products liability action can be countered by invoking the patent. There cannot be a duty to invent because this requires a manufacturer to do something that ordinary skill in the art cannot do. Is it reasonable to impose a duty on a manufacturer to have a brilliant inspiration, a revolutionary accident or a defining moment of stupidity? In the rare case where a simple invention is challenged on the basis of obviousness, it must be remembered that patent law has well developed rules that do not allow after the fact judgments. Anyone can design a safety pin once he or she has seen one.

IV. Conclusions

- A. The granting of a patent for a safeguard device implies that no person with ordinary skill in the art could have previously created the device.
- B. It is conceivable that the law could create a duty to develop safeguards that a person having ordinary skill in the art could produce.
- C. It is inconceivable that the law could impose a duty to invent. One cannot compel a manufacturer to have a brilliant flash, a happy accident or a lucky break or to perform beyond the ability of a person having ordinary skill in the art.
- D. A patented safeguard is not available to serve as a remedial measure for a problem which predated the patent.
- E. A patentee may preclude the use of a patented safeguard during the period in which the patent is in effect.
- F. If a manufacturer adopts a patented safeguard, it cannot compromise the safety status of its current or past products.

References

All of the remarks on patent law were based on References 1 and 2:

- Dressler, Max, Talk on Patents Presented at Technical Meeting of American-Marietta Company, At Berry Brothers Plant-Detroit, MI, March 6, 1956.
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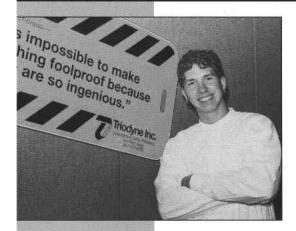
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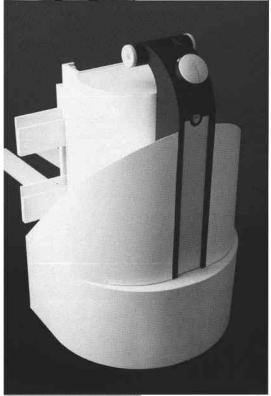
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Triodyne's Graphic and Product Design Department's very own Andrew Cizmar will receive a bronze Industrial Design Excellence Award (IDEA 98) for his student design project, Pedestrian Stacker. The stacker is a walk-behind personal forklift for use in narrow aisle stock racks typical in office supply areas and wholesale/retail warehouses. Because these areas have limited space and sporadic retrieval demands, it is common for workers to try to quickly retrieve high and/or heavy boxes manually which leads to serious lifting and dropping accidents. Andy's compact design features an innovative control set for easy pushing, pulling and fork elevation making the stacker a no-hassle alternative to manual load retrieval.

The Industrial Design Excellence Awards are presented annually by the Industrial Designers Society of America to foster business and public understanding of the impact of industrial design on the quality of life and the economy. The IDEA is considered the world's most prestigious recognition of excellence in industrial design. This year 1,031 entries in 47 categories were judged by 13 jurors on the following criteria:

- design innovation
- benefit to the user
- benefit to the client/business
- ecological responsibility and
- esthetics and appeal.

Andy worked in our graphics department while earning his B.S. in Product Design from the Institute of Design at Illinois Institute of Technology in 1996 and has been Manager of Graphic and Product Design since 1997. He is responsible for designing and producing all Triodyne publications and courtroom exhibits as well as designing our new safety products. For a closer look at Andy's project, check our website at www.triodyne.com. Congratulations, Andy!



