Intellectual Property
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Supplementary Materials
Part 2

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Facts in Paulik v. Rizkalla

Your casebook editors deleted the facts of Paulik v. Rizkalla (p. 432), making it somewhat difficult to understand the case. Here is a quick summary:

Paulik invented a "process for producing alkylidene diesters such as ethylidene diacetate." By November, 1970, he had reduced the invention to practice. Paulik was working for the Monsanto corporation. He informed his employer of his invention in November, 1970.

Monsanto's patent department had a lot of inventions to process, so it assigned Paulik's invention a priority of "B," which meant that it would have to wait in the queue until someone was available to deal with it. From 1970 - 1974, nothing much happened. In February of 1975, Monsanto's patent department took up the invention and started to prepare a patent application for it and further experiments on the invention were carried out at Monsanto.

In March, 1975, Rizkalla filed a patent application on the same process. Possibly Rizkalla had done some work on the invention prior to the date of his patent application, but he never chose to prove any such prior work.

In June, 1975, Paulik filed an application for a patent on his invention.

EGBERT v. LIPPMANN
104 U.S. 333 (1881)

MR. JUSTICE WOODS delivered the opinion of the court.

This suit was brought for an alleged infringement of the complainant's reissued letters-patent, No. 5216, dated Jan. 7, 1873, for an improvement in corset-springs.

The original letters bear date July 17, 1866, and were issued to Samuel H. Barnes. The reissue was made to the complainant, under her then name, Frances Lee Barnes, executrix of the original patentee.

The specification for the reissue declares:--

"This invention consists in forming the springs of corsets of two or more metallic plates, placed one upon another, and so connected as to prevent them from sliding off each other laterally or edgewise, and at the same time admit of their playing or sliding upon each other, in the direction of their length or longitudinally, whereby their flexibility and elasticity are greatly increased, while at the same time much strength is obtained."

The second claim is as follows:--

"A pair of corset-springs, each member of the pair being composed or two or more metallic plates, placed on on another, and fastened together at their centres, and so connected at or near each end that they can move or play on each other in the direction of their length."

The bill alleges that Barnes was the original and first inventor of the improvement covered by the reissued letters-patent, and that it had not, at the time of his application for the original letters, been for more than two years in public use or on sale, with his consent or allowance.

The answer takes issue on this averment and also denies infringement. On a final hearing the court dismissed the bill, and the complainant appealed.

As the second defense above mentioned, it is sufficient to say that the evidence establishes beyond controversy the infringement by the defendants of the second claim of the reissue.

We have, therefore, to consider whether the defense that the patented invention had, with the consent of the inventor, been publicly used for more than two years prior to his application for the original letters, is sustained by the testimony in the record.

The sixth, seventh, and fifteenth sections of the act of July 4, 1836, c. 357 (5 Stat. 117), as qualified by the seventh section of the act of March 8, 1839, c. 88 (id. 353), were in force at the date of his application. Their effect is to render letters-patent invalid if the invention which they cover was in public use, with the consent and allowance of the inventor, for more than two years prior to his application. * * *

The evidence on which the defendants rely to establish a prior public use of the invention consists mainly of the testimony of the complainant.

She testifies that Barnes invented the improvement covered by his patent between January and May, 1855; that between the dates named the witness and her friend Miss Cugier were complaining of the breaking of their corset-steels. Barnes, who was present, and was an intimate friend of the witness, said he thought he could make her a pair that would not break. At their next interview he presented her with a pair of corset-steels which he himself had made. The witness wore these steels a long time. In 1858 Barnes made and presented to her another pair, which she also wore a long time. When the corsets in which these steels were used wore out, the witness

ripped them open and took out the steels and put them in new corsets. This was done several times.

It is admitted, and, in fact, is asserted, by complainant, that these steels embodied the invention afterwards patented by Barnes and covered by the reissued letters-patent on which this suit is brought.

Joseph H. Sturgis, another witness for complainant, testifies that in 1863 Barnes spoke to him about two inventions made by himself, one of which was a corset-steel, and that he went to the house of Barnes to see them. Before this time, and after the transactions testified to by the complainant, Barnes and she had intermarried. Barnes said his wife had a pair of steels made according to his invention in the corsets which she was then wearing, and if she would take them off he would show them to witness. Mrs. Barnes went out, and returned with a pair of corsets and a pair of scissors, and ripped the corsets open and took out the steels. Barnes then explained to witness how they were made and used.

This is the evidence presented by the record, on which the defendants rely to establish the public use of the invention by the patentee's consent and allowance.

The question for our decision is, whether this testimony shows a public use within the meaning of the statute.

We observe, in the first place, that to constitute the public use of an invention it is not necessary that more than one of the patented articles should be publicly used. The use of a great number may tend to strengthen the proof, but one well-defined case of such use is just as effectual to annul the patent as many. * * *

We remark, secondly, that, whether the use of an invention is public or private does not necessarily depend upon the number of persons to whom its use is known. If an inventor, having made his device, gives or sells it to another, to be used by the donee or vendee, without limitation or restriction, or injunction of secrecy, and it is so used, such use is public, even though the use and knowledge of the use may be confined to one person.

We say, thirdly, that some inventions are by their very character only capable of being used where they cannot be seen or observed by the public eye. An invention may consist of a lever or spring, hidden in the running gear of a watch, or of a rachet, shaft, or cog-wheel covered from view in the recesses of a machine for spinning or weaving. Nevertheless, if its inventor sells a machine of which his invention forms a part, and allows it to be used without restriction of any kind, the use is a public one. So, on the other hand, a use necessarily open to public view, if made in good faith solely to test the qualities of the invention, and for the purpose of experiment, is not a public use within the meaning of the statute. *Elizabeth v. Pavement Company*, 97 U.S. 126. * * *

Tested by these principles, we think the evidence of the complainant herself shows that for more than two years before the application for the original letters there was, by the consent and allowance of Barnes, a public use of the invention, covered by them. He made and gave to her two pairs of corset-steels, constructed according to his device, one in 1855 and one in 1858. They were presented to her for use. He imposed no obligation of secrecy, nor any condition or restriction whatever. They were not presented for the purpose of experiment, nor to test their qualities. No such claim is set up in her testimony. The invention was at the time complete, and there is no evidence that it was afterwards changed or improved. The donee of the steels used them for years for the purpose and in the manner designed by the inventor. They were not capable of any other use. She might have exhibited them to any person, or made other steels of the same kind, and used or sold

them without violating any condition or restriction imposed on her by the inventor.

According to the testimony of the complainant, the invention was completed and put into use in 1855. The inventor slept on his rights for eleven years. Letters-patent were not applied for till March, 1866. In the mean time, the invention had found its way into general, and almost universal, use. A great part of the record is taken up with the testimony of the manufacturers and venders of corset-steels, showing that before he applied for letters the principle of his device was almost universally used in the manufacture of corset-steels. It is fair to presume that having learned from this general use that there was some value in his invention, he attempted to resume, by his application, what by his acts he had clearly dedicated to the public.

"An abandonment of an invention to the public may be evinced by the conduct of the inventor at any time, even within the two years named in the law. The effect of the law is that no such consequence will necessarily follow from the invention being in public use or on sale, with the inventor's consent and allowance, at any time within the two years before his application; but that, if the invention is in public use or on sale prior to that time, it will be conclusive evidence of abandonment, and the patent will be void." *Elizabeth v. Pavement Company*, supra.

We are of opinion that the defense of two years' public use, by the consent and allowance of the inventor, before he made application for letters-patent, is satisfactorily established by the evidence.

MR. JUSTICE MILLER dissenting.

* * * [The inventor is] not to lose his right to a patent, unless the use which he permitted was such as showed an intention of abandoning his invention to the public. * * *

The word public is * * * an important member of the sentence. A private use with consent, which could lead to no copy or reproduction of the machine, which taught the nature of the invention to no one but the party to whom such consent was given, which left the public at large as ignorant of this as it was before the author's discovery, was no abandonment to the public, and did not defeat his claim for a patent. If the little steel spring inserted in a single pair of corsets, and used by only one woman, covered by her outer-clothing, and in a position always withheld from public observation, is a public use of that piece of steel, I am at a loss to know the line between a private and a public use.

The opinion argues that the use was public, because, with the consent of the inventor to its use, no limitation was imposed in regard to its use in public. It may be well imagined that a prohibition to the party so permitted against exposing her use of the steel spring to public observation would have been supposed to be a piece of irony. * * *

I cannot on such reasoning as this eliminate from the statute the word public, and disregard its obvious importance in connection with the remainder of the act, for the purpose of defeating a patent otherwise meritorious.

METALLIZING ENGINEERING CO. v. KENYON BEARING & AUTO PARTS CO.
153 F.2d 516 (2d Ci.r 1946)

Before L. HAND, AUGUSTUS N. HAND, and CLARK, Circuit Judges.

L. HAND, Circuit Judge.

The defendants appeal from the usual decree holding valid and infringed all but three of the claims of a reissued patent, issued to the plaintiff's assignor, Meduna; the original patent issued on May 25, 1943, upon an application filed on August 6, 1942. The patent is for the process of 'so conditioning a metal surface that the same is, as a rule, capable of bonding thereto applied spray metal to a higher degree than is normally procurable with hitherto known practices' (p. 2, lines 1-5). It is primarily useful for building up the worn metal parts of a machine. * * *

The only question which we find necessary to decide is as to Meduna's public use of the patented process more than one year before August 6, 1942. The district judge * * * [found that] 'the inventor's main purpose in his use of the process prior to August 6, 1941, and especially in respect to all jobs for owners not known to him, was commercial, and * * * an experimental purpose in connection with such use was subordinate only.' * * *

* * * Section 4886 of the Revised Statutes made it a condition upon patentability that the invention shall not have been 'in public use or on sale for more than two years prior to his application,' and that it shall not have been 'proved to have been abandoned.' This is in substance the same as the Act of 1839, and is precisely the same as Sec. 31 of Title 35, U.S.C.A. except that the prior use is now limited to the United States, and to one year before the application. * * * So far as we can find, the first case which dealt with the effect of prior use by the patentee was *Pennock v. Dialogue*, 2 Pet. 1, 4, 7 L.Ed. 327, in which the invention had been completed in 1811, and the patent granted in 1818 for a process of making hose by which the sections were joined together in such a way that the joints resisted pressure as well as the other parts. It did not appear that the joints in any way disclosed the process; but the patentee, between the discovery of the invention and the grant of the patent, had sold 13,000 feet of hose; and as to this the judge charged: 'If the public, with the knowledge and tacit consent of the inventor, be permitted to use the invention, without opposition, it is a fraud on the public afterwards to take out a patent.' The Supreme Court affirmed a judgment for the defendant, on the ground that the invention had been 'known or used before the application.' 'If an inventor should be permitted to hold back from the knowledge of the public the secrets of his invention; if he should * * * make and sell his invention publicly, and thus gather the whole profits, * * * it would materially retard the progress of science and the useful arts' to allow him fourteen years of legal monopoly 'when the danger of competition should force him to secure the exclusive right'. * * *

Coming now to our own decisions (the opinions in all of which I wrote), the first was *Grasselli Chemical Co. v. National Aniline & Chemical Co.*, 2 Cir., 26 F.2d 305, in which the patent was for a process which had been kept secret, but the product had been sold upon the market for more than two years. We held that, although the process could not have been discovered from the product, the sales constituted a 'prior use.' * * * There was nothing in this inconsistent with what we are now holding. But in *Peerless Roll Leaf Co. v. Griffin & Sons*, 2 Cir., 29 F.2d 646, where the patent was for a machine, which had been kept secret, but whose output had been freely sold on the

market, we sustained the patent on the ground that 'the sale of the product was irrelevant, since no knowledge could possibly be acquired of the machine in that way. In this respect the machine differs from a process * * * or from any other invention necessarily contained in a product'. * * * So far as we can now find, there is nothing to support this distinction in the authorities. * * *

* * * [I]t appears that in *Peerless Roll Leaf Co. v. Griffin & Sons*, * * * we confused two separate doctrines: (1) The effect upon his right to a patent of the inventor's competitive exploitation of his machine or of his process; (2) the contribution which a prior use by another person makes to the art. Both do indeed come within the phrase, 'prior use'; but the first is a defence for quite different reasons from the second. It had its origin—at least in this country—in the passage we have quoted from *Pennock v. Dialogue*, *supra*, 2 Pet. 1, 7 L.Ed. 327; *i.e.*, that it is a condition upon an inventor's right to a patent that he shall not exploit his discovery competitively after it is ready for patenting; he must content himself with either secrecy, or legal monopoly. It is true that for the limited period of two years he was allowed to do so, possibly in order to give him time to prepare an application; and even that has been recently cut down by half. But if he goes beyond that period of probation, he forfeits his right regardless of how little the public may have learned about the invention; just as he can forfeit it by too long concealment, even without exploiting the invention at all. * * * Such a forfeiture has nothing to do with abandonment, which presupposes a deliberate, though not necessarily an express, surrender of any right to a patent. Although the evidence of both may at times overlap, each comes from a quite different legal source: one, from the fact that by renouncing the right the inventor irrevocably surrenders it; the other, from the fiat of Congress that it is part of the consideration for a patent that the public shall as soon as possible begin to enjoy the disclosure.

It is indeed true that an inventor may continue for more than a year to practice his invention for his private purposes of his own enjoyment and later patent it. But that is, properly considered, not an exception to the doctrine, for he is not then making use of his secret to gain a competitive advantage over others; he does not thereby extend the period of his monopoly. Besides, as we have Seen, even that privilege has its limits, for he may conceal it so long that he will lose his right to a patent even though he does not use it at all. With that question we have not however any concern here.

Judgment reversed; complaint dismissed.

Notes and Questions

This opinion interprets § 102(b) of the patent statute. Read that section carefully. Do you agree that the use of the patented process at issue in this case was a "public use"?

W.L. GORE & ASSOCIATES, INC. v. GARLOCK, INC.
721 F.2d 1540 (Fed. Cir. 1983)

Before MARKEY, Chief Judge, and DAVIS and MILLER, Circuit Judges.

MARKEY, Chief Judge.

* * *

Tape of unsintered polytetrafluorethylene (PTFE) (known by the trademark TEFLON of E.I. du Pont de Nemours, Inc.) had been stretched in small increments. W.L. Gore & Associates, Inc. (Gore), assignee of the patents in suit, experienced a tape breakage problem in the operation of its "401" tape stretching machine. Dr. Robert Gore, Vice President of Gore, developed the invention disclosed and claimed in the '566 and '390 patents in the course of his effort to solve that problem. The 401 machine was disclosed and claimed in Gore's U.S. Patent 3,664,915 ('915) and was the invention of Wilbert L. Gore, Dr. Gore's father. PTFE tape had been sold as thread seal tape, i.e., tape used to keep pipe joints from leaking. The '915 patent, the application for which was filed on October 3, 1969, makes no reference to stretch rate, at 10% per second or otherwise, or to matrix tensile strength in excess of 7,300 psi.

Dr. Gore experimented with heating and stretching of highly crystalline PTFE rods. Despite slow, careful stretching, the rods broke when stretched a relatively small amount. Conventional wisdom in the art taught that breakage could be avoided only by slowing the stretch rate or by decreasing the crystallinity. In late October, 1969, Dr. Gore discovered, contrary to that teaching, that stretching the rods as fast as possible enabled him to stretch them to more than ten times their original length with no breakage. Further, though the rod was thus greatly lengthened, its diameter remained virtually unchanged throughout its length. The rapid stretching also transformed the hard, shiny rods into rods of a soft, flexible material.

* * *

On May 21, 1970, Gore filed the patent application that resulted in the patents in suit. The '566 patent has 24 claims directed to processes for stretching highly crystalline, unsintered, PTFE. * * * The '390 patent has 77 claims directed to various products obtained by processes of the '566 patent.

* * *

On Nov. 2, 1979, Gore sued Garlock for infringement of process claims 3 and 19 of the '566 patent, and sought injunctive relief, damages, and attorney fees. Garlock counterclaimed on Dec. 18, 1979, for a declaratory judgment of patent invalidity, non-infringement, fraudulent solicitation, and entitlement to attorney fees. * * *

The district court * * * in respect of the '566 patent * * * declared all claims of the patent invalid under 102(b) because the invention had been in public use and on sale more than one year before Gore's patent application, as evidenced by Budd's use of the Cropper machine. * * *

In 1966 John W. Cropper (Cropper) of New Zealand developed and constructed a machine for producing stretched and unstretched PTFE thread seal tape. In 1967, Cropper sent a letter to a company in Massachusetts, offering to sell his machine, describing its operation, and enclosing a photo. Nothing came of that letter. There is no evidence and no finding that the present inventions thereby became known or used in this country.

In 1968, Cropper sold his machine to Budd, which at some point thereafter used it to produce and sell PTFE thread seal tape. The sales agreement between Cropper and Budd provided:

ARTICLE "E"--PROTECTION OF TRADE SECRETS Etc.

> *1. BUDD* agrees that while this agreement is in force it will not reproduce any copies of the said apparatus without the express written permission of Cropper nor will it divulge to any person or persons other than its own employees or employees of its affiliated corporations any of the said known-how or any details whatsoever relating to the apparatus.
>
> *2. BUDD* agrees to take all proper steps to ensure that its employees observe the terms of Article "E" and further agrees that whenever it is proper to do so it will take legal action in a Court of competent jurisdiction to enforce any one or more of the legal or equitable remedies available to a trade secret plaintiff.

Budd told its employees the Cropper machine was confidential and required them to sign confidentiality agreements. Budd otherwise treated the Cropper machine like its other manufacturing equipment. * * *

The district court held all claims of the '566 patent invalid under 102(b) * * * because "the invention" was "in public use [and] on sale" by Budd more than one year before Gore's application for patent. Beyond a failure to consider each of the claims independently, * * * and a failure of proof that the claimed inventions as a whole were practiced by Budd before the critical May 21, 1969 date, it was error to hold that Budd's activity with the Cropper machine, as above indicated, was a "public" use of the processes claimed in the '566 patent, that activity having been secret, not public.

Assuming, arguendo, that Budd sold tape produced on the Cropper machine before October 1969, and that that tape was made by a process set forth in a claim of the '566 patent, the issue under § 102(b) is whether that sale would defeat Dr. Gore's right to a patent on the process inventions set forth in the claims.

If Budd offered and sold anything, it was only tape, not whatever process was used in producing it. Neither party contends, and there was no evidence, that the public could learn the claimed process by examining the tape. If Budd and Cropper commercialized the tape, that could result in a forfeiture of a patent granted them for their process on an application filed by them more than a year later. * * * *Metallizing Engineering Co. v. Kenyon Bearing & Auto Parts Co.,* 153 F.2d 516, 68 USPQ 54 (2d Cir.1946). There is no reason or statutory basis, however, on which Budd's and Cropper's secret commercialization of a process, if established, could be held a bar to the grant of a patent to Gore on that process.

Early public disclosure is a linchpin of the patent system. As between a prior inventor who benefits from a process by selling its product but suppresses, conceals, or otherwise keeps the process from the public, and a later inventor who promptly files a patent application from which the public will gain a disclosure of the process, the law favors the latter. *See Horwath v. Lee,* 564 F.2d 948, 195 USPQ 701 (CCPA 1977). The district court therefore erred as a matter of law in applying the statute and in its determination that Budd's secret use of the Cropper machine and sale of tape rendered all process claims of the '566 patent invalid under § 102(b). * * *

[R]eversed. * * *

[The opinion of Judge Davis is omitted.]

Notes and Questions

1. Is this case consistent with *Metallizing Engineering*?

2. Read § 102(b) again. What explains the difference in approach taken by the court to interpreting the statute here from what happened in *Metallizing Engineering*?

HOTCHKISS v. GREENWOOD
52 U.S. 248 (1850)

MR. JUSTICE NELSON delivered the opinion of the court.

* * * The suit was brought against the defendants for the alleged infringement of a patent for a new and useful improvement in making door and other knobs of all kinds of clay used in pottery, and of porcelain.

The improvement consists in making the knobs of clay or porcelain, and in fitting them for their application to doors, locks, and furniture, and various other uses to which they may be adapted.

* * * [U]pon the evidence being closed, the counsel for the plaintiffs prayed the court to instruct the jury that, although the clay knob, in the form in which it was patented, may have been before known and used, and also the shank and spindle by which it is attached may have been before known and used, yet if such shank and spindle had never before been attached in this mode to a knob of potter's clay, and it required skill and invention to attach the same to a knob of this description, so that they would be firmly united, and make a strong and substantial article, and which, when thus made, would become an article much better and cheaper than the knobs made of metal or other materials, the patent was valid, and the plaintiffs would be entitled to recover.

The court refused to give the instruction * * *.

[I]n the case before us, the knob is not new, nor the metallic shank and spindle, nor the dovetail form of the cavity in the knob, nor the means by which the metallic shank is securely fastened therein. All these were well known, and in common use; and the only thing new is the subsitution of a knob of a different material from that heretofore used in connection with this arrangement.

Now it may very well be, that, by connecting the clay or porcelain knob with the metallic shank in this well-known mode, an article is produced better and cheaper than in the case of the metallic or wood knob; but this does not result from any new mechanical device or contrivance, but from the fact, that the material of which the knob is composed happens to be better adapted to the purpose for which it is made. The improvement consists in the superiority of the material, and which is not new, over that previously employed in making the knob.

But this, of itself, can never be the subject of a patent. No one will pretend that a machine, made, in whole or in part, of materials better adapted to the purpose for which it is used than the materials of which the old one is constructed, and for that reason better and cheaper, can be distinguished from the old one; or, in the sense of the patent law, can entitle the manufacturer to a patent.

The difference is formal, and destitute of ingenuity or invention. It may afford evidence of judgment and skill in the selection and adaptation of the materials in the manufacture of the instrument for the purposes intended, but nothing more.

I remember having tried an action in the Circuit in the District of Connecticut some years since, brought upon a patent for an improvement in manufacturing buttons. The foundation of the button was wood, and the improvement consisted in covering the face with tin, and which was bent over the rim so as to be firmly secured to the wood. * * *

On the trial, the defendant produced a button, which had been taken off a coat on which it had been worn before the Revolution, made precisely in the same way, except the foundation was

bone. The case was given up on the part of the plaintiff. Now the new article was better and cheaper than the old one; but I did not then suppose, nor do I now, that this could make any difference, unless it was the result of some new contrivance or arrangement in the manufacture. Certainly it could not, for the reason that the materials with which it was made were of a superior quality, or better adapted to the uses to which the article is applied. * * *

[U]nless more ingenuity and skill in applying the old method of fastening the shank and the knob were required in the application of it to the clay or porcelain knob than were possessed by an ordinary mechanic acquainted with the business, there was an absence of that degree of skill and ingenuity which constitute essential elements of every invention. In other words, the improvement is the work of the skilful mechanic, not that of the inventor.

We think, therefore, that the judgment is, and must be, affirmed.

MR. JUSTICE WOODBURY dissented.

* * * [O]n the point as to the invention being patentable, the direction virtually was to consider it not so, if an ordinary mechanic could have made or devised it; whereas in my view the true test of its being patentable was, if the invention was new, and better and cheaper than what preceded it. * * *

[I]t is impossible for an invention to be merely colorable, if, as claimed here, it was better and cheaper; and hence this last criterion should, as requested by the plaintiffs, have been suggested as a guide to the jury.

* * * The books are full of such slight changes in structure, composition, or mode of application, which were novel, and better in their results, and therefore upheld, and were not and could not be regarded merely as the application of an old machine to new purposes. Beside the new material and the new mode of fastening, when the results as here are considerably improved, they suffice to make the invention patentable. * * *

* * * [W]hy should it not be sufficient? A new mode of operating or a new composition to produce better results is the daily ground for a patent. All which the act of Congress itself requires is that the invention be for 'any new and useful improvement on any art, machine, manufacture, or composition of matter,' &c. 5 Stat. at Large, p. 119, § 6. Must it not then be considered such an improvement, if operating with new materials both cheaper and more durable?

* * * [W]hy is not he a benefactor to the community, and to be encouraged by protection, who invents a use of so cheap an earth as clay for knobs, or in a new form or combination, by which the community are largely gainers?

On the whole case, then, it seems to me that justice between these parties, as well as sound legal principle, requires another trial * * *.

Notes and Questions

1. Prior to 1952, the Patent Act contained no provision comparable to what is now section 103; the only express statutory requirements for patentability were novelty and utility. As *Hotchkiss* shows, however, the courts long understood something like § 103's nonobviousness requirement to be implicit in the patent laws. How exactly would you articulate the requirement that the patent applicant have made an "invention" as described in *Hotchkiss*? Why is such a requirement

appropriate?

2. Subsequent cases articulated the *Hotchkiss* requirement in numerous ways. The Supreme Court said that the patent applicant must present "some substantial discovery or invention, which adds to our knowledge and makes a step in advance in the useful arts," *Atlantic Works v. Brady*, 107 U.S. 192, 200 (1882), or "the creative work of that inventive faculty which it is the purpose of the constitution and the patent laws to encourage and reward," *Hollister v. Benedict & Burnham Manufacturing Co.*, 113 U.S. 59, 73 (1885), or even "that impalpable something which distinguishes invention from simple mechanical skill,"*McClain v. Ortmayer*, 141 U.S. 419, 427 (1891). A case of particular concern to the inventive community was *Cuno Engineering Corp. v. Automatic Devices Corp.*, 314 U.S. 84 (1941), in which the Court said that "the new device, however useful it may be, must reveal the flash of creative genius not merely the skill of the calling." *Id.* at 91. The *A&P* case, below, provided the final impetus for the 1952 amendments that created section 103.

GREAT ATLANTIC & PACIFIC TEA CO. v. SUPERMARKET EQUIPMENT CORP.
340 U.S. 147 (1950)

MR. JUSTICE JACKSON delivered the opinion of the Court.

* * * [The case concerned an improved check-out stand to be used at supermarkets.]

Stated without artifice, the claims assert invention of a cashier's counter equipped with a three-sided frame, or rack, with no top or bottom, which, [when] pushed or pulled, will move groceries deposited within it by a customer to the checking clerk and leave them there when it is pushed back to repeat the operation. It is kept on the counter by guides. That the resultant device words as claimed, speeds the customer on his way, reduces checking costs for the merchant, has been widely adopted and successfully used, appear beyond dispute.

The District Court explicitly found that each element in this device was known to prior art. 'However,' it found, 'the conception of a counter with an extension to receive a bottomless self-unloading tray with which to push the contents of the tray in front of the cashier was a decidedly novel feature and constitutes a new and useful combination.'

The Court of Appeals regarded this finding of invention as one of fact, sustained by substantial evidence, and affirmed it as not clearly erroneous. It identified no other new or different element to constitute invention and overcame its doubts by consideration of the need for some such device and evidence of commercial success of this one.

* * * While this Court has sustained combination patents, it never has ventured to give a precise and comprehensive definition of the test to be applied in such cases. The voluminous literature which the subject has excited discloses no such test. It is agreed that the key to patentability of a mechanical device that brings old factors into cooperation is presence or lack of invention. * * * The concept of invention is inherently elusive when applied to combination of old elements. This, together with the imprecision of our language, have counselled courts and text writers to be cautious in affirmative definitions or rules on the subject.

The negative rule accrued from many litigations was[:] * * * 'The mere aggregation of a number of old parts or elements which, in the aggregation, perform or produce no new or different function or operation than that theretofore performed or produced by them, is not patentable

invention.' * * * The conjunction or concert of known elements must contribute something; only when the whole in some way exceeds the sum of its parts is the accumulation of old devices patentable. Elements may, of course, especially in chemistry or electronics, take on some new quality or function from being brought into concert, but this is not a usual result of uniting elements old in mechanics. This case is wanting in any unusual or surprising consequences from the unification of the elements here concerned, and there is nothing to indicate that the lower courts scrutinized the claims in the light of this rather severe test.

Neither court below has made any finding that old elements which made up this device perform any additional or different function in the combination than they perform out of it. This counter does what a store counter always has done—it supports merchandise at a convenient height while the customer makes his purchases and the merchant his sales. The three-sided rack will draw or push goods put within it from one place to another—just what any such a rack would do on any smooth surface—and the guide rails keep it from falling or sliding off from the counter, as guide rails have ever done. Two and two have been added together, and still they make only four.

Courts should scrutinize combination patent claims with a care proportioned to the difficulty and improbability of finding invention in an assembly of old elements. The function of a patent is to add to the sum of useful knowledge. Patents cannot be sustained when, on the contrary, their effect is to subtract from former resources freely available to skilled artisans. A patent for a combination which only unites old elements with no change in their respective functions, such as is presented here, obviously withdraws what already is known into the field of its monopoly and diminishes the resources available to skillful men. This patentee has added nothing to the total stock of knowledge, but has merely brought together segments of prior art and claims them in congregation as a monopoly.

The Court of Appeals and the respondent both lean heavily on evidence that this device filled a long-felt want and has enjoyed commercial success. But commercial success without invention will not make patentability. * * * The courts below concurred in finding that every element here claimed * * * was known to prior art. When, for the first time, those elements were put to work for the supermarket type of stores, although each performed the same mechanical function for them that it had been known to perform, they produced results more striking, perhaps, than in any previous utilization. To bring these devices together and apply them to save the time of customer and checker was a good idea, but scores of progressive ideas in business are not patentable, and we conclude on the findings below that this one was not. * * *

Reversed.

[The concurring opinion of Justice Douglas is omitted.]

Notes and Questions

1. What is a "combination patent"? What kind of patent would *not* be a combination patent?

2. If the claimed invention "filled a long-felt want and has enjoyed commercial success," should that be enough to warrant the reward of a patent, or should there be some other requirement?

In re CLAY
966 F.2d 656 (Fed. Cir. 1992)

Before PLAGER, LOURIE, and CLEVENGER, Circuit Judges.

LOURIE, Circuit Judge: * * * [The patent office denied Clay's application for a patent on a process for storing refined liquid hydrocarbon in a storage tank having a dead volume between the tank bottom and its outlet port. The process involved preparing a gelation solution which gels after it is placed in the tank's dead volume and which could be removed easily by adding a gel-degrading agent to the tank. The PTO held that the invention would have been obvious in light of two prior art references, one of which ("Sydansk") involved reducing the permeability of hydrocarbon-bearing formations and thus improving oil production, using a gel similar to that in Clay's invention. Clay claimed that the Sydansk reference did not come from pertinent prior art.]

Although § 103 does not, by its terms, define the "art to which [the] subject matter [sought to be patented] pertains," this determination is frequently couched in terms of whether the art is analogous or not, *i.e.*, whether the art is "too remote to be treated as prior art." * * *

Two criteria have evolved for determining whether prior art is analogous: (1) whether the art is from the same field of endeavor, regardless of the problem addressed, and (2) if the reference is not within the field of the inventor's endeavor, whether the reference still is reasonably pertinent to the particular problem with which the inventor is involved. * * *

The Board found Sydansk to be within the field of Clay's endeavor because * * * "one of ordinary skill in the art would certainly glean from [Sydansk] that the rigid gel as taught therein would have a number of applications within the manipulation of the storage and processing of hydrocarbon liquids * * *." These findings are clearly erroneous.

The PTO argues that Sydansk and Clay's inventions are part of a common endeavor—"maximizing withdrawal of petroleum stored in petroleum reservoirs." However, Sydansk cannot be considered to be within Clay's field of endeavor merely because both relate to the petroleum industry. Sydansk teaches the use of a gel in unconfined and irregular volumes within generally underground natural oil-bearing formations to channel flow in a desired direction; Clay teaches the introduction of gel to the confined dead volume of a man-made storage tank. The Sydansk process operates in extreme conditions, with petroleum formation temperatures as high as 115 °C and at significant well bore pressures; Clay's process apparently operates at ambient temperature and atmospheric pressure. Clay's field of endeavor is the *storage* of refined liquid hydrocarbons. The field of endeavor of Sydansk's invention, on the other hand, is the *extraction* of crude petroleum. The Board clearly erred in considering Sydansk to be within the same field of endeavor as Clay's.

Even though the art disclosed in Sydansk is not within Clay's field of endeavor, the reference may still properly be [considered] if it is reasonably pertinent to the problem Clay attempts to solve. * * * A reference is reasonably pertinent if, even though it may be in a different field from that of the inventor's endeavor, it is one which, because of the matter with which it deals, logically would have commended itself to an inventor's attention in considering his problem. Thus, the purposes of both the invention and the prior art are important in determining whether the reference is reasonably pertinent to the problem the invention attempts to solve. If a reference disclosure has

the same purpose as the claimed invention, the reference relates to the same problem, and that fact supports use of that reference in an obviousness rejection. An inventor may well have been motivated to consider the reference when making his invention. If it is directed to a different purpose, the inventor would accordingly have had less motivation or occasion to consider it.

Sydansk's gel treatment of underground formations functions to fill anomalies so as to improve flow profiles and sweep efficiencies of injection and production fluids through a formation, while Clay's gel functions to displace liquid product from the dead volume of a storage tank. Sydansk is concerned with plugging formation anomalies so that fluid is subsequently diverted by the gel into the formation matrix, thereby forcing bypassed oil contained in the matrix toward a production well. Sydansk is faced with the problem of recovering oil from rock, *i.e.*, from a matrix which is porous, permeable sedimentary rock of a subterranean formation where water has channeled through formation anomalies and bypassed oil present in the matrix. Such a problem is not reasonably pertinent to the particular problem with which Clay was involved—preventing loss of stored product to tank dead volume while preventing contamination of such product. Moreover, the subterranean formation of Sydansk is not structurally similar to, does not operate under the same temperature and pressure as, and does not function like Clay's storage tanks. *See In re Ellis,* 476 F.2d 1370, 1372 (CCPA 1973) ("the similarities and differences in structure and function of the invention disclosed in the references ... carry far greater weight [in determining analogy]").

A person having ordinary skill in the art would not reasonably have expected to solve the problem of dead volume in tanks for storing refined petroleum by considering a reference dealing with plugging underground formation anomalies. The Board's finding to the contrary is clearly erroneous. * * * Sydansk is non-analogous art. * * *

For the foregoing reasons, the decision of the Board is REVERSED.

Notes

"Despite *Clay*, the trend is towards a broadening of the prior art that courts consider pertinent." SCHECHTER & THOMAS, INTELLECTUAL PROPERTY 373 (2003). For example, in *In re Paulsen*, 30 F.3d 1475 (Fed. Cir. 1994), the court affirmed rejection of a patent for a laptop computer, in which the critical element of claim was "a hinge means for permitting swinging movement of the display housing * * * from a closed and latched position * * * to an erected position for viewing by an operator, and including stop means for holding the display housing at the desired angle for viewing." The court approved the use of prior art references that included "hinges and latches as used in a desktop telephone directory, a piano lid, a kitchen cabinet, a washing machine cabinet, a wooden furniture cabinet, or a two-part housing for storing audio cassettes." The court noted that:

> Although there is little dispute that the prior art references cited here * * * are not within the same field of endeavor as computers, such references may still be analogous if they are "reasonably pertinent to the particular problem with which the inventor is involved." The problems encountered by the inventors * * * were not unique to portable computers. They concerned how to connect and secure the computer's display housing to the computer while meeting certain size constraints

and functional requirements. * * * We agree with the Board that given the nature of the problems confronted by the inventors, one of ordinary skill in the art "would have consulted the mechanical arts for housings, hinges, latches, springs, etc." Thus, the cited references are "reasonably pertinent." * * *