

FINAL EXAMINATION

PATENT LAW

P.N. Davis

Tuesday, December 7, 1999

1:00 - 3:30 PM

THIS IS A TWO AND ONE-HALF (2½) HOUR EXAMINATION.

THIS EXAMINATION CONSISTS OF SEVEN (7) PAGES.

THIS EXAMINATION CONTAINS SIX (6) QUESTIONS.

I = 25 min. II = 25 min. III = 25 min. IV = 25 min. V = 20 min. VI = 30 min.

FILL IN YOUR EXAMINATION NUMBER ON THE BLUEBOOK STICKER.

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YOU BRING INTO THE EXAM YOUR COPY OF THE STATUTORY

SUPPLEMENT, with any notations in the margins and blank pages you care to make, but no page inserts.

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Instructions:

1. These questions will be graded on the basis of the times indicated with each questions. The indicated time for the questions total 2½ hours. You will be given 2½ hours to write the examination. Budget your time carefully or you may not finish.
2. Be sure to state a result whenever a question asks for one. Merely stating the arguments on both sides of a legal issue will result in only partial credit because you will not have completed the analysis required by that type of question.
3. If you find it necessary to make factual assumptions in order to answer a question, be sure to state the assumption.
4. Do not assume additional facts for the purpose of avoiding a legal issue or making its resolution easier.
5. Comment briefly on each legal issue reasonably raised by the questions and on each reason for your answer, even when you decide that one legal issue or reason controls the result.
6. The difference between triumph and disaster may lie in a **careful** reading of the questions.

I.

(25 minutes)

General Appliance [GA] strenuously battles Lightning Electric for appliance primacy. In October 1995, it announced a major washing machine breakthrough, its new *Mighty* washer. One of its major components was a dual-action agitator with flexible fins, which allowed thorough washing of large loads. The announcement was made in September 1995 at a Florida trade show, with a demonstration model in operation. GA trumpeted that its new washer would be available in stores nationwide beginning October 15, 1995. Trouble was, Lightning had invented and patented a dual-action agitator with flexible fins in 1978. Its patent expired in October 14, 1995.

Prior to the introduction of its new washer, GA had marketed a washer with a single-action agitator. While a single-action agitator pulls clothes in one direction in the washing tub, a dual-action agitator pushes clothes down and then forces them to roll over, providing better washing for heavy loads. The flexible fins prevent tangling and promotes a more thorough wash.

All other makes of washing machines use either single-action agitators with fixed fins or dual-action agitators with fixed fins. While dual-action agitators do a more thorough washing job than single-action agitators on light or medium loads, neither handles heavy loads as well as Lightning's dual-action agitator with flexible fins. Both the single-action and dual-action agitators with fixed fins were prior art in 1978. Experimentation by those other manufacturers involved the shape of the fixed fins, the frequency of agitation, the acceleration and deceleration of the agitator in each cycle, and the depth of the water in the tub.

Before Lightning had invented its dual-action agitator with flexible fins, there had been one previous use of flexible fins. Manufactured for and marketed by Simpson Department Stores, Lightning had developed and patented a single-action agitator with flexible fins in 1968. The agitator, which came to be known as the "Golden Gobbler" in the industry because of their color, the flexible fins would grab clothes and shed, rip, and otherwise gobble them up. This model was withdrawn because of customer dissatisfaction. But Lightning's dual-action agitator with flexible fins worked very well indeed and enhanced Lightning's share of the washing machine market.

Lightning sued General Appliance for patent infringement. GA defended that the patent was invalid and that, in any event, it didn't market any of its *Mighty* machines until after Lightning's patent had expired. Should the district court find infringement? Discuss all relevant legal issues. State a result.

II.

(25 minutes)

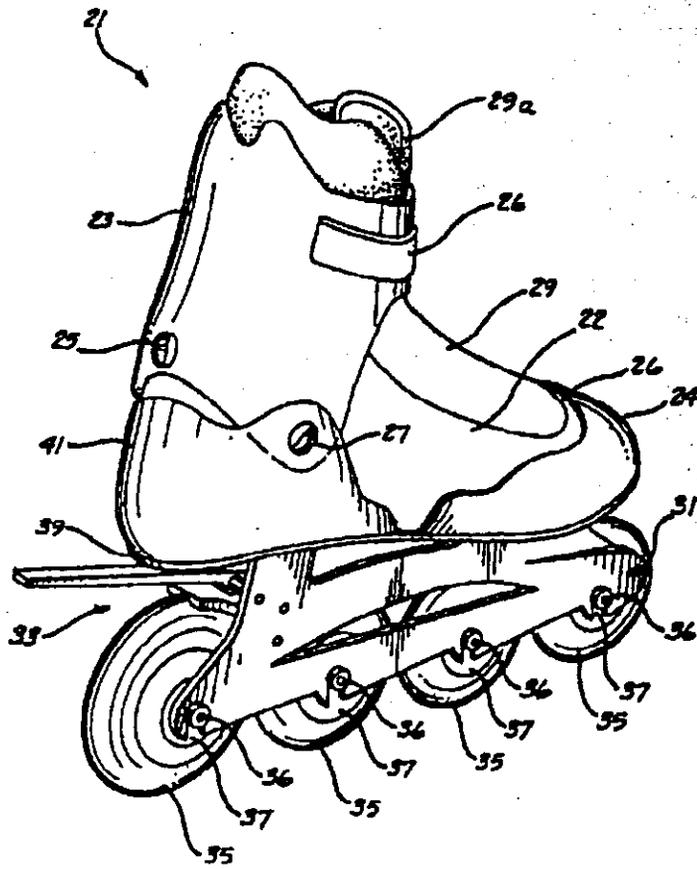
Klingon Corporation is the owner of Patent No. '466 issued August 1, 1996, entitled "In-Line Roller Skate." It generally is directed to an in-line skate that has a soft, pliable inner "bootie" or "shoe" surrounded in certain areas by molded plastic or straps affixed to the base of the skate. This arrangement allows the wearer's foot to breathe and offers a substantially lighter skate while retaining structural stiffness required for performance. [See diagram of '466 patent at end of question.] Claim 1 recites five major claimed components, as set forth below in edited form (with the key limitation in italics):

1. In an in-line roller skate having an upper shoe portion and a lower frame portion ... a non-rigid shoe portion adapted to receive and substantially enclose the entire foot of the skater ... support means positioned adjacent selected areas of said non-rigid shoe portion for providing support to aid the skater in maintaining said in-line roller skate in a substantially vertical position ... and a base portion, ... *said non-rigid shoe portion being permanently affixed to said base portion at least at said toe area and said heel area for substantially preventing movement therebetween at least in a horizontal plane*, wherein at least a portion of said non-rigid shoe portion extends continuously from said base portion to at least the top of said ankle support cuff.

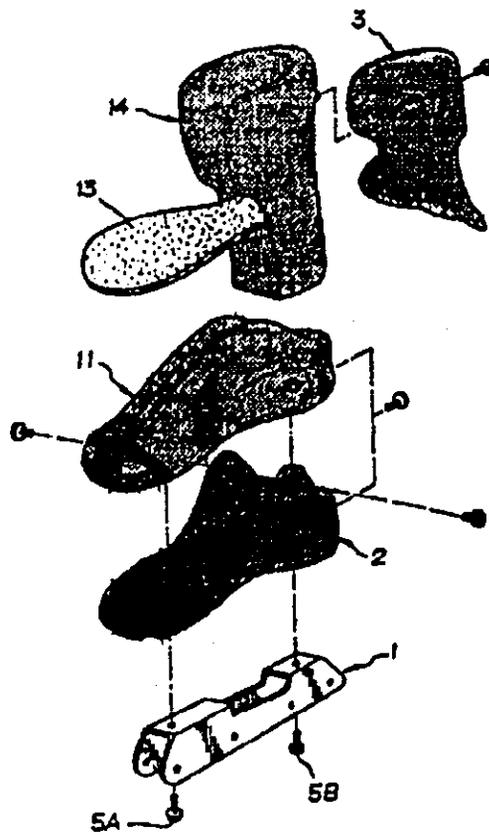
Klingon's skate's non-rigid shoe portion is riveted to its base portion.

Sampson, Inc., makes and sells an in-line skate, designated as model TR, that includes a soft inner bootie surrounded by a rigid plastic structure. The TR skate's inner bootie is fastened to the lower, rigid portion of the skate by the use of removable hex-head screws in the toe area and in the heel area. (*Note*, hex-head screws are inserted and removed with a screwdriver with a hex socket.)

In April 1998, Klingon sued Sampson for infringement of the '466 patent. The parties agree that the major issue in this case is whether the use of a removable screw in the heel area infringes on the "permanently affixed" requirement found in claim 1 of the '466 patent. Should the district court find that Sampson's model TR in-line roller skate infringes on the patented '466 in-line roller skate? Discuss all relevant legal issues. State a result.



Klingon's '466 Patent



Sampson's TR Skate: Bootie/Base Attachment Detail

III.
(25 minutes)

Schoenberg Medical Products is assignee of Patent No. '413 entitled "Sharps Disposal System." It claims a disposal system for used hypodermic needles and other medical "sharps" comprising an outer enclosure, which may be mounted on a wall, and a cooperating, removable inner container. The outer enclosure includes an elongated slot which permits access to the outer enclosure's interior. The removable inner container has an opening in registration with the elongated slot of the outer enclosure and is placed inside the outer enclosure to receive disposed items. When the inner container is full, it is removed from the outer enclosure. The removable inner container is an unpatented element of the '413 combination.

The '413 specification explains that the "invention relates to disposal of contaminated items," particularly those associated with sharp instruments ("sharps") commonly used in the medical field. The specification also states that the inner container is intended to be disposable and is preferably discarded when full. Proper disposal, such as incineration, of filled inner containers prevents improper reuse of, and possible contamination and spread of disease from, disposed instruments. The specification therefore suggests that the inner container be constructed of a plastic, such as polypropylene, which when combusted produces only carbon dioxide and water.

In harmony with the '413 patent specification, Schoenberg intends that its customers remove and discard the inner container when the inner container is full. It marks a "BIOHAZARD--SINGLE USE ONLY" warning on the containers and its literature instructs the customers to discard filled inner containers. Schoenberg also actively campaigns against reuse of inner containers and has even refused to sell directly to buyers which reuse the containers.

Although the '413 patent discourages reuse, it is physically possible to empty, clean, and reuse the Schoenberg commercial embodiment of the inner container. This practice, however, is difficult and often results in damage to the inner container, because its cover is glued to its body.

Because Schoenberg intended its inner containers to be removable and disposable, it is not surprising that in addition to selling the patented combination as a unit, it also sells replacement inner containers. Because outer enclosures could last indefinitely under normal use, Schoenberg sells far more inner containers than combinations of inner container and outer enclosure. The sale of replacement inner containers is a sizable market; Schoenberg claims that its sharps disposal systems are used in over half the hospitals in the United States.

Davis Medical Products manufactures and sells an inner container which may be used with either a wall bracket, which it also manufactures, or with the outer enclosure of the Schoenberg system. Davis does not manufacture an outer enclosure which, together with its inner container, would infringe the claims of the '413 patent.

Schoenberg brought suit against Davis alleging that hospitals directly infringe the claims of the '413 patent by using Davis replacement containers with the Schoenberg outer enclosure and that Davis is therefore inducing infringement and/or contributorily infringing the '413 patent. Davis moved for summary judgment. Should the district court grant Davis's motion? Discuss all relevant legal issues. State a result.

IV.

(25 minutes)

In 1995, the St. Louis Airport Authority developed a mechanized method and machine for automatically sorting baggage, eliminating the need to manually sort passenger baggage between individual flights and destinations for outgoing baggage and between carousels for incoming baggage. While individual items of baggage were marked with large adhesive labels containing a conventional bar code used to trigger the baggage sorting mechanism, no other indication of how the baggage sorting process and machine worked was evident outside the baggage sorting rooms. The labels were affixed to outgoing baggage by ticketing personnel and to incoming mail by baggage unloading personnel. Once the labels were affixed, the baggage was sorted automatically. Since the baggage sorting rooms were off-limits to the public and to airport personnel not involved with baggage handling, knowledge of how the process and machine worked was not general among airport personnel. Baggage handling personnel have been told repeatedly not to talk about the machine with other people, including non-baggage handling airport personnel.

In 1997, after using the baggage sorting process and machine for two years, the St. Louis Airport Authority applied for a patent with both process and machine claims.

A.

Under these facts, assuming novelty, utility, and nonobviousness, is the St. Louis Airport Authority entitled to a patent? Discuss all relevant legal issues. State a result.

B.

If the St. Louis Airport Authority does not seek a patent, can it obtain an injunction against a baggage handling employee from disclosing to a baggage handling equipment manufacturer how the process and machine operate? Discuss all relevant issues. State a result.

V.

(20 minutes)

In February 1997, Casner filed for a patent entitled "Induction of Immunological Tolerance." In June 1996, he had published an article in the *Proceedings of the National Academy of Science* which reports his medical research and describes his invention. His research disclosed in his article included trials with medical patients in a university hospital in late 1995. The examiner rejected the application.

Applicant appealed to the Board of Patent Appeals. Should the Board affirm or overrule the examiner? Discuss all relevant legal issues. State a result.

VI.

(30 minutes)

Define briefly each of the following terms:

- (1) utility
- (2) person with ordinary skill in the art
- (3) suppression
- (4) prosecution history estoppel
- (5) anticipation
- (6) conception
- (7) *Freeman-Walter-Abele* test
- (8) composition of matter
- (9) obviousness
- (10) function of a machine exclusion

PATENT LAW
December 7, 1999

I. (25 minutes)

- an invention must be novel, useful, and nonobvious to be patentable.

Novelty

- to be novel, an invention must not contain all the elements of any single prior art reference
- here, the Lightning dual-action agitator with flexible fins was not anticipated
 - the only prior flexible fin agitator was a single-action one (1968)

Nonobviousness:

- to be nonobvious, an invention must not contain elements from two or more prior art references which a person with ordinary skill in the art would consider obvious to combine
- there are several factors to consider in making that judgment, including:
 - whether prior art teaches toward or away from the particular combination of elements
 - whether the invention solved a long-standing technological problem
 - whether the invention was commercially successful
- here:
 - the prior art suggested that single-action agitators with flexible fins destroyed clothes; nothing in the prior art suggested a different result with dual-action agitators with flexible fins
 - both single-action and dual-action agitators with fixed fins did not cope as well with heavy loads as did the dual-action agitator with flexible fins
 - the invention enabled Lightning to increase market share
- utility is not an issue

manufacture & demonstration before patent expiration; sales after expiration

- patentee has exclusive right to make, use, and sell invention
- clearly the demonstration washer was made before patent expiration
- at the demonstration, it was used
- but sales occurred only after patent expiration
- foregoing sales until after patent expiration does not cause forgiveness of making and using infringing washers before patent expiration

II. (25 min.)

Literal infringement:

- each element of claimed combination of elements must literally read on the elements of the accused combination of elements
- is a removable screw a permanently affixing means?
 - No!

Doctrine of equivalents:

- definition:

- analyzed element-by-element, not by overall function
- here, is a removable screw the equivalent of a “permanently affixing” means
- discuss:
 - ordinary and accustomed meaning of “permanently affixed”
 - definition employed is the common understanding of a person with ordinary skill in the relevant art
 - physical removability
 - likelihood that user would remove the screw
 - comparison of permanent affixing methods: glue, rivets, screws
 - function of screw and “permanently affixing” means: to maintain rigidity in a horizontal plane
 - the only difference is in the selection of the manufacturing method, not in the physical functional characteristics of the skate

III. (25 min.)

- in a combination patent comprised of unpatented elements, there is no direct infringement for making a replacement element
- the issue here is whether incorporating an unpatented element to restore the useability of a patented combination is infringement
 - if restoring the combination is directed infringement, then (1) supplying the unpatented element is contributory infringement and (2) inducing purchasers to restore the combination is inducing direct infringement
 - unless the unpatented element is a staple item of commerce (not specially adapted as a replacement, and having substantial other uses)
 - not a staple item of commerce here, because the replacement container can be used in only 2 ways, as a replacement element in the ‘413 combination or as a stand-alone element in a public domain combination (with Davis’s wall bracket)
 - it is the registration of openings that makes the Davis replacement container not a staple item of commerce
- repair/restoration dichotomy is relevant here
 - *repair*:
 - purchaser of combination is entitled to use the combination until it is life-expired
 - if an element has a shorter life expectancy in normal use than other elements of the combination, then user is entitled to repair the combination by replacing the shorter-lived element; this is not infringement
 - unless the replacement element is independently patented
 - here, it is not
 - *reconstruction*:
 - a purchaser of a patented combination is not entitled to reconstruct it after it is life expired, because that is the equivalent of manufacturing it; this is infringement
- here, the inner container was not intended by patentee to have as long a life span as the outer

enclosure

- in fact, it is to be disposed of after one use, while the outer enclosure is intended to be used for hundreds or thousands inner container loads
- *per* patent specification, literature, and advertising
- thus, replacement of the unpatented inner container clearly is permissible repair
- the district court should grant summary judgment for Davis

IV. (25 min.)

A. Patent application:

- is use of process & machine as a trade secret a bar to obtaining a patent?
- is this process & machine a trade secret?
 - *definition:* a use in secret intended to be kept secret which creates a competitive advantage
 - use is in secret because it is not in public view
 - but does use of bar code labels constitute a disclosure to the public which would enable persons with skill in the art to reverse engineer the process & machine
 - use is intended to be kept secret because only need to know employees know how it works, and they have been told not to talk about it to others
 - competitive advantage results from the cost reduction
- a secret use is not a public use
 - unless the secret use manufactures a product sold to the public
 - here, there is no product sale
 - there is no § 102(b) public use bar.
 - § 102(b) bars a patent, *inter alia*, if the invention has been in public use for more than 1 year before patent application
- while two year's secret use might constitute suppression or concealment under § 102(g) – a debatable proposition – all that results under that section is loss of priority
 - there is no intervening patent application
- two year's secret use probably does not constitute abandonment of the right to seek a patent under § 102(c), since applicant did in fact apply
 - there are no facts indicating an intention to select trade secret protection instead of patent protection
- *bonus:* in light of Denver Airport's automatic baggage handling debacle, it seems likely that use of the process & machine here could be considered an experimental use, at least for part of the two year delay between first use and application
 - experimental use is required for proving operativeness of complex inventions (like here), but only until operativeness is established
- patent should be granted

B. injunction against disclosure of trade secret:

- *definition:* see above

- owner of trade secret is entitled to prevent unauthorized disclosure of trade secret
 - there is a trade secret here (*see above*)
- provided it is a lawful trade secret
- state law cannot prevent use by public of invention information which patent laws allows public to use
- enforcement of trade secrets under state law is not preempted by the patent laws (*Kewanee*)
 - trade secret law does not create a legal monopoly, but only a practical monopoly for an indefinite period
 - trade secret information needs not be novel, but only needs to create a competitive advantage
 - if a trade secret is reinvented, reverse engineered, accidentally disclosed or acquired by other fair means, there is no right to bar its use by the discoverer- disclosee of the information
 - but contrast, patent law requires novelty, etc., and imposes public disclosure in exchange for a limited duration legal monopoly
- § 102(b) and § 102(c) bars patentability of some trade secret inventions
- injunction against unauthorized disclosure can be obtained

V. (20 min.)

- § 102(a) novelty: a patent should not be granted if the invention is not novel
 - lack of novelty exists if the invention was known or used by others in the U.S. or patented or described in a printed publication anywhere before inventor's priority date
 - it was described in a printed publication, but since it was inventor's own article, clearly that publication occurred after inventor's date of conception
 - since it was an article reporting research findings, clearly it also was after inventor's reduction to practice date
 - since it discusses inventor's own research and invention, clearly the article does not disclose knowledge or use by others before inventor's own priority date
- conclusion: no anticipation under § 102(a)
- § 102(b) one year's public use & "on sale" bar: a patent should not be granted:
 - (1) if the invention was in public use or on sale more than one year before inventor's application date, or
 - (2) if it was patented or described in a printed publication anywhere more than one year before inventor's application date
 - here, the article was published only 8 months before inventor's application date; no bar
 - but here, inventor's medical trials were conducted in public (the university hospital) more than one year before application
 - the use must be public (*i.e.*, by the public or in a public place)
 - the public need not be aware of the use
 - *experimental use exception*: public uses necessary to prove operativeness are treated as part of reduction to practice and are not treated as a "public use" under

§ 102(b)

- here, medical trials on human patients are necessary to proof reduction to practice of medical procedures & drugs

- conclusion: no bar under § 102(b)

VI. (30 min.)

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