FINAL EXAMINATION
INTELLECTUAL PROPERTY
P.N. Davis
Monday, May 2, 1988
8:30 - 11:30 AM

THIS IS A THREE (3) HOUR EXAMINATION.
THIS EXAMINATION CONSISTS OF FOURTEEN (14) PAGES.
THIS EXAMINATION CONTAINS FIVE (5) QUESTIONS.
I = 40 min.   II = 20 min.   III = 20 min.
IX = 40 min.  V = 60 min.

FILL IN YOUR EXAMINATION NUMBER ON THE BLUEBOOK STICKER.

** * * * *
EXCEPT FOR YOUR STATUTORY SUPPLEMENT, YOU MAY NOT BRING ANY MATERIALS INTO THE EXAMINATION. You may write anything you wish on the page margins of the statutory supplement. [If you have a photocopy of the statutory supplement, you may write on the margins, but not on the blank back sides of the photocopy pages.]

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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 3 hours. You will be given 3 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.
The City of Columbia, Missouri, has purchased and is operating the former branch line of the Norfolk & Western Railway from Columbia to Centralia. (Norfolk & Western is an operating subsidiary of Norfolk Southern.) The City has named its railroad line "Columbia Terminal". It hauls freight cars between its connection with the Norfolk & Western at Centralia and lineside industries, mostly in northeastern Columbia. At present, all of the freight cars are owned by the various major railroads, such as Burlington Northern, Union Pacific, Santa Fe, Southern Pacific, CSX, Conrail, and Norfolk Southern. The City leases its own locomotive and has painted it with its own blue and cream color scheme. It owns no freight cars.

The Association of American Railroads ("AAR"), which is in charge of such things, has designated "CT" as the "reporting mark" to be used by Columbia Terminal on its freight cars in interchange service and on accounting documents. [All railroads have reporting marks, *vis*: BN, UP, ATSF, SP, CSX, CR, and NS. No two railroads can have an identical reporting mark; none can be more than four letters long.]

The Railroad Advisory Board of the City wishes to adopt the acronym "COLT" as part of its logo intended to be used on its locomotive, bridge in Columbia, advertising material, and letterhead. Presently "COLT" is painted on the locomotive, and is not otherwise being used. The proposed logo is:

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Columbia

COLT

Terminal
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The City Counselor has conducted a trademark search and has discovered the following federal registered marks:

"COLT 45" malt liquor [in use for 10 years]
"COLT" revolvers [in use for 130 years]
"COLT" automobiles [logo on Japanese automobiles imported by the Dodge division of Chrysler; in use for 15 years]

He also has found the following tradenames in use:

"Colt" Firearms Company [owner of one of the trademarks above; founded by Samuel Colt, inventor of the revolver, in the 1850's]

Colt Firearms uses its "COLT" mark in two different logos:

![COLT®](image)

Also, the City Counselor has learned from the AAR [above] that the "COLT" reporting mark is assigned to a small terminal railroad in Massachusetts, the Colton Terminal Railroad. It owns no railroad equipment and does not use the reporting mark in its advertising or on its letterhead; of course, it does use the mark on its accounting reports.

You are requested to advise the City Counselor whether the City can use the word "COLT" in its logo on its locomotive, letterhead, and advertising material. The locomotive would not leave Missouri, except for a short period every 2 or 3 years when it is taken to NS's locomotive shop for "heavy" repairs and overhaul. The letterhead and advertising material would be mailed to potential shippers in other states. The City Counselor is concerned both about registrability of the "COLT" mark and logo and possible infringement suits.

A.

What type of mark should Columbia Terminal seek to register? Where would you advise the mark to be registered? Discuss all relevant legal issues. State a result.

B.

Is there much likelihood that the "COLT" acronym would be refused registration? What process must be followed to obtain federal registration? What are the critical points in that process where the issue of registrability can be raised, and by whom? On the basis of
the facts above, do you think "COLT" would be granted or denied registration? Discuss all relevant legal issues. State a result.

C.

If "COLT" were registered, is there any likelihood that one of the other users of the "COLT" mark or tradename could successfully obtain an injunction against the use of "COLT" by Columbia Terminal? Discuss all relevant legal issues. State a result.

END OF QUESTION I.
II.

(20 minutes)

Suppose the small terminal railroad in Massachusetts, Colton Terminal Railroad, referred to above, has just been purchased by Conrail. Conrail is the major eastern railroad formed out of the bankrupt Penn Central and other eastern bankrupt railroads in 1976 by the federal government. It was sold by the federal government to private investors in 1987 through a massive stock offering. It operates numerous lines between the eastern seaboard cities of Boston, New York, Philadelphia, Baltimore and Washington and the midwestern cities of Chicago and St. Louis. Conrail intends Colton Terminal to operate short fast container and piggyback (truck trailers on flat cars) trains throughout Conrail's system under a trackage rights agreement. This technique of having a subsidiary operate trains over the parent railroad's lines is a recently conceived method of reducing train crew sizes, since the subsidiary is not subject to the parent railroad's contracts with the operating unions. Suppose also that Conrail has selected the mark "COLT 45" for its new service. [Recall that Colton Terminal's "reporting mark" is "COLT".] Its service will operate only on Conrail's line and, hence, will not operate west of St. Louis. Columbia Terminal meets the Norfolk & Western line between St. Louis and Kansas City at Centralia, Missouri (120 miles west of St. Louis), the closest point to Conrail's terminus. While the "COLT 45" mark will appear on Conrail's specially assigned locomotives and on its advertising material, it will not appear on any freight cars, containers, or truck trailers. Hence, Colton Terminal's marked locomotives will not appear on Columbia Terminal's line; nor will the reverse occur (see facts in question I).

Assume that Conrail's new trains begin operating one month after Columbia Terminal paints its "COLT" logo on its locomotive and bridge and begins using it on its letterhead and advertising material. Then Conrail's subsidiary terminal railroad brings suit against Columbia Terminal seeking to enjoin the latter's use of the mark and logo "COLT". Assume that Conrail's subsidiary, Colton Terminal, has
received a federal registration of its "COLT 45" mark, and that Columbia Terminal has not filed for a registration. What is the proper court for the suit? Should that court grant the requested injunction? Discuss all relevant legal issues. State a result.

END OF QUESTION II.
III.

(20 minutes)

Bond Information, Inc. ("BII") publishes a weekly municipal bond redemption reporting service. This service publishes weekly lists of municipal bonds which the issuer has elected to redeem or "call". The information listed includes the identity of the issuing authority, the series of bonds being redeemed, the date and price of the redemption, and the name of the trustee or paying agent.

The service seeks to report all municipal bond redemptions. Typically, when a municipality or other governmental body calls a bond for redemption (and stops paying interest), it publishes a notice of the call in one or more newspapers. Because these notices are not published in a single place, the "back offices" of financial institutions, which are not equipped to survey hundreds of newspapers, subscribe to bond services such as BII's. BII's 500 subscribers pay $200 per year for the weekly reports, for which they receive the weekly reports and an annual index. The weekly reports and annual index each contain the following at the bottom of the cover page:

"Copr. 1987 Bond Information, Inc."

Moody's Investors Service, a major financial publisher, publishes a bi-weekly supplemental service to its annual Municipal and Government Manual. The latter lists all municipal bonds for which it issues a quality rating ["AAA", "AA", "A", etc.]. The Moody bi-weekly supplement lists redemptions only of municipal bonds which it has rated. Its supplement provides more information than does BII's. The $840 annual subscription cost to the annual Manual includes the bi-weekly supplemental service. Its circulation is far wider than BII's.

BII noticed recently that Moody's listings in its bi-weekly supplemental service were published after BII's listing and included all of the same information. Suspecting that more than coincidence was involved, BII planted 10 errors in information in its 1987 listings. Moody's published 7 of those errors in its service.

BII then brought suit against Moody's for copyright infringement. Moody's answer defended on the grounds (1) that the information
contained in BII's service was public information, and (2) that preparation of BII's listings was a simple clerical task of copying information from redemption advertisements in newspapers. The evidence at trial showed that BII's clerks merely were trained to read and copy the 5 items of information in its listings from newspaper redemption advertisements and that BII subscribed to every daily newspaper in the United States. The evidence also showed that Moody's did not subscribe to BII's service.

Should the court grant injunction against Moody's prohibiting copying BII's listings in the future? Discuss all relevant legal issues. State a result.

END OF QUESTION III.
Sarah Brown, a local attorney, found the recent Mid-Missouri murder trial of James Schnick to be fascinating. (Schnick was convicted of murdering his wife and family, his brother and his wife and family, including his nephew who arrived home during the rampage. Schnick then arranged things to make it appear that his nephew had committed the murders.) She wrote a book-length account of the murders, the events leading up to them, the trial and conviction, and an analysis of the psychological and sociological factors which appeared to influence Schnick's behavior. Included in the manuscript was a long biographical section which was derived from a series of personal interviews with surviving relatives, neighbors, and boyhood friends and acquaintances of Schnick.

Ms. Brown sent copies of the finished manuscript to five publishing houses. The manuscripts did not contain a copyright notice. Brown did not register it with the Registrar of Copyrights and did not send the Library of Congress any copies of the manuscript. [She had not taken this course.] All five rejected the manuscript as unpublishable and returned the copies sent them. A year after she mailed off the manuscripts, an obscure Hollywood movie company, 21st Century Films, released a movie based on the Schnick murders. The events depicted in the movie tracked the actual events, as described in both Brown's manuscript and published newspaper accounts. Also depicted in the movie were events and persons from Schnick's past which were described in Brown's manuscript, but not in newspaper accounts. In no case did the movie use quotations of individuals from the manuscript, except when the same quotations also appeared in newspaper accounts.

When Brown sent her manuscript to a sixth and seventh publisher, they both rejected the manuscript on the ground that the movie had satisfied public curiosity about the Schnick affair and that, therefore, the book would be unmarketable.
Brown brought suit in Missouri Circuit Court against 21st Century for copyright infringement, requesting damages and an injunction against further showing of the movie. 21st Century defended (1) that Brown's manuscript was not entitled to copyright protection, (2) that the events depicted in the movie were in the public domain, (3) that it had not copied Brown's manuscript, and (4) that a movie cannot be considered a copy of a book (or manuscript thereof). Evidence at trial showed the facts above, and, in addition, that Brown had not registered her manuscript and that neither 21st Century nor its scriptwriters had interviewed Schnick's boyhood friends and acquaintances. Should the court grant the requested relief? Discuss all relevant legal issues, including the substantive ones. State a result.

END OF QUESTION IV.
ALL YOU NEED TO KNOW ABOUT THE TECHNOLOGY OF THIS QUESTION IS (1) THAT ANNULAR SPARK PLUGS ARE DIFFERENT IN GAP SHAPE AND PRODUCE A DIFFERENT SHAPED SPARK THAN CONVENTIONAL SPARK PLUGS, AND (2) THAT THE CHOICE OF CENTER ELECTRODE MATERIAL AFFECTS THE EROSION RATE OF THE ELECTRODE.

On August 10, 1972, Robert Daniel, Chief Engineer of Jason Marine Company, a manufacturer of outboard motors, was issued a patent for an annular wide surface-gap spark plug fired by a high-voltage ignition system (hereinafter referred to as the '030 patent). He assigned the patent to Jason Marine.

**Description of Technology.** An annular surface-gap spark plug is one which has a multidirectional spark gap, consisting of a central electrode surrounded by an outer-grounded circular electrode. The outer-grounded electrode surrounds the central electrode on all sides but is entirely insulated from it. The gap between the central electrode and outer circular electrode is filled with a ceramic or refractory material of a electrical insulating characteristic. The annular surface-gap spark plug produces an O-shaped spark extending radially in all directions across the gap from the center electrode to the outer circular electrode on the surface of the ceramic.

By contrast, the conventional spark plug creates a spark between a center electrode and a grounded L-shaped electrode attached to the side of the plug and extended over and below the center electrode. The spark produced passes axially (along the center line of the spark plug) between the center electrode and the tip of the L-shaped electrode below it. The conventional spark plug is the type used in automobiles.

Two factors are affected by the width of a spark plug electrode gap. A narrow gap produces an intense hot spark and creates high surface temperatures where the spark meets the electrodes. But the spark can be created by a relatively low-voltage ignition system (about 20,000 volts). By contrast, a wide gap produces a broader but cooler spark which creates lower surface temperatures. Because higher voltages are necessary to force sparks to jump across greater distances, a high voltage ignition system is required (above 50,000 volts).

**Elements of Daniel's Invention.** Critical to Daniel's annular spark plug were (1) a center electrode made of a tungsten alloy, (2) an annular wide surface-gap (about .050 inch), and (3) a high voltage ignition system. The tungsten alloy center electrode had a
low erosion rate compared to the more common nickel alloy center electrode used in conventional spark plugs. Outboard motors require a larger spark than an automobile engine. This the annular spark plug provides. Daniel's annular spark plug was designed for use in outboard motors, not automobile engines.

Relation of Spark Plugs to Engines. Outboard motors are two-cycle engines which burn a gasoline-oil mixture (as do some lawn mower motors), requiring a larger spark for proper and complete ignition. (The oil is for cylinder lubrication.) An automobile engine, by contrast, is a four-cycle engine burning gasoline alone; it needs only a small intense spark for proper ignition.

Power is produced in an engine by igniting a fuel mixture (gasoline and air) in the enclosed cylinder by means of the spark produced by the spark plug screwed in a hole in the cylinder head; it is fired at precisely the right moment by high-voltage electrical ignition circuitry. The air and fuel mixture is creating in the carburetor located outside the engine and is admitted at the proper moment by the opening of a valve located in the cylinder head. The resulting controlled explosion drives the piston down the cylinder. The piston is attached to a piston rod which in turn is attached to a crank on the crankshaft. The burned gases are released at the proper moment from the cylinder to the exhaust system by another valve in the cylinder head. The rotating crankshaft drives the propeller of an outboard motor and the wheels of an automobile respectively.

Center Electrode Erosion Problem. Erosion of the center electrode widens the gap and reduces the energy in the spark available to ignite the fuel mixture in the cylinder. [That's why auto engines have to be tuned occasionally and have their spark plugs replaced.] Electrode erosion occurs more quickly in outboard motors than in automobile engines and causes significant deterioration in performance more quickly they are fired more frequently. A spark plug in a two-cycle engine fires on every revolution of the crankshaft, instead of every other revolution, so a spark plug in an outboard motor fires twice as often as a spark plug in an automobile engine rotating at the same speed. Also, an outboard motors rotates at a higher speed, 4500 to 6000 revolutions per minute (rpm) at full throttle, compared to the typical American automobile engine (2500 to 3000 rpm). Reducing the electrode erosion rate increases the length of time between spark plug replacement and tuneups on outboard motors.

Problem in the Industry. Prior to about 1970, the outboard motor industry had experienced endurance problems with prior art spark
plugs. The annular wide surface gap spark plug with a tungsten alloy center electrode substantially improved spark plug lifetimes.

Events Leading up to the Invention. In September 1966, Champion Spark Plug sponsored an industry-wide engineering conference on engine ignition which Daniels attended as a Jason Marine representative. At this conference, Daniels learned about new research done by Champion. It showed that tungsten alloy as an electrode material had a low erosion rate at temperatures below 1000°F compared to nickel alloy; and that the reverse was true at temperatures above 1000°F. Tungsten's poor life at elevated temperatures was due to its susceptibility to oxidation.

It was common engineering knowledge that conventional L-electrode spark plugs operated in automobile engines at temperatures above 1000°F, which is why they used nickel alloy electrodes. At the conference, Daniels also learned about new research done by AC Spark Plug which showed that annular surface-gap spark plugs operated at temperatures of 600°F-700°F.

It was that information learned at the conference which caused Daniels to start investigating tungsten alloy electrodes for the annular ring narrow surface-gap spark plugs with nickel alloy center electrodes then being used in some of its outboard motors. He expressed his interest in an inter-office memorandum addressed to the president of Jason Marine on September 27, 1967:

Note--after viewing one of [Champion's] charts of electrode deterioration rate vs temperature, it would appear that we should investigate the use of tungsten as a center electrode--it has a very low deterioration rate under 1000 degrees F., and our annular plug runs well under this temperature.

Tests. In order to test his idea, Daniels wrote to AC Spark Plug on November 13, 1967, requesting that it make and send him some annular wide surface-gap spark plugs with a tungsten alloy center electrode substituted for the nickel alloy one. Daniels provided the specifications, which included a surface-gap of 0.05 inch. AC Spark Plug supplied 8 samples to Daniels in September 1968. Daniels installed them in outboard motors mounted on boats that month and ran endurance tests on rivers and lakes in Florida. After 300 hours of
operation, the spark plugs were removed and analysed. Their tungsten alloy center electrodes showed dramatically less erosion than nickel alloy center electrodes in otherwise identical annular spark plugs run during the same 300 hour test. The tests were completed on December 15, 1968.

Application. Because of its obvious improved endurance, Jason Marine decided that Daniels should seek a patent for the annular wide surface-gap spark plug with tungsten alloy center electrode. The invention was reported to Jason Marine's patent attorney on January 5, 1969.

The application was filed with the Patent & Trademark Office on January 4, 1970. During the intervening period, Jason Marine's senior patent attorney retired (July 1, 1969) and its patent law firm, Herman & Finklestein, dissolved (April 1, 1969) and was replaced by another firm, Davis & Davis (September 1, 1969). During that period of semi-chaos, the Jason Marine's junior patent attorney sought to continue processing the company's patent applications more or less in the order received.

Prior Art References.

Hensel '455 (1945). Discloses a conventional L-shaped side electrode spark plug with a center electrode made of tungsten or tungsten alloy. Its specification notes that the electrode tended to overheat, oxidize and erode at high temperatures.

Peras '569 (1959). Discloses annular narrow surface-gap spark plug with a tungsten center electrode fired with a conventional low-voltage ignition system. Its specification notes that testing indicated erratic ignition performance.

Aircraft Igniters. For many years Champion Spark Plug and AC Spark Plug has marked spark plugs structurally identical to Daniels's, using tungsten alloy center electrodes, for use in jet engines. The operating environment and ignition system both are substantially different from those found in a marine outboard motor.

Segall '273 (1958). Discloses an annular wide surface-gap spark plug with a gap range of 0.03 to 0.05 inch. The composition of the
center electrode is not specified. The voltage of the ignition system is not specified.

Minks '686 (1968). Discloses a capacitor discharge (CD) high voltage ignition system for firing spark plugs.

Prior Sales. In 1965, Mercury Marine, a competitor, began to market outboard motors with annular surface-gap spark plugs manufactured by Champion Spark Plug. That spark plug had a nickel alloy center electrode and a wide annular gap (0.05 inch). While they increased ignition efficiency and initial reliability, they had a short lifetime because of center electrode erosion and required frequent replacement. Mercury licensed nonexclusive rights to market the Minks CD high-voltage ignition system (above) to fire those spark plugs.

Defendant's Activities. AC Spark Plug began to manufacture an annular wide surface-gap spark plug with a tungsten alloy center electrode on January 25, 1969. It was identical to the sample spark plugs it had supplied to Daniels at his request (see above). AC Spark Plug began to market this design because of its obvious improved endurance. Because its chief engineer, Hamilton Sampson, had had his interest raised by the same information disseminated at the September 1966 conference, AC Spark Plug decided to conduct its own tests on another set of samples made at the same time the Daniels's samples were made. Those tests were conducted on outboard boards mounted on a test stand in a swimming pool at the AC Spark Plug laboratories. They were completed on October 14, 1968.

Lawsuit. On November 27, 1975, Jason Marine, as assignee of Daniels, brought suit against AC Spark Plug for patent infringement and sought an injunction against further sales by AC. He argued that AC's annular wide surface-gap spark plug was substantially identical to that disclosed and claimed by Daniels's '030 patent. AC defended on the ground that Daniels was not entitled to a patent, and requested that Daniels's '030 patent be declared invalid. Should the court grant the injunction requested by Daniels or the declaration requested by AC Spark Plug? Discuss all relevant legal issues. State a result.

END OF QUESTION V.
I. (40 minutes)

A. trademark? def.
   no; no sales of goods

service mark? def.
   yes; RR provides transportation service

federal? no interstate commerce re locomotive
   but there is interstate commerce re advertising

state? there is commerce

B. process: file, examination, publication for opposition,

C. objections, grant of TM

critical points: examination, opposition

grounds: similarity with other "COLT" TM's

TM will be granted; other marks in dissimilar areas

Colton doesn't use "COLT" as a mark

II. (20 minutes)

court: federal; exclusive jurisdiction over federal registered TMs

concurrent jurisdiction issue: federal preemption in areas of actual use
   is use limited to area east of St. Louis (where trains run), or whole of US (where advertising is sent)?

validity of common law senior mark

III. (20 minutes)

validity of copyright notice: uses statutory words

compilations: originality; def.

   facts contained are public domain

   work effort in compiling information makes final product copyrightable

access: Moody didn't subscribe
   but copies apparently were available (500 subscribers)

copying: Moody's listings were published after BII's
   included BII's false information
IV.
(40 minutes)

absence of copyright notice: unpublished manuscripts are automatically protected, even w/o copyright notice

failure to deposit or register: not required for copyright validity

historical facts are in public domain; use is not infringement

derivative works: movies can be derivative of book (or manuscript)

access: no connection between 5 publishers & movie company is shown

copying: but movie company used information which it could have obtained only from the manuscript or by interviewing witnesses, and it did not do latter

fair use: extent of copying: only public domain quotes were used
effect on copyrighted work: substantially impairs market

court: suit brought in state court

exclusive jurisdiction over works in fixed medium of expression is in federal courts; should be removed

registration required

V.
(60 minutes)

priority: conception dates: D can proved by memo & letter

AC cannot prove

reduction to practice: AC has date earlier than D

application: D applied; AC didn’t

§ 102(b) bar: D filed within 1 year of AC’s first sale

diligence: D was diligent from C to RP to disclosure to patent atty

but patent atty took nearly 1 year to file: query?

novelty? D has earlier priority date (unless lost by lack of diligence)

no single prior art reference discloses D’s invention

except in jet engines:

a. earlier patents
b. prior sales
c. conference

obvious? multiple references

skill in the art

problem in industry