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UNITED STATES DISTRICT COURT

NORTHERN DISTRICT OF CALIFORNIA

THE MAGNAVOX COMPANY, a corporation, and SANDERS ASSOCIATES, INC., a corporation, Plaintiffs, vs. ACTIVISION, INC., a corporation, Defendant. AND RELATED CROSS-ACTION.	No. C 82 5270 CAL TRIAL BRIEF OF DEFENDANT ACTIVISION, INC.

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INTRODUCTION

In late 1967, an engineer named William Rusch was assigned to work on a video game project at Sanders Associates in New Hampshire. By that time, Ralph Baer--Rusch's new supervisor at Sanders--had completed work on some simple circuits for playing games on a television display by generating dots, getting the dots to move, detecting coincidence (touching) of the dots, and altering one of the dots in response to that coincidence. Rusch was assigned to develop improvements to the already designed video game. A short time later, Ralph Baer's game was modified--allegedly by Rusch--by the use of a standard television wave form called a "sawtooth" and an off-the-shelf circuit called a flip-flop to "bounce" one dot off the other.[1]

Fifteen years and a computer revolution later, Magnavox sued Activision, Inc. on the ground that four of Activision's video game cartridges allegedly infringe Rusch's "invention" of "imparting a distinct motion (bounce)."[2] (Nine more Activision games were

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1/ For the convenience of the Court, the text of the allegedly infringed claims of the Rusch-2 patent are set forth in Appendix B to this brief.

2/ The seven claims of the Rusch patent at issue in this litigation use the term "imparting a distinct motion" [upon or in response to coincidence of dots or symbols]. The "distinct motion" or "bounce" feature occurs when a hitting symbol (tennis racket, hockey stick) touches a hit symbol (ball, puck) and causes the hit symbol to reverse direction or transfers to it velocity proportional to that of the hitting symbol. This definition is discussed in Statement of Facts III B. Throughout the brief we use the term "bounce" to mean "imparting a distinct motion."

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added to the list more than a year after the lawsuit was filed and after Activision had provided Magnavox with sales data as to the first four games. Activision has marketed over three dozen game cartridges.) Rusch's patent neither mentions nor contemplates anything even resembling the software which Activision designs and manufactures. Moreover, as Activision will prove, the Rusch patent is itself invalid and never should have been issued by the Patent Office.

OVERVIEW

Activision's Trial Brief commences with its Statement of Facts, and goes on to address the independent but interrelated issues of patent invalidity for obviousness, lack of contributory infringement, express and implied licenses, and the absence of any "bounce" in nine of the thirteen accused games.

The facts relevant to this case span nearly twenty-five years--from the origins of the "prior art" that predates and made obvious Rusch's "invention," to the late 1970s when advances in microprocessor technology made possible the video game cartridges designed and manufactured by Activision. To place the facts in context, a brief overview is provided to Activision's chronological Statement of Facts.

In the 1950s and into the late 1960s, television sets and other similar cathode ray tube devices began to be used for playing games and setting up simulations. These efforts were made with

public knowledge; for example, thousands of people watched an early tennis video game played at an "open house" at Brookhaven National Laboratories in 1957. By the time Ralph Baer at Sanders Associates began working on a video game project in 1966, all the elements of the prior art were available for his use on that project. Baer filed a patent application in January 1968 for his work described above, which eventually issued as the '480 patent. In mid-1969, Rusch, who worked for Baer, applied for a patent on his improvement to Baer's work, which eventually issued as the '507 patent. (Because the two patents are so similar in both content and the general time frame in which they were first sought, throughout this brief and the trial we will call the 1968 application "Baer-1" and the mid-1969 application "Rusch-2.")[3/]

Sanders Associates tried to find a user for these patents for four years and finally was able to license the Baer-1 and Rusch-2 patents to The Magnavox Company. In the early 1970s, Magnavox manufactured and marketed the Odyssey video game (which was not based on either the Baer-1 or Rusch-2 circuitry). The Odyssey game consisted of a box with the circuits for four games "hardwired" into it and a transparent overlay to be placed over the television screen to provide a background for the games.

3/ For the convenience of the Court, in Appendix A to this brief we set out a chronology of how the Baer-1 and Rusch-2 patents proceeded through the Patent Office, and an explanation of the various numbers assigned to the applications.

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Activision, a California corporation based in Mountain View, was founded in 1979 for the specific purpose of designing copyrighted video game cartridges. A video game cartridge is a small plastic box, the size of a tape cassette, which contains a computer program encoded in a "read only memory" (ROM) semiconductor, and placed on a very small printed circuit board. The cartridges, unlike the limited Odyssey game, are interchangeable and can be played on various "master consoles" (which Activision does not manufacture or sell). The master console is a computer; an Activision video game cartridge is one of many programs which may make use of that computer.

Activision has designed and manufactured 42 different video games in cartridges to be played on the user's television set in connection with a master console, primarily the Atari Video Computer System 2600[4/] ("2600"), and a hand-held control known as a "joystick." The player selects the video game cartridge containing the program for the Activision game of choice, inserts the cartridge into the master console, turns on the television set, and the television set then displays the computer-generated images. The player uses the joystick to control the horizontal and vertical position, velocity and acceleration of the player-controlled object on the display.

Activision also designs and manufactures cartridges and disks to be played on home or personal computers. To date,

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4/ Registered trademark of Atari, Inc.

Activision has designed and manufactured 20 such products for personal computers. The video game cartridge or disk is the program for the personal computer. The player inserts into the computer or disk drive the cartridge or disk which contains the program for the Activision game of choice, and the computer then displays the computer-generated images.

Both the rudimentary device put together by Baer and Rusch and the Activision cartridges (inserted in a master console or home computer and joystick) allow users to play games on a television set. Otherwise, the Baer and Rusch device and the Activision cartridges are as dissimilar as a Piper Cub aircraft and the space shuttle.

In 1982, this lawsuit was filed. Since that time, the Primary Examiner in the Patent and Trademark Office has found that the relevant claims of the Baer-1 patent--on which the Rusch-2 patent is premised--are invalid as "obvious" in light of the prior art.

STATEMENT OF FACTS

I.

THE PRIOR ART.

A. The Prior Art Before Sanders Associates' Video Game Effort.

Video games and video simulation training devices long pre-date the patent that is the subject of this lawsuit. There are numerous examples of relevant "prior art, each of which "teaches"

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used to simulate a lunar excursion module landing on the moon, a rendezvous in outer space in which the lunar excursion module docks with the command module, a tank game, an airplane landing at an airport and on an aircraft carrier.

Drumheller Pool Game

In San Francisco at the Fall 1966 Joint Computer Conference sponsored by the American Federation of Information Processing Societies and the Association of Computing Machineries, a video game for playing pool, written by John Drumheller, was publicly demonstrated and played. The Drumheller pool game was similar in appearance to the Michigan pool game. In Drumheller's version, the player-controlled symbol was the cue stick, and the distinct motion imparted to the cue ball, when hit by the cue stick, was proportional to the velocity with which the cue stick was moved.

RCA Pool Game

In 1967, RCA held an open house for the 25th anniversary of the David Sarnoff Research Center in Princeton, New Jersey. A pool game similar to Drumheller's pool game was demonstrated to and played by visitors at the open house.

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to be manipulated by the participant, means for generating vertical and horizontal synchronization signals, means for the player to move the dot the player controls, means for generating dots whose motion is non-player controlled (automatic), means for detecting coincidence, and means for altering a dot in response to coincidence.

By this time, Baer's game concept had matured into seven distinct games which were demonstrated by Baer to his superiors at Sanders on June 18, 1967. The games included a game called "Fox Hunt" where a white spot (hunter) controlled by a player chased a red spot (controlled by another player); when the spots touched, the red spot would disappear by a change in background color. In another game, "Fox & Hounds Chase," the player controlled a "red fox" trying to maneuver past three machine controlled spots representing hounds whose movement was controlled by the machine. Baer also developed a target shooting game where one player attempted to shoot at either a stationary spot, a player controlled spot, or a randomly moving spot on the screen. Two other games developed by Baer were "pumping games" where each player would pump a switch as fast as possible to see who could raise the level of "water" displayed on the screen.

On January 15, 1968, Baer applied for the patent eventually issued as U.S. Patent No. 3,728,480. This patent (the "'480 patent" or "Baer-1 patent") describes circuitry for playing games on a television display by generating dots, getting the dots to move and "hit" each other, detecting coincidence of the dots, and altering one of the dots in response to coincidence. When Baer applied

for the patent, neither Baer nor Sanders disclosed to the Patent Office the existence of the pool games, Higinbotham tennis game, Space War, Spiegel patent, and the G.E./NASA scene generator.[6/] Moreover, none of this prior art was considered by the Patent Office prior to the issuance of the Baer-1 patent.

2. William Rusch Comes To Work For Baer.

Although William Rusch, an engineer at Sanders Associates, formally was assigned to work for Ralph Baer on the video game effort in July of 1967, Rusch's notebooks reflect the fact that Rusch's first work on video games began toward the end of September, 1967. By then, Baer already had completed work on the device claimed in his patent and successfully tested it, i.e., reduced it to practice. In fact, counsel for Sanders conceded to the Patent Office that Rusch's work was only an attempted "improvement" started after Baer had finished his work.

Before Rusch began any work on Sanders Associates' video game project, Rusch became thoroughly familiar with all of Baer's and Harrison's ideas, designs, circuits and working models. Thus, prior to Rusch's formal assignment to Baer's group in July 1967, Rusch attended an informal meeting with Baer and Harrison at which the three discussed possible game ideas. After the meeting Rusch

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6/ We do not argue here that Baer or Sanders deliberately withheld these references. Rather, it is undisputed that the Patent Office did not consider them in issuing the patent.

wrote a memorandum summarizing the discussion. Less than two months after Rusch began working on his improvement of Baer's patent, Rusch had reduced his game concept to practice.

On or about February 2, 1968, Rusch completed a "Patent Disclosure Sheet" (an in-house form at Sanders) and sent it to Sanders' patent counsel. In his signed and witnessed Patent Disclosure Sheet, Rusch informed Sanders' patent counsel that he wanted to patent some circuitry that would "provide[] another positioning method for spots on TV screen." Rusch informed patent counsel that the idea for his circuitry was suggested by the "desire to have voltage control and spot shapes other than rectangular. (Round spot for example.)" By way of his patent disclosure, Rusch informed Sanders Associates that the "basic theory" of his circuits was similar to Baer's. As Rusch described the connection, Baer had "thought of generating spots and patterns" on television sets for various games, and Rusch had drawn circuits that used a different method of generating spots and patterns.

In his Patent Disclosure Sheet, Rusch did not use the term "imparting a distinct motion" in describing the function of his circuits, nor did he identify this element of his circuitry in the sections on the form where he was to identify "Problem solved," "Idea of the invention was suggested by the following factors," "Disadvantages of old apparatus or method," "Advantages of new apparatus or method," or "Features believed to be new." According to his Patent Disclosure Sheet, the features Rusch thought were new were only those of "Simple voltage control of spot positioning.

Price per spot less. Round spots, hollow 'ring' spots, etc., generated easily."

William Harrison constructed the circuits for Rusch, as he had for Baer. Rusch's circuits were tested by Harrison, Baer and Rusch.

On May 27, 1969, Rusch applied for the patent eventually reissued as U.S. Patent Re. No. 28,507 ("the '507 patent" or "Rusch-2 patent"). Consistent with his Patent Disclosure Sheet, Rusch's patent application did not use the words "imparting a distinct motion" to describe Rusch's "invention." Moreover, neither Rusch's patent application nor his patent, when it issued, included any detailed description of specific "flip-flop" circuitry to be used to impart a distinct motion upon detection of coincidence. A flip-flop was and is a simple, well known type of electrical circuit with two states which could automatically change voltage.[7/] As with Baer's patent application, the prior art was not disclosed by Rusch to the Patent Office. Moreover, Baer's pending application for the Baer-1 patent was not cited to the Patent Office as prior art, but only cross-referenced as a related application. The Patent Office examiner thus did not consider the impact of Baer's pending

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7/ Rusch states that the dots are generated by "developing current pulses proportional to predetermined portions (slices) of horizontal and vertical sawtooth waves." Of course, electricity can move in waves of differing shapes and frequencies. The "sawtooth" is so named because it looks like the teeth of a saw. Every television set uses a sawtooth wave to generate the picture on the screen, and therefore the use of a sawtooth wave to control spots on a screen is inherent in the nature of television itself.

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patent on the validity or scope of the Rusch patent.

3. The Baer-Rusch-Harrison Patent.

On August 21, 1969, Baer, Rusch and Harrison together applied for a patent eventually reissued as U.S. Patent Number 28,598 ("the '598" or "BRH-3" patent). This patent purports to describe circuitry for playing games on a television display by generating dots, getting the hitting dot(s) to move and "hit" the hit dot(s), detecting coincidence of the dots, and "imparting a distinct motion" or "altering the motion upon coincidence" of the hit dot(s). Once again, the prior art was not disclosed to or considered by the Patent Office, nor was the pending Baer-1 patent considered on the issues of validity or scope.

According to Magnavox and Baer's own testimony, the BRH-3 contained superior circuits to those described in the Rusch-2 patent. The BRH-3 patent disclosed and claimed Harrison's circuits for generating spots on the screen, i.e., spot generators. The BRH-3 patent disclosed circuitry which could generate screen-width walls off of which spots could bounce. By contrast, the Rusch-2 patent neither disclosed nor claimed wall generator circuitry or digital spot generators.

4. The Patents Issue.

On April 25, 1972, the Rusch-2 patent was issued to Sanders Associates as assignee of Rusch. The same day, the BRH-3

patent was issued to Sanders Associates as assignee of Baer, Harrison and Rusch. On April 17, 1973, the Baer-1 patent was issued to Sanders Associates as assignee of Baer, although its application was the first of the three patents to be filed.

5. Reissue Applications Are Sought Shortly Thereafter.

Pursuant to the terms of 35 U.S.C. Section 251, a patent holder may file an application for reissue when the patent is "deemed wholly or partly inoperative or invalid, by reason of a defective specification or drawing, or by reason of the patentee claiming more or less than he had a right to claim in the patent . . . ." Thus, on April 25, 1974, Rusch filed an application for reissue of the Rusch-2 patent with the U.S. Patent and Trademark Office.

Rusch's application for reissue of the Rusch-2 patent stated that as the patent then read, it was "partly inoperative by reason of a defective specification." Rusch stated that his sole reason for seeking reissue was to cover displays on television monitors, as well as television receivers. (A monitor is a television set that cannot change channels.) To this end, claims 60 through 64 were added to the patent.

Again, none of the relevant prior art was disclosed to nor considered by the Patent Office prior to the reissue of Rusch-2, and the reissue application was allowed by the Commissioner.

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Also on April 25, 1974, Baer, Harrison and Rusch filed an application for reissue of the BRH-3 patent with the U.S. Patent and Trademark Office. The reissue was allowed on October 28, 1975. Shortly thereafter, the claims of the BRH-3 patent alleged to be infringed in Magnavox Co. v. Chicago Dynamic Industries, 201 U.S.P.Q. 25 (N.D. Ill. 1977) were found by the court to be invalid and obvious in light of the Rusch-2 patent.

On June 27, 1977, Baer filed an application for reissue of his patent with the U.S. Patent and Trademark Office, stating that as the Baer-1 read, it was "partly inoperative or invalid" because Baer had claimed more than he had a right to claim in the patent. Baer's "error" was to include claims in the Baer-1 that "appear to be too broad" in light of the invention described by Fritz Spiegel.

During the more than 7½ years that the Baer-1 reissue application has been sought, the Patent Office, on five separate

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occasions, has rejected various of Sanders Associates' claims, and Sanders has filed at least five amendments to its application. Baer had submitted 96 claims which purported to set out the metes and bounds of his "invention." On April 23, 1982, the Patent Office Primary Examiner finally rejected substantially all of the relevant submitted claims. Specifically, 78 of the claims were rejected, primarily because the teachings of the Spiegel patent, combined with the teachings of the video game Space War, made the Baer-1 obvious to one skilled in the art. The 18 remaining claims relate primarily to very specific circuitry and to a light detecting target shooting game unrelated to Activision's video games here in suit. The similarity between the Baer-1 claims rejected by the Primary Patent Examiner and the claims of Rusch-2 at issue in this suit is striking. But for the element "imparting a distinct motion," each of the relevant elements of the Rusch-2 at issue in this lawsuit has been rejected as obvious by the Patent Office in considering the Baer-1 reissue application.[8/]

8/ For example, rejected Claim 50 of the Baer-1 reissue application closely tracks the elements of Claim 52 of Rusch-2. To make this more vivid, we have inserted in brackets the relevant Rusch-2 elements in the text of rejected Claim 50 of Baer-1:

> "50. Apparatus for . . . generating dots upon the screen of the television receiver to be manipulated by a participant; [Rusch-2: 'apparatus for generating symbols upon the screen of a television receiver to be manipulated by at least one participant'] said apparatus comprising:

(continued)

In 1982, Baer appealed the Final Rejection of the Baer-1 reissue application to the U.S. Patent Office Board of Appeals. The Primary Patent Examiner filed its Answer to Baer's appeal in October 1983. The matter is still pending before the Patent Board of Appeals. 9/

II.

SANDERS ASSOCIATES ATTEMPTS TO LICENSE ITS PATENTS.

For the four years between January 1968 and January 1972, Sanders tried without success to sell or license the Baer-1,

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8/ (footnote continued)

> a control unit for generating signals representing the "dots" to be displayed [Rusch-2: "means for generating a hitting symbol; and means for generating a hit symbol] . . . and means for detecting coincidence of two of said dots on said screen at any time during the playing of a game; [Rusch-2: "means for ascertaining coincidence between said hitting symbol and said hit symbol] . . ."

The only Rusch-2 element not literally included is "imparting a distinct motion." Notably, rejected Claim 83 in the Baer-1 reissue application included the very similar language: "altering . . . one of said 'dots' in response to said coincidence."

9/ Whether the relevant claims of the Baer-1 patent are ultimately rejected as invalid by the U.S. Board of Patent Appeals is not in any way dispositive of the outcome of this lawsuit, since even if the Baer-1 patent were valid, its teachings render the Rusch-2 patent obvious and thus invalid. See Argument, Part I, infra.

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Rusch-2, and BRH-3 patents. Finally, on January 27, 1972, Sanders and Magnavox entered into an agreement under which Magnavox became the exclusive licensee of the Baer-1, Rusch-2, and BRH-3 patents. Magnavox also acquired the right to sub-license these three patents.

In 1972, Magnavox manufactured and sold a game marketed in the United States under the trademark "Odyssey." Odyssey was a battery-operated unit which came with transparent plastic overlays with different printed backgrounds, which the user would tape to the face of the television screen depending on the choice of game. The first model Odyssey game unit commercially introduced by Magnavox was based entirely on the circuitry described in the BRH-3 patent. The Rusch-2 patent was never embodied in a commercial product marketed by Magnavox or its sublicensees.

Thus, to the extent Sanders Associates developed an idea for playing video games on home television sets, that idea was developed by Baer, not Rusch, and was embodied in the Baer-1 patent. To the extent Sanders Associates developed circuitry for playing video games on home television sets, that circuitry was embodied in the BRH-3 patent.

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B. The Baer Prior Art--Work At Sanders Associates.

1. Ralph Baer And The '480 Patent.

From 1961 through the early 1970's, Ralph Baer was the Division Manager for the Equipment Design Division of Sanders Associates. As part of his job, Ralph Baer oversaw the development of electronic display systems that Sanders designed for the military.

In September of 1966, Baer wrote a memorandum indicating that he was considering the development of video games. The memorandum fails to describe any circuitry or other means for implementing Baer's video game. Baer himself stated in an early deposition that, "any person skilled in the art, [i.e., a basic electronics technician] would have been able to develop the circuitry [to implement Baer's memorandum]." In fact, in early 1967, Baer gave his memorandum to his technician William Harrison, and told Harrison to make some electronic circuitry to implement the memorandum. Harrison shortly thereafter constructed this circuitry, in part by using a "Heathkit" Baer had purchased.

The simple electronic analog circuitry Harrison designed to implement Baer's memorandum generated two moveable spots on a television screen and ascertained coincidence between the two spots. By June of 1967, Baer had constructed and tested his control box which used a television set to play games. The control box was attached to the antenna terminals of his television set, and included means for generating dots on the screen of a television set

III.

MAGNAVOX AND SANDERS ASSOCIATES FILE SUIT.

A. The Particular Games Allegedly Infringing.

In 1982, Magnavox and Sanders brought suit against Activision for allegedly contributorily infringing certain claims of the Rusch-2 patent. After a year and a half of discovery by Magnavox, and with the trial at that time less than two months away, Magnavox still was unable and unwilling to specify which of Activision's more than three dozen games allegedly infringed their patent.10/ Initially Magnavox asserted that only four Activision games infringed, but after Activision provided Magnavox with sales data as to the four games, Magnavox attempted to enlarge its potential recovery in this case by adding another "at least" nine games to the list of allegedly infringing games. Finally, nearly two years after this lawsuit was filed and with the hearing date set for argument on Activision's motion to compel interrogatory answers, Magnavox limited its contentions to 13 of Activision's video games.11/

10/ In light of the inability of the Magnavox/Sanders expert team to interpret and apply their own "invention," it is remarkable that they persist in accusing Activision of willful infringement.

11/ The timing of Magnavox' "discovery" of allegedly infringing Activision games has a history worth relating. On September 28, 1982, Magnavox filed this lawsuit, but did not allege which Activision game cartridges, when used with a master console, allegedly infringed the Rusch-2 patent. In February 1983, in response to Interrogatories from Activision, Magnavox alleged that "as presently advised" the following games were at issue: Tennis, Ice Hockey,

(continued)

[illegible] based on the basic patent is essentially an admission by

	Atari	Coleco	Mattel
Boxing	x		
Fishing Derby	x		
Tennis	x		
Stampede	x		x

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TRIAL BRIEF OF DEFENDANT ACTIVISION, INC.

	Atari	Coleco	Mattel
Boxing	x		
Fishing Derby	x		
Tennis	x		
Stampede	x		x
Ice Hockey	x		
Barnstorming	x		
Grand Prix	x		
Sky Jinks	x		
Keystone Kapers	x	x	
Dolphin	x		
Enduro	x		
Decathlon	x	x	
Pressure Cooker	x		

The Atari, Coleco and Mattel master consoles which play the 13 games are sublicensed by Magnavox under the Rusch-2 patent. Although Activision also manufactures another version of the Activision Decathlon in disk form to be played on an Atari home computer, Magnavox does not allege that this disk or any other home computer software manufactured by Activision infringes Rusch-2.

12/ (footnote continued)

Court denied Magnavox' motion, and Magnavox' subsequent motion that the Court reconsider its decision. Later, Activision agreed to dismiss its second counterclaim so long as Magnavox would covenant that it would not ever sue Activision for infringement of the Baer-1 patent. Magnavox agreed to these terms. See Stipulation Re Dismissal of Activision Inc.'s Second Counterclaim; Stipulation Regarding Covenant Not to Sue for Alleged Infringement of U.S. Patent 3,728,480, both filed with the Court on October 29 and 30, 1984, respectively.

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B. The Activision Software Does Not Infringe The Rusch-2 Patent.

Activision game cartridges are computer software. The cartridge itself does not generate dots, detect coincidence, or provide a means for imparting a distinct motion. Magnavox has conceded that no Activision game cartridge embodies the elements of the Rusch-2 patent. Each Activision cartridge, depending upon the theme of the particular video game, contains a computer program which instructs the microprocessor in the master console to perform certain functions.

The Rusch-2 patent does not describe or disclose the use of video game cartridges such as those made, designed and sold by Activision, and there is nothing in any of the language of the patent to indicate that use of interchangeable cartridges or other replaceable memory devices was contemplated to be a part of the Rusch-2 device. Moreover, the computer and video game cartridge technology that forms the basis of Activision's product is not equivalent to Rusch-2.

During the prosecution of the Rusch-2, the Patent Office Primary Examiner required Rusch to define what he meant by "hit symbol" and "hitting symbol." In the course of his response, Rusch described the two types of movement that could be imparted to the "hit" spot (e.g., the ball) upon being hit by the "hitting" spot (e.g., the player-controlled symbol). Either the hit spot would reverse direction, or the hit spot would "travel in a direction and with a velocity proportional to the direction and velocity of the

'hitting' spot, causing it to move toward an off-screen position, whereupon it will bounce away from the screen in the same fashion as a ball would." These are the only types of motion disclosed by Rusch-2. The terms "hit symbol", "hitting symbol," and "imparting a distinct motion" in Rusch-2 are thus limited to situations where the "hit" spot reverses direction and/or travels in a direction and with a velocity proportional to the direction and velocity of the "hitting" spot.13/

In nine of the Activision video games which Magnavox alleges infringe the '507 patent, there is no imparting of a distinct motion to the hit symbol upon coincidence with the hitting symbol. These games are: Fishing Derby, Stampede, Barnstorming, Grand Prix, Sky Jinks, Keystone Kapers, Dolphin, Enduro, and Decathlon. This is apparent from simply playing the games and watching what happens on the television screen.

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13/ The legal principle of "file wrapper estoppel" limits the meaning and scope of these terms to Rusch's definition as recited above. Quite simply, the principle is that if the patent applicant is required to limit or change his claims to get through the Patent Office review (as Rusch was), the patent holder cannot expand those claims later. See Argument, Part IV, infra.

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IV.

CONSUMER EXPECTATIONS REGARDING USE OF MASTER CONSOLES TO PLAY ACTIVISION SOFTWARE.

A. Magnavox Gives Atari And Its Customers An Express License To Purchase All Compatible Video Game Cartridges.

In June, 1976, Magnavox and Atari entered into a settlement agreement and license agreement, in which Magnavox specifically released Atari and all of Atari's customers from liability for infringement, and covenanted that it would not sue them, in exchange for a paid-up license (i.e., fixed sum) from Atari to Magnavox. This open-ended release of Atari customers and covenant not to sue in effect gave consumers an express license to purchase Activision video game cartridges for use with their licensed Atari master consoles. The express license is fully discussed at Argument III A.

B. Implied License.

The consumers of master consoles reasonably believe that they may purchase Activision cartridges or compatible cartridges made by any manufacturer without violating any law or infringing any patent. Thus, by 1982 an estimated one-half of the 10 million homes with an Atari master console had at least one Activision cartridge. Magnavox has been well aware of the consumer's expectations and actions and has taken no steps, either directly or through their licensees, to change the consumer's expectations or resulting

actions. The existence of desirable, saleable cartridges obviously enhances the sale of master consoles.

Video game cartridges are marketed in toy stores, department stores, video/electronics specialty stores, chain stores and catalogue showrooms. The master consoles with which these video game cartridges are compatible generally are located nearby, the one serving as advertising for the other. Joysticks for use with master consoles and video game cartridges also are located nearby. Each and every Atari, Mattel and Coleco master console is manufactured, offered for sale and sold under a Magnavox patent license which includes the Rusch-2 and Baer-1 patents. There are no warnings in the sales area nor on any products or literature which would alert a consumer or the retailer to Magnavox' assertion in this case that only Atari cartridges may be used with Atari master consoles, Mattel cartridges with Mattel consoles, or Coleco cartridges with Coleco consoles. The consumer sees only that certain cartridges are compatible with certain master consoles without restrictions.

There is a substantial market for consumer joysticks of varying models, styles and features, manufactured and sold by third parties who do not also manufacture master consoles or software. No manufacturer of consumer joysticks only has purchased a license from Magnavox under the Baer-1 or Rusch-2 patent nor has Magnavox sought to obtain any such license.

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V.

PRIOR LAWSUITS.

Over the last ten years, Magnavox has sued various manufacturers for alleged infringement of the Baer-1 and Rusch-2 patents. The findings, decisions and outcomes have no binding effect on this lawsuit as a matter of law. Activision was not a party to nor in privity with any party to either Magnavox Co. v. Chicago Dynamic Industries, 201 U.S.P.Q. 25 (N.D. Ill. 1977) or Magnavox Co. v. Mattel, Inc., 216 U.S.P.Q. 28 (N.D. Ill. 1982). Moreover, a brief description of the background and circumstances of some of these suits places Magnavox' litigation strategy and its "victories" in a more realistic context, and shows how radically different this lawsuit is from the earlier ones.

Magnavox Co. v. Chicago Dynamic Industries was initiated in 1974 in the Northern District of Illinois against several defendants. One of the defendants, Atari, Inc., sued Magnavox for declaratory relief in the Northern District of California and, after a battle over venue, the Atari case was consolidated for trial in Illinois. Venue was critical because during this period, patent holders received significantly disparate results depending on the federal judicial circuit in which the infringement action was brought. During the same period, it was generally known to counsel who practiced patent litigation that the Seventh Circuit was significantly more favorable to patent holders than the Ninth

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challenging validity,[15] Mattel could not contest the validity of the Rusch-2 patent in that lawsuit and did not do so. Mattel manufactured and sold complete units, i.e., television master consoles, joysticks, and educational and game cartridges for their master console.

No software-only manufacturer of video game programs has purchased a license from Magnavox under any of their video game patents. Unlicensed software program manufacturers include Imagic, Parker Brothers, Broderbund, Synapse, Epyx, Sierra, Electronic Arts, Spinnaker, and CBS. Also unlicensed are most manufacturers of home computers which play video games, including IBM, Apple and Commodore.

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15/ Since the patent was not found invalid in the first case brought by Magnavox in the same court, Seventh Circuit precedent (which is contrary to the new Federal Circuit rule) would have bound Mattel to that earlier finding, in the absence of "persuasive new evidence of invalidity." See American Photocopy Equipment Co. v. Rovico, Inc., 384 F.2d 813, 815 (7th Cir. 1967), cert. denied, 390 U.S. 945 (1968).

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ARGUMENT

I.

THE RUSCH-2 PATENT IS INVALID BECAUSE THE CLAIMED INVENTION IS OBVIOUS UNDER 35 U.S.C. SECTION 103.

A. Legal Standard Of Invalidity For Obviousness.

1. Sections 102 and 103.

The intention of the statutory monopoly conferred by the patent laws is to encourage true invention. See U.S. Const. art. I, §8 cl.8. Because the statutory monopoly created by the patent laws is an exception to the general social and economic policy against monopolies, the patent laws carefully delimit the conditions under which a claimed "invention" can be patented. See generally Graham v. John Deere Co., 383 U.S. 1, 5-11 (1966).

The specific limitations on the patentability of an invention are contained in 35 U.S.C. Sections 102 and 103. Section 102 lists seven factors, any one of which will invalidate a claimed invention:

(a) if the invention was previously known;

(b) if the invention was patented, used or sold more than one year prior to application for the patent;

(c) if the invention was abandoned;

(d) if the invention applied for was first patented outside the United States more than one year prior to patent application;

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(e) if the invention was described in another patent application before the invention by applicant;

(f) if the invention was made by someone other than applicant; and

(g) if the invention was first made by someone other than applicant.

Section 103 imposes an additional requirement on patentability: if the subject matter of the invention would have been obvious to one with ordinary skill in the art, then the patent is invalid for obviousness.[16/] Section 103 provides as follows:

> "§103. Conditions for patentability; non-obvious subject matter
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> A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made." (Emphasis added)

16/ In the argot of the patent law, "anticipation" and "obviousness" are terms of art. A patent is said to be "anticipated" and thus invalid in a situation where a single prior art reference is identical in all respects to the patent at issue. For example, an inventor claims to have invented a chair with wheels. The prior art includes a German patent for a chair with wheels. The patent is "anticipated" by the prior art. If instead the prior art references include (1) a chair and (2) a table with wheels, the patent is "obvious" in light of the prior art, and also invalid, because it would have been obvious to one with ordinary skill to combine the teachings of the table with wheels and the chair to produce a chair with wheels.

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2. Burden of Proof.

As the party challenging validity of Rusch-2, Activision has the procedural burden of coming forward with clear and convincing evidence, and the burden of persuasion on the issue of patent invalidity, despite the fact that patent validity is conceptually part of the plaintiff's case in chief. This is all that is meant by the "presumption"[17/] of patent validity. See, e.g., Stratoflex, Inc. v. Aeroquip Corp., 713 F.2d 1530, 1534 (Fed. Cir. 1983) (finding patent invalid as obvious and non-infringed). The Federal Circuit has clearly enunciated the maxim that the party challenging the validity of the patent is "more likely to carry the burden of persuasion imposed by 35 U.S.C. §282 when art more pertinent than that considered [by the PTO] is introduced." Medtronic Inc. v. Cardiac Pacemakers, Inc., 721 F.2d 1563, 1566-67 (Fed. Cir. 1983) (only one piece of pertinent prior art considered by PTO; two other relevant patents plus advertisements considered for first time at trial where claims found invalid) (emphasis in original); 35 U.S.C. §282.[18/] See also EWP Corp. v. Reliance Universal Inc., No.

17/ See Fed. R. Evid. 301 ("a presumption imposes on the party against whom it is directed the burden of going forward with evidence ~~to~~ rebut or meet the presumption, but does not shift to such party the burden of proof in the sense of the risk of nonpersuasion, which remains throughout the trial upon the party on whom it was originally cast").

18/ 35 U.S.C. Section 282 provides:

> "A patent shall be presumed valid. . . . The burden of establishing invalidity of a patent or any claim thereof shall rest on the party asserting such invalidity."

case law?" See EWP Corp. v. Reliance Universal Inc., supra, at 13, 16.

The asking and answering of this hypothetical question by the Federal Circuit in EWP to find the patent in that case invalid for obviousness is instructive here. In EWP, the court determined that the "problem faced by Francois" (the inventor) was to find a way to use a lattice configuration of wires for reinforcing concrete bell and spigot pipe without breaking some circular wires in the lattice. Id. at 13. Francois' "solution" was to include in the lattice some "warp wires" which could be elongated. Francois' patent itself explained that it was "already known to employ a lattice for reinforcing concrete tubular elements"; and thus Francois made no attempt to claim that as his "invention." Id. at 13. The court wrote, "we can say the solution would have been obvious to the hypothetical person of ordinary skill postulated by [Section] 103 if we find evidence of prior art which shows he would have been presumed to know that the way to make a reinforcing wire expansible is to corrugate or crimp it." Id. at 14. Finding such prior art, the Court held in finding the patent invalid: "We cannot escape the conclusion that Francois did no more than apply the presumed knowledge of the art to provide an obvious solution to a simple problem: use crimped wire where there is a need in a subsequent forming step to expand or stretch it." Id. at 15.

Similarly, in the case of one of the patents at issue in Graham v. John Deere Co., the Supreme Court considered the "problem" the inventor (Graham) sought to meet, and whether or not the

solution would have been "obvious." There, the problem was how to keep the shanks of chisel plows from breaking when the chisels hit buried rocks. Graham v. John Deere Co., 383 U.S. 1 (1966). The "solution" was to manufacture a "spring clamp." Even assuming that the prior art did not disclose all of the elements of the alleged invention, the Court, placing itself in the position of "a person having ordinary skill in the prior art," found that such a person "would immediately see that the thing to do was what Graham did . . . ." Id. at 25.

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B. The Prior Art Renders The Rusch-2 Patent Invalid As Obvious.

1. The Starting Place--The "Problem" Facing Rusch.

The analysis of obviousness begins by asking what was the "problem" confronting William Rusch. The question has been answered by Rusch himself: to improve Baer's video game--which itself involved moving dots on a TV screen, detecting coincidence, and altering one of the dots in response--by adding "bounce." As Activision will establish at trial, the prior art teaches one ordinarily skilled in the art with Rusch's problem in mind to do exactly what Rusch did.

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2. Scope And Content Of The Art And Ordinary Skill In The Art.

In determining whether a patent is invalid as obvious, a court must appraise "what would have been obvious to one of ordinary skill in the art aware of the disclosures of all of the prior art." The legal conclusion is "not based on the operation of the [inventor's] brain," and it is "irrelevant whether or not [the inventor] was aware of [the prior art]." EWP v. Reliance Universal, Inc., supra, at 13, 16 (emphasis in original). Knowledge of prior art is constructive or "presumed" knowledge. Whether William Rusch was actually aware of the prior art is completely irrelevant. See generally Kimberly-Clark Corp. v. Johnson & Johnson, No. 83-1066, slip op. at 21-33 (Fed Cir. Oct. 9, 1984).

Since Rusch's task was the generation and manipulation of spots on a video receiver, the scope of the art clearly includes the achievements of those who had previously developed means and devices for doing this job. Three disciplines immediately suggest themselves as areas where relevant work could have occurred: (1) use of video displays to play games; (2) use of video displays to simulate and train;[19] and (3) the television sciences, i.e., the electronics of generating pictures (composed of myriad dots) for the enjoyment of viewers. The "ordinary skill in the art" is the skill possessed by those whose careers in 1969 would have involved the

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19/ The Patent Office classification manual specifically groups training and simulation with gaming devices.

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tools and study of video display and simulation; and whose background and/or expertise included electrical engineering and computer applications.[20/]

Prior use of video displays to play games included (a) Higinbotham Tennis; (b) the pool games; (c) Space War; (d) the G.E./NASA Scene Generator Tank Game; and (e) Ralph Baer's Fox and Hounds and other games.[21/] None of these was considered by the

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20/ Rusch had both a bachelor's and a master's degree in electrical engineering by 1968; Harrison, who actually built Rusch's circuits, had not completed a bachelor's degree, although he had several years' experience as an electronics technician. However, it is not the skills of these two men which are relevant. A novice might achieve what he considers a breakthrough because it is beyond his ordinary skills, but it is certainly not an invention if those of ordinary knowledge and sophistication in the field either already knew of the "breakthrough" or would have found the breakthrough obvious. See Kimberly-Clark Corp. v. Johnson & Johnson, supra, at 33 ("[r]eal inventors, as a class, vary in their capacities from ignorant geniuses to Nobel laureates"; the courts have "always applied a standard based on an imaginary worker of their own devising whom they have equated with the inventor.")

21/ There is no doubt that Baer-1 qualifies under Section 102(g) as prior art to Rusch-2 for the purposes of an analysis of obviousness under Section 103, even though Baer and Rusch both worked at Sanders. See, e.g., Kimberly-Clark Corporation v. Johnson & Johnson, supra (finding that in-house work at Kimberly-Clark was prior art to another patent from Kimberly-Clark which was the subject of lawsuit); Magnavox Co. and Sanders Associates, Inc. v. Chicago Dynamic Industries, 201 U.S.P.Q. 25 (N.D.Ill. 1977) (finding claims of BRH-3 patent invalid in light of other in-house work at Sanders Associates--i.e., the Rusch-2 work).

As part of the Patent Law Amendments Act of 1984, enacted November 8, 1984, Section 103 has been amended. This amendment has no effect on this lawsuit. See 35 U.S.C. §106(e). ("The amendments made by this Act shall not affect the right of any party in any case pending in court on the date of enactment to have their rights determined on the basis of the substantive law in effect prior to the date of enactment"). The amendment would disqualify as prior

(continued)

patent office in reviewing Rusch-2.

Prior use of video displays to simulate and train included (a) Spiegel guided missile simulator; and (b) the G.E./NASA Scene Generator docking, moon landing, and carrier and airport landing programs. Neither of these was considered by the patent office in reviewing Rusch-2.

Prior relevant television technology included means for generation of a raster scan, horizontal and vertical synchronizing and pulse circuits for the scan, and the use and properties of the sawtooth wave form.

3. Comparison Of Prior Art And Rusch's Improvements.

The Higinbotham Tennis Game is a critical piece of prior art because it is a video tennis-type game on a cathode ray tube. In the Higinbotham Tennis Game, the two viewers played a game of tennis on a cathode ray tube which displayed a ball that bounced off the net, reversed motion and moved realistically from one side of the net to the other when a player "hit" it by pushing a button. The manner in which each player "aimed" determined the velocity and angle with which the ball would move. The bounce was achieved by use of a flip-flop circuit exactly like the one Rusch employed. The position of Higinbotham's tennis ball was determined

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21/ (footnote continued)

art under Section 103 subject matter developed by another person which qualifies as prior art only under Section 102(f) or (g).
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by voltage control, the same method used by Rusch.[22/]

The pool games are directly relevant to Rusch's problem of video display of bounce. In each of the games the player hit the cue ball which then hit the object ball and imparted to it a velocity proportional to that of the cue ball. The balls disappeared when they went into a pool table pocket and bounced in the appropriate direction with the appropriate speed when they hit a cushion or another ball. The ordinary artisan would learn from the pool games computer or machine control of symbols and the use of a computer program to generate symbols, detect coincidence, and "impart distinct motion."

Space War achieved enormous popularity among computer enthusiasts in the 1960's. Space War was played on corporation computers and on college campuses from Boston to Palo Alto. The game had been played at Sanders Associates before William Rusch began his video game improvement effort. In Space War the spaceships moved realistically, crashed into each other, shot visible torpedoes, and bounced off the edges of the screen or disappeared at one edge and then reappeared at the opposite edge. Thus, from Space War the person skilled in the art learns generation of movable

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22/ It will be more than a little interesting to hear what plaintiffs say to attempt to avoid the prior art video games and simulations. One thing plaintiffs cannot do is tell us that the prior games are not relevant because they are computer games and then assert that Activision's computer software cartridges for devices such as the Atari 2600 are "equivalent", i.e., functionally the same as their device. See Argument, Part II C, infra, regarding the relationship between narrowing of an invention to avoid prior art and a claim of infringement.

player controlled symbols as well as non-player controlled, moving symbols (e.g., torpedos). The game also teaches detection of coincidence and resulting alteration of the hit symbol (explosion) as well as bounce off the edge of the screen.

The G.E./NASA scene generator tank game was played on a television (i.e., raster scan) display. The appearance, graphics and operation of this game and the other G.E. designed software are remarkably similar to that sold by Activision. In the tank game the player uses a control similar to a joystick to fly an airplane over an area in which a tank is maneuvering under computer control and the player shoots bullets at the moving tank. When the tank was hit, it changed shape to indicate coincidence. The shape was varied (the size of explosion changed) depending upon the number of bullets which hit the tank. The other G.E./NASA simulations disclosed a multitude of computer generated symbols for display on raster scan cathode ray tube devices. These included operator (player) controlled and displayed "spots" such as the lunar module or its shadow and machine controlled and displayed "spots" such as the command spaceship, the moon surface, the airport runway, and an aircraft carrier deck. Each simulation provided sync signals, spot generation and movement, coincidence detection, and--in the case of the docking simulation--motion upon coincidence. This prior art tells the individual how to generate dots on a television screen, move them through player and non-player controls, generate horizontal and vertical synchronization signals, and detect coincidence and alter the hit dot in response to coincidence.

In the lunar landing simulation, the view on the television set was of the surface of the moon (with a target area on which to land), with outer space in the background. The object of the simulation was for the user to move the user-controlled symbol (the lunar module) so that it would touch down on the moon. The computer detected when the lunar module touched the moon and stopped its apparent motion.

In the docking simulation, the engineer or astronaut controlling the lunar module used a device similar to a joystick to maneuver the lunar module until it docked successfully with the command ship. The simulation was programmed to provide, upon docking, a transfer of momentum from the lunar module to the command ship, although the resulting motion was slight inasmuch as significant motion could only result from velocities which would cause the ships to crash. Once the ships docked they moved together.

In the tank game, the view on the screen was a battlefield seen from the perspective of an airplane. The player-controlled airplane fired bullets at a moving tank. The player did not control the movement of the tank. Depending upon the number of bullets that hit the tank, the tank would change shape and the "explosion" would grow in size in proportion to the size of the hit. The tank game "taught" the programming of a computer to detect coincidence and to proportionately alter the shape of a symbol upon coincidence.

In the airplane landing simulations, the view on the screen was an aircraft carrier or an airport from the perspective of

a pilot in an airplane. The pilot controlling the airplane, using a device similar to a joystick, landed the airplane on the deck of the carrier or on the ground, depending on the simulation.

Spiegel-Messerschmidt, as described by the Patent Officer Examiner in analyzing the validity of Baer-1, "discloses an educational simulator employing an average conventional television receiver modified for active participation by players/users whereby 'dots' or small picture point symbols are generated for display . . . and are moved and steered . . . ." The Spiegel patent teaches spot generation, synchronization, and coincidence detection using a box connected to the antenna terminals of a standard television.

It is important to note that Baer's development of his games prior to Rusch's initial efforts included every necessary element except perhaps "imparting distinct motion." In Fox and Hounds, Baer generated on the screen of a conventional television set a player controlled spot (fox) which had to avoid hitting machine controlled spots (hounds). The Baer circuitry detected coincidence upon touching and after that, in Ralph Baer's own words:

> A. "Well a variety of things can happen. In fact, there is no limit to the number of things that can happen."23/

The person of ordinary skill in the art would know that television generates its raster scan with a sawtooth wave and

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23/ The question posed to which Baer was responding was, "Q: What happens when those spots coincide or meet each other [in Baer-1]?"

horizontal and vertical synchronization signals. Using voltage control, any system to generate dots therefore must use a wave of varying voltage, such as sawtooth wave and standard raster scan length and width to position dots. The flip-flop was an ordinary device which was known to any technician, which could be built with a standard college text and parts from an electronics store, and which was, in any event, used in Higinbotham's tennis game. Rusch-2 is invalid as obvious in light of the prior art.

4. Magnavox Cannot Narrow The Prior Art.

Magnavox will attempt to argue that the prior art described above is not pertinent, since some of it deals with simulation technology, such as the Spiegel patent. This argument previously was attempted without success on the Patent and Trademark Office during the Baer-1 reissue proceedings where the relevant claims of Baer-1 were held invalid. Since the Rusch-2 purports to be only an improvement on Baer-1, the PTO's determination of the scope of the prior art is crucial. The PTO made clear that Magnavox' "[a]ttempts to restrict the pertinent art only to that of amusement devices is not believed to be a viable attitude in this art." Examiner's Answer at 23. Quoting language from an unrelated district court decision, the Primary Patent Examiner wrote that "[h]uman knowledge cannot be compartmentalized or pigeon holed" for the purposes of determining the relevancy of prior art. Id. at 25. The Primary Patent Examiner then gave further support for his

reasoning by quoting from a Ninth Circuit case involving electro-optic star and missile tracking, for which prior art relating to electro-optic bottle inspection was applied:

> "It may be that at an earlier time in our history most inventions relating to locks were made by locksmiths and most inventions relative to plows were made by those who made or used plows. At that time . . . perhaps the 'subject matter' of the invention was the art of lock plow and the 'art' the art of lock and plow making. In today's world, a world of extensive and rapid communication of scientific and industrial knowledge--a world of institutions of higher learning and private laboratories which gather men of all disciplines and direct their talents not only to the discovery of basic truths but to the solutions of specific problems, the questions arising in a particular industry are answered not only by those who have learned the lessons of that industry but also by those trained in scientific fields having no necessary relationship to the particular industry . . . the word 'art' includes not only the knowledge accumulated with respect to a problem in a particular industry but that accumulated in those scientific fields the techniques of which have been commonly employed to solve problems of a similar kind in the particular and closely related fields." (Examiner's Answer at 23, quoting George J. Meyer Manufacturing Co. v. San Marino Electronic Corp., 165 USPQ 23 (9th Cir. 1970))

Thus, the Primary Patent Examiner determined that the pertinent prior art to the Baer-1 patent "deals with applying video and 'computer' technologies to the amusement discipline. One ordinarily skilled in this particular art would have possessed a background in those areas, and would, therefore, have had the 'ability to select and utilize knowledge from other arts reasonably pertinent to' the particular problem." Patent Examiner's Answer at 26. The Primary Patent Examiner thus concluded over Magnavox' protest that the ordinary artisan would have found the Spiegel patent "and the other

applied teachings," including Space War to be relevant prior art to Baer-1. Id.[24/]

Magnavox also will attempt to argue that certain other prior art is not pertinent because it involved video games played on oscilloscope displays (rather than a television set) or games where the spots were generated by computer. Thus, Magnavox will argue that the Higinbotham tennis game, Space War, and the computer pool games are simply irrelevant. Reflecting the same underlying policy that human knowledge cannot, and should not be so pigeonholed, the Federal Circuit has made clear that prior art is not to be construed so narrowly. For example, the court in Stratoflex, Inc. v. Aeroquip Corp., 713 F.2d 1530 (Fed. Cir. 1983) employed an "obviousness" analysis by asking the question as to what "problem [was] confronting" the inventor. In this case, it was how to prevent electrostatic buildup in PTFE tubing in aircraft fuel hoses caused by hydrocarbon fuel flow, while precluding leakage of fuel. The court considered as pertinent prior art references in "rubber hose art," finding that "[t]here is no basis for finding that a solution found for a problem experienced with one material would not be looked to when facing a problem with the other." Id. at 1535. Thus considered, the patent was invalid.

24/ The courts support the position of the Primary Patent Examiner in Baer-1. See, e.g., In re Wood, 599 F.2d 1032 (C.C.P.A. 1979) (upholding Patent Office rejection of claims for obviousness; appropriate to consider as prior art all references "reasonably pertinent to the particular problem with which the inventor was involved").

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Further, a prior art reference "must be considered for everything it teaches by way of technology and is not limited to the particular invention it is describing and attempting to protect." EWP Corp. v. Reliance Universal, Inc., No. 84-711, slip op. at 15 (Fed. Cir. Feb. 21, 1985) (emphasis in original). Thus, in EWP, a German patent teaching the corrugation or crimping of wires was pertinent prior art and in fact, combined to render the patent in EWP invalid, even though the German patent did not relate to the same type of pipe as the pipe used in the claimed invention.

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C. The "Secondary Considerations" Of Obviousness Also Indicate That The Rusch-2 Patent Is Invalid.

Magnavox will want to avoid the foregoing comparison of Rusch-2 and the prior art, and will instead seek to argue that notwithstanding the prior art Rusch-2 is saved from invalidity because it was such a "commercial success." In so doing, Magnavox will seek to invoke the so-called "secondary considerations" of invention. These "secondary considerations" were set forth by the Supreme Court in Graham v. John Deere Co., 383 U.S. 1 (1966):

> "Such secondary considerations as commercial success, long felt but unsolved needs, failure of others, etc., might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented." (Id. at 17-18)

These so-called "secondary considerations" must be considered "en route to a determination of obviousness" to make certain that an invention which otherwise appears to have been obvious in light of

the prior art actually is obvious. Stratoflex, Inc. v. Aeroquip Corp., 713 F.2d 1530, 1538 (Fed. Cir. 1983). As we will show below and at trial, Magnavox' efforts to save Rusch-2 from invalidity by invoking these "secondary considerations" must fail.

To paraphrase the Court in Graham v. John Deere Co., supra) the circumstances in which the "secondary considerations" might apply are quite unlike the "circumstances surrounding the origin" of Rusch-2. A classic case for application would be where people had been struggling for a long time to solve a particular problem, without success ("long felt but unsolved needs, failure of others"), which when resolved resulted in immediate "commercial success." If this were the origin of a patent, it would be difficult to conclude that the alleged "invention" was so obvious as to be unpatentable.

No such circumstances surround the origin of Rusch-2. There is no evidence that people had been struggling for a long time to develop the Baer-1 device, on which Rusch-2 is based, nor is there any evidence to suggest Rusch struggled to improve the Baer-1 device. Rusch was in fact the first person assigned to improve Baer's video game by adding "bounce," and it took him less than two months from the time he was assigned to do so until he reduced it to practice.

There is no evidence that the Rusch-2 device met with immediate success. It took Sanders four years to get Magnavox interested in its videogame patents, and then Magnavox waited another year to come out with the first commercial Odyssey unit. As

discussed above, the original Odyssey game was a commercial failure and was terminated as a product line in 1978. The four years which passed before Sanders could find just one licensee (Magnavox) clearly rebuts their argument that Rusch-2 met any special or pressing need for bounce games that could be played on TV sets. Cf. Stratoflex, Inc. v. Aeroquip Corp., 713 F.2d 1530, 1539 (Fed. Cir. 1983) ("[a] nexus is required between the merits of the claimed invention and the evidence offered").

Moreover, recent cases from the Federal Circuit have given meaning to these "secondary considerations" and belie Magnavox' argument. For example, in In re Vamco Machine and Tool, Inc., No. 84-1383, slip op. (Fed. Cir. Jan. 17, 1985), the patent holder made broad claims to commercial success of his "invention" (held invalid as obvious) of a "self-contained feed roll for power punch presses" (the "Eyberger feeder"). In rejecting this attempt by the patent holder to claim for itself the success which had ensued many years after the patent application, the court stated:

> "[T]he commercial success of a machine 'claimed' may be due entirely to improvements or modifications made by others to the invention disclosed in a patent. Such success, we are holding, is not pertinent to the non-obviousness of the invention disclosed." Id. at 25.

Further, the court in Vamco found that on closer examination, the "Eyberger feeder" set out in the claims of the patent was not the basis for the success the defendant Vamco Machine and Tool Company had with its feeders. The Vamco Company was undoubtedly successful in marketing its feeders, but its success came from a much more

advanced "Vamco Feeder" whose elements were not disclosed by the Eyberger feeder that was the subject of the patent. The parallels to this case are obvious, where Magnavox attempts to take credit for the microprocessor-based technology not taught by Rusch-2--which technology is itself the basis for success in the videogame industry.

Magnavox' licensing program is no indication of the commercial success of the Rusch-2 patent. As the Federal Circuit found in EWP Corp. v. Reliance Universal Inc., supra, on facts similar to this case, a licensing program is not reliable proof of commercial success:

> "When, as happened here, the PTO [Patent and Trademark Office] issues a patent because the examiner did not consider prior art teaching the very technique essential to the claimed invention . . . it is not unusual to see astute businessmen capitalize on it by erecting a temporarily successful licensing program thereon. Such programs are not infallible guides to patentability. They sometimes succeed because they are mutually beneficial to the licensed group or because of business judgments that it is cheaper to take licenses than to defend infringement suits, or for other reasons unrelated to the obviousness of the licensed subject matter. Such a 'secondary consideration' must be carefully appraised as to its evidentiary value and we have tried to do that here." (Id. at 17)

The parallels to this case are again apparent. The Rusch-2 patent issued without any consideration by the Patent Office of pertinent prior art. Under the threat of litigation, various manufacturers of arcade games and manufacturers of both videogame master consoles and cartridges obtained licenses. Contrary to the impression Magnavox would like to create, Activision is not the