

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

Paper No. 20

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte JOHN BURTON

Appeal No. 2000-1965
Application 09/149,616¹

Before JERRY SMITH, BARRETT, and SAADAT, Administrative Patent Judges.

BARRETT, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 134(a) from the final rejection of claims 1-8, 10, and 11.

We affirm.

¹ Application for patent filed September 8, 1998, entitled "Method and System for Creating False Three-Dimensional Images for Amusement," which claims the benefit of U.S. Provisional Application 60/058,374, filed September 9, 1997.

BACKGROUND

The invention relates to a method and system for creating false images using known stereoscopic lenses that selectively diffract light based on its wavelength, so that different colors on the same surface appear to be at different distances from the viewer, as shown in appellant's figure 1. The method may be understood from claim 1, reproduced below.

1. A method of creating false images in an amusement center, comprising the steps of:

providing an enclosed room that is substantially sealed from electromagnetic radiation and having walls and floors that are substantially black and reflect substantially no electromagnetic radiation;

forming a pattern on a surface of the room, said pattern comprising at least one portion having a color with a wavelength greater than approximately 5000 Å;

providing a light source for illuminating said pattern and a region of said surface adjacent said pattern, said light source radiating electromagnetic radiation with a wavelength of less than 4300 Å; and

providing a viewer with stereoscopic lenses that selectively diffract light based on its wavelength, wherein said portion of said pattern appears to project away from said surface when viewed through said stereoscopic lenses.

The examiner relies on the following references:

Steenblik	4,597,634	July 1, 1986
Burke	5,469,295	November 21, 1995
Ishii et al. (Ishii)	5,482,510	January 9, 1996

Claims 1-8, 10, and 11 stand rejected under 35 U.S.C.

§ 103(a) as being unpatentable over Ishii, Steenblik, and Burke.

Appeal No. 2000-1965
Application 09/149,616

We refer to the final rejection (Paper No. 9) (pages referred to as "FR__") and the examiner's answer (Paper No. 16) (pages referred to as "EA__") for a statement of the examiner's rejection, and to the appeal brief (Paper No. 15) (pages referred to as "Br__") for a statement of appellant's arguments thereagainst.

OPINION

Grouping of claims

The claims are not argued separately. Therefore, the claims are treated as standing or falling together with representative claim 1. See 37 CFR § 1.192(c)(7) (1998).

Requirement under 37 CFR § 1.196(d)

On September 24, 2002, we entered a requirement under 37 CFR § 1.196(d) (Paper No. 18) for appellant to address a question of possible public use based on the use of ChromaDepth® 3-D glasses in the Maniac Maze in the summer of 1996 as described in the article about appellant entitled Theatrical Terror's John Burton by Leonard Pickel, from "<http://www.hauntedattraction.com/15/-coverstory.html>." (Although the first article by J. Hillinger discusses that a series of lighting and viewing effects using the ChromaDepth™ glasses were introduced by Automated Entertainment in 1995, and discusses scenic applications such as the use of fluorescent colors on a non-fluorescent black background, the

Appeal No. 2000-1965
Application 09/149,616

copyright is 1995/2000 and it is not known, and we have not been able to determine, what date the disclosures are entitled to.)

Appellant filed a Declaration by Glenn A. Lewis (Paper No.19), President of After Five, Inc., the assignee and real party in interest. Mr. Lewis states (declaration, p. iii-iv):

4. In the summer of 1996, John Burton began experimenting with three-dimensional illusions for Industrial Nightmare, specifically three-dimensional illusions based on the use of stereoscopic lenses (ChromaDepth™ glasses) to alter the perceived depth of objects based on their wavelength.

5. Maniac Maze was first opened to the public on Friday, September 13, 1996. There were no public disclosures of the technology in issue prior to the opening of Maniac Maze.

We accept that there was no public use based on these facts.

Factual findings

Ishii discloses an amusement device comprising a tubular passage reflecting ultraviolet rays from a picture drawn on the inner wall surface of the dark interior of the tubular passage with fluorescent substance (e.g., col. 2, lines 40-46; col. 3, lines 34-46). Because Ishii discloses that the interior of the passage is "dark," except as illuminated by the ultraviolet light, and because Ishii discusses a technique which can be used with an "opaque" tube (col. 1, line 48), such as stainless steel or concrete (col. 5, lines 8-10, the passage of Ishii is considered to be "an enclosed room that is substantially sealed

Appeal No. 2000-1965
Application 09/149,616

from electromagnetic radiation." The ultraviolet light source 3 has a wavelength of 280 (nanometers) nm to 400 nm, i.e., 2800-4000 Å, so it is a "light source for illuminating said pattern and a region of said surface adjacent said pattern, said light source radiating electromagnetic radiation with a wavelength of less than 4300 Å."

The three differences between Ishii and the subject matter of claim 1 are: (1) Ishii discloses that a stereoscopic effect is created by the difference in light and tone (col. 3, lines 1-4 & 54-55), but does not disclose "providing a viewer with stereoscopic lenses that selectively diffract light based on its wavelength, wherein said portion of said pattern appears to project away from said surface when viewed through said stereoscopic lenses"; (2) Ishii discloses that the pictures on the walls of the passage are drawn with a fluorescent substance (e.g., col. 2, line 23-29), and thus discloses "forming a pattern on a surface of the room," but does not expressly disclose "said pattern comprising at least one portion having a color with a wavelength greater than approximately 5000 Å"; and (3) Ishii discloses that the surface of the passage reflects the ultraviolet rays to achieve a uniform illumination (e.g., col. 3, lines 34-53; col. 5, lines 13-24) and does not disclose "walls and floors that are substantially black and reflect substantially no electromagnetic radiation."

Appeal No. 2000-1965
Application 09/149,616

Steenblik discloses a stereoscopic process and lenses to alter the perceived depth of objects based on their color (wavelength). The claimed invention uses the stereoscopic lenses taught by Steenblik (spec. at 1, lines 17-20). Steenblik discloses that the stereoscopic process "may be applied to any type of color image" (col. 2, line 24). Applications include video games and computer-aided design systems (col. 2, lines 23-46). "Other applications include the use in air traffic control display systems, binocular microscopy, viewing of printed pictures, and laser light shows" (col. 5, lines 8-11)). It is disclosed that "the image to be viewed is color coded according to the distance of depth desired and the images viewed through prism goggles or glasses (col. 2, lines 48-51). Steenblik discloses that the brain interprets, by parallax, certain colors as being closer or further away, providing the parallax is not greatly overridden by or contradicted by cues such as relative size, composition, and perspective (col. 4, lines 18-22).

Burke discloses a system and method of collecting and displaying images of isolated persons and objects in three dimensions. A "subject" (a person or object) is filmed against a black background that isolates the subject in each frame of film so that the only thing projected is the isolated image of the subject (col. 8, lines 18-24). The image of the subject is projected on a special screen so the object is seen by the

audience on the screen (col. 10, lines 42-45) while real three dimensional objects in front of and behind the screen are visible by a viewer in front of the screen (col. 12, lines 60-62) without the use of special eyewear.

The rejection

The examiner correctly identifies the three differences between Ishii and the subject matter of claim 1 (FR3; EA3). The examiner finds that Steenblik discloses the claimed stereoscopic lenses and a pattern having at least one portion having a color greater than approximately 5000 Å (FR3; EA3-4), i.e., the subject matter of differences (1) and (2). The examiner finds that Ishii and Steenblik use similar techniques to create stereoscopic images, because they both use how different colors will behave when reflected or refracted based on their different wavelengths, referring to column 3, lines 45-55 of Ishii and figures 4a-4c of Steenblik (FR3²; EA4). The examiner concludes that it would have been obvious to view the pattern of Ishii with the stereoscopic lenses of Steenblik and to make the pattern of Ishii with at least one portion having a color with a wavelength greater than approximately 5000 Å as Steenblik "to add depth and realism,

² The final rejection, page 3, has handwritten notes in pencil in the margin. Although not initialed and not in permanent ink, we assume these notes are part of the rejection.

Appeal No. 2000-1965
Application 09/149,616

i.e., enhance the 3-D effect (column 2, lines 35-36, Steenblik) so the pattern of Ishii will be more fantastic" (FR3).

With respect to difference (3), the examiner finds that Burke discloses that having images on a black background was well known and concludes that it would have been obvious to make the walls and floors of Ishii black to isolate the pattern (FR3-4).

Analysis

Difference (1)

Appellant argues that there is no motivation for the combination outside of appellant's disclosure and that regardless of the propriety of the combination, such combination would not yield the invention recited in the claims (Br13). It is first argued that there is no suggestion in Ishii for providing the rider with stereoscopic lenses as taught by Steenblik and, similarly, although Steenblik discloses the preferred stereoscopic lenses, Steenblik does not suggest the creation of false three-dimensional images by forming patterns in an enclosed room on a substantially black background that reflects substantially no electromagnetic radiation (Br14-15). It is argued that the examiner's motivation, that both Ishii and Steenblik are directed to creating stereoscopic images, is not persuasive because Ishii is not a "true" stereoscopic process and uses the term "stereoscopic" in a different context (Br15).

Appeal No. 2000-1965
Application 09/149,616

The examiner replies that Ishii and Steenblik use similar techniques for creating stereoscopic images and "it is clear it would have been obvious . . . to combine the images and the stereoscopic lenses of Steenblik with the amusement device of Ishii in order to increase the depth and realism of the images disclosed in Ishii and make them appear more fantastic" (EA8). The examiner states that Ishii states that a 3-D effect is created so it must have the necessary structure (EA8). The examiner further finds the motivation in Steenblik (EA9).

We find that Steenblik's disclosure that the stereoscopic process "may be applied to any type of color image" (col. 2, line 24) constitutes a general suggestion to use the stereoscopic glasses to view any kind of colored image to see a stereoscopic effect. Thus, we agree with the examiner that it would have been obvious to use the stereoscopic lenses in Steenblik to view the patterns in Ishii. Ishii provides complementary motivation in that it desires the viewers to experience a "stereoscopic fantastic space" (col. 3, lines 54-55) and anything that would further that goal would be desirable. It does not make any difference whether Ishii itself is a "true" stereoscopic process.

Difference (2)

As to difference (2), "said pattern comprising at least one portion having a color with a wavelength greater than approximately 5000 Å," although it is expected that Ishii would use

Appeal No. 2000-1965
Application 09/149,616

colors having a wavelength greater than 5000 Å (i.e., colors other than blue or violet, such as green, yellow, orange, red), Steenblik discloses viewing green and yellow colors. It would have been obvious to use any colors, including green and yellow, in Ishii in view of Steenblik to get the stereoscopic effect.

Difference (3)

The weakest part of the examiner's case is with respect to difference (3), "walls and floors that are substantially black and reflect substantially no electromagnetic radiation." Appellant argues that Burke mentions the use of a black background to isolate a subject for filming, but "this reference provides no teaching or suggestion for projecting or otherwise placing an image against a black background reflecting substantially no electromagnetic radiation for viewing" (Br16). It is argued that Burke describes a method and system for creating three-dimensional images that requires the image to be projected onto a specially designed screen that eliminates the need for stereoscopic lenses altogether and, thus, teaches away from placing an image on a substantially black background for viewing (Br17). Appellant notes that all three independent claims require a black background that reflects substantially no electromagnetic radiation (Br18-19).

Appeal No. 2000-1965
Application 09/149,616

The examiner responds (EA9):

Ishii discloses that the images that are viewed are on a dark background that reflects substantially no electromagnetic radiation (column 3, lines 45-55; Ishii), which serves to isolate the image from the surroundings. Using a black background as a dark background that reflects substantially no electromagnetic radiation is [sic, was] well known, as shown by Burke. Burke teaches that the black background is useful for isolating an image (column 8, lines 20-21; Burke) and thereby accentuating the image/-pattern. The isolating of the image in Burke acts as motivation for combining the teaching of Burke of the black background with the teachings of Ishii in order again to accentuate the image/pattern and to make the ride more fantastic.

The examiner states that Burke is used solely for teaching using a black background to isolate an image (EA10).

Ishii discloses that the surface of the passage reflects the ultraviolet rays to achieve a uniform illumination for the background (e.g., col. 3, lines 34-53; col. 5, lines 13-24). Thus, we disagree with the examiner's finding that Ishii discloses a dark background that reflects substantially no electromagnetic radiation.

We think there must be many other references which would better teach the obviousness of using a black background to make the patterns stand out for viewing under the ultraviolet light in Ishii. Paintings on black velvet and blacklight (Day Glo) posters from the 1960s come to mind. Indeed, the claims would cover looking at a black velvet picture or a blacklight poster under a blacklight in a darkened room with the Steenblik lenses

Appeal No. 2000-1965
Application 09/149,616

except for the claim that the whole room is substantially black. Further, we think it was well known at the time of the invention for haunted house attractions to have enclosed rooms with non-reflective black walls, ceilings, and floors using fluorescent patterns with blacklight illumination, so that the claim covers viewing known haunted house attractions with the Steenblik lenses. Nevertheless, in the absence of evidence of such use of black backgrounds, we conclude that Burke's teaching of using a black background to isolate the subject reasonably would have suggested using a black background for the fluorescent patterns in Ishii for the same reason. The subject in Burke is viewed, it is just viewed by film rather than a user, but the principle of having the subject stand out against a background is the same; note that the examiner does not rely on the final three-dimensional projection of the filmed image. Moreover, it appears that the reason Ishii uses a reflective dark background to achieve uniform illumination of the tubular passage is to overcome the safety problem in the prior art of riders in a completely dark tube possibly getting neck injuries due to accidental variable shock if the tube changes suddenly in direction (col. 1, lines 32-47; col. 2, line 9). Thus, Ishii suggests to one of ordinary skill that the background purposely was not completely black to avoid this safety problem, which

Appeal No. 2000-1965
Application 09/149,616

implies that it would have been obvious to make the background
black if safety were not an issue.

For the reasons stated above, we conclude that the
differences between Ishii and the subject matter of claim 1 would
have been obvious to one of ordinary skill in the art at the time
the invention was made. The rejection of claims 1-8, 10, and 11
is sustained.

No time period for taking any subsequent action in
connection with this appeal may be extended under 37 CFR
§ 1.136(a).

AFFIRMED

JERRY SMITH)	
Administrative Patent Judge)	
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)	BOARD OF PATENT
LEE E. BARRETT)	APPEALS
Administrative Patent Judge)	AND
)	INTERFERENCES
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Appeal No. 2000-1965
Application 09/149,616

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