

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today
(1) was not written for publication in a law journal and
(2) is not binding precedent of the Board.

Paper No. 10

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte NICHOLAS K. SHERIDON
and
EDWARD A. RICHLEY

Appeal No. 1997-2404
Application 08/368,133¹

ON BRIEF

Before KRASS, FLEMING and BARRY, **Administrative Patent Judges.**

¹ Application for patent filed January 3, 1995.

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FLEMING, *Administrative Patent Judge*.

DECISION ON APPEAL

This is a decision on appeal from the final rejection of claims 1 through 6. Claims 7 and 8 have been allowed by the Examiner.

The invention relates to a "twisting ball" sheet medium for displaying an image wherein light falling on the medium, under an applied voltage, forces internal bichromal balls to rotate to show either the white or black side.

Independent claim 1 is reproduced as follows:

1. Apparatus for generating an image from a light source comprising:

a light source for generating a light image and

a display medium comprising,

a flat substrate having two sides,

two conductive surfaces, one on each side of said flat substrate,

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a source of electrical voltage connected to said surfaces which can be switched so that one or the other of the surfaces is more positive,

a plurality of fluid-filled cavities within said substrate, and

a sphere within each of said cavities, said sphere comprising first and second hemispheres, the surface of the first hemisphere comprising a photoalterable material whose electrical properties are altered by exposure to light, and wherein the second hemisphere is a different color from the first hemisphere.

The Examiner relies on the following references:

Sheridon	4,126,854	Nov. 21, 1978
Tatsuno ² 1977 (Japanese Kokai)	52-42094	Apr. 1,

Claims 1 through 6 stand rejected under 35 U.S.C.

§ 103 as being unpatentable over Sheridan in view of Tatsuno.

² We note the Examiner refers to this reference as Seisakusho. However, we note that this is stated to be Hitachi Seisakusho, which is the Assignee, and the Inventor is Yujiro Tatsuno. We will refer to the reference by the Inventor's name. A copy of the translation provided by the U.S. Patent and Trademark Office is included and relied upon for this decision.

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Rather than reiterate the arguments of Appellants and the Examiner, reference is made to the brief and answer for the respective details thereof.

OPINION

We will not sustain the rejection of claims 1 through 6 under 35 U.S.C. § 103.

The Examiner has failed to set forth a **prima facie** case. It is the burden of the Examiner to establish why one having ordinary skill in the art would have been led to the claimed invention by the express teachings or suggestions found in the prior art, or by implications contained in such teachings or suggestions. **In re Sernaker**, 702 F.2d 989, 995, 217 USPQ 1, 6 (Fed. Cir. 1983). "Additionally, when determining obviousness, the claimed invention should be considered as a whole; there is no legally recognizable 'heart' of the invention." **Para-Ordnance Mfg. v. SGS Importers Int'l, Inc.**, 73 F.3d 1085, 1087, 37 USPQ2d 1237, 1239 (Fed. Cir. 1995), **cert. denied**, 519 U.S. 822 (1996)

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citing W. L. Gore & Assoc., Inc. v. Garlock, Inc., 721 F.2d 1540, 1548, 220 USPQ 303, 309 (Fed. Cir. 1983), **cert. denied**, 469 U.S. 851 (1984).

On page 2 of the brief, Appellants agree that all parts of the display medium of claim 1 are shown in Sheridan except "the surface of the first hemisphere comprising a photoalterable material whose electrical properties are altered by exposure to light." Appellants argue that neither Sheridan nor Tatsuno teaches or suggests using light to modify the electric charge on one hemisphere of the Sheridan balls 14, as opposed to modifying the electric charge on these balls by the applied electric field to the plates 10' and 12'.

On page 5 of the Examiner's answer, the Examiner argues that Tatsuno teaches phoresis particles (3) receiving light (8) to modify the electric charge on the phoresis particles. The Examiner argues that it would have been obvious to one of ordinary skill in the art to have used the photosensitive material which was placed on the phoresis

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particles (3) as taught by Tatsuno on the surface of the first hemisphere of the Sheridan balls to obtain the advantage of using light to further modify the image.

Upon our review of Sheridan and Tatsuno, we find that Sheridan does not teach providing the surface of the first hemisphere of the balls 14 having a photoalterable material whose electric properties are altered by exposure to light. We do agree with the Examiner that Tatsuno teaches altering the electrical properties by exposure to light of the phoresis particles (3). However, Tatsuno teaches that the entire particle (3) is coated with a photoalterable material and not simply one side of the hemisphere as claimed.

The Federal Circuit states that "[t]he mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification." ***In re***

Fritch, 972 F.2d 1260, 1266 n.14, 23 USPQ2d 1780, 1783-84 n.14 (Fed. Cir. 1992), ***citing In re Gordon***, 733 F.2d 900, 902, 221

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USPQ 1125, 1127 (Fed. Cir. 1984). In addition, the Federal Circuit reasons in ***Para-Ordnance***, 73 F.3d at 1088-89, 37 USPQ2d at 1239-40, that for the determination of obviousness, the court must answer whether one of ordinary skill in the art who sets out to solve the problem and who had before him in his workshop the prior art, would have been reasonably expected to use the solution that is claimed by the Appellants.

Turning to Tatsuno, we find that Tatsuno teaches structure completely different from that of Sheridan. Tatsuno is not concerned with providing a charge to cause the particles to twist to provide the display. Instead, Tatsuno teaches that the light causes the particles to change charge and repel from electrode (11) and are attracted to lattice electrode (10). They are then passed through lattice electrode (10) with the voltage gradient while losing the negative charge due to the shielding of light and are absorbed on the surface electrode (12). There is nothing in Tatsuno that would suggest to those skilled in the art to use light

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to modify the electric charge on one of the hemispheres of the balls as shown in Sheridan.

We have not sustained the rejection of claims 1 through 6 under 35 U.S.C. § 103. Accordingly, the Examiner's decision is reversed.

REVERSED

	ERROL A. KRASS)	
	Administrative Patent Judge)	
)	
)	
)	BOARD OF
PATENT)	
	MICHAEL R. FLEMING)	APPEALS AND
	Administrative Patent Judge)	
INTERFERENCES)	
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)	
	LANCE LEONARD BARRY)	
	Administrative Patent Judge)	

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