

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. 21

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte KUNIO KOJIMA, TAKASHI SETSUDA, TAKUMI TAKAMURA,
KOUICHI KANEKO, and HIDEO KUSAMA

Appeal No. 1998-1779
Application No. 08/658, 447

ON BRIEF

Before URYNOWICZ, HAIRSTON, and JERRY SMITH, Administrative Patent Judges.
URYNOWICZ, Administrative Patent Judge.

Decision on Appeal

This appeal is from the final rejection of claims 1-11 and 16-25, all the claims pending in the application.

The invention pertains to a cathode ray tube having a multi-layered, nonglare film formed on the reading surface thereof. Claims 1 and 17, the only independent claims, are illustrative and read as follows:

1. A cathode ray tube, comprising:

a front panel coated with a nonglare film having a multi-layered structure, wherein said multi-layered structure comprises:

a light absorbing layer containing a colored dye, and an antistatic layer containing an inorganic metal compound as an electrically conductive agent, wherein said inorganic metal compound is at least 40% by weight of said antistatic layer.

17. A cathode ray tube comprising:

a front panel coated with a nonglare film having a multi-layered structure, wherein said multi-layered structure comprises:

a light absorbing layer containing a colored dye, and

an antistatic layer containing an inorganic metal compound as an electrically conductive agent;

wherein a density of said colored dye varies along a surface of the cathode ray tube.

The references relied upon by the examiner are:

Deal et al. (Deal)	4,563,612	Jan. 07, 1986
Itou et al. (Itou)	4,987,338	Jan. 22, 1991
Morikawa et al. (Morikawa) (Japanese Patent Abstracts)	61-118946	Oct. 17, 1986

Claims 1-11 and 16-25 stand rejected under 35 U.S.C. § 103 as being unpatentable over Morikawa, Itou and Deal.

The respective positions of the examiner and the appellants with regard to the propriety of these rejections are set forth in the the examiner's answer (Paper No. 16) and the appellants' brief and reply brief (Paper Nos. 15 and 17, respectively).

Appellants' Invention

Appellants' invention relates to cathode ray tubes (CRT's). A CRT front panel is provided with a double-layered film to reduce glare and static without noticeable effect on image resolution. The inner layer formed on the front panel consists of a visible light absorbing layer containing a black dye to reduce glare. The outer layer is formed on the light absorbing layer and contains an inorganic metal compound so as to reduce static.

The Prior Art

Morikawa discloses coating the front panel of a Braun tube with a reflection or glare preventing coat made of SiO_2 and with an outer antistatic layer containing a silanol group. The silanol group absorbs water and thereby reduces the electric resistance of the surface.

Itou relates to a CRT having a front panel covered with an antireflection layer and an antistatic layer formed on the antireflection layer. The antistatic layer may include a metallic compound in proportions to impart the desired antistatic characteristics. Itou discloses that antireflection or light filtering characteristics are manifested in the layer by adding organic dyes.

Deal discloses a cathode ray tube having an antistatic glare-reducing, image-transmitting coating on its external viewing surface. The coating is composed essentially of a silicate material and a metallic compound of at least one element selected from the group consisting of platinum, palladium, tin and gold. The preferred palladium compound in the preferred lithium silicate coating is present in concentrations in the range of 0.005 to 0.02 weight percent of the coating.

The Rejection of Claims 1-11, 16 and 18-23

After consideration of the positions and arguments presented by both the examiner and the appellants, we have concluded that the rejection of independent claim 1 should not be sustained.

Claim 1 defines an inorganic metal compound that is at least 40% by weight of the antistatic layer. In contrast, Deal discloses the importance of having a sufficient concentration of a metallic compound in an antistatic film for antistatic characteristics (column 3, lines 29-32) and in the SUMMARY OF THE INVENTION Deal discloses that the metallic compound is 0.005 to 0.02 weight percent of the film. In discussing the Deal patent at column 2, lines 29-36, Itou draws attention to the fact that Deal teaches the use of a metallic compound in proportions to impart the desired antistatic characteristics without substantially degrading the image-transmitting capability of the coating. Thus, the basis for the rejection on the percent by weight of the inorganic metal compound rests solely with Deal.

There is simply no teaching or suggestion to modify the prior art to the “at least 40% by weight percent” limitation of claim 1. Deal teaches a small effective amount (0.005 to 0.02 weight percent) of the metallic compound and the effective amount (40%) defined in the claim is much larger in comparison. The examiner has identified no motivation as to why one would have found it obvious to utilize such a large percent by weight of inorganic metal compound to provide an antistatic characteristic when Deal teaches a relatively small percent by weight of the compound is fitting to produce the desired antistatic characteristic.

Still further, at column 3, lines 32-36, Deal teaches away from the claimed invention by disclosing that where the concentration is above about 0.02 weight percent, the coating may be mottled, iridescent or the transmission otherwise adversely affected. A reference that teaches away from the claimed invention can not serve to create a prima facie case of obviousness. In re Gurley, 27 F.3d 551, 31 USPQ2d 1130 (Fed. Cir. 1994).

Whereas we will not sustain the rejection of claim 1, we will not sustain the rejection of claims 2-11, 16 and 18-23 which depend therefrom.

The Rejection of Claims 17, 24 and 25

We will sustain the rejection of claims 17, 24 and 25. We agree with appellants that the prior art does not teach varying the density of a dye in a light absorbing layer or teach varying the density of a dye as defined in dependent claims 24 and 25. However, Itou does disclose utilizing a dye in a light absorbing layer on the front panel of a CRT to control luminance and the skilled artisan in the art would have recognized that luminance (brightness) variations on the front panel could be counterbalanced by varying the density of the dye in the light absorbing layer so as to produce uniform luminance. We take official notice of the fact that brightness distortion is produced by picture tubes¹. A conclusion of obviousness may be made from the common knowledge and common sense of the person of ordinary skill in the art without any specific hint or suggestion in a particular reference. In re Bozek, 416 F.2d 1385, 1390, 163 USPQ 545, 549 (CCPA 1969).

¹ Television Engineering, Donald G. Fink, McGraw-Hill Book Co., Inc., New York, 1952, page 51.

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

AFFIRMED-IN-PART

STANLEY M. URYNOWICZ JR.)	
Administrative Patent Judge)	
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)	BOARD OF PATENT
KENNETH W. HAIRSTON)	APPEALS AND
Administrative Patent Judge)	INTERFERENCES
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)	
JERRY SMITH)	
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SU/RWK

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