

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opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.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. 72

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte YUTAKA SHIBAHASHI, NORIKAZU NAKASUJI,
TSUTOMU KITO, MICHYUKI YASUDA, KUNIYUKI SENGA

Appeal No. 1998-1015
Application No. 08/208,912

ON BRIEF

Before KIMLIN, GARRIS, and BAHR, Administrative Patent Judges.

KIMLIN, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal from the final rejection of claims 15, 5-9 and 11-13. Claims 16-18, the other claims remaining in the present application, stand withdrawn from consideration. Claim 15 is illustrative:

15. A color memory toy comprising:

a toy having an outer surface which is painted with a paint containing a quasi-reversible thermochromic coloring material or with both a paint containing said quasi-reversible thermochromic coloring material and a paint containing a temperature invariant colored material,

wherein said quasi-reversible thermochromic coloring material has a temperature hysteresis characteristic such that when said coloring material is in a first colored state and the temperature thereof is raised to a first temperature, the first colored state starts to change to a second colored state, and completely becomes the second colored state at a temperature range higher than T_B , which is higher than said first temperature, and said coloring material remains in the second colored state at the temperature range between said first temperature and a second temperature which is lower than said first temperature, and when the coloring material is in the second colored state and the temperature is lowered to the second temperature, the second colored state starts to change to the first colored state, and completely becomes the first colored state at a temperature range lower than a temperature T_A , which is lower than said second temperature, and said coloring material remains in the first colored state at the temperature range between said second and first temperature, wherein the temperature T_A is within the range of about 0°C to about 15°C , the temperature of T_B is within the range of about 27°C to about 90°C , and the temperature range between the second temperature and the first temperature is within the range of about 10°C to about 35°C , and

wherein said quasi-reversible thermochromic coloring material comprises:

(A) an electron-donating chromatic organic compound selected from the group consisting of diaryl phthalides, indolyl phthalides, polyaryl carbinols, leuco auramines, acyl auramines, aryl auramines, Rhodamine B lactams, indolines, spiropyrans and fluorans;

(B) a compound selected from the group consisting of phenolic compounds having 6 to 49 carbon atoms, metal

salts of the phenolic compounds, aromatic carboxylic acids having 7 to 12 carbon atoms, aliphatic carboxylic acids having 2 to 5 carbon atoms, metal salts of carboxylic acids

having 2 to 22 carbon atoms, acidic phosphoric esters having 1 to 44 carbon atoms, metal salts of the acidic phosphoric esters and triazole compounds having 2 to 24 carbon atoms; and

(C) an ester compound;

said components (A), (B) and (C) being present in a weight ratio in the range of 1:0.1 to 50:1 to 800 and being in the form of a homogenous fused mixture, and

said component (C) being selected from the following compounds having a ΔT value measured as melting point ($^{\circ}\text{C}$) - clouding point ($^{\circ}\text{C}$) in the range of from 5°C to less than 50°C : an alkyl ester, aryl ester and cycloalkyl ester of an aromatic-carboxylic acid which is unsubstituted or substituted by one or more substituents in the aromatic ring, a branched alkyl ester, aryl ester, arylalkyl ester, a cycloalkyl ester of aliphatic carboxylic acid, an alkyl ester of alicyclic carboxylic acid, a diester of dicarboxylic acid and a glyceride.

The examiner relies upon the following references as evidence of obviousness:

Shibahashi et al.	4,425,161	Jan. 10, 1984
Kito et al. (Kito '565)	4,554,565	Nov. 19, 1985
Shimizu et al. (Shimizu)	4,560,604	Dec. 24, 1985
Kito et al. (Kito '301)	4,720,301	Jan. 19, 1988

Appellants' claimed invention is directed to a color memory toy which surface is painted with a quasi-reversible thermochromic coloring material. According to page 5 of appellants' specification, "the toy of the present invention is constructed such that one of two visual configurations can be selected and held according to user's desire." We

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are told that "[a] feature of the coloring material of the invention is that it exhibits a color holding temperature within the range of 10-35°C. Thus, either of two colors can be held at or near ambient temperature." (page 7 of brief).

The present application is a continuation of grandparent application U.S. Serial No. 07/443, 872, filed November 30, 1989. An appeal was taken to this Board in the grandparent application on claims which are essentially the same as those presently before us. In a decision dated November 20, 1992, a merits panel of this Board sustained the examiner's rejection of the appealed claims under 35 U.S.C. § 103 over the same prior art now applied to instant independent claim 15.

Appellants submit at page 6 of the brief that "[c]laims 15, 5-9 and 11-13 stand or fall together". Accordingly, all the appealed claims stand or fall together with independent claim 15.

Appealed claims 15, 5-9, 11 and 13 stand rejected under 35 U.S.C. § 103 as being unpatentable over Shibahashi in view of Kito '301 and Kito '565. Claim 12 stands rejected under 35 U.S.C. § 103 as being unpatentable over the stated combination of references further in view of Shimizu.

We have thoroughly reviewed each of appellants' arguments for patentability, as well as the declaration evidence relied on in support thereof. However, for the reasons set forth by the examiner and articulated in the prior Board decision, we find that the

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claimed subject matter would have been prima facie obvious to one of ordinary skill in the art within the meaning of § 103. Also, we concur with the examiner that appellants' declaration evidence does not outweigh the evidence of obviousness represented by the cited prior art. Accordingly, we will sustain the examiner's rejections.

We agree with the examiner and the merits panel of the prior Board decision that it would have been prima facie obvious for one of ordinary skill in the art to substitute the quasi-reversible thermochromic coloring material of Kito '301 for the thermochromic material of Shibahashi in making color memory toys. Appellants do not dispute that Kito '301 specifically discloses the presently claimed quasi-reversible thermochromic coloring materials. Indeed, appellants' specification states that "[t]he reversible thermochromic recording composition proposed by the present inventor in U.S. patent 4,720,301 is preferably used as the above-mentioned quasi-reversible thermochromic coloring." (page 3 of specification, paragraph 5). We are not persuaded by appellants' argument that "Kito et al '301 discloses or suggests only a small number of compositions which exhibit a two-color holding temperature range of 10-35°C." (page 12 of brief). Kito '301 expressly teaches that appellants' quasi-reversible thermochromic coloring materials can be employed with a variety of articles (column 11, lines 5-17), and it is well settled that it is a matter of obviousness for one of ordinary skill in the art to select a particular component from among many disclosed by the prior art

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as long as it is taught that the selection will result in the disclosed effect. Merck & Co., Inc. v. Biocraft Lab Inc. 874 F.2d 804, 807, 10 USPQ2d 1843, 1846 (Fed. Cir. 1989); In re Corkill 771 F2d 1496, 1500, 226 USPQ 1005, 1008 (Fed. Cir. 1985).

Appellants rely upon the rule 132 declaration of Jim Wagner as evidence of commercial success in order to rebut the prima facie case of obviousness.

Commercial success is but one evidentiary consideration that of itself is not primarily determinative of nonobviousness. In re Rynkiewicz 390 F.2d 742, 746, 156 USPQ 462, 465, (CCPA 1968). In the present case, even assuming, for the sake of argument, that appellants' declaration evidences commercial success, we do not find that such evidence outweighs the substantial evidence of obviousness represented by the applied prior art. Furthermore, we concur with the examiner's assessment of the declaration that it falls short of establishing the commercial success of the myriad of

toys within the scope of the appealed claims. For instance, the appealed claims embrace all quasi-reversible thermochromic coloring materials, whereas the declaration is silent regarding the specific coloring materials used with the Color FX toys. Also, while paragraph 3 of the declaration states the total sales of Color FX vehicles were 12.7 million dollars for 1993 and 1994, this information is of little probative value in the absence of an adequate showing as to the reasons behind such sales. See Cable

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Elec. Prod. Inc. v. Genmark, Inc., 770 F.2d 1015, 1026-27, 226 USPQ 881, 888 (Fed. Cir. 1985). Hence, not only is the declaration evidence not commensurate in scope with the degree of protection sought by the appealed claims, but it may very well be that the commercial success enjoyed was, at least in part, due to the specific colors marketed.

Also, the sales data of the declaration must be placed in perspective by evidence demonstrating that the subject invention displaced prior art articles or surpassed the volume sales of prior art articles or that appellants' market share increased significantly after introduction of the claimed invention. Accordingly, the examiner's criticism is well taken that the declaration provides no evidence of the relative sales and advertising budgets between the Color FX series of toys and other similar toy vehicles which employ reversible thermochromic coloring materials such as "Color Racers." Manifestly, the sales data recorded in the declaration has little

meaning if not presented in comparison to the sales of similar toys which do not use the claimed coloring material.

Furthermore, the declaration evidence is not commensurate in scope with the subject matter encompassed by the appealed claims for the additional reason that the appealed claims broadly embrace all color memory toys, while the declaration evidence is limited to a specific toy vehicle.

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Although, as noted above, all the appealed claims stand or fall together with claim 15 as per appellants' statement at page 6 of the brief, appellants offer a separate argument for appealed claim 12 at pages 20-23 of the brief. However, we are in full agreement with the examiner that it would have been obvious for one of ordinary skill in the art to use the claimed quasi-reversible thermochromic coloring materials on a toy whose body is one of the recited plastics and whose outer surface is a non-woven one.

In conclusion, based on the foregoing, the examiner's decision rejecting the appealed claims is affirmed.

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

AFFIRMED

EDWARD C. KIMLIN)

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Administrative Patent Judge

BRADLEY R. GARRIS
Administrative Patent Judge

JENNIFER BAHR
Administrative Patent Judge

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