

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* MELISSA J. GAMEL, R. PETER MACAULEY,  
ELWOOD L. STOKESBURY, DOUGLAS A. HARP  
JOHN G. BARCA, and JAY Z. YUAN

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Appeal 2007-4404  
Application 10/393,087  
Technology Center 1700

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Decided: March 28, 2008

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Before THOMAS A. WALTZ, PETER F. KRATZ, and  
LINDA M. GAUDETTE, *Administrative Patent Judges*.

KRATZ, *Administrative Patent Judge*.

DECISION ON APPEAL

This is a decision on an appeal from the Examiner's final rejection of claims 9-16 and 23-25, the only claims that remain pending in this application. We have jurisdiction pursuant to 35 U.S.C. § 6.

Appellants' invention is directed to a multi-layer container for a light sensitive product including a regrind layer made using waste materials, which layer is disposed between inner and outer layers. The regrind layer and at least one of the outer or inner layers include iron oxide and titanium dioxide additives as colorants/light barriers. The container can be constructed from plastics. Claim 23 is illustrative and reproduced below:

23. A container for a light-sensitive product, said container comprising:

an inner layer;

an outer layer;

a regrind layer disposed between said inner layer and said outer layer;

the regrind layer and at least one of the outer layer and the inner layer containing titanium dioxide and iron oxide; and

the total amount of titanium dioxide used in the container being less than five percent (5%) by weight.

The Examiner relies on the following prior art references as evidence in rejecting the appealed claims:

Ofstein	5,064,724	Nov. 12, 1991
Krishnakumar	5,178,289	Jan. 12, 1993
Fehn	5,693,283	Dec. 2, 1997
Sandstrom	6,627,278 B1	Sept. 30, 2003

Claims 23-25 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Fehn in view of Sandstrom. Claims 9-12 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Ofstein in view of Fehn and Sandstrom. Claims 13-16 stand rejected under 35 U.S.C. § 103(a) as

being unpatentable over Ofstein in view of Fehn, Sandstrom, and Krishnakumar.

We affirm all of the Examiner's rejections for substantially the reasons set forth by the Examiner in the Answer, and as further explained below.

Starting with the Examiner's obviousness rejection of claims 23-25, we note that Appellants argue claims 23 and 25 together as a group (Br. 9-10). Thus, we select claim 23 as the representative claim on which we decide this appeal as to the argued together claims 23 and 25 with respect to this grounds of rejection. Dependent claim 24 will be separately considered to the extent this dependent claim is separately argued in the Brief.

Appellants have not specifically disputed the Examiner's determinations that:

Fehn teaches a container comprising an inner layer, item 46, an outer layer, item 42, and a regrind layer (intermediate layer, item 41) disposed between the inner layer and the outer layer (col. 10, lines 5-14). Fehn teach that for colored container, the outer layer, item 42, contains pigment (col. 10, lines 14-16). The regrind layer of Fehn, item 41, necessarily contains the pigment of the outer layer, item 42, because Fehn teaches that the regrind layer contains the components of all of the layers of Fehn, which necessarily includes the pigment of the outer layer (col. 7, lines 16-18 and col. 10, lines 14-16).  
(Ans. 9).

Moreover, Appellants acknowledge that Sandstrom "specifies that the extruded polymeric compositions of the tumbler described therein include coloring agents for aesthetic appeal, preferably titanium dioxide, carbon black and other opacifying agents in the range of 0.5-8 weight percent based on total composition, preferably 1.5 to 6.5 weight percent" (Br. 9).

The Examiner contends that:

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used a mixture of titanium dioxide and iron oxide as the pigment of the container of Fehn since a mixture of titanium dioxide and iron oxide is a well known colorant for a polymeric composition for a container as taught by Sandstrom et al., and to have added the titanium dioxide in an amount of 1.5 to 6.5 wt. %, a range that ...[overlaps] ... the claimed range of less than 5 wt. %, since an amount range of 1.5 to 6.5 wt. % is a well known amount range for titanium dioxide as a colorant of a polymeric composition for a container as taught by Sandstrom et al.

(Ans. 10-11).

Appellants maintain, however, that the Examiner has not established an adequate basis for the proposed combination of Sandstrom and Fehn, that Fehn does not describe a maximum quantity of five weight percent for titanium dioxide present in the container, and that Sandstrom describes a single layer container and does not disclose using a mixture of pigments (Br. 9). In this regard, Appellants essentially assert that, even upon their combination, the applied references would not have suggested the use of a mixture of pigments, or a weight percent thereof within the claimed range, to one of ordinary skill in the art (Br. 10).

We are not persuaded of reversible error in the Examiner's rejection of representative claim 23 by these arguments. At the outset, we note that Sandstrom discloses the use of pigments, including, *inter alia*, titanium dioxide and iron oxides for coloring a plastic container, wherein the pigments or other opacifying agents are employed in preferred amounts (1.5 to 6.5 weight percent) that overlap with the representative claim 23

requirements for titanium dioxide and iron oxide pigments with titanium dioxide amounts less than five weight percent (col. 45, ll. 12-28).<sup>1</sup> Moreover, Fehn teaches the inclusion of coloring pigment in the container thereof (col. 10, ll. 14-16). Thus, the applied references would have reasonably suggested the use of more than one coloring and/or opacifying pigment, including the recited combination of known iron oxide and titanium dioxide pigments, in at least one outer layer of the multi-layer container of Fehn.

As for the representative claim 23 requirement for the interior regrind layer to include some of the pigments used in the at least one outer layer, we agree with the Examiner that Fehn reasonably suggests such in that the regrind layer of Fehn is taught as being made from reground scrap portions of all of the container layers (col. 7, ll. 15-18). Moreover, with regard to Appellants' assertions suggesting that one of ordinary skill in the art would not consider the teachings of Sandstrom respecting a single layer container as being applicable to or combinable with the multi-layer container construction of Fehn, we note that Fehn indicates that the level of skill in the art is such that it would have been recognized that producing multi-layer containers can proceed in a similar fashion to single-layer container construction while making appropriate modifications, within the skill of the

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<sup>1</sup> We further note that Appellants acknowledge the commercial availability of resin pellets including a mixture of titanium dioxide and iron oxide, which can be melted for use as a colorant (Spec. 7). The starting point for Appellants' invention, for purposes of 35 U.S.C. § 103, is what Appellants admit to be prior art. *In re Facius*, 408 F.2d 1396, 1406 (CCPA 1969); *In re Davis*, 305 F.2d 501, 503 (CCPA 1962).

art, in taking account of the manufacture of the multiple layers (col. 11, ll. 42-50).

After all, in considering the question of obviousness, the Supreme Court, in *KSR Int'l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1734 (2007), stated that “Section 103 forbids issuance of a patent when ‘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.’” Also, see *In re Bozek*, 416 F.2d 1385, 1390 (CCPA 1969) (“Having established that this knowledge was in the art, the examiner could then properly rely, as put forth by the solicitor, on a conclusion of obviousness ‘from 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 Hoeschele*, 406 F.2d 1403, 1406-07 (CCPA 1969) (“[I]t is proper to take into account not only specific teachings of the references but also the inferences which one skilled in the art would reasonably be expected to draw therefrom. . . .”). In this regard, the Supreme Court further explained in *KSR*, 127 S. Ct. at 1740, that “if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill.” In this regard, in an obviousness assessment, skill is presumed on the part of the artisan, rather than the lack thereof. *In re Sovish*, 769 F.2d 738, 743 (Fed. Cir. 1985).

On this record, we affirm the Examiner’s obviousness holding as to commonly rejected and argued claims 23 and 25.

Concerning separately argued dependent claim 24, Appellants maintain that the noted source of the coloring pigments specified in claim 24 renders claim 24 separately patentable in that dependent claim 24 presents a method limitation that calls for common meltable resin pellets and extrusion blow molding to form the container. We disagree for several reasons. First, dependent claim 24 does not require extrusion blow molding, as argued. Second, the specification of a known source for obtaining the colorants used in forming the claimed container, does not serve to articulate how the container made with such a known particular source of colorant pellets would patentably distinguish the claimed container from a container including titanium dioxide and iron oxide pigments, as suggested to one of ordinary skill in the art from the combined teachings of the applied references, for reasons stated in the Answer and above.

It follows that for reasons stated in the Answer and above, we affirm the Examiner's obviousness rejection of claim 24.

Turning to the obviousness rejection of claims 9-12, we note that Appellants argue these claims as a group with the exception of dependent claim 11, which latter claim is also argued separately. We select claim 9 as the representative claim for the commonly rejected and argued claims; and we shall consider claim 11 separately to the extent separately argued.

Representative claim 9 is rejected as being obvious over the combined teachings of Ofstein, Fehn, and Sandstrom. At the outset, we note that Appellants do not contest the Examiner's finding that Ofstein discloses or suggests the claimed container structure including the multi-layer arrangement of representative claim 9 but for the addition of iron oxide and titanium oxide to the outer layer and the regrind layer (Ans. 4; Br. 6-8).

Rather, Appellants basically contend that the Examiner's proposed combination of Fehn and Sandstrom with Ofstein would not have led one of ordinary skill in the art to the claimed subject matter because there is no basis to combine the single layer container teachings of Sandstrom respecting the addition of color pigments with the multi-layer container structure of Ofstein. Also, Appellants assert that Fehn, while directed to a multi-layer container using color pigments for an outer layer, does not suggest the claimed amount of titanium dioxide and mixture of pigments.

However, for substantially the same reasons we set forth above in discussing the Examiner's separate rejection of claims 23-25 over Fehn and Sandstrom, we are not persuaded by the arguments presented in the Brief. We refer to the Examiner's Answer and to our discussion of Fehn and Sandstrom above for our determinations and reasoning as to why this line of argument is unpersuasive and why we have determined that the use of a mixture of known color pigments, such as titanium dioxide and iron oxide, with the titanium dioxide amounts overlapping those disclosed by Sandstrom in the outer and regrind layers of a multi-layer container, such as disclosed by Ofstein, would have been well within the ordinary skill of the art. In this regard, one of ordinary skill in the art would have been reasonably led to fashion a container with opaque and/or colored surfaces using pigments in amounts as claimed based on the combined teachings of the references. After all, Appellants have not shown that such an addition of known colorant pigments to the outer and regrind layers of Ofstein is attended by unexpected results, or otherwise established that one of ordinary skill would not have expected to achieve the predictable coloring and opacifying effects of the added pigments.

Concerning the separate argument with respect to dependent claim 11, we agree with the Examiner's obviousness assessment because Appellants have not established that forming the container via extrusion blow molding and using known melt pellets of iron oxide and titanium oxide as the source of the pigments used would have led to a patentably distinct container from that suggested by the combined teachings of the applied references.

On this record, we affirm the Examiner's obviousness rejection of claims 9-12.

Appellants base their arguments against the Examiner's separate obviousness rejection of claims 13-16 over the combined teachings of Ofstein, Fehn, and Sandstrom, together with Krishnakumar, on the claim 13 requirement for having a container with a titanium dioxide content of less than five weight percent. We select claim 13 as the representative claim for deciding this appeal as to this commonly rejected and argued grouping of claims.

For the reasons discussed above and in the Answer, the argued titanium dioxide amount limitation is not persuasive of the unobviousness of the claimed container over the applied prior art. We note that Appellants do not contest the Examiner's additional employment of Krishnakumar to establish the obviousness of the shape and finish features of the bottle required by claim 13.

Thus, we shall also affirm the Examiner's obviousness rejection of claim 13, on this record.

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### CONCLUSION

The decision of the Examiner to reject claims 23-25 under 35 U.S.C. § 103(a) as being unpatentable over Fehn in view of Sandstrom; to reject claims 9-12 under 35 U.S.C. § 103(a) as being unpatentable over Ofstein in view of Fehn and Sandstrom; and to reject claims 13-16 under 35 U.S.C. § 103(a) as being unpatentable over Ofstein in view of Fehn, Sandstrom, and Krishnakumar is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED

tf/lis

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