Paper No. 40

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Ex parte MICHAEL BECKER, JIM CHASE, CHRISTOPHER PAPA, and JEFF JONES

Appeal No. 2003-0740
Application No. 09/099,188

HEARD: Aug. 20, 2003

Before WALTZ, TIMM, and PAWLIKOWSKI, Administrative Patent Judges.
WALTZ, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on an appeal from the primary examiner's refusal to allow claims 13, 14, 15, 17, 19, 20, 29 and 30 as amended subsequent to the final rejection (see the amendment dated July 29, 2002, Paper No. 30, entered as per the Advisory Action dated Aug. 7, 2002, Paper No. 31). Claims 13-15, 17, 19-20 and 29-30 are the only claims remaining in this application. We have jurisdiction pursuant to 35 U.S.C. § 134.

According to appellants, the invention is directed to a method of making a multi-chamber container, which is used to store two products that require separation prior to use, where the chambers are separated by a peelable seal (Brief, page 4). A more complete understanding of the invention may be gleaned from illustrative independent claim 13, which is reproduced below:

13. A method for making a multi-chamber container comprising the steps of:

providing a web of plastic film having a first layer and a second layer adjacent said first layer, said first layer including an alloy of at least two materials, a first one of said materials being a SEBS copolymer having a first melting point temperature and a second one of said materials being an ethylene propylene copolymer having a second melting point temperature, the second melting point temperature being higher than the first melting point temperature, said second layer including ethylene vinyl acetate;

sealing opposing edges of the web of film to create an interior defined, at least in part, by the first layer; and

creating an inner peel seal defining at least two chambers.

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

Peterson	4,268,338	May 19, 1981
Carveth et al. (Carveth)	4,770,295	Sep. 13, 1988
Smith et al. (Smith)	5,176,634	Jan. 05, 1993
Fabisiewicz et al. (Fabisiewicz)	5,209,347	May 11, 1993
Mueller	5,486,387	Jan. 23, 1996
Woo et al. (Woo)	5,645,904	Jul. 08, 1997

Claims 13-15, 17, 20, 29 and 30 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Smith in view of Mueller (Answer, page 5). Claim 19 stands rejected under 35 U.S.C. § 103(a) as unpatentable over Smith in view of Mueller and Fabisiewicz (Answer, page 6). All of the claims on appeal also stand rejected under 35 U.S.C. § 103(a) as unpatentable over Smith in view of Fabisiewicz, Carveth, Peterson, Mueller and/or Woo (Answer, page 7). We *reverse* all of the rejections on appeal essentially for the reasons stated in the Brief, Reply Brief, and for those reasons set forth below.

OPINION

The examiner relies upon Smith as the primary reference forming the basis for every ground of rejection on appeal (Answer, pages 5, 6, and 7). The examiner finds that Smith discloses a medical bag which contains two compartments capable of holding two fluids that in use were to be mixed together, separated by a peelable seal of the plastic material which formed the container (Answer, page 5). The examiner finds that Smith suggests that the inner sealing layer of the bag would have been formed from an alloy of styrene-ethylene-butene-styrene (SEBS) copolymer having a first melting point and an ethylene propylene copolymer having a second melting point where the second melting point is higher than the

first melting point (*id.*, noting that Kraton G1652 taught by Smith is a SEBS copolymer). The examiner recognized that Smith "failed to teach the use of ethylene vinyl acetate in the heat sealable film adjacent the sealing layer." *Id.*

In the ground of rejection relying on Smith in view of Mueller (Answer, pages 5 and 6),[1] the examiner finds that Mueller suggested to one of ordinary skill in the art of manufacturing medical bags incorporating a multilayer film including an inner layer of SEBS copolymer mixed with polypropylene/polyethylene (PP/PE) copolymer for sealing with an adjacent layer of ethylene vinyl acetate (EVA) to improve impact resistance and flexibility of the film (Answer, paragraph bridging pages 5-6). Although Mueller desired to develop a permanent seal, the examiner finds that Smith suggested the formation of both a permanent seal as well as a peelable seal with the plastic films as a function of time, temperature and pressure applied during sealing (Answer, page 6). From these findings, the examiner concludes that it would have been obvious to one of ordinary skill in the art at the time of appellants' invention to

[1]The second ground of rejection (Answer, page 6) applies Smith and Mueller "for the same reasons as expressed above," additionally applying Fabisiewicz for the teaching of providing a medical bag with multiple ports (Answer, page 7). Accordingly, Fabisiewicz does not remedy the deficiencies discussed below with respect to the combination of Smith and Mueller.

provide an EVA layer adjacent the polymer mixture of SEBS and PP/PE for improved impact resistance and flexibility as taught by Mueller in the process of forming a sealed container as taught by Smith (*id.*).

With regard to the rejection over Smith in view of Fabisiewicz, Carveth, Peterson, Mueller and/or Woo (Answer, page 7), the examiner applies Carveth to show that it was known that a radio frequency (rf) heatable layer would have been employed when rf welding was used and that such a layer would have included EVA (Answer, page 9).[2] From these findings, the examiner concludes that it would have been obvious to employ an EVA layer within the plastic film of Smith in order to allow one to employ rf welding of the film in the formation of a peelable seal (Answer, page 11). We disagree.

It is undisputed that the films of Smith have no EVA layer (Reply Brief, page 8; Answer, page 5). As correctly argued by

[2]We recognize that a similar rejection was set forth in decisions of merits panels of this Board in Appeal No. 1995-0254 and Appeal No. 1998-1967, both found in S.N. 08/033,233. However, as correctly argued by appellants (Brief, pages 7-10), the claims in this appeal are directed to a different statutory class of invention than the previous appeals (process vs. product), with a different scope of the claimed subject matter (specific compositions of the films as compared to non-rf responsive and rf-responsive layers as claimed in the previous appeals).

appellants (Brief, page 12), Smith requires that the layer adjacent to the inner, peelable seal layer is "an outer higher temperature polymer layer 46" such as a high ethylene content random copolymer (col. 5, ll. 29-50; see Figure 3). As also correctly argued by appellants, the "outer higher temperature layer" has a higher melting point than the inner, sealable layer (Brief, page 12; see Smith, col. 7, ll. 54-59). Appellants have submitted uncontested evidence that the melting point of EVA is considerably *lower* than the melting points of possible inner, sealable layers of Smith (*id.*). Accordingly, we agree with appellants that the preponderance of evidence shows that substitution of EVA for the "outer high temperature layer" of Smith would not have been suggested to one of ordinary skill in this art, whether the examiner relies upon Mueller or Carveth as support for the proposed modification.[3] Since the examiner does not rely upon Fabisiewicz,

[3]We also note that Mueller teaches EVA as an "interior layer" of the film, not as an "outer layer," the seals of Mueller are intended to be permanent, and there is no suggestion in the combination of references (Mueller and Smith) that the increased impact strength shown by Mueller would have been desired by Smith (see Mueller, col. 2, ll. 55-67; Figure 1; col. 5, ll. 47-49; and col. 9, ll. 21-35). The only disclosure of EVA found in Carveth is the teaching that the container may be made from a variety of materials including EVA (col. 10, ll. 38-48). In view of our opinion above, further discussion of these issues is unnecessary to our decision.

Peterson or Woo for the substitution of EVA into the film of Smith, these references do not remedy the deficiency in the examiner's rejection as discussed above.

The examiner sets forth alternate proposed modifications to the references on pages 9-10 of the Answer, namely arguing that Carveth would have led the "ordinary artisan" to include an EVA layer as an "intermediate layer of tie material" to replace the tie material disclosed by Smith in Table I, examples 4 and 5. However, as correctly argued by appellants (Reply Brief, pages 10-12), adhesive polymers or "tie materials" are used to bond dissimilar polymers that do not normally adhere to each other. The fact that Smith exemplifies films with SEBS alone as a tie material between a SEBS and PP/PE layer and a copolyester layer (Table I, examples 4 and 5) does not provide a teaching that EVA would have been suitable as a tie layer in the film of Smith, contrary to the examiner's reliance on melting points alone to support his reasoning (Answer, page 10). The examiner has failed to establish by convincing evidence or reasoning that one of ordinary skill in this art would have employed EVA as a tie material for the films disclosed by Smith in Table 1, i.e., that EVA would provide the required adhesion and compatibility with the adjacent layers or films.

For the foregoing reasons and those set forth in the Brief and Reply Brief, we determine that the examiner has not established a *prima facie* case of obviousness in view of the reference evidence. Accordingly, we cannot sustain any of the grounds of rejection on appeal.

The decision of the examiner is reversed.

REVERSED

THOMAS A. WALTZ Administrative Patent Judge	)	
CATHERINE TIMM Administrative Patent Judge	)	BOARD OF PATENT APPEALS AND INTERFERENCES
BEVERLY A. PAWLIKOWSKI Administrative Patent Judge	)	

TAW/jrg

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