UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/359,948	02/21/2006	Kait Althofer	E-81331	9360

24131 7590 02/20/2013

LERNER GREENBERG STEMER LLP
P O BOX 2480
HOLLYWOOD, FL 33022-2480

EXAMINER	
SAAD, ERIN BARRY	
ART UNIT	**PAPER NUMBER**
1735	

MAIL DATE	DELIVERY MODE
02/20/2013	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL
AND APPEAL BOARD

Ex parte KAIT ALTHOFER

Appeal 2012-000636
Application 11/359,948
Technology Center 1700

Before ROMULO H. DELMENDO, MICHAEL P. COLAIANNI, and GEORGE C. BEST, *Administrative Patent Judges*.

COLAIANNI, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellant appeals under 35 U.S.C. § 134 the final rejection of claims 1-5, 8-10, 12, 14-27, 29-32, and 45-52. We have jurisdiction over the appeal pursuant to 35 U.S.C. § 6(b). Oral arguments were heard in this appeal on February 5, 2013.

We AFFIRM.

Appellant's invention is directed to a process for producing honeycomb bodies from layers as are used in particular as catalyst carrier bodies, adsorbers and/or filter bodies in the automotive industry (Spec. 1:16-19).

Claims 1, 5, and 45 are illustrative:

> 1. A process for producing a honeycomb body from layers, which comprises the following steps:
>
> a) providing at least one at least partially corrugated layer with structures having side flanks and structure extremities in the form of peaks and valleys, each of the side flanks being disposed only at one of two opposite sides of a respective one of the peaks or valleys;
>
> b) applying viscous adhesive based on a polarizable solvent in drop form at least to at least one subregion of the at least one at least partially corrugated layer by applying the viscous adhesive in drops having a mean diameter of from 0.05 to 0.7 mm and applying the viscous adhesive to the side flanks of the structures directly adjacent the at least one respective peak or valley, but applying no viscous adhesive to the at least one respective peak or valley itself;
>
> c) producing a honeycomb body from the at least one at least partially corrugated layer;
>
> d) applying brazing material in powder form to the at least one at least partially corrugated layer;

> e) carrying out a heat treatment step on the honeycomb body; and
>
> f) substantially maintaining adherence between the at least one at least partially corrugated layer provided with brazing material in powder form and the at least one subregion provided with viscous adhesive.
>
> 5. The process according to claim 1, which further comprises carrying out step d) by providing the honeycomb body with brazing material in powder form after step b) and before step e).
>
> 45. The process according to claim 1, which further comprises carrying out step b), then step c), then step d).

Appellant appeals the following rejections[1]:

1. Claims 1-5, 8, 9, 24, 29, 30, and 45-52 are rejected under 35 U.S.C. § 103(a), as being unpatentable over Okazaki (US 6,617,045 B2 issued Sept. 9, 2003) in view of Mantel (US 3,479,731 issued Nov. 25, 1969), Maus (US 6,371,360 B1 issued Apr. 16, 2002 citing Wieres (US 5,431,330 issued July 11, 1995)) and Everett (US 2001/0032887 A1 published Oct. 25, 2001).
2. Claims 20, 22, 31, and 32 are rejected under 35 U.S.C. § 103(a), as being unpatentable over Okazaki in view of Mantel, Maus, Everett, and Berry (US 3,579,245 issued May 18, 1971).
3. Claim 21 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Okazaki in view of Mantel, Maus, Everett, Berry, and Farnworth (US 6,588,645 B2 issued July 8, 2003).

[1] The Examiner withdrew an obviousness-type double patenting rejection in response to Appellant's filing of a terminal disclaimer (Ans. 5, 18).

4. Claims 25-27 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Okazaki in view of Mantel, Maus, Everett, and Dessiatoun (US 6,898,082 B2 issued May 24, 2005).
5. Claims 1-5, 8-10, 24, 31, 32, and 45-52 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Okazaki in view of Mantel, Maus, and Hoechsmann (US 6,423,255 B1 issued July 23, 2002).
6. Claims 12, and 14-19 are rejected under 35 U.S.C. § 103(a) as unpatentable over Okazaki in view of Mantel, Maus, Hoechsmann, and Arnott (US 6,394,363 B1 issued May 28, 2002).
7. Claims 25-27 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Okazaki in view Mantel, Maus, Hoechsmann, and Dessiatoun.

Appellant argues the subject matter of claims 1, 5, and 45 only under rejections (1) and (5) (App. Br. 8). Accordingly, the claims under rejections (2) to (4), (6), and (7) will stand or fall with our analysis regarding claim 1.

ISSUES

1. Did the Examiner reversibly err in finding that Okazaki and Mantel would have taught or suggested "applying the viscous adhesive to the side flanks of the structures directly adjacent the at least one respective peak or valley, but applying no viscous adhesive to the at least one respective peak or valley itself" as recited in claim 1? We decide this issue in the negative.

2. Did the Examiner err in finding that Maus teaches the order of steps for the process recited in claims 5 and 45? We decide this issue in the negative.

FINDINGS OF FACT AND ANALYSES

Issue (1): Claim 1

The Examiner's findings and conclusions regarding Okazaki and Mantel may be located on pages 6-8, 14, and 18-21 of the Answer. The Examiner finds that Okazaki discloses that the adhesive is positioned on the corrugated foil or flat foil at a location where the foils are to be soldered, which would have included depositing the adhesive on the side flanks of the corrugated foil away from the peaks as shown in Okazaki's Figure 2 (Ans. 6). The Examiner further finds that Mantel discloses positioning adhesive on members to form honeycomb structures at only the locations where a brazing compound is to be placed (*id.* at 6-7). Based on these findings, the Examiner concludes that it would have been obvious to place the adhesive only at the location of the solder/braze material in Okazaki to conserve resources and cost by only applying the material to the specific bonding area (*id.* at 7).

Appellant argues that Okazaki fails to teach not applying viscous adhesive to peaks or valleys (App. Br. 9). Appellant contends that Okazaki exemplifies coating the tops of the peaks and the "crowns" of the corrugated sheet such that Okazaki teaches away from not coating the peaks or valleys of the corrugated sheet (*id.* at 11-12). Appellant argues that Okazaki's Figure 2 merely shows where the solder has gathered and the placement of solder 3 in Figure 2 does not mean that the adhesive was placed near, but not

on, the peaks or valleys (*id.* at 10). Appellant contends that the capillary effect would normally have caused the solder to flow into the peak area, but the separation of the flat and corrugated panels prevented such flow from occurring. *Id*. Appellant argues that Mantel teaches away from not applying adhesive to the peak or valley of a corrugated sheet because Mantel implicitly teaches completely covering both sides of a stripe with a viscous bonding agent when the bonding agent has to be applied directly adjacent at least one peak or valley (*id.* at 13).

Appellant's arguments regarding Okazaki are not persuasive for the reasons stated by the Examiner on pages 18-20 of the Answer. We add that Okazaki's disclosure is not limited to the exemplified embodiments that disclose coating the crowns of the corrugated sheets. Rather, Okazaki broadly teaches that adhesive is placed in areas to be soldered, such as the top of the corrugated foil, after which powdered solder is distributed over the adhesive (col. 3, ll. 48-49; col. 5, ll. 1-15; Ans. 6, 18). As shown in Okazaki's Figure 2, the "top" of the corrugated sheet includes the areas near but offset from the peak or valley of the corrugated sheet.

Appellant's argument that Okazaki's Figure 2 shows the result of the capillary effect that did not work properly is mere attorney argument lacking the requisite evidence to establish such a premise[2]. However, we understand

[2] While Appellant, in the Reply Brief, relies on Utsumi (US 6,908,028) listed by the Examiner as evidence relied upon in the Answer to show the capillary effect of the adhesive and to establish that Okazaki's Figure 2 is not desirable, we note the Examiner does not rely on Utsumi in any capacity in making the rejections (Ans. 4; Reply Br. 6-8). Moreover, Appellant's arguments regarding Utsumi are raised for the first time in the Reply Brief; therefore we shall not consider them. *Ex parte Borden*, 93 USPQ2d 1473, 1474 (BPAI 2010).

Okazaki to teach that adhesive is placed where the soldering is to occur and soldering powder is dusted over the adhesive. Accordingly, the adhesive holds the solder powder in place during the assembly after which the solder powder is heated to complete the soldering. Moreover, Okazaki discloses that Figure 2 shows how to measure the thickness of a solder joint where the flat foil and corrugated foil are spaced apart (col. 3, ll. 13-15; 50-55). In other words, Okazaki discloses that Figure 2 depicts bonding between the corrugated foil and flat foil within the meaning of the patent.

Furthermore, Mantel teaches that it was known to apply adhesive only to those portions where a brazing compound is desired (Ans. 6-7). We do not agree with Appellant that Mantel discourages or otherwise teaches away from not applying adhesive at a peak or valley. While Mantel teaches completely covering a strip where brazes are only about 1/25 of an inch apart, this teaching is modified by Mantel's teaching that adhesive is applied only where a brazing is desired if the braze joints are not "close together" (Mantel col. 5, ll. 21-35). We understand Mantel to teach that one of ordinary skill would have been able to determine when braze joints are not close together so as to selectively deposit the adhesive. Based on this finding, we agree with the Examiner that Okazaki's Figure 2 and Mantel's disclosure of applying adhesive where the solder or braze is desired would have suggested depositing the adhesive on either side of the peak, excluding the peak.

For the above reasons, we affirm the Examiner's § 103 rejection of claim 1.

Issue (2): Claims 5 and 45

Appellant argues that Wieres cited in Maus teaches away from performing the order of the steps as recited in claims 5 and 45 (App. Br. 14). Specifically, Appellant contends that Wieres teaches spraying isopropanol (an undisputed polarizable solvent) after the brazing compound has been applied to the sheet, which is not as recited in claims 5 and 45. (*Id.* at 14-15).

Contrary to Appellant's arguments, the Examiner relies Maus, not Wieres, to teach the order of steps (Ans. 9, 21). As Appellant has not shown error in the Examiner's findings regarding Maus and its combination with Okazaki, Mantel, and Everett or Hoechsmann, we affirm the Examiner's § 103 rejection of claims 5 and 45.

On this record, we affirm all of the Examiner's § 103 rejections.

DECISION

The Examiner's decision 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.

ORDER

AFFIRMED

bar