

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.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. 22

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte ROBERT H. MIMLITCH and ROBERT A. BRUCE

Appeal No.2002-2341
Application 09/466,277

ON BRIEF

Before FRANKFORT, McQUADE, and NASE, Administrative Patent Judges.

FRANKFORT, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 33 through 36, 42 through 47, 51 and 52, which are all of the claims remaining in this application.¹

¹Claim 52 was amended subsequent to the final rejection in an amendment filed with the appeal brief on April 2, 2002. On page 2 of the examiner's answer (Paper No. 16) it is noted that this amendment has been entered. However, a review of the record reveals that this amendment has not as of yet been clerically

(continued...)

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Claims 1 through 32, 37 through 41 and 48 through 50 have been canceled.

Appellants' invention relates to a method for assembling a cardcage for accommodating circuit cards of electronic components or integrated circuit packages. Independent claims 51 and 52 are representative of the subject matter on appeal and a copy of those claims can be found in Appendix A of appellants' brief.

The prior art references of record relied upon by the examiner in rejecting the appealed claims are:

Howrilka	3,271,626	Sept. 6, 1966
Marks	3,470,420	Sept. 30, 1969
Straccia et al. (Straccia)	3,696,936	Oct. 10, 1972
DeWilde	5,202,816	Apr. 13, 1993
Watanabe et al. (Watanabe) ² (Japanese Patent)	04-044297A	Feb. 14, 1992

¹(...continued)
entered. Correction of this oversight is necessary during any further prosecution of this application before the examiner.

²Our understanding of this foreign language document is based on a translation prepared by the US PTO Translations Branch on May 30, 2002. Since it is not clear from the examiner's answer whether appellants' were provided with a copy of this translation, we have attached a copy to this decision.

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Claim 51 stands rejected under 35 U.S.C. § 102(b) as being anticipated by Marks.

Claims 33 and 34 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Marks in view of Straccia.

Claim 35 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Marks in view of DeWilde.

Claims 35 and 36 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Marks in view of Watanabe.

Claims 52, 44 and 46 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Marks in view of Howrilka and Watanabe.

Claims 42 and 43 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Marks in view of Howrilka and Watanabe as applied to claim 52 above, and further in view of Straccia.

Claims 45 and 47 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Marks in view of Howrilka and Watanabe as applied to claims 52, 44 and 46 above, and further in view of DeWilde.³

Rather than reiterate the examiner's full commentary regarding the above-noted rejections and the conflicting viewpoints advanced by the examiner and appellants regarding those rejections, we make reference to the final rejection (Paper No. 11, mailed October 26, 2001), the advisory action (Paper No.

³On pages 4 and 5 of the examiner's answer (Paper No. 16), the examiner refers to Paper No. 11 (the final rejection) for an explanation of each of the rejections on appeal. However, it is eminently clear from the record of the present application that the examiner, in both the advisory action mailed January 17, 2002 (Paper No. 13) and the examiner's answer itself (pages 5-6), has made significant changes to the position as set forth in the final rejection, particularly with regard to what elements of the basic reference to Marks correspond to the elements of appellants' claims on appeal. Indeed, it appears to us that the examiner's change in position in both the advisory action and the examiner's answer each constitutes new grounds of rejection. Such new grounds of rejection, after a final rejection and without re-opening of prosecution, are clearly contrary to Office policy. However, given that appellants have not raised this as an issue in the application and the fact that they have had an opportunity to respond to each of the new grounds of rejection in their brief and reply brief, we make no further comments in that regard, except to note that the examiner's reference back solely to the final rejection in the examiner's answer appears to be clearly inappropriate.

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13, mailed January 17, 2002) and the examiner's answer (Paper No. 16, mailed June 4, 2002) for the reasoning in support of the rejections, and to appellants' brief (Paper No. 15, filed April 2, 2002) and reply brief (Paper No. 17, filed July 1, 2002) for the arguments thereagainst.

OPINION

In reaching our decision in this appeal, we have given careful consideration to appellants' specification and claims, to the applied prior art references, and to the respective positions articulated by appellants and the examiner. As a consequence of our review, we have made the determinations which follow.

In evaluating the rejection of claim 51 under 35 U.S.C. § 102(b), we share the examiner's view that the walls (13, 14) of the cardcage seen in Marks would correspond to appellants' claimed first and second cardcage sides (i.e., when the cardcage or printed circuit board rack of Marks is mounted in a control cabinet in an upright or vertical orientation so that front flanges (17) of walls (13, 14) and flanges (10) of end walls (8, 9) face upwardly and the printed circuit boards (4) are inserted

vertically downward into the rack). In that regard, we additionally agree with the examiner that each of the walls (13, 14) of Marks has "a plurality of generally parallel and spaced apart card guide attachment locations" intermediate adjacent sets of airflow openings (21, 22) in each of the walls and aligned with respective openings (19) in the back flanges (18) of the respective walls, as well as first and second flanges (17, 18) as set forth in claim 51.⁴ In addition, we agree with the examiner that the end walls (8, 9) of Marks cardcage generally correspond to appellants' first and second end plates that are ultimately aligned with and attached to the first and second cardcage sides/walls (13, 14), and that the plug-in receptacle connectors (7) of Marks generally correspond to appellants' "backplane" of claim 51.

Where the examiner's anticipation rejection fails is in not treating the requirement in claim 51 on appeal that the first and

⁴ Like the examiner, we have given the language "a plurality of generally parallel and spaced apart card guide attachment locations" its broadest reasonable interpretation in light of appellants' disclosure of the alternative embodiment set forth on page 12, lines 1-5, of the specification and as defined in claim 34, which depends from claim 51, i.e., that the claim language merely defines locations on the sides/walls designated to be card guide areas of the cardcage when in final form.

second endplates each includes "at least two distally located alignment slots for providing alignment of said first and second card cage [sic, cardcage] sides."⁵ As argued by appellants' on page 9 of the brief, no such alignment slots are present in Marks, and the examiner's position (answer, page 5) that "[i]t is inherent that the workpieces are aligned prior to their connection with rivets (16)," does nothing to account for the missing alignment slots. Accordingly, the examiner's rejection of claim 51 under 35 U.S.C. § 102(b) based on Marks is not sustained.

Claims 33 through 36 each depend from claim 51 either directly or indirectly and have been rejected by the examiner under 35 U.S.C. § 103(a) based on Marks taken in combination with various other prior art references, e.g., Straccia (for claims 33 and 34), DeWilde (for claim 35) and Watanabe (for claims 35 and 36). We have reviewed the references to Straccia, DeWilde and Watanabe, but find nothing therein which provides for or otherwise renders obvious the "alignment slots" we have found to

⁵The alignment slots are shown in Figure 2 of the application drawings as elements (57).

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be lacking in Marks. Accordingly, the examiner's rejections of dependent claims 33 through 36 under 35 U.S.C. § 103(a) will also not be sustained.

The next rejection for our review is that of claims 52, 44 and 46 under 35 U.S.C. § 103(a) as being unpatentable over Marks in view of Howrilka and Watanabe. In this instance, the examiner has recognized (final rejection, page 6) that Marks "does not disclose providing the cardcage sides with flanges and tabs, nor alignment slots on the end plates." To account for these differences the examiner turns to Howrilka, urging that Howrilka discloses (in Fig. 5) alignment tabs (66") on cardcage bars (22") which engage with alignment slots (64") on the end plate (14"), and flanges (152) on the cardcage bar secured to end plate (14") by fasteners (156). On the basis of the collective teachings of Marks and Howrilka, the examiner concludes that it would have been obvious to one of ordinary skill in the art at the time of appellants' invention to provide the cardcage sides or walls (13, 14) of marks with flanges and tabs and the end plates with alignment slots, in light of the teachings of Howrilka, in order to facilitate alignment of the various structural components before fastening them together.

In addition, the examiner recognizes that Marks does not disclose first and second airflow inlet guides (diverters) coupled respectively to the first and second cardcage sides for altering air flow through the cardcage, and relies upon Watanabe to supply these missing elements. In the examiner's view (final rejection, page 6)

Watanabe et al disclose a method of cooling equipment (20) by using two fans (11, 12). As shown in Figure 2, baffles located between the outside filter (10) and the fans, connected to the equipment, diverts the airflow either in both the inlet and exit directions towards the filter.

Regarding claims 52, 44 and 46, it would have been obvious to one of ordinary skill in the art, at the time of invention, to have attached first and second airflow exit guides to the cardcage of Marks/Howrilka, in light of the teachings of Watanabe et al, in order to control the airflow exiting the cardcage.

Although we would agree with the examiner that it would have been obvious to one of ordinary skill in the art to provide the cardcage sides or walls (13, 14) of Marks with alignment tabs and the end plates therein with alignment slots, in light of the teachings of Howrilka, in order to facilitate alignment of the various structural components before fastening them together, and also to eliminate the need for separate fasteners like the rivets (16) of Marks to hold the elements of the cardcage together and

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to provide added flexibility in accommodating cards of differing width (Howrilka, col. 1, lines 60-69 and col. 2, lines 18-36), we share appellants' view regarding the further combination of Watanabe with the cardcage of Marks as modified by Howrilka.

More particularly, we find that although Figure 2 of Watanabe may suggest airflow diverters or baffles adjacent each end of the interior component (20) to be ventilated, such diverters/baffles are located between the dust-removing filters (10) and the outboard sides of fans (11, 12), and are not coupled to the respective first and second cardcage sides as set forth in claim 52 on appeal so as to alter air flow through the cardcage. As is clear from Figures 7C and 9A of the application drawings and the disclosure associated therewith at pages 18-20 of the specification, the air flow diverters or guides (134-137 and 140, 142) are directly coupled to the respective first and second sides of the cardcage to directly effect air flow through the cardcage. This is clearly not the case in Watanabe. Accordingly, the examiner's rejection of claims 52, 44 and 46 under 35 U.S.C. § 103(a) as being unpatentable over Marks in view of Howrilka and Watanabe will not be sustained.

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We have also reviewed the teachings of the additional references to Straccia and DeWilde as applied by the examiner in the rejection of dependent claims 42, 43, 45 and 47, however, we again find that these references do not, in the manner set forth by the examiner, overcome the deficiencies in the primary combination of references to Marks, Howrilka and Watanabe. Thus, the examiner's rejections of dependent claims 42, 43, 45 and 47 under 35 U.S.C. § 103(a) also will not be sustained.

As is apparent from the foregoing, it is our determination that the examiner has failed to establish a *prima facie* case of anticipation with regard to claim 51 on appeal and also failed to establish a *prima facie* case of obviousness with regard to claims 33 through 36, 42 through 47 and 52 on appeal. Thus, the decision of the examiner to reject claim 51 under 35 U.S.C. § 102(b) and claims 33 through 36, 42 through 47 and 52 under 35 U.S.C. § 103(a) is reversed.

In addition, we find it necessary to REMAND this application to the examiner for consideration of the several issues noted below:

1) The examiner should consider whether a rejection of claims 42 through 47 and 52 would be appropriate under 35 U.S.C. § 112, second paragraph. More specifically, we note that there does not appear to be a proper antecedent basis in claim 52 for the "alignment tabs" of the second cardcage side as recited in the last portions of the claim, since in line 9 of claim 52 the second cardcage side is said to have "at least two alignment guides," not alignment tabs. As a further issue, the examiner should determine if the "first and second airflow entrance guides" of claim 44 attached to the first cardcage side are the same as or different from the "airflow diverter" of claim 52 coupled to the first cardcage side for altering airflow through the cardcage. The same problem appears to exist with regard to the "first and second airflow exit guides" of claim 46 attached to the second cardcage side and the "airflow diverter" of claim 52 coupled to the second cardcage side.

2) Given our comments above concerning the deficiencies of Marks with respect to claim 51 on appeal and our observations concerning the teachings of Howrilka, we are of the opinion that

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the examiner may wish to consider a rejection of claim 51 under 35 U.S.C. § 103(a) based on the collective teachings of Marks and Howrilka.

3) The examiner should also consider any appropriate prior art rejections of dependent claims 33 through 36.

REVERSED AND REMANDED

CHARLES E. FRANKFORT)	
Administrative Patent Judge)	
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)	BOARD OF PATENT
JOHN P. McQUADE)	
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