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opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.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. 26

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

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Ex parte TOYOJI KANAZAWA, SHINGO ICHIKAWA,
HIROYUKI KANEKO, HISATARO WATADA,
and TOSHIBUMI WAKAYAMA

_____

Appeal No. 96-2404
Application 08/112,446[1]

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HEARD: Jun. 7, 1999

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Before GARRIS, OWENS, and LIEBERMAN, Administrative Patent Judges.

GARRIS, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on an appeal from the refusal of the examiner to allow claims 1 through 22 as amended subsequent to

[1] Application for patent filed August 26, 1993.

the final rejection. These are all of the claims remaining in the application.

The subject matter on appeal relates to a process of producing an IC card having cover films laminated over a core sheet with an adhesive layer as well as non-adhesive areas between the cover films and core sheet which comprises the step of cutting a cover film and core sheet along the outer peripheries of the non-adhesive areas to form a cavity for receiving an IC module. Further details of this appealed subject matter are readily apparent from a study of representative independent claim 1 which reads as follows:

1. A process of producing an IC card, said IC card comprising a card substrate and an IC module embedded therein, said card substrate comprising a single core sheet and first and second cover films laminated over the core sheet on the opposite sides, said process comprising the steps of:

(a) forming an adhesive layer on the inside of each of said first and second cover films while maintaining non-adhesive areas, formed at respective inner surfaces of said first and second cover films in which said IC module is to be fitted, free of any adhesive;

(b) assembling said card substrate by bonding said cover films to the opposite sides of said core sheet by the interposition of said adhesive layers and hardening said adhesive layers;

(c) cutting said first cover film and said core sheet along the outer peripheries of said non-adhesive

areas, respectively, to form a cavity for receiving said IC module; and

(d) fitting said IC module into said cavity and fixedly securing said IC module to said card substrate.

The prior art relied upon by the examiner as evidence of obviousness is set forth below:

Shorin 3,508,754 Apr. 28, 1970

United Kingdom 2 100 669 Jan. 6, 1983

"The admitted state of the prior art"

All of the claims on appeal are rejected under 35 U.S.C. § 103 as being unpatentable over the UK reference, "the admitted state of the prior art" and Shorin.[2]

We refer to the brief and reply brief and to the answer for a complete exposition of the opposing viewpoints expressed by the appellants and the examiner concerning the rejection before us on this appeal.

OPINION

For the reasons set forth below, we will sustain the examiner's section 103 rejection of claims 1 through 11 and 15

[2] The appealed claims have been grouped and argued separately as indicated on page 4 of the brief and page 2 of the answer, and we will appropriately consider the separately grouped and argued claims in our assessment of the above noted rejection.

through 17 but not his rejection of claims 12 through 14 and 18 through 22.

Concerning the grouping of claims 1 through 6, 8 through 11 and 17, we agree with the examiner that it would have been obvious for one with ordinary skill in the art to replace the separation layer feature of the UK process with the non-adhesive area feature disclosed by Shorin as an effective mechanism by which to achieve removal of a laminate portion to thereby obtain the cavity or recess desired by the UK reference. According to the appellants, the examiner's conclusion of obviousness is inappropriate because the Shorin reference is from a nonanalogous art. Additionally, the appellants argue that Shorin prefers the separation layer feature over the non-adhesive area feature and therefore teaches away from the modification proposed by the examiner. We disagree.

In the first place, we can not agree that the Shorin reference is from a nonanalogous art. Although this reference may not be within the field of the inventors' endeavor, it is unquestionably reasonably pertinent to the laminate-cutting (i.e., the cavity-forming) problem with which the subject

inventors were involved. In re Wood, 599 F.2d 1032, 1036, 202 USPQ 171, 174 (CCPA 1979). As for the appellants' above mentioned "preference" argument, we here emphasize the well settled principal that an applied reference may be relied upon for all that it would have reasonably suggested to one with ordinary skill in the art including not only preferred embodiments but less preferred or even nonpreferred embodiments. Merck & Co., Inc. v. Biocraft Labs., Inc., 874 F.2d 804, 807, 10 USPQ2d 1843, 1846. Moreover, a number of the reasons advanced by Shorin for preferring a separation layer feature over a non-adhesive area feature seem to be unique to patentee's game board article (e.g., see lines 9 through 22 in column 2) and clearly not applicable to a card structure of the type disclosed in the UK reference and claimed by the appellants. Under these circumstances, it is our determination that Shorin, rather than teaching away as argued by the appellants, would have provided an artisan with ordinary skill with the requisite suggestion as well as a reasonable expectation of success for the proposed modification under review. In re O'Farrell, 853 F.2d 894, 904, 7 USPQ2d 1673, 1681 (Fed. Cir. 1988).

For these reasons, we will sustain the examiner's section 103 rejection of claims 1 through 6, 8 through 11 and 17.

We will also sustain the examiner's rejection of separately grouped and argued claim 7. It may be true, as noted by the appellants, that the applied prior art does not show first and second recesses which have square and circular cross-sections as required by this claim. Nevertheless, the UK reference plainly shows first and second recesses having the cross-sections necessary to receive the IC module to be placed therein (e.g., see Figures 2 through 4 of this reference). We conclude, therefore, that it would have been obvious for an ordinarily skilled artisan to provide the recesses of the UK reference with whatever cross-sections might be necessary to receive a particular IC module including the here claimed square and circular cross-sections to thereby receive an IC module having corresponding square and circular shapes.

The examiner's section 103 rejection of claims 15 and 16 will likewise be sustained notwithstanding the appellants' argument that the applied prior art fails to show the features defined by these claims. As correctly pointed out by the

examiner and contrary to the appellants' argument, the UK reference explicitly discloses a rotary device in Figure 7 (also see lines 107 through 122 on page 2) which forms a groove that is shaped like a ring. From our perspective, this disclosure of the UK reference satisfies the claim 15 requirement of a rotary cutter used to form a ring-like groove. With respect to claim 16 which requires use of a punching tool as well as a rotary cutter for forming the first and second recesses, it is significant in our view that the UK reference teaches forming recesses with rotary devices as explained above and with punching tools (e.g., see Figure 1 and lines 38 through 50 on page 2). While the UK reference does not expressly teach using the punching and rotary devices in combination for forming first and second recesses respectively, one with ordinary skill in the art would have found it obvious to use these devices in combination so as to thereby form a respective recess via the more advantageous tool. Thus, for example, it would have been obvious to use the punching device of the UK reference as a more advantageous tool for forming a first recess and to use the rotary device

of the UK reference as the more advantageous tool for forming the second recess.

In summary, it is our determination for the reasons enunciated earlier that we shall sustain the examiner's section 103 rejection of claims 1 through 11 and 15 through 17 as being unpatentable over the UK reference, "the admitted state of the prior art" and Shorin.

However, we can not sustain the corresponding rejection of claims 12 through 14 and 18 through 22. Regarding claims 12 through 14, although the UK reference shows a rotary cutter as pointed out by the examiner in his answer and above, this rotary cutter quite plainly does not possess a central relief portion "formed in said rotary cutter about the rotational axis thereof" as required by these claims. Any central relief portion that may be present in the UK reference cutter would be perpendicular to the rotational axis as clearly shown in Figure 7. As for claims 18 through 22, we agree with the appellants that the applied prior art simply contains no teaching or suggestion of the features recited in these claims. Stated otherwise, the applied prior art is evidentiarily inadequate to establish a prima facie case of

obviousness with respect to the features recited in claims 18 through 22.

The decision of the examiner is affirmed-in-part.

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

AFFIRMED-IN-PART

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| Bradley R. Garris<br>Administrative Patent Judge | ) | |
| Terry J. Owens<br>Administrative Patent Judge | ) | BOARD OF PATENT APPEALS AND INTERFERENCES |
| Paul Lieberman<br>Administrative Patent Judge | ) | |

tdc

Appeal No. 96-2404
Application No. 08/112,446

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