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GLENN PATENT GROUP
3475 EDISON WAY, SUITE L
MENLO PARK, CA 94025

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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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*Ex parte* W. DANIEL HILLIS

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Appeal 2010-007086
Application 11/218,938
Technology Center 3600

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Before STEFAN STAICOVICI, MICHELLE R. OSINSKI, and MITCHELL G. WEATHERLY, *Administrative Patent Judges*.

OSINSKI, *Administrative Patent Judge*.

DECISION ON APPEAL

## STATEMENT OF THE CASE

Appellant[1] appeals under 35 U.S.C. § 134(a) from a final rejection of claims 1-8, 10-24, and 26-29. Claims 9 and 25 are cancelled. App. Br. 5; Ans. 2. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM-IN-PART.

## CLAIMED SUBJECT MATTER

The claimed subject matter relates to "a magnetic planning board with stackable, snap-to-grid, self-aligning items." Spec. 1, l. 10. Claims 1 and 11 are the independent claims on appeal. Claim 1, reproduced below, is illustrative of the claimed subject matter:

> 1. A method for attaching at least one first, smaller item having a least one planar surface to a second, larger item having at least one planar surface in a precise, yet repositionable manner, comprising the steps of:
>
> providing said larger item with a magnetic grid comprising a plurality of magnets;
>
> positioning said magnetic grid relative to said larger item, wherein magnetic poles of said magnets are evenly spaced on a Cartesian grid; and
>
> providing said smaller items, comprising any of unitary items and multi-unit items, for affixation to said larger item, each of said smaller items comprising at least two magnets to secure said planar surface of said smaller item against both translation and rotation to maintain a consistent alignment of said smaller item with said larger item, said at least two magnets separated from one another by a distance equal to said spacing of said magnets on said magnetic grid, said at least two magnets having an attractive force to said plurality of magnets of said larger item,

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[1] Appellant identifies the real party in interest as Applied Minds, Inc. App. Br. 3.

> wherein a 1-by-1 unit item covers a horizontal pair of magnets on said magnetic grid, wherein said unitary items comprises sizes of at least all of: a 1-by-1, a 1-by-2, and a 2-by-2 unit item;
>
> wherein, as a user moves said planar surface of a smaller item across said planar surface of said larger item, there is an affirming, snap-to-grid action as said smaller item attains one of a plurality of available aligned positions relative to said larger item.

REJECTIONS

Appellant seeks review of the following rejections:

(1) the rejection of claims 1-3, 7, 8, 10, 11, 13-19, 23, 24, 26, and 27 under 35 U.S.C. § 103(a) as unpatentable over Terrones (US 3,769,720, iss. Nov. 6, 1973), Gebran (US 5,662,326, iss. Sep. 2, 1997), and Whittington (US 5,347,733, iss. Sep. 20, 1994) (Ans. 3-9);

(2) the rejection of claims 4, 5, 12, and 20 under 35 U.S.C. § 103(a) as unpatentable over Terrones, Gebran, Whittington, and Erlich (US 4,326,720, iss. Apr. 27, 1982) (Ans. 9-10);

(3) the rejection of claims 6 and 22 under 35 U.S.C. § 103(a) as unpatentable over Terrones, Gebran, Whittington, and Nesis (US 4,865,324, iss. Sep. 12, 1989) (Ans. 10);

(4) the rejection of claims 28 and 29 under 35 U.S.C. § 103(a) as unpatentable over Terrones, Gebran, Whittington, and Kreckel (US 6,491,781 B1, iss. Dec. 10, 2002) (Ans. 10-11); and

(5) the rejection of claim 21 under 35 U.S.C. § 103(a) as unpatentable over Terrones, Gebran, Whittington, and Schirer (US 5,960,848, iss. Oct. 5, 1999) (Ans. 11-12).

## ANALYSIS

*Rejection of claims 1-3, 7, 8, 10, 11, 13-19, 23, 24, 26, and 27 under 35 U.S.C. § 103 as unpatentable over Terrones, Gebran, and Whittington*

*Claims 1-3, 7, 8, and 10*

The Examiner found that Terrones teaches the limitations of independent claim 1, except for (i) providing the larger item with a magnetic grid and positioning the magnetic grid relative to the larger item, wherein magnetic poles of the magnets are evenly spaced on a Cartesian grid (Ans. 4); (ii) the smaller items comprising at least two magnets to secure the planar surface of the smaller item against both translation and rotation (*Id.*); (iii) the magnets of the smaller items being separated from one another by a distance equal to the spacing of the magnets on the magnetic grid (*Id.* at 5); and (iv) using a 1-by-2 and 2-by-2 unit item arrangement of the smaller items, wherein a 1-by-1 unit item covers a horizontal pair of magnets on said magnetic grid (*Id.* at 20-21).

The Examiner found that Whittington teaches smaller items 17 comprising at least two magnets 18 to secure the planar surfaces of smaller items 17 against translation and rotation to maintain a consistent alignment of smaller items 17 with a larger item. Ans. 4 (citing Whittington, fig. 4, col. 2, ll. 29, 41). However, the Examiner has not directed us to any particular portions of Terrones and Whittington which would support the Examiner's finding that "modify[ing] the single magnet [of Terrones] into two separate magnets [of Whittington]" (Ans. 19) would secure Terrones' modified playing pieces against translation and rotation. Rather, the Examiner concluded that "it would have been obvious to one of ordinary skill in the art . . . to use the teaching of Whittington in the invention of

Terrones for the purpose of reducing manufacturing cost" and that "it would have been obvious to . . . place the magnets at any distance [as taught by Whittington] for the purpose of providing a translational and rotational movement." *Id.* at 4-5. The Examiner further found that "Terrones as modified by Gebran already teaches all the translational and rotational movement of the smaller item on the larger item." *Id.* at 19.

Appellant contends "that the subject matter of claim 1 prevents translation and rotation of the smaller item against the larger item" (App. Br. 17 (citing Spec., fig. 1)), whereas the Examiner's stated rationale for placing the magnets at any distance is "<u>for the purpose of providing</u> a translational and rotational movement." (*Id.*) We are not persuaded that the combined teachings of Terrones and Whittington disclose "smaller items comprising at least two magnets to secure said planar surface of said smaller item against both translation and rotation." The teachings of Gebran do not remedy this deficiency of Terrones and Whittington.

For the foregoing reasons, we determine that the Examiner erred in concluding that the subject matter of independent claim 1 would have been obvious from the combination of Terrones, Gebran, and Whittington, and we do not sustain the rejection of independent claim 1 and its dependent claims 2, 3, 7, 8, and 10 under § 103(a).

*Claims 11, 14, 17, and 19*

With respect to independent claim 11, Appellant argues that the Examiner improperly bundled the discussion of independent claim 11 with dependent claims 13, 15, 16, 19, 23, 24, 26, and 27. App. Br. 21. The Examiner simply included discussion of dependent claims with the

independent claim from which it depends (*See* Ans. 13), and we find no error in the Examiner's formatting.

Appellant further contends that the cited references fail to teach a planning board. App. Br. 21. The Examiner found that Terrones "discloses the board is planned to teach the child how to co[]ordinate or place the items in the right category. Therefore, the board is planned for teaching purchases." Ans. 23. The Examiner further found that the board would be capable of planning for other tasks. *Id.* Appellant contends that the term "planning" is not as broad as suggested by the Examiner and that "there is ample support in the instant application for what is meant by 'planning.'" Reply Br. 11. Appellant points to the title "Magnetic **Planning Board** with Stackable, Snap-to-Grid, Self-Aligning Items." *Id.* at 9. We agree with the Examiner's finding that Terrones' panel 11 is capable of being used for planning such that the burden shifted to Appellant to show it did not possess such functionality. Appellant has not provided persuasive evidence or reasoning to show that the panel 11 of Terrones would not be capable of planning. *See In re Swinehart,* 439 F.2d 210, 212 (CCPA 1971).

Appellant also contends that the arguments made with regard to independent claim 1 are applicable with respect to independent claim 11, including that the references teach away from being combined. App. Br. 21. Appellant contends that Terrones teaches away from adding accuracy and precision to the process of attaching magnets "because such an addition would detract from the objects of learning about basic nutritional food needs while keeping the children's attention by using magnets." *Id.* at 13 (citing Terrones, col. 1, ll. 5-7; col. 2, ll. 15-18). This argument is not persuasive because in order to "teach away" a reference must "criticize, discredit, or

otherwise discourage the solution claimed…." *In re Fulton*, 391 F.3d 1195, 1201 (Fed. Cir. 2004). Appellant has not pointed out any disclosure in Terrones that discourages the use of a magnetic grid in order to teach away.

To the extent Appellant may also be contending in connection with claim 11 that Gebran teaches away from being combined with Terrones because "[i]t would be impossible to take the object of Terrones and place it on the chess board of Gebran in any reliable way" (App. Br. 14), Appellant's argument does not respond to the rejection as articulated by the Examiner and is not persuasive. Ans. 17. "The smaller item of Terrones will not be placed on the chess board of Gebran. The teaching of Gebran ([C]artesian grid arrangement) will be placed on the larger item **11** of . . . Terrones." *Id.*

To the extent Appellant may be contending in connection with claim 11 that "even if Gebran and Terrones taught the recited limitations, there are disadvantages to combining the references" (App. Br. 15), any increase in cost attributable to the proposed modification is a tradeoff between such cost and increased strength of the magnetic forces. Tradeoffs do not necessarily prevent the proposed combination. *See Medichem, S.A. v. Rolabo, S.L.*, 437 F.3d 1157, 1165 (Fed. Cir. 2006) ("a given course of action often has simultaneous advantages and disadvantages, and this does not necessarily obviate motivation to combine"). Accordingly, we do not find this argument persuasive.

To the extent Appellant may be contending in connection with claim 11 that the product resulting from the Examiner's proposed combination "would <u>not</u> be a safe, secure, and inexpensive display as asserted by the Examiner" (App. Br. 15), the Examiner explains that "a north pole attached to a south pole is more secure and stronger than a magnetic pole attached to

a metal." Ans. 17. Thus, the Examiner has provided "some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." *KSR Int'l Co. v. Teleflex, Inc.*, 550 U.S. 398, 418 (2007) (quoting *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006)).

The applicability to claim 11 of Appellant's remaining arguments made with respect to claim 1 have been considered, but are not persuasive because they relate to language that does not appear in claim 11. *See, e.g., In re Self*, 671 F.2d 1344, 1348 (CCPA 1982) (arguments must be commensurate in scope with the actual claim language).

For the foregoing reasons, we determine that the Examiner did not err in concluding that the subject matter of claim 11 would have been obvious from the combination of Terrones, Gebran, and Whittington, and we sustain the rejection of claim 11 under § 103(a).

Claims 14, 17, and 19 depend from claim 11. Appellant's arguments in support of the patentability of claims 14, 17, and 19 solely relate to the perceived deficiencies of Terrones, Gebran, and Whittington in connection with claim 11. App. Br. 20, 23, 24. We have found no such deficiencies in the teachings of Terrones, Gebran, and Whittington. Accordingly, we find that the Examiner did not err in concluding that the subject matter of claims 14, 17, and 19 would have been obvious from the combination of Terrones, Gebran, and Whittington; and we sustain the rejection of claims 14, 17, and 19.

*Claim 18*

Appellant separately argues the patentability of claim 18. App. Br. 20. Claim 18 recites that "said equal spacing of magnets within said grid

and within said items enables selective stacking of said items atop one another either when apart from or when affixed to said planning display board." Claims App'x. Appellant contends that "in Terrones the magnets cannot be stacked upon one another because the magnets are attached to playing pieces." App. Br. 20. The recitation "enables selecting stacking of said items atop one another" in claim 18 is functional language. We agree with the Examiner that the playing pieces of Terrones are capable of selective stacking (Ans. 22), and the burden shifted to Appellant to show the playing pieces did not possess such functionality. Appellant has not provided persuasive evidence or reasoning to show that the playing pieces of Terrones would be incapable of selective stacking. *See Swinehart,* 439 F.2d at 212.

For the foregoing reasons, we find that the Examiner did not err in concluding that the subject matter of claim 18 would have been obvious from the combination of Terrones, Gebran, and Whittington, and we sustain the rejection of claim 18 under § 103(a).

*Claim 23*

Appellant separately argues the patentability of dependent claim 23. App. Br. 19-20, 23; Reply Br. 9-10. Claim 23 recites that the "planning display board surface compris[es] a whiteboard material." Claims App'x. The Examiner found that the recited whiteboard material is a "board material which is painted white." Ans. 21. The Examiner then found that "Terrones discloses a board material and from the figures it appears to be white, since smaller elements appear to be in a darker color." *Id.*

Appellant contends that the Specification describes that "the outer layer of the board may be formed of a material such as white ceramic, allowing the surface to be used as a whiteboard." Reply Br. 9 (citing Spec. 6, ll. 6-7). In contrast, Terrones teaches a board made of "sheet steel." App. Br. 21 (citing Terrones, col. 1, l. 28. An ordinary and customary meaning of the term "whiteboard" is "a hard smooth white surface used for writing or drawing on with markers." MERRIAM-WEBSTER ONLINE DICTIONARY, http://www.merriamwebster.com/dictionary/Whiteboard (last visited Feb. 19, 2013). As such, and as read in light of the Specification, it is unreasonable to interpret the term "whiteboard" to simply mean any "board material which is painted white," as the Examiner proposes. The Examiner's determination that Terrones discloses a whiteboard is not adequately supported when the term "whiteboard" is given its broadest *reasonable* interpretation.

For the foregoing reasons, we find that the Examiner erred in concluding that the subject matter of claim 23 would have been obvious from the combination of Terrones, Gebran, and Whittington, and we do not sustain the rejection of claim 23 under. § 103(a).

*Claim 24*

Appellant separately argues the patentability of dependent claim 24. App. Br. 19-20, 23; Reply Br. 10-11. Claim 24 recites that the magnetic items affixable to the outer surface of the planning display board comprise "a surface formed of a material that may be labeled and relabeled as desired." Claims App'x. The Examiner determined that the way the claim is recited "only requires that the art is capable of doing such function."

Ans. 22. The Examiner then found that "Terrones['] smaller item is well capable of [being] labeled and relabeled as desired." *Id.* Appellant contends that "Terrones discloses that the smaller items 'may be made out of bread dough or the like'" and that "**bread dough or the like** are not easily labeled and relabeled." Reply Br. 10 (quoting Terrones, col. 2, l. 8). However, being labeled and relabeled may be accomplished by any number of methods, including the use of adhesive labels as suggested by Appellant's Specification. *See* Spec. 6, ll. 10-12. We agree with the Examiner's finding that Terrones' smaller items are capable of being labeled and relabeled (Ans. 22) such that the burden shifted to Appellant to show they did not possess such functionality. Appellant has not provided persuasive evidence or reasoning to show that the bread dough magnets of Terrones would not be capable of being labeled and relabeled. *See Swinehart,* 439 F.2d at 212.

For the foregoing reasons, we find that the Examiner did not err in concluding that the subject matter of claim 24 would have been obvious from the combination of Terrones, Gebran, and Whittington, and we sustain the rejection of claim 24 under § 103(a).

*Claims 13 and 27*

Appellant separately argues the patentability of dependent claims 13 and 27. App. Br. 19-20, 23; Reply Br. 10-11. Claim 13 recites a display apparatus "further comprising: a removable fastening mechanism for linking at least two items of said plurality of magnetic items that are affixable to said planning display board, wherein said removable fastening mechanism allows said at least two of said items to be joined and separated as desired" and claim 27 recites a display apparatus "further comprising a multi-item

composed by linking two other items with either a fixed attachment or a removable fastening mechanism." Claims App'x. The Examiner found that "[t]he magnet [15 of Terrones] can easily function as a removable mechanism . . . [and is] well capable of [linking at least two items], since the magnets [15] can be removably attach[ed] to any magnetic surface or other magnets." Ans. 24.

Appellant first contends that the magnet 15 "cannot serve both as a magnet and a removable fastening mechanism because claim 13 [and claim 27] clearly recite[] that the removable fastening mechanism is for linking at least two items of said plurality of magnetic items." App. Br. 22. Appellant has not provided persuasive evidence or reasoning to show that the magnets 15 of Terrones would not be capable of removably attaching magnets 15 to the magnetic surfaces of other magnets 15. *See Swinehart,* 439 F.2d at 212.

Appellant further contends that the Examiner failed to consider express claim language requiring the fastening mechanism to be removable and that Terrones' magnets are not removable. Reply Br. 11. The ultimate question of patentability is one of law. *Graham v. John Deere Co.*, 383 U.S. 1, 17 (1966). Nevertheless, the ultimate legal issue must be decided on the basis of underlying factual findings. The Examiner must prove sufficient facts to support the conclusion of obviousness by a preponderance of the evidence. *In re Caveney*, 761 F.2d 671, 674 (Fed. Cir. 1985). In order to satisfy this standard, the evidence must demonstrate that it is more likely than not that the alleged facts are actually true. *See Bosies v. Benedict*, 27 F.3d 539, 542 (Fed. Cir. 1994)(the preponderance of the evidence standard requires the finder of fact to believe that the existence of a fact is more probable than its nonexistence).

Terrones is silent with respect to the removability of magnets 15. *See* Terrones, col. 1, ll. 10-11 ("A permanent magnet **15** is fitted in the back of each playing piece.). The Examiner does not point to any specific evidence to support that it is more likely than not that the magnets 15 of Terrones would be removable. Without more evidence, we cannot find that the removability of the attachment mechanism is demonstrated by a preponderance of the evidence. The Examiner also does not articulate how the additional references of Gebran or Whittington might have provided one of ordinary skill in the art reason to make the attachment mechanism of Terrones removable. Thus, on the basis of this record, the Examiner erred in concluding that the subject matter of claim 13 would have been obvious from the combination of Terrones, Gebran, and Whittington and we do not sustain the rejection of claim 13 under § 103(a).

In contrast to claim 13, claim 27 does not actually require a removable linking mechanism and instead requires *either* a fixed attachment *or* a removable fastening mechanism. Claims App'x. Unclaimed features cannot impart patentability to claims. *In re Hiniker Co.*, 150 F.3d, 1362, 1369 (Fed. Cir. 1998). For the foregoing reasons, we find that the Examiner did not err in concluding that the subject matter of claim 27 would have been obvious from the combination of Terrones, Gebran, and Whittington; and we sustain the rejection of claim 27.

*Claim 26*

Appellant separately argues the patentability of dependent claim 26. App. Br. 23. Claim 26 depends from claim 11 and recites that the "planning display board comprises a magnetic calendar board." Claims App'x.

Appellant contends that the Examiner failed to show such a teaching for the recited subject matter in Terrones. App. Br. 23.

Terrones is silent with respect to being a calendar board. The Examiner does not point to any specific evidence or reasoning to support that it is more likely than not that Terrones' display board 11 is a calendar board. Without such evidence, we cannot find that Terrones' display board is a calendar board by a preponderance of the evidence. *See Bosies*, 27 F.3d at 542. The Examiner also does not articulate how the additional references of Gebran or Whittington might have provided one of ordinary skill in the art reason to make the display board of Terrones a calendar board. Thus, on the basis of this record, the Examiner erred in concluding that the subject matter of claim 26 would have been obvious from the combination of Terrones, Gebran, and Whittington, and we do not sustain the rejection of claim 26 under § 103(a).

*Claims 15 and 16*

Appellant separately argues the patentability of dependent claims 15 and 16. App. Br. 22-23. Claim 15 recites that "all magnets within said magnetic grid are oriented with a same one of a north and south pole towards an outer display board surface, and both magnets within each unit of each item are oriented with an attracting pole facing inward toward said display board surface, wherein said items are positionable at half-unit-intervals." Claims App'x.; *see also* Spec. 7, ll. 24-30. Claim 16 recites that "all magnets within said magnetic grid are oriented with a same one of a north and south pole towards an outer display board surface, and each unit of each item comprises a single magnet oriented with an attracting pole facing

inward toward said display board surface, wherein said items are positionable at half-unit-intervals and unit centers are horizontally and vertically aligned." Claims App'x.; *see also* Spec. 7, l. 31 – 8, l. 4.

The Examiner found that Gebran discloses an underlying magnetic grid, 12, 14 "wherein all magnets within said magnetic grid are oriented with a same one of a north and south pole towards an outer display board surface." Ans. 6-7. Appellant contends that "Gebran requires a magnetic grid that uses both north outward facing and south outward facing poles" such that "the Examiner has failed to establish a *prima facie* case of obviousness." App. Br. 23. We agree with Appellant that Gebran fails to disclose all magnets within a magnetic grid being oriented with a same one of a north and south pole towards an outer display board surface as recited in claims 15 and 16. Accordingly, the Examiner's conclusion of obviousness is based on a finding not supported by the reference. *See* Ans. 25. Thus, on the basis of this record, the Examiner erred in concluding that the subject matter of claims 15 and 16 would have been obvious from the combination of Terrones, Gebran, and Whittington and we do not sustain the rejection of claims 15 and 16 under § 103(a).

*Rejection of claims 4, 5, 12, and 20 under 35 U.S.C. § 103 as unpatentable over Terrones, Gebran, Whittington, and Erlich*

Claims 4 and 5 depend from claim 1. The Examiner's use of the teachings of Erlich does not remedy the deficiencies of Terrones, Gebran, and Whittington as described above. Accordingly, we do not sustain the rejection of claims 4 and 5 under § 103(a) as unpatentable over Terrones, Gebran, Whittington, and Erlich.

Claims 12 and 20 depend from claim 11. Appellant's arguments in support of the patentability of claims 12 and 20 solely relate to the perceived deficiencies of Terrones, Gebran, and Whittington in connection with claim 11. App. Br. 24. Since we have found no such deficiencies in the teachings of Terrones, Gebran, and Whittington with respect to claim 11, we find that the Examiner did not err in concluding that the subject matter of claims 12 and 20 would have been obvious from the combination of Terrones, Gebran, Whittington, and Erlich; and we sustain the rejection of claims 12 and 20.

*Rejection of claims 6 and 22 under 35 U.S.C. § 103 as unpatentable over Terrones, Gebran, Whittington, and Nesis*

Claim 6 depends from claim 1. The Examiner's use of the teachings of Nesis does not remedy the deficiencies of Terrones, Gebran, and Whittington as described above. Accordingly, we do not sustain the rejection of claim 6 under § 103(a) as unpatentable over Terrones, Gebran, Whittington, and Nesis.

Claim 22 depends from claim 11. Appellant's arguments in support of the patentability of claim 22 solely relates to the perceived deficiencies of Terrones, Gebran, and Whittington in connection with claim 11. App. Br. 24. Since we have found no such deficiencies in the teachings of Terrones, Gebran, and Whittington with respect to claim 11, we find that the Examiner did not err in concluding that the subject matter of claim 22 would have been obvious from the combination of Terrones, Gebran, Whittington, and Erlich; and we sustain the rejection of claim 22.

*Rejection of claims 28 and 29 under 35 U.S.C. § 103 as unpatentable over Terrones, Gebran, Whittington, and Kreckel*

Claims 28 and 29 depend from claim 11. Appellant's arguments in support of the patentability of claims 28 and 29 solely relate to the perceived deficiencies of Terrones, Gebran, and Whittington in connection with claim 11. App. Br. 24-25. Since we have found no such deficiencies in the teachings of Terrones, Gebran, and Whittington with respect to claim 11, we find that the Examiner did not err in concluding that the subject matter of claims 28 and 29 would have been obvious from the combination of Terrones, Gebran, Whittington, and Kreckel; and we sustain the rejection of claims 28 and 29.

*Rejection of claim 21 under 35 U.S.C. § 103 as unpatentable over Terrones, Gebran, Whittington, and Schirer*

Claim 21 depends from claim 11. Appellant's arguments in support of the patentability of claim 21 solely relates to the perceived deficiencies of Terrones, Gebran, and Whittington in connection with claim 11. App. Br. 25. Since we have found no such deficiencies in the teachings of Terrones, Gebran, and Whittington with respect to claim 11, we find that the Examiner did not err in concluding that the subject matter of claim 21 would have been obvious from the combination of Terrones, Gebran, Whittington, and Schirer; and we sustain the rejection of claim 21.

DECISION

The Examiner's rejections of claims 1-8, 10, 13, 15, 16, 23, and 26 under 35 U.S.C. § 103(a) are REVERSED.

The Examiner's rejections of claims 11, 12, 14, 17-22, 24, and 27-29 under 35 U.S.C. § 103(a) are 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-IN-PART

JRG