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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* FREDERICK E. SHELTON IV and JEROME R. MORGAN

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Appeal 2011-000340  
Application 11/652,169  
Technology Center 3700

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Before GAY ANN SPAHN, MICHAEL C. ASTORINO, and  
WILLIAM A. CAPP, *Administrative Patent Judges*.

SPAHN, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Frederick E. Shelton IV and Jerome R. Morgan (Appellants) seek our review under 35 U.S.C. § 134 of the Examiner's rejection of claims 1-4, 6, 9, 11-16, and 21-29. Appellants cancelled claims 5, 7, 8, 10, and 17-20. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

*Claimed Subject Matter*

The claimed subject matter relates to a surgical stapler and to a staple cartridge therefor. Spec. 4, para. [0005]. Claims 1, 11, 13, and 21 are the independent claims on appeal. Claim 1, reproduced below, is illustrative of the appealed subject matter.

1. A surgical stapler, comprising:
  - a channel configured to receive a staple cartridge, the staple cartridge configured to removably store staples therein;
  - an anvil operably coupled to said channel and being selectively movable between open and closed positions upon application of opening and closing motions thereto, wherein said anvil is configured to deform said staples, and wherein one of said anvil and the staple cartridge defines a curved slot;
  - a curved cutting member operably supported in said curved slot and being selectively movable from a proximal end of said curved slot to a distal end of said curved slot upon application of a drive motion thereto, wherein said curved slot is configured to guide said curved cutting member as it is driven from said proximal end to said distal end of said curved slot, wherein said curved slot is defined by at least one radius of curvature, and wherein at least a portion of said curved cutting member is predefined by a radius of curvature which is substantially equal to said radius of curvature of said curved slot.

*Rejections*

The following Examiner's rejections are before us for review:

I. Claims 1-4, 6, 9, 11-16, 21, and 23-29 are rejected under 35 U.S.C. § 102(b) as anticipated by Green (US 5,379,933, issued Jan. 10, 1995); and

II. claims 22 is rejected under 35 U.S.C. § 103(a) as unpatentable over Green.

OPINION

*Rejection I – Anticipation based on Green*

Appellants grouped claims 1-4, 6, 9, 11-16, and 24-29 together. *See* Br. 14. Under this grouping, Appellants argued: claims 1 and 13 together (Br. 15-16); claim 11 separately (Br. 16-17); claims 1, 11, and 13 together (Br. 17-19); claim 9 separately (Br. 19-20); claims 21 and 23 together (Br. 20-21); and claim 22 separately (Br. 22).

We select independent claim 1 as the representative claim of claims 1-4, 6, and 13-16. *See also* 37 C.F.R. § 41.37(c)(1)(vii) (2011). Claims 2-4, 6, and 13-16 fall with claim 1.

We select independent claim 11 as the representative claim of claims 11, 12, 26, and 27. Claims 12, 26, and 27 fall with claim 11.

We select independent claim 21 as the representative claim of claims 21 and 23. Claim 23 falls with claim 21.

We address claims 9 and 22 individually *infra*.

Independent claims 1 and 13 and dependent claims 2-4, 6, and 14-16

The Examiner finds Green discloses a surgical stapler including, *inter alia*, a staple cartridge 16 that defines a curved slot (between 16a-16b) “configured to guide said curved cutting member [35, 32] as it is driven from said proximal end to said distal end of said curved slot.” Ans. 3-4 (citing Green, col. 7, ll. 25-28).

Appellants argue that “no teaching can be found in Green . . . of a **curved slot** in an anvil or a staple cartridge that **guides** a **cutting member** along a curved path as the cutting member is driven from one end to the other of the slot.” Br. 15. More particularly, Appellants argue that “[a]ssuming that the Examiner is referring to a slot along the midline of cartridge 16 in Figs. 16-17, it appears that gaps are visible between knife bar 32 and the cartridge 16,” and “[i]n view of such gaps and the absence of any teaching from Green . . . to the contrary, **Green . . . does not disclose knife bar 32 as being guided by a slot**.” Br. 15-16. Appellants particularly point out Green’s disclosure that “[i]nwardly extending flanges 30c, 50c extend toward each other across the opening defined by the sidewalls, leaving a narrow **gap** 30d, 50d (FIG. 16) midway between the flanges as shown,” and “[o]wing to the apparent gaps between knife bar 32 and the surrounding components as described by Green . . . , one is lead to conclude the **Green . . . does not teach a staple cartridge or an anvil** include a **curved slot** that is **configured to guide** said cutting member as it is driven from said proximal end to said distal end of said slot’ as recited in Claims 1 and 13.” Br. 16 (quoting Green, col. 10, ll. 27-30).

We are not persuaded by Appellants’ argument. The fact that Green’s slot, as shown in Figures 16 and 17, has gaps between the slot sidewalls and

the sidewalls of the knife bar 32 is not dispositive as to whether the slot is configured to guide a curved cutting member as it is driven from a proximal end to a distal end of the curved slot. Indeed, as shown in Appellants' Figure 24, the curved slot 264 has curved, nonplanar surfaces 266, 268 with gaps between the cutting member 120 and the surfaces 266, 268 configured to guide the cutting member 120. Moreover, the claim language only requires that the curved slot be "configured to guide said curved cutting member as it is driven from said proximal end to said distal end of said curved slot," and this language does not require that the slot sidewalls touch the curved cutting member in order to guide it.

Appellants also argue that Green teaches away from a staple cartridge with a slot configured to guide a cutting member because it discloses that molded plastic guide insert 33, disposed in the fastener channel 20, has guide channels 33a-c for the cam bars 34, 36 and knife bar 32. The question of whether a prior art reference "teaches away" from the claimed subject matter is irrelevant to an anticipation analysis. *See Celeritas Technologies Ltd. v. Rockwell Int'l Corp.*, 150 F.3d 1354, 1361 (Fed. Cir. 1998) ("A reference is no less anticipatory if, after disclosing the invention, the reference then disparages it. Thus, the question whether a reference 'teaches away' from the invention is inapplicable to an anticipation analysis.") (Citations omitted).

As Appellants have failed to apprise us of error in the Examiner's finding that Green's curved slot is configured to guide its curved cutting member, we sustain the Examiner's rejection of independent claim 1, and claims 2-4, 6, and 13-16 which fall therewith, under 35 U.S.C. § 102(b) as anticipated by Green.

Dependent claim 9

Claim 9 depends from claim 1 and recites “wherein said curved slot includes an inner arcuate sidewall and an outer arcuate sidewall, wherein said inner arcuate and outer arcuate sidewalls are configured to guide said curved cutting member.” Br., Clms. App’x.

The Examiner finds that “the opposite sidewalls of Green’s curved slot (as shown in figs. 3 and 16-17) provide inner arcuate and outer arcuate sidewalls configured to guide the cutting member, i.e., configured to move said cutting member along the slot curved path.” Ans. 5.

Appellants argue that Green “simply does not disclose or suggest a curved slot within an anvil or staple cartridge, let alone arcuate sidewalls of a curved slot, that are configured to guide a curved cutting member.” Br. 20.

For the same reasons as discussed *supra* with respect to claim 1, that there are gaps between the inner and outer arcuate sidewalls and the cutting member is not dispositive as to whether the inner and outer arcuate sidewalls are configured to guide a curved cutting member.

Accordingly, we sustain the Examiner’s rejection of claim 9 under 35 U.S.C. § 102(b) as anticipated by Green.

Independent claim 11 and dependent claims 12, 26, and 27

Claim 11 is directed to a staple cartridge including, *inter alia*, “a curved slot configured to guide at least a portion of said curved staple driver when said curved staple driver is moved from a proximal position within said curved slot to a distal position within said curved slot.” Br., Clms. App’x.

In addition to the finding discussed *supra* with respect to claims 1 and 13, the Examiner also finds that “Green discloses a curved staple driver (34,

36) operably engaged with the curved cutting member via (38).” Ans. 4 (citing Green, col. 7, ll. 41-51).

Appellants argue that “[n]o evidence is proffered explaining how Green . . . teaches a staple cartridge having a “curved slot configured to guide at least a portion of the curved staple driver,” because “[t]he figures of Green . . . to which the Examiner points, e.g., Figs. 3 and 23, and the corresponding text, do not appear to show or describe a staple cartridge having a slot configured to guide at least a portion of a staple driver.” Br. 17.

However, the Examiner relies on the finding made in support of claim 1 (Ans. 3-4) in addition to the findings made in support of claim 11 (Ans. 4). For claim 1, the Examiner pointed to Figures 16 and 17 as showing a curved slot. This along with the Examiner’s pointing out that the curved staple driver (cam plates 34, 36) are operatively engaged with the curved cutting member (knife 35 and knife edge 32) via bar retainer 38 is sufficient to apprise one of ordinary skill in the art that Examiner considers the curved slots within which the cam bars 34, 36 move as shown in Figures 16 and 17 to satisfy the claim language of a curved slot within the staple cartridge 16 which is configured to guide at least a portion of said curved staple driver. Thus, we are not persuaded that the Examiner provided no evidence as argued by Appellants.

Appellants also argue “assuming that the Examiner is referring to the general components surrounding cam bars 34 and 36 of Green . . . seen in Fig. 17, there appear to be gaps between the cam bars 34 and 36 and the surrounding cartridge components,” which would lead one to conclude that Green “does not teach a staple cartridge including ‘a curved slot configured

to guide at least a portion of the curved staple driver' as claimed in Claim 11." Br. 17 (emphasis omitted). We are not persuaded by Appellants' arguments because there does not appear to be any gap between the driver (cam bars 34, 36) and the curved slot in which the driver (cam bars 34, 36) moves. *See* Green, Fig. 17. However, even if there is a gap between the driver (cam bars 34, 36) and the curved slot in which the driver (cam bars 34, 36) moves, for the same reasons as discussed *supra* with respect to claim 1, we do not agree that a gap is dispositive as to whether the curved slot is configured to guide the driver.

Appellants make a similar teaching away argument with respect to the subject matter of claim 11 as discussed *supra* with regard to the rejection of claim 1; however, for the same reasons as discussed *supra* with respect to claim 1, we are not persuaded of error in the Examiner's rejection of claim 11.

Accordingly, we sustain the Examiner's rejection of independent claim 11, and claim 12, 26, and 27 which fall therewith, under 35 U.S.C. § 102(b) as anticipated by Green.

*Independent claim 21 and dependent claim 23*

Claim 21 is directed to a surgical stapler including, *inter alia*, a "curved staple driver including at least one curved ramp including a curved staple driving surface." Br., Clms. App'x.

The Examiner finds that "Green shows a curved staple driver including at least one curved ramp via curved bars (34, 36) having curved staple driving surfaces at their respective distal ends." Ans. 5.

Appellants argue that Green "does not teach a **curved staple driver including at least one curved ramp** including a **curved staple driving**

**surface** as recited in Independent Claim 21,” because “surface 63 of cam bar 34 appears to be linear and not curved” and Green only discloses that the cam bars 34, 36 have sloped surfaces, but “does not indicate that the sloped surface 63 is curved.” Br. 21.

We are not persuaded by Appellants’ arguments as Green’s ramps (sloped surfaces at end of cam bars 34, 36) are curved in the same way that Appellants’ ramps 276 are curved. *See* Spec. 14-15, para. [0018] and Fig. 17. More particularly, Figure 17 depicts ramps 276 as having sloped, flat surfaces, but the vertical sidewalls leading to the slope, flat surfaces of the ramps 276 are curved at the same radius of curvature of the path 258. *Id.* Referring to Green’s Figure 3, it can be seen that in the same way that Appellants’ ramps 276 are curved (i.e., by having curved, vertical sidewalls leading to the sloped, flat surfaces), Green’s ramps are defined by sloped, flat ramp surfaces which are adjacent vertical, curved sidewalls.

Accordingly, we sustain the Examiner’s rejection of independent claim 21, and claim 23 which falls therewith, under 35 U.S.C. § 102(b) as anticipated by Green.

*Rejection II – Obviousness based on Green*

Claim 22 depends from claim 21. Br., Clms. App’x. For claim 22, Appellants rely on the arguments as set forth for claim 21. Br. 22. As discussed *supra*, those arguments are not persuasive. Additionally, Appellants respectfully submit that “Green ’933 does not disclose or suggest all of the recited elements of Claim 22.” *Id.* This submission by the Appellants does not point out any Examiner error.

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Accordingly, we sustain the Examiner's rejection of claim 22 under 35 U.S.C. § 103(a) as unpatentable over Green.

#### DECISION

We affirm the Examiner's decision to reject claims 1-4, 6, 9, 11-16, and 21-29.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED

Klh