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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte HIEN MINH LE, AKIHIRO HOSOKAWA,
and AVI TEPMAN

Appeal 2011-010568
Application 11/484,333
Technology Center 1700

Before CATHERINE Q. TIMM, ROMULO H. DELMENDO, and
LINDA M. GAUDETTE, *Administrative Patent Judges*.

TIMM, *Administrative Patent Judge*.

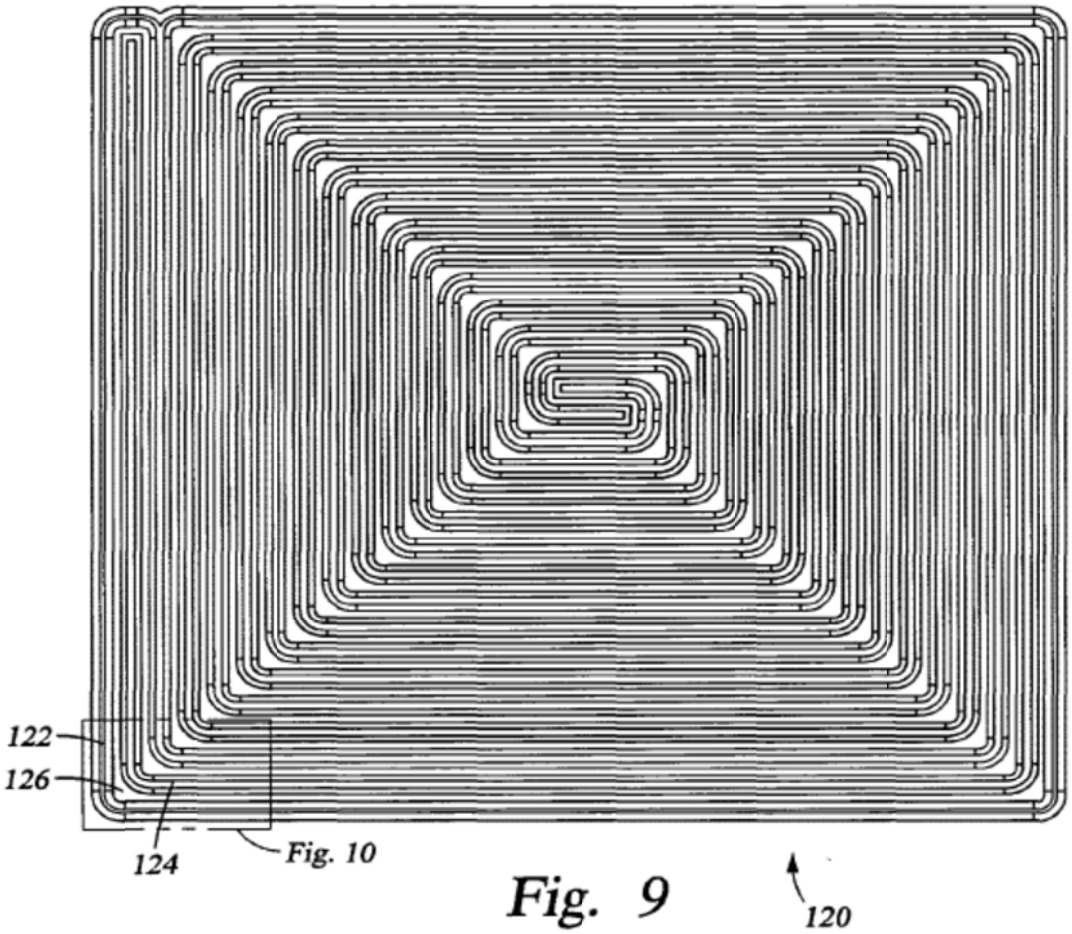
DECISION ON APPEAL

Appellants appeal under 35 U.S.C. § 134 from the Examiner's decision to reject claims 1-6 and 31-43. We have jurisdiction under 35 U.S.C. § 6(b).

For the reasons presented by Appellants in their Brief, we REVERSE. We add the following for emphasis.

The claims are directed to a sputtering magnetron (*see* Claims 1, 35, and 40). While Appellants' Specification sets forth a number of different embodiments of the magnetron, the claims on appeal are limited to the

embodiments directed to a rectangular spiral magnetron (*id*.). Appellants' Figure 9 depicts an embodiment of the rectangularized spiral magnetron of the claims. Figure 9 is reproduced below:



Plan view of a rectangularized spiral magnetron 120
(Spec. 7:9-10)

Claim 1, with the reference numerals of Figure 9 inserted, is illustrative of the claimed sputtering magnetron:

> 1. A sputtering magnetron [120] arranged in a plane within a rectangular outline, including an outer pole [122] of one magnetic polarity perpendicular to the plane surrounding an inner pole [124] of opposed magnetic polarity with a gap [126] therebetween, wherein said poles [122, 124] are arranged such

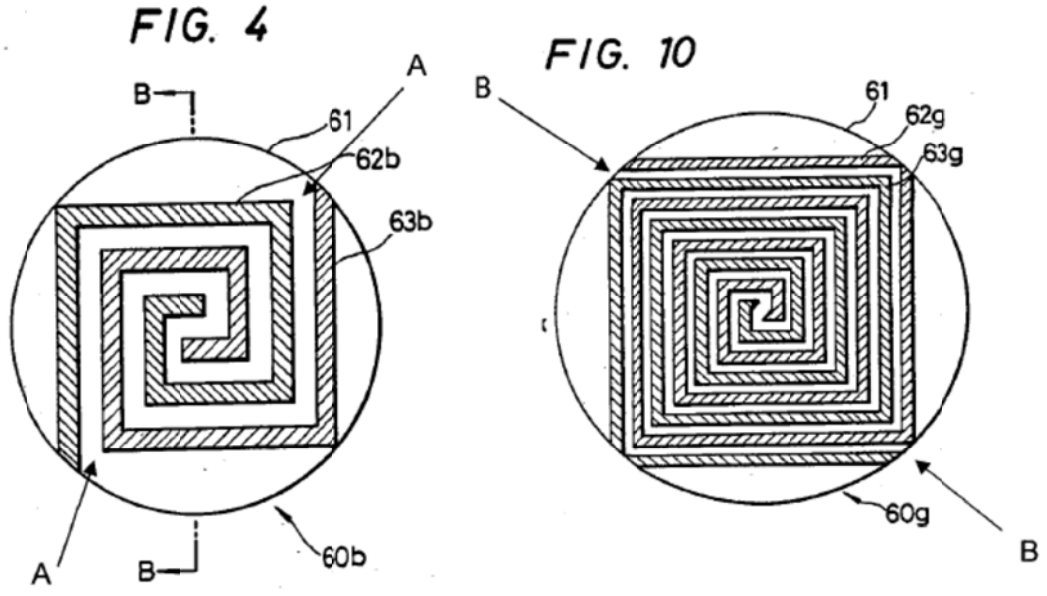
> that the *gap [126] forms a closed loop* formed in more than two spiral wraps about a point within the plane.

(Claims App'x. at Br. 18 (emphasis added).)

As shown in Figure 9, gap 126 has no open ends, but is continuous and a closed loop as required by the claims.

The Examiner rejects claims 1-4 under 35 U.S.C. §102(b) as anticipated by Nakazato[1], and further rejects the other pending claims under 35 U.S.C. § 103(a) as obvious over Nakazato in view of various secondary references.

The Examiner finds that Figures 4 and 10 of Nakazato depict magnetrons having the required gap that forms a closed loop (Ans. 3-4). However, as pointed out by Appellants, the magnetrons of Nakazato's Figures 4 and 10 have open gaps as shown at A and B in the Figures reproduced by Appellants, which we reproduce below:



Nakazato's Figs. 4 and 10 plan views as reproduced by Appellants at Br. 10

[1] Nakazato et al., US 4,631,106, patented Dec. 23, 1986.

The Examiner points out that Appellants' Specification at page 9, lines 2-9 and in Figures 3 and 4 teaches another embodiment of their invention that has a serpentine magnetron with a gap forming a closed *plasma* loop (Ans. 11). However, this embodiment is not the embodiment of Appellants' invention encompassed by the claims on appeal. Moreover, the claims on appeal specifically require a "gap that forms a closed loop." Interpreting the claims as broadly as is reasonable and consistent with Appellants' Specification, it is clear that "gap that forms a closed loop" in the context of the appealed claims refers to a gap that has no openings, it does not refer to a plasma loop. Therefore, we agree with Appellants that the Examiner reversibly erred in interpreting a "gap that forms a closed loop" as encompassing a closed plasma loop (Br. 10-11).

Because the Examiner relies upon Nakazato in the same manner in all the rejections and the secondary references are not relied upon in a manner that cures the deficiencies of the above discussed rejection, we reverse all of the rejections for the reasons presented above.

DECISION

The Examiner's decision is reversed.

REVERSED

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