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opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.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. 19

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte THOMAS C. KUKLO

Appeal No. 97-2973
Application 08/316,147[1]

ON BRIEF

Before CALVERT, FRANKFORT and McQUADE, Administrative Patent Judges.

McQUADE, Administrative Patent Judge.

DECISION ON APPEAL

Thomas C. Kuklo appeals from the final rejection of claims 1 through 19, all of the claims pending in the

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[1] Application for patent filed September 30, 1994.

application.[2]

The invention relates to "a concentric ring flywheel or rotor wherein the adjacent rings are configured to eliminate the need for differential expansion separators between the adjacent rings" (specification, page 1). Claim 1 is illustrative and reads as follows:

1. A rotor assembly having a plurality of adjacent concentric rings having facing surfaces,

each of said concentric rings having a circumferential step therein which extends along a portion of a length of a facing surface thereof, and which cooperates with a matching circumferential step in the facing surface of an adjacent concentric ring.

The references relied upon by the examiner as evidence of anticipation and obviousness are:

Dansi	3,307,423	Mar. 7, 1967
Gordon	4,058,024	Nov. 15, 1977
Swartout	4,370,899	Feb. 1, 1983

The claims on appeal stand rejected as follows:

a) claims 1 through 6 under 35 U.S.C. § 102(b) as being anticipated by Dansi;

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[2] Claims 1, 7 and 12 have been amended subsequent to final rejection.

b) claims 1, 7 and 12 under 35 U.S.C. § 102(b) as being anticipated by Gordon;

c) claims 8 through 11, 13 through 15 and 18 under 35 U.S.C. § 103 as being unpatentable over Gordon in view of Dansi; and

d) claims 16 and 17 under 35 U.S.C. § 103 as being unpatentable over Gordon in view of Swartout.

Reference is made to the appellant's main and reply briefs (Paper Nos. 11 and 15) and to the examiner's answer (Paper No. 14) for the respective positions of the appellant and the examiner with regard to the merits of these rejections.

As a preliminary matter, it is noted that the examiner has withdrawn the 35 U.S.C. § 112, second paragraph, rejection of claims 13 and 19 which was set forth in the final rejection (see page 7 in the answer). As a result, claim 19 no longer stands rejected. Also, the appellant's contention that claim 18 was not finally rejected (see page 2 in the main brief and pages 2 and 3 in the reply brief) is belied by the discussion of this claim on page 4 in the final rejection (Paper No. 5).

This discussion clearly indicates that the examiner's failure to include claim 18 in the associated statement of rejection was an inadvertent oversight.

Turning now to the standing 35 U.S.C. § 102(b) rejection of claims 1 through 6, Dansi discloses a rotor assembly comprising a pre-formed hub and a fly-wheel magneto *e* cast around the hub (see Figures 1 and 2). The hub includes a cylindrical portion *d*, first and second prismatic parts *a* and *b*, and an outwardly projecting annular part *c* between the prismatic portions. According to Dansi, "the surfaces of the prismatic parts oppose a relative rotation between the hub and the fly-wheel magneto, while slipping out between said hub and fly-wheel is prevented, in the case of FIGURES 1 and 2, by the annular part *c*" (column 2, lines 15 through 18).

The appellant argues that the subject matter recited in claims 1 through 6 is not anticipated by Dansi because this reference fails to meet the limitations in the claims relating to the circumferential steps (see pages 7 and 8 in the main brief and page 2 in the reply brief). In taking the opposite view, the examiner points to the structure defined by Dansi's

annular portion *c* (see pages 5, 7 and 8 in the answer). Given the broad scope of claims 1 through 6, the examiner's position here is well taken.

Dansi's fly-wheel magneto *e* and the part of the hub in contact therewith certainly constitute a plurality of adjacent concentric rings having facing surfaces. Moreover, Dansi's annular part *c* clearly delineates a circumferential step on the hub, i.e., either prismatic part *a* or prismatic part *b*, and a cooperating circumferential step on the cast magneto, i.e., either the magneto surface contacting hub part *b* or the magneto surface contacting hub part *a*, respectively. It is not evident, nor has the appellant cogently explained, why either of these pairs of cooperating circumferential steps fails to meet each and every circumferential step limitation in claims 1 through 6. In this regard, the steps in each of Dansi's pairs lie at opposite ends of the rings, extend about 50% of the length of the rings and cooperate to provide contact between the rings when such are rotated at operating speed.

Thus, the appellant's contention that the subject matter

recited in claims 1 through 6 distinguishes over Dansi is not convincing. Therefore, we shall sustain the standing 35 U.S.C. § 102(b) rejection of these claims.

We shall not sustain, however, any of the examiner's other rejections.

Gordon discloses a concentric ring rotor assembly which is described in the following terms:

> An inertial energy storage rotor [2] defined by a plurality of independent, concentric rotor rings [44 and 58] rotatable about a vertical axis. A spacer ring [64] connects each outer rotor ring [58] to its adjacent inner rotor ring [44] and is constructed of a substantially rigid material. The spacer ring has a cylindrical configuration and a plurality of slots [68] which alternatingly extend from opposing axial ends of the ring towards the opposite end of the ring. The slots terminate short of such opposite end. The spacer ring includes first and second connecting tabs [78 and 82] which are disposed at the respective axial ends of the ring for engaging and rotationally interlocking the rings, supporting the outer ring on the inner ring, maintaining the rings concentric with respect to each other, and permitting differential dilations in the rings during high rates of rotation of the wheel [Abstract].

In rejecting independent claims 1, 7 and 12 under 35 U.S.C. § 102(b) as being anticipated by Gordon, the examiner has found that Gordon's tabs 78 and 82 meet the

circumferential step limitations in these claims (see pages 5 and 8 in the answer). Given the nature of tabs 78 and 82, however, the examiner's finding that they constitute circumferential steps of the sort recited in claims 1, 7 and 12 is completely unreasonable. Since Gordon does not disclose any other structure meeting these limitations, the standing 35 U.S.C. § 102(b) rejection of claims 1, 7 and 12 must fall.

Claims 8 through 11 and 13 through 18 depend from claims 7 and 12, respectively. Suffice it to say that neither Dansi's disclosure of an indivisible rotor structure nor Swartout's disclosure of a fly-wheel made of fiber-reinforced epoxy would have suggested modifying Gordon's rotor assembly so as to meet the circumferential step limitations in parent claims 7 and 12. Thus, the standing 35 U.S.C. § 103 rejections of claims 8 through 11, 13 through 15 and 18 as being unpatentable over Gordon in view of Dansi and of claims 16 and 17 as being unpatentable over Gordon in view of Swartout also must fall.

Finally, our review of the record indicates the presence of a number of issues which are deserving of careful

consideration and appropriate treatment upon return of the application to the examiner:

I. Whether the subject matter recited in independent claims 7 and 12 and the claims depending therefrom is unpatentable over Dansi.

II. Whether claim 12 and the claims depending therefrom are indefinite due to the reference in claim 12 to the "continuous gap," a term which is defined in the underlying specification (see pages 5 through 8) in a somewhat ambiguous and contradictory manner.

III. Whether claim 16 and claim 17 which depends therefrom are indefinite due to the Markush group recitation in claim 16 of a "material selected from a group consisting of filament wound fibers and resin systems" when such recitation is considered in light of the specification (page 8) which indicates that the material can be constructed of filament wound fibers and resin systems.[3]

In summary and for the above reasons, the decision of the

[3] As pointed out in MPEP § 2173.05(h), the elements in a Markush group are alternatives.

examiner:

a) to reject claims 1 through 6 under 35 U.S.C. § 102(b) as being anticipated by Dansi is affirmed;

b) to reject claims 1, 7 and 12 under 35 U.S.C. § 102(b) as being anticipated by Gordon is reversed;

c) to reject claims 8 through 11, 13 through 15 and 18 under 35 U.S.C. § 103 as being unpatentable over Gordon in view of Dansi is reversed; and

d) to reject claims 16 and 17 under 35 U.S.C. § 103 as being unpatentable over Gordon in view of Swartout is reversed.

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

IAN A. CALVERT Administrative Patent Judge	)	
CHARLES E. FRANKFORT Administrative Patent Judge	)	BOARD OF PATENT APPEALS AND INTERFERENCES

)
JOHN P. McQUADE)
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