



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/058,622	02/11/2011	Michael Wilhelm Schaefer	50092/DKT08120B	2690
57726	7590	11/25/2016	EXAMINER	
MILLER, MATTHIAS & HULL LLP ONE NORTH FRANKLIN STREET SUITE 2350 CHICAGO, IL 60606			FLUHART, STACEY A	
			ART UNIT	PAPER NUMBER
			3655	
			NOTIFICATION DATE	DELIVERY MODE
			11/25/2016	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

bmatthias@millermatthiashull.com
mloye@millermatthiashull.com

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte MICHAEL WILHELM SCHAEFER,
HOLGER MEUB, MARC SAGRAUSKE, and
MICHAEL RITSCHEL

Appeal 2014-009092
Application 13/058,622
Technology Center 3600

Before: MICHAEL L. HOELTER, JEFFREY A. STEPHENS, and
GORDON D. KINDER, *Administrative Patent Judges*.

KINDER, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF CASE

Appellants¹ appeal under 35 U.S.C. § 134 from a rejection of claims
16–31. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

¹ Appellants identify the real party in interest as Borg Warner, Inc.

CLAIMED SUBJECT MATTER

The claims are directed to a frictionally acting device. Claim 16, reproduced below, illustrates the claimed subject matter:

16. A frictionally acting device having a rotational axis, a first plate set rotationally fixedly connected to a first plate carrier, and having a second plate set rotationally fixedly connected to a second plate carrier and which individual plates of the second plate set are interleaved with individual plates of the first plate set in an axial direction;

wherein the first and second plate sets rotate independently of the other,

wherein one of the first or second plate sets has n plates including left and right end plates, with at least $n-2$ plates being undulating plates situated between the left and right end plates;

wherein the left and right end plates comprise the-non-undulating plates; and

wherein at least one of the left and right end plates is supported in the axial direction on one of an actuating element and stop element for said one plate set; and

wherein the left and right end plates and each of the undulating plates situated between the end plates comprise one of the first or second plate sets configured for rotation about the rotational axis.

REFERENCES

The prior art relied upon by the Examiner in rejecting the claims on appeal is:

Harwood	US 2,135,126	Nov. 1, 1938
Sand	US 2,927,673	Mar. 8, 1960
Crawford	US 4,821,860	Apr. 18, 1989
Suzuki	US 7,165,664 B2	Jan. 23, 2007

REJECTIONS

The Examiner made the following rejections:

Claims 16–19, 22, 24, 28, 29, and 32 stand rejected under 35 U.S.C. §102(b) as being anticipated by Sand or in the alternative under 35 U.S.C. § 103(a) as being unpatentable over Sand.

Claim 20 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Sand and Crawford.

Claims 21, 23, 25, 30, and 31 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Sand and Harwood.

Claims 26 and 27 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Sand and Suzuki.

OPINION

Appellants argue claims 16–19, 22, 24, 28, 29, and 32 as a group. Appeal Br. 6–8. We select claim 16 as representative, and claims 17-19, 22, 24, 28, 29, and 32 stand or fall with claim 1. 37 C.F.R. § 41.37(c)(1)(iv).

The Appellants' specification describes a multi-plate clutch. Specification 8. Independent claim 16 describes a device with first and second plate carriers (Fig. 1, items 18 and 20, respectively) and a first set of plates (24, 26) and a second set of plates, 28, that are carried by a respective one of the carriers. Appeal Br. 13 (Claims App.). The first and second set of plates are interleaved, and torque is transmitted from one to the other and thus between the two plate carriers when actuator 38 squeezes the plates against each other and stop element 40. The first set of plates includes two end plates 26, and these are non-undulating (i.e. flat), while the remaining plates of the first set are undulating. *Id.*

The Examiner finds that Sand discloses every limitation found in claim 16. Final Act. 3–4. Sand discloses a multi-plate clutch with an inner carrier 30, which Sand terms the driving member, and an outer carrier 22, which Sand terms the driven member. Sand 2:51–72. Sand includes non-undulating end plates 40 and 42 carried by the driving member 30. Fig. 1; 3:5–8. The driving member also carries driving plates 34. Driven plates 26 are carried by the driven member 22. Sand 2:65–72. The driving plates 34 and driven plates 26 are interleaved, and when the opposed pressure members 40 and 42 move toward each other, the plates are squeezed and torque is transmitted from the driving member to the driven member. Sand, Figs. 1–3; 3:14–37.

Sand initially describes the driven plates 26 as being “undulated or waved in shape” (Sand 2:56–57) and the driving plates 34 as “flat” (3:58); the opposed end plates 40 are shown as flat-faced. Sand, Fig. 1. Sand specifically states that “the disposition of driving and driven plates may be reversed if desired.” Sand, 3:51–52. Sand makes no such explicit suggestion concerning the mounting of the opposed pressure members 40 and 42. They are only shown and described as being mounted on the driving member 30. In the Final Action the Examiner states, “it is noted that [Sand] column 3, lines 50–52 referenced in the rejection points out that the driving and driven plates can be switched with one another[.] In other words, the plates 34, 38 may be the undulating plates and plates 26 may be the flat plates.” Final Act. 3–4. If the undulating plates and flat plates of Sand are reversed so that the undulating plates are the driving plates and the flat plates are the driven plates, as explicitly suggested by Sand, the device meets the two limitations critical in claim 16:

wherein one of the first or second plate sets has n plates including left and right end plates, with at least $n-2$ plates being undulating plates situated between the left and right endplates;
wherein the left and right end plates comprise the non-undulating plates;

Appeal Br. 13 (Claims App.). *See* Final Act. 3–4; Ans. 2–3.

Appellants argue that Sand teaches only sets that are either all undulating or non-undulating, and therefore does not meet the above quoted claim limitations. Appeal Br. 6. We disagree. Appellants are arbitrarily grouping Sand’s pressure members with a set of plates (the non-undulating plates) and arguing that if “the disposition of driving and driven plates [is] reversed” (Sand 3:51–52), the requirement in claim 16 that one of the plate carriers include both undulating and non-undulating plates is “absolutely not satisfied”. Reply 3. But Sand does not describe his structure using Appellants’ grouping. Instead, Sand speaks of pressure members 40 and 42 (3:5–8) and driven and driving plates 26 and 34 (2:55, 68). It is the disposition of the driving and driven plates that may be reversed, according to Sand. 3:50–53. Sand does not say that the disposition of the opposed pressure members can also be reversed. Because Appellants have misinterpreted Sand, we are not persuaded by their argument.

The Examiner also found claim 16 obvious in view of Sand. Final Act. 4. “Though it is never necessary to so hold, a disclosure that anticipates under § 102 also renders the claim invalid under § 103, for ‘anticipation is the epitome of obviousness,’ *In re Fracalossi*, 681 F.2d 792 (CCPA 1982).” *Connell v. Sears, Roebuck & Co.*, 722 F. 2d 1542, 1548 (Fed. Cir. 1983). Because we find that Sand anticipates claim 16, we also find claim 16

obvious in view of Sand. Appellants' arguments (Appeal Br. 7–8; Reply 2–5) challenging the Examiner's obviousness finding based on Sand are the same as made to challenge the rejection of claim 16 as anticipated by Sand. For the reasons stated above, we are not persuaded the Examiner erred.

Appellants present the same arguments in connection with the rejection of claim 20 over Sand and Crawford (Appeal Br. 8–9; Reply 5), in connection with claims 21, 23, 25, 30, and 31 over Sand in view of Harwood (Appeal Br. 9; Reply 5), and in connection with claims 26 and 27 over Sand and Suzuki (Appeal Br. 10; Reply 5–6), and add that the additional references fail to cure the alleged deficiency of Sand. Because we find no deficiency in Sand, on the record presented we are not persuaded the Examiner erred.

DECISION

For the above reasons the Examiner's rejection of claims 16–31 is 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). *See* 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED