

The opinion in support of the decision being entered today was **not** written for publication and is **not** binding precedent of the Board.

Paper No. 22

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte ERWIN KRIMMER, WOLFGANG SCHULZ
and TILMAN MIEHLE

Appeal No. 2002-1524
Application No. 09/423,526

HEARD: October 8, 2002

Before COHEN, ABRAMS, and McQUADE, Administrative Patent Judges.
ABRAMS, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 12-19 and 31. Claims 25 and 27-30 have been allowed, claims 1-11 and 20-24 have been canceled, and the appeal from the final rejection of claim 26 was withdrawn by the appellants in the Brief.

We AFFIRM-IN-PART.

BACKGROUND

The appellants' invention relates to a valve device. An understanding of the invention can be derived from a reading of exemplary claims 12 and 31, which appear in the appendix to the appellants' Brief.

The prior art references of record relied upon by the examiner in rejecting the appealed claims are:

Simonds	75,210	Mar. 3, 1868
Sparks	2,835,468	May 20, 1958
Makusay <u>et al.</u> (Makusay)	3,510,100	May 5, 1970

Claim 12 stands rejected under 35 U.S.C. § 102(b) as being anticipated by Sparks.

Claim 31 stands rejected under 35 U.S.C. § 102(b) as being anticipated by Makusay.

Claims 13, 15-17 and 19 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Sparks.

Claims 14 and 18 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Sparks in view of Simonds.¹

¹Claim 18 was listed in the rejections with claims 12, 15-17 and 19, rather than being included with claim 14, from which it depends and with regard to which a different rejection was applied. We shall consider this to be an inadvertent error on the part of the examiner, and for the purpose of evaluating the rejections will group claim 18 with claim 14. We note in this regard that the appellant did not mention this matter or argue the separate patentability of claim 18 in the Brief or the Reply Brief.

Rather than reiterate the conflicting viewpoints advanced by the examiner and the appellants regarding the above-noted rejections, we make reference to the Answer (Paper No. 15) for the examiner's complete reasoning in support of the rejections, and to the Brief (Paper No. 14) and Reply Brief (Paper No. 16) for the appellants' arguments thereagainst.

OPINION

In reaching our decision in this appeal, we have given careful consideration to the appellants' specification and claims, to the applied prior art references, and to the respective positions articulated by the appellants and the examiner. As a consequence of our review, we make the determinations which follow.

The Rejections Under Section 102

The guidance provided by our reviewing court with regard to the matter of anticipation is as follows: Anticipation is established only when a single prior art reference discloses, either expressly or under the principles of inherency, each and every element of the claimed invention. See, for example, In re Paulsen, 30 F.3d 1475, 1480-1481, 31 USPQ2d 1671, 1675 (Fed. Cir. 1994) and In re Spada, 911 F.2d 705, 708, 15 USPQ2d 1655, 1657 (Fed. Cir. 1990). Anticipation by a prior art reference does not require either the inventive concept of the claimed subject matter or recognition of inherent properties that may be possessed by the reference. See Verdegaal Brothers Inc. v. Union Oil Co. of California, 814 F.2d 628, 633, 2 USPQ2d

1051, 1054 (Fed. Cir. 1987). Nor does anticipation require that the reference teach what the applicant is claiming, but only that the claim on appeal "read on" something disclosed in the reference, *i.e.*, all limitations of the claim are found in the reference. See Kalman v. Kimberly-Clark Corp., 713 F.2d 760, 772, 218 USPQ 781, 789 (Fed. Cir. 1983), *cert. denied*, 465 U.S. 1026 (1984).

The first of the Section 102 rejections is that claim 12 is anticipated by Sparks. In arriving at this conclusion, the examiner finds, inter alia, that the lower portion of the leaf spring element 21a (Figure 5), which engages the end face of valve seat 18a, corresponds to the "closing body" recited in the claim, and the upper portion of the leaf spring element 21a to the "spring element" (Answer, pages 3 and 8). The appellants' only argument in rebuttal to the rejection is that the Sparks device does not include a separate closing member mounted on a leaf spring (Brief, page 7; Reply Brief, page 2). However, as explained below, it is our view that this argument is based upon a limitation that is not in the claim, and therefore it is not persuasive.

Although the appellants' invention is disclosed as having a closing body that is separate from the leaf spring member which supports it, claim 12 is not so limited. The claim does not establish that the closing body is separate from the leaf spring, but requires only that it be "connected to" one end of a leaf spring, which in turn is "connected" on its other end to the armature (see lines 5 and 11). The claimed structure thus reads on element 21a of Sparks, in that the "closing body" described by

the examiner is “connected to” the “leaf spring” by virtue of being integral therewith. We further note Sparks’ explanation that element 21a “is stressed so as to maintain a constant pressure against the end face of the valve seat 18a” (column 2, lines 49-52), which indicates that it presses against the sealing seat, in the same manner as the “closing body” recited in claim 12.

We therefore find ourselves in agreement with the examiner that the subject matter recited in claim 12 is anticipated by Sparks, and we will sustain the rejection.

Claim 31 stands rejected as being anticipated by Makusay. This reference discloses a poppet valve, which by definition is a valve that moves perpendicularly to and from its seat.² When the valve is to be opened a signal is applied to coils 28 and 29 of such polarity as to cause armature 22 to move in a clockwise direction, causing rod 21, which is attached thereto, also to rotate clockwise. This results in cylinder 44, which carries poppet 16 and is mounted on the end of rod 21, moving to the left as shown in Figure 2 so that poppet 16 moves away from valve seat 15. A coil spring 51 arrayed about a post 47 inside cylinder 44 biases poppet 16 toward the valve seat through an interposed ball 49, with movement of the poppet being limited by an inwardly turned flange 45.

The appellants have advanced only two arguments with regard to this rejection. The first is that Makusay’s spring 51 does not deform “exclusively in the direction of its

²See, for example, Webster’s New Collegiate Dictionary, 1973, page 895.

longitudinal axis“ as is required by claim 31. The appellants opine that as the poppet moves away from the valve seat it will tilt, which will result in an “axial bending load” being placed upon the spiral spring (Brief, page 6). However, Figure 2 indicates that a space exists between the top of the spring coil and the rear face of the poppet, which suggests that the poppet could tilt to the extent necessary to open the valve without contacting the upper portion of the spring and imparting thereto a force other than along its longitudinal axis, and the lateral movement of the poppet appears to be very small and along a very slight arc. Thus, in the absence of evidence in support of the appellants’ position, we are not convinced that the opening and closing of the poppet would cause the spring to deform in the manner urged by the appellants, and we find this argument of the appellants not to be persuasive.

The second argument is that the pin upon which the spring is mounted in the Makusay device is not “guided in a recess of the closing body.” Pin 47, being mounted within the spiral spring in the Makusay device, extends into a recess 43 in the closing body and in our view is guided therein owing to its interaction with ball 49. This arrangement meets the terms of the claim.

The rejection of claim 31 is sustained.

The Rejections Under Section 103

The test for obviousness is what the combined teachings of the prior art would have suggested to one of ordinary skill in the art. See, for example, In re Keller, 642

F.2d 413, 425, 208 USPQ 871, 881 (CCPA 1981). In establishing a prima facie case of obviousness, it is incumbent upon the examiner to provide a reason why one of ordinary skill in the art would have been led to modify a prior art reference or to combine reference teachings to arrive at the claimed invention. See Ex parte Clapp, 227 USPQ 972, 973 (Bd. Pat. App. & Int. 1985). To this end, the requisite motivation must stem from some teaching, suggestion or inference in the prior art as a whole or from the knowledge generally available to one of ordinary skill in the art and not from the appellant's disclosure. See, for example, Uniroyal, Inc. v. Rudkin-Wiley Corp., 837 F.2d 1044, 1052, 5 USPQ2d 1434, 1439 (Fed. Cir.), cert. denied, 488 U.S. 825 (1988).

Claims 13, 15-17 and 19 stand rejected as being unpatentable over Sparks. Although the appellants grouped these claims together on page 5 of the Brief, arguments directed to the patentability of claims 13 and 14 nevertheless were set forth on pages 7 and 8, and we therefore shall consider these claims separately.

Claim 13 adds to claim 12 the limitation that the armature has a flat surface whose plane is oriented obliquely relative to a plane of the sealing seat and the closing body, and the leaf spring is fastened to this oblique surface. This clearly is not disclosed or taught by Sparks, and therefore the evidence adduced by the examiner falls short of establishing a prima facie case of obviousness with regard to claim 13. Such being the case, the rejection of claim 13, as well as that of claims 15, 17 and 19, which depend from claim 13, is not sustained.

The separate patentability of claim 16, which depends from claim 12, has not been argued. Its rejection as being unpatentable over Sparks therefore will be sustained. In re Kaslow, 707 F.2d 1366, 1376, 217 USPQ 1089, 1096 (Fed. Cir. 1983).

Claim 14 adds to claim 12 the requirement that at least one rivet or at least one screw attach the leaf spring to the armature and/or the closing body. This claim stands rejected as being unpatentable over the combined teachings of Sparks and Simonds, the latter being cited for its disclosure of attaching a leaf spring to a valve closing body by means of a screw. The appellants argue that Sparks provides no suggestion for attaching the leaf spring to the armature and/or the closing body by means of a rivet or screw. However, the rejection is based upon the combined teachings of both references, and the appellants have not disputed the examiner's finding that Simonds teaches attaching a valve closure to its operating spring by means of a screw, or the examiner's conclusion that it would have been obvious to one of ordinary skill in the art to utilize such a screw arrangement in the Sparks valve in view of the showing of Simonds. This being the case, we will sustain the rejection of claim 14 and, it follows, of claim 18, which depends from claim 14 and has not separately been argued.

CONCLUSION

The rejection of claims 12, 14, 16, 18 and 31 is sustained.

The rejection of claims 13, 15, 17 and 19 is not sustained.

The decision of the examiner is affirmed-in-part.

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

IRWIN CHARLES COHEN)	
Administrative Patent Judge)	
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)	BOARD OF PATENT
NEAL E. ABRAMS)	APPEALS
Administrative Patent Judge)	AND
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