

1 UNITED STATES PATENT AND TRADEMARK OFFICE

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3
4 BEFORE THE BOARD OF PATENT APPEALS
5 AND INTERFERENCES
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7
8 *Ex parte* PRO-CORD SpA and
9 KRUEGER INTERNATIONAL, INC.¹
10

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12 Appeal 2008-5248
13 Reexamination Control 90/008,295
14 Patent 4,796,952²
15 Technology Center 3900
16

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18 Decided: December 18, 2008
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21 *Before* LINDA E. HORNER, JOHN C. KERINS and DANIEL S. SONG,
22 *Administrative Patent Judges.*

23
24 SONG, *Administrative Patent Judge.*
25

26 DECISION ON APPEAL
27

¹ The real parties in interest are Pro-Cord SpA, the owner of the patent, and Krueger International, Inc., a U.S. licensee of the patent (App. Br. 3).

² Issued Jan. 10, 1989 to Piretti. Payment for the maintenance fee due at 11.5 years was received by the USPTO on March 17, 2000.

1 a backrest support structure which is rigidly and non-
2 pivotally connected to said rear lever so as to be movable
3 together with said rear lever between an upright position
4 corresponding to the lowered position of the seat and the
5 reclined position corresponding to the raised position of the
6 seat, and

7 spring means associated with at least one of said front
8 and rear levers for biasing the backrest support structure
9 towards its upright position corresponding to the lowered
10 position of the seat.
11

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

13 Rogers	3,337,267	Aug. 22, 1967
14 Fries	4,479,679	Oct. 30, 1984
15 LaPointe	4,627,663	Dec. 9, 1986

16
17 The Examiner rejected claim 7 under 35 U.S.C. § 103(a) as
18 unpatentable over Rogers in view of Fries or LaPointe.

19 The record includes an Affidavit from the inventor Mr. Giancarlo
20 Piretti which we consider *infra*, the Affidavit seeking to establish
21 commercial success and nonobviousness of the claimed invention.

22 We AFFIRM the Examiner's rejection.
23

24 ISSUE

25 The dispositive issue raised in the present appeal is whether the
26 Appellants have shown that the Examiner erred in concluding that it would
27 have been obvious to one of ordinary skill in the art to incorporate a spring
28 as described in Fries or LaPointe in the chair of Rogers.

FINDINGS OF FACT

The record supports the following findings of fact (FF) by a preponderance of the evidence.

1. Rogers describes a chair including support tubes 21 (i.e., a support structure), seat 14 with frames 11, 12 and 13, a forward support link 48 (i.e., a front lever) and a rear support link 51 (i.e., a rear lever) (col. 2, ll. 54-58; col. 4, ll. 1-18; figs. 4 and 5). The support links, seat and support tubes define a four-bar linkage system (i.e., parallelogram linkage) allowing the seat to be moved between a lowered position (fig. 4) and a raised position (fig. 5) (col. 4, ll. 1-19). The chair of Rogers also includes a back link portion 55 (i.e., a backrest support structure) which is rigidly and non-pivotally connected to the rear support link so as to move between an upright position corresponding to the lowered position of the seat (fig. 4) and the reclined position corresponding to the raised position of the seat (fig. 5) (col. 4, ll. 19-34).

2. The chair of Rogers does not include a spring means associated with the front or rear support links for biasing the back link portion (backrest support structure) towards its upright position which corresponds to the lowered position of the seat.

3. LaPointe describes a chair including a chair frame 3 (i.e., a support structure), seat frame 11 (i.e., a seat) and a back frame 13 (i.e., backrest support structure) that are interconnected by a front swing link 31 (i.e., a front lever) and a rear swing link 33 (i.e., a rear lever) (col. 1, ll. 61-67; col. 2, ll. 26-37; figs. 2 and 3). The chair of LaPointe also includes a

1 spring means 81 that is associated with the front swing link for biasing the
2 back frame (backrest support structure) towards its upright position which
3 corresponds to the lowered position of the seat (col. 3, l. 61-col. 4, l. 3).

4 4. LaPointe describes that if the occupant of the chair leans back
5 to apply pressure to the back frame in its upright position, the back frame
6 will recline, and at the same time, the seat frame will move upwardly (i.e., to
7 a raised position) (col. 2, ll. 14-18; fig. 4).

8 5. The chair frame, the seat frame, the front swing link and the
9 rear swing link of the LaPointe chair do not define a parallelogram linkage
10 (figs. 2 and 3).

11 6. LaPointe also describes that the combination of the weight of
12 the occupant and the spring means returns the back frame to the upright
13 position automatically (col. 2, ll. 21-25).

14 7. LaPointe specifically describes that the spring means 81
15 provides assistance in returning the back frame to its upright position and
16 helps in enabling the back frame to be positioned as desired between the
17 fully reclined and upright positions (col. 1, ll. 29-34; col. 3, ll. 61-68; col. 5,
18 ll. 19-26).

19 8. Fries describes a chair including a stationary housing 14 (i.e., a
20 support structure), seat links 54 (i.e., seat) and a back link 42 (i.e., a backrest
21 support structure) that are interconnected by a front link 22 (i.e., a front
22 lever) and a portion of the back link 42 (i.e., a rear lever) (col. 2, ll. 51-57;
23 fig. 1). The chair of Fries also includes springs 74 that are associated with
24 the portion of the back link for biasing the back link towards its upright

1 position corresponding to the lowered position of the seat (col. 2, ll. 57-60;
2 col. 4, ll. 45-48; fig. 2)

3 9. Fries describes that the bias force applied by the springs 74
4 returns the chair to the upright position when the chair is unoccupied (col. 2,
5 ll. 11-15; col. 4, ll. 45-48).

6 10. The stationary housing, seat links 54, back link 42 and front
7 link of the Fries chair do not define a parallelogram linkage (fig. 1).

8 11. Fries further describes that the springs provide additional task
9 support to supplement the weight of the occupant and can be adjusted to
10 alter the reclining characteristics of the chair (col. 2, ll. 15-19; col. 4, ll. 45-
11 53).

12

13

PRINCIPLES OF LAW

14

15 “Section 103 forbids issuance of a patent when ‘the differences
16 between the subject matter sought to be patented and the prior art are such
17 that the subject matter as a whole would have been obvious at the time the
18 invention was made to a person having ordinary skill in the art to which said
19 subject matter pertains.’” *KSR Int’l Co. v. Teleflex Inc.*, 127 S.Ct. 1727,
20 1734 (2007). The question of obviousness is resolved on the basis of
21 underlying factual determinations including (1) the scope and content of the
22 prior art, (2) any differences between the claimed subject matter and the
23 prior art, (3) the level of skill in the art, and (4) where in evidence, so-called
24 secondary considerations. *Graham v. John Deere Co.*, 383 U.S. 1, 17-18
(1966). In *KSR*, the Supreme Court emphasized “the need for caution in

1 granting a patent based on the combination of elements found in the prior
2 art,” and reaffirmed principles based on its precedent that “[t]he combination
3 of familiar elements according to known methods is likely to be obvious
4 when it does no more than yield predictable results.” *KSR*, 127 S.Ct. at
5 1739.

6 The Court further explained, “[o]ften, it will be necessary for a court
7 to look to interrelated teachings of multiple patents; the effects of demands
8 known to the design community or present in the marketplace; and the
9 background knowledge possessed by a person having ordinary skill in the
10 art, all in order to determine whether there was an apparent reason to
11 combine the known elements in the fashion claimed by the patent at issue.”
12 *Id.* at 1740-41. The Court noted that “[t]o facilitate review, this analysis
13 should be made explicit.” *Id.* at 1741 (citing *In re Kahn*, 441 F.3d 977, 988
14 (Fed. Cir. 2006) (“[R]ejections on obviousness grounds cannot be sustained
15 by mere conclusory statements; instead, there must be some articulated
16 reasoning with some rational underpinning to support the legal conclusion of
17 obviousness”). However, “the analysis need not seek out precise teachings
18 directed to the specific subject matter of the challenged claim, for a court
19 can take account of the inferences and creative steps that a person of
20 ordinary skill in the art would employ.” *Id.* at 1741.

21 Objective evidence of nonobviousness (i.e., secondary considerations)
22 must be considered in making an obviousness decision. *See Stratoflex, Inc.*
23 *v. Aeroquip Corp.*, 713 F.2d 1530, 1538-39 (Fed. Cir. 1983). Any initial
24 obviousness determination is reconsidered anew in view of the proffered

1 evidence of nonobviousness. *See In re Rinehart*, 531 F.2d 1048, 1052
2 (CCPA 1976); *In re Eli Lilly & Co.*, 90 F.2d 943, 945, (Fed. Cir. 1990).
3 “Licenses taken under the patent in suit may constitute evidence of
4 nonobviousness; however, only little weight can be attributed to such
5 evidence if the patentee does not demonstrate ‘a nexus between the merits of
6 the invention and the licenses of record.’” *In re GPAC, Inc.*, 57 F.3d 1573,
7 1580 (Fed. Cir. 1995). The evidence must also demonstrate commercial
8 success in the relevant market. *See Kansas Jack, Inc. v. Kuhn*, 719 F.2d
9 1144, 1150-51 (Fed. Cir. 1983) (“There was no evidence of market share, of
10 growth in market share, of replacing earlier units sold by others or of dollar
11 amounts, and no evidence of a nexus between sales and the merits of the
12 invention. Under such circumstances, consideration of the totality of the
13 evidence, including that relating to commercial success, does not require a
14 holding that the invention would have been nonobvious at the time it was
15 made to one skilled in the art”); *see also In re Huang*, 100 F.3d 135, 140
16 (Fed. Cir. 1996) (a very weak showing of commercial success, if any, is
17 shown where there is no indication of whether the number of units sold
18 represents a substantial quantity in the relevant market).

20 ANALYSIS

21 The Examiner rejects claim 7 as unpatentable over Rogers in view of
22 Fries or LaPointe stating that Rogers describes all of the limitations of claim
23 7 except for the recited spring means for biasing the backrest support
24 structure toward its upright position (FF 1 and 2; Ans. 6). The Examiner

1 contends that it would have been obvious to one of ordinary skill in the art to
2 incorporate a spring in the chair of Rogers to bias the backrest as suggested
3 by Fries and LaPointe (Ans. 6). The Appellants disagree and set forth
4 various arguments which we address *infra*.

5

6 Motivation

7 The Appellants primarily contend that while the Examiner has
8 identified an advantage in incorporating a spring in the chair of Rogers, the
9 Examiner did not provide any motivation for the suggested combination and
10 that the Examiner's proffered advantage does not serve to factually establish
11 motivation (App. Br. 10; Reply Br. 8).

12 We initially note that an obviousness analysis need not set forth
13 precise motivation or teaching in the prior art that is directed to the specific
14 subject matter of the challenged claim in order for the Examiner to combine
15 teachings of the prior art. *See KSR*, 127 S.Ct. at 1741. The only difference
16 between the chair of Rogers and the Appellants' claimed chair is that of
17 provision of a spring which biases the backrest toward its upright position
18 (FF 1 and 2). Both Fries and LaPointe factually establish that it is well
19 known to use springs in a reclining chair to bias the backrest toward its
20 upright position (FF 3 and 8). In the present case, the Examiner states that it
21 would have been obvious to one of ordinary skill in the art to incorporate a
22 spring in the chair of Rogers for "biasing the backrest in a chair as suggested
23 by Fries and LaPointe for the advantage of returning an unoccupied chair to
24 its upright position" (Ans. 6). Thus, the question before us is whether the art

1 provides a person of ordinary skill “an apparent reason to combine the
2 known elements in the fashion claimed by the patent at issue,” and whether
3 the Examiner’s articulated reason is rational. *KSR*, 127 S.Ct. at 1740-41.

4 The prior art of record includes numerous teachings that would
5 provide a person of ordinary skill an apparent reason to combine the known
6 elements in the fashion claimed by the Appellants, that is, to incorporate a
7 spring into the chair of Rogers. In particular, LaPointe teaches that the
8 spring associated with a front lever provides assistance in returning the back
9 frame to its upright position, and also helps enable the back frame to be
10 positioned as desired between the fully reclined and upright positions (FF 7).
11 Fries teaches that the bias force applied by the springs returns the chair to
12 the upright position when the chair is unoccupied (FF 9), which is the reason
13 articulated by the Examiner. Fries also teaches that the springs provide
14 additional task support to supplement the weight of the chair occupant and
15 can be adjusted to alter the reclining characteristics of the chair (FF 11).

16 Thus, while Rogers may not provide a specific reason to incorporate a
17 spring in the described chair, the prior art of record factually establishes that
18 it is well known to use springs in a reclining chair for a variety of
19 advantageous reasons noted *supra*, including for “biasing the backrest
20 support structure towards its upright position” as recited in claim 7. In this
21 regard, we note that “an implicit motivation to combine exists not only when
22 a suggestion may be gleaned from the prior art as a whole, but when the
23 ‘improvement’ is technology-independent and the combination of references
24 results in a product or process that is more desirable.” *Dystar Textilfarben*

1 *GmbH & Co. Deutschland KG v. C.H. Patrick Co.*, 464 F.3d 1356, 1368
2 (Fed. Cir. 2006).

3 The Appellants contend that the motivation used by the Examiner to
4 combine the references is not suggested by Rogers, but instead is a result of
5 the Examiner's mere assertion that Rogers is somehow deficient, a
6 deficiency that is not recognized by Rogers (Reply Br. 8). However, the fact
7 that Rogers does not recognize a specific deficiency in the described chair is
8 immaterial. Indeed, this line of reasoning would not only require an explicit
9 finding of teaching, suggestion or motivation in the prior art in order to
10 combine familiar elements, but would also require that the modified prior art
11 acknowledge some deficiency or desire for improvement. As discussed
12 *supra*, this is not the law for determining obviousness.

13 The Appellants also contend that one of ordinary skill in the art would
14 only (1) provide a mechanism that uses the weight of the seated user to
15 return the seatback to its upright position, or (2) provide a spring generating
16 a force that returns the seatback to its upright position, not both (App. Br. 12
17 and 13). In this regard, the Appellants contend that one of ordinary skill
18 would simply increase the weight of the seat of Rogers (without using a
19 spring) or adopt the design of Fries alone, in order to return the seatback to
20 its upright position (App. Br. 12 and Reply Br. 8).

21 However, the Appellants' argument is ineffective to rebut the
22 Examiner's *prima facie* case of obviousness because the argument does not
23 take into account what the collective teachings of the prior art would have
24 suggested to one of ordinary skill in the art. *See In re Keller*, 642 F.2d 413,

1 425 (CCPA 1981) (“The test for obviousness is not whether the features of a
2 secondary reference may be bodily incorporated into the structure of the
3 primary reference; nor is it that the claimed invention must be expressly
4 suggested in any one or all of the references. Rather, the test is what the
5 combined teachings of the references would have suggested to those of
6 ordinary skill in the art”). Indeed, the Appellants appear to be analyzing the
7 prior art references separately. Non-obviousness cannot be established by
8 attacking references individually where the rejection is based upon the
9 teachings of a combination of references. *In re Merck*, 800 F.2d 1091, 1097
10 (Fed. Cir. 1986); *In re Keller*, 642 F.2d at 425.

11 Moreover, the prior art of record clearly establishes the desirability of
12 using the *combination* of both the spring and the weight of the seat with the
13 occupant, for biasing the seatback toward its upright position. In particular,
14 LaPointe specifically describes that the combination of the occupant’s
15 weight and the bias force of the spring returns the back frame to the upright
16 position, as well as enabling the back frame to be positioned as desired
17 between the fully reclined and upright positions (FF 7). Fries describes that
18 the springs provide additional task support to supplement the weight of the
19 chair occupant (FF 11). Thus, the Appellants’ assertion that a person of
20 ordinary skill would only use the weight of the seat/occupant or the force of
21 a spring to bias the seatback is refuted by the facts in the record.

22 The Appellants further argue that a general motivation to have an
23 unoccupied chair return to its upright position is not the same as a
24 motivation to combine a parallelogram linkage and a spring because there

1 are many other modifications that could accomplish this “return to upright”
2 feature (Reply Br. 9). However, the Appellants do not provide any
3 convincing evidence in support of this argument.

4 In view of the above, the Appellants’ claimed invention is merely a
5 “combination of elements found in the prior art,” that “does no more than
6 yield predictable results.” *KSR*, 127 S.Ct. at 1739. The record establishes
7 apparent reasons why one of ordinary skill in the art would incorporate a
8 spring into the reclining chair of Rogers, including the rational reason
9 articulated by the Examiner.

10
11 Knowledge of One of Ordinary Skill

12 The Appellants also contend that the Examiner fails to factually
13 establish the knowledge of one of ordinary skill in the art at the time of the
14 invention (App. Br. 11; Reply Br. 11). However, the cited prior art can be
15 considered as representative of the level of ordinary skill in the art. *See*
16 *Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001) (“the absence of
17 specific findings on the level of skill in the art does not give rise to
18 reversible error “where the prior art itself reflects an appropriate level and a
19 need for testimony is not shown”); *Union Carbide Corp. v. American Can*
20 *Co.*, 724 F.2d 1567, 1573 (Fed. Cir. 1984).

21
22 Teaching Away

23 The Appellants contend that Rogers teaches away from the claimed
24 invention because the chair of Rogers returns to an upright position only

1 when the seated individual intentionally releases pressure on the back, for
2 example, by leaning forward (App. Br. 13). However, mere description of
3 an implementation in the prior art that differs from the Appellants' claimed
4 invention, without more, does not show that the prior art is "teaching away"
5 from the invention claimed. See *In re Fulton*, 391 F.3d 1195, 1201 (Fed.
6 Cir. 2004). Moreover, as noted by the Examiner, the combination suggested
7 "was not made to substitute for the shifting of weight but rather to provide a
8 way for the chair to return to an upright position even if unoccupied" (Ans.
9 11). Therefore, the Appellants' argument is not persuasive.

10
11 Principle of Operation

12 The Appellants further contend that the Examiner's proposed
13 modification of the chair in Rogers changes the principle of operation
14 because with a parallelogram mechanism, a force on the seat back decreases
15 as one reclines while providing a spring applies an increasing upright force
16 as one reclines (App. Br. 13).

17 This argument is also not persuasive. Firstly, we note that the
18 "principle of operation" referred to by the Appellants actually relates to the
19 "basic principles" under which the prior art device was designed to operate.
20 *In re Ratti*, 270 F.2d 810, 813 (CCPA 1959) ("This suggested combination
21 of references would require a substantial reconstruction and redesign of the
22 elements shown in [the primary reference] as well as a change in the *basic*
23 *principles* under which the [primary reference] construction was designed to
24 operate." (Emphases added)). In *Ratti*, the modification suggested by the

1 Examiner changed the basic principle of sealing from attaining sealing
2 through a rigid, press-fit, interface between the components, to attaining
3 sealing by providing a resilient interface between the components. *Id.* at
4 811-13. Thus, such a modification fundamentally changed the technical
5 basis of how a seal performed its sealing function and how a sealed interface
6 was attained.

7 We are not persuaded that “change in the basic principles” occurs by
8 mere addition of a spring to the existing parallelogram linkage in the present
9 case. In particular, the Examiner does not call for any modification to the
10 described parallelogram linkage of Rogers in setting forth the rejection of
11 claim 7. As such, the technical, basic principle by which the parallelogram
12 linkage described in Rogers functions to allow the seatback to be reclined
13 and up-righted is not changed by incorporation of a spring.

14 The substance of the Appellants’ argument is that there is a competing
15 reason (i.e., increasing force during reclining) that factors against a person of
16 ordinary skill in the art incorporating a spring into a recliner chair having a
17 parallelogram linkage. While we agree with the Appellants that adding a
18 spring would likely increase the upright force as an occupant reclines, this
19 fact is not dispositive. As discussed *supra*, LaPointe describes various
20 reasons why one of ordinary skill in the art would incorporate a spring into a
21 recliner type of chair (such as that described in Rogers) so as to increase the
22 upright force as the occupant reclines. In particular, LaPointe specifically
23 describes that the spring provides assistance in returning the back frame to
24 its upright position and helps in enabling the back frame to be positioned as

1 desired between the fully reclined and upright positions (FF 6 and 7).
2 Hence, the prior art of record provides specific teachings as to why such a
3 force is desirable. Thus, while these competing considerations would likely
4 be weighed by one of ordinary skill in the art, the mere existence of
5 competing considerations does not establish nonobviousness of a reclining
6 chair having a parallelogram linkage and a spring. Therefore, the
7 Appellants' have not shown that the Examiner erred.

8

9 Evidence of Commercial Success

10 The Appellants finally contend that the Affidavit of Mr. Giancarlo
11 Piretti establishes evidence of commercial success through licensing, and
12 thus, nonobviousness of the claimed invention (App. Br. 14; Reply Br. 11
13 and 12).

14 Having reviewed the record and the alleged evidence of commercial
15 success, we find the Affidavit insufficient for establishing commercial
16 success or nonobviousness of the invention of claim 7. The Affiant initially
17 states that “[t]he allowance of patents on this invention in multiple countries
18 after examination by multiple independent and international patent offices is
19 strong evidence as to the nonobviousness of the claimed subject matter”
20 (Affidavit ¶ 4). However, the laws and standards pertaining to patentability
21 of inventions vary widely among international patent offices, and thus, the
22 existence of foreign patents is of no probative value in assessing
23 patentability. *See In re Goodman*, 476 F.2d 1365, 1369 (CCPA 1973)
24 (“Appellant further argues that the issuance of his foreign patents on the

1 instant disclosure is evidence of patentability. It has long been established
2 that that argument has no pertinence to the determination of obviousness”).

3 To show commercial success, the Affiant states that Pro-Cord entered
4 into “several licensing agreements with several major chair manufacturers in
5 different territories of the world, including the United States, Europe and the
6 Eastern Hemisphere” and that “[e]ach of these manufacturers produces
7 chairs that would infringe claim 7 of the 4,796,952 patent but for the
8 license” (Affidavit ¶¶ 5 and 6). The Affiant also states that “payments of
9 royalties indicate the commercial value of claim 7,” that “[r]oyalties have
10 been continuously paid by these manufacturers every year during the last 15
11 years,” and that “[t]he licensing of this patent has been commercially
12 successful and royalties have generally increased during the life of the
13 patents” (Affidavit ¶¶ 6, 7 and 9).

14 However, the Affiant’s averments are very general in nature and such
15 vague assertions are not persuasive evidence of commercial success. In
16 particular, no evidence is provided that details, *inter alia*: the number of
17 major chair manufacturers in the U.S.; how many U.S. manufacturers are
18 licensees; the relevant market size for chairs; percent of market share
19 attained by chairs manufactured under a license; actual cost of the license;
20 royalties received; or actual trends over time tending to show that royalties
21 have increased. *See Kansas Jack*, 719 F.2d at 1150-51; *In re Huang*, 100
22 F.3d at 140. The Affidavit merely establishes that licenses have been
23 granted to “several major chair manufacturers” and that royalties of
24 undisclosed amount have been received. We find such evidence insufficient

1 to establish commercial success and nonobviousness of the invention of
2 claim 7.

3

4

CONCLUSION

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In view of the above, the Appellants have not shown that the Examiner erred in concluding that it would have been obvious to one of ordinary skill in the art to incorporate a spring as described in Fries or LaPointe in the chair of Rogers.

10

ORDER

11

The Examiner's rejection of claim 7 is AFFIRMED.

12

13

14

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) (2007).

15

16

AFFIRMED

17

18

19 ack

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21 cc:

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23

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