

1 The opinion in support of the decision being entered today
2 was not written for publication
3 and is not binding precedent of the Board
4

5 UNITED STATES PATENT AND TRADEMARK OFFICE
6

7
8 BEFORE THE BOARD OF PATENT APPEALS
9 AND INTERFERENCES
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11
12 *Ex parte* MARTY SOLCZ and ANDREW NOESTHEDEN
13

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15 Appeal 2006-3026
16 Application 11/074,549¹
17 Technology Center 1700
18

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20 Oral Argument: None
21 Decided: 29 September 2006
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24 *Before: McKELVEY, Senior Administrative Patent Judge, and LORIN and*
25 *TIERNEY, Administrative Patent Judges.*

26
27 *McKELVEY, Senior Administrative Patent Judge.*
28

29 **DECISION ON APPEAL UNDER 35 U.S.C. § 134**
30

31 The appeal is from a decision of the Primary Examiner rejecting
32 claims 1-12, all the claims in the application on appeal.

33 We affirm.
34

¹ Application filed 8 March 2005. The real party in interest is Valiant International, Inc., a Canadian corporation having offices in Windsor, Ontario, Canada. Appeal Brief, page 1 (filed 12 April 2006).

1 **A. Findings of fact**

2 The following findings are believed to be supported by at least a
3 preponderance of the evidence.

4 Background of the invention

5 The invention relates to a method for cleaning an industrial part
6 following a manufacturing operation. Specification, page 1, lines 4-5.

7 In the manufacture of an engine part for use in an automobile engine,
8 it is necessary to clean the engine part following a manufacturing operation.
9 Specification, page 1, lines 7-8.

10 The part may contain not only cutting oils and lubricants as a result of
11 a machining operation to make the part, but also machine shavings, coarse
12 sand residue and the like. Specification, page 1, lines 9-10.

13 Failure to remove debris from the engine part can result in damage to
14 the engine after assembly of individual components parts into an engine.
15 Specification, page 1, lines 10-12.

16 According to applicants, prior to their invention in order to clean an
17 engine part of debris, the part was subjected to high pressure liquid sprays
18 which directed a cleaning solution toward the part. Specification, page 1,
19 lines 15-17.

20 After the part was cleaned, it was typically carried by a conveyor or
21 positioned in a dunnage container and allowed to dry under a forced air
22 dryer. Specification, page 1, lines 17-19.

23 Applicants tell us that one disadvantage of the prior method of
24 cleaning parts was that oftentimes cutting oils and shavings would pool in
25 the areas of the part. Specification, page 1, line 20 through page 2, line 1.

26 The disadvantages is said to have resulted in pollution of the facility
27 floor when conveying the part from one machining operation to the next, as

1 well as in premature pollution or saturation of the water-based washing
2 solution. Specification, page 2, lines 1-3.

3 We are also told that another disadvantage was that in some cases the
4 water spray was insufficient to remove all of the debris, such as metal
5 shavings, oil and coarse sand, from the part during cleaning. Specification,
6 page 2, lines 4-7.

7
8

The invention

9 The invention is readily understood by reference to the two
10 independent claims on appeal, *viz.*, claims 1 and 11.

11 Claim 1: A method for cleaning an industrial part comprising
12 the steps of: spinning the part at a speed and for a time period
13 sufficient to eject at least a portion of manufacturing debris from the
14 part following a manufacturing operation, thereafter power washing
15 the part with a cleaning solution.

16 Claims 11: A method for cleaning an industrial part in which
17 two or more manufacturing operations are performed on the part
18 comprising the steps of: spinning the part at a speed and for a time
19 sufficient to eject at least a portion of manufacturing debris and
20 cutting oil from the part prior to conveying it to the next
21 manufacturing operation; and washing the part with a cleaning
22 solution following a final manufacturing operation.

23

24

Examiner's rejection

25 The examiner rejected claims 1-12 as being unpatentable under
26 35 U.S.C. § 103 over Noestheden and Sickmeier.

27

1 Noestheden

2 Noestheden is U.S. Patent 6,511,550 B1 issued on 28 January 2003.

3 Noestheden is prior art vis-à-vis applicants under 35 U.S.C. § 102(b).

4 According to Noestheden, in the manufacture of automobile engines,
5 it is necessary, between various manufacturing steps and prior to assembly
6 of the engine, to both clean and dry many other parts which form the engine.
7 Col. 1, lines 11-15.

8 The parts may contain grease, machine shavings, core sand residue
9 and the like which must be removed prior to assembly. Col. 1, lines 15-18.

10 Failure to remove debris from the parts oftentimes results in damage
11 to the engine after assembly. Col. 1, lines 18-20.

12 Prior to the Noestheden invention, in order to clean debris from the
13 part, the part was subjected to high pressure liquid sprayers which directed a
14 cleaning solution toward the part. After the part was cleaned, it was placed
15 in a dunnage container and allowed to dry. Col. 1, lines 24-29.

16 A disadvantage of the process prior to Noestheden is said to have been
17 that oftentimes water or other cleaning solution used to clean the part would
18 pool in areas of the part. Col. 1, lines 30-33.

19 The part, however, needs to be dry before it is used in assembling an
20 engine. Col. 1, lines 37-42.

21 Noestheden claims to have solved the then existing problem by first
22 washing the part with a cleaning solution and thereafter spinning the part to
23 remove water. Col. 1, lines 49-61.

24 The Noestheden steps can readily be understood by reference to its
25 Fig. 1.

26 At step **10**, the part is washed in a cleaning solution which is
27 preferably water based. Col. 2, lines 11-12.

1 Any conventional method may be used to wash the part such as
2 subjecting the part to high pressure spray. Col. 2, lines 13-15.

3 After washing, the wet part is fixed to a spinning fixture **12** and is
4 spun at a speed and for a time sufficient to eject most of the cleaning
5 solution by centripetal force **14**. Col. 2, lines 22-32.

6 Noestheden tells us that rotational speed of the spinning step depends
7 on various factors and in practice the part is preferably spun at a rate of 150
8 to 500 rpm (revolutions per minute). Col. 2, lines 37-42.

9 The last step is drying the part after spinning. Col. 2, lines 43-54.

10
11 Difference between Noestheden and claimed subject matter

12 The principal difference between the subject matter described by
13 Noestheden and the subject matter of claims 1 and 11 is that Noestheden
14 does not describe a spinning step to remove debris prior to the power
15 washing step.

16
17 Sickmeier

18 Sickmeier is U.S. Patent 3,989,537 granted 2 November 1976.

19 Sickmeier is prior art vis-à-vis applicants under 35 U.S.C. § 102(b).

20 Sickmeier set out to solve a problem similar to applicants' problem.

21 Specifically, casting and machining of engine blocks result in a
22 relatively large amount of debris, including core sand, surface scale,
23 machining chips and the like which adhere to the walls and collect in various
24 cavities and pockets with the engine block. The debris is said to be difficult
25 to remove. Col. 1, lines 24-30.

26 Prior art procedures are said to be deficient in that they do not remove
27 debris which becomes packed into blind holes or recesses where it cannot be

1 easily reached or dislodged by mechanical or ordinary vibration methods.
2 Col. 1, lines 44-49.

3 Sickmeier uses a "resonant torsional vibration" apparatus to clean off
4 debris. Col. 1, line 58 through col. 2, line 3.

5 In addition to vibration, Sickmeier describes a preferred resonant
6 torsional vibration step in which the part being vibrated is also rotated to
7 permit debris to fall from the part. Col. 5, lines 11-16 and 52-58.

8 According to Sickmeier, his process removes greater amounts of
9 debris from both accessible and inaccessible locations within the part.
10 Col. 1, lines 61-64.

11 Sickmeier's overall process can readily be understood by reference to
12 Sickmeier claim 1. Col. 6, lines 12-28.

13
14 Difference between Sickmeier and the claimed subject matter

15 The principal difference between the subject matter described by
16 Sickmeier and the subject matter of claims 1 and 11 is that Sickmeier does
17 not describe a subsequent power washing step.

18
19 Skill in the art

20 Based on the prior art discussed in the specification and the prior art
21 relied upon by the Primary Examiner, it becomes apparent that a person
22 having ordinary skill in the engine part cleaning art would know quite a bit.

23 *First*, the person would know that debris is collected on engine parts
24 as they are machined.

25 *Second*, the person would know that the debris has to be cleaned off
26 prior to using the part to assemble an engine.

1 *Third*, the person would know that high pressure water spray can be
2 used to remove debris.

3 *Fourth*, the person would know that use of a water spray may not be
4 sufficient to remove all debris.

5 *Fifth*, the person also would know that a vibrating and rotating
6 apparatus can be used to help remove debris.

7 *Sixth*, the person would know that following water spraying, the part
8 would need to be dried.

9 *Seventh*, the person would know that spinning can be used to dry the
10 part. Apart from what one learns from Noestheden, almost everyone knows
11 that washing machines spin to at least pre-dry washed clothes and lettuce
12 spinners are used to remove water from lettuce after it is washed.

13

14 **B. Discussion**

15 Claims 2-10 stand or fall with claim 1. Claim 12 stands or falls with
16 claim 11. Appeal Brief, page 3.

17 Claim 1 and claim 11 call for spinning the part at a speed and for a
18 time period sufficient to eject at least a portion of the manufacturing debris
19 from the part. One skilled in the art would recognize that Sickmeier does
20 exactly that. While Sickmeier also uses vibration along with spinning,
21 nothing in applicants' claims precludes the use of vibration. The claims are
22 "comprising" claims and therefore permit the use of steps not explicitly
23 recited in the claims. One skilled in the art would have known that the
24 vibration and rotation described by Sickmeier removes debris.

25 In prosecution, claims are given their broadest reasonable
26 interpretation consistent with the specification. Applicants say that spinning
27 has to be sufficient to eject at least a portion of any debris on the part.

1 Specification, page 2, line 21 through page 3, line 2. Sickmeier vibrates and
2 rotates so that debris will be removed off the part being rotated. Applicants
3 seek the same result, *i.e.*, removal of debris, through spinning or rotation.
4 Hence, the language "spinning" in claims 1 and 11 does not distinguish the
5 claims from "rotation" described by Sickmeier.

6 One skilled in the art would also know that power washing has been
7 used to remove debris, but that power washing may not remove all debris.
8 Therefore one skilled in the art would recognize that it would be useful at
9 some point in the process to remove debris which may not necessarily be
10 removed by the power washing step.

11 What surfaces in this appeal is that applicants claim the use of known
12 debris removing techniques for their intended purpose. Specifically,
13 applicants claim the use of known rotational (*i.e.*, spinning,) and power wash
14 techniques to clean manufactured parts.

15 It is not apparent, on this record, how the claimed process results in a
16 different function being achieved. In other words, what is the practical
17 advantage of the claimed process vis-à-vis the process described by
18 Noestheden? The Noestheden process is said to remove debris. Applicants,
19 which include Noestheden, now tell us in the specification that Noestheden
20 is not necessarily efficient in removing debris (at least "in some cases", none
21 of which are identified). What that means, of course, is that additional steps
22 must be taken by those skilled in the art using the Noestheden process when
23 the Noestheden process "in some cases" does not remove all debris. Another
24 debris removing step is a manifest solution. Sickmeier provides a known
25 additional method for removing debris. One skilled in the art manifestly
26 would know that both debris removing steps could be combined to more
27 efficiently remove debris "in ... [those] cases" where power washing itself

1 turned out to be sufficient. Applicants' use of known techniques for their
2 intended purpose to achieve an expected result is persuasive evidence that
3 the subject matter as a whole would have been obvious. *Anderson's-Black*
4 *Rock, Inc. v. Pavement Salvage Co.*, 396 U.S. 57 (1969); *Sakraida v. AG*
5 *Pro, Inc.*, 425 U.S. 273 (1976).

6 Applicants maintain at page 5 of the Appeal Brief that the only
7 reasonable combination of Noestheden and Sickmeier would comprising a
8 cleaning method in which the part is first vibrated as shown by Sickmeier
9 and subsequently subject to a power wash followed by a spinning operation
10 as taught by Noestheden. "That, however, is clearly not [a]pplicant's
11 invention as it is defined in claim 1. Rather, claim 1 in the instant
12 application clearly defines the step of first spinning the part (not subjecting it
13 to a vibratory table) and then subsequently power washing the industrial
14 part." Applicants' argument clearly misapprehends the scope of claim 1.
15 Nothing in applicants' claim precludes the use of Sickmeier vibration table.
16 Applicants have not come to grips with the fact that the Sickmeier process
17 involves both vibration and rotation (*i.e.*, spinning) and that the overall
18 process gets rid of debris. The very combination which applicants concede
19 is reasonable, meets the limitations of claims 1 and 11.

20 Applicants also maintain at page 5 of the Appeal Brief that there is
21 no motivation apart from their specification to combine rotational and power
22 wash steps. Applicants do not deny that their claimed steps are each known
23 for the purpose for which applicants are using them. Applicants fail to
24 recognize that those skilled in the art are necessarily motivated to use known
25 techniques for their intended purpose. That is what those skilled in the art
26 do and that is all that applicants have done.

1 Applicants further maintain at page 6 of the Appeal Brief that there is
2 absolutely no teaching in either Noestheden or Sickmeier of merely spinning
3 a part in between sequential manufacturing operations in order to remove
4 debris from the part and power washing only following a final
5 manufacturing step. Applicants do not, and cannot, claim to have invented a
6 process where sequential manufacturing operations are used to make an
7 engine part. Based on the prior art before us (*i.e.*, what applicants tell us in
8 the specification and the prior art cited by the Primary Examiner), it is
9 abundantly clear that one skilled in the art knows of techniques to eliminate
10 debris and knows that they can be used where necessary. Nothing in this
11 record suggests that those skilled in the art would not use one or more of the
12 known techniques between manufacturing steps and Noestheden suggests
13 that they would. In doing what applicants claim to be doing, no new
14 function is performed and no new benefit is achieved. What applicants
15 would have us believe their process achieves is the very thing the prior art
16 tells us will be achieved: an engine part free of debris. Claims 1 and 11 for
17 a combination of steps which only unite old steps with no change in their
18 respective functions, if granted in a patent, would withdraw what already is
19 known into the field of its monopoly and diminish the resources available to
20 those skilled in the art. Section 103, as interpreted by the Supreme Court,
21 tells us that applicant is not entitled to a patent containing claims 1-12.
22 *Sakraida v. AG Pro, Inc.*, 425 U.S. 273, 281 (1976); *Great Atlantic &*
23 *Pacific Tea Co. v. Supermarket Equipment Co.*, 340 U.S. 147, 152-153
24 (1950). Consistent with *Graham v. John Deere Co.*, 383 U.S. 1, 6, 18
25 (1966), the Primary Examiner has given proper effect to the constitutional
26 standard by an appropriate application of the statutory scheme as enacted by

1 Congress through § 103; the Primary Examiner has not erred in "sifting out
2 [applicants'] unpatentable material."

3

4 **C. Order**

5 Upon consideration of the record, and for the reasons given, it is
6 ORDERED that the decision of the Primary Examiner rejecting
7 claims 1-12 under 35 U.S.C. § 103 is affirmed.²

8 FURTHER ORDERED that the provisions of 37 CFR
9 § 1.136(a) are not applicable to time periods for taking subsequent action.

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|----|-------------------------------------------|---|---------------|
| 13 | <u>/ss/ Fred E. McKelvey</u> |) | |
| 14 | FRED E. McKELVEY |) | |
| 15 | <i>Senior Administrative Patent Judge</i> |) | |
| 16 | |) | BOARD OF |
| 17 | <u>/ss/ Hubert C. Lorin</u> |) | PATENT |
| 18 | HUBERT C. LORIN |) | APPEALS |
| 19 | <i>Administrative Patent Judge</i> |) | AND |
| 20 | |) | INTERFERENCES |
| 21 | <u>/ss/ Michael P. Tierney</u> |) | |
| 22 | MICHAEL P. TIERNEY |) | |
| 23 | <i>Administrative Patent Judge</i> |) | |

² Another appropriate rejection might have been based on double patenting over (1) the claims of Noestheden and (2) the disclosure of Sickmeier. In our view, however, a double patenting rejection would stand or fall with the rejection made by the Primary Examiner under 35 U.S.C. § 103. For this reason, we find it unnecessary. and decline, to enter a new ground of rejection based on double patenting.

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