

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. 32

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte TOMOHIRO FUKUMURA and HITOSHI ONO

Appeal No. 2002-0914
Application No. 08/623,043

HEARD: December 11, 2002

Before ABRAMS, FRANKFORT, and BAHR, Administrative Patent Judges.
ABRAMS, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 1, 2 and 4-7, which are all of the claims pending in this application.

We REVERSE.

BACKGROUND

The appellants' invention relates to a vehicle drivetrain control system. An understanding of the invention can be derived from a reading of exemplary claim 1, which has been reproduced below.

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

Fujita	4,987,966	Jan. 29, 1991
Yamamoto	5,107,948	Apr. 28, 1992
Nakayama	5,262,950	Nov. 16, 1993
Ito <u>et al.</u> (Ito)	5,269,391	Dec. 14, 1993

The following are the rejections before us on appeal:

(1) Under 35 U.S.C. § 112, first paragraph:

Claims 1, 2 and 4-7 as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claims 1, 2 and 4-7 as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

(2) Under 35 U.S.C. § 112, second paragraph:

Claims 1, 2, 4 and 6 on the basis of Fujita.

Claim 5 on the basis of Fujita.

Claims 1, 2 and 4-7 on the basis of Yamamoto.

Claims 1, 2, 4 and 6 on the basis of Ito.

Claims 1, 2, 4 and 6 on the basis of Nakayama.

(4) Under 35 U.S.C. § 103(a):

Claim 5 on the basis of Fujita.

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. 26) for the examiner's complete reasoning in support of the rejections, and to the Brief (Paper No. 25) and Reply Brief (Paper No. 28) 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.

1. An automotive vehicle having an accelerator, comprising:
 - an engine operable by manipulating the accelerator to output varying engine torque,
 - drive wheels drivingly connected to the engine so that drive torque derived from the engine torque is imparted to the drive wheels,
 - an engine torque modifier operable in response to an engine torque modifier signal to change an instantaneous value of the engine torque to a desired value, and
 - a traction controller that determines the desired value of the engine torque to adjust an instantaneous slip amount of the drive wheels to a desired slip amount and to develop the engine torque modifier signal when the vehicle is in a drive torque control mode,
- wherein the traction controller determines:
- a value of running resistance torque that has taken place immediately before initiation of the drive torque control mode, and
 - during the drive torque control mode, the desired value of the engine torque as a function of the determined value of running resistance and a current value of accelerating resistance torque.

The Rejection Under The First Paragraph Of Section 112 Regarding Possession Of The Invention At The Time The Application Was Filed

The examiner contends that claims 1, 2 and 4-7 contain subject matter which was not described in the specification in such a way as to reasonably convey to one

are not clear “with regard to the meaning of running resistance,” specific information on the controller is not set forth in the specification, the specification does not define or describe an anti-brake device, and it is not clear from the specification how the actual weight of the vehicle is determined (Answer, pages 4 and 5).

An applicant shows possession of the claimed invention by describing it with all of its limitations using such descriptive means as words, figures, diagrams, and formulas that fully set forth the claimed invention. Lockwood v. American airlines, Inc., 107 F.3d 1565, 1572, 41 USPQ2d 1961, 1966 (Fed. Cir. 1997). There is a strong presumption that an adequate written description of the invention is provided when the application is filed; “we are of the opinion that the PTO has the initial burden of presenting evidence or reasons why persons skilled in the art would not recognize in the disclosure a description of the invention defined by the claims.” In re Wertheim, 541 F.2d 257, 263, 191 USPQ 90, 97 (CCPA 1976).

On pages 13-18 of the Brief, in response to the final rejection set forth in Paper No. 21, the appellants presented reasons why they believed the several issues raised in this Section 112 rejection were not well founded. These included reference to portions of the specification, explanations of why one of ordinary skill in the art would have

responded to the appellants' submissions regarding this rejection, and the others under the first paragraph of Section 112, merely by offering on pages 10-16 of the Answer his opinions as to why they were insufficient, which include unsupported statements that certain facts are "elemental" or "common" knowledge to one of ordinary skill in the art. These opinions are based, in large part, upon how the examiner believes the claims should be interpreted, which dismisses a number of the limitations as being expressions of intended use. It also includes the examiner's requirement that all elements necessary for a controller to function, such as internal operating devices and external sensors, must be recited in the claims and described in the specification. The examiner's comments also simply dispute the appellants' contentions such as, for example, that one of ordinary skill in the art could calculate the running resistance torque from Equation 8 and could determine the weight of the vehicle by a number of named means, without the examiner providing any explanation or evidence as to why this is the case.

The issue before us here is whether the description of the invention provided in the specification reasonably conveys to one skilled in the relevant art that the appellants had possession of the claimed invention at the time the application was filed. From our

present the examiner with a daunting task, in our opinion this clearly is a highly developed area of technology, and our analysis of the arguments, evidence and case law presented by the appellants, when compared to the discussion presented by the examiner, leads us to conclude that the specification reasonably conveys an understanding of the claimed subject matter to one skilled in this art. In this regard, we find ourselves to be in agreement with the arguments presented by the appellants on pages 13-18 of the Brief and pages 2 and 3 of the Reply Brief, and rather than repeat them in detail here, we incorporate them by reference in this decision.

This rejection of claims 1, 2 and 4-7 is not sustained.

*The Rejection Under The First Paragraph Of
Section 112 Regarding Enablement*

This rejection is directed against claims 1, 2 and 4-7, on the basis that the claims contain subject matter which was not described in the specification in such a way as to enable one skilled in the art to make and/or use the invention. The only item specifically mentioned in the examiner's statement of the rejection is the look-up table, which the examiner contends "is not considered to be adequate to cure the noted deficiencies in the specification." There then follows the instruction to "[s]ee section a)

was inadequate were not persuasive, and that discussion is applicable to this rejection also. That is, we likewise find no basis there that the description falls short of enabling one of ordinary skill in the art to make and/or use the invention.

As for the “look-up table,” it is utilized in conjunction with Equation 8, which is one of the equations provided to calculate the running resistance of the vehicle, and the appellants argue that one of ordinary skill in the art would have understood what this table is and how it is used. The examiner has not disputed the contention that “look-up tables” are known and understood by those of ordinary skill in the art. We have reviewed the applicable pages of the specification, which explain that the traction controller has a look-up table stored in its memory which contains engine torque data versus various combinations of accelerator depression degree and engine speed and that this table is utilized in the calculation of running resistance by means of Equation 8, and we find ourselves in agreement with the appellants that the description provided on pages 10 and 11 of the specification is sufficient to enable one of ordinary skill in this art to make and/or use this aspect of the invention.

It therefore is our opinion that, in the absence of specific explanation and evidence on the part of the examiner, the disclosure provided in the specification is

Claims 1, 2 and 4-7 also stand rejected as being indefinite “for omitting essential functional operational elements” such as the sensors and/or control means that are necessary for the traction controller to perform the recited functions. It is our opinion that this rejection is entirely without merit and we will not sustain it.

The second paragraph of 35 U.S.C. § 112 requires claims to set out and circumscribe a particular area with a reasonable degree of precision and particularity. In re Johnson, 558 F.2d 1008, 1015, 194 USPQ 187, 193 (CCPA 1977). In making this determination, the definiteness of the language employed in the claims must be analyzed, not in a vacuum, but always in light of the teachings of the prior art and of the particular application disclosure as it would be interpreted by one possessing the ordinary level of skill in the pertinent art. Id.

We agree with the appellants that one of ordinary skill in the art would have understood from the explanation of the traction controller and its functions set forth in the specification that certain sensors and control means are required in order for it to operate in the manner required by the claims. In this regard, particular reference is made to Figure 2 of the drawings and the applicable description of the traction controller in the specification, wherein various sensors that provide inputs to the traction

The Rejections Under Section 102

The first of these rejections is that claims 1, 2 and 4-6 are anticipated by Fujita, which is directed to a slippage preventing apparatus for a vehicle. It is the examiner's view that Fujita discloses elements corresponding to the structure recited in these claims, including controllers 31 and 32 which "either perform or are clearly capable of performing every non-limiting desired function recited in the claims. The claims are not structurally definitive over Fujita." The examiner also asserts that the portions of claims 1 and 2 that specify what the traction controller determines "are submitted to be void of patentable moment because they lack structural support in the claim" (Answer, page 8).

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 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). Applying this guidance of our reviewing court to the Fujita rejection, it is our conclusion that the rejection cannot be sustained. Our reasoning follows.

We begin by pointing out that the traction controller recited in claims 1 and 2 is described on page 6 of the specification as comprising a microcomputer including a

the values for the various inputs recited in the claims to determine the desired value of the engine torque and adjust an instantaneous slip amount of the drive wheels to a desired slip amount, and to develop the engine torque modifier signal, as is recited in the claims. This being the case, it is our view that the present situation is analogous to that presented in In re Allapat, 33 F.3d 1526, 31 USPQ2d 1545 (Fed. Cir. 1994), wherein the court stated that a general purpose computer in effect becomes a special purpose computer once it is programmed to perform particular functions pursuant to instructions from programmed software (33 F.3d at 1545, 31 USPQ 2d at 1588).

The appellants' controller is programmed to perform the particular functions specified in lines 12-17 of claim 1 and lines 12-22 of claim 2, which are presented in terms of determining certain values, and clearly this must be in response to instructions from programmed software. The examiner has not asserted that Fujita discloses or teaches a controller that determines the values recited in the appellants' claims. The examiner's position is that the Fujita controller anticipates the claims because it either inherently performs or is capable of performing in the manner of the controller recited in the claims, and thus the claims do not structurally define over the reference (Answer, page 7).

rejection. As for “structure,” the structure recited in independent claims 1 and 2 is a traction controller that performs certain determinations. The examiner has not adduced evidence that this structure is explicitly disclosed or taught by Fujita, or inherently is present in Fujita, and therefore the reference does not disclose or teach all of the “structure” required by the claims. This being the case, the reference does not anticipate claims 1, 2, 4 and 6, and we will not sustain this rejection.

Claim 5, which depends from claim 2, also stands rejected as being anticipated by Fujita, and it follows that we will not sustain the rejection of this claim.

Claims 1, 2 and 4-7 stand rejected as being anticipated by Yamamoto, and claims 1, 2, 4 and 6 by Ito and by Nakayama. All three of these references are directed to vehicle traction control systems. While expressed in somewhat different terms, as was the case with Fujita, the examiner’s rationale in each rejection is that the controllers disclosed in the references either inherently meet the limitations of the claims or are capable of doing so, and thus are anticipatory of the claimed subject matter. For the same reasons as were expressed above with regard to the rejection on the basis of Fujita, we will not sustain these rejections.

The Rejection Under Section 103

equation set forth in claim 5 in the Fujita controller to determine the accelerating resistance torque.

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).

The examiner has not presented any evidence in support of his rationale in this rejection, and we fail to perceive any teaching, suggestion or incentive which would have led one of ordinary skill in the art to operate the Fujita controller in accordance with the limitations provided in claim 5. This being the case, Fujita fails to establish a



CONCLUSION

None of the rejections are sustained.

The decision of the examiner is reversed.

REVERSED

NEAL E. ABRAMS
Administrative Patent Judge

CHARLES E. FRANKFORT
Administrative Patent Judge

JENNIFER D. BAHR

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