UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Ex parte ALAN R. SHEALY

Appeal No. 2006-1601
Application 09/828,579
Technology Center 3600

Decided: April 23, 2007

Before MICHAEL R. FLEMING, *Chief Administrative Patent Judge*, JENNIFER D. BAHR, ALLEN R. MacDONALD, LINDA E. HORNER, and ANTON W. FETTING, *Administrative Patent Judges*.

MacDONALD, *Administrative Patent Judge*.

DECISION ON APPEAL

AFFIRMED

I. STATEMENT OF CASE

Appellant appeals under 35 U.S.C. § 134 from the Final Rejection entered February 10, 2004. We have jurisdiction under 35 U.S.C. § 6(b).

Appellant invented a method and system for providing a business support and control system (Specification 1:13-14). More specifically, Appellant invented a method, system, and computer readable medium for providing for future rate changes in a billing system (Specification 2:22-23). The invention implements a future rate change to change a rate plan (tariff model) (Specification 2:12-14).

The appeal contains claims 1-20. Claims 1, 6, 11, and 16 are independent claims. Claims 6-9 and 11 are representative of the claimed invention and are reproduced as follows:

> 6. A method for providing for future rate changes in a billing system, said method comprising the steps of:
>
> identifying that a future rate plan is to be changed;
>
> selecting the future rate plan desired; and
>
> implementing the future rate change.
>
> 7. The method of claim 6, further comprising the step of:
>
> determining if the future rate change is a single plan change.
>
> 8. The method of claim 7, further comprising the step of:
>
> verifying that the future rate plan is consistent with an old rate plan if the future rate change is the single plan change.
>
> 9. The method of claim 6, further comprising the step of:
>
> selecting the effective date of the future rate plan.

11. A computer readable medium for providing for future rate changes in a billing system, comprising:

logic for identifying that a future rate plan is to be changed;

logic for selecting the future rate plan desired; and

logic for implementing the future rate change.

The Examiner entered a Final Rejection on February 10, 2004.

The Examiner rejected claims 1, 6, 9, 11, 14, 16, and 19 under 35 U.S.C. § 102(e) as being anticipated by Ehlers et al. (Ehlers), U.S. Patent 5,924,486, issued July 20, 1999, based on an application filed October 29, 1997.

The Examiner rejected claims 2-5, 7-8, 10, 12-13, 15, 17-18, and 20 under 35 U.S.C. § 103(a) as being unpatentable over Ehlers.

Appellant appealed from the Final Rejection and filed an Appeal Brief (the Brief) on January 10, 2005.

The Examiner entered an Examiner's Answer (the Answer) on October 20, 2005.

Appellant filed a Reply Brief (the Reply) on December 19, 2005.

We affirm. We also use our authority under 37 C.F.R. § 41.50(b) to enter a first new ground of rejection of claims 6-20 and a second new ground of rejection of claims 11-15.

II. ISSUES

The principal issues before the Board are whether Appellant has established (1) the Examiner erred in rejecting claims 1, 6, 9, 11, 14, 16, and 19 based on anticipation and (2) the Examiner erred in rejecting claims 2-5, 7-8, 10, 12-13, 15, 17-18, and 20 based on obviousness.

III. FINDINGS OF FACT

Findings of fact, as necessary, appear in the Analysis *infra*.

IV. ANALYSIS – EXAMINER'S REJECTIONS

A. *Claims 1, 6, 9, 11, 14, 16, and 19 - Whether Appellant has established that the Examiner erred in rejecting claims 1, 6, 9, 11, 14, 16, and 19 under 35 U.S.C. § 102?*

(1)
Introduction

It is axiomatic that anticipation of a claim under § 102 can be found only if the prior art reference discloses every element of the claim. *See In re King*, 801 F.2d 1324, 1326, 231 USPQ 136, 138 (Fed. Cir. 1986) and *Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick Co.*, 730 F.2d 1452, 1458, 221 USPQ 481, 485 (Fed. Cir. 1984).

(2)
Examiner's Prima Facie Case

The Examiner's prima facie case is set forth at pages 3-4 of the Answer.

(3)
Appellant's Response and Argument in the Brief

Appellant argues at page 16 of the Brief that Ehlers does not disclose "a billing system as is the subject of each and every claim."

Further, Appellant argues at page 17 of the Brief that Ehlers's use of the word "future" relates to future energy usage rather than future rate changes. Appellant argues, at page 18, that "[t]he processor in Ehlers et al. does look at rate tables of energy suppliers but those are **current** rate tables" and "there is **no**

disclosure of a mechanism, plan, arrangement or any scheme for 'providing for **future rate changes** in a billing system' as Applicant is claiming."

With respect to the "effective date" limitation of claims 9, 14, and 19, Appellant argues at pages 18-19 of the Brief, that the "user" in Ehlers is limited to a customer that "clearly has no prior knowledge of what plans the energy suppliers have with respect to rates they plan to charge in the future." Appellant goes on to argue "[s]uch user also does not have any prior knowledge of when these rates are to become effective, as such is a function of management decisions of the energy suppliers." Appellant then argues Ehlers's system merely communicates with various energy suppliers, determines their **existing** rates and then selects a supplier based on those rates and other criteria established by the user of Ehlers's system.

Finally, Appellant argues he "is concerned with the supplier side and the ability to program a billing system for ease of establishing rate changes at a future date."

(4)
The Examiner's Response in the Answer

With respect to the billing system of the claims, the Examiner responds at page 8 of the Answer that Ehlers teaches such at column 23, lines 24-28.

With respect to "future rate changes" and their "effective date," the Examiner responds at page 8 of the Answer that Ehlers teaches such because the energy supplier can communicate to the customer that a price change has occurred, causing the individual premises to re-compute their economic models. (Ehlers at col. 23, ll. 28-38). Furthermore, Ehlers teaches that the rates and start time for each rate are entered by the user (col. 27, l. 66 – col. 28, l. 2).

With respect to Appellant's "the supplier side" argument, the Examiner responds at pages 8-9 of the Answer that such a limitation is not claimed.

(5)
Appellant's Rebuttal in the Reply

Appellant rebuts the Examiner's response at pages 2-4 of the Reply.

With respect to the billing system of the claims, Appellant points out "[t]here simply is no disclosure in Ehlers that he sends out a 'bill' in any conventional sense of the word."

With respect to future rate changes and their effective date, Appellant points out:

> Respectfully, the passage quoted by the Examiner only indicates that purchasers are informed that "for upcoming time periods that a price change has occurred . . ." Appellants [sic] urge that this concept is completely different from the specifically claimed concept of identifying that a future rate plan is to be changed, as opposed to "has occurred." Moreover, the claimed concept of "selecting the future rate plan" at least suggests that there is more than one possibility from which to "select." The portion of Ehler [sic] cited by the Examiner reflects only that the potential purchaser is informed of the single price plan structure and that is [sic] "has occurred."

With respect to Appellant's earlier "the supplier side" argument in the Brief, Appellant's Reply does not address the Examiner's rebuttal of this argument.

(6)
Representative claims 6 and 9

We select claim 6 as representative of claims 1, 6, 11, and 16 for the purposes of our decision, and we select claim 9 as representative of claims 9, 14, and 19 for purposes of our decision.

(7)
The Board's Claim Construction

To determine whether Ehlers anticipates claims 6 and 9, we must first determine the scope of the claims. Our reviewing court stated in *Phillips v. AWH Corp.*, 415 F.3d 1303, 1315, 75 USPQ2d 1321, 1327 (Fed. Cir. 2005), *cert. denied, sub nom. AWH Corp. v Phillips*, 126 S. Ct. 1332 (2006):

> The claims, of course, do not stand alone. Rather, they are part of "a fully integrated written instrument," *Markman*, 52 F.3d at 978, consisting principally of a specification that concludes with the claims. For that reason, claims "must be read in view of the specification, of which they are a part." *Id.* at 979. As we stated in *Vitronics*, the specification "is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term." 90 F.3d at 1582.

Upon our review of Appellant's claim 6 in light of Appellant's Specification, we conclude the following:

(a) Preamble – The "future rate changes" of the preamble is not limited solely to rate changes that occur at some time after the present. Rather, Appellant's Specification specifically states that the "future rate changes system 50" has "the ability to provide for a change in rate plan to become effective immediately, at some preselected time, or on the next billing cycle run." (Specification 10:4-6). Thus Appellant has defined "future rate changes" broadly to include any time starting immediately.

Also, the "billing system" of the preamble is not limited solely to systems which send out bills in the conventional sense. Rather, Appellant's Specification specifically states "[t]he billing system 30 includes an accounting 31, reporting 32, billing 33, record collection

34 and a service and tariffs 35 modules." (Specification 9:22 -10:1). Thus, we conclude Appellant has exemplified "billing system" as a combination of one or more of the five disclosed modules numbered 31-35.

Additionally, the "system" of the preamble is not limited solely to the modules of Appellant's Specification. Appellant states that his invention is limited only by the scope of claim language. Specifically Appellant states:

> While the invention will be described in connection with these drawings, there is no intent to limit it to the embodiment or embodiments disclosed therein. On the contrary, the intent is to cover all alternatives, modifications, and equivalents included within the spirit and scope of the invention as defined by the appended claims.

(Specification 4:11-15).

> The foregoing description has been presented for purposes of illustration and description. It is not intended to be exhaustive or to limit the invention to the precise forms disclosed.

(Specification 11:17-19).

> The embodiment or embodiments discussed were chosen and described to provide the best illustration of the principles of the invention and its practical application to thereby enable one of ordinary skill in the art to utilize the invention in various embodiments and with various modifications as are suited to the particular use contemplated. All such modifications and variations are within the scope of the invention as determined by the appended claims when interpreted in accordance with the breadth to which they are fairly and legally entitled.

(Specification 11:21-12:3). We conclude that a "system" is inclusive of any group of mechanical components, any group of electrical components, any economic organization[1] (group of people), and combinations thereof for carrying out the method of claim 6. Appellant's preferred "system" is a combination of electrical components and people, e.g., telephones, computers, networks, (Specification 4:16-24) and "user to select" (Abstract, ll. 4-5). However, Appellant's claim is not limited solely to the preferred embodiment.

(b) Step of "identifying that a future rate plan is to be changed" –

A rate plan or tariff model is a "schedule of prices or fees,"[2] i.e., merely an abstraction in the form of information about prices or fees.

The "is to be changed" language does not limit this step to only rate changes that have not yet occurred as to the supplier. Rather, as Appellant states at page 4 of the Brief, this claimed step is exemplified by block[3] 63 in Appellant's Figure 4. Block 63 occurs after the rate change has occurred as to the supplier (block 61) but before the rate change has occurred as to the customer.

No limitation is placed on this claimed step as to the supplier side or customer side. No limitation is placed on how this claimed step is to be carried out.

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[1] *The American Heritage Dictionary* 1234 (2nd College Ed. 1982).
[2] *Id.* at 1244.
[3] Appellant uses the terms block, box, and step interchangeably in the Brief and Specification. We follow Appellant's usage when referring to the Brief or Specification.

Thus, we conclude the identifying step merely requires that anyone or anything identify in any way that a rate change is to occur as to the customer either immediately or at some later time.

(c) Step of "selecting the future rate plan desired" –

As above, no limitation is placed on this step as to the supplier side or customer side. No limitation is placed on how this claimed step is to be carried out.

The language "the future rate plan" does not limit this step to sequentially following the "identifying step." Rather, as Appellant states at page 4 of the Brief, this claimed step is exemplified by box 53 in Appellant's Figure 4, and box 53 occurs before block 63 (the identifying step). Further, nothing in this step requires selecting among more than one possible rate plan. Appellant's box 53 specifically states "INPUT NEW CUSTOMER RATE PLAN" in the singular. We find no disclosure in Appellant's Specification of a requirement of "more than one" possible rate plan with respect to this step.

Thus, we conclude the selecting step merely requires that anyone or anything select in any way a desired rate plan.

(d) Step of "implementing the future rate change" –

As above, no limitation is placed on this step as to the supplier side or customer side. No limitation is placed on how this step is to be carried out.

The language "implementing the future rate change" does not limit this step to only tangible implementations. Rather, as Appellant

states at page 4 of the Brief, this claimed step is exemplified by box 56 in Appellant's Figure 4. Appellant's box 56 specifically states "INPUT CURRENT DATE AS EFFECTIVE CONTRACT CHANGE DATE AND CHANGE RATE PLAN". The key word here is "contract." We find no disclosure in Appellant's Specification that implementing requires anything more than the parties agreeing to a contract change.

Thus, we conclude the implementing step merely requires that anyone or anything tangibly or intangibly agree in any way with respect to a rate change to occur as to the customer either immediately or at some later time.

Upon our review of Appellant's claim 9 in light of Appellant's Specification, we conclude the following:

(e) Step of "selecting the effective date of the future rate plan" –

As above, no limitation is placed on this step as to the supplier side or customer side. No limitation is placed on when this step occurs in relation to the steps of claim 6. No limitation is placed on how this step is to be carried out.

As Appellant states at page 5 of the Brief, this claimed step is exemplified by box 57 in Appellant's Figure 4. Appellant's box 57 specifically states "INPUT EFFECTIVE CONTRACT CHANGE DATE". Again, the key word here is "contract." We find no disclosure in Appellant's Specification that selecting requires anything more than the parties agreeing to the date of a contract change.

Consistent with our construction of claim 6 above, we conclude that this selecting step merely requires that anyone or anything at any time selects a specific effective date of the rate change.

(8)

The Board's analysis of Appellant's Arguments with respect to claims 6 and 9

As discussed above, Appellant argues Ehlers does not teach a billing system as claimed. We disagree. As we have already noted, a billing system is broader than a system that sends out bills. By Appellant's own example a billing system includes accounting, reporting, billing, record collection, and/or service and tariffs modules (Specification 9:22-10:1). As pointed out by the Examiner, such is described in Ehlers at column 23, lines 24-28.

Appellant also argues that Ehlers fails to provide for future rate changes at some effective date. We disagree for two reasons. First, by Appellant's own definition "future" includes immediately (Specification 10:4-6). Also, Ehlers explicitly describes "future rate changes" in the more limited sense of at some later time as follows (**emphasis added**):

column 3, lines 59-61 ("projected energy unit prices");

column 6, lines 15-16 ("schedule of projected energy unit prices"):

column 7, lines 52-55 ("**future energy unit price schedules**");

column 20, lines 37-40 ("energy supplier asking prices for energy units to select the energy supplier offering the **lowest possible price** from the available energy suppliers for current and **future time periods**");

column 23, lines 31-37 ("[a]n energy price increase may result in a communication to all potential purchasers of the energy units **for upcoming time periods that a price change has occurred**, causing

the individual premise systems to re-compute their economic models and either remain committed to the provider and the new price per energy unit, curtail usage or switch to another energy unit provider"); and

column 27, line 67 through column 28, line 2 ("the user will be prompted for supplier ID, rates, **start time for each rate**, length of time the rate is valid").

Looking to lines 31-37 of column 23 in particular, the price change for upcoming time periods (future rate change) has occurred as to the provider in that they have decided to change prices, but has not as to customer as they have yet to commit to the provider's new price. Therefore, we conclude that Ehlers explicitly teaches "future rate changes" that have not yet occurred as to the customer. Additionally, we conclude that Ehlers teaches that the future rate changes will have an effective date (start time).

Further, Appellant argues that his claim is concerned with the supplier side. We disagree. As we have already noted, we find no such limitation in claim 6.

Therefore, for the reasons above, we will sustain the Examiner's rejection of independent claims 1, 6, 9, 11, 14, 16, and 19 under 35 U.S.C. § 102.

B. *Whether Appellant has established that the Examiner erred in rejecting dependent claims 2-5, 7-8, 10, 12-13, 15, 17-18, and 20 under 35 U.S.C. § 103?*

(1)
Introduction

Claims 2-5 depend from claim 1; claims 7-8 and 10 depend from claim 6; claims 12-13 and 15 depend from claim 11; and claims 17-18 and 20 depend from claim 16.

In rejecting claims under 35 U.S.C. § 103, the Examiner bears the initial burden of establishing a prima facie case of obviousness. *In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992). *See also In re Piasecki*, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984). The Examiner can satisfy this burden by showing that some objective teaching in the prior art or knowledge generally available to one of ordinary skill in the art suggests the claimed subject matter. *In re Fine*, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). Only if this initial burden is met does the burden of coming forward with evidence or argument shift to the Appellants. *Oetiker*, 977 F.2d at 1445, 24 USPQ2d at 1444. *See also Piasecki*, 745 F.2d at 1472, 223 USPQ at 788.

An obviousness analysis commences with a review and consideration of all the pertinent evidence and arguments. "In reviewing the [E]xaminer's decision on appeal, the Board must necessarily weigh all of the evidence and argument." *Oetiker*, 977 F.2d at 1445, 24 USPQ2d at 1444. "[T]he Board must not only assure that the requisite findings are made, based on evidence of record, but must also explain the reasoning by which the findings are deemed to support the agency's conclusion." *In re Lee*, 277 F.3d 1338, 1344, 61 USPQ2d 1430, 1434 (Fed. Cir. 2002).

(2)
Examiner's Prima Facie Case

The Examiner's prima facie case is set forth at pages 5-7 of the Answer.

(3)
Appellant's Response and Argument in the Brief

Appellant argues at page 23 of the Brief that "the Examiner has failed to provide the supporting documentary proof requested by Applicant" with respect to the taking of Official Notice in "the February 10, 2004 Office Action."

Despite a general allegation of lack of motivation and hindsight (Br. 21), Appellant makes no further specific arguments in the Brief. We do not deem Appellant's general allegation to be an argument.

(4)
The Examiner's Response in the Answer

With respect to Appellant's request for documentary proof, the Examiner responds at pages 5-7 of the Answer with specific examples.

Although we do not deem it necessary to respond to Appellant's general allegation of lack of motivation and hindsight, the Examiner does respond at page 8 of the Answer. The Examiner rebuts the allegation by pointing to Ehlers at column 21, lines 14-15, which states a motivation of obtaining the maximum benefit for the occupant or utility bill payer.

(5)
Appellant's Rebuttal in the Reply

Appellant rebuts the Examiner's response at pages 4-5 of the Reply.

With respect to Appellant's earlier request for documentary proof, Appellant's Reply Brief does not address or comment on the specific examples provided in the Examiner's Answer. Therefore, we deem this request to be fully satisfied.

With respect to the Examiner's rebuttal of lack of motivation and hindsight, Appellant points out that while the cited column may provide "some small suggestion" it does not suggest the specifically claimed features of "determining whether the future rate change is a single plan change" (claims 2, 7, 12, and 17) and "verifying consistency of a future rate plan with an old rate plan" (claims 3, 8, 13, and 18).

(6)
Representative claims 7 and 8

We select claim 7 as representative of claims 2, 7, 12, and 17 for purposes of our decision, and we select claim 8 as representative of claims 3, 4, 8, 13, and 18 for purposes of our decision. We then address claims 5, 10, 15, and 20 jointly.

(7)
The Board's Claim Construction

Upon our review of Appellant's claim 7 in light of Appellant's Specification, we conclude the following:

(a) Step of "determining if the future rate change is a single plan change" –

As above, no limitation is placed on this step as to the supplier side or customer side. No limitation is placed on when this step occurs in relation to the steps of claim 6. No limitation is placed on how this step is to be carried out.

Consistent with our construction of claim 6 above, we conclude that this determining step merely requires that anyone or anything at any time determines whether there is more than a single rate change.

Upon our review of Appellant's claim 8 in light of Appellant's Specification, we conclude the following:

(b) Step of "verifying that the future rate plan is consistent . . ." –

As above, no limitation is placed on this step as to the supplier side or customer side. While this step must follow the step of claim 7, no limitation is placed on when this step occurs in relation to the steps of claim 6. No limitation is placed on how this step is to be carried out.

Consistent with our construction of claim 6 above, we conclude that this verifying step merely requires that anyone or anything at any time verifies in any form the consistency of the future rate plan with an old rate plan.

(8)

The Board's analysis of Appellant's Arguments with respect to claims 7 and 8

With respect to Appellant's request for documentary proof, we deem this issue to be moot in view of the specific examples provided in the Examiner's Answer which were not challenged in the Appellant's Reply.

As discussed above, Appellant also argues lack of motivation in Ehlers's "determining whether the future rate change is a single plan change" and "verifying consistency of a future rate plan with an old rate plan." We disagree.

As to the first feature, we agree with the Examiner that the motivation of obtaining maximum benefit to the customer suggests that it would be desirable in

the system of Ehlers to handle energy price increases (Ehlers, col. 23, ll. 24-28) from plural suppliers. Such would necessarily entail determining if there is more than a single rate change so that each could be processed in the system of Ehlers.

As to the second feature, we again agree with the Examiner as this feature is the whole basis for the Ehlers system. At column 31, lines 36-39, Ehlers explicitly describes using "criteria for the system to use to select acceptable suppliers" and that the criteria includes "price." Thus, future rate changes are verified against the criteria to determine consistency of the rate change with the criteria.

(9)

The Board's analysis with respect to claims 5, 10, 15, and 20

As previously noted, Appellant argues at page 23 of the Brief that "the Examiner has failed to provide the supporting documentary proof requested by Applicant with respect to the taking of Official Notice in the February 10, 2004 Office Action." This was Appellant's only specific point or argument with respect to claims 5, 10, 15, and 20. In response to Appellant's request, the Examiner provided a specific example (Answer 5-6). Appellant's Reply Brief does not further address or comment on the specific example provided in the Examiner's Answer. Therefore, we deem Appellant's request to be fully satisfied and the rejection of these claims is sustained.

(10)

Summary

Therefore, for the reasons above, we will sustain the Examiner's rejection of independent claims 2-5, 7-8, 10, 12-13, 15, 17-18, and 20 under 35 U.S.C. § 103.

V. ANALYSIS - NEW GROUND OF REJECTION

A. *Background*

We use our authority under 37 C.F.R. § 41.50(b) to enter a first new ground of rejection of claims 6-20 and a second new ground of rejection of claims 11-15. The basis for each is set forth in detail below.

B. *New Ground Of Rejection Under 35 U.S.C. § 101*

(1)
Introduction

On February 10, 2004, the Examiner rejected claims 6-10 under 35 U.S.C. § 101 because the "claimed steps . . . are abstract ideas, which can be performed mentally without interaction of a physical structure." That is, the result of claims 6-10 of "providing for future rate changes" is not considered to define a useful, concrete and tangible result. 35 U.S.C. § 101 provides:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

In response, Appellant's argued at page 12 of the Brief that the claims were directed to a practical application because "the method, as claimed, produces a concrete, tangible and useful result." Appellant goes on to argue at page 13 that "[i]mplementation of rate changes in customer care and billing centers are an important feature for customers." Appellant then argues at page 14 that the subject method provides "versatility and does so in an efficient and fast manner of execution." Appellant then concludes that "the steps set forth in claims 6-10 do

produce a concrete, tangible and useful result, and are thus statutory in accordance with 35 USC § 101."

In turn, the Examiner concluded that the arguments overcame the rejection under 35 U.S.C. § 101. The rejection was withdrawn at page 7 of the Answer. We disagree with the Examiner's conclusion for the reasons discussed *infra*, and we apply the rejection of claims 6-10 anew. Additionally, we reject claims 11-20 on the same ground.

(2)
Rejection of claims 6-10 under 35 U.S.C. § 101

Claims 6-10 are rejected under 35 U.S.C. § 101 because the claimed invention is directed to non-statutory subject matter. Claim 6, reproduced *supra*, is representative.

Under a broadest reasonable interpretation, Appellant's claims do not require computer-implementation. See Section IV *supra*. The issue is whether Appellant's claims 6-10, which cover methods of providing future rate changes involving no transformation and no process involving the other three statutory categories (machine, manufacture, or composition of matter),[4] are patentable subject matter under 35 U.S.C. § 101. So construed, Appellant's claims are

[4] "A machine is a concrete thing, consisting of parts, or of certain devices and combination of devices." *Burr v. Duryee*, 68 U.S. 531, 570 (1863). The term "manufacture" refers to "'the production of articles for use from raw or prepared materials by giving to these materials new forms, qualities, properties, or combinations, whether by hand-labor or by machinery.'" *Diamond v. Chakrabarty*, 447 U.S. 303, 308, 206 USPQ 193, 196-97 (1980) (quoting *American Fruit Growers, Inc. v. Brogdex Co.*, 283 U.S. 1, 11, 8 USPQ 131, 133 (1931)). A "composition of matter" by its own terms requires matter. *Chakrabarty*, 447 U.S. at 308, 206 USPQ at 196-97.

unpatentable under section 101 because (i) they do not qualify as a "process" under section 101, as that term has been interpreted by case law, (ii) they seek to patent an abstract idea, and (iii) the "useful, concrete, and tangible result" test does not apply here, but the claims nevertheless do not meet that test.

Method claim 6 differs from traditional process claims in several respects. For example, the claim does not recite any particular way of implementing the steps, nor does it require any machine or apparatus to perform the steps. In addition, the method claim does not recite any electrical, chemical, or mechanical acts or results, which are typical in traditional process claims. Finally, the claim does not call for any physical transformation of an article to a different state or thing, nor does it require any transformation of data or signals. The question of whether any of these distinctions takes claim 6 outside the realm of patent-eligible subject matter has never been squarely addressed by the Federal Circuit. Appellant's claims are not the type of method that the Supreme Court or Federal Circuit has ever found patentable under section 101.

(a)
Reading the Supreme Court's and Federal Circuit's Precedents Together, A Section 101 "Process" Has Always Transformed Subject Matter, Whether Tangible or Intangible, Or Has Been a Process That Involved The Other Three Statutory Categories

The scope of patentable subject matter under section 101 is broad, but not infinitely broad. "Congress included in patentable subject matter *only* those things that qualify as 'any ... process, machine, manufacture, or composition of matter, or any ... improvement thereof....'" *In re Warmerdam*, 33 F.3d 1354, 1358, 31 USPQ2d 1754, 1757 (Fed. Cir. 1994) (quoting 35 U.S.C. § 101) (emphasis added).

Thus, "[d]espite the oft-quoted statement in the legislative history of the 1952 Patent Act that Congress intended that statutory subject matter 'include anything under the sun that is made by man,'[citation omitted], Congress did not so mandate." *Id.*

In the case where a claim is for a process, as opposed to a product, "[t]he line between a patentable 'process' and an unpatentable 'principle' is not always clear. Both are 'conception[s] of the mind, seen only by [their] effects when being executed or performed." *Parker v. Flook*, 437 U.S. 584, 589, 198 USPQ 193, 198 (1978) (quoting *Tilghman v. Proctor*, 102 U.S. 707, 728 (1880)). "The holding that the discovery of [*Benson*'s] method could not be patented as a 'process' forecloses a purely literal reading of § 101." *Flook*, 437 U.S. at 589, 198 USPQ at 197. "[W]hen a claim containing [an abstract idea] implements or applies that [idea] in a structure or process which, when considered as a whole, is performing a function which the patent laws were designed to protect (*e.g.*, transforming or reducing an article to a different state or thing), then the claim satisfies the requirements of § 101." *Diamond v. Diehr*, 450 U.S. 175, 192, 209 USPQ 1, 10 (1981); *see also Gottschalk v. Benson*, 409 U.S. 64, 70, 175 USPQ 673, 676 (1972) ("Transformation and reduction of an article 'to a different state or thing' is the clue to the patentability of a process claim that does not include particular machines.").[5]

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[5] The principal exception to this rule, as explained *infra*, is when the machine-implemented method merely manipulates abstractions. *See Benson*, 409 U.S. at 71-72, 175 USPQ at 676-77. In addition, merely attaching a machine to an otherwise ineligible method may not be sufficient and would depend on how the machine actually implemented the recited steps. For example, if a nonstatutory claim were amended so that a recited step of registering a customer was performed by entering data into a computer rather than using a sign-up sheet, it is hard to

The Supreme Court, however, presumably concerned about barring patents for future, unforeseeable technologies, declined to rule on whether its precedent foreclosed any other possible avenues for a method claim to qualify as a section 101 process: "It is argued that a process patent must either be tied to a particular machine or apparatus or must operate to change articles or materials to a 'different state or thing.' We do not hold that no process patent could ever qualify if it did not meet the requirements of our prior precedents." *Benson*, 409 U.S. at 71, 175 USPQ 676. Rather than rule on this question in *Benson* and *Flook*, the Supreme Court decided those cases based on the abstract idea exception to patentability. *Benson*, 409 U.S. at 71-72, 175 USPQ at 676-77; *Flook*, 437 U.S. at 594-95, 198 USPQ at 199-200.

Since *Diehr*, the Federal Circuit has reviewed several computer technology cases, and in acknowledgment of the innovations occurring in this technological field, identified a third category of method claims that qualify as a "process." Extrapolating from the Supreme Court's "transformation and reduction of an article" test, the Federal Circuit has held that transformation of intangible subject matter (*i.e.*, data or signals) may also qualify as a § 101 process. *See, e.g., State St. Bank & Trust Co. v. Signature Fin. Group, Inc.*, 149 F.3d 1368, 1373, 47 USPQ2d 1596, 1601 (Fed. Cir. 1998). Responding to the argument that process claims must recite a "physical transformation," the Federal Circuit in *AT&T* ruled that "physical transformation" "is not an invariable requirement, but merely one example of how a mathematical algorithm may bring about a useful application." *AT&T Corp. v. Excel Communications, Inc.*, 172 F.3d 1352, 1358, 50 USPQ2d 1447, 1452 (Fed. Cir. 1999). Quoting the Supreme Court's language, "*e.g.*,

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imagine how that alone would satisfy the requirements of § 101 and convert an otherwise ineligible claim into an eligible one.

transforming or reducing an article to a different state or thing" from *Diehr*, the *AT&T* court noted the usage of "*e.g.*" "denotes an example, not an exclusive requirement." *Id.* at 1359, 50 USPQ2d at 1452. *AT&T* went on to cite the transformation of intangible data signals in the method claim of *Arrhythmia Research Technology Inc. v. Corazonix Corp.*, 958 F.2d 1053, 1059, 22 USPQ2d 1033, 1038 (Fed. Cir. 1992), as an example that qualifies as a § 101 "process" in addition to the Supreme Court's test. *See id.* at 1359, 50 USPQ2d at 1452.

Accordingly, the Federal Circuit has consistently used its own "data transformation" test in assessing the eligibility of various machine-implemented claims. In *Alappat*, the court held that "data, transformed by a machine" "to produce a smooth waveform display" "constituted a practical application of an abstract idea." *State Street*, 149 F.3d at 1373, 47 USPQ2d at 1601. Specifically, the court in *Alappat* stated that the claimed invention as a whole was directed to a machine for "converting discrete waveform data samples into anti-aliased pixel illumination intensity data to be displayed on a display means." 33 F.3d 1526, 1544, 31 USPQ2d 1545, 1557 (Fed. Cir. 1994) (en banc). In *Arrhythmia*, the court held "the transformation of electrocardiograph signals" "by a machine" "constituted a practical application of an abstract idea." *State Street*, 149 F.3d at 1373, 47 USPQ2d at 1601. Specifically, the court in *Arrhythmia* stated "the number obtained is not a mathematical abstraction; it is a measure in microvolts of a specified heart activity, an indicator of the risk of ventricular tachycardia." 958 F.2d at 1062, 22 USPQ2d at 1039. Likewise, in *State Street*, the court held that "the transformation of data" "by a machine" "into a final share price, constitutes a practical application of a mathematical algorithm" because "a final share price [is] momentarily fixed for recording and reporting purposes and even accepted and

relied upon by regulatory authorities and in subsequent trades." 149 F.3d at 1373, 47 USPQ2d at 1601. Thus, while *Diehr* involved the transformation of a tangible object – curing synthetic rubber – Federal Circuit also regards the transformation of intangible subject matter to similarly be eligible, so long as data or signals represent some real world activity.

The Federal Circuit has never held or indicated that a process involving no transformation can qualify as a "process" under § 101. In fact, confronted with such claims, it has rejected them consistently. *See In re Schrader*, 22 F.3d 290, 294-295, 30 USPQ2d 1455, 1458 (Fed. Cir. 1994); *In re Grams*, 888 F.2d 835, 837, 12 USPQ2d 1824, 1826 (Fed. Cir. 1989) (rejecting claims to method of evaluating a system that incorporated a mathematical algorithm, where the only physical step was a data gathering step that was not tied to the algorithm); *In re Maucorps*, 609 F.2d 481, 484, 203 USPQ 812, 815 (CCPA 1979); *In re Meyer*, 688 F.2d 789, 796, 215 USPQ 193, 198 (CCPA 1982); *see also In re Alappat*, 33 F.3d at 1543, 31 USPQ2d at 1556 ("*Maucorps* dealt with a business methodology for deciding how salesmen should best handle respective customers and *Meyer* involved a 'system' for aiding a neurologist in diagnosing patients. Clearly, neither of the alleged 'inventions' in those cases falls within any § 101 category.").[6]

In *Schrader*, the court affirmed the 101 rejection of a method of competitively bidding on a plurality of related items, relying in part on the

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[6] *But see State Street*, 149 F.3d at 1376 n.14, 47 USPQ2d at 1603 n.14 (observing that "[*Maucorp* and *Meyer*] were subject to the *Benson* era *Freeman-Walter-Abele* test – in other words, analysis as it existed before *Diehr* and *Alappat*," without addressing the fact that it was the *Alappat* decision itself that made the observation that these inventions were "clearly" nonstatutory).

Freeman-Walter-Abele ("FWA") test. However, consistent with *Arrhythmia*, *Alappat*, *State Street*, and *AT&T*, the court also inquired into whether Schrader's method claim performed any kind of transformation. *Schrader*, 22 F.3d at 294, 30 USPQ2d at 1458 ("we do not find in the claim any kind of data transformation."). The court then distinguished Schrader's claim from the statutorily eligible claims in *Arrhythmia*, *In re Abele*, 684 F.2d 902, 214 USPQ 682 (CCPA 1982), and *In re Taner*, 681 F.2d 787, 214 USPQ 678 (CCPA 1982), pointing out that in these cases, "[t]hese claims all involved the transformation or conversion of subject matter representative of or constituting *physical activity or objects*. *Id.* (emphasis in original). *Schrader* expressly concludes that "a process claim [in] compliance with Section 101 requires some kind of transformation or reduction of subject matter."[7] *Id.* at 295, 30 USPQ2d at 1459. In sum, the Federal Circuit has never

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[7] Although the FWA test is no longer considered particularly probative in the context of computer-implemented process inventions in view of *Diehr* (*see, e.g.*, *State Street*, 149 F.3d at 1374, 47 USPQ2d at 1601), the erosion of FWA provides no support for the position that a non-machine implemented process, not involving any transformation, might be patentable. The answer to that question is still provided by *Schrader*, and that answer, so far, is negative. While *AT&T* indicated that *Schrader* is "unhelpful" because it did not reach the question whether a "useful, concrete, and tangible result" occurred, the reason that case did not need to reach that question was because it found that Schrader's method claims were unpatentable for lack of any transformation. In addition, Schrader's claims did not require machine-implementation, unlike AT&T's claims. *See AT&T*, 172 F.3d at 1358, 50 USPQ2d at 1452 ("AT&T's claimed process" uses "switching and recording mechanisms to create a signal useful for billing purposes."). Moreover, it is axiomatic that dicta in one Federal Circuit panel decision cannot overrule the holding of an earlier panel decision. *George E. Warren Corp. v. United States*, 341 F.3d 1348, 1351 (Fed. Cir. 2003) ("We cannot simply overrule [a prior panel] decision, even if we were persuaded . . . that it is appropriate; to overrule a precedent, the court must rule en banc" (citing *Newell Cos. v. Kenney Mfg. Co.*, 864 F.2d 757, 765, 9 USPQ2d 1417, 1423 (Fed.Cir.1988)).

ruled that methods without any transformation are eligible, and appears in *Schrader* to have rejected that proposition.

We believe that "process" should not be broadened so as to include any method that may be deemed useful, such as Appellant's future rate change claims. The Supreme Court's and Federal Circuit's articulated eligibility tests keep the interpretation of "process" *in pari materia* with the other three categories of inventions – manufacture, machine, and composition of matter. In other words, interpreting "process" as either transforming subject matter or implemented by one of the other three categories of inventions is rationally consistent with and proportional to the types of inventions patented under the other categories.[8] *See Tilghman v. Proctor*, 102 U.S. 707, 722 (1880) ("where the result or effect is produced by chemical action, by the operation or application of some element or power of nature, or of one substance to another, such modes, methods, or operations are called processes."); *see also AT&T*, 172 F.3d at 1356, 50 USPQ2d at 1450 ("any step-by-step process, be it electronic, chemical, or mechanical, involves an 'algorithm' in the broad sense of the term."). Accordingly, we do not believe that the boundaries of "process" should be so expansive as to accommodate all "useful" methods.

Following *Schrader*, Appellant's claims are unpatentable under section 101. The claims are similar to those rejected in *Schrader*, while distinguishable from *Arrhythmia*, *Alappat*, *State Street*, and *AT&T*. The claims do not transform any article to a different state or thing. The future rate change produced by the claims,

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[8] We do not propose in this decision a comprehensive rule for defining patentable subject matter in all circumstances. Rather, this decision illustrates that Appellant's claims fall outside the currently existing tests for eligibility and sees no reason to expand the existing tests to cover Appellant's claims.

while perhaps "useful" in one sense, is simply not the product of any transformation as understood in the case law. Further, the claims do not recite a process that employs the other statutory categories. Accordingly, the claims fail to meet any of the conditions set forth in the case law of either the Supreme Court or Federal Circuit.

(b)

Appellant's Claims Run Afoul of the "Abstract Idea" Exception

The Supreme Court has held that "[e]xcluded from such patent protection are laws of nature, natural phenomena, and abstract ideas." *Diehr*, 450 U.S. at 185, 209 USPQ at 7. "An idea of itself is not patentable.'" *Diehr*, 450 U.S. at 185, 209 USPQ at 7 (quoting *Rubber-Tip Pencil Co. v. Howard*, 20 Wall. 498, 507, 22 L.Ed. 410 (1874); *Benson*, 409 U.S. at 67, 175 USPQ at 675 ("[M]ental processes, and abstract intellectual concepts are not patentable."); *see also id.* at 71, 175 USPQ at 676 ("It is conceded that one may not patent an idea."). In contrast, "[i]t is now commonplace that an *application* of a law of nature or mathematical formula [or abstract idea] to a known structure or process may well be deserving of patent protection." *Diehr*, 450 U.S. at 187, 209 USPQ at 8 (emphasis in original).

Clever claim drafting cannot circumvent these principles. That is, even when a claim appears to apply an idea or concept as part of a seemingly patentable process, one must ensure that it does not in reality seek patent protection for that idea in the abstract. *Diehr*, 450 U.S. at 191, 209 USPQ at 10. Similarly, one cannot patent a process that comprises "every substantial practical application" of an abstract idea, because such a patent "in practical effect would be a patent on the

[abstract idea] itself." *Benson*, 409 U.S. at 71-72, 175 USPQ 676.[9] Such limitations on process patents are important because without them, "a competent draftsman [could] evade the recognized limitations on the type of subject matter eligible for patent protection." *Diehr*, 450 U.S. at 192, 209 USPQ at 10.

Because Appellant's claim 6 is completely untethered from any sort of structure or physical step, it is directed to a disembodied concept. In other words, the claim is nothing but a disembodied abstract idea until it is instantiated in some physical way so as to be limited to a practical application of the idea. For example, the claim does not specify whether the "billing system" is a computer, a human, or something else. Nor does the claim recite who or what is performing the step of "identifying" that a future rate plan is to be changed, the step of "selecting" the future rate plan desired, or the step of "implementing" the future rate change. Instead, those limitations merely describe steps or goals of the concept. Just as the concept of "identifying that a future rate plan is to be changed" is an abstract idea, so too is the notion of "selecting the future rate plan desired" and the notion of "implementing the future rate change." Accordingly, the claim is so broad that it is directed to the abstract idea itself, rather than a practical implementation of the concept. In addition, the claims are "so abstract and sweeping" that they would "wholly pre-empt" all applications of the notion of future rate changes in a billing

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[9] The observation in *State Street* that "[w]hether the patent's claims are too broad to be patentable is not to be judged under § 101, but rather under §§ 102, 103, and 112" did not, nor could it, overrule the Supreme Court's pre-emption doctrine. *See State Street*, 149 F.3d at 1377, 47 USPQ2d at 1604. Rather, pre-emption was not at issue in *State Street* since the claim in that case was particularly confined to a machine implementation, and did not suffer from the same defect as Appellant's claim.

system.[10] *See Benson*, 409 U.S. at 68-72, 175 USPQ at 675-677; *see also Alappat*, 33 F.3d at 1544, 31 USPQ2d at 1558 (quoting *Benson*).

It is true that process claims are not necessarily required to recite the means or structure for performing the claimed steps. *See, e.g., AT&T*, 172 F.3d at 1359, 50 USPQ2d at 1452. But process claims that do not require any machine implementation, and are thus intrinsically more abstract than product claims or method claims reciting structure, will often need to recite some sort of transformation act in order to clearly show that the method claim is for some specific application of the idea and represents something more than just a concept. *See, e.g., id.* at 1358, 50 USPQ2d at 1452 (noting that "AT&T's claimed process" uses "switching and recording mechanisms to create a signal useful for billing purposes."). Here, Appellant's claim lacks the "particularly claimed combination of elements" recited in *Alappat's* claim, the transformation of data by a machine recited in *State Street's* claim, the transformation of electrical signals in Arrhythmia's method claim, or the transformation of data useful for billing purposes in *AT&T's* method claim, and therefore lacks those characteristics that separate a practical application of an idea from just the idea itself.

[10] Indeed, the scope of the claim is so sweeping as to encompass the prior art utility rate change method described in Ehlers et al. (See Section IV of this decision).

(c)

The Federal Circuit's "Useful, Concrete, and Tangible Result" Test Has Never Been Applied to This Type of Claim; Nor Would Appellant's Claims Satisfy That Test If Applied

(i)

State Street's "Useful, Concrete, and Tangible Result" Test Is Limited to Machines and Machine-Implemented Methods That Transform Data

As discussed above, the development of the Federal Circuit's data transformation test was in response to a series of cases concerning the eligibility of machines and machine-implemented methods employing a mathematical algorithm. In assessing the eligibility of these specific types of claims, the court adopted a rule requiring such claims to produce a "useful, concrete and tangible result." *State Street*, 149 F.3d at 1373, 47 USPQ2d at 1600-1601. Based on inferences drawn from the apparent sweep of the useful, concrete, and tangible result test in combination with *State Street*'s repudiation of any business method exception to patentability, applicants have been filing claims for "processes" that are not traditional industrial processes, which contain no physical limitations and do not require any transformation. But this new brand of claims is beyond the purview of the Federal Circuit's holdings. The cases applying the useful, concrete, and tangible result test have all been confined to machine implementation of mathematical algorithms. Thus, the Federal Circuit has never stated that this is the general test for patent eligibility. In other words, any claim that might arguably yield a "useful, concrete, and tangible result" is not necessarily statutory subject matter.

Specifically, the "useful, concrete, and tangible result" test first appeared in *Alappat*, which states: "This [claimed invention] is not a disembodied

mathematical concept which may be characterized as an 'abstract idea,' but rather a specific machine to produce a useful, concrete, and tangible result." *Alappat*, 33 F.3d at 1544, 31 USPQ2d at 1557. The court in *Alappat* thus devised a standard to partition patentable inventions using mathematical algorithms from claims for disembodied mathematical concepts. *State Street* also involved claims to a machine employing a mathematical algorithm, but in this instance for managing a mutual fund investment portfolio. Finding the claim to be valid under § 101, *State Street* held that "transformation of data ... by a machine through a series of mathematical calculations into a final share price, constitutes a practical application of a mathematical algorithm, formula, or calculation, because it produces 'a useful, concrete and tangible result.'" *State Street* at 1373, 47 USPQ2d at 1601. Likewise, *AT&T* also ties this test to applications of mathematical algorithms: "Because the claimed process applies the Boolean principle to produce a useful, concrete, and tangible result without pre-empting other uses of the mathematical principle, on its face the claimed process comfortably falls within the scope of § 101." *AT&T*, 172 F.3d at 1358, 50 USPQ2d at 1452; *see also id.* at 1361, 50 USPQ2d at 1453 (concluding that "the focus is understood to be not on whether there is a mathematical algorithm at work, but on whether the algorithm-containing invention, as a whole, produces a tangible, useful result.").

However, the Federal Circuit has *never* suggested that its "useful, concrete, and tangible result" test was applicable outside the context of data transformation using a mathematical algorithm. Rather, the Federal Circuit has consistently and specifically linked this test to inventions that perform "a series of mathematical calculations" to transform data. Indeed, the Federal Circuit recently noted that the

test was specifically devised to handle eligibility issues for claims encompassing mathematical algorithms, thereby suggesting that it is *not* a general test for eligibility. *See NTP, Inc. v. Research In Motion, Ltd.*, 418 F.3d 1282, 1324, 75 USPQ2d 1763, 1795 (Fed. Cir. 2005) ("The *requirement* that a process transform data and produce a 'tangible result' was a standard devised to prevent patenting of mathematical abstractions" (citing *AT&T*, 172 F.3d at 1359, 50 USPQ2d at 1452) (emphasis added)). Furthermore, the "useful, concrete, and tangible result" test fails to resolve the tension between *State Street* and *Schrader*.

In *LabCorp* the dissent suggested that, if applied as a general criterion, the "useful, concrete, and tangible result" test would conflict with prior Supreme Court decisions. *Lab. Corp. of Am. Holdings v. Metabolite Labs., Inc.*, 126 S. Ct. 2921, 2928, 79 USPQ2d 1065, 1070 (2006) (Breyer, J., dissent from dismissal as improvidently granted) (observing that the Federal Circuit's statement that "a process is patentable if it produces a 'useful, concrete, and tangible result' . . . , if taken literally, . . . would cover instances where this Court has held the contrary"). Accordingly, the best reading of the precedent may limit that test to machines and machine-implemented methods using mathematical algorithms to transform data, rather than embracing it as a general test for eligibility.

Accordingly, our understanding of the precedents at present is: Any computer program claimed as a machine implementing the program (*Alappat, State Street*) or as a method of a machine implementing the program (*AT&T*), is patentable if it transforms data and achieves a useful, concrete and tangible result (*State Street, AT&T*). Exceptions occur when the invention in actuality pre-empts an abstract idea, as in a mathematical algorithm (*Benson*, 409 U.S. at 71-72, 175 USPQ at 676-677). Because Appellant's claims do not require a machine

implementing a mathematical formula to transform data, the "useful, concrete, and tangible result" test is irrelevant to considering the eligibility of Appellant's claims.

While *State Street* put the "ill-conceived" business method exception to patentability "to rest," 149 F.3d at 1375, 47 USPQ2d at 1602, it did not suggest that any and all types of "useful" methods for doing business are statutory subject matter. In accordance with the Supreme Court's and Federal Circuit's precedent, business method claims, like any method claim, must either be machine-implemented or transform subject matter into a different state or thing. Thus, while a process for transforming data to assist in differential billing for telephone users is eligible (*AT&T*), a method for promoting sales using a "buy one, get one free" scheme does not qualify as a "process," regardless of any useful or tangible result it produces.

(ii)

Appellant's Claims Do Not Produce a Useful, Concrete, and Tangible Result

Even if we accept as a given Appellant's position that he has established the "importance" (i.e. utility) of the invention by his argument, this does not automatically establish that the result is also tangible and concrete.

The identifying and selecting steps of claim 6 are performed on "rate plans" per se which are merely abstractions in the form of pricing information. Therefore, even if the results of the identifying and selecting steps were relevant to establishing a tangible result for the claim as a whole, these steps operate on abstractions and simply can not produce a tangible result.

Also, as already discussed in Section IV.A.(7), our review of the claims finds they produce an "agreement" by the parties. To reiterate, Appellant's Specification at page 4, lines 11-15, states "[w]hile the invention will be described in connection with these drawings, there is no intent to limit it to the embodiment or embodiments disclosed therein" and "[o]n the contrary, the intent is to cover all alternatives, modifications, and equivalents included within the spirit and scope of the invention as defined by the appended claims." *See also* Section IV.A.(7)(a). Since the language of claim 6 does not preclude implementing by mere "agreement," then based on Appellant's statements we must conclude that claim 6 is intended to include implementing by mere "agreement" as the result of the claimed process.

We see the question before us to be, whether an agreement by the parties, is a useful, tangible, and concrete result? As discussed *supra*, the Federal Circuit regards the transformation of intangible subject matter to be such a useful, tangible, and concrete result, so long as data or signals represent some real world activity. However, we do not find data or signals in claim 6 which represent a real world activity such as found in *Arrhythmia*, *Alappat*, or *State Street*.

Therefore, we conclude that Appellant's claims 6-10, which produce an agreement by the parties, fail to apply their abstract ideas to produce a useful and concrete and tangible result. Thus claims 6-10 fall outside the scope of § 101.

(3)
Rejection of claims 11-15 under 35 U.S.C. § 101

Claims 11-15 are rejected under 35 U.S.C. § 101 because the claimed invention is directed to non-statutory subject matter.

(a)
Rejection of claims 11-15 under 35 U.S.C. § 101

Claim 11 is directed to "[a] computer readable medium" and Appellant explicitly states "the computer-readable medium could even be paper" (Specification 9:10). Therefore, we conclude the "medium" of claim 11 merely requires information printed on paper. We have before us the classic "printed matter" situation.

Additionally, with respect to the "logic" printed on the medium, Appellant argues (Br. 10):

> With respect to the term "logic" as used in claims 11-15, the "Modern Dictionary of Electronics," 6th Ed., 1984 defines logic as follows:
>
> > "Logic: . . . (3) In computers and information-processing networks, the systematic method that governs the operations performed on the information, usually with each step influencing the one that follows."
>
> The use of the term "logic" in claims 11-15 is not contrary to the above accepted meaning in the art for the term "logic".

However, nothing in the claim precludes us from using an even broader definition of "logic" where the logic is "a system of reasoning" that is not limited to a computer or information processing network.[11] A system of reasoning is merely a systematic method that governs the reasoning performed on information, usually with each step influencing the one that follows where the operations. Further,

[11] The American Heritage Dictionary, 2nd College Edition, 1982, page 740.

nothing in the claim precludes the systematic method that governs the reasoning from being textual instructions about the reasoning to be performed by a person. For purposes of this rejection we adopt this broader definition of "logic."

Thus, we conclude that claim 11 merely requires a paper with (1) printed textual instructions for a person to follow to identify that a future rate plan is to be changed, (2) printed textual instructions for a person to follow to select the future rate plan desired, and (3) printed textual instructions for a person to follow to implement the future rate change, so as to provide information for use in future rate changes in a billing system.

We conclude that the "logic" of claim 11 does not require a computer program that implements functions on a computer system or a data structure that modifies a function of the computer system. Rather, the "logic" may be merely textual instructions that do not impart any functionality to a computer system, i.e., the "logic" is merely non-functional descriptive material. *See Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility* (Interim Guidelines), 1300 Off. Gaz. Pat. Office 142, 151 (Nov. 22, 2005). ("'[F]unctional descriptive material' consists of data structures and computer programs which impart functionality when employed as a computer component. . . . 'Non-functional descriptive material' includes but is not limited to music, literary works and a compilation or mere arrangement of data.").

> When nonfunctional descriptive material is recorded on some computer-readable medium, in a computer or on an electromagnetic carrier signal, it is not statutory since no requisite functionality is present to satisfy the practical application requirement. Merely claiming nonfunctional descriptive material, i.e., abstract ideas, stored in a computer-readable medium, in a computer, on an electromagnetic carrier signal does not make it statutory. *See Diehr*, 450 U.S. at 185-86, 209 USPQ at 8 (noting that the claims for an algorithm in Benson

> were unpatentable as abstract ideas because "[t]he sole practical application of the algorithm was in connection with the programming of a general purpose computer."). Such a result would exalt form over substance. *In re Sarkar*, 588 F.2d 1330, 1333, 200 USPQ 132, 137 (CCPA 1978) ("[E]ach invention must be evaluated as claimed; yet semantogenic considerations preclude a determination based solely on words appearing in the claims. In the final analysis under Sec. 101, the claimed invention, as a whole, must be evaluated for what it is.") quoted with approval in *Abele*, 684 F.2d at 907, 214 USPQ at 687). See also In re Johnson, 589 F.2d 1070, 1077, 200 USPQ 199, 206 (CCPA 1978) ("form of the claim is often an exercise in drafting"). Thus, nonstatutory music is not a computer component and it does not become statutory by merely recording it on a compact disk. Protection for this type of work is provided under the copyright law.

Id. For the reasons *supra*, we conclude that claim 11 is directed to non-statutory subject matter.

Claims 12-15 each recite a "medium" and "logic" for performing a function. The "medium" and "logic" of these claims share the same interpretations as discussed *supra* for "medium" and "logic" in claim 11. For the reasons *supra*, we conclude that claims 12-15 are also directed to non-statutory subject matter.

(b)

Alternative Theory of the § 101 Rejection of claims 11-15

Even if we were to adopt Appellant's narrower definition of "logic" (Br. 10) in construing claims 11-15, we reach the same ultimate conclusion. Appellant's "medium" includes paper, and a paper with printed logic in the form of computer instructions is still a paper printed with nonfunctional descriptive material. Appellant's Specification supports this because at least three separate steps (scanning, compiling, and interpreting) are required before the descriptive material

can be employed as a computer component in the computer memory thus becoming functional descriptive material (Specification 9:10-14).

The "medium" before us differs from the "memory" comprising a "data structure" found in *Lowry*. *In re Lowry*, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994). In *Lowry*, the court stated, "More than mere abstraction, the data structures are specific electrical or magnetic structural elements in a memory." The court concluded, "Lowry's data structures are physical entities that provide increased efficiency in computer operation" and "[t]hey are not analogous to printed matter." *Id.* "In sum, the [data structures in memory] perform a function." *Id.*

Despite Appellant's explanation that the printed matter will eventually be converted (by scanning, compiling, and interpreting) into a functional computer component, the claim before us does not contain that component, nor are these three steps functions performed by the claimed "medium." Rather, we merely find printed matter (Specification 9:10).

We conclude that even using Appellant's definition of logic, claims 11-15 are directed to a mere abstraction and do not perform a function. Thus, they fall outside the scope of § 101.

(4)
Rejection of claims 16-20 under 35 U.S.C. § 101

Claims 16-20 are rejected under 35 U.S.C. § 101 because the claimed invention is directed to non-statutory subject matter.

For the same reasons discussed *supra* with respect to claim 6, we conclude the system of claim 16 covers ("preempts") every substantial practical application

of the abstract idea. We conclude that the claim is so broad that it is directed to the "abstract idea" itself, rather than a practical implementation of the concept. Thus, the claimed process falls outside the scope of § 101.

Additionally, for the same reasons discussed *supra* with respect to claim 6, we conclude the system of claim 16 does not apply its abstract idea to produce a useful, concrete, tangible result.

Similarly, claims 17-20 merely require that anyone or anything determine if the change is a single change, validate consistency (in some form) of the plan, or select a specific effective date. For the same reasons discussed *supra* with respect to claims 6 and 16, we conclude the systems of claims 17-20 fall outside the scope of § 101.

C. *New Ground Of Rejection Under 35 U.S.C. § 103(a)*

(1)
Introduction

Claims 11-15 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Sloan et al. (Sloan), U.S. Patent 5,146,067, issued September 8, 1992.[12]

(2)
Rejection of claims 11-15 under 35 U.S.C. § 103(a)

With respect to this rejection under 35 U.S.C. § 103(a), as we discussed above in Section V. B.(3)(a), we have before us the classic "printed matter" situation. We reiterate that the storage "medium" of claims 11-15 merely requires being printed on paper (Specification 9:10). Also, we reiterate that the "logic" of claims 11-15 merely requires textual information in the form of plural "systems of

[12] Previously cited by the Examiner and provided to Appellant.

reasoning" for a person. As discussed *supra*, this "logic" is nonfunctional descriptive material because it does not impart functionality when employed as a computer component. *Interim Guidelines*, 1300 O.G. at 151.

The Sloan patent (the physical document itself) is a printed storage medium upon which is recorded (i.e., printed) nonfunctional descriptive material in the form of information about Sloan's invention. Sloan does not teach nonfunctional descriptive material in the form of "logic." However, nonfunctional descriptive material cannot render nonobvious an invention that would have otherwise been obvious. *In re Ngai*, 367 F.3d 1336, 1339, 70 USPQ2d 1862, 1864 (Fed. Cir. 2004). Cf. *In re Gulack*, 703 F.2d 1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983) (when descriptive material is not functionally related to the substrate, the descriptive material will not distinguish the invention from the prior art in terms of patentability).

(3)
Alternative Theory of the § 103(a) Rejection of claims 11-15

Even if we were to adopt Appellant's narrower definition of "logic" (Br. 10), we reach the same conclusion.

Claims 11-15 include paper with printed logic in the form of computer instructions, i.e., a paper printed with nonfunctional descriptive material. See our discussion at Section V.B.(3)(b). As such, we conclude the "logic" (printed computer instructions) of claims 11-15 lacks any new and nonobvious functional relationship with the "medium" (paper). See *In re Lowry*, 32 F.3d at 1584, 32 USPQ2d at 1035.

We conclude that even using Appellant's definition of logic, the subject matter of claims 11-15 is not patentable over the Sloan patent document for the reasons discussed in Section V.C.(2) *supra*.

VI. CONCLUSIONS OF LAW

Appellant has failed to establish that the Examiner erred in rejecting claims 1, 6, 9, 11, 14, 16, and 19 under 35 U.S.C. § 102(e) as being anticipated by Ehlers.

Appellant has failed to establish that the Examiner erred in rejecting claims 2-5, 7-8, 10, 12-13, 15, 17-18, and 20 as being unpatentable under 35 U.S.C. § 103(a) over Ehlers.

Claims 1-20 are not patentable.

VII. DECISION

The decision of the Examiner rejecting claims 1, 6, 9, 11, 14, 16, and 19 under 35 U.S.C. § 102 is affirmed, and the decision of the Examiner rejecting claims 2-5, 7-8, 10, 12-13, 15, 17-18, and 20 under 35 U.S.C. § 103 is affirmed.

We have entered a new ground of rejection against claims 6-20 under 37 C.F.R. § 41.50(b).

37 C.F.R. § 41.50(b) provides that, "[a] new ground of rejection pursuant to this paragraph shall not be considered final for judicial review."

37 C.F.R. § 41.50(b) also provides that the Appellant, *WITHIN TWO MONTHS FROM THE DATE OF THE DECISION*, must exercise one of the following two options with respect to the new grounds of rejection to avoid termination of proceedings as to the rejected claims:

> (1) Submit an appropriate amendment of the claims so rejected or new evidence relating to the claims so rejected, or both, and have the matter

reconsidered by the examiner, in which event the proceeding will be remanded to the examiner ...

(2) Request that the proceeding be reheard under 37 C.F.R. § 41.52 by the Board upon the same record ...

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED
37 C.F.R. § 41.50(b)

KIS

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