

1 UNITED STATES PATENT AND TRADEMARK OFFICE

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3  
4 BEFORE THE BOARD OF PATENT APPEALS  
5 AND INTERFERENCES  
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8 *Ex parte* PETER B. MADOFF, ALBERTO C. CASANOVA, and  
9 CHRISTOPHER KEITH  
10

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12 Appeal 2007-3524  
13 Application 09/272,542  
14 Technology Center 3600  
15

16  
17 Decided: October 21, 2008  
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20 Before WILLIAM F. PATE, III, LINDA E. HORNER, and  
21 ANTON W. FETTING, *Administrative Patent Judges*.  
22 FETTING, *Administrative Patent Judge*.

23 DECISION ON APPEAL

24 STATEMENT OF THE CASE

25 Peter B. Madoff, Alberto C. Casanova, and Christopher Keith (Appellants)  
26 seek review under 35 U.S.C. § 134 of a non-final rejection of claims 1-40, 55-58,  
27 and 64-78, the only claims pending in the application on appeal.

28 We have jurisdiction over the appeal pursuant to 35 U.S.C. § 6(b) (2002).

29 We AFFIRM-IN-PART.

1       The Appellants invented an automated auction system for trading products  
2 such as equity securities (Specification 1:3-4).

3       An understanding of the invention can be derived from a reading of exemplary  
4 claims 1 and 14, which are reproduced below [bracketed matter and some  
5 paragraphing added].

6       1. A method of auctioning products, said method executed over a  
7 distributed networked computer system, said method comprising:

8       [1] entering an order for a product

9               by specifying in the order at least conditions of

10                       a quantity of the product and

11                       an exposure time for which the order can be displayed for  
12                       responses;

13       [2] entering responses to the order,

14               at least some of the responses specifying a relative price with a  
15               price improvement

16                       with the relative price being relative to a generally  
17                       accepted indicator

18                               of a prevailing current market price for the  
19                               product,

20               and quantity for the product; and

21       [3] matching the order with a first one of the responses

22               that meets all of the conditions specified by the order

23               during the exposure time specified by the order,

24               with matching of the first one of the responses with the order  
25               terminating the auction.

26

27       14. A method of auctioning financial products over a distributed,  
28 networked computer system, said method comprising:

29       [1] entering orders for financial products into the distributed,  
30 networked computer system



1 Puneet Handa et al., “A Tale of Two Trading Venues: Electronically Delivered  
2 Orders vs. Floor Brokered Orders on the American Stock Exchange,” Proceedings  
3 of the 32<sup>nd</sup> Hawaii International Conference on System Sciences, 1999

4 REJECTIONS

5 Claim 64 stands rejected under 35 U.S.C. § 101 as directed to non-statutory  
6 subject matter.<sup>1</sup>

7 Claims 3 and 24-32 stand rejected under 35 U.S.C. § 112, first paragraph, as  
8 not enabling a person of ordinary skill in the art to make and use the claimed  
9 subject matter from the original disclosure.

10 Claims 2, 3, 20, 21, 24-32, and 77 stand rejected under 35 U.S.C. § 112, second  
11 paragraph, as failing to particularly point out and distinctly claim the invention.<sup>2</sup>

12 Claims 1, 3-19, 21-40, 55-58, 64-76, and 78 stand rejected under 35 U.S.C.  
13 § 103(a) as unpatentable over Silverman and Handa.

14 Claims 2, 20, and 77 stand rejected under 35 U.S.C. § 103(a) as unpatentable  
15 over Silverman, Handa, and Hawkins.

16 ISSUES

17 The issues pertinent to this appeal are

- 18 • Whether the Appellants have sustained their burden of showing that the  
19 Examiner erred in rejecting claim 64 rejected under 35 U.S.C. § 101 as  
20 directed to non-statutory subject matter.

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<sup>1</sup> The Examiner rejected claims 1-13, 55-58, and 71-78 as well (Answer 3) but withdrew those rejections (Answer 12).

<sup>2</sup> The Examiner rejected claim 38 for apparently contradicting its parent claim (Answer 6) but withdrew that rejection (Answer 14).



1           02. Silverman's Fig. 4 illustrates typical books in an order matching  
2           system. Silverman's Fig. 4 is a logical model of the book market pre-  
3           posting. The highest bid is at the top and the lowest is at the bottom.  
4           The worst offer is at the top and the best is at the bottom (Silverman  
5           9:46-65).

6           03. Every system order in Silverman carries one of two possible time  
7           constraints implied by the order type. Hit and take orders have the  
8           implied constraint fill-or-kill (FOK). These orders must be fully or  
9           partially filled at the time they are presented and then they are removed  
10          from the system or killed. Bid and offer orders preferably have the  
11          applied constraint good 'till cancel (GTC). These orders preferably must  
12          remain in the system until explicitly cancelled or until the end of the  
13          user's session (Silverman 21:5-15).

14          04. Silverman's central system validates a transaction request, processes  
15          the bid, offer, hit or take according to the rules of the market, and  
16          attempts to find matches between a new entry and the other bids and  
17          offers posted in the system book, subject to gross counterparty credit  
18          limits, between the potential counterparties to a potential matching  
19          transaction. If a match is found, and satisfies all criteria, then the trade is  
20          automatically executed, the participants to the trade are informed, all  
21          databases and trader screens are updated as to the quantities traded and  
22          the quantities remaining and a clearing agency may be informed as to the  
23          details of the trade so that payments and exchanges may be completed  
24          (Silverman 7:5-20).

25

1        *Handa*

2            05. Handa is directed to an analysis of the differences between  
3            electronically delivered orders and floor brokered orders on the  
4            American Stock Exchange (Handa: Title and Abstract).

5            06. Handa describes evidence of differential price improvement between  
6            electronically delivered orders and floor brokered orders (Handa:  
7            1: Right col., First full ¶).

8        *Facts Related To The Level Of Skill In The Art*

9            07. Neither the Examiner nor the Appellants have addressed the level of  
10           ordinary skill in the pertinent art of systems analysis and programming,  
11           financial systems, and data communications. We will therefore consider  
12           the cited prior art as representative of the level of ordinary skill in the  
13           art. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001)  
14           (“[T]he absence of specific findings on the level of skill in the art does  
15           not give rise to reversible error ‘where the prior art itself reflects an  
16           appropriate level and a need for testimony is not shown’”) (quoting  
17           *Litton Indus. Prods., Inc. v. Solid State Sys. Corp.*, 755 F.2d 158, 163  
18           (Fed. Cir. 1985).

19        *Facts Related To Secondary Considerations*

20           08. There is no evidence on record of secondary considerations of non-  
21           obviousness for our consideration.

1 PRINCIPLES OF LAW

2 *Claim Construction*

3 During examination of a patent application, pending claims are given  
4 their broadest reasonable construction consistent with the specification. *In*  
5 *re Prater*, 415 F.2d 1393, 1404-05 (CCPA 1969); *In re Am. Acad. of Sci.*  
6 *Tech Ctr.*, 367 F.3d 1359, 1364 (Fed. Cir. 2004).

7 Limitations appearing in the specification but not recited in the claim are not  
8 read into the claim. *E-Pass Techs., Inc. v. 3Com Corp.*, 343 F.3d 1364, 1369 (Fed.  
9 Cir. 2003) (claims must be interpreted “in view of the specification” without  
10 importing limitations from the specification into the claims unnecessarily).

11 Although a patent applicant is entitled to be his or her own lexicographer of  
12 patent claim terms, in *ex parte* prosecution it must be within limits. *In re Corr*,  
13 347 F.2d 578, 580 (CCPA 1965). The applicant must do so by placing such  
14 definitions in the Specification with sufficient clarity to provide a person of  
15 ordinary skill in the art with clear and precise notice of the meaning that is to be  
16 construed. *See also In re Paulsen*, 30 F.3d 1475, 1480 (Fed. Cir. 1994) (although  
17 an inventor is free to define the specific terms used to describe the invention, this  
18 must be done with reasonable clarity, deliberateness, and precision; where an  
19 inventor chooses to give terms uncommon meanings, the inventor must set out any  
20 uncommon definition in some manner within the patent disclosure so as to give  
21 one of ordinary skill in the art notice of the change).

22 *Enablement*

23 “[T]o be enabling, the specification of a patent must teach those skilled in  
24 the art how to make and use the full scope of the claimed invention without ‘undue  
25 experimentation.’” *In re Wright*, 999 F.2d 1557, 1561 (Fed. Cir. 1993). Some

1 experimentation, even a considerable amount, is not “undue” if, e.g., it is merely  
2 routine, or if the specification provides a reasonable amount of guidance as to the  
3 direction in which the experimentation should proceed. *In re Wands*, 858 F.2d  
4 731, 737 (Fed. Cir. 1988).

5 Factors to consider include “(1) the quantity of experimentation necessary,  
6 (2) the amount of direction or guidance presented, (3) the presence or absence of  
7 working examples, (4) the nature of the invention, (5) the state of the prior art, (6)  
8 the relative skill of those in the art, (7) the predictability or unpredictability of the  
9 art, and (8) the breadth of the claims.” *In re Wands*, 858 F.2d at 737.

#### 10 *Indefiniteness*

11 The test for definiteness under 35 U.S.C. § 112, second paragraph, is  
12 whether “those skilled in the art would understand what is claimed when the claim  
13 is read in light of the specification.” *Orthokinetics, Inc. v. Safety Travel Chairs,*  
14 *Inc.*, 806 F.2d 1565, 1576 (Fed. Cir. 1986) (citations omitted).

#### 15 *Nonstatutory Subject Matter*

16 35 U.S.C. § 101 provides:

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

22 This has been interpreted as follows:

23           In choosing such expansive terms as ‘manufacture’ and  
24           ‘composition of matter,’ modified by the comprehensive  
25           ‘any,’ Congress plainly contemplated that the patent laws  
26           would be given wide scope.

27 *Diamond v. Chakrabarty*, 447 U.S. 303, 308 (1980).

1 That wide scope nevertheless excludes laws of nature, natural phenomena, and  
2 abstract ideas. “Such discoveries are ‘manifestations of . . . nature, free to all men  
3 and reserved exclusively to none.’” *Id.* at 309, (quoting *Funk Bros. Seed Co. v.*  
4 *Kalo Inoculant Co.*, 333 U.S. 127, 130 (1948)). “Phenomena of nature, though just  
5 discovered, mental processes, and abstract intellectual concepts are not patentable,  
6 as they are the basic tools of scientific and technological work.” *Gottschalk v.*  
7 *Benson*, 409 U.S. 63, 67 (1972).

8 Thus, the claimed invention as a whole must accomplish a practical  
9 application. That is, it must produce a “useful, concrete and tangible result.” *State*  
10 *Street Bank & Trust Co. v. Signature Financial Group, Inc.*, 149 F.3d 1368, 1373  
11 (Fed. Cir. 1998). The purpose of this requirement is to limit patent protection to  
12 inventions that possess a certain level of “real world” value, as opposed to subject  
13 matter that represents nothing more than an idea or concept, or is simply a starting  
14 point for future investigation or research. *See e.g., Brenner v. Manson*, 383 U.S.  
15 519, 528-36 (1966); *In re Ziegler* 992, F.2d 1197, 1200-03 (Fed. Cir. 1993)).

### 16 *Obviousness*

17  
18 A claimed invention is unpatentable if the differences between it and the  
19 prior art are “such that the subject matter as a whole would have been obvious at  
20 the time the invention was made to a person having ordinary skill in the art.”  
21 35 U.S.C. § 103(a) (2000); *KSR Int’l Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1729-30  
22 (2007); *Graham v. John Deere Co.*, 383 U.S. 1, 13-14 (1966).

23 In *Graham*, the Court held that that the obviousness analysis is bottomed on  
24 several basic factual inquiries: “[1] the scope and content of the prior art are to be  
25 determined; [(2)] differences between the prior art and the claims at issue are to be  
26 ascertained; and [(3)] the level of ordinary skill in the pertinent art resolved.” 383

1 U.S. at 17. *See also KSR Int'l v. Teleflex Inc.*, 127 S.Ct. at 1734. “The  
2 combination of familiar elements according to known methods is likely to be  
3 obvious when it does no more than yield predictable results.” *KSR*, at 1739.

4 “When a work is available in one field of endeavor, design incentives  
5 and other market forces can prompt variations of it, either in the same field or a  
6 different one. If a person of ordinary skill can implement a predictable variation,  
7 § 103 likely bars its patentability.” *Id.* at 1740.

8 “For the same reason, if a technique has been used to improve one device,  
9 and a person of ordinary skill in the art would recognize that it would improve  
10 similar devices in the same way, using the technique is obvious unless its actual  
11 application is beyond his or her skill.” *Id.*

12 “Under the correct analysis, any need or problem known in the field of  
13 endeavor at the time of invention and addressed by the patent can provide a reason  
14 for combining the elements in the manner claimed.” *Id.* at 1742.

15 ANALYSIS

16 *Claim 64 rejected under 35 U.S.C. § 101 as directed to non-statutory subject*  
17 *matter.*

18 Claim 64 is to a computer program product method of auctioning securities  
19 comprising instructions to cause a computer to perform a series of steps. The  
20 Examiner found claim 64 was directed to software per se, which is an instance of  
21 abstract subject matter (Answer 4). The Appellants contend that the claim is  
22 directed to statutory subject matter because the instructions cause a computer to  
23 perform the recited acts (Appeal Br. 18) and are directed to a method rather than to  
24 software (Reply Br. 2).

1        We find that the preamble is ambiguous in referring to both a program product  
2 and method, but this ambiguity is resolved by the body of the claim which  
3 recites instructions rather than steps. Instructions in a computer are electrical  
4 characteristics that define the structure of the computer. Thus, claim 64 is directed  
5 to a product containing instructions rather than a method with steps. We agree  
6 with the Examiner that claim 64 recites nothing that would instantiate the  
7 instructions in any concrete or tangible computer media and accordingly the claim  
8 is drawn to a computer program containing instructions per se. We find the  
9 Appellants' argument that the instructions cause a computer to execute the  
10 instructions to not be commensurate with the scope of the claim, because nothing  
11 in the claim recites that the instructions are embodied on a tangible medium for a  
12 computer to recognize. As a computer program in itself is an abstraction, claim 64  
13 falls into the judicially recognized category of abstract subject matter that is  
14 outside the scope of patentable subject matter.

15        The Appellants have not sustained their burden of showing that the Examiner  
16 erred in rejecting claim 64 rejected under 35 U.S.C. § 101 as directed to non-  
17 statutory subject matter.

18

19

1        *Claims 3 and 24-32 rejected under 35 U.S.C. § 112, first paragraph, as not*  
2        *enabling a person of ordinary skill in the art to make and use the claimed subject*  
3        *matter from the original disclosure.*

4        Claim 3 requires the price of a response to change with changes in a generally  
5        accepted indicator. Claim 24 has a similar limitation. Claims 25-32 depend from  
6        claim 24.

7        The Examiner found that the Specification was silent as to re-accessing a price  
8        to update the price (Answer 5). The Appellants argue the Examiner misconstrued  
9        claim 3, because the recited change is automatic and requires no re-access as  
10       described by the Examiner (Appeal Br. 19). The Appellants contend that the price  
11       changing limitation is supported by the same disclosure for the relative price  
12       indicator in parent claim 1, found at Specification 2:24 - 9:11 (Appeal Br. 19,  
13       implicitly referring to Appeal Br. 4).

14       We agree with the Appellants. This portion of the Specification, particularly  
15       Specification 8:26 – 9:11, is directed to describing prices with an indicator relative  
16       to a National Best Bid Offer (NBBO) price, which fluctuates with time. Thus, the  
17       price implied by the response in claim 3, being tied to an indicator such as the  
18       NBBO price, would similarly change with changes in the NBBO price.

19       The first paragraph of 35 U.S.C. § 112 requires nothing more than objective  
20       enablement. *In re Marzocchi*, 439 F.2d 220, 223 (CCPA 1971). The Examiner  
21       has provided no analysis showing that those skilled in the art would not be  
22       able to make and use the full scope of the claimed invention without undue  
23       experimentation given the Specification and what was known to those of skill in  
24       the art. Nor has the Examiner given a reason to doubt the objective truth of the  
25       statements made in the Specification.

1       The Appellants have sustained their burden of showing that the Examiner  
2       erred in rejecting claims 3 and 24-32 under 35 U.S.C. § 112, first paragraph, as  
3       not enabling a person of ordinary skill in the art to make and use the claimed  
4       subject matter from the original disclosure.

5               *Claims 2, 3, 20, 21, 24-32, and 77 rejected under 35 U.S.C. § 112, second*  
6       *paragraph, as failing to particularly point out and distinctly claim the invention.*

7       The Examiner found that the limitation “less than or equal to about 30  
8       seconds” in claims 2, 20, and 77 were indefinite, citing *Amgen, Inc. v. Chugai*  
9       *Pharm. Co., Ltd.*, 927 F.2d 1200 (Fed. Cir. 1991) (Answer 5). The Appellants  
10       argue that the use of the word “about” was not indefinite per se, citing *Modine*  
11       *Manufacturing Co. v. United States International Trade Commission*, 75 F.3d 1545  
12       (Fed. Cir. 1996) (Appeal Br. 20). We agree with the Appellants.

13       *Amgen* held that the word “about” was indefinite when it characterized a value  
14       that was close to the value described in prior art. The court said that “[w]hen the  
15       meaning of claims is in doubt, especially when, as is the case here, there is close  
16       prior art, they are properly declared invalid,” but that its “holding that the term  
17       ‘about’ renders indefinite [the affected claims] should not be understood as ruling  
18       out any and all uses of this term in patent claims. It may be acceptable in  
19       appropriate fact situations.” *Amgen, id.* at 1217-1218. The Examiner has not  
20       shown that any art describes a value for the claimed number of seconds, much less  
21       a value near 30 seconds, and the Examiner has provided no evidence that the  
22       meaning of the claim is in doubt to one of ordinary skill.

1       The Examiner found claims 3<sup>3</sup> and 24, and their dependent claims 25-32,  
2 indefinite because it was unknown how the prices in those claims could  
3 be re-accessed (Answer 6). We find this is a continuation of the Examiner’s  
4 misunderstanding of claim 3 from the enablement rejection *supra*. As we found in  
5 our analysis of that rejection, the nature of the price that is submitted provides the  
6 capacity for change as in claim 3, so there is no re-accessing required.

7       The Examiner also found no antecedent basis for the limitation of “the process”  
8 in claim 21 (Answer 6). Claim 21 depends from claim 14, which is to a method.  
9 We take the Examiner to mean that one of ordinary skill would not understand that  
10 a process is a method. We disagree with the Examiner. The terms process and  
11 method are used interchangeably to refer to one of the four enumerated categories  
12 of patentable subject matter under 35 U.S.C. § 101. Although claim 21 would be  
13 easier to follow if the word “process” were changed to “method” we cannot say  
14 that one of ordinary skill would be confused by the use of the two terms in light of  
15 their notorious interchangeability.

16       The Appellants have sustained their burden of showing that the Examiner erred  
17 in rejecting claims 2, 3, 20, 21, 24-32, and 77 under 35 U.S.C. § 112, second  
18 paragraph, as failing to particularly point out and distinctly claim the invention.

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<sup>3</sup> The Examiner had also rejected claim 3 for lack of antecedent basis (Answer 6) but withdrew that rejection (Answer 14).

1 *Claims 1, 3-19, 21-40, 55-58, 64-76, and 78 rejected under 35 U.S.C. § 103(a) as*  
2 *unpatentable over Silverman and Handa.*

3 *Claims 1, 24, 40, 55, 64, and 71 and their dependent claims*

4 Independent claims 1, 24, 40, 55, 64, and 71 each recite the limitation of  
5 specifying a relative price and specifying or seeking a specified price  
6 improvement. The Examiner found that Silverman's Fig. 4 showed a relative price  
7 but did not describe price improvement. The Examiner found that Handa  
8 described such price improvement and concluded one of ordinary skill would have  
9 combined Handa with Silverman as price improvement is an important part of  
10 price discovery (Answer 7-9).

11 The Appellants contend that Silverman's Fig. 4 merely shows an arrangement  
12 of bids and offers in a sequence of value and time, and that Handa describes the  
13 value of price improvement, not the use of price improvement in entering data  
14 (Appeal Br. 24-26). We agree with the Appellants.

15 Silverman's Fig. 4 shows typical books in an order matching system.  
16 Silverman's Fig. 4 is a logical model of the book market pre-posting. The highest  
17 bid is at the top and the lowest is at the bottom. The worst offer is at the top and  
18 the best is at the bottom (FF 02). Thus, Silverman's Fig. 4 is not an order entry  
19 screen but a conceptual model of data used in Silverman. While we appreciate the  
20 Examiner's finding of ambiguity in the phrase "relative price" that would allow a  
21 construction of specifying a price that is in some sense relative to something else,  
22 Silverman's Fig. 4 does not show a user specifying such relative prices, only a  
23 conceptual model that happens to be arranged in a relative manner, and more  
24 critically does not show specifying a price improvement with a relative price that is  
25 specified.

1       The Examiner cites Handa for this feature of specifying a price improvement,  
2 but we find that Handa does no more than state that empirically there is evidence  
3 of differential price improvement between electronically delivered orders and floor  
4 brokered orders (FF 06). Handa does not describe or even suggest specifying a  
5 price improvement in entering one order, but only describes finding evidence after  
6 the fact that some unspecified price improvement was measured between two types  
7 of orders.

8       The Examiner, apparently seeing this difficulty, further finds that security sales  
9 are auction sales and that one of ordinary skill would have known to use price  
10 improvement as a mechanism for entering auction orders (Answer 19). We find  
11 this to be hypothetical speculation on the Examiner's part as the Examiner has put  
12 forth no evidence to support this finding.

13       Thus, we find the Examiner erred in rejecting independent claims 1, 24, 40, 55,  
14 64, and 71 and claims 3-13, 25-32, 56-58, 65-70, 72-76, and 78 that depend from  
15 them. We further find that dependent claims 35 and 38 separately argued by the  
16 Appellants (Appeal Br. 31-32), which depend from claim 33, contain similar  
17 limitations and accordingly the rejections against those claims, and claims 36 and  
18 37 depending from claim 35, are also in error. Since this issue is dispositive as to  
19 the rejections against these claims, we need not reach the remaining arguments  
20 raised by the Appellants against these rejections.

21       *Claims 14 and 33 and their dependent claims*

22       Independent claims 14 and 33 are directed to a method and apparatus similar to  
23 that in claim 1, but without the limitation regarding specifying a relative price with  
24 a price improvement. The Appellants contend that the art applied fails to describe  
25 an exposure time for which an order can remain active, and fails to describe that

1 responses or contra side orders that fully meet the terms of the order terminate the  
2 auction (Appeal Br. 30). The Examiner found that Silverman described such an  
3 exposure time in the time constraints at Silverman 21:5-16 (Answer 23) and that  
4 Silverman described terminating the auction with the orders that meet the terms at  
5 Silverman 18:55-58 and 20:36-39 (Answer 8).

6 We agree with the Examiner. Every system order in Silverman carries one of  
7 two possible time constraints implied by the order type. Hit and take orders have  
8 the implied constraint fill-or-kill (FOK). These orders must be fully or partially  
9 filled at the time they are presented and then they are removed from the system or  
10 killed. Bid and offer orders preferably have the applied constraint good 'till cancel  
11 (GTC) (FF 03). The Appellants argue that this is not an exposure time (Reply Br.  
12 6). By this we take the Appellants to mean that Silverman does not describe a  
13 fixed, discrete numeric value for the amount of time.

14 We find this argument is not commensurate with the scope of the claim.  
15 Claims 14 and 33 recite specifying an exposure time which the order can remain  
16 active. These claims do not further limit the manner in which such a time is  
17 specified. While both fill or kill and good till cancel times are variable and  
18 unknown in value at the time specified, both nevertheless specify an amount of  
19 time whose ultimate value will in fact be determined by succeeding events, those  
20 events being specified in the names of the two forms of time constraint described  
21 by Silverman. As such, these measures of time are within the broad recitation of  
22 the phrase “exposure time.”

23 As to responses or contra side orders that fully meet the terms of the order  
24 terminating the auction, we find that Silverman describes this operation that it is  
25 basic to all auction markets in securities (FF 04). The whole point of an auction

1 market is to find and execute a trade that meets the bid and offer specifications.  
2 Execution of the trade necessarily terminates the auction. Thus, we find the  
3 Appellants have not met their burden of showing the Examiner erred in rejecting  
4 claims 14 and 33 and the claims that depend from them, except for claims 35-38,  
5 which we found the Examiner erred in rejecting *supra*.

6 The Appellants have sustained their burden of showing that the Examiner erred  
7 in rejecting claims 1, 3-13, 24-32, 35-38, 40, 55-58, 64-76, and 78 under 35 U.S.C.  
8 § 103(a) as unpatentable over Silverman and Handa. The Appellants have not  
9 sustained their burden of showing that the Examiner erred in rejecting claims 14-  
10 19, 21-23, 33, 34, and 39 under 35 U.S.C. § 103(a) as unpatentable over Silverman  
11 and Handa.

12 *Claims 2, 20, and 77 rejected under 35 U.S.C. § 103(a) as unpatentable over*  
13 *Silverman, Handa, and Hawkins.*

14 Claims 2 and 77 depend from claims 1 and 71, whose rejection we found to be  
15 in error *supra*. Claim 20 depends from claim 14, whose rejection we found to not  
16 be in error. The Appellants grouped claim 20 with claim 14 (Appeal Br. 30).  
17 Accordingly, the Appellants have sustained their burden of showing that the  
18 Examiner erred in rejecting claims 2 and 77, but not claim 20, under 35 U.S.C.  
19 § 103(a) as unpatentable over Silverman, Handa, and Hawkins.

## 20 CONCLUSIONS OF LAW

21 The Appellants have sustained their burden of showing that the Examiner erred  
22 in rejecting claims 3 and 24-32 under 35 U.S.C. § 112, first paragraph, claims 2, 3,  
23 20, 21, 24-32, and 77 under 35 U.S.C. § 112, second paragraph, and claims 1-13,  
24 24-32, 35-38, 40, 55-58, and 64-78 under 35 U.S.C. § 103(a) as unpatentable over  
25 the prior art. The Appellants have not sustained their burden of showing that the

1 Examiner erred in rejecting claim 64 as unpatentable under 35 U.S.C. § 101 and in  
2 rejecting claims 14-23, 33, 34, and 39 under 35 U.S.C. § 103(a) as unpatentable  
3 over the prior art.

4 DECISION

5 To summarize, our decision is as follows:

- 6 • The rejection of claim 64 rejected under 35 U.S.C. § 101 as directed to non-  
7 statutory subject matter is sustained.
- 8 • The rejection of claims 3 and 24-32 under 35 U.S.C. § 112, first paragraph,  
9 as not enabling a person of ordinary skill in the art to make and use the  
10 claimed subject matter from the original disclosure is not sustained.
- 11 • The rejection of claims 2, 3, 20, 21, 24-32, and 77 under 35 U.S.C. § 112,  
12 second paragraph, as failing to particularly point out and distinctly claim the  
13 invention is not sustained.
- 14 • The rejection of claims 1, 3-13, 24-32, 35-38, 40, 55-58, 64-76, and 78  
15 under 35 U.S.C. § 103(a) as unpatentable over Silverman and Handa is not  
16 sustained.
- 17 • The rejection of claims 14-19, 21-23, 33, 34, and 39 under 35 U.S.C.  
18 § 103(a) as unpatentable over Silverman and Handa is sustained.
- 19 • The rejection of claims 2 and 77 under 35 U.S.C. § 103(a) as unpatentable  
20 over Silverman, Handa, and Hawkins is not sustained.
- 21 • The rejection of claim 20 under 35 U.S.C. § 103(a) as unpatentable over  
22 Silverman, Handa, and Hawkins is sustained.

