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UNIVERSITY OF MICHIGAN

Patent Law Basics – Part 2

Class 5 – October 3, 2008

SI 519 / PubPol 688

Bryce Pilz

Fall 2008

Leapfrog v. Fisher-Price, Mattel

LeapFrog LeadPad
Source: http://www.leapfrog.com/etc/medialib/leapfrog/leappad/leappad0.Par.66010.Image.350.jpg

Fisher-Price PowerTouch
Source: http://www.fisher-price.com/us/powertouch/default_flash.asp

Claim 25	PowerTouch
An interactive learning device, comprising:	✔
a housing including a plurality of switches;	✔
A sound production device in communication with the switches and including a processor and a memory;	✔
At least one depiction of a sequence of letters, each letter being associable with a switch; and	✔
A reader configured to communicate the identity of the depiction to the processor,	✔
Wherein selection of a depicted letter activates an associated switch to communicate with the processor, causing the sound production device to generate a signal corresponding to a sound associated with the selected letter, the sound being determined by a position of the letter in the sequence of letters.	?

"selection of a depicted letter" = "choosing a particular depicted letter from the depicted sequence of letters by contacting or coming into proximity to that particular depicted letter."

Source: Leapfrog Enterprises, Inc. v. Fisher-Price, Inc., 06-1402 (Fed. Cir. 2007)

No infringement

- Each and every element of claim 25 NOT met
- PowerTouch only allows selection of a word rather than a "depicted letter"

Obviousness of Claim 25

- Bevan + TI's SSR?

- Bevan

  – Electromechanical learning toy

  – Puzzle piece → sound related to piece

- SSR – Roadmap of modern electronics for learning
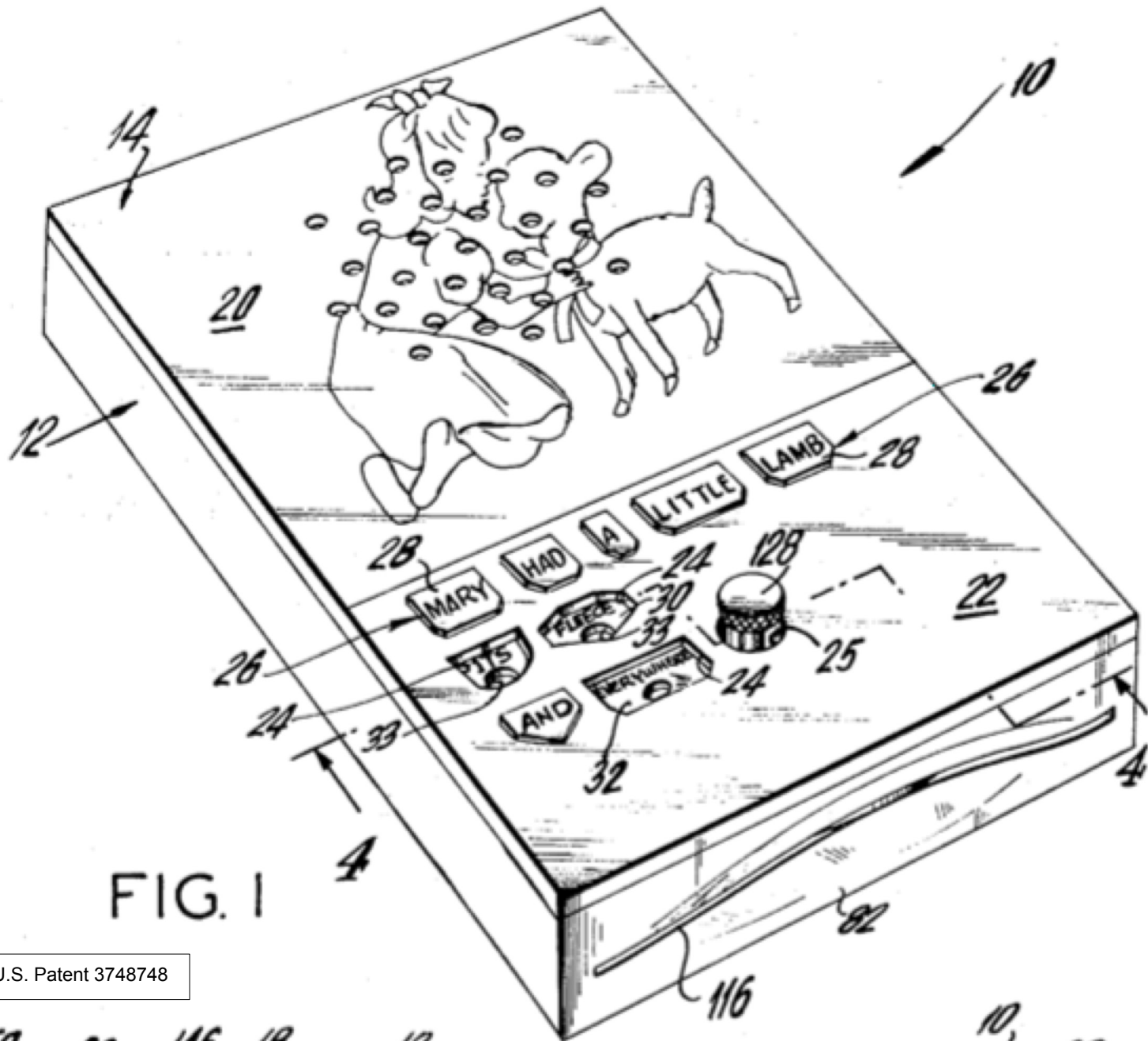
FIG. 1

Obviousness of Claim 25

Arguments

- Leapfrog: Bevan's device is merely mechanical (different in structure and interrelation of electronic components)
  - And no motivation to combine Bevan with SSR
- FP: Bevan – teaches reading based on the association of letters with their phonemic sounds
  - SSR teaches modern electronics

Ruling

- "one of ordinary skill in the art of children's learning toys would have found it obvious to combine the Bevan device with the SSR to update it using modern electronic components in order to gain the commonly understood benefits of such adaption, such as decreased size, increased reliability, simplified operation, and reduced cost."

Source: Leapfrog Enterprises, Inc. v. Fisher-Price, Inc., 06-1402 (Fed. Cir. 2007)

Ruling (cont.)

- Only the "reader" was lacking and those were well known in the art at the time of Leapfrog's alleged invention

What this means?

- Common sense

- Mere application of "modern electronics" is not a nonobvious invention

- What does this mean for known processes conducted over the Internet?

Background Materials

- Patent Application Figures

- Anatomy of a Patent

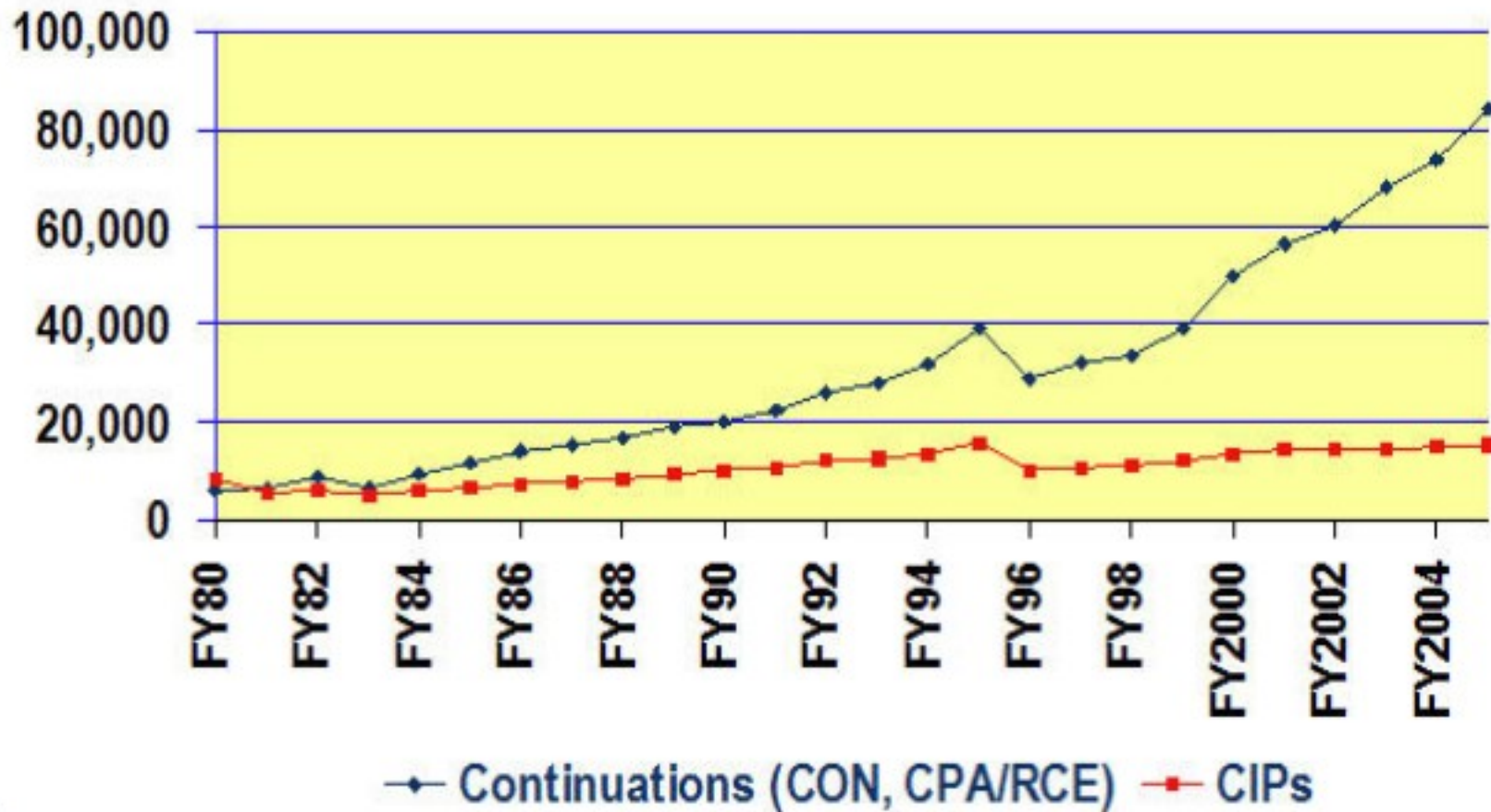- Using USPTO's PAIR System to Review Patent Prosecution Contents

Patent Application Figures

Patent Applications Filed

Continuation Applications Filed
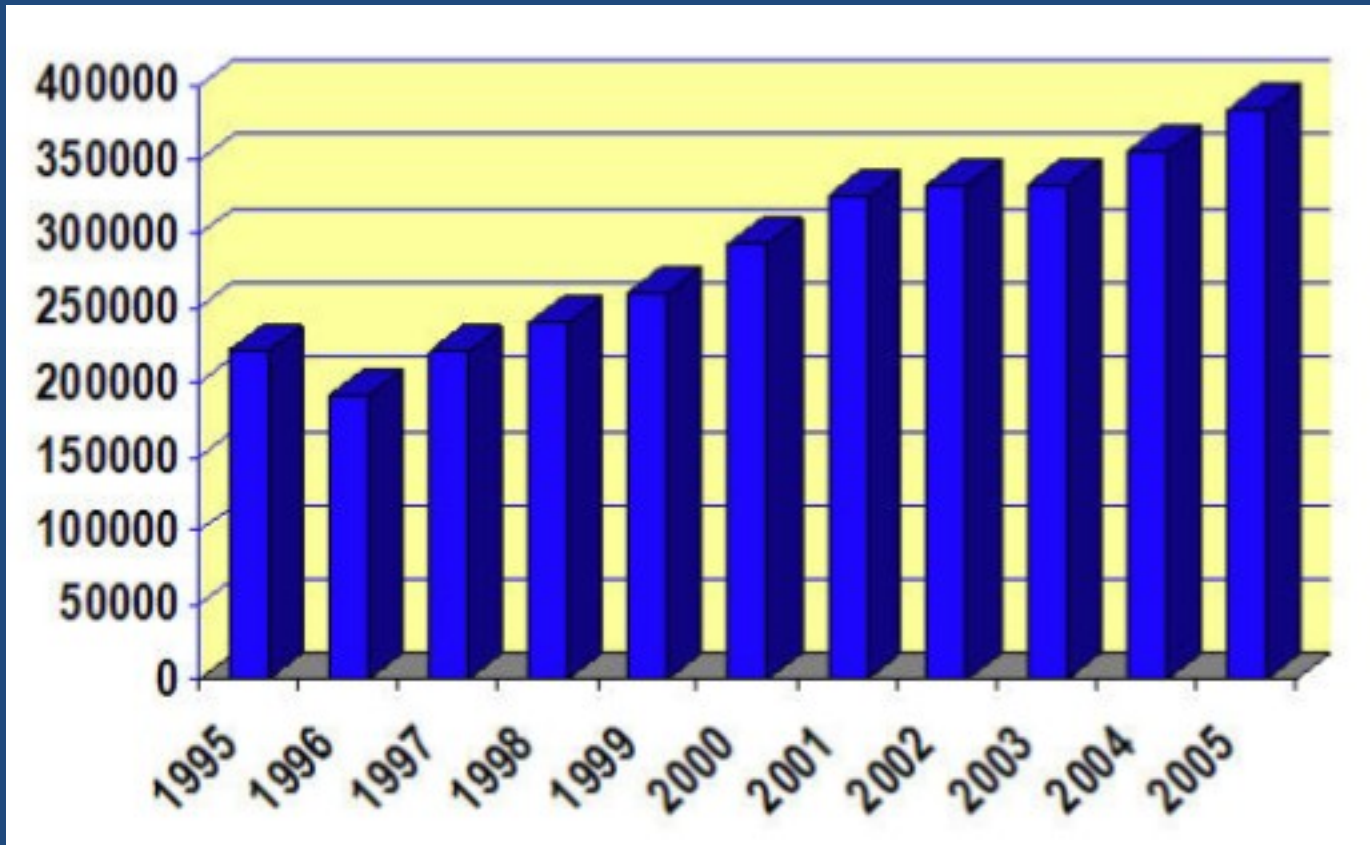
Source: U.S. Patent and Trademark Office

Anatomy of a Patent

Patent Cover

United States Patent [19]

Wagner

[11] **Patent Number:** 4,903,201

[45] **Date of Patent:** Feb. 20, 1990

[54] **AUTOMATED FUTURES TRADING EXCHANGE**

[75] Inventor: Susan W. Wagner, Dallas, Tex.

[73] Assignee: World Energy Exchange Corporation, Dallas, Tex.

[21] Appl. No.: 548,319

[22] Filed: Nov. 3, 1983

[51] Int. Cl.⁴ G06F 15/30

[52] U.S. Cl. 364/408; 364/918.8; 364/900

[58] Field of Search 364/200, 900, 300, 408; 340/825.26; 235/375

[56] **References Cited**

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3,594,503	7/1971	Wolf et al.	178/88
3,596,254	7/1971	Highleyman et al.	340/172.5
3,652,795	3/1972	Wolf et al.	179/2 DP
3,753,233	8/1973	Cardell, Jr.	340/172.5
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4,264,782	4/1981	Konheim	364/200 X
4,275,456	6/1981	Tanaka et al.	364/900
4,321,672	3/1982	Braun et al.	364/408
4,334,270	6/1982	Towers	364/300
4,346,442	8/1982	Musmanno	364/408
4,376,978	3/1983	Musmanno	364/408
4,412,287	10/1983	Braddock, III	364/408
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Wall Street Journal, "Amex, Toronto Exchange Develop a Plan to Link Trading Floors Electronically", date not known.

Info World, "Buying Stocks On-Line", 9/17/84, pp. 31–32.

"Trading System Falling Apart; Will Exchanges Automate?", undated article from magazine of unknown origins.

Primary Examiner—Jerry Smith
Assistant Examiner—Jon D. Grossman
Attorney, Agent, or Firm—Sigalos, Levine & Montgomery

[57] **ABSTRACT**

A computerized open outcry exchange system for transacting sales of a particular futures commodity contract by members of a futures trading exchange wherein bids to purchase or offers to sell the particular commodity contract are made by the members through remote terminals and the exchange computer automatically matches offers and bids to complete the transaction.

42 Claims, No Drawings

Source: US Patent 4903201

United States Patent [19]

Wagner

[11] Patent Number: 4,903,201

[45] Date of Patent: Feb. 20, 1990

[54] AUTOMATED FUTURES TRADING EXCHANGE

[75] Inventor: Susan W. Wagner, Dallas, Tex.

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[57] ABSTRACT

A computerized open outcry exchange system for transacting sales of a particular futures commodity contract by members of a futures trading exchange wherein bids to purchase or offers to sell the particular commodity contract are made by the members through remote terminals and the exchange computer automatically matches offers and bids to complete the transaction.

42 Claims, No Drawings

U.S. Patent   Feb. 20, 1990   Sheet 1 of 14   4,903,201

FIG. 1

Source: US Patent 4903201

Specification

- Includes drawings

7
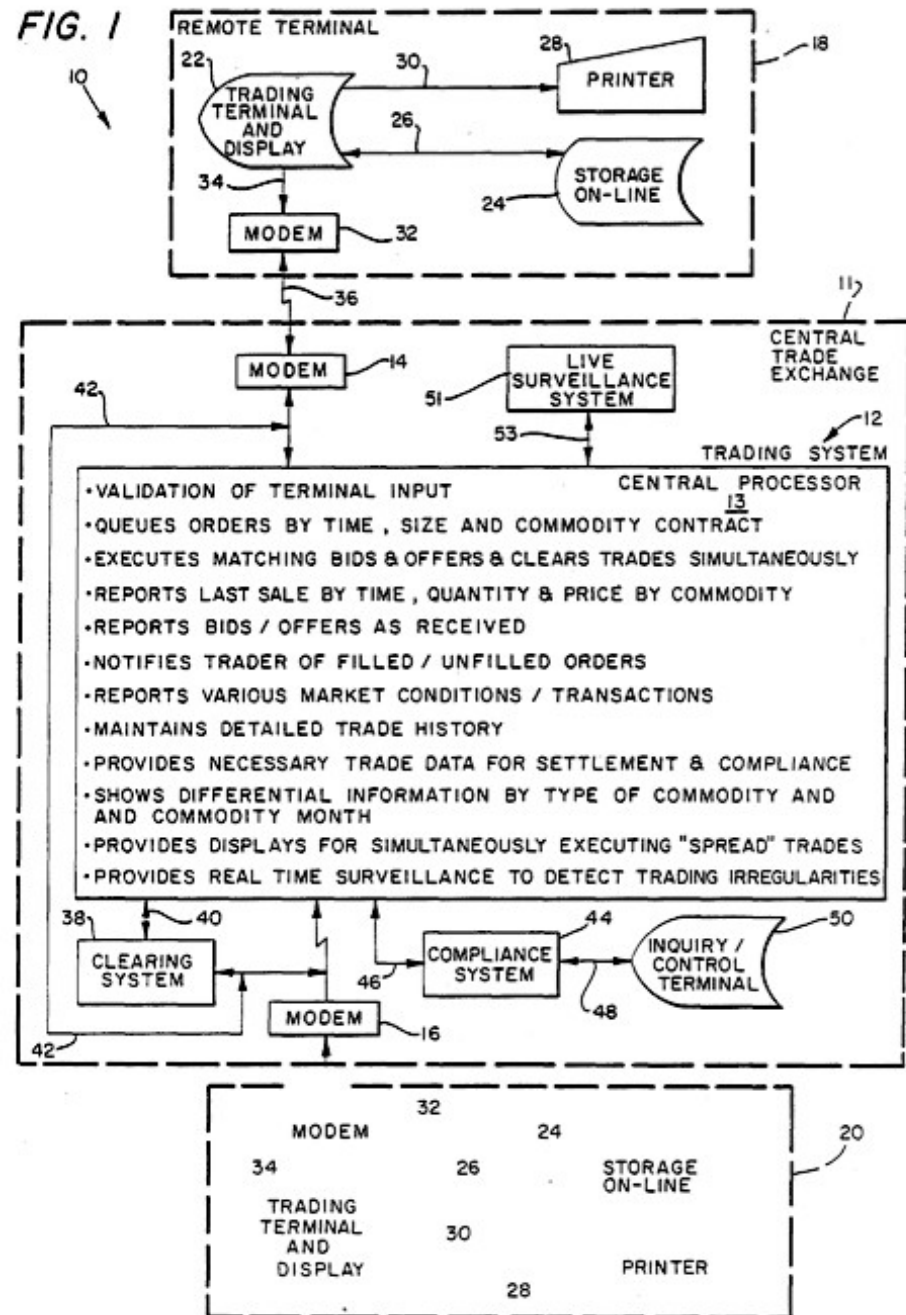
remote terminals 18 and 20. The remote terminals 18 and 20 may be either "smart" terminals or "dumb" terminals. Thus, if remote terminal 18 is a "smart" terminal, it may include a microprocessor 22 which would include a keyboard and a display for text editing which is associated with a memory or storage unit 24 through connection 26, a printer 28 through connection 30 and an output on connection 34 to modem 32. The output of modem 32 may be transmitted on common communication lines 36 to the modem 14 on the premises of central exchange 11.

The central processor of trading system 12 of the central exchange 11 receives bids or orders from the remote terminals 18 and 20. It is obvious that any number of remote terminals 18 and 20 may be used but for simplicity of the drawings and discussion thereof, only two of the remote terminals 18 and 20 are shown in FIG. 1. Each of the remote terminals 18 and 20 will be in the possession of an exchange member and are given an identification number for that member. The identification number must be entered into the system by the remote terminal 18 or 20 before the central processor of trading system 12 will accept the data from it. Thus, the central processor of trading system 12 validates each terminal input by checking the terminal identification number. If the identification number is correct, the central processor of trading system 12 stores the order in its memory queue by time, quantity and contract price. It then executes matching bids and offers and clears the trades simultaneously. The central processor of trading system 12 also reports the last sale by time, quantity and price by commodity or contract. It also reports all bids and offers as they are received and notifies the traders at the remote terminals of filled or unfilled orders. It can access its memory to report various market conditions and transactions and maintains a detailed trade history for each trade member. Finally, it provides the necessary trade data for settlement and compliance with the rules of the exchange.

A clearing system 38 receives data from the central computer of trading system 12 on connection 40 and clears all trades based upon exchange rules and the like as will be discussed more completely hereinafter in relation to FIG. 2. The output of the clearing system 38 is coupled to the output of the central processor of trading system 12 on line 42 for transmission as needed through modems 14 and 16 to the remote exchanges 18 and 20 respectively. In like manner, a compliance system 44 receives data from the central computer of trading system 12 on connection 46 and checks that data to see if it meets predetermined limits or requirements established for each exchange member. It also provides information on connection 48 to inquiry terminals 50 to answer inquiries from exchange officers who ensure that the system rules are being complied with. This will be discussed more fully hereinafter with relation to FIG. 2. A surveillance system 51 is coupled to the central processor 12 by connection 53 to enable exchange officers to review all information relating to trading.

FIG. 2 is a chart illustrating the systems relationships among the trading system 12, the clearing system 38 and the compliance system 44.

Thus, the trading system 12 receives the trade data and verifies the validity of the terminal submitting the data by terminal identification number or broker number as shown in block 52. It also stores data relating to the activity of any particular commodity so that all information as to what is happening immediately to that

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commodity is available. Also it does trade matching by surveying all bids and all offers and finding a match, if one exists, between the bids and offers. It also coupled the trading information through connection 54 to the clearing system 38 as illustrated by block 56 so that the clearing system can determine the position of each member. Inasmuch as each member is limited in the amount of trading that can be done, the clearing system 38 is constantly checking so that the limitations cannot be violated. In addition, the output of the trading system 12 from block 52 on line 54 is also coupled to the compliance system 44 to block 58 in order that traders or member's activities can be monitored and reports can be compiled illustrating the actual trades of each of the members or traders.

Also, the trading system 12 will provide news and statistics relating to a particular commodity such as movement of oil, changes in prices and the like as well as a morning market report as illustrated by block 60.

In addition, the trading system 12, as represented in block 62, provides for each remote terminal the number of trades open and outstanding and thus provides interim position reports by personal identification number of the trader or member. That information is also coupled on line 64 to block 66 of the clearing system 38 which makes preparation for delivery notice and allocation and tracking and thus keeps track of what orders were received from whom and sold to whom, where and the like. In addition it keeps track of the margins or monies required relative to delivery of commodities. It also provides for a release to the exchange when the plans of both the buyer and the seller change. Further, the trading system 12 provides for market surveillance which allows exchange officers to monitor all trades taking place so that any peculiarities in trading can be detected thus preventing fraudulent trades or manipulations of the market.

Also, as represented by block 70 in the trading system 12 of FIG. 2, the trading system 12 can provide communications with traders or members through their remote terminals and report delivery of commodities and any commodity pricing information to any trader or member. In addition, the trading system 12 can receive administrative position reports and transfers from the clearing system 38 in block 72 on line 74 and communicate that information to traders or members. Also, as represented by block 76 in the trading system 12, after hours entrys including housekeeping functions, such as transfers and corrections, can be sent to block 72 of the clearing system 38 on line 78 so that the clearing system 38 can use that information for accounting, investing and the like.

In addition, the trading system 12 can provide position limit controls for the members or traders as illustrated by block 80 and thus keep track of the amount of trading that any one particular terminal is allowed to handle. Finally, as represented by block 82 of the trading system 12, security of the system can be maintained as, for instance, checking the number of the terminals on the line and their identification numbers.

In regard to the clearing system 38, as stated earlier, block 56 receives data on trading from the trading system block 52 and keeps track of the trading positions of each of the members. Also, as represented by block 84 in the clearing system 38, margin requirements for each of the members are maintained, so that the margin requirements are tabulated and kept on file. Further, as

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Specification

- Meets disclosure rationale
  - Enables, shows possession

- Describes and provides understanding of invention

- Does NOT define invention

Also, as represented by block 70 in the trading system 12 of Fig. 2, the trading system 12 can provide communications with traders or members through their remote terminals and report delivery of commodities and any commodity pricing information to any trader or member…..

Source: US Patent 4903201

4,903,201

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compliance. This unique system provides accurate and precise information, trading based on factual data, assurance of execution and immediate confirmation, control through real time processing of information and surveillance, and the use of computer hardware to implement the process.

While the invention has been described in connection with a preferred embodiment, it is not intended to limit the scope of the invention to the particular form set forth, but, on the contrary, it is intended to cover such alternatives, modifications, and equivalents as may be included within the spirit and scope of the invention as defined in the appended claims.

I claim:

1. A computerized open outcry exchange system for transacting sales of a particular futures commodity contract in varying volumes or lot sizes by members of a futures trading exchange as principals or agents for others wherein bids to purchase or offers to sell said particular commodity contract are made by said principals or agents through remote terminals, said system comprising:

a. means for receiving and storing bids and offers from said remote terminals and automatically completing a transaction of matching bids and offers on a first-come, first-served basis thereby establishing a trading system,

b. means for storing CFTC requirements and regulations to be observed on said buy and sell transactions thereby establishing a clearing system,

c. means coupling said stored CFTC requirements and regulations in said clearing system to said trading system for comparing said transaction with said stored requirements and regulations thereby determining the validity of each transaction,

d. means for storing predetermined compliance criteria necessary to detect illegal trade practices or trade patterns which would adversely affect said commodity market thereby establishing a compliance system, and

e. mean coupling said stored compliance criteria in said compliance system to said trading system and said clearing system for automatically comparing said transaction determined to be valid to said predetermined compliance criteria thereby enabling detection of illegal trade practices and trade patterns which would adversely affect said commodity market.

2. A system as in claim 1 further including:

a. means in said remote terminal for generating an identify code said member, as agent or a principal, with said bid or offer, and

b. a central processor in said trading system having means for recording said identify code whereby said agent or principal may be identified.

3. A system as in claim 2 further including:

a. means in said central processor for storing relevant information relating to each received bid or offer including prioritizing each received bid or offer on the basis of price, lot size and time received by said central processor, and

b. display means in said remote terminals coupled to said central processor for receiving said prioritized bids and offers and displaying at least a part of all bids in descending price order and all offers in ascending price order.

4. A system as in claim 3 further including:

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a. a movable cursor on said remote terminal display for identifying said member's bid or offer, and

b. keyboard means in said remote terminal for modifying said member's bid or offer identified by said movable cursor by entering data through said keyboard modifying said selected bid or offer.

5. A system as in claim 2 further including:

a. means coupled to said recording means in said central processor for accessing relevant information relating to at least a part of said stored bids and offers for a particular commodity contract, and

b. means coupled to said accessing means for determining the breadth of the market for that commodity contract by displaying the number of bids for any particular number of offers based on said relevant information.

6. A system as in claim 2 further including:

a. means coupled to said recording means in said central processor for accessing relevant information relating to said stored bids and offers for a particular commodity contract, and

b. means coupled to said accessing means for displaying bid or offer lot sizes, last sales price, daily price range and volume of trades of said commodity contract occurring over any predetermined period of time.

7. A system as in claim 6 wherein said display means displays the variations in said price ranges, daily price ranges, and volumes of trades of commodity contracts that occur between various of said predetermined periods of time.

8. A system as in claim 2 further including printing means at each remote terminal coupled to said central processor for printing the execution of each transaction initiated by a particular terminal including date, time, lot size and price of said commodity contract.

9. A system as in claim 2 further including:

a. means in said central processor for establishing trading limits in dollar volume for any particular remote terminal, and

b. means in said clearing system coupled to said remote terminals for rejecting any bid or offer from said remote terminal that exceeds the trading limits established for each of said terminals.

10. A system as in claim 2 further including:

a. means in said compliance system for accessing said storage means in said central processor, and

b. means coupled to said accessing means for detecting patterns of trading which may be manipulative by displaying times of receipt of said bids and offers, the agent or principal making said trades, or

11. A system as in claim 2 further including:

a. a printer coupled to said central processor, and

b. means selectively coupling said central processor storage to said printer for printing the volume of trading of any commodity contract over any predetermined period of time.

12. A system as in claim 2 further including:

a. a portable hand-held terminal for receiving and generating buy and sell data for features commodity contracts,

b. a modem coupled to said portable hand-held terminal for converting said generated data to information capable of being transmitted to said trading system and converting said received data to information capable of being used by said portable terminal, and

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Claims

- Define the invention(s)

- Independent v. dependent

> 1. A computerized open outcry exchange system for..... comprising:
>
> a., b., c.,....

> 1. A system as in claim 1 further including:
>
> f., g., h.,....
>
> (a, b, c, d, e, f, g, h,..)

General PCT Timeline for Foreign Applications

Introducing the PCT Procedure

Source: Boutillon, Isabelle and 'Nyalleng Piii. "The Patent Cooperation Treaty (PCT) at the center of the international patent system." *World Intellectual Property Organization*. 13 March 2006, Slide 4,
http://ww.wipo.int/export/sites/www/pct/en/presentations/africa_march