

# **EXHIBIT I**



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Williams  
12-18-92

IN THE UNITED STATES DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICE

In re application of

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PATENT

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U.S. Filing Date: August 7, 1989  
Examiner: Laura Brutman  
Art Unit: 2311  
For: Central Check Clearing System

DEC 17 1992

Paper No. 17

GROUP 2300

41 South High Street

Attorney Docket No.: 1260900-50349

Columbus, Ohio 43215

December 8, 1992

The Honorable Commissioner  
of Patents and Trademarks  
Washington, D.C. 20231

12-21-92

AMENDMENT

This is a response to the Official Communication mailed in this application on August 10, 1992. Entry of this amendment, reexamination and reconsideration are requested.

I. AMEND THE CLAIMS AS FOLLOWS:

A. Cancel Claims 1-6 and substitute Claims 7-12 as follows:

7. A mechanism for controlling the physical exchange of financial instruments among a number of pre-selected financial institutions, each located at a preselected site, and for effecting the regular periodic settlement of the instruments among the institutions including:

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(A) means within each institution:

(1) for sending and receiving the instruments, said means for sending including means for physically transporting the instruments from an institution at one site to each other of the institutions at the other sites, said means for receiving including means for physically accepting the instruments transported from the other institutions;

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(2) for sending to and receiving from a central processing unit connected to each institution information reporting (a) the value of the instruments transported; and (b) the transport status of the instruments with respect to their having been (i) sent and (ii) received; and

(3) for receiving from the central processing unit a calculated value (a) on a real time basis and (b) on a regular periodic settlement basis, information regarding the debits and credits owing to or payable by an institution with respect to each other of the institutions with regard to instruments sent and received;

(B) a central processing unit connected to each institution including

(1) means for monitoring on a real time basis, as reported by each institution by the means for sending information within each institution:

(a) (i) the sending and receipt status of the instruments and (ii) the value of the instruments sent and received, as reported by each of the institutions, and

(b) the status in transit of the instruments with respect to their having been (i) sent and (ii) received, as reported by each of the institutions,

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(2) means for calculating debits and credits, based on the value of the instruments sent and received, as monitored on a real time basis from information reported by the institutions, of (a) the amount owing from or payable to each one of the pre-selected institutions with respect to each of the other institutions and (b) an aggregate amount owing from or payable to each one of the pre-selected institutions with respect to all of the other institutions; and

(3) means for sending to each institution the information monitored with respect to instruments

sent to an institution and the value of such instruments; and

(C) a cycling means (a) for controlling the physical transport of the financial instruments among the institutions and (b) for controlling the means for calculating such that a final calculation of the debits and credits owing from or payable to, with respect to each of the institutions with regard to each other of the institutions, comprising the occurrence of the regular periodic settlement among the institutions, does not occur until after a time that pre-determined local settlements by the institutions in the pre-selected sites with institutions that are not among the number of pre-selected financial institutions, are completed.

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8. The mechanism of claim 7 further including a means at an institution which sends instruments by which instruments are sorted by the site locality of each other of the pre-selected institutions and in which the instruments sorted by site are sent by site sort category to institutions at sites within the site sort categories.

9. The mechanism of claim 8 further including a sorter at an institution which receives the instruments which sorts the instruments received according to categories of:

(1) instruments drawn on the receiving institution;  
and

(2) instruments drawn on institutions within the site that are not among the number of pre-selected financial institutions.

10. A system for a financial clearinghouse comprised of an association of selected member financial institution participants situated in different localities including:

B<sup>1</sup>  
A. means at each of the participants (1) for sending and receiving financial instruments to be cleared and (2) for sending and receiving information reporting the value and transit status of the financial instruments to be cleared, to a programmed central processing unit, said means including further means for addressing a central processing unit by which a participant may determine the information received by the processing unit with respect to that participant's relative obligations arising from the instruments to be cleared;

B. a programmed central processing unit including:

means for calculating debits and credits (1) owing from or to one member to another member and (2) from one member to all other members, based upon the value

of instruments reported by a participant as having been sent and received;

means for receiving and recording a participant's reports of the value and transit status of the instruments to be cleared as having been sent and received with respect to all participants in the system; and

B<sup>1</sup>  
means for monitoring on a real time as reported basis (1) the actual sending from and receipt by a participant of the value of instruments being cleared as reported by the participants, and (2) the sending from and receipt by a participant of the actual instruments being cleared, said means for monitoring being operatively interconnected to the means for calculating whereby debits and credits owing from one member to another may be determined and monitored in real time as reports of the value and transit status of the instruments to be cleared are reported by the participants and received by the processing unit; and

C. a time control for determining the time of physical transport of financial instruments between and among the participants according to a predetermined time cycle, and for determining the occurrence of a final settlement by the clearinghouse participants at a pre-determined time until



after a time that pre-determined local settlements in the localities by the participants are completed.

11. The system of claim 10 further including a sorter machine which separates the instruments in pre-determined sort categories on behalf of a participant.

12. The system of claim 11 in which the sorter is a sorter machine operated by a receiving participant and includes means for sorting such instruments according to categories of:

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- (1) instruments drawn on that participant; and
  - (2) instruments received by the participant which are drawn on different financial institutions in the locality which are not participants in the clearinghouse.

REMARKS

For clarity, Claims 1-6 have been cancelled and rewritten as Claims 7-12. In the redrafted claims an attempt has been made to respond to each of the Examiner's specific concerns raised in the Official Communication. The Examiner's careful comments are appreciated and have been of assistance in clarifying the claimed subject matter.



As to each of the Examiner's comments or inquiries, an appropriate response is set forth, in order, below:

A. With reference to the rejection of the claims under 35 U.S.C. §112.

1. The institutions are located at preselected sites; the reporting of information and transport of instruments takes place at the institution.

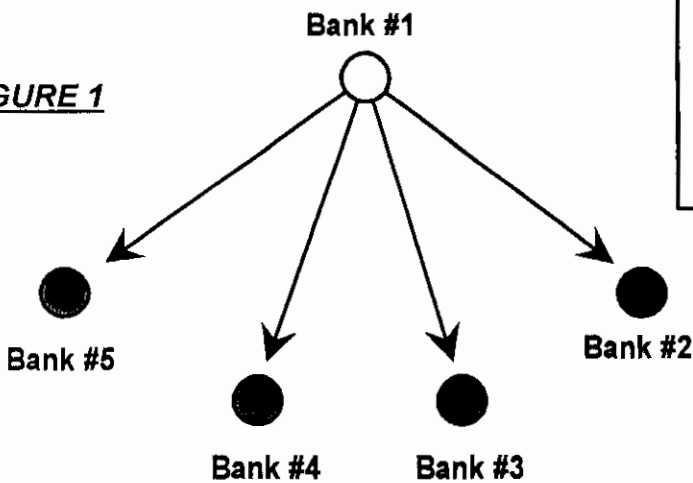
2. Means to read the information is not per se an element of the clearinghouse invention. Means for reading checks are well known in the banking art. (See the MICR code on any check.) The clearinghouse effects a settlement among the institutions or participants based on an aggregate value of items cleared by the receiving participant.

3. The terms "instruments" and "currency" have been clarified; the operative element of the mechanism is the "value" of the "instruments", which is now positively recited as a claim element.

4. Each "site", namely the institution at a predetermined locality, interacts with every other site. If there were 5 sites or institutions the relationship would be as shown in the illustrations and explanations on page 9.

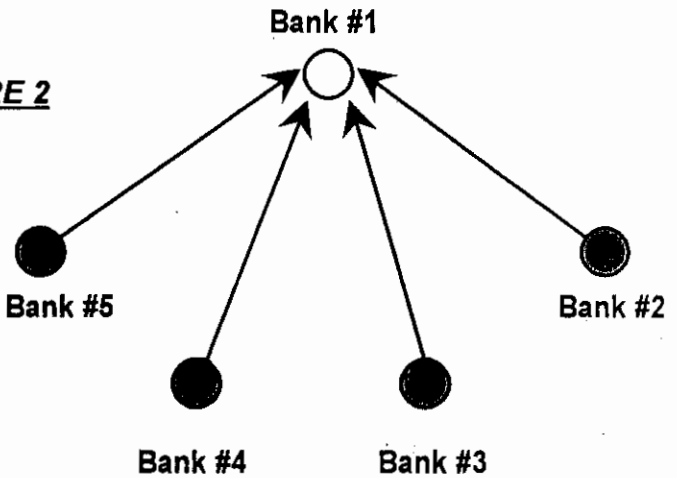
5. Means for sending and receiving information about the value and transit (or transport) status are positively recited.

**FIGURE 1**



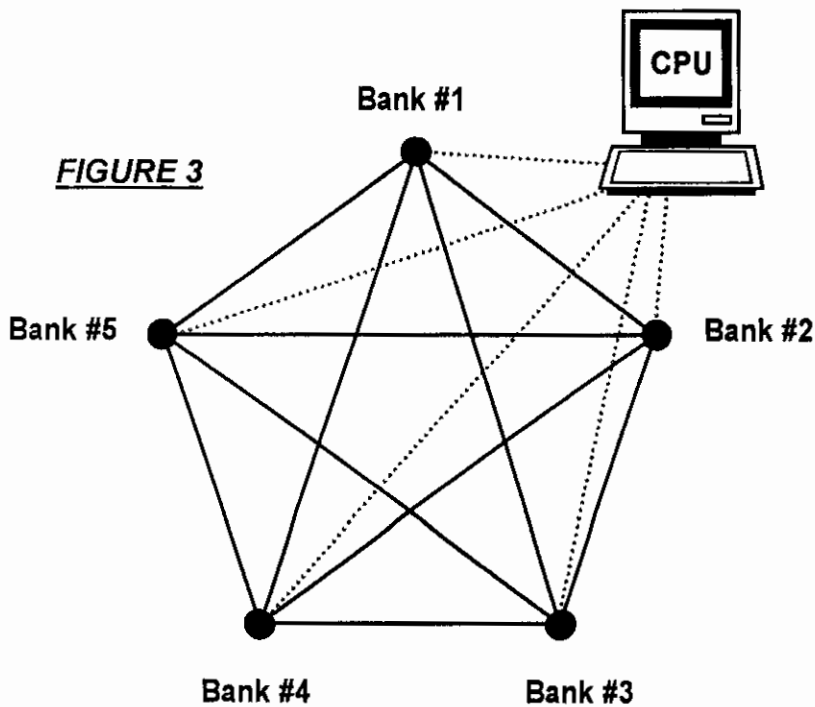
Bank #1 sends to Banks #2, #3, #4 and #5 : (1) checks drawn on Banks #2, #3, #4 and #5; and (2) checks drawn on non-member banks in the localities of Banks #2, #3, #4 and #5. Debit/credit balances of Bank #1 with Banks #2, #3, #4 and #5 are calculated and settlement occurs through the Federal Reserve. Banks #2, #3, #4 and #5 clear the checks of the non-members at the local clearinghouse settlement.

**FIGURE 2**



Bank #1 receives from Banks #2, #3, #4 and #5 : (1) checks drawn on Bank #1; and (2) checks drawn on non-member banks in the locality of Bank #1. Debit/credit balances of Bank #1 with Banks #2, #3, #4 and #5 are calculated and settlement occurs through the Federal Reserve. Bank #1 clears the checks of the non-members at the local clearinghouse settlement.

**FIGURE 3**



All member Banks #1, #2, #3, #4 and #5 are inter-connected by transport means for the checks and by the CPU which provides the time control, and monitors and reports information about the value and transit status of the checks, and calculates debits and credits arising from (1) the member settlement and (2) the local settlement of checks received. The members' final settlement integrates the members' and the local settlements in which the members participate.

6. In a clearing house mechanism such as depicted in the page 9 illustrations, the relative debits and credits of all institutions are settled with respect to all other institutions. For example, in a settlement effected by the clearing house, Bank #1 may receive \$1.00 from Bank #2; \$2.00 from Bank #3 and \$3.00 from Bank #4, but may owe Bank #5 \$4.00, all depending on the value of the instruments exchanged. The settlement is determined by the calculation of debits and credits among the member banks based on checks sent and received. The same analysis will apply to each other bank in the clearinghouse mechanism.

7. "Clearing" in the banking sense refers to the process of sending and receiving and the allocation of aggregate net debits and credits, and the payment thereof, associated with a particular institution, determined by the value of the instruments presented to or by that institution for payment with regard to another institution, or other institutions.

8. The "means for sending" and "the means for reporting" are distinguished. The former relates to the physical transport of the instruments (e.g. the sending (transportation) of checks) from one bank to another bank at a different location. The latter, reporting, relates to the communication of information to and from the bank and the CPU about the value and transit status of the instruments sent.

9. "Real time" monitoring relates an event in real time as a report of the event's occurrence is made to the CPU at the approximate time of occurrence.

10. "Cycling means" is an appropriate term to use in describing the settlement mechanism because a clearinghouse mechanism must function on a regular and periodic, or cyclical, basis.

11. In Claim 8 (formerly claim 2), again referring to the page 9 illustrations, the sorter, for example, at Bank #1, would sort the instruments according to the site localities in which Banks #2, #3, #4 and #5 are located. Bank #5 instruments would be sorted upon receipt according to (a) instruments drawn on Bank #5 and (b) instruments, separately for each different bank in the locality, not drawn on Bank #5. This latter category of local region #5 instruments is additionally cleared by Bank #5 in the local clearing house settlement of Bank #5.

12. In Claim 10 (which replaces Claim 4), the debits and credits are calculated based on the value of the corresponding instruments sent and received.

13. The significance of the means for reading the information is discussed above in Paragraph 2.

14. The receiving of the information is from a participant.

15. The sending and receipt is from and by a participant.

16. The "items" and the "actual financial instruments" are synonymous; the amended claims have been conformed to provide a consistent reference.

17. The "means for addressing the processing unit" refers to the means at the institution for communicating with the CPU, now included in paragraph A. of Claim 10.

18. Although now restated, the means at the institution allows the institution to determine the status of its own account, i.e. the relative debit owing and/or credit payable and transit status of items sent and received by an individual institution, by addressing the remote CPU which monitors, calculates and reports such information.

19. While a "time control" is a schedule, a clearinghouse system or mechanism depends on the regular physical transport and exchange of items from and to each of all of the institutions in the predetermined group. Hence, in a clearinghouse, a mechanism is necessary by which the transport can be regularly controlled on a cyclic basis. Control of the transport time is analogous to the control of the combustion cycle in a multi-cylinder engine. There must be a time control, correlating associated events with each other, if the

mechanism is to run smoothly. Thus, the time control is a determinant that the clearing of instruments occurs regularly.

20. In claims 11 and 12 (replacing claims 5 and 6) the function of the sorter mechanism is illustrated by the examples described by Paragraphs 11 and 12 above and shown in the page 9 illustrations.

As is evident from the above comments and the revisions to the claims, applicant has clarified, and distinctly set forth in the revised claims the mechanism of the clearinghouse system which is the invention sought to be patented.

**B. With reference to the rejection of the claims under 35 U.S.C. §112, first and second paragraphs:**

1. As noted earlier, the "cycling means" is necessary to operate the clearinghouse mechanism on a regular periodic basis on a strictly controlled schedule. A clearinghouse mechanism does not permit "someone to interpret the schedule". When a time in the cycle arrives, the required act must be done. The time information has two components: (1) the real time at which instruments are sent and received, e.g., "Monday, October 19, 1992 at 1:38 p.m. Eastern time"; and (2) the time required by the cycle, e.g., "all instruments must be received on Monday, October 19, 1992 by 5:30 p.m. Eastern time".

One familiar with the banking art will appreciate the need to require absolute and certain closing times for the exchange of instruments and for clearing the debits and credits



associated with the financial instruments exchanged. It is well known that every CPU included in a modern PC includes a clock which monitors time. As to the Examiner's reference to "no support" for the timing mechanism, Figure 1 of the Specification shows that the CPU provides "Master Scheduling" and "real time calculations."

C. With reference to the rejection under 35 U.S.C. §101:

Relevant case law was addressed in applicant's prior amendment (Paper No. 12).

Clearinghouses are commonly referred to as "mechanisms" in the banking industry. The present invention provides a tangible connected system by which physical items are mechanically transported and information about the items and their transport is monitored and calculated by interrelated apparatus at different sites. The invention is not just "a method of doing business"; it is an interrelated system, or a mechanism, having linked physical components and definitely stated physical and informational interactions. [See page 9 illustrations. See also references of record cited in Paper No. 3]. Thus, the invention as now claimed is clearly defined as a "process, art or method", as specifically provided in 35 U.S.C. Sections 100 and 101.

D. Conclusion.

For these reasons, the amendment to the application is considered to place claims 7-12 in compliance with 35 U.S.C. §§



101 and 112. The withdrawal of the rejection and the allowance of this application is requested. Applicant notes that no prior art has been cited and/or applied in the prosecution hereof which is considered to disclose or suggest the claimed invention.

Reexamination, reconsideration and allowance are therefore requested.

Respectfully submitted,

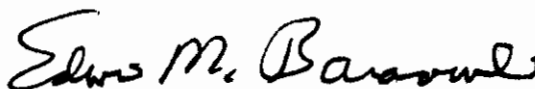


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CERTIFICATE OF FILING BY MAIL

I hereby certify that this Amendment accompanied by a Petition for Extension of Time (2 copies), are being deposited with the United States Postal Service (Postage prepaid, first class mail) in an envelope addressed to The Honorable Commissioner of Patents and Trademarks, Washington, D.C. 20231, on December 8, 1992 and pursuant to the provisions of 37 C.F.R. 1.8, it is requested that December 8, 1992 be the filing date accorded to these documents.



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