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Geer

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[54] SYSTEM FOR EXPEDITING THE CLEARING OF FINANCIAL INSTRUMENTS AND COORDINATING THE SAME WITH INVOICE PROCESSING AT THE POINT OF RECEIPT

[56] **References Cited**

U.S. PATENT DOCUMENTS

| | | | |
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| 5,237,159 | 8/1993 | Stephens | 235/379 |
| 5,265,007 | 11/1993 | Barnhard, Jr. et al. | 705/45 |
| 5,373,550 | 12/1994 | Campbell et al. | 379/100.11 |

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[57] **ABSTRACT**

A system and process are described for effecting the expedited submission into the payment system for collection of funds represented by financial instruments that are received by a payee at an item capture facility remote from the payee's depository bank in which the submission of the instruments into the payment system is coordinated with the payee's internal accounting process and the register of the deposit of the instruments with an account at the instruments payee's bank.

Related U.S. Application Data

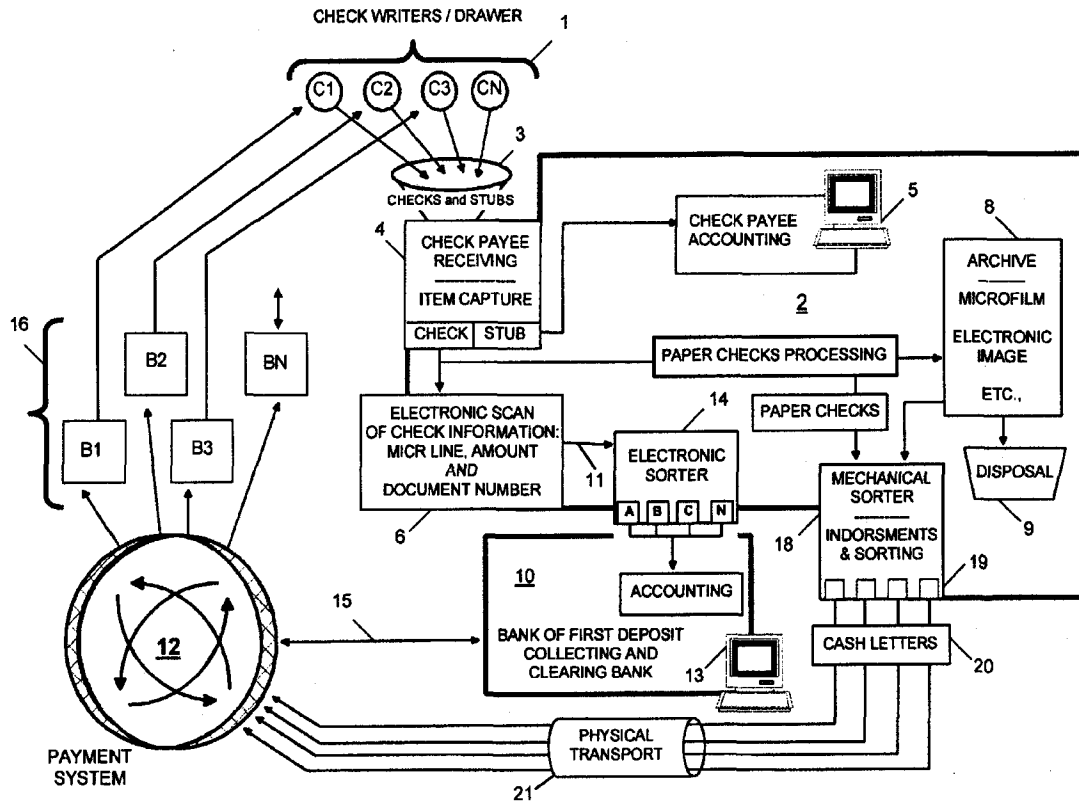
[63] Continuation-in-part of application No. 08/507,856, Jul. 27, 1995, Pat. No. 5,583,759, and a continuation of application No. 08/156,190, Nov. 22, 1993, abandoned.

[51] Int. Cl.⁶ **G06F 17/60**

[52] U.S. Cl. **705/45; 705/35; 235/379**

[58] Field of Search **705/30, 33, 34, 705/35, 39, 40, 44, 45; 235/375, 379, 380, 381**

18 Claims, 2 Drawing Sheets



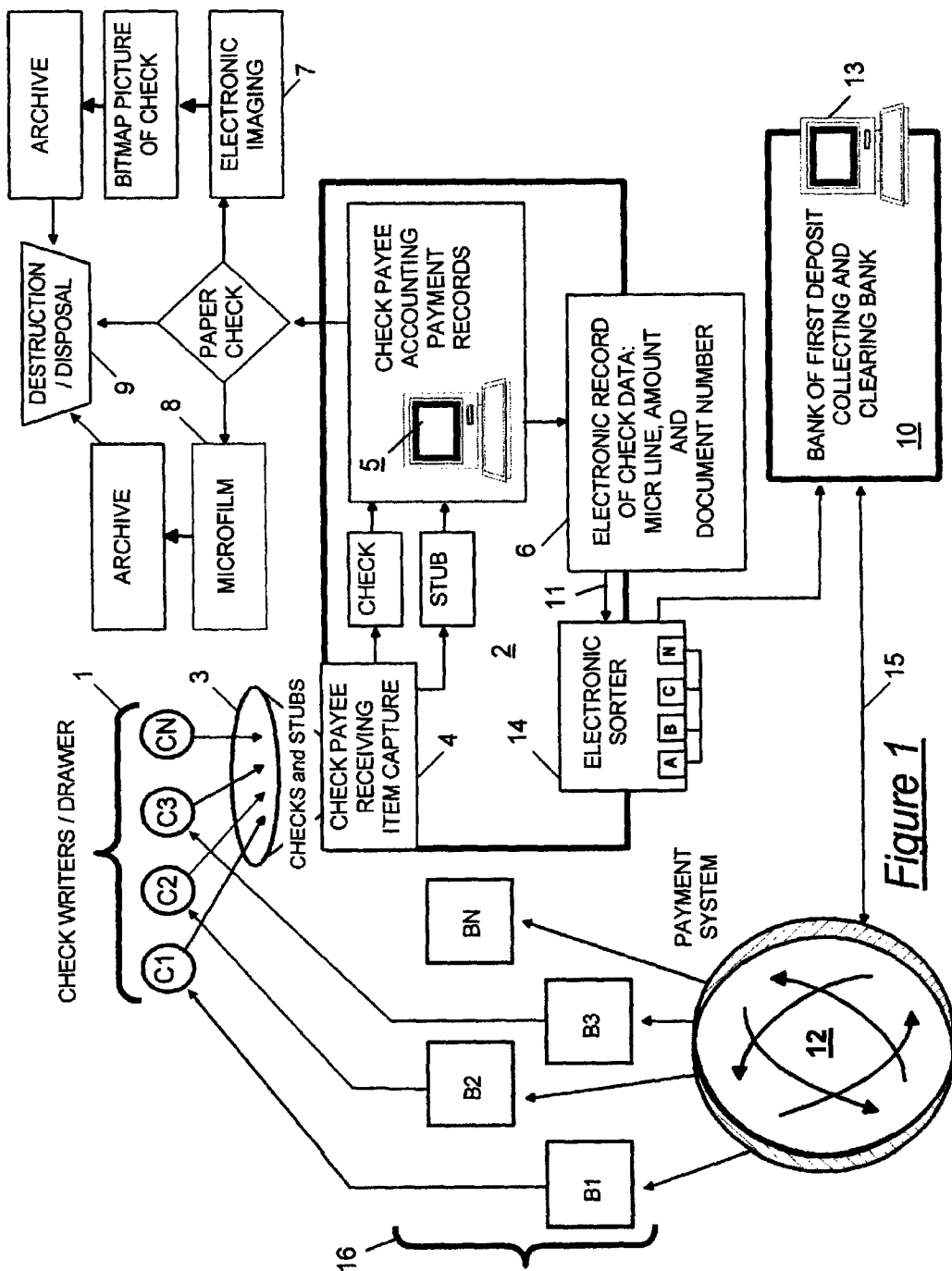
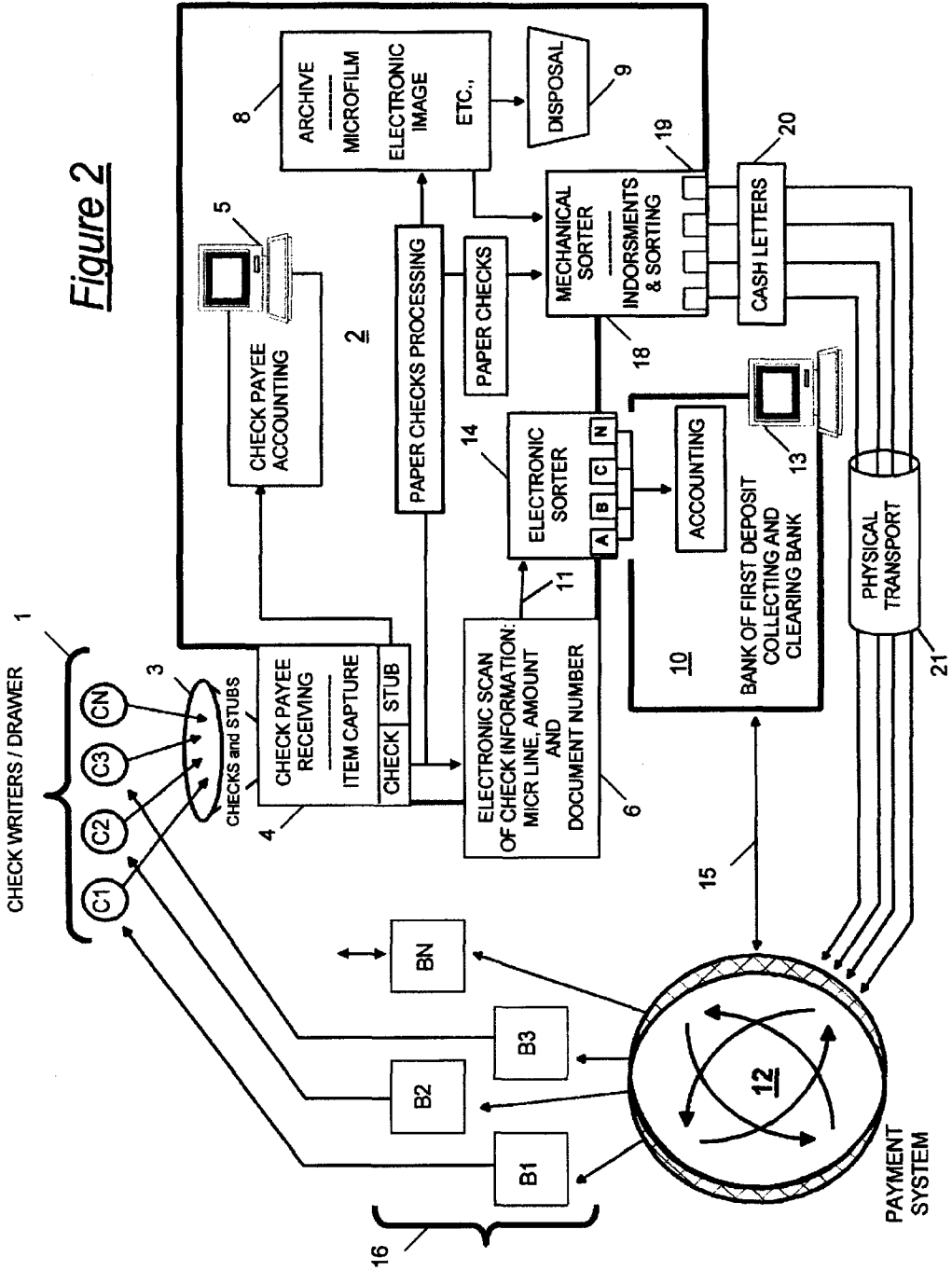


Figure 1

Figure 2



**SYSTEM FOR EXPEDITING THE
CLEARING OF FINANCIAL INSTRUMENTS
AND COORDINATING THE SAME WITH
INVOICE PROCESSING AT THE POINT OF
RECEIPT**

RELATED APPLICATIONS

This application is a continuation-in-part of Application for United States Letters patent Ser. No. 08/507,856 filed on Jul. 27, 1995, now U.S. Pat. No. 5,583,759, and as a continuation of Application for United States Letters patent Ser. No. 08/156,190 filed on Nov. 22, 1993, now abandoned. Both applications have the same inventor and assignee as the present invention and both are incorporated herein by reference for all purposes.

FIELD OF THE INVENTION

The present invention relates to a system for expedited processing of checks and cash items received by a payee with an accompanying payment form at an item capture facility to reduce the time within which such items are paid, or returned through the check payment system and the payees bank of first deposit, by the payor bank on which such items are drawn.

BACKGROUND OF THE INVENTION

This invention expedites the processing of a deposit by the payee of an instrument or payment order into a collecting and clearing bank (referred to generally as the payee bank, bank of first deposit, or depository bank). Such instruments and payment orders are prepared, processed, and submitted into the check payment system and are typically paper checks and other cash items. The deposit and collection of the funds represented by these instruments are expedited according to the system of the present invention. Benefits of the present invention are realized by banking customers that receive as payees large numbers of paper checks to process on a continuing basis, such as utilities, bill payment companies, credit card companies, mail order processors, or other large commercial entities.

Typically in the prior art, the deposit and payment of a check tendered to a payee for an amount due is effected in accordance with traditional procedures for paper-based processing. The drawer (the check writer) establishes an account containing funds with a bank of the drawer's choice (the drawee bank or the payor bank). A check or similar financial instrument is written against the drawer's account in favor of the payee and physically delivered to the payee, usually by mail accompanied by the payor's invoice or a payment stub provided to the check writer that provides information about the check writer's account with the payee. The payee typically indorses the checks and deposits the checks in the payee's account at its depository bank or bank of first deposit for processing through the payment system. The checks are ultimately presented at the check writer's payor bank for payment of the funds represented by the instrument. Internal accounting procedures of the payor reconcile the invoice and the payment with the payor's account with the payee. The payor's account is identified by a payment stub issued by the payee that the payor returns to the payee with the payment check. Upon receipt of the check, the payor bank debits funds from the drawer's account, and may archive the check or a copy of the check, and/or return the check to the check drawer. Thus, the payment cycle is completed, typically with the paper check or financial instrument making the complete cycle from

drawer to payee, to depository bank, through the check clearing system to the payor bank for archival storage and/or return to the check drawer.

In the conventional check clearing systems, the payee first indorses a check and delivers the check for deposit in the payee's account at a bank. The depository bank indorses for its own account the checks it receives, and sorts and bundles the checks. The depository bank prepares a cash letter for each bundle of checks sorted, or a cash letter that accompanies a group of check bundles. A cash letter may accompany a single bundle of checks or more than one bundle of checks. A typical cash letter contains routing information, the number and total dollar amount of the checks in a particular bundle, and optional additional information. The cash letters and check bundles are then introduced into the payment system.

The traditional multiple steps in the processing and physically handling checks, and in the preparation and transmission of cash letters, result in the float of funds represented by the check. Float is the time cost of money following deposit of the check by the payee at the depository bank until actual payment of the funds is made by the payor bank from the check drawer's account and those funds become available for use by the payee. If the check is dishonored by the payor bank, the check is returned through the clearing system in reverse direction, directly or indirectly, from payor bank to depository bank in order for the depository bank to debit the payee's account for the dishonored check. The route of the dishonored check from payor to depository bank need not precisely retrace the route of the check from depository bank to payor bank, but may be a direct return from payor bank to depository bank, or may follow an indirect route. Dishonored checks are caused by insufficient funds in the drawer's account, a stop payment order in place for the particular check, or other reasons.

There are three payment related conditions for funds deposited in a payee's account at the depository bank. The first stage is a book credit of funds, denoting checks deposited by the check payee to its account at the depository bank, as noted on the books of the depository bank, but not necessarily available for use by the payee. The second stage is available funds, credited to the account of the payee at the depository bank and available for use or withdrawal by the payee. The time between book credit and availability of the payee is determined by federal regulation, bank policy, and/or negotiated terms between the bank and its customers. The third stage is collected funds in which the deposited check has been honored by the payor bank and all risk of return or dishonor is eliminated. The most certain policy with regard to funds for a depository bank is to make funds available, or withdrawable, only when they have been collected. Reducing the time between the book credit and the collection of funds is advantageous to bank customers, to the banks and to the business community in general by making funds more quickly available for productive economic uses. Faster collection is an object of the present invention.

In the usual sequence of check handling, every transferee, in the sequential chain of the check transit from the check drawer to the payee and ultimately to the payor bank, the previous party from whom the check is received is responsible for collection and payment of the check. For example, the payee is responsible to the bank of first deposit, the bank of first deposit is responsible to the next bank, and so on. The time between book credit of a check and its collection (or dishonor) is reduced by the present invention. Reduced float is advantageous to the payee because it results in the expedition of collected funds into the payee's account.

Traditional banking practices may inherently delay the ability of the payee to withdraw funds represented by the check presented by a payee for collection until the depository bank makes certain that the funds have been collected at the payor bank from the drawer's account. Since the large majority of checks presented for payment are honored by the payor bank, banking practice does not send a notice honoring a check, only notice of dishonor. To insure against risk of loss to the depository bank by a payee withdrawing funds not subsequently collected from the drawer's account at the payor bank, banking practice requires a waiting period sufficient to insure that a dishonored check would be made known to the depository bank in time to reverse the depository bank's book credit of the funds to the payee's account and to deduct the uncollected funds from the amount of the book credit. Use by the payee of subsequently uncollected funds is, at best, an interest-free loan to the payee even when a solvent payee promptly redeposits the uncollected amount in its account at the depository bank. At worst, the entire amount of a check could be lost if the check is uncollectible. Recent banking regulations, such as Federal Reserve Regulation CC, mandate a shortened time during which a payee must wait for access to its deposited and credited funds. Thus, expedited procedures for processing and collecting checks reduce the risk of loss to a depository or subsequent collecting bank through dishonored checks. Expedited procedures also benefit the payee-depositor by permitting the depository bank more promptly to release funds for payee use, offering customers more effective cash management.

The receipt of 10,000 to 1,000,000 or more checks within a predetermined period drawn on numerous different banks is not unusual for large businesses such as credit card issuers, utilities, and mail order processors. In situations where large numbers of checks are involved, the handling of individual checks and effecting their posting, deposit and clearing is a complex multiple step process, additionally complicated for the recipient payees of such checks, because a payment stub, invoice, order form or the like is usually enclosed along with each payment check. The payee must open each envelope, and record, reconcile and separate the payment stub from the check, optionally send the payment stub for archival storage (such as on microfilm or electronic media) or destruction, and send the check to the payee's bank for deposit, collection and credit to the payee's account through the check payment system. Thus there exists a need for a system whereby the conventional deposit and collection of funds represented by a check or other financial instrument may be expedited and the internal processing thereof made more efficient, particularly for businesses that regularly receive large numbers of checks and other forms of payments from their customers. The invention eliminates repetitive processing steps and begins the check clearing process at the payee's point of receipt as an adjunct to the payee's internal accounting.

Lock box or other means of collection consolidation and acceleration known in the prior art do not achieve the efficiency of the present invention. Typical lock box services, offered by cash management divisions of commercial banks or other entities, commonly entail routing customer payment checks to the payee through a designated post office box. The payments are generally collected from a post office box by the bank or cash management service at predetermined time intervals (e.g., several times a day) and removed from envelopes. The payment stubs are routed to the payee for accounting while the accompanying checks, credited to the accounts associated with particular stubs, are routed within the depository bank to begin the customary

collection process. While this procedure achieves an efficiency of scale by aggregating and more rapidly depositing customer checks to the account of the payee, payment stub processing by the payee, paper check processing by a lock box manager or bank, and the physical transportation of both between lock box location, payee and depository bank and their final, physical processing in the check payment system are still conducted conventionally, slowly and repetitively.

A variation of a lock box procedure is the Payment Consolidation Service offered by NBD, N.A. of Detroit, Mich. In this procedure, invoice payments by check and electronic payments through a bill payment service are both sent directly to a depository bank, while the bank transmits certain customer accounting information electronically to the payee, the system otherwise employs conventional bank processing procedures for the physical sorting and transport of checks in the check payment system and/or the processing of electronic payments.

The present invention is directed to the bank customers (payees) who maintain customer accounting functions internally. For such bank customers, the present invention permits the payee to adapt and coordinate internal bill payment, accounting, and check processing procedures with the procedures that introduce checks into the payment system for collection.

Stephens et. al., United States Letters Pat. No. 5,237,159, describes the preparation of various electronic files that mirror paper cash letters and detail records (checks). The present invention is directed not to specific forms of electronic formatting and arrangement of the check information for rapid electronic transmission, as is Stephens et. al. Rather, the present invention is directed to an integrated system involving predetermined processing steps. Beginning at the point of receipt, this system facilitates the check payee's internal accounting for checks it receives and expedites the flow of check and cash letter information through the check payment system as a bank of first deposit monitors the check payee's account at the bank with regard to the checks received. Any suitable means for electronic file arrangement and transmission is useful in the present system.

SUMMARY AND OBJECTS OF THE INVENTION

The present invention comprises an integrated system beginning at a payee's item capture facility for effecting the efficient submission of checks and other financial instruments into the payment system for collection of funds. The financial instruments are received by a payee at a capture location remote from the payee's collecting and clearing depository bank and are presented for payment through the check payment system to the multiple institutions on which the instruments are drawn. In one embodiment, electronic scanning means at a first location established by the payee receives the financial instruments, scans and extracts necessary data therefrom including the data of the magnetic ink character recognition (MICR) line of the instrument, adds necessary data such as the amount and a document identification number to the electronic information associated with each check, and sends this electronic information to the payee's depository bank for further electronic sorting and processing both with regard to the introduction of the checks into the payment system and the crediting of funds represented by the checks to the payee's account at the bank, as the payee processes the check in its own record of account with the check payor. In this first embodiment, the paper