United States Patent [19]

Spradlin

[54] APPARATUS FOR RECORDING AND PROCESSING CREDIT TRANSACTION DATA

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- [22] Filed: Apr. 7, 1971
- [21] Appl. No.: 132,050
- [52] U.S. Cl..... 101/45, 101/269, 101/285

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[45] Oct. 2, 1973

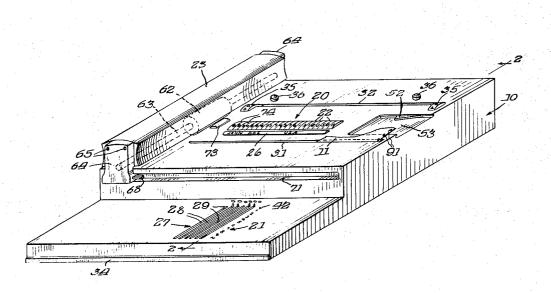
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Primary Examiner—William B. Penn Attorney—Hume, Clement, Hume & Lee

[57] ABSTRACT

A portable data recording apparatus for imprinting log sheets or continuous rolls of data paper with fixed data from embossed credit cards and both fixed and variable data from settable print wheels is provided for use in a unique and highly efficient method for credit transaction processing, accounting and billing. The recording apparatus is provided with a housing used to support a roll of data paper, a printing assembly including rotatable print wheels mounted in the housing and located below the paper for selecting fixed and variable data to be imprinted, a positioning assembly for setting the position of printing elements on the printing wheels, a movable imprinting device located above the paper for imprinting data onto the paper, and a paper advancing assembly for advancing the paper after each imprint cycle.

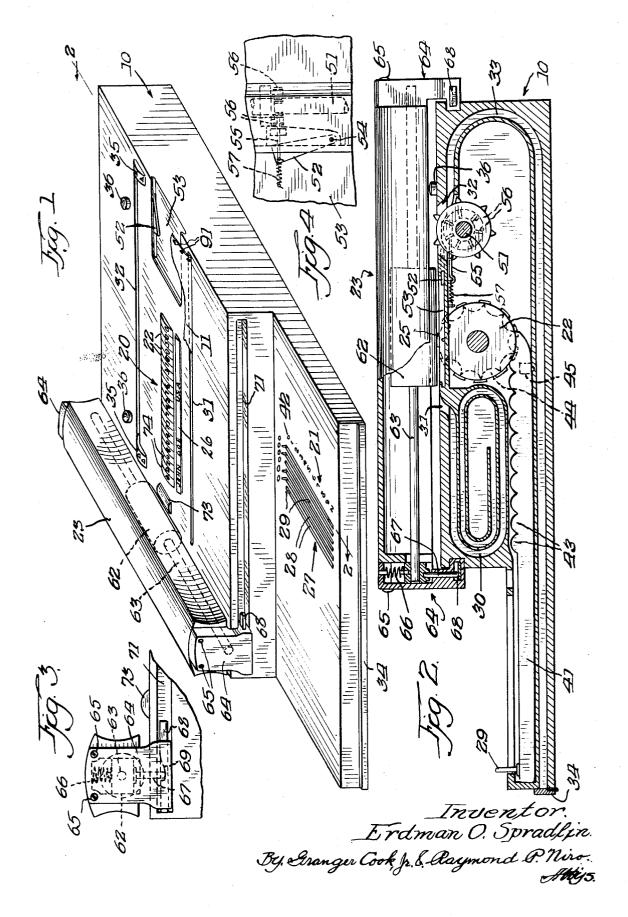
16 Claims, 7 Drawing Figures



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SHEET 2 OF 3

ia. 5. ORIGINAL INVOICE --- RETAIN THIS COPY FOR YOUR RECORDS A PROD. SERV. QUAN PRICE AMOUNT MOSE. OR SERVICE 2 GASO, COIL GAS SUPER WERE REGULAR 12/5 40 5.00 REVOLVING CHARGE ACCOUNT AGREEMENT 3 OIL ONLY ŝ 4 REPAIR SERV. LDO SUPER PREM Q.S. 5 TBA 6 ROAD SERV. 8 9 N NOT INDICATED 89 85 86 QO 87 CUSTOMER'S SIGNATURE-KEEP IN BOX 100 SALE NO. HO. IDAY DEALER NO ACCOUNT NO. YEAR John Q Bublic 18,240 762 431 672 1 092 08 04 71 7427613 5.00 5 TOHN Q PUBLIC CHICAGO, ILL. STAN'S SERVICE AS BILLING VERIFICATION A REPRODUCTION OF THIS LINE WILL BE ON YOUR MONTHLY STATMENT 82 84 86 87. 88 86 89 84 85 DEALER CREDIT CARD SALES TRANSMITTAL 734528 ACCOUNT NO. CUSTOMER SIGNATURE YR DEALER NO. # SAMOUNT SALENO MO DAY RW Minde 12640 123 456 789 0 001 07 22 71 123 4567 3 500 g Gren 12552000 546 789 213 7 002 07 22 71 1234567 2 675 234 753 567 1 450 John 9 Piller 003 07 22 71 1234567 767 234 732 7 16.250 004 07 22 71 1234567 6 1850 RB3 Liroy Smith 234 567 890 1 620 005 07 22 71 1234567 3 K Stone 8000 123 657 623 2 006 07 22 7/ 1234567 900 2 II Sotong 678 123 567 1 007 07 23 71 1234567 555 1 234 679 345 6 Row 3 Run 008 07 23 71 1234567 1 600 762 431 672 1 500 John Q Public 18,240 092 08 04 71 7427613 1 ท่า HAND PRINT 11880 TOTAL \$ _____ Erdman O. Spradlin. By Granger Cook Jr. & Raymond P. Niro. iq. O.

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1 APPARATUS FOR RECORDING AND PROCESSING **CREDIT TRANSACTION DATA**

BACKGROUND OF THE INVENTION

This invention generally relates to an apparatus for 5 recording credit transactions and to a method for credit transaction processing, accounting and billing.

Modern business transactions necessarily involve large volumes of credit buying. In most retail outlets, for example, hundreds or even thousands of credit 10 ment required to process the source credit transaction transactions are carried out in a single day. In a typical credit transaction, source recording devices are used to record the customer credit card number and the dollar amount of the transaction in a format and type style suited to read on optical character recognition (OCR) equipment. The merchant then compiles and records various individual credit transactions onto summary forms. These provide merchant identification and batch control totals to enable reconciliation and processing by the credit center.

Most credit transactions begin with the insertion of a three part data form sales receipt together with the customer's credit card into the source recording device and are followed by the input of the dollar amount of 25 the sale. Concurrently, the dollar amount and the information contained on the customer's credit card are recorded on the data form. Then the data form is removed from the source recording device, the amount of sale verified, and the customer's signature obtained. 30 Finally, the three part data form is separated, one part being retained by the customer as a receipt for the transaction, a second part being retained by the dealer or for departmental records and a third part being sent to a central billing office where the credit transaction 35 data is processed, customers are billed and dealers are reimbursed or departments credited.

As a result of the rapid increase in the volume of credit transactions nationally, most central billing offices are now facing a serious problem in efficiently 40 processing source credit transaction data. Since each transaction initiates a single data form for accounting and billing, the hundreds of thousands of data forms developed daily must be separated, categorized, kept in order, microfilmed, read into computers, balanced 45 against department or dealer records, sorted, matchedup and sent to the customer with his monthly statement. The man power requirements for mailing, handling and ultimately processing these mass quantities of single data forms by the cumbersome techniques pres- 50 ently available have become oppressive.

THus, it is one of the principle objects of this invention to provide a unique source credit transaction reture essential data at the point of sale and at the same ⁵⁵ mechanism used to advance the data the data is a first same ⁵⁵ mechanism used to advance ⁵⁵ mechanism used to advance ⁵⁵ mechanism time develop such data in a form sufficient to reduce the man power, bulk paper handling, accounting, processing and billing requirements of a central billing office.

It is another object of this invention to provide a 60 unique method for preparing descriptive bills for credit customers.

It is still another object of this invention to provide a means of recording multiple credit transactions on a 65 single log sheet, in high density form as an automatic by-product of the preparation of the customer's sales receipt.

It is still another object of this invention to provide a method of source recording wherein each log sheet and each individual transaction thereon are completely autonomous and may be read by OCR equipment and input directly to the computer without the need for separate summary forms, numerous control activities and reconciliation operations.

Finally, it is still another object of this invention to reduce the amount and cost of data processing equipdata.

SUMMARY OF THE INVENTION

In accordance with this invention there is provided a 15 data recording apparatus including: (a) a housing assembly which is adapted to support a roll or sheet of data paper which, in turn, is disposed to move longitudinally along the housing assembly; (b) a data printing assembly, mounted on the housing and disposed below 20 the paper for selecting fixed and variable data to be imprinted onto the paper, this printing assembly including a plurality of rotatable wheels coaxially mounted in adjacent relation to each other, each of the wheels having a plurality of printing elements spaced about its periphery; (c) a positioning assembly for setting positions for at least a portion of the wheels; (d) an imprint assembly located above the paper and laterally movable across the housing to imprint data from the printing assembly, this imprint assembly being capable of retracting after completion of each imprinting cycle; and (e) an assembly for advancing the roll of paper after completion of each imprinting cycle.

This invention also provides a method for recording source credit transaction data including the steps of: (a) recording fixed and variable data from a credit transaction on at least one unit area of a roll of data paper; (b) simultaneously recording such data on at least one unit area of a separate customer credit receipt; and (c) advancing the roll of data paper at least one of said unit areas after each individual transaction so that a unit by unit listing of the individual credit transactions is recorded on the roll of data paper.

BRIEF DESCRIPTION OF THE DRAWINGS

This invention will be better understood by reference to the following drawings in which:

FIG. 1 is a perspective view of one form of the data recording apparatus of this invention.

FIG. 2 is a side sectional view of the data recording apparatus shown in FIG. 1.

FIG. 3 is an end view of a section of an imprint assembly for the data recording apparatus.

FIG. 4 is a fragmentary plan view of the recording apratus of this invention.

FIG. 5 is a simplified representation of one form of customer credit or sales receipt which can be used in the practice of this invention.

FIG. 6 is another simplified representation of a log sheet developed by the data recording apparatus of this invention showing a line-by-line or unit-by-unit listing of transactions in a form suitable for automatic processing by optical character recognition equipment.

FIG. 7 is a representation of a customer credit statement which can be generated in accordance with this invention giving a customer a descriptive bill.

DETAILED DESCRIPTION OF EMBODIMENTS OF THE INVENTION

A transaction recording apparatus in accordance with the embodiment of the invention shown in FIGS. 5 1-4, generally includes: a housing 10 used to support a roll of data paper 11 and to enclose and support the internal components of the apparatus, a variable and fixed data input assembly 20 centrally mounted on housing 10, a variable data selector assembly 21 10 mounted on another portion of housing 10 and in direct alignment with a portion of wheels 22 in data input assembly 20, an imprint assembly 23 mounted above paper 11 and data input assembly 20 and laterally movable across housing 10, and an advancing mechanism 15 52 for paper 11, which is designed to automatically advance the paper after completion of each transaction.

Housing 10 includes a rigid frame, as illustrated in FIGS. 1 and 2, which is preferably formed as a unitary structure. A cover (not shown) can also be used with 20 A card detent assembly, such as that illustrated in FIG. the recording apparatus of this invention to protect it where necessary from inclement weather conditions.

Data paper 11 is guided along a longitudinal path extending across the top of data input assembly 20 from a position within the housing. The data paper is stored 25 within channel 30 formed internally in the housing and advances out of opening 31 in the top of the housing, over input assembly 20 and print wheels 22, and then through opening 32 and into storage channel 33 where the completed data paper is stored. Hinged door 34 lo- 30 cated at the bottom of housing 10 is provided to allow removal of the filled or completed data paper from storage channel. Sprockets 35 are attached to opposite ends of paper 11 and are used to advance the paper laterally across the housing from opening 31 to opening 35 to opening 32. Pegs 36 are mounted on housing 10 near sprockets 35 and are designed to hold the customer credit or sales receipt, shown in FIG. 5, in place when it is superimposed over the sprocket controlled data paper 11.

A series of individually settable print wheels 22 are mounted within housing 10 and extend slightly above the flat horizontal surface of the housing. Each of the print wheels has a plurality of printing elements 25 spaced about the periphery thereof. Each printing ele- 45 ment contains a numerical character from 0 to 9 and each print wheel 22 is independently rotatable to set a preselected numeral into printing position. Print wheels 22 are coaxially mounted in adjacent relation to each 50 other. In FIG. 1, 22 of such individual print wheels are shown, six of which are designed to input variable data from selector assembly 21 and 16 of which are designed to input both fixed and variable data manually by mechanically rotating wheels 22 with a stylus, or 55 pencil or the like. Name plate 26 is located on housing 10 in a position adjacent input assembly 20 and can be used to input any type of fixed data that is desired, e.g. name or address of dealer, department code etc.

The means employed for rotating a portion of wheels 60 22 includes a control panel 27, a series of channel 28 in direct alignment with wheels 22, and a plurality of selector keys 29 slidable with channels 28 in the panel, as viewed in FIGS. 1 and 2. Each selector key 29 is operatively connected to a corresponding wheel 22 by 65 prints data onto paper 11 and receipt (FIG. 5). When means of shaft 41. A column of numerals 42 is inscribed on housing 10 alongside each position in channels 28 so that the described numeral on printing ele-

ments 25 can be selected by positioning the corresponding key 29 opposite the numeral on wheel 22. This is accomplished by the forward movement of shaft 41 which contains raised areas 43 that mesh with slots 44 formed on each of the wheels 22. Detent 45 applies a continuous upward pressure on shaft 41 and assures tight engagement between slots 44 and the corresponding raised areas 43. Thus as shaft 41 is moved backward and forward, individual wheels 22 are rotated and positioned to appropriate settings for data recording.

It should be observed that only six of the print wheels 22 are shown in FIGS. 1 and 2 as being directly controlled by selector assembly 21. Typically these six digits would be used in input variable data such as amount and product code. But is should be understood that any number of wheels 22 could be controlled by a larger selector assembly 21 if desired.

As previously mentioned, sprockets 35 are used to advance paper 11 after completion of each transaction. 4, can be used to automatically advance paper 11 in response to the insertion and removal of an embossed credit card of the like from slot 53. Briefly, shaft 51 is used to interconnect and drive sprockets 35. Switch 52 in turn is disposed in credit card slot 53 and extends outwardly into the slot. Switch 52 is rotatable around pivot 54 and can be depressed inwardly by merely inserting a credit card into slot 53. As switch 52 is moved inwardly by a credit card it in turn drives pin 55 in the direction of shaft 51 and engages one of the nubs 56 located around the periphery of sprocket 35. This inward movement of pin 55, therefore, rotates sprockets 35 which in turn advances the roll of data paper 11. After the credit card is removed from slot 53, spring 57 pulls switch 52 back into its unrecessed or return position and the next adjacent nub 56 is in position to engage pin 55. Thus as a credit card or the like is inserted and removed from slot 53 for each transaction, paper 11 is automatically advanced to a new position and is ready 40 for the recording of new data.

After a credit card has been inserted into slot 53, paper 11 has been advanced, data input assembly 20 has been set and receipt (FIG. 5) is placed in position above paper 11, the data recording apparatus of this invention is ready for imprinting. Imprinting is accomplished by means of slidable imprint arm 23, which is moved laterally across receipt (FIG. 5), paper 11, a credit card and data input assembly 20. Channel 71 in housing 10 is provided for imprint arm 23 and allows it to be manually pushed across the housing. Roller 62 on shaft 63 is internally mounted and recessed within imprint arm 23. A pair of brackets 64 are mounted on opposite ends of arm 23 and are held in place by suitable fastening means, such as rivets 65.

As shown in FIG. 3, shaft 63 is adapted for vertical movement within arm 23. This is accomplished by mounting shaft 63 between spring 66 which interconnects the top portion of arm 23 with shaft 63 and lift rod 67 which engages shaft 63 at its uppermost point and sliding bar 68 at its lowermost point. Groove 69 is cut in the surface of bar 68, allowing roller 62 to attain its lowered position. Thus, as arm 23 is moved laterally along channel 71, roller 62 in its lowered position imarm 23 reaches the opposite end of channel 71, sliding bar 68 strikes the end of channel 71, moving lift rod 67 and roller 62 upwardly so that on its return movement 5

roller 62 is in its recessed position, and double imprinting is avoided. When arm 23 reaches its return position, sliding rod 68 strikes the end of channel 71 and thus causes the lift rod to move into groove 69 and lower roller 62 to imprint position.

As shown in FIGS. 1 and 3, imprint roller 62 is designed to pass over consecutive number buttom 73 during the imprint cycle. Buttom 73 upon being depressed will automatically advance the three digit consecutive numbering head 74 in wheels 22 in order to provide a 10 unique number for each transaction.

Naturally, one of the most striking advantages of the data recording apparatus of this invention lies in the fact that data from a number of transactions can be recorded on a line-by-line basis on a single log sheet. This, of course, greatly simplifies the processing requirements for the transaction data. Instead of one sheet of paper for each transaction, one log sheet is developed to record numerous transactions.

In addition, retail dealers or departments using the apparatus of this invention will spend less time in tabulating and recording summaries of their transactions. The volume of incoming mail to a centralizing billing operation will be reduced and thus office space and 25 man power requirements will decrease. As shown in FIGS. 5, 6 and 7, log sheets 11, customer receipt 82 and customer statement 83 will each contain identical transaction data. Variable data, such as sales number 84 (which is set by buttom 73), date, 85, (which is set manually), product code 86 and amount (which are set through selector assembly 21) and credit card number 87 (which is imprinted from the customer's credit card) will appear on both the log sheet 81 and customer receipt 82. In addition, the customer 3 signature 35 88 and the amount of the transaction 90 can be entered on both the log sheet and receipt. Fixed data, such as a dealer code 89 (which is entered manually), name, address etc. can also be entered and recorded on both the log and receipt.

The preparation of the log sheet requires minimal effort on the part of the operator. No mechanical gadgetry is involved in loading and unloading the data log paper. The log paper 11, having one or more parts and containing sprocket control holes 91, is simply slid into 45 the paper storage channel 31 and placed onto the sprockets 35. Thereafter, the paper is advanced automatically in a predetermined increment by inserting the customer's credit plate into slot 53. Hence, the credit 50 transaction is executed as follows

a. Variable data, such as the amount of sale, is entered.

- b. The sales slip or credit receipt 82 bearing prepunched alignment holes, is placed over pegs 36 to register the sales slip data line 100 with the log 55 sheet data line 101. Ply one of the sales slip is of the self-imaging chemically treated type paper. The last ply or back of the sales slip bears a carbon coated strip the length and width of the data band. -60
- c. The imprint assembly 23 is moved across housing 10 to record identical images on the sales slip 82 and log sheet 11.
- d. The sales slip 82 while still in position on the recorder, is signed by the customer. The data line on 65 the log sheet 101 including the customer's signature, is now a carbon copy of the data line on the customer's receipt 100.

Since data lines on the log sheet contains all necessary information for accounting and billing purposes individual data forms are not needed by the credit center.

It should be noted that each log sheet and each transaction thereon are totally independent and identifiable entities capable of being processed without additional supporting data such as provided by summary forms.

This unique way of capturing data at the source, in electronic machine sensible form, inherently simplifies all accouting and processing methods. The more obvious of these advantages, of course, is the simple fact that the volume of paper is significantly reduced. The log sheet method of reading and capturing data produces marked efficiencies in the way of OCR throughput and reading accuracy. Moreover, treatment and capture of the log sheet as a complete entity facilitates greater use of a computer in conjunction with the OCR equipment in reading, reconciliation and sales process-20 ing in general.

Another unique advantage in this method of processing credit sales lies in the fact that an exact facsimile 102 of the essential line of data, including the customer's signature 88, becomes supporting evidence for the customer's periodic statement 83. Once the merchant submits a log, containing several different customer transactions, the various lines of sales data including the customer's signature, is electronically read and stored by the computer. At billing time the sales data and customer's signature associated with each transaction is sorted in account number sequence with transactions in chronological order and duplicated on computer output microfilm (COM) which is produced in turn as a customer statement.

It should be understood that a number of changes and modifications can be made in the embodiments disclosed herein without departing from the spirit and scope of the invention as defined in the following 40 claims.

I claim:

1. A data recording apparatus for recording on a sheet data from a plurality of different transactions, comprising:

- a. housing means adapted to support the sheet and having therein a pair of spaced openings, said sheet being disposed to move along a path which leads from one opening over the housing means and then into the housing means through the other opening, so that a portion of the sheet is on the housing means;
- b. data printing means mounted in said housing means for selecting fixed and variable data to be imprinted on said sheet, said data printing means including a plurality of rotatable wheels coaxially mounted in adjacent relation to each other, each of said wheels having a plurality of printing elements corresponding to different data spaced about its periphery, said wheels being below that portion of the sheet on the housing means and positioned within the housing means so that an individual element of each of the different wheels extends from the top of the housing means, said extended elements being underneath said sheet portion on the housing means and aligned with respect to each other to record on one unit area of the sheet data from said extended and aligned elements;

- c. positioning means for rotating at least some of the wheels to bring different elements into an extended and aligned position relative the sheet portion on the housing means;
- d. imprint means disposed above that portion of the 5 sheet on the housing means and laterally movable across said housing means to imprint data from extended elements onto said sheet portion on the housing;
- e. means adapted to receive an embossed credit card, 10 said card receiving means being disposed adjacent said data printing means whereby lateral movement of said imprint means across said housing means causes data from both said data printing means and said credit card to be imprinted on said 15 sheet; and
- f. means for advancing said sheet after completion of an imprinting cycle, said advancing means being actuated by the insertion of the credit card in the card receiving means and the removal of the card 20 from said receiving means.

2. The data recording apparatus of claim 1 wherein said means for advancing said sheet comprises sprocket means communicating with said sheet, switch means disposed within said slot and shaft means interconnecting said sprocket means and said switch means, wehreby insertion of said credit card into said slot advances said switch means and said shaft means so as to impart rotational movement to said sprocket means and thereby automatically advance said sprocket ³⁰ means a predetermined distance.

3. The data recording apparatus of claim 1 which is further characterized by having means disposed on said housing means for imprinting consecutive number codes for each transaction.

4. The data recording apparatus of claim 1 which is further characterized by having individual storage and receiving channels in said housing means for said sheet, said channels being disposed on said housing means so that said sheet can be advanced out of said storage channel, past said data printing means and into said receiving channel:

5. The data recording apparatus of claim 1 wherein said imprint means is further characterized by having a handle means adapted for lateral movement across said housing means, and roller means retractable within said handle means, whereby said roller means engages said housing means and said data printing means during each imprinting cycle across said housing means and automatically retracts into said handle means upon completion of said imprinting cycle and reverse lateral movement of said handle means into return position.

6. The data recording apparatus of claim 1 wherein said positioning means comprises a plurality of individual selection control racks on said housing means, individually operatively connected to said rotatable wheels and bearing numerals corresponding to the setting for each printing element on the periphery of each of said rotatable wheels, whereby the forward advance of each of said control racks to a particular numeral rotates each of said corresponding rotatable wheels to a position in which said printing element on said wheel corresponds to the numeral on said control rack.

7. Apparatus for recording on an elongated log sheet adapted to receive thereon successive lines of data and a customer receipt superimposed on a portion of the log sheet, source credit transaction data including an

account number embossed on a customer's credit card and the customer's signature which is reproduced on the log sheet when the customer signs the receipt, said receipt having thereon a predetermined portion designated for the customer's signature, comprising:

housing means including means for storing the log sheet:

- a data input assembly attached to the housing means including a plurality of manually and independently movable printing means with each printing means having a plurality of printing elements corresponding to different data, said printing elements being adapted to be moved to a print position where said elements are aligned with respect to each other along a common line;
- means attached to the housing means for holding the credit card so that the embossed account number on the card is in alignment, along said common line, with the printing elements in the print position;
- means for positioning the log sheet with respect to the credit card and printing elements in the print position such that a portion of the log sheet is adjacent the embossed account number on the card and the printing elements in the print position;
- means for holding the customer receipt in superimposed relation with respect to that portion of the log sheet which is adjacent the credit card and printing elements in the print position, said receipt holding means positioning the receipt relative to the housing so that said predetermined portion of the receipt designated for the customer's signature is in alignment, along said common line, with the embossed account number on the credit card and the printing elements in the print position;
- means for supporting the customer receipt and providing a writing surface so that the customer can write on the receipt;
- manually operable means attached to the housing for imprinting on the receipt and log sheet the data appearing on the printing elements in the print position and the embossed account number on the credit card; and
- means for stage-wise advancing the log sheet from the storage means to the supporting means to move successive portions of the log sheet adjacent the credit card in the card holding means and printing elements in the print position.

8. The apparatus of claim 7 where the printing means comprises a plurality of rotatable wheels coaxially mounted in a side-by-side relationship to each other, each of said wheels having a plurality of said printing elements spaced about its periphery.

9. The apparatus of claim 8 including selection means individually operatively connected to said rotatable wheels for individually moving to the print position a desired printing element for each of said rotatable wheels.

10. The apparatus of claim 7 wherein the receipt supporting means is a portion of the top of the housing, and said aligned printing element and said card holding means being disposed in an aligned, spaced apart relationship on said housing top, with the area on said housing top between said aligned printing elements and said card holding means being adapted to support the sheet and the receipt as the customer writes his signature on the receipt.

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11. The apparatus of claim 10 where the housing means has therein a pair of spaced openings and the log sheet is disposed to move along a path which leads from the housing means through one of the openings, over the housing top past the aligned printing elements and 5 credit card, and again into the housing means through the other opening.

12. The apparatus of claim 11 where the sheet, at least in part, is stored in roll form in the housing means.

13. A data recording apparatus for recording on an 10 elongated sheet credit transaction data from a plurality of different transactions, the data for each individual transaction being arranged in a single line extending across the width of said sheet, with different transactions being represented by separate lines of data ar- 15 ranged in a series extending along the length of said sheet, comprising:

- a housing having therein first and second spaced openings;
- first and second spaced storage means for the sheet, 20 said first storage means being in the housing adjacent the first opening in the housing and adapted to receive the sheet prior to data being recorded thereon, and said second storage means being in the housing adjacent the second opening in the 25 housing and adapted to receive the sheet after data is recorded thereon;
- said sheet being movable along a path which leads from the first storage means out the housing again into the housing through the second opening, and to the second storage means, so that a portion of the sheet is on the housing;
- means along said path and adjacent said sheet portion on the housing for printing data on said sheet 35 storage means. portion on the housing, said printing means including a plurality of movable printing elements corresponding to different data for each individual transaction;

means for moving different printing elements into a printing position where, during imprinting of the sheet, the different elements are aligned so that all data from aligned elements is recorded on a single line of the sheet;

means along said path and adjacent aligned printing elements in the print position for holding an embossed credit card in a position where, during imprinting of the sheet, embossed data on the card is aligned with said aligned printing elements and is recorded on the same line of the sheet as the data on said aligned printing elements;

- manually operable imprint means on the housing which is adapted to move laterally across the sheet generally at a right angle to the sheet's path of movement over the housing, said imprint means imprinting on the sheet on the same line data from a card in the card holding means and data from aligned printing elements in the print position; and means for advancing the sheet at least one line after
- the sheet has been imprinted with data, whereby data from different transactions are represented by separate lines arranged in a series along the length of the sheet.

14. The apparatus of claim 13 additionally including means for holding a customer receipt in a superimposed position over the sheet portion on said housing.

15. The apparatus of claim 13 where the printing means are between the first and second storage means, through the first opening, over the housing and 30 and the moving means for individual printing elements include a manually adjustable member which extends from the housing and means operatively connecting the adjustable member to individual printing elements, said connecting means passing under at least one of the

16. The apparatus of claim 15 where the openings are in the top of the housing and the storage means are below the openings.

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UNITED STATES PATENT OFFICE **CERTIFICATE OF CORRECTION**

Patent No. 3,762,316 Dated October 2, 1973

Inventor(s) Erdman O. Spradlin

It is certified that error appears in the above-identified patent and that said Letters Patent are hereby corrected as shown below:

Col. 1, line 52, delete "THus" and insert -- Thus--.

Col. 5, line 34, delete "customer 3" and insert --customer's--. Col. 7, line 27, delete "wehreby" and insert --whereby--.

Signed and sealed this 17th day of December 1974.

(SEAL) Attest:

MCCOY M. GIBSON JR. Attesting Officer

C. MARSHALL DANN Commissioner of Patents