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E. THOMAS

LEDGER SHEET

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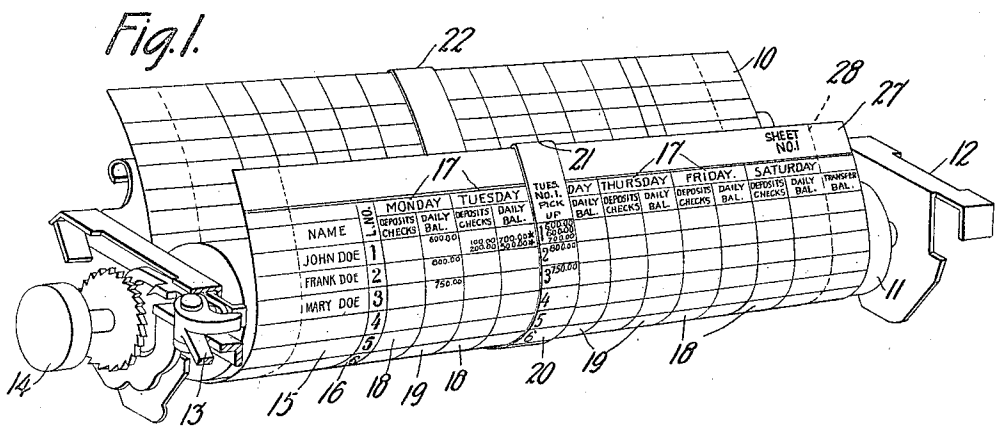
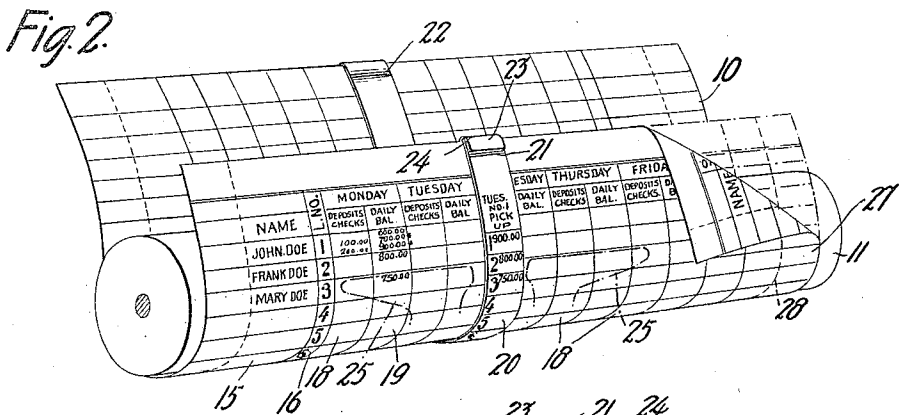


*Fig. 3.*

| NAME      | LINE NO. | MONDAY   |               | TUESDAY  |            | TUES. NO. 1 PICK UP |
|-----------|----------|----------|---------------|----------|------------|---------------------|
|           |          | DEPOSITS | DAILY BALANCE | DEPOSITS | DAILY BAL. |                     |
| JOHN DOE  | 1        |          | 600.00        | 100.00   | 700.00 *   | 1 600.00            |
| FRANK DOE | 2        |          | 800.00        | 200.00   | 500.00 *   | 2 600.00            |
| MARY DOE  | 3        |          | 750.00        |          |            | 3 750.00            |
|           | 4        |          |               |          |            | 4                   |
|           | 5        |          |               |          |            | 5                   |

*Fig. 4.*

| TUES. NO. 1 PICK UP |
|---------------------|
| 1                   |
| 2                   |
| 3                   |
| 4                   |
| 5                   |
| 6                   |
| 7                   |
| 8                   |
| 9                   |
| 10                  |
| 11                  |
| 12                  |
| 13                  |
| 14                  |
| 15                  |
| 16                  |
| 17                  |
| 18                  |
| 19                  |

*Fig. 5.*

| TUES. NO. 1 PICK UP |
|---------------------|
| 1                   |
| 2                   |
| 3                   |
| 4                   |
| 5                   |
| 6                   |
| 7                   |
| 8                   |
| 9                   |
| 10                  |
| 11                  |
| 12                  |
| 13                  |
| 14                  |
| 15                  |
| 16                  |
| 17                  |
| 18                  |
| 19                  |

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## UNITED STATES PATENT OFFICE.

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## LEDGER SHEET.

Application filed June 16, 1919. Serial No. 304,597.

*To all whom it may concern:*

Be it known that I, EDWARD THOMAS, a citizen of the United States, residing in New York city, in the county of New York and State of New York, have invented certain new and useful Improvements in Ledger Sheets, of which the following is a specification.

This invention relates to bookkeeping devices, and is herein disclosed as applied to a "Boston" bank ledger sheet as adapted to be used in the carriage of an Underwood standard bookkeeping machine.

Such ledger sheets are usually provided with a name column or columns, with day columns, with a transfer balance column, and with a plurality of subsidiary columns in each day column. The large number of these columns and the need that they shall accommodate numbers comprising nine or even more digits, makes the ledger sheet necessarily of considerable width if it is to accommodate all the days of a week upon a single side. In ledger sheets of this type, the columns under each day column usually include a daily balance column, and in addition a deposits-checks-column, or separate columns for deposits and checks.

Where such ledger sheets are used in connection with printing bookkeeping machines, it is advantageous, in addition, to provide a pick-up column for each daily balance column, to enable the typist or person operating the machine to verify each daily balance as it is picked up preparatory to computing the new daily balance. Where pick-up columns of this sort are provided adjacent the daily balance columns in the rulings upon the ledger sheet, the sheet becomes too wide to use as an ordinary typewritten sheet is used in a typewriting machine, because it requires a carriage of inordinate length, greater than can be satisfactorily built for ordinary operation, and moreover the sheet is so wide as to be awkward to handle.

In order to avoid these and other difficulties, I have found it possible to provide a temporary pick-up column, which may be used adjacent any desired daily balance or other column, which is cheap, does not mar the surface of the ledger sheet, and may be destroyed when used up. Moreover, I have found it possible to adapt a strip to receive

the pick-up column in such a way that a daily balance shown near the bottom of a "name line" may be copied at the top of the corresponding line of the pick-up balance strip, while both are at the same line of typewriting. According to the present invention, the strip may be then re-adjusted to bring the pick-up balance thus copied to the top of the appropriate "name line," in which position it is adapted to be most easily copied in computing new balances.

Other features and advantages will hereinafter appear.

In the accompanying drawings,

Figure 1 shows a work-sheet passed around the carriage of an Underwood bookkeeping machine, both the work-sheet and the carriage being largely diagrammatically shown.

Figure 2 is a similar view, but showing the pick-up balance strip adjusted to permit copying from the bottom of a "name line" at the top of the corresponding line of the pick-up strip.

Figure 3 is an enlarged view of part of Figure 1.

Figure 4 is a view of the strip of Figure 2 slightly opened out to show the two sides.

Figure 5 is a view similar to Figure 4, but opened out somewhat differently in order to illustrate the fold lines.

A Boston ledger sheet 10 is shown as passed in the usual manner around the platen 11 of the wide carriage 12 of an Underwood standard bookkeeping machine coming up close to the ends of the platen, and may be advanced by operation of the usual line-space mechanism 13, or the usual knob 14. The sheet 10 comprises a name column 15, a line number column 16, and a plurality of day columns 17, there being one day column for each day in the week. Under each day column are a deposits-checks-column 18 and a daily balance column 19, the latter adapted at any time to show the balance standing to the credit of the depositor named upon the corresponding line in the name column 15.

In making the entries under the name "John Doe" in Figure 1 there was a daily balance of \$600.00 on Monday, and this was carried over onto a pick-up balance strip 20, in a manner to be later described, and entered at the top of the line upon said

strip, being computed at the time in any desired manner, in order to facilitate the checking up of the work on the books. The first entry illustrated is a deposit of \$100.00.

5 Preparatory to entering this deposit, the typist brought the carriage 12 so that the usual types, not shown, would print upon the pick-up strip 20 at the position shown, in which it overlies the checks-deposits-column of the Wednesday column 17. Then the typist copied the entry \$600.00 at the top of line 1 of the strip 20, at the same time automatically adding it into a "computation" register of the type frequently found in the Underwood standard book-keeping machines, one form of which is illustrated in the patent to Hoyt No. 1,280,228. Then the typist moved the typewriter carriage to write in the Tuesday checks-deposits-column 18 and wrote therein the item \$100.00, adding it both in the "computation" register and in a checks-deposits-register found in some types of Underwood bookkeeping machines. Then the typist brought the typewriter carriage to write in the daily balance column 19 of Tuesday, and copied therein the total now shown in the "computation" register, namely, \$700.00, at the same time subtracting it out, and then printed the usual star to prove the accuracy of the copying. It will be seen that a daily balance carried over to Monday will be typed in the daily balance column of that day at the top of the individual account section in which it belongs.

35 Later the typist made an entry deducting checks amounting to \$200.00. Preparatory to doing this, the typist brought the typewriter carriage to write upon the pick-up balance strip 20 still lying upon the checks-deposits-column of Wednesday, and copied therein the balance \$700.00 from the Tuesday daily balance column, in the meantime adding it into the "computation" register above mentioned. Then the typist positioned the typewriter carriage to write in the Tuesday checks-deposits-column 18, and wrote therein the item \$200.00, subtracting it both from the "computations" register and from the checks-deposits-register. Then the typist brought the typewriter carriage to write in the daily balance column 19 of Tuesday, copied therein the total now appearing in the "computations" register, namely, \$500.00, thereby subtracting it, and printed the usual star. So far as shown, that was the last item entered on sheet 10 that day, affecting the daily balance.

60 The strip 20 may be of any suitable material, preferably of a light, cheap paper, as contrasted with the heavy, tough ledger paper of which the sheet 10 is usually formed. The strip 20 is folded at 21 and 65 22 to fit closely the top and bottom of the ledger sheet, and is pasted together along an overlapping portion 23, the overlap being advantageously just enough to extend from the fold line 21 to a second fold line 24 (see Figure 2), the utility of which will appear later. The strip 20 is advantageously ruled in lines at intervals numbered to conform to the line number intervals of the sheet 10, thus enabling the typist to easily verify the position of the strip vertically. To enable the strip to be rapidly and accurately identified as to its horizontal position, it may be provided with a legend herein shown as "Tues. No. 1", corresponding to the day and sheet number with which it co-operates.

80 It has been found that the strip 20, if of light, cheap typewriter paper, will embrace an ordinary ledger sheet, of the size usually used, closely enough to eliminate all visible slipping in such handling of the sheets as takes place in doing typewriter bookkeeping. The strips 20 may be slipped on at leisure by unskilled help, being positioned if need be by their legends all ready for the typist to use.

85 In the specific form of bookkeeping herein illustrated, the depositor's daily balance of a given day is not copied onto a daily balance column 19 until some credit or charge entry is made for that day, or until the close of the day when the daily balances are all entered up in the daily balance columns for the day. This method of bookkeeping, like many methods in which a pick-up balance column may be employed, involves copying the top entry of each day under any name from the lowest entry opposite that name of the preceding day, this being so because the final entry of any day for any name will be the bottom entry against that name and must be copied as the first entry for the following day.

90 In order to enable this to be done, with the item copied always in sight, and thus utilize the advantages of a front-strike typewriting machine, the strip 20 is herein illustrated as adapted to be positioned not only as shown in Figure 1, but also as shown in Figure 2, in which the strip is offset or moved down so that, instead of being folded along the line 21, it is folded along the line 24, with the result that the portion of its "name" line 1, which is to receive the first entry, is on the same typewriting line as the last entry against "name" line 1, shown in column 19 under Monday in Figure 2, the same being true of the other "name" lines. With the strip positioned thus, as illustrated in Figure 2, the typewriting line falling just above the usual wing scales 25, the last entry of the preceding day falls at or above said typewriting line, with the result that the typist copies the last visible item on the preceding day

while copying the daily balance for Tuesday onto the strip shown in Figure 1. The typist is not confused by the overlapping of the line numbers on the strip and the sheet, because the typist in advancing the sheet 10, from one line to another, brings the "line number" rulings of the sheet 10 to the wing scales. Thus the wing scale covers up the top entry on the next lower line, which might otherwise be confusing. It will be observed that the account for John Doe for Monday in Figure 2 differs from that shown in the other figures. The credit or debit character of the entries will be evident.

The entries upon the strip in the Figure 2 position, in ordinary banking, are always made either after the close of business one day, or before the opening of business the following day, and are made one after another in sequence on every line of sheet 10. Thus, it results that the strips 20 for all the sheets 10 are first positioned in the Figure 2 position for entering the daily balances, and then they are all shifted to the Figure 1 position for the day's work.

In order to illustrate the relationship of the folds, the strip 20 is shown opened out in Figure 5, clearly displaying the folds 21 and 24 at the top and the bottom, and the overlapping portion 23 of the strip 20 between the top folds. It is found that if the ends of the strip are cut with substantially straight edges, these edges at the ends of the overlap form efficient means for making the folds permanent. It will be observed that the strips 20 receive only temporary notations or balances which can be completely discarded after the end of a day, since they are valuable only for the purpose of locating errors in case the books fail to balance at the end of the day. For purposes of economy, therefore, instead of destroying the strips 20 each day, both the front and back and the inside and outside of a strip may be suitably ruled, as clearly shown in Figures 4 and 5, thus enabling each strip to be used for four different days.

In order to facilitate the copying off of transfer balances at the end of a week, the sheet, as herein illustrated, is provided with a transfer column 27 at the right-hand edge of each face of the sheet, of sufficient width to accommodate and hold the strip 20 when the strip lies upon it, and is used as a pick-up balance strip for Saturday. It should be understood that the forms are printed on both sides or faces of the sheets so that, when a sheet is turned about a side edge, a form originally on the back of the sheet will be exposed in the same general position as the form originally exposed. The transfer balance columns 27 are separated by perforated lines 28, from the body of the sheet 10, to enable them to be detached or folded over, as the case may be, in copying for the

beginning of a new week. When the sheet 10 has been entirely filled out on both sides or faces in the usual course of work, both of the transfer balance columns 27 may be detached along their perforations if not previously detached, thus reducing the size of the sheets for storage.

It will also be noted that the strips 20 are not kept permanently, thus reducing the storage space required for the stored away ledgers of the bank or other institution. It will be further noted that the strips are entirely disconnected from the sheets 10, with the result that the sheets are not marred by them and so slip over each other easily in being handled, thus eliminating any danger of wearing out the surface of one sheet by a rough surface of the sheet facing it, as the latter sheet slips over the first.

Variations may be resorted to within the scope of the invention, and portions of the improvements may be used without others.

Having thus described my invention, I claim:

1. The combination with a Boston ledger sheet having day columns and subsidiary columns, of a strip tending to cling to said sheet to accommodate a pick-up column having a plurality of fold lines, and shiftable along its length upon the sheet from one to another of the fold lines to alter the height of a pick-up balance.
2. The combination with a Boston ledger-sheet for use in combined typewriting and computing machines in which computation of a transaction for any day involves the typing of the previous balance and the running of the same into the register, said ledger-sheet having day columns, which include subsidiary columns for transactions and daily balances, and a transfer column at the right of the last day column on the face of the ledger-sheet, of means to take the place of separate pick-up columns on the ledger-sheet for use in connection with the day columns, said means comprising a plurality of temporary pick-up columns on strips of suitable width, each of said strips being in the form of a loop embracing the ledger-sheet and slidable therealong to any desired position, said transfer column being adapted to support one of said strips in the form of a loop at the right of the last day column for use in connection therewith.
3. The combination with a Boston ledger-sheet for use in combined typewriting and computing machines in which computation of a transaction for any day involves the typing of the previous balance and the running of the same into the register, said ledger-sheet having day columns, which include subsidiary columns for transactions and daily balances, and a transfer column at the right of the last day column on the face of the ledger-sheet, of means to take

the place of separate pick-up columns on the ledger-sheet for use in connection with the day columns, said means comprising a plurality of temporary pick-up columns on strips of suitable width mounted on said sheet for sliding movement therealong to any desired position, said transfer column being adapted to support one of said strips at the right of the last day column for use in connection therewith.

4. The combination with a Boston ledger sheet having line rulings, and column rulings forming columns for permanent entries, of a strip for temporary copies of the column entries looped around said sheet and having line rulings, and having predetermined fold lines on which it is adapted to be folded at a plurality of cross lines to variably position its rulings relatively to the sheet rulings.

5. The combination with a Boston ledger sheet having line rulings, and column rulings, of a strip looped around said sheet to cover a column and having rulings, and having fold lines on which it is adapted to be folded at a plurality of points to variably position its rulings relatively to the sheet rulings, the ends of the strip overlapping from one fold line to the next so that the ends coincide with folds.

6. The combination with a ledger sheet having columns to receive permanent entries upon its face and adapted for use in a computing machine, of a strip forming an extra column adapted to receive pick-up entries when overlying a permanent entry column of the sheet, said strip having an extension at the back of the ledger sheet connecting its ends, and means including said extension to prevent longitudinal movement of the strip upon the sheet.

7. The combination with a ledger sheet having columns to receive permanent entries upon its face and adapted for use in a computing machine, of a strip forming an extra column adapted to receive pick-up entries when overlying a permanent entry column of the sheet, rulings upon said strip adapted to coincide with rulings on the sheet, said strip having an extension at the back of the ledger-sheet connecting its ends, and means including said extension to hold the rulings on the strip in coincidence with the rulings on the sheet.

8. The combination with a Boston ledger sheet having day columns and subsidiary columns to receive permanent entries and adapted to fit substantially closely the platen carriage of a computing machine, of a strip forming an extra column adapted to receive pick-up entries when overlying a permanent entry column of the sheet, and an extension of said strip at the back of the ledger sheet connecting its ends and adapted to movably hold the strip in place upon the sheet, and

adapted to be used to overlie another permanent entry column and then receive temporary entries.

9. The combination with a ledger sheet having columns to receive permanent entries upon its face and adapted to fit substantially closely the platen carriage of a computing machine, of a continuous strip adapted to fit closely over the ledger sheet to receive pick-up copies of permanent entries thereon and having rulings thereon adapted to coincide with rulings on the sheet, there being rulings on both sides of the ledger sheet and rulings on both of the outer and inner faces of the strip, each adapted to coincide with the sheet rulings.

10. The combination with a transversely-ruled Boston ledger-sheet adapted for use in a computing machine and having day columns, a transfer column, and subsidiary columns to receive permanent entries, of a reversible continuous strip adapted to be folded to fit over the ledger-sheet, and to be slipped to cover the transfer column or subsidiary column to enable it to receive temporary pick-up balances copied from the permanent entries in a column adjacent the one which it covers, said strip being provided with rulings to coincide with the rulings of the ledger-sheet irrespective of the position of said strip in its original or reversed position.

11. The combination with a Boston ledger sheet, of a strip embracing it, rulings on the sheet and strip adapted to correspond when aligned, a fold in the strip for holding it so aligned, and a second fold in the strip for holding the lines spaced out of alignment to enable the strip to be held while entries near one ruling upon the sheet are copied in the same typewriting line adjacent another ruling on the strip.

12. The combination with a Boston ledger sheet, of a strip embracing it, rulings on the sheet and strip adapted to correspond when aligned, a fold in the strip for holding it so aligned, a second fold in the strip for holding the lines spaced out of alignment to enable the strip to be held while entries near one ruling upon the sheet are copied in the same typewriting line adjacent another ruling on the strip, and rulings upon the other half of the strip and other side of the ledger sheet adapted to similarly correspond and to be spaced out of alignment.

13. The combination with a heavy record sheet, of a continuous lighter strip folded to embrace it and slidable thereon, but broad enough and fitting its ends closely enough at the folds to cling to its position while being inserted in and removed from a typewriting machine, the breadth of the strip being sufficient to receive a pick-up balance copied from the record sheet, the two joined ends of the strip overlapping

and one of the overlapping ends terminating at one fold line.

14. The combination with a heavy record sheet, of a continuous lighter strip folded to embrace it and slidable thereon, but broad enough and fitting its ends closely enough at the folds to cling to its position while being inserted in and removed from a typewriting machine, the breadth of the strip being sufficient to receive a pick-up balance copied from the record sheet, the two joined ends of the strip overlapping and one of the overlapping ends terminating at one fold line, and a second fold line, adapted to cause items on the strip to assume an offset position with respect to items on the sheet, the other end of the overlap terminating at said second line.

15. The combination with a Boston ledger-sheet having day columns, each including subsidiary columns for transactions and daily balances and transverse lines to separate individual accounts, of means to enable the use of said sheet in a combined typewriting and computing machine in which computation of a transaction for any day involves the typing of the previous balance and the running of the same into the register, without separate pick-up columns

in which to type the previous balances, said means comprising a plurality of temporary pick-up columns on strips, each of which is in the form of a loop embracing the ledger-sheet and slidable to desired positions thereon, so that the previous balance may be computed and typed in one of said pick-up columns instead of the ledger-sheet, each of said strips having transverse lines to correspond with the transverse lines on the ledger-sheet and having means to determine one position of the strip longitudinally thereof in which the transverse lines thereon will coincide with the corresponding lines on the ledger-sheet and another position in which, when the lower line of an account space on the ledger-sheet is at the printing line, the upper line of the corresponding account space on the strip will be positioned above the writing line just enough to permit the writing thereunder of a previous balance in the same account, which balance will be exposed to view since the transverse line at the bottom of the account is positioned immediately below the writing line.

EDWARD THOMAS.

Witnesses:

EDITH B. LIBBEY,

CATHERINE A. NEWELL.