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THE EVOLUTION OF THE JOURNAL ENTRY

By A. C. LITTLETON, *University of Illinois*

The journal entry is an important bookkeeping mechanism which serves as a means of converting a non-technical statement of a transaction into a species of technically-formed, intermediate statistical record. It is, moreover, particularly characteristic of double entry—more characteristic perhaps than the ledger—because it so clearly expresses the inevitable duality which is concealed in all transactions. For this reason, undoubtedly, journalizing has always been a very important element in the teaching of double entry bookkeeping; and in some countries, it is a legal requirement that all transactions pass through the journal. This last probably is due to the desire to have the facts conveniently assembled for authentication rather than to any wish to give further emphasis to the importance of the journal.

But the importance of the journal entry in modern practice seems to be somewhat on the decrease, at least in America. Whether or not the processes of evolution will finally remove it altogether, no one knows. But one can say that it is not indispensable, and consequently might conceivably disappear altogether from bookkeeping practice.

It is easy to get curious about this element of bookkeeping method which was added to the structure after double entry was quite well worked out, and which might sometime drop off the structure again—an outgrown appendage like a polliwog's tail.

What was the journal entry like in its early days, and what evolution has it passed through in five hundred years?

The earliest journal entries were not what one would perhaps be inclined to expect in view of the early characteristics of the ledger account.* Ledger entries were at first complete sentences—whole transactions entered twice *in toto*. But the earliest journal entries that we know were not sentences to be rewritten in the ledger. On the contrary, they were, even in the first appearances, quite technical in form and phrasing. The uninitiated might understand a ledger entry, for the wording expressed a complete thought, but he could *Cf. "The Evolution of the Ledger Account," *The Accounting Review*, December, 1926.

hardly grasp the meaning of a journal entry unaided, for the expression of thought was very much abbreviated.

Before speculating upon the origin of the peculiarities of journal entry form, let us look at some typical journal entries of the fifteenth and sixteenth centuries.

JOURNAL ENTRIES OF THE FIRST TYPE

*Journal Entries of the First Type**

ORIGINAL

TRANSLATION

- | | |
|---|---|
| <p>(1430)</p> <p>1. <i>Per Cassa de contadi a ser francesco baldi e fratelli—per resto de zafaran..L-s viii d iii</i></p> <p>(1494)</p> <p>2. <i>Per Ser Zuan d' Antonio da Messina: A Cassa contati a lui per parte de'sopra ùtti zuccari secondo la forma del mercatoL-s-g-p-</i></p> <p>(1525)</p> <p>3. <i>Per Bancho di Cappello e Vendramine, a chavedal i quali me trovo aver nel detto bancho come per suoi libre apar....</i></p> <p>..... L40 s-g-p-</p> <p>(1540)</p> <p>4. <i>P(er) Pro e Danno //A spese diverse per piu spese fatte l'anno presente, come in esse appar, per saldo suo.....</i></p> <p>.....33L 19s-g</p> <p>(1543)</p> <p>5. <i>By profyt ende onprofyte / aen Capitael van my Nicolaes Forestain somma sommarum dat ick bevinde gheprofiteert te hebben binnen den tijt gheduerende disen boek—....</i></p> <p>.....L cliiij. s xiiij d i.</p> <p>(1549)</p> <p>6. <i>Für Ingwer // an nutz und Schaden für nutz und gewin ich an dem Ingwer gehabt fl. 6</i></p> | <p>1. <i>By ready money to Francesco Baldi and Brothers—for balance of saffron.....L-s8 d3</i></p> <p>2. <i>By Zuan Antonio of Messina: to cash, paid to him for part of the above mentioned sugar according to the terms of the agreementL-s-g-p-</i></p> <p>3. <i>By Cappello and Vendramini's Bank, to Capital, which I find I have in the said bank per their books.....L40 s-g-p-</i></p> <p>4. <i>By Profit and Loss, to Sundry Expense, for various expenses made in the present year, as appears in the balance of that account33L 19s-g</i></p> <p>5. <i>By profit and loss to capital of myself Nicholas Forestain, the sum total that I have profited within the period of this bookL cliiij. s xiiij. d i.</i></p> <p>6. <i>By Vinegar, to Profit and Loss, for loss and gain I have had on Vinegar.....fl. 6</i></p> |
|---|---|

All of these examples, in whatever language they may be written, exhibit the same technical characteristics. The typical form in all of them is:

By A....., to B.....

*Sources are cited at the end of the article.

This is a technical form first because the meaning is not obvious in the wording; something is left to be implied or understood, and second because the prepositions “per” and “a” have been given a special significance not in common usage. The old text books are very careful to point out that “per” must come first in the journal entry and that it indicates, or labels, the debtor. The creditor is always to be named next and is indicated by “a”. Thus a rule explains the usage, but not the significance. At no place do the writers explain how “per” and “a” came to be associated with “debtor” and “creditor”, respectively.

The absence of any authority showing how these technical meanings came about throws the matter open to conjecture and inference. The question is intriguing enough to be dwelt upon for a few paragraphs.

A hint of a possible starting place may be found in the phrasing of some of the early German journal entries. Even though the dates of the German examples are later than many of the Italian entries in the established form, these particular German entries are not cast into the same earlier technical form. The following is a sample entry by Mathew Schwartz, the chief bookkeeper for the famous Fugger family of German merchants. It is dated 1516:

ORIGINAL*

*Uns soll herr Jacob Fugger duc. 85,
die sollen wir a Cassa, umb souil
hat Matheus Schwartz hie zu Vene-
dig fur sich gebraucht.dc 85*

TRANSLATION

*To us Mr. Jacob Fugger shall
[give] 85 ducats, which we shall
[give] to cash, for as much as
Mathew Schwartz has used here at
Venicedc 85*

The words in *italic* type are the ones which have technical significance; the words in brackets in the translation are added to the original to complete the obvious meaning. Thus completed the journal entry assumes the form of a simple sentence quite devoid of technicalities, and therefore understandable to anyone who reads it. The word “give” is not in the original entry of 1516, and without that word even this entry becomes semi-technical, since a missing word is to be implied.

Back in 1440-1444, however, unsystemized memoranda of the time contained the phrases† “*er sol geben*,” “*ich hab im gegeben*” (“he shall give,” “I have given him”), and the like. Thus it seems clear

*Penndorf, *Geschichte der Buchhaltung in Deutschland*, p. 50.

†Penndorf *op. cit.*, p. 31, 32.

that the Germans had started with complete sentences, but by 1516 had begun to drop words out of the bookkeeping entry so that the record was already becoming technical. But the process had not yet gone so far as to make the full sentence hard to reconstruct.

On the other hand, the entry given above (No. 6) was only thirty-three years later (1549) and, it will be noted, its form was already so technical as to be hard for the uninitiated to understand. It is not at all a whole sentence, whereas the entry of 1516 was very nearly a complete sentence. The entry of 1549 is, moreover, identical with the Italian form. This leads to two suggestions. The first is that the established Italian form probably did not make itself felt in Germany until some time later than its early use in Italy (1430). The second suggestion here is that the technical Italian form of journal entry might possibly be experimentally reconstructed into a complete sentence which could have been so changed in the course of time by dropping out words as to produce in the end the brief, technical expression used in the books, namely:

By A———, to B———

In order to follow up this thought, it is necessary to start with a hypothetical ledger account in the early Italian manner. On the Cash page, debit side, it might read:

"Cash shall give the stated amount
to Francisco at his pleasure for
coins this day deposited."

On Francisco's page, credit side, it might read:

"Francisco shall have (i. e., receive)
the stated amount at his pleasure
for cash this day deposited in
coins."

Certain conditions must now be taken into consideration.

(1) The journal was developed *after* the ledger, and presumably for the purpose of systematizing the day book memoranda preparatory to entry in the ledger. Consequently, journalizing would be then as now a process of translating the occurrence into ledger terms. Therefore it would have been natural at first to state the journal entries in phrases used in the ledger.

(2) The only words in the ledger entries which do not change according to the details of the transaction are: "shall give" and "shall have," and "to" and "for" (*per*=for or by). Therefore

those words at least would have to appear in every journal entry to put it in association with the ledger.

(3) The debit item (here "Cash") appears *twice* in the old form of ledger entry: once as the *first* part of the entry on the debit page* and again as the *second* part of another entry (the contra). The same is true of the credit item, reversed, of course. Thus in the above example, "Cash shall give" appears again as "for Cash" in the other account, and "to Francisco" appears a second time as "Francisco shall have" in the contra account.

(4) Our modern entry for the receipt of cash on deposit from Francisco would be:

Cashxxxx
Francisco xxxx

But in the old ledger both debit and credit from the journal were shown twice, or, that is to say, the *whole transaction* was written in both of the accounts concerned. Therefore, the old journal entry would need some unmistakable indication of a "four-pointed posting." Consequently, the old journal entry would have to have two elements not shown in the modern journal. In essentials, the only thing the old entry has that the new does not are the words "by" (or "for") and "to"; these constitute the third and fourth elements, and produce the form:

By Cash, to Francisco.

On the basis of these conditions the situation seems to be as follows:

(a) It is possible to reconstruct a fully worded journal entry to express the facts of the transaction in accordance with what would seem from the German examples to have been a very probable form of entry before technical omissions began to be made. This hypothetically reconstructed journal entry is as follows:

For Cash deposited this day, Francisco shall have the
stated amount, etc., and to Francisco, cash shall give
the stated amount at his pleasure.

If omissions or reorganization of the wording then appeared, the entry might have next been reduced to the type:

For cash, Francisco shall have
To Francisco, cash shall give

And if still later the duplicated phrases were neglected, the form might result in this type:

For cash, to Francisco

*This first phrase of the ledger entry is the one which later became the title of the account and was separated from the rest of the entry by being placed at the top of the ledger page. See *The Accounting Review*, *op. cit.*

This expresses the technical essentials of the journal entry of 1430 and for a long time thereafter. Why such a change should take place would be hard to say; perhaps it seemed to simplify the record and reduce the work of recording—a reason, no doubt, as satisfactory to scribes of that day as it still is to bookkeepers now. The essential facts for the ledger—to anyone who had been instructed in the book-keeping of the day—were still quite plainly discernable. They were a debit to a named account (and a contra), and a credit to a named account (and its contra)—four elements.

(1) “Cash” by its position first in the entry gives the name of the account which “shall give” (i. e., which is to be debited).

(2) “Francisco” by its position as second in the entry gives the name of the account which “shall have” (i. e., which is to be credited).

(3) “For” may be regarded as the symbol of the contra entry of Cash in the credit-account (Francisco).

(4) “To” may be regarded as the symbol of the contra entry of Francisco in the debit-account (Cash).

Thus it will be seen that the journal entry in its technical abbreviation names two things in its left member: (1) the account debited (Cash), and (2) the contra or explanation entry (by or for cash) belonging to the other account concerned. In its right member it names: (1) the account to be credited (Francisco), and (2) the contra or explanation entry (to Francisco) belonging to the other account concerned.

This technical form of journal entry would meet the requirements set out above of clearly stating (to a trained bookkeeper) the whole transaction in duplicate and in terms already in use in current ledger practice. It would form a perfect bridge of the gap between the memorandum record and the ledger, and it actually served that purpose in practice. But there is nothing authentic in this explanation of the origin of the form the entry took; it is only an attempt to piece together a plausible hypothesis out of what information is available. There is really nothing definite to show that journal entries were ever made in this complete-sentence, reconstructed form. If they had been, they must have evolved into the recognized abbreviated form (By A—— to B——) within a period of about

*A people which in 1494 favored the almost excessive use of abbreviations in place of complete words that is evident in Paciolo's *De Computis*, would

one hundred years.* Double entry ledgers are first found complete in the middle of the 14th century, say by 1340, the date of the accounts of the stewards of Genoa, and there could have been no urge to construct journal entries of any kind before double entry ledgers were in use; and the technical abbreviated form of journal entry is definitely known to have appeared by 1430. Whether or not that is long enough for such an evolution to take place—even assuming a great stimulus from the renaissance background—is an unanswered question.

With the later development of journal entries, much less speculation is necessary, for many examples are available and the forms in use are much less technical and easier to understand.

One of the most interesting facts about the old practices of double entry bookkeeping is the existence at the same time of two strikingly different types of journal entry, one of which has already been presented here. Yet different as they are in wording and technicalities, and different undoubtedly also as to origin, they nevertheless could serve the same function equally well without, apparently, introducing any confusion.

This other form of entry may prove to be even more interesting than the one first discussed, because in some ways it is closer to modern forms, or better perhaps, because the modern journal entry in English seems to evolve more naturally out of the form now to be considered than out of the “by and to” type of entry.

Journal Entries of the Second Type

(first variation)

ORIGINAL

(1491)

7. *Faro debetore* Tomasone del Buono e *creditore* spese di mercanzie di s. iiij d'oro per spese fatta a un fardello di panno corsato mandato da Lucca da Bonaccorsi a Libro 203/100 lib—siiiij d—

TRANSLATION

7. *I make debtor* Tomaso del Buono and *creditor* Merchandise Expenses for 4 s. in gold, for expenses incurred on a bale of cloth sent by Lucca da Bonaccorsi in the book 203/100 lib.—s4d—

earlier than this probably also have been inclined to accept as reasonable, perhaps even as desirable, the outright omission of repetitive phrases in bookkeeping entries where the meaning could be imputed into the words remaining, thus producing the technicality of form here discussed.

(1550)

8. *Cassa est debiteur* adj — ditto L. 987.13.4 Je Pierre du Mont ay receu de mon maistre Nicolas de Reo en argent contant L. 987.13.4 pour luy servir au train de marchandise dieu me donne la grace de bien servir

Nicholas de Reo
est Creditor L. 987.13.4
 (1559)

9. *Fa debitor* Michele Gharo nestri a di 2 di maggio di s3 d xv porto a lui detti Contanti per sua provvigione del mese passato di aprile e *fa creditor* Cassas. 3 d. 15

8. *Cash is debtor* on this day [for the] L. 987.13.4. I, Pierre du Mont have received from my master Nicolas de Reo, L. 987.13.4 in ready money to be employed for him by way of business. [May] God give me grace to serve well.

Nicholas de Reo
is Creditor L. 987.13.4

9. *Make debtor* Michele Gharo Nestri on May 2nd for s3 d15 posted to his debit account for his provisions of the past month of April and *make Cash creditor*—s3 d15

(second variation)

(1553)

10. Devonshire Kerseys is debtor to Laurance Fabian, draper, and is for 10 pieces at 36 s. a piece—etc.—L. 108 s—d—

(1595)

11. Cassa van ghereden ghelde is *schuldich aen* Cappital van my 8000 guld. Ende is voor verscheyden penninghen van gout ende silver, so ick in mynen handen hebbe, omme daermede te dryuen den handel van coopmanchap. Godt wil my verleenen ghewin, ende behaeden voor verlies. Amen...g. 8000

(1613)

12. Meale in Barrels is *debitor unto* stocke for 16 tuns remaining in the house.....736.00.00

10. _____

11. Ready money is *indebted to* Capital for my 8000 guilders. And is for different coins of gold and silver that I have in hand to use in pursuing the trade of merchandise. God will grant me profit and preserve me from loss. Amen...g. 8000

12. _____

(third variation)

(1567)

13. Caisse d'Argent comptant es mains de Pierre Savonne *doibt* 12450£ 10s 6d qu'il met pour compte de son capital *credeteur* ledit Savonne.....12450-10-6

13. Ready money in the hands of Pierre Savonne *owes* 12450£ 10s 6d which he places in his capital account. *Creditor* is Savonne12450-10-6

(1570)

14. Roggen soll an Hering, hab ich mit Audreas Klur von Thorn einen stick getroffen—etc.
fl. 472.15—

(1588)

15. Chest or money is Debtor or owes to stock belonging to me, M. N. and is for—etc.... L-s-d

(1594)

16. Casse sol m.11437.8 Per Capital. So viel befind ich bey dem Inventario an bahrerschaft so ich dato zum glücklichen aufang dieser handlung in Cassa legm.11437.8

(1606)

17. Cassa is schuldig für fl. 8560. welche ich N. N. eingelegt habe in cassa zu handeln. Creditor mein Capital.....fl. 8560

(1608)

18. —————

14. Rye owes to Herring, which I have bartered with Audreas Klur of Thorn—etc...fl. 472.15

15. —————

16. Cash owes m.11437 for (to) Capital. As much as I find of ready money in the inventory I place in the cash box this day for the prosperous beginning of this business.....m.11437.8

17. Cash is indebted [owes] for fl. 8560 which I, N. N., have invested in cash for trade. My Capital [is] Creditor...fl. 8560

18. Trading Expenses debit per cash, for payment during the month as shown by the memorandum book4-0-0

It will be noted in the examples given of journal entries of this so-called second type that all of the cases do not run "true to type"; the wording is such as to produce three varieties of entries which, while slightly different in phrasing, are still basically related. The characteristics of these journal entries may be generalized as follows:

First variation: A is Debtor

B is Creditor

Second variation: A is debtor to B

Third variation: A owes to B

The second and third variations in form seem rather similar on the ground that, if A "is debtor," he likewise "owes," since by definition "debtor" is one who "owes."* Perhaps they are both also similar at heart to the entries of the first variation, since one might say: "A is debtor to B (who is creditor)."

*Yet one can hardly escape the feeling that this third variation is somehow related to the underlying phrasing of entries of the first, since the latter used (or implied) the technical words from the ledger ("shall give," etc.), and since the root word translated as "must" or "shall" also means "owe." The Latin *debet* from *debeo*, the Italian *deve* from *dovere*, the French *doit* from *devoir*, and the German *soll* from *sollen* all mean "he must" as well as "he owes."

In 1396 "*debet dare*" (he must give) indicated the debit side of the ledger (see *The Accountant*, March 27, 1926, p. 484). And in 1494, "*dee (deve?) dare*," the medieval Italian phrase, indicated the same thing (see Geijsbeek's reproduction of Paciolo's "*De Computis*" in "*Ancient Double Entry Book-keeping*"). The debit side of the modern French ledger is "*Doit*," and of the German ledger is "*soll*," both clearly derived from "he shall give." The Italian ledger, however, indicates the debit side by "*dare*" (give) rather than "*deve*" (shall), but the English ledger uses "*Dr*" (debtor). This English form is clearly different from all the rest, yet those journal entries which used the word "owe" imply the sense of "he shall give" more directly than do those entries which use the word "debtor."

But whatever virtue (or lack thereof) there may be in classifying entries of the second type into three sub-classes, it is clear enough that entries in this list are radically different from the first list in both form and phrasing*. The first type was probably devised from the wording of the ledger entries of the time and obviously led to the use, much later, of "to" in the debit and "by" in the credit of the English ledger entries. The second type of journal entry, on the other hand, would seem to be one to grow more naturally out of the "daybook" record of personal account transactions, and it is quite clearly a closer antecedent of modern journal entries than the first type is.

This last point is demonstrated not only by the form of the entry itself, but also by the fact that entries of the first type soon drop out of use. If some 25 journal entries from various sources, including those reported above, are arranged into columns according to type and in chronological sequence, it will be observed that the first type of entry predominates prior to 1550 (the entry in the Medici books of 1491 being the only example in the list of the second type to appear prior to the middle of the 16th century), and that after 1550, entries of the second type strongly predominate. Thus, while the real origins of the journal entry forms are not known, the direction taken by their evolution is unmistakable. The method of which Paciolo thought so highly was proved in the sequel to be inferior, for it was driven out of use by the other form.

*The sharp contrast in the two styles of journal entry raises the interesting question of whether or not such a difference could be the principal factor distinguishing the methods used in different localities. Paciolo says in the first chapter of *De Computis*, "This treatise will adopt the system used in Venice, which is certainly to be recommended above all others, for by means of this, one can find his way in any other." (Geijsbeek, *op. cit.*, p. 33.) Hence, one may conclude that the journal entry of the form:

By A———, to B———

was the Venetian method, and perhaps it may be that the entry in the form:

A is debetor to B

was the distinguishing characteristic of the Florentine method. Certain it is that this form was used in Florence by the Medici family in 1491.

But the evolution of the journal entry was by no means complete by the date of the last example given above (1608). The developments of the last three hundred or more years can be traced through journal entries in English alone. Since the changes which took place can therefore be easily read from the entries themselves, the discussion accompanying the examples need be but brief.

(3)			
<i>English Journal Entries After 1600</i>			
(1684)			
19. George Pinchback Debitor to Kettles £75-8d for 5 barrels—etc.		75/-/8	
(1717)			
20. P. Q. at Gibraltar my accmpt current Debtor to Voyage to Gibraltar, consigned to P. Q. £322.9.7½—etc.		322/9/7½	
(1754)			
21. William Wife £360 to Sherry for 10 pipes delivered to him in barter.		360/-/-	
(1788)			
22. Charges merchandise Dr. to paper taken for use in shop.		-/10/6	
(1841)			
23. Dr.		Cr.	
Mdse. 1000		B/P 500	
		Cash 500	
(1848)			
24. Cash to Sundries	1590		
to Bills Receivable		1500	
Profit and Loss		90	
(1864)			
25. Merchandise Dr.	Dr.	Cr.	
to James Munroe	5000	5000	
(1900)			
26. Merchandise	400		
to Cash		400	

Slight differences in the wording used by the different entries are apparent, especially in examples 19 to 22. The word "Debitor" in one entry is "Debtor" in another, or is wholly omitted in a third (No. 21). In still other cases the abbreviation "Dr" takes the place of the word itself.* These changes, however, are of relatively little significance. But subsequently—beginning a little before the middle of the 19th century—a more pronounced change appears. The tend-

*This abbreviation is found as early as 1690 in "*Debtor and Creditor Made Easy*" by Stephen Monteaige (3rd Edition). In the years around 1800 its use as in entry No. 22 was quite general; see Thomas Deilworth, "*The Young Bookkeepers Assistant*," London, 1792; William Jackson, "*Practical Bookkeeping*," New York, 1816; Patrick Kelly, "*The Elements of Bookkeeping*," London, 1833 (10th Edition).

ency is for the entries slowly to swing back again into a technicality of form; not the same technicality of

By A———, to B———

which had almost disappeared by 1550, but a technicality almost altogether of position. The debits and credits are now entered in separate columns and the name of the account credited is indented below the debit. Sometimes the abbreviation "Dr" is retained, sometimes it is omitted; the word "to" is retained, however, as the sign of the credit. But even this word "to" disappears entirely before long, and debit or credit is read out of the entry purely by the position of the words and figures. Not even the columns are labeled "Dr" and "Cr."

The form of the 18th century—"John Doe is debtor \$1000 to stock"—was a plain statement of fact which had to be posted in two places, but these two places were not forcefully indicated. The later developments improved the mechanics of bookkeeping by stating two distinctly separate facts, each to be posted according to its name and its debit or credit characteristic. The procedure leads one to think of *debits* waiting to be posted, not *debts* or *debtors*; to think of "accounting units" being transferred or tabulated and not of personified obligations. The process under modern usage becomes a wholly impersonal sorting of facts so arranged as to increase the accuracy of the sorting (posting).

Practice has passed from one stage to another—from a time of no journal entries when the full statement of the transaction was probably entered directly in the two ledger accounts concerned, to a period, say 1430 to 1550, of a highly technical form of journal entry preparatory to the record in the ledger, and from that into a long interval, of a rather indefinite ending, in which the journal entry expressed more or less fully a complete thought, and thence on to the modern period—now quite technical in form again—where the focus is the accurate sorting of accounting units.

But the end is not yet, for evolution is carrying this bookkeeping process still deeper into technicalities. Even the journal entry itself is dispensed with for a great many transactions recorded in numerous subsidiary books of original entry. Posting is direct to the ledger from the column totals of various special books for most of the transactions of modern American business; only a very minor portion of the ledger details came through formal debit and credit journal

entries. More than that, some large organizations have abandoned the time-honored left and right, debit and credit, divisions of the ledger account itself; a wide sheet becomes an account, its columns are sub-accounts, and entries therein are black and red instead of debit and credit.

Most of the clerks thus have no need to know bookkeeping as such. But for the persons charged with assembling the final bookkeeping data, the process is even more technical than any form of journalizing yet conceived. Only a complete knowledge of the whole ledger and of the characteristics of every book of original entry in the whole elaborate system enables one to bring the many separate debit and credit classifications and summaries together into a unified whole. As a result, the modern bookkeeper—the one who is responsible for uniting the maze of detail into a coherent whole—has a task the like of which none of his predecessors ever faced, and the very act of learning bookkeeping is harder than ever before. Bookkeeping has become a real technology instead of a simple clerical routine, and in addition there has grown up a profession of accounting which reaches quite beyond bookkeeping.

CITATIONS

(1) The sources of the several journal entries of the first type are as follows:

(1) From the account books of Andrea Barbarigo, 1430. Entries in similar form from the books of the Barbarigo family appear for 1457, 1482, 1496, 1507, 1537. See *La Partita Doppia*, by Prof. Vittorio Affieri, p. 60.

(2) From *Luca Paciolo's De Computis*, the first printed text on bookkeeping. See *Trattato de' Computi e delle Scritture*, by Prof. Vincenzo Gitti (1878).

(3) From a text by Antonio Tagliente. See *La Ragioneria*, Vol. III, by Prof. Fabio Besta, p. 380.

(4) From a text by Domenico Manzoni. See the photo-reproduction of a journal page in *Ancient Double-Entry Bookkeeping*, by John B. Geijsbeek, p. 82.

(5) From *Nieuwe Instructie*, by Jam Ympyn Cristoffels. See *Van Paciolo tot Stevin*, by Dr. P. G. A. DeWaal, p. 118. For other entries in English from the 1547 edition of Ympyn's book, see *The Accountant*, August 20, 1927, p. 261-268.

(6) From *Zweifach Buchhalten*, by Wolfgang Schweicker. See *Geschichte der Buchhaltung in Deutschland*, by Dr. Baldwin Penndorf, p. 126. Other entries in similar form by Dutch writers are given in *De Waal op. cit.*, Van Hoorebeke, 1599 (p. 253), Van Renterghem, 1592 (p. 230), Van den Dycke, 1596 (p. 242).

(2) The sources of the several journal entries of the second type are as follows:

- (7) From the account books of the Medici Bank in Italy. See Besta, *op. cit.* p. 325, there citing A. Ceccherelli, *I libri di mercatur della Banca Medici*.
- (8) From *Practique brifue pour tenir liveres de compte*, by Valentin Mennher de Kempten. See Besta, *op. cit.* p. 392. For other entries by the same author dated 1565 see De Waal, *op. cit.* p. 139; also *Maandblad voor het Boekhouden*, Oct. 1, 1926, and *Der Zeitrchrift für Buchhaltung*, V. 7, p. 37.
- (9) From the account book of Benvenuto Cellini, in Ceccherelli, *op. cit.*
- (10) From *The maner and fourme how to kepe a perfect reconvg—etc.*, by James Peele. See *The Accountant*, Jan. 16, 1926, p. 91 ff.
- (11) From *Baeckhouwen op die Italiaensche maniere—etc.*, by Claes Pietersz. See De Waal *op. cit.* p. 164.
- (12) From *The Pathway to Knowledge—etc.*, by John Tapp. See *Maandblad voor het Boekhouden*, March 1, 1926, p. 172.
- (13) From *Instruction et maniere de tenir livres—etc.*, by Pierre Savonne. See DeWaal *op. cit.* p. 147.
- (14) From *Buchhalten Durch Zwey Bücher—etc.*, by Sebastian Gamersfelder. See Penndorf, *op. cit.* p. 142.
- (15) From *Briefe Instruction—etc.*, by John Mellis. See *The Accountant*, May 1, 1926, p. 64 ff.
- (16) From *Buchhalten fein Kurtz Zusammen Gefasst—etc.*, by Paschier Goessens. See Penndorf *op. cit.* p. 150.
- (17) From *Schöne Forma des Buchhaltens*, by Ambrose Lerice. See Penndorf *op. cit.* p. 215.
- (18) From *Coopmansbouckhanding op de Italiaensche wyse*, by Simon Stevin. See *The Institute of Bookkeepers Journal*, Dec., 1927, p. 322.
- (3) The sources of the English journal entries are as follows:
- (19) Richard Dafforne, *The Merchant's Mirror* (entry for Jan. 30, 1633), reprinted in *Lex Mercatoria*, by Gerard Malynes (London, 1686).
- (20) Thomas King, *An exact guide to Bookkeeping*, p. 3 of the journal (London, 1717).
- (21) William Weston, *The Complete Merchants Clerk* (London, 1754), p. 2 of Journal A.
- (22) Robert Hamilton, *An Introduction to Merchandise* (Edinburgh, 2nd Ed., 1788), p. 293.
- (23) Thomas Jones, *Principles and Practice of Bookkeeping* (New York, 1841), p. 58.
- (24) P. Duff, *Bookkeeping* (New York, 10th Ed., 1st Edition 1848), p. 29.
- (25) Bryant & Stratton, *Bookkeeping* (New York, 1861), p. 12.
- (26) Williams & Rogers, *Introductive Bookkeeping* (Chicago, Revised Edition, 1900), p. 22.