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# 'American Bookkeeping' in the late-nineteenth and earlytwentieth centuries which was not American

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#### **ABSTRACT**

This article conducts a study of the circumstances surrounding an 'invention' by Edmond Degrange *père* in 1804 which was said to be 'American'. Degrange sought to simplify double-entry bookkeeping by combining the journal and ledger on a single page. Based on a review of the curious follow-on literature, first in Belgium and then also in Italy, France and particularly in Germany, which labelled this invention as 'American', even though no American had anything to do with it and it was unknown in the USA, we speculate why a French 'invention' was labelled as 'American'.

#### **ARTICLE HISTORY**

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#### **KEYWORDS**

Double-entry bookkeeping; bookkeeping history; accounting history; Edmond Degrange; American inventiveness

### Introduction

In a study completed in 1911 following a research trip to the European continent, Henry Rand Hatfield (1966, 181) wrote the following:

So successful have American accountants been in devising forms suited to the desired ends that on the continent any bookkeeping device recognized as having peculiar merit and originality is, irrespective of its actual origin, apt to be called "American" bookkeeping.

He cited an early-twentieth-century book in German by the Czech writer, C. P. Kheil<sup>1</sup> (1908, iii), which was intended by the author to prove that "'American" bookkeeping, which is spreading rapidly [in Europe], is not of American but of French origin'.<sup>2</sup> A similar remark was made by Raymond De Roover (1955, 419): 'the so-called "American method" ... is as unknown in America as French toast is in France.'

What was this 'American' method of bookkeeping? Moreover, if its origin was truly French, why was it called 'American'?

In this article, we propose to explore the transformation of a French 'invention' into a bookkeeping system labelled 'American'. We do so by, first, describing the recording process of double-entry bookkeeping, as inherited from Pacioli's 'method of Venice', which was used in central Europe during the eighteenth century. We then review the treatise written in 1804 by the Frenchman Edmond Degrange *père* (1804),<sup>3</sup> which Kheil (1908) identified as the first publication that described a labour- and time-saving variation on this recording process, and that was later commonly referred to in the literature as 'American bookkeeping'. Finally, we proceed to discuss the debate in the ensuing literature over



the advantages conferred by this simplification and also about its true origin, including our speculations, following Hatfield, on why this innovation, which no one could attribute to any American, was nonetheless labelled as 'American'.

#### Pacioli's 'method of Venice'

In his famous rendering of double-entry bookkeeping as followed by merchants in the Republic of Venice in the last quarter of the fifteenth century, Pacioli (1494) summarised an accounting practice which continued to be the dominant approach with only little elaboration during the next 300 years, as it spread across Europe (Chatfield 1974, chapter 5; De Roover 1955, 418-420). He described the keeping of three books: the Memorial (Memoriale), Journal (Giornale), and Ledger (Quaderno). Row Fogo (1905, 111-112) wrote about the Memorial as follows:

The Memorial is best described as a general book of primary entry. In it everything is entered as it occurs: sales, purchases, and every other transaction. The use of this book becomes apparent on a consideration of the confused state of the coinage which in these days served as circulating medium. We must remember that in the Middle Ages there was no such thing as uniformity in monetary systems. Each petty state, even each important town, had its mint, and if we include token coins, there was money in circulation which, it has been said, was readily accepted in one street while it was looked at with suspicion in the other .... The first important duty of the book-keeper was to convert each item in the Memorial to the monetary unit in which his accounts were kept.

The Memorial contained a detailed memorandum on each transaction. The entries in the Memorial were then transcribed in the Journal in debit-credit format, and the results were posted to the affected accounts in the Ledger. Thus, for one business transaction a number of entries in three books had to be made: the original entry of the transaction in the Memorial, the debiting and crediting in the Journal, and the posting to (at least two) Ledger accounts. From the mid eighteenth century, accounting practice aimed at keeping books according to the 'method of Venice' more efficiently, because, as one and the same transaction had to be entered into a variety of books, it was time-consuming and prone to errors. It was around the time of the Napoleonic wars (1803–1815) when accountants throughout Europe were most eager in attempting to simplify the 'method of Venice' (Kheil 1908).

# Degrange's 'invention' of a simplified system in 1804

Most successful and, according to Kheil (1908), the first one to describe the method prevailing from the competition among Europeans to find a simplification of the 'method of Venice' was Degrange (1804). Many years before Kheil (1908), Schiebe (1847, 80) speculated that Degrange was the first to propose the single Journal method, although he did not make any attempt actually to trace this method back to Degrange. In his book, Degrange claimed that he owed this new method of bookkeeping to 'the necessity to shorten the book entries of my own affairs' (Degrange 1809, 3). The result was 'a single journal, whose accounts balance with each other on a daily basis and that provides a general picture of the total state of a businessman's affairs, [while] books are kept in double entry' (Kheil 1908, 16). Degrange's single Journal merged the debiting and crediting of business transactions (the Italian journal) with the transfer, or posting, of these entries to the accounts (the Italian ledger) in just one fundamental book, which took the form of a multi-column spreadsheet. Effectively, this Journal (or book) replaced the Memorial, the Journal, and the trial balance of traditional (Italian) double-entry bookkeeping (Müller 1905, 10). Degrange proposed the following five core accounts that he believed were the most appropriate for him and others who did not need the complexity of traditional double-entry bookkeeping: Merchandise Account, Cash Account, Securities Receivable Account, Securities Payable Account, and Profit and Loss Account. These were supplemented by a column for 'Diverse Accounts' which captured any entry that did not fit elsewhere. As every transaction, including its relevant details, such as the date of the book entry, references to other books, the description of the transaction, and the amount of the entry, was entered into the left-hand side columns of his single Journal, it was no longer necessary to keep a separate Memorial.

Degrange's single Journal enlarged the traditional Italian journal by adding, to the right, a huge register sheet with double columns for the main ledger accounts, including their debits and credits, while maintaining on the left the transaction details. An illustration is provided as Figure 1. Given the single page format of this single book, it did not seem to be intended for a large number of accounts. It is thus little surprising that it proved practical only for enterprises with a limited number of accounts, possibly not more than 20-25 (Niklisch 1926, 81). Additional accounts could be accommodated by, for example, distributing the accounts over two pages - one for the credit entries of all accounts and another for the debit entries - by using one column for more than one account, or by using the last column as 'miscellaneous' to accommodate any account that did not feature before. However, any of these alterations would impair the journal's transparency and clarity (Baum 1928, 365) and be a potential source for errors (Niklisch 1926, 81). This is why it has been suggested that Degrange's method was only 'suitable for small and simple undertakings' (Yamey 1956, 323). Its high degree of condensation and syntheses, together with its inability to efficiently accommodate a large number of accounts, may explain why many, particularly large enterprises, reverted to traditional bookkeeping after having tried out Degrange's method (Schiebe 1847, 80).

## The 'American Journal' and its adaptation in Germany

According to Kheil (1908, 1), 'American Bookkeeping' is any type of bookkeeping, which, based on the principles of double-entry bookkeeping, 'merges the ... recording of daily transactions with their systematic posting to the accounts in one fundamental book, the Journal.' Although Kheil traced the origins of this type of bookkeeping back to Degrange (1804), he did not explicitly investigate when Degrange's invention started to be labelled 'American'. Based on Kheil's review of the French bookkeeping literature of the early-nineteenth century, it appears that this label was not used in France at that time.<sup>4</sup> Instead, the Swiss writer Isler (1810, 108–123), when developing his 'Swiss method', presented Degrange's single Journal as the méthode française ('French method'). A mid nineteenth century German business encyclopaedia made no reference to any label for this method when discussing 'newer systems of bookkeeping' (Gesellschaft Gelehrter und praktischer Kaufleute 1845, 200):

		ТОТА		
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		AU JOURN	AL.	
	JOURNAL COMMENCÉ LE 1 <sup>er</sup> VENDÉMIAIRE AN XI. (529)			
	JOCITIAL COMMENCE EF T VENDEMIATRE AN AIR (329)	(551)		
VENDÉM				
AN XI.	MARCHANDISES GÉNÉRALES A PIERRE, pour 10 tonneaux de vin rouge achetés à Pierre, à 300 francs le tonneau.	3,000		
	2 Mere Gies A Duvik, pour 20 conteaux de vin blanc, acrietes audit, a 200 fr. de bondeau, psysteme en mon bintet a son ordre a sa mois. 5, 1 Mere Gies A Duvik, pour 2 berriques sucre brut, achetées audit, pesant net 1 mirag, 4 12 francs le myriag, psysbles en mon billet. 5, 1	1,300		
	4 DUPUL, A Miss Giss, pour 10 tonneaux de vin rouge, vendus audit, à 400 francs le tonneau, payables en son billet.	4,000		
	Catse A Profits Fr Ferres, pour 20 clinicaux de vin, dont mon père m à fait présent, et que j'ai vendus comptant à 1000 finnes.	20,000		
	7 Marchandies Géréralis a Caisse, pour 12 tonneaux de vin blanc, achetés comptant à Dupré, à 200 francs le tonneau . † 1 Blaisse à Marchandiese géréralise nour 12 tonneaux de vin blanc, evendus au compitant à Jean, à 250 francs le tonneau.	2,400 3,000		
	g Mars Grandert Restrance and Lears, à payer pour 1000 myriag, de savon achetés à Dupui à gfr. le myr., et que je lui ai payés en mon billet à six mois. 1.	9,000		
	il Mes Ges A Lecouteux Brans, pour 10 tonn, vin rouge, achetés à Dupré, en paiement desquels je lui ai ouvert un crédit chez Lecouteux.	2,000		
	12 Mire Gira A Mire Gira, com 12 tonneaux vin blanc, achetés à Dupui, en paiement desquels je lui ai donné 10 tonneaux vin rouge à 240 fr. le tonn. † 1:3 Mire Gira A CAISSE, nour autant commté à Martin, en naiem, de 20 ton, vin rouge, m'il m'a vendus commtant à 400 fr. le ton. A l'esconntet de 5 n. = ‡	2,400 11,252 548	i	
	Idem. A PROPITS ET PERTES, pour l'escompte retenu sur le prix des vins ci-dessus	548		
	PROFITS AF FERRES A MARCHANDISS SERVEALES, pour JO comment of The Company of the Profits of The Comment of The Company of the	12,804 396	1	
	15) Mars Gita Billers A PATER, pour mon billetà un mois, fourni à Dupui, à valoir sur 10 tonneaux vin qu'il m'a vendus à 1,000 fr. le tonn. 7-1 ldem. A BILLER A RECEVOIR. Dour le billet de Pierre. à 6 mois à valoir sur idem.	2,000		
	Idem. A Marchandises generales, pour 200 myriag, savoñ à 10 fr. le myriag., à lui fourni pour idem.	2,000 5,830		
	Idem. A Caisa's, pour autain comple audit, sous rescompte de 3 pour 100 pour mem.	120		
	BILLETS A RECEVOIR A M. ** Gl**, pour le billet de Jean, à 2 mois, qu'il m'a fourni, à valoir sur 10 tonneaux de vin à lui vendus à 1,200 fr. 3  BILLET A PAYER A idem, pour mon billet à un mois, ordre de Dupui, qu'il m'a remis, à valoir idem.	4,000 2,000		
	MARCHANDISSS OŚNŚRALES A PIERRE, pour 10 tonneaux de vin touge achetés à Pierre, à 500 francs le tonneau.  1 M. G. A DUPUR, pour 20 tonneaux de vin blanc, achetés audit, à 200 fr. le tonneau, payables en mon billet à son ordre à six mois 2.  1 M. G. A DUPUR, pour 2 barriques aucre brut, achetés audit, à 400 fr. le tonneau, payables en mon billet.  2 M. G. A. A DUPUR, pour 2 barriques aucre brut, achetés audit, à 400 francis le tonneau, payables en mon billet.  3 M. G. A. A DUPUR, pour 2 barriques aucre brut, achetés audit, à 400 francis le tonneau, payables en mon billet.  4 M. G. A.	2,000 3,88o		
	Profits B r Peres, à idem, pour l'escompte à 5 pour 100, retenu par ledit	120		
	17 BILLETS A RECEVOIR A CAISSE, pour le billet de Jacques, à 10 jours, que l'ai pris au pair	10,000		
	20 Caisse a Billets a Payer, pour autant, qu'il m'a compté pour mon billet à trois mois, ordre d'André	9,700		
	2.5 BILLETS A PAYER A CAISSE, DOUR mote billet, order de Dupui, que jai pris ce jour à l'escompte de 3 p. 100	8,730		
	Idem A PROFITS ET PERTES, pour l'escompte de 3 p. 190, retenu sur le billet pi-dessus.	9,800		
	Idem A PROFITS ET PERTES, pour l'escompte de 2 p. 100 retenu sur le billet ci-dessus.	200		
	220 FAUTHTS RT PERCES A Mrs. Green, pour pette de 100 myriag, de savot refrancis a outiname, dont le leu a consume la fortune.  224 JAUGS A Mrs. Green, pour 200 myriag, de savon vendus à Dupré à 12 francs le myriag, pour lesquels il má ouvert un crédit sur Jauge s.	1,200 2,400		
	25 M se G se A BILLER'S A FAYER, pour mon acceptation à la traite à un mois, que Jacob de Montauban a tirée sur moi en paiement de 108 metres de dran muil m'a expédiés au rvix de 20 fr. le mêtre	3,960		
	Idem A CAISSE, pour frais déboursés à l'arrivée desdites marchandises.	100		
	27 CAISSE A M. G., pour autant que Rapinin ma compte sur la jettre-de-change que jai tiree a son ordre sur Robert de Paris, en paiement d'un ballot de drap à lui expédié.	4,290	66	
	PROFITS ET PERTES A idem, pour escompte de 1 1 p. 100, retenu par Raphin sur la lettre ci-dessus.	65 4,000	34	
	The same same measured of the same same series of the same series of t	4,000	-	
RUMAIR	Total des affaires faites en vendémisire (552)	166,616		
AN XI.	CAISSE A JEAN, pour autant qu'il m'a prêté en espèces 2 PLERRE A CAISSE, pour autant que je lui ei prété 3 PLERRE A CAISSE, pour autant que je lui ei prété 4 CAISSE A DELETS A PRICEN pour mon bilet à 5 mois à son ordre à lui fourni, et dont il me tiendra comple. 4 LEFTRES ET BILLETS A RECEVOIR A DUPUI, pour son billet à 5 mois à mon ordre, qu'il m'a fourni, et dont je lui tiendrai comple. 5 DUPUI A CAISLETS A RECEVOIR PUR POUR DELET SUBJECT S	92,800		
	2 Pierre a catsse, pour autant que je lui ai prété.  3 Jean a Billers a Parez, pour mon billet à 5 mois à son ordre à lui fourni, et dont il me tiendra comme.  5,7	79,000		
	4 IETTRES ET BILLETS A RECEVOIR A DUPUI, pour son billet à 3 mois à mon ordre, qu'il m'a fourni, et dont je lui tiendrai compte	1,000	1	
	6 CAISSE A MARRE, pour autant qu'il m'a prêté en espèces payables dans 5 mois, et à 6 p. 100 par an	5,910		
	FROFITS ET PERTES A idem, pour l'escompte qu'il a retenu pour 3 mois sur la somme ci-dessus. 5.   7 DUFUI A CAISSE, pour autuait à hij orété en espèces pour 6 mois, à 6 p. 100 par an	90 5,820		
	ldem A PROFITS ET PERTES, pour l'escompte retenu pour 6 mois, en raison de 6 pour 100 par an	180		
	Mes Ges A idem, pour 2 tonneaux de vin rouge qu'il ma fournis idem.	3,000		
	Unisse A idem, pour autant qu'il m'a compté en espèces pour idem . idem.  PROFITS ET PERTES A idem, pour l'esompte qu'il a retenu sur la somme ci-dessus, en raison de 3 p. 100	4,830		
	9 JEAN A BILLETS A PAYER pour autaut que je ini ai prêté en mon billet, à son ordre, à 2 mois.	3,000		
	Id. A MARCHANDISES GENERALES, pour 3 tonneaux de vin à lui vendus	3,000 3,000		
	Id. A PROFITS ET PERTES, pour l'escompte d'un pour cent retenu sur la somme ci-dessus.	97° 30		
	TO DUPRE A BILLETS A PAYER pour mon billet à son ordre, à 6 mois, à lui fourui en paiement.	4,000 5,000		
	12 Caisse a Dupui, pour autant qu'il m'a compté en paiement.	5,000 4,000		
	DUPULA BILLETS A RECEVOIR, Dur son billet a un mois fixe, qu'il m'a fourni en paiement.	1,500		
	CAISSE A idem, pour autant qu'il m'a compté en espèces pour idem ilem.  PROPTIES ET PERTES A d'em, pour l'esompté qu'il a retenu sur la somme ci-dessus, en raison de 5 p. 100.  JEAN A BILLEFE A PATER DOU autant que je lui ai précé en mon billet, à son ordre, à 2 mois.  L'écan A BILLEFE A PATER DOU il deu în billet de Pierre, à 2 mois.  L'A CAISSE, pour autant à lui compté en espèces:  L'A A CAISSE, pour autant à lui compté en espèces:  L'A A CAISSE, pour autant à lui compté en paiement au son ordre, à 6 mois à lui fourni en paiement.  10 D'PER À BILLEES A PATER DOU me no billet à son ordre, à 6 mois à lui fourni en paiement.  11 PERRAR A CAISSE, pour autant à lui compté en paiement.  12 CAISSE A D'UPET, pour autant à lui compté en paiement.  13 BILLEES A RECEVOIR, A D'UPEE, pour son billet à un mois fixe, qui il m'a fourni en paiement.  15 BILLEES A RECEVOIR, A D'UPEE, pour son billet à un mois fixe, que j'ai fourni andit Dupui, en paiement.  16 BILLEES A PATER A D'UPEU pour mon billet à 6 mois, ordre de Dupré, passé à celui de Dupui, que ce dernier m'a rendu acquitté à 20 peut à sillet BLEES A PATER A D'UPEU pour mon billet à 6 mois, ordre de Dupré, passé à celui de Dupui, que ce dernier m'a rendu acquitté à 2 pur la compte de paiement.	4,000		
	Total de Brumaire (554)	224,800		
	Transport du mois de Vendémiaire.	166,616		
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	Total (559)	391,416		
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	BALANCE A MARCHANDISES GÉNÉRALES, pour 30 tonneaux de vin et 200 mètres de drap commun, qui reitent en magasin, estimés MARCHANDISES GÉNÉRALES A PROPTES ET PERTES, pour bénéfice de nos marchandises, et pour solde de leur compte (560) PROPTES ET PERTES A CAPITAL, pour solde du compte de profise te pertes. BALANCE A CAISES, pour autant qui me reiste en caisse, et pour solde. BALANCE A CAISES, pour autant qui me reiste en caisse, et pour solde. BALANCE A LEURET A RENCEN pour le montant des billet qui sont en porte-feuille. BILLESS A PATER A BALANCE, pour le montant de billet sà payer, qui sont en circulation. DIVERS A BALANCE POUR DIAGNECE le crédit de la colonne de divers.  BALANCE A DIVERS pour balancer le débit de la colonne de divers.	000		
İ	PROFITS ET PERTES A CAPITAL, pour solde du compte de profits et pertes			
	BALANCE A CAISSE, pour autant qui me reste en caisse, et pour solde	000 .		
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1	BALANCE A DIVERS pour balancer le débit de la colonne de divers.	400 . 133,7	22.	
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OBSERVATIONS, 1º Apès cet article: M:" G!" DOVEST A BILLETS A PATER, etc., lorepròn trouve celui-ci: Ldem, a billets a recover a billets a recover a billets a recover a recover a billets a recover 
DE L'IMPRIMERIE DE GUILLEMINET, RUE DE LA

Figure 1. Degrange's (1804) Journal.

Note: Column headings (from left to right): Journal beginning on 1st Vendémiaire Year XI., Totals (Journal), Merchandise Account, Cash Account, Securities Receivable Account, Securities Payable Account, Profit and Loss Account, Diverse Accounts, Totals (Ledger).

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	MARCHANDICE			2							3 T. T	ma				4				5			6				TOTAL		
	MARCHANDISES GÉNÉRALES.		CAISSE.			1	BILLETS A RECEVOIR.					BILLETS A PAYER.				I	PROFITS ET PERTES.				DIVERS COMPTES.				DE CHAQUE COMPTE PARTICULIER				
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OBSERVATIONS. On peut ne faire Unblishen des articles du Journal et des colonnes du Grand Litres qu'un bas de chaque folio (253), alors toutes les affaires du mois de Vendémaires, petrore deauer Tible de la forme du premier folio; celler de Remaire doucert Fidede de la forme du second folio, et ainsi de suite (254). Les articles justés pour la deux de forme folio (255), alors toutes les affaires du mois de Vendémaires, petrore deauer Tible de la forme du premier folio; celler de Remaire doucert Fidede de la forme du second folio, et ainsi de suite (254). Les articles justés pour la deux de forme folio de former folio de Journal paries, prince. On a révint dans le modèle ces trois eas sur un seul folio pour ne pas multiplier les tablesas y autrement chaque folio deit formet le même tablesa que le mois de Vendémaire, etc. (352.)

Figure 1. Continued

A HARPE, N. 117, ANGIEN COLLEGE D'HARCOURT.

Over the past 50 years there have been a number of new [systems of] bookkeeping; but these so-called new and infallible systems are nothing else than [systems] following the single or double entry method, modified by few immaterial and inappropriate changes.

Kheil (1908, 51) suggested that the American denomination of Degrange's method went back to the Belgian writer Roland (1852), who mentioned that this method was also known as méthode américaine ('American method'). According to Kheil (1908, 87), from that time onwards, labelling Degrange's method as 'American' became popular in Belgium (for example, Merten 1868) and later also in France (for example, Léautey and Guilbault 1889; Faure 1898). In Italy, this method became known as giornale-maestro, giornalmastro all'americana and metodo americano (Coronella 2019, 10). Although the earliest compelling evidence for the use of the label 'American' in relation to bookkeeping stems from the teaching curricula of technical schools in 1871 (Ministero d'Agricoltura, Industria e Commercio 1871, 128), both De Gobbis (1884, 59) and Saporetti (1898, 124) claimed that the first reference to an 'American' bookkeeping system in Italy dated back to the 1850s. However, the causes for this label remained a mystery in that country, too (Melis 1950, 725; Lepore 1998).

Notably, many works did not mention Degrange, but, for example, attributed the 'American method' to 'an Englishman who had invented it at the beginning of the century' (Merten 1868, 173). Presumably the Englishman referred to by Merten was Edward Thomas Jones. At the end of the eighteenth century, Jones was very successful in marketing a single-entry method of bookkeeping which was substantially different from what Degrange (1804) had proposed.<sup>6</sup> With his books on the 'English method', Jones was commercially successful, but, due to substantial conceptual and practical flaws in his writings, his method was only sparsely adopted in business practice (Yamey 1944; 1956). After citing the novel approaches by Jones and Degrange, Yamey (1978, xxiii) wrote:

It is not surprising that many of the innovations proposed in the literature proved to be inappropriate or inept, especially those involving novel combinations of records with numerous columns and intricate balancings - sometimes unfairly referred to on the Continent, notably in Germany, as "American" book-keeping.

Two contemporary Belgian writers also commented on the origins of Degrange's innovation, and how it became known as 'American'. Vlaemminck (1956, 142) wrote:

He is the first writer in accounting to devise and spread multi-column bookkeeping, known as the "journal-ledger system" and more generally known as "American bookkeeping," even though its originator was French! In fact, it is wrong to attribute this method to the Americans. The great Czech historian of accounting, C. P. Kheil, has clearly proven that the journal-ledger is of French origin.

#### Stevelinck (1970, 157) has written:

Degrange thus described for the first time a method that hardly he invented, whatever one may say. He himself said that he got it from his father, who got it from old sailors. This method was indeed convenient for very small traders, and a great many authors subsequently adopted it. One of them, the Belgian V. F. Roland (Hasselt 1852), labelled this journalledger method the "American method," and it has been taught under this name ever since. It seems that the label 'American' appeared in the German literature around the same time as in France. An early reference to 'American Bookkeeping' was in the textbook by Klein (1886).<sup>7</sup> Its preamble suggested that, in 1886 Germany, the label 'American' had already been in use for some time to describe Degrange's single Journal:

Now I have managed to further simplify the American Bookkeeping, which is already known in some circles, and has spread over the years through some big businesses across various industries in Germany. With my simplifications, this bookkeeping has the same advantages as the Italian Bookkeeping - in fact it outperforms that bookkeeping in clarity and transparency by far - while not even requiring the time of running a single-entry bookkeeping system. The American Bookkeeping is based on the principles of double-entry bookkeeping, but I managed that, instead of a memorial, cash book, journal and balance book, only one single book is used. It is called American Journal.

Corroborating its widespread use, Schiebe (1847, 80), in a footnote in his monograph on bookkeeping, noted that, in the first half of the nineteenth century, many businesses had, more or less successfully, experimented with the single Journal method as proposed by Degrange:

Back then the appeal of its novelty tempted many businesses to set up their bookkeeping according to this method; however, as soon as one was convinced that it was unusable for a big business, that it did not save time, and also that the many columns were distracting and harmful to the eye, one gave it up again rather soon and reverted to the ordinary method.

However, Schiebe (1847) did not make any reference to this method being known as 'American' at that time. In 1828, a Spanish translation of Degrange's work, as revised and amplified by his son, was published, but also without any indication that it was of 'American' origin (Degrange 1828).8

Around the turn of the century, numerous German writings on 'American Bookkeeping' surfaced. Many of those were instruction manuals and textbooks aimed at business practitioners and students (for example, Klein 1886; Siefken 1897; Orth 1898; Schmid 1902; Müller 1905; and Marquart 1909), while only a few scholarly contributions (for example, Schär 1906/1907 and Kheil 1908) could be found.

The manuals and textbooks were primarily concerned with practical adaptations of the single Journal for it to become an 'American Journal'. Variations concerned the question if the Ledger needed to be kept as a separate book, or could be merged into the Journal (Müller 1905). Also, there were differences in the number, type, order, and names of accounts to be included in the Journal. For example, as illustrated in Figure 2, Klein (1899) proposed the use of eight accounts (Current Account, Cash Account, Merchandise Account, Bill of Exchange Account, Bill of Acceptance Account, Securities Account, Travel Account, and Diverse Accounts). Baum (1928, 372), in his worked-out example of a brewery, suggested the use of only four accounts (Current Account, Beer Account, Hop Account, and Diverse Accounts), and eventually concluded that 'the American bookkeeping is nothing else than a double-entry bookkeeping with a clear tabular structure of the accounts' (Baum 1928, 11).

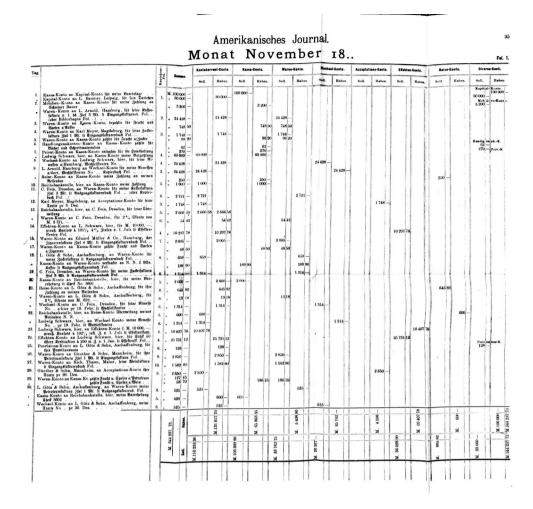


Figure 2. The American Journal (as proposed by Klein 1899, 35).

Note: Column headings (from left to right): Day, Account book number, Total, Current Account, Cash Account, Merchandise Account, Bill of Exchange Account, Bill of Acceptance Account, Securities Account, Travel Account, Diverse Accounts.

## Possible explanations for the emergence of the label 'American'

Reflecting on the German literature, Kheil (1908, 1) offered the following explanation as to why a French variation of double-entry bookkeeping was labelled 'American':

It is curious that the authors of these textbooks, when introducing the "American" system of bookkeeping make little attempt to talk about its origins. They use the label "American Bookkeeping" for convenience. It points to the method's arguable origin and it sounds very exotic, from a Continental European perspective. It also intends to symbolise this method's undoubted supremacy and its taken-for-granted uniqueness compared to all other bookkeeping approaches and systems. The label "American" is intended to avoid any mistrust into this indeed ingenious bookkeeping method, because the term "American" is usually used as a synonym for practical, advantageous, clear, efficient and similar indicators of supremacy.

This explanation would suggest that the label emerged because Degrange's method and connotations associated with America were similar. More specifically, Lepore (1998, note 1), arguing that double-entry bookkeeping is a calligraphic practice, speculated that the label might be connected to an early-nineteenth century calligraphic method, which was known as 'American' because of its conciseness. The fact that America was perceived to stand in stark contrast to Europe at the time (N.N. 1837, 69) may have further contributed to the suitability of the label 'American' for a method of bookkeeping that was substantially different from what had been done before. Thus, this label may also have helped to promote this method and the writings about it. Müller (1905, 3) corroborated this suggestion by reference to the practical advantages and the efficiency gains which this new bookkeeping system provided:

The origins of this bookkeeping are not at all to be found in America. Its label is merely because this bookkeeping is extremely practical; because with less work and in a much simpler way, it achieves the same results as double-entry bookkeeping.

The foregoing reasons were also accepted as valid by Hatfield, as recited at the beginning of this article. What may have further supported the emergence of the label 'American' in continental Europe was a popular US textbook by James Arlington Bennet (Bes 1908, 156). This book, entitled 'The American System of Practical Book-keeping', was published in 1820 and appeared in 41 editions until 1862 (Bentley and Leonard 1934, 10–11). Although Bennet did not propose the type of single Journal which is fundamental to Degrange's 'American Journal', the appearance of many editions of a book claiming that 'practical bookkeeping' was so identified with America may have inspired German and other European accounting practitioners and writers to append the appellation 'American' to a bookkeeping method they saw as particularly 'practical'. Perhaps the title of Bennet's book began to create the image in the minds of some Europeans that an innovation which is American must ipso facto be practical. This perception might have been reinforced by the rise of America as an economic power from the end of the nineteenth century, which could have inspired certain authors to take advantage of an 'American' label in order to sell their work more successfully.

It is also possible that Degrange's method was, like other methods of double-entry bookkeeping before, adopted by American businesses (Cerboni 1886, 118), and then returned from there as a practice to Europe, where it was henceforth called 'American Bookkeeping'. Tissot (1869, 112) observed that 'today... in the United States of America, whose people are eager for any advancement, ... [this method] ... is welcomed in the most elegant offices of New York, though with modifications that suit the [American] needs.' While not claiming that his observation was causal for the emergence of the label, Stern (1904) noted that 'American Bookkeeping' has long been used by many US businesses in various industries. Due to the lack of primary sources on bookkeeping practices in the USA during that period of time, it is impossible to further confirm these claims empirically. 10

Another possible explanation for the label was offered by Yamey (1956, 324). He speculated that

[t]he appellation, apparently of German origin, is probably to be explained on the ground that the names of the more relevant countries of western Europe had already been appropriated and attached to one or other of the systems of "national" accounting.

As we have demonstrated above that the label 'American' was used in Belgian writings some time before it appeared in the German literature, and as German authors citing the 'American Bookkeeping' offered a different explanation of the label's origins, we consider it unlikely that Yamey's speculation has much ground. Nonetheless, it is possible that political motives influenced the labelling of Degrange's method in the late-nineteenth and early-twentieth centuries in Germany, too. Following the Franco-German war in 1870-1871, sentiments between these two nations remained highly problematic until after the Second World War (François, Siegrist, and Vogel 1995). Thus, it appears unlikely that a label such as 'French Bookkeeping' would have been particularly fashionable and widely accepted in Germany.

Schär (1906/1907, 390-391) suggested that, in the early-twentieth century, numerous accountants and practical bookkeepers in Germany, as well as a few in Switzerland, tried to obtain patents for adaptations to the 'American Journal', which they claimed to have 'invented'. 11 He complained that 'the dreadful attempts to patent bookkeeping [methods] is not harmless' (391). Arguing that bookkeeping methods could never be invented by just one person, given that they are always the outcome of a continuous evolutionary process, he motivated his article, summarising all variations of the American Journal known to him at the time, with the will to stop such 'greedy and overambitious inventors' (391). One could possibly speculate that the label 'American' was used to make it difficult, or impossible, for any European to patent Degrange's method, because it might have been difficult to obtain a European patent for an invention which was referred to in the widespread literature as 'American'. However, as the patenting frenzy on bookkeeping in Germany seemed to have begun only around 1900, years after Degrange's method became known as 'American' in Germany and elsewhere, it seems unlikely that it was a factor contributing to the label.

#### **Conclusion**

The aim of this article is to probe into the circumstances surrounding the curious labelling by others, apparently first by the Belgian Roland (1852), of a Frenchman's bookkeeping proposal in the early-nineteenth century to combine the Journal and Ledger into a single, multi-column spreadsheet as 'American', when it was not of American origin at all.

We review the essential features of double-entry bookkeeping as inherited from Pacioli's 'method of Venice', followed by a descriptive discussion of Edmond Degrange's Journal-Ledger proposal of 1804. We then survey the contemporary bookkeeping literature in Europe and the United States in order to identify works that characterised Degrange's bold and innovative proposal as 'American', even though writers openly conceded that no evidence existed that an 'American' was involved in the development of this novel approach.

If there was a predominant, single reason why, initially in Belgium and Italy, and later in France and Germany, scholars and other writers on bookkeeping applied 'American' to Degrange's simplification, it has been lost in history. Our hypothesis is that a plausible explanation for this unusual labelling, as brought out by Kheil (1908, 1), which was in turn commended by Hatfield (1966, 181), is that many in Europe at the time believed that this bookkeeping method had much in common with notions attributed to 'America', such as inventiveness, pragmatism, and efficiency. This insight cautions against drawing conclusions on the historical origin of accounting concepts by mere reference to names, labels, and denominations. Our findings may also be interpreted as a further indicator of inter- or de-nationalisation of accounting practice and thought in the late-nineteenth and early-twentieth centuries, because they demonstrate how a common label, 'American' – perhaps also as a synonym for non-European – had been used in different European countries for one and the same method of bookkeeping.

#### **Notes**

- 1. Kheil's given names in Czech were Karel Petr, but he sometimes used Carl Peter in his writings published in German. His son was also named Karel Petr.
- 2. All verbatim excerpts from German and French sources were translated into English by one of the authors, aiming to convey the writings' meaning in modern English, while adhering as closely as possible to the literal originals.
- 3. The writings of Edmond Degrange *père* and *fils* were highly influential for the development of accounting thought and practice in nineteenth-century Europe. Nikitin (2005) offers a detailed review of their lives and achievements, including Degrange *père's* earlier innovation on the five general accounts system (Degrange 1795), which his son continued to develop, and disseminated internationally. For example, during the second half of the nineteenth century, their writings became formative for the development of agricultural accounting in Italy (Mussari and Magliacani 2007).
- 4. This view is corroborated by Nikitin (2005), who, when analysing the success of Degrange's writings in France, made no reference whatsoever to Degrange's single Journal method becoming known as 'American'.
- 5. Besta (1922, 443) claimed that this V. F. Roland was the first writer in France to use that label for Degrange's method. However, both Kheil's (1908, 51) reference to V. F. Roland's nationality and the fact that his work was published in Belgium rather suggest that Roland may have been the first to use the label 'American' for Degrange's method in the French language. Relying on Besta (1922), Peragallo (1938) also dated the origin of this label to 1852. Without supporting references, Mattessich (2008, 21) speculated that the label was of Belgian origin, too.
- 6. In fact, Degrange (1804) explicitly referred to Jones. Admitting that the international attention paid to Jones's method inspired his writing, Degrange (1804, 5–11) diagnosed that Jones's method did not show any signs of novel thought, was overly simplistic, superficial, and fundamentally different from his proposed single Journal based on double entry.
- 7. Notably, and in contrast to other authors, Klein (1886) suggested that the single Journal method had been used successfully also by big enterprises.
- 8. The authors are grateful to Alan Sangster for bringing this translation to their attention.
- 9. The full title of the book (Bennet 1824) which appeared on the title-page of the 7th edition published in 1824 was: The American System of Practical Book-keeping, adapted to the Commerce of the United States in its Domestic and Foreign Relations, comprehending all the Modern Improvements in the Practice of the Art; and Exemplified in One Set of Books Kept by Double Entry, embracing Five Different Methods of Keeping a Journal. Designed for the Use of Schools. To Which Are Added Forms of the Most Improved Auxiliary Books; and a Copperplate Engraving, Exhibiting, at One View, the Final Balance of the Leger. Bennet was said on the cover to be 'Professor to the Accountants Society of New-York'. In this edition, Bennet did not refer by name to any European writers on bookkeeping.
- 10. As noted at the outset of this study by our quotation from de Roover, even he was unaware of any such evidence.
- 11. It stands to reason that these attempts were inspired by the commercial success of the aforementioned 'English method' by Edward Thomas Jones. For this method, Jones was granted a



patent by the English king, by which nobody could use his method without Jones's permission (Kheil 1908, 19).

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No potential conflict of interest was reported by the authors.

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#### References

Baum, R. 1928. Einfache, doppelte und amerikanische Buchführung. 23. Auflage. Berlin: Verlagsanstalt "Soll und Haben".

Bennet, J. A. 1824. The American System of Practical Book-keeping. 7th ed. New York: Collins & Hannay.

Bentley, H. C., and R. S. Leonard. 1934. Bibliography of Works on Accounting by American Authors. Vol. I. Boston: H. C. Bentley.

Bes, K. 1908. Bijdragen tot de geschiedenis en de theorie van het boekhouden. Tweede Druk. Tilburg: M.G. Vattier Kraane.

Besta, F. 1922. La ragioneria. Vol. III. Milano: F. Villardi.

Cerboni, G. 1886. La Ragioneria Scientifica e le sue Relazioni con le Discipline Amministrative e Sociali, Vol. I - Prolegomeni. Roma: Ermanno Loescher & C.

Chatfield, M. 1974. A History of Accounting Thought. Hinsdale, IL: The Dryden Press.

Coronella, S. 2019. "Origini e sviluppi del giornalmastro nell'Italia dell'Ottocento." De Computis – Revista Española de Historia de la Contabilidad 16 (1): 7–30.

De Gobbis, F. 1884. "Il giornale maestro e le sue forme." Il Ragioniere Rivista di Contabilità IX (3): 33-38. (4): 54-61.

De Roover, R. 1955. "New Perspectives on the History of Accounting." The Accounting Review 30 (3):

Degrange, E. 1795. La Tenue des Livres rendue facile. Paris: Garnier frères.

Degrange, E. 1804. Supplément à la Tenue des Livres rendue facile ou Nouvelle Méthode pour tenir les livres en double parties, par le moyen d'un seul registre, dont tous les comptes balancent journellement entre-eux, et composent un seul tableau de l'état général de situation des affaires d'un négociant. Paris: Chez Hocquart.

Degrange, E. 1809. Supplément à la Tenue des Livres rendue facile ou Nouvelle Méthode pour tenir les livres en double parties, par le moyen d'un seul registre, dont tous les comptes balancent journellement entre-eux, et composent un seul tableau de l'état général de situation des affaires d'un négociant. 2nd éd. Paris: Chez Hocquart.

Degrange, E. hijo. 1828. La Teneduría de Libros Simplificada ó Nuevo Método de Enseñanza De la Teneduría de los Libros en partida sencilla y doble, que comprende el modo de tenerlos en partida doble, por medio de uno solo. Por Edmond Degrange. Traducido por José María Ruíz Perez. Gerona: En la oficina de Antonio Oliva Impresor de S. M.



Faure, G. 1898. Éléments de Commerce et de Comptabilité. 2nd éd. Paris: Masson.

François, É, H. Siegrist, and J. Vogel, eds. 1995. *Nation und Emotion: Deutschland und Frankreich im Vergleich. 19. und 20. Jahrhundert.* Göttingen: Vandenhoeck & Ruprecht.

Gesellschaft Gelehrter und praktischer Kaufleute. 1845. Allgemeine Encyclopaedie für Kaufleute und Fabrikanten so wie für Geschäftsleute überhaupt, 6. Auflage. Leipzig: Otto Wigand.

Hatfield, H. R. 1966. "Some Variations in Accounting Practice in England, France, Germany and the United States." *Journal of Accounting Research* 4 (2): 169–182.

Isler, J. 1810. *Nouvelle Méthode Suisse, pour tenir des livres en partie double*. Brussels: Weissenbruch. Kheil, C. P. 1908. *Über 'Amerikanische' Buchführung*. Wien: Manzsche k.u.k. Hof-Verlags und Universitäts-Buchhandlung.

Klein, F. 1886. Amerikanische Buchführung. Leipzig: Verlag von G.A. Gloeckner.

Klein, F. 1899. Amerikanische Buchführung. 5. Auflage. Leipzig: Verlag von G.A. Gloeckner.

Léautey, E., and A. Guilbault. 1889. *La science des comptes mise à la portée de tous*. 2e éd. Paris: Librairie comptable et administrative et Guillaumin.

Lepore, A. 1998. "La contabilita all'americana in Italia tra la seconda metà del XIX e l'inizio del XX secolo." *Nuova economia e storia* 4 (3/4): 351–377.

Marquart, C. 1909. *Die einfache, doppelte und amerikanische Buchführung*. Pforzheim: Handelsschule Merkur.

Mattessich, R. 2008. Two Hundred Years of Accounting Research. London: Routledge.

Melis, F. 1950. Storia della ragioneria. Bologna: Zuffi.

Merten, F. 1868. Manuel de sciences commerciales à l'usage des athénées et des collèges. Ghent: Librairie Générale de H. Hoste.

Ministero d'Agricoltura, Industria e Commercio. 1871. *Ordinamento degli Istituti Tecnici*. Firenze: Tipografia Claudiana.

Müller, H. 1905. *Die Amerikanische Buchführung*. Leipzig: Verlag für Kunst und Wissenschaft Albert Otto Paul.

Mussari, R., and M. Magliacani. 2007. "Agricultural Accounting in the Nineteenth and Early Twentieth Centuries: The Case of the Noble Rucellai Family Farm in Campi." *Accounting, Business & Financial History* 17 (1): 87–103.

Nikitin, M. 2005. "Edmond Degrange père & fils: De la tenue des livres à la comptabilité." In *Les grands auteurs en comptabilité*, edited by B. Colasse, 39–54. Colombelles: Éditions EMS.

Niklisch, H. 1926. Handwörterbuch der Betriebswirtschaft. Vol. 2. Stuttgart: C. E. Poeschel.

N.N. 1837. Bilder-Conversations-Lexikon für das deutsche Volk – Ein Handbuch zur Verbreitung gemeinnütziger Kenntnisse und zur Unterhaltung. Vol. 1. Leipzig: F. A. Brockhaus.

Orth, A. J. 1898. Vereinfachte amerikanische doppelte Buchführung mit besonderer Rücksicht auf die Führung eines Geheimbuchs. Köln: Kölner Verlagsanstalt und Druckerei.

Pacioli, L. 1494. *Summa de arithmetica, geometria, proportioni et proporzionalità*. Venezia: Paganini. Peragallo, E. 1938. *Origin and Evolution of Double Entry Bookkeeping*. New York: American Institute Publishing Company.

Roland, V. F. 1852. *Traité complet théorique et pratique des opérations commerciales et de la Tenue de Livre*. Hasselt: P.F. Milis.

Row Fogo, J. 1905. "History of Book-keeping." In A History of Accounting and Accountants, edited and partly written by R. Brown, 93–170. Edinburgh: T. C. and E. C. Jack.

Saporetti, F. 1898. Fra Luca Paciolo. Origine e Sviluppo della Partita Doppia. Livorno: Stab. Tip. S. Belforte & C.

Schär, J. F. 1906/1907. "Variationen in der praktischen Verwendung der amerikanischen Journale." Zeitschrift für handelswissenschaftliche Forschung 1: 390–399.

Schiebe, A. 1847. *Die Lehre von der Buchhaltung, theoretisch und praktisch dargestellt.* 3. Auflage. Grimma: J. M. Gebhardt.

Schmid, A. 1902. Die Amerikanische Buchführung und ihre Anwendung in den verschiedenen Geschäftsbetrieben. Stuttgart: Poeschel.

Siefken, T. 1897. Die amerikanische Buchführung und ihre Verwertung für das Bankgeschäft. Berlin: H. Spamer.

Stern, R. 1904. Buchhaltungs-Lexikon. Wien/Leipzig: Verlag der Buchhandlung Leopold Weiss.



Stevelinck, E. 1970. La Comptabilité à travers les âges. Bruxelles: Bibliothèque royale Albert. 1er. Tissot, L. 1869. Comptabilité nouvelle, donnant la partie double par les seules écritures de la partie simple. Paris: Tissot frères.

Vlaemminck, J.-H. 1956. Histoire et doctrines de la comptabilité. Bruxelles: Éditions du Treurenberg. Yamey, B. S. 1944. "Edward Jones's 'English System of Bookkeeping'." The Accounting Review 19 (4): 407-416.

Yamey, B. S. 1956. "Edward Jones and the Reform of Book-keeping, 1795-1810." In Studies in the History of Accounting, edited by A. C. Littleton and B. S. Yamey, 313-324. Homewood, IL: Richard D. Irwin.

Yamey, B. S. 1978. Essays on the History of Accounting. New York: Arno Press.