A CRITICAL EVALUATION OF COMPARATIVE FINANCIAL ACCOUNTING THOUGHT IN AMERICA 1900 to 1920

By

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To

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Accountant, Educator, Historian

"Satis Verborum"

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Abstract of Dissertation Presented to the Graduate Council in Partial Fulfillment of the Requirements for the Degree of Doctor of Philosophy

A CRITICAL EVALUATION OF COMPARATIVE FINANCIAL ACCOUNTING THOUGHT IN AMERICA 1900 to 1920

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American financial accounting was significantly transformed as the result of the contributions of a group of accounting writers of the period 1900 to 1920. Designated as the Preclassical period in recognition of its important influence on later (Classical) accounting theory, selected works of William Morse Cole, Arthur Lowes Dickinson, Paul-Joseph Esquerré, Henry Rand Hatfield, Roy Bernard Kester, Robert Heister Montgomery, Charles Ezra Sprague and John Raymond Wildman are explicated and examined in this study with the presumption that they are representative of the leading thought of the age.

Commencing with a colligatory examination of the life histories of these individuals and the environment of the period, the theoretical research is divided between an analysis of Preclassical value theory and

income determination theory, the inquiry being based upon the relationships existing among: (1) the triad (audit, advise and attest) of duties undertaken by Preclassical accountants; (2) the role of "professional" judgment in the joining of these duties with (3) the need for a set of fundamental precepts to underlie the discharge of accountants' professional functions.

A comparative functional mode is employed in the inquiry, stressing the warrantability of notions in their initial definitional setting, with dialectical considerations added to achieve pre and post transformational perspective. The structure of accounting value theory is outlined in terms of an accounting primitive—the duality premise, from the original Italian version (property = claims) to Preclassical types, including those identified with Esquerré (goods = liabilities); Sprague (assets = liabilities + proprietorship); and Wildman (assets = liabilities + accountabilities).

The analysis of value theory, recognizing important corresponding economic theories, identifies a strain of Classical economics in accounting's exchange price notion of value and in the assumptions of Preclassical profit concepts. The essential principles of the profit determination and disclosure theories of the

period are traced to the doctrines and format found in Dickinson's 1904 address to the Congress of Accountants, including the prescription that:

1. All waste, both of Fixed and Circulating Assets, incident to the process of earning Profits by the conversion of Circulating Assets must be made good out of the Profits earned.

2. Profits realized on sales of Fixed Assets should be first applied to make good estimated depreciation (if any) in other Fixed Assets not resulting from the ordinary conduct of the business. If there is no such depreciation, such Profits may be distributed as dividends, but should be distinguished from the Operating Profits.

3. A sufficient surplus should be accumulated (in addition to the provisions required to maintain Wasting Capital Assets under Clause 1) for the purpose of making good Losses due to shrinkage in value of Fixed Assets arising from causes other than the ordinary operations of the Company.

The signal contributions of Preclassical writers are summarily evaluated at the conclusion of the study and presented with regard to criteria indicative of a School of Thought. The achievements of Preclassicism which warrant the assertion of such a School recognition include the development of a "modified historical cost" valuation paradigm, based upon advancing notions of depreciation and appreciation. As well, the roots of modern income determination and disclosure thinking are evident in Preclassical concepts, presaging the important shift from an indirect (balance sheet) approach to the operational emphasis of profit determination.

CHAPTER I

INTRODUCTION

Scope

Brief,[1]* Littleton,[2] Garner,[3] Peragallo,[4] Littleton and Zimmerman[5] and Zeff[6] among others have provided important works in the history of *cost* and *financial* accounting thought, but these writings are not strictly comparative, nor are they inclusive of all periods and topics. As a result, certain periods of accounting theory development, and constituent segments of the history of *financial* accounting thought, have yet to be investigated.

One such time period can be identified with the beginning of this century through the close of World War I, approximately 1900 to 1920. This period corresponds at the initial date to the upper limits of both Brief's and Littleton's analyses, as their efforts do not extend into the twentieth century. At the latter juncture, 1920, a Classical group of accounting theorists came into prominence, responding to the economic expansion and prosperity of the post war period.[7] Classicists undertook the initial formulation of accounting principles, a

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*Notes are located at the end of each chapter.

distinct accomplishment which separates them from previous thinkers. Leaders of the Classical group include W. A. Paton of Michigan and G. O. May, a senior partner of Price, Waterhouse & Company.

Paton's ". . . influences on accounting thought, beginning with *Accounting Theory* (1922) have continued undiminished for a generation."[8] Stabler sets the period of May's greatest contributions after 1926 when ". . . he relinquished his administrative duties as senior partner of Price, Waterhouse & Co., in order to pursue a broader field of activity."[9]

While there are clear distinctions between the two groups (those principally active before and after 1920), the accountants of the Classical persuasion were affected by their immediate predecessors. For example, May noted in his memoirs the influence which Arthur Lowes Dickinson had on reshaping his personality and his professional views.[10] In order to preserve the existence of what are probably strong and important links between these two clusters, the writers being studied in this work, identified with the era 1900 to 1920, are designated as a distinct *Preclassical* group.

Preclassicists are deemed to have been a source of stimulative thinking in establishing the pattern of financial accounting thought adopted by the early profession, providing the basis from which formal accounting

principles would evolve.[11] This implies that accounting thought during the Preclassical period had advanced to a point where it can be depicted as a body of accounting knowledge. Several factors seem to support this view, including:

1. The appearance of a distinctive American professional accounting literature consisting of books, pamphlets and journals.[12]

2. The initiation of unified internal professional action. For example, as early as 1909 a special committee of the American Association of Public Accountants was formed to ". . . collate and arrange accounting words and phrases and show in connection with each the varying usages to which they are put. . . ."[13] This was the advent of a series of definitional inquiries into divergent terminological usages among early practitioners. In 1915 this committee reported out ". . . an initial list . . . felt to be adequately defined in such a manner that the committee would be justified in recommending that the Association give its definite approval and ratification thereto."[14] The definitional approach did not prevail however, but the profession's concern with accounting terminology, apparently born of these efforts, continued for many years as evidenced by the important role which the terminology committees have held upto their supercession by the Accounting Principles Board in 1959.[15]

3. The recognition of the emerging external role or professional accountancy with the acceptance of limited attest responsibility as a first step toward later attacks on the customary secrecy in disclosure.[16] By 1917[17] the profession provided what appears to be their first formal attempt through a committee of the American Institute[18] to suggest standards for use on a national scale by merchants and manufacturers seeking credit.[19]

4. The rise of American accountancy to a position of international prominence. An event which supports this proposition is the first Congress

> of Accountants held in 1904 at St. Louis under the sponsorship of the Federation of Societies of Accountants in America. Less than 10 percent of the delegates were foreigners, but the Congress is recognized as a first multi-national meeting[20] of professionals and served as well to secure a wider stature for its American hosts.[21]

These factors among others witness the origination of an approach to accountancy which would become distinguishable from the British methods that seem to have long dominated American systems from the earliest of colonial times. That a structure of accounting concepts was emerging during this period was evident in the literature of American accountancy. Sanders, a leading educator suggests why this important maturation process went largely unrecognized. He explained that while it was ". . . true that accounting literature at the time was in general less articulate on the subject of principles and standards [since the term principle was not commonly used] this does not mean that there were no standards, nor that standards were not followed by a large body of reputable accountants."[22]

Purpose

Significant influences upon the development of financial accounting thought can be traced to the writings of a group of professional accounting pioneers of the period 1900 to 1920. In particular, William Morse Cole, Arthur Lowes Dickinson, Paul-Joseph Esquerré,

Henry Rand Hatfield, Roy Bernard Kester, Rober Heister Montgomery, Charles Ezra Sprague and John Raymond Wildman, among others, enunciated basic concepts which are believed to have *transformed* earlier accounting notions into those which served as a foundation for subsequent advances in accounting theory.[23]

This research is concerned with providing a comparative evaluation of selected financial accounting conceptions as evident in the works of Preclassical accountants with the presumption that this body of thought constitutes an identifiable phase in the development of American financial accountancy.[24]

Hallmarks of Preclassical Accountants

The eight Preclassical writers chosen to represent the period were devoted professionalists; most are known to have held important offices or committee posts within professional and academic groups. Almost all were active as practitioners or consultants and were noted academicians as well, holding teaching positions at several levels, including accounting professorships at major universities for long periods. Usually these men were among the first accounting professors at the collegiate institutions with which they were associated.

This uncommon blend of professionalist-practitioner-professor is the hallmark of the Preclassicist.

Prior to this period the academic and professional prominence of accountancy had not advanced far enough to warrant accountants' claim to this triad of distinctions. Later as accountancy became more specialized between teaching and practice it was highly unusual to find men with all these active credentials.

Limitations

As to time period designated.—The temporal barriers of 1900 and 1920 have been placed upon this inquiry with the recognition that in historical investigations such divisions are not a perfect delineation of human activity, which itself is at the heart of all historical inquiry. But while certain members of the Preclassical group were active before and after the period in question, these efforts are considered supplemental to their role in the early years of this century. As such these other contributions are left for future examination and except in occasional instances do not constitute the primary source material for the functional analysis of this undertaking.

As to topic area considered.—The fact that Garner's important study of *cost* accounting evolution parallels in part the time frame of this examination does not of itself preclude investigation into the cost accounting achievements of Preclassical accountants.

However as a matter of efficiency and practicality no attempt is made in this study to examine cost accounting topics per se. It should be noted nevertheless that Garner cites several of the writers as having made contributions to cost accounting theory.[25]

As to the accountants selected.—Just as the temporal limits imposed upon the scope of this study are somewhat historically affected, so the selection of individuals as representatives of the period must be the function of a process of structured elimination subject to imperfection. The selection process employed was based upon the hallmark criteria cited above, namely a consideration of one's authoritative stature among fellow academicians, professionals and practitioners. Guidance for these evaluations was sought from several accounting octogenarians including Dr. W. A. Paton of Michigan, Dr. Joseph J. Klein of New York, Professors Fayette H. Elwell of Wisconsin and Gould Harris of New York University. Also Mr. Arthur B. Foye and Mr. Maurice Peloubet were consulted, among others. All of these men were personally knowledgeable with regard to the subjects and individuals considered. Among accountants considered but not included as Preclassical representatives were Harry Clark Bentley, Seymour Walton and Earl A. Saliers.

Methodology

The analytical chapters of this research are structured in a comparative mode. This approach contrasts the individual notions of the members with one another, focusing upon reasons which provide the basis for agreement or disagreement among the individuals compared.

The contrasting analysis proposed in this research also conforms to other methodologies. For example, the analysis will discriminate between the functional and dialectical approaches wherein the evaluation of a proposition follows either from the view of how it came into existence in its contemporary setting and how it operated in that setting (functional) or it must be evaluated as to its role in the ongoing process of change, namely how it has participated in shaping extant notions via the Hegalian dialectic: thesis, antithesis and synthesis.[26]

The structure of the work proposed is intended to be primarily functional as opposed to dialectical. However, the conclusions with regard to the contributions of the Preclassicists incorporate a dialectical aspect in order to consider the "link-up" between the thought of that period and adjacent periods, especially the Classical.

Sequence of Explication

The investigation of Preclassical accountancy begins with depthful biographical descriptions of each of the selected representatives. With the exception of Montgomery, who has been the subject of previous biographical and autobiographical works, the other members of the group have been less thoroughly considered.[27] Chapter II provides this information as well as initiating a consideration of the applicability of a School of Thought designation with regard to Preclassical writers. The school device is reviewed in terms of its analytical criteria and in light of previous propositions regarding its use in research. The elements of government, society and economics which constituted the environment of the Preclassical era are considered in Chapter III. Chapter IV examines the duties which accountants were called upon to discharge in the first decades of this century with the purpose of noting the functions for which an underlying theory was sought. Taken together these chapters constitute the backcloth upon which the comparative analysis of Chapters V and VI will be performed. The first of these chapters undertakes an inquiry of the contribution of Preclassicists to asset valuation theory; the second chapter will be concerned with their offerings to advance the state of income determination theory.

Chapter VII structures the outcome of the study with regard to the principal achievements and the individuals identified with them. At this point the theoretical contributions of the Preclassical period will be evaluated in terms of their adequacy to constitute a distinct School of Thought. An appendix will also be provided which contains a unique chronological listing of the known works of each of the selected Preclassicists.

Expected Contribution

The product of this research should assist accounting students, scholars and nonaccountants in at least the following manner:

First, the biographical and bibliographical citations should provide a useful compendium as a pure research source for historians of accounting thought interested in extending the boundaries of this research.

Second, it is conceivable that because of the novel approach of this study, via the functional and school procedures, a fruitful explicative technique may emerge which will serve to refine historical research models proposed for use in studying accounting thought.

Principally though, it is believed that this undertaking will serve to provide the material to establish the theoretical import of the Preclassical era, a significance as yet uncatalogued in the history of American financial accounting thought.

NOTES

1. Richard Paul Brief, *Nineteenth Century Capital Accounting and Business Investment*, Ph.D. dissertation, Columbia University, 1964.

2. A. C. Littleton, *Accounting Evolution to 1900*, New York: Russell & Russell, 1966 (copyright, 1933).

3. S. Paul Garner, *Evolution of Cost Accounting to 1925*, Tuscaloosa: University of Alabama Press, 1954.

4. Edward Peragallo, *Origin and Evolution of Double-Entry Bookkeeping*, New York: American Institute Publishing Co., 1938.

5. A. C. Littleton and V. K. Zimmerman, *Accounting Theory: Continuity and Change*, Englewood Cliffs: Prentice-Hall Inc., 1962.

6. Stephen Addam Zeff, *A Critical Examination of the Orientation Postulate in Accounting, with Particular Attention to Its Historical Development*, Ph.D. dissertation, University of Michigan, 1962.

7. William W. Werntz, "The Influence of the Securities and Exchange Commission on Standards of Corporate Accounting," *William W. Werntz: His Accounting Thought*, New York: AICPA, 1968, p. 434; Reed K. Storey, *The Search for Accounting Principles*, New York: AICPA, 1963, pp. 6-15.

8. Williard E. Stone, editor, *Foundations of Accounting Theory*, Gainesville, Fla.: University of Florida Press, 1971, p. iii.

9. Henry F. Stabler, *A Study of Selected Contributions of George O. May to Accounting Thought*, Ph.D. dissertation, University of Alabama, 1968, p. 7.

10. Paul Grady, editor, *Memoirs and Accounting Thought of George O. May*, New York: The Ronald Press Co., 1962, p. 25.

11. Kenneth MacNeal, *Truth in Accounting*, Lawrence, Kansas: Scholars Book Co., 1970 (copyright, 1939), p. 25n.
For a capsule review of the writings of some of the Classical authors see: J. D. Edwards and R. F. Salmonson, *Contributions of Four Accounting Pioneers*, East Lansing: Bureau of Business and Economic Research, Michigan State University, 1961.

12. John Carey notes in his *Rise of the Accounting Profession*, v. I, that the *Journal of Accountancy* appeared in November, 1905, as the successor to a publication called the *Auditor* which was published by the Illinois Society. Many periodicals less highly regarded and now out of print also contained samples of the accounting thought of the period. Among these is *Accountics*, first published in April, 1897, shortly after the passage of the first CPA law, by the New York Institute of Accounts. It was perhaps the foremost professional journal in the years prior to the *Journal of Accountancy* and has probably not been adequately regarded as a source of important information.
Each of the eight writers of the Preclassical period contributed at least one accounting volume to the literature in addition to numerous articles during the first two decades of this century. These early works included:

1904 *The Accountancy of Investment*, Sprague
1905 Dicksee's *Auditing*, Authorized American Version, Montgomery
1907 *The Philosophy of Accounts*, Sprague
1908 *Accounts: Their Construction and Interpretation*, Cole
1909 *Modern Accounting*, Hatfield
1913 *Principles of Accounting*, Wildman
1914 *Applied Theory of Accounts*, Esquerré
Accounting Practice and Procedure, Dickinson
1917 *Accounting: Theory and Practice*, Kester

13. Report of the Special Committee on Accounting Terminology, *1909 Yearbook of American Association of Public Accountants*, p. 159.

14. Report of the Committee on Accounting Terminology, *1915 Yearbook of American Association of Public Accountants*, p. 160.

15. Carey dates the initial efforts toward terminological investigation somewhat later, beginning with the work of a 1921 committee, *op. cit.*, v. I, p. 206.

16. David F. Hawkins, "Development of Modern Financial Reporting Practices among American Manufacturing Corporations," *Business History Review*, 1963, p. 167.

17. James Don Edwards, *History of Public Accounting in the United States*, East Lansing: Bureau of Business and Economic Research, Michigan State University, 1960, p. 134.

18. Paul Grady, *op. cit.*, p. 36.

19. William W. Werntz, "The Search for Accounting Principles," *op. cit.*, p. 36.

20. Mary Murphy, "International Accounting Practice," *Advanced Public Accounting Practice*, Homewood, Ill.: Richard D. Irwin Co., 1966, p. 525.

21. Paul Grady, *op. cit.*, p. 28.

22. Thomas H. Sanders, "A Review of Reviews of Accounting," *Journal of Accountancy*, January, 1946, pp. 9-26.

23. W. L. Green, *History and Survey of Accountancy*, New York: Standard Text Press, 1930, p. 134.

24. The notion of "transformation" is preferred over the term "evolution;" see note 1, Chapter VII.

25. In Garner's work cited in note 3 he mentions Dickinson's role in the interest as a cost debate, see pp. 151-2. As well he frequently refers to Wildman, Cole and Hatfield.

26. M. M. Postan, "Function and Dialectic in Economic History," *The Economic History Review*, 1962, no. 3, pp. 397-407.

27. A. R. Roberts, *Robert H. Montgomery: A Pioneer Leader of American Accounting*, Ph.D. dissertation, University of Alabama, 1971; R. H. Montgomery, *Fifty Years of Accountancy*, New York: Privately printed by The Ronald Press Company, 1939.

CHAPTER II

SOME PRECLASSICAL ACCOUNTANTS AND A SCHOOL OF THOUGHT NOTION

Introduction

The objective of this chapter is twofold: First, to furnish personal information which will assist in recognizing the position which each of the men selected achieved in the early profession by means of biographical sketches.[1] Second, to propose and enumerate a set of criteria from which the propriety of the School of Thought concept can be determined with regard to the association of ideas found in Preclassical writings. These criteria will provide the basis from which some of the conclusions of this research can be deduced in Chapter VII.

Biographical Material

William Morse Cole (1866-1960)

Born in Boston on February 10, 1866, Cole received a high school education in Portland, Maine, and attended Portland Business College. He earned an A. B. (1890) and an A. M. at Harvard, the institution at which he would become associated as a faculty member.

Prior to becoming an instructor of political economy at Harvard, Professor Cole worked as a

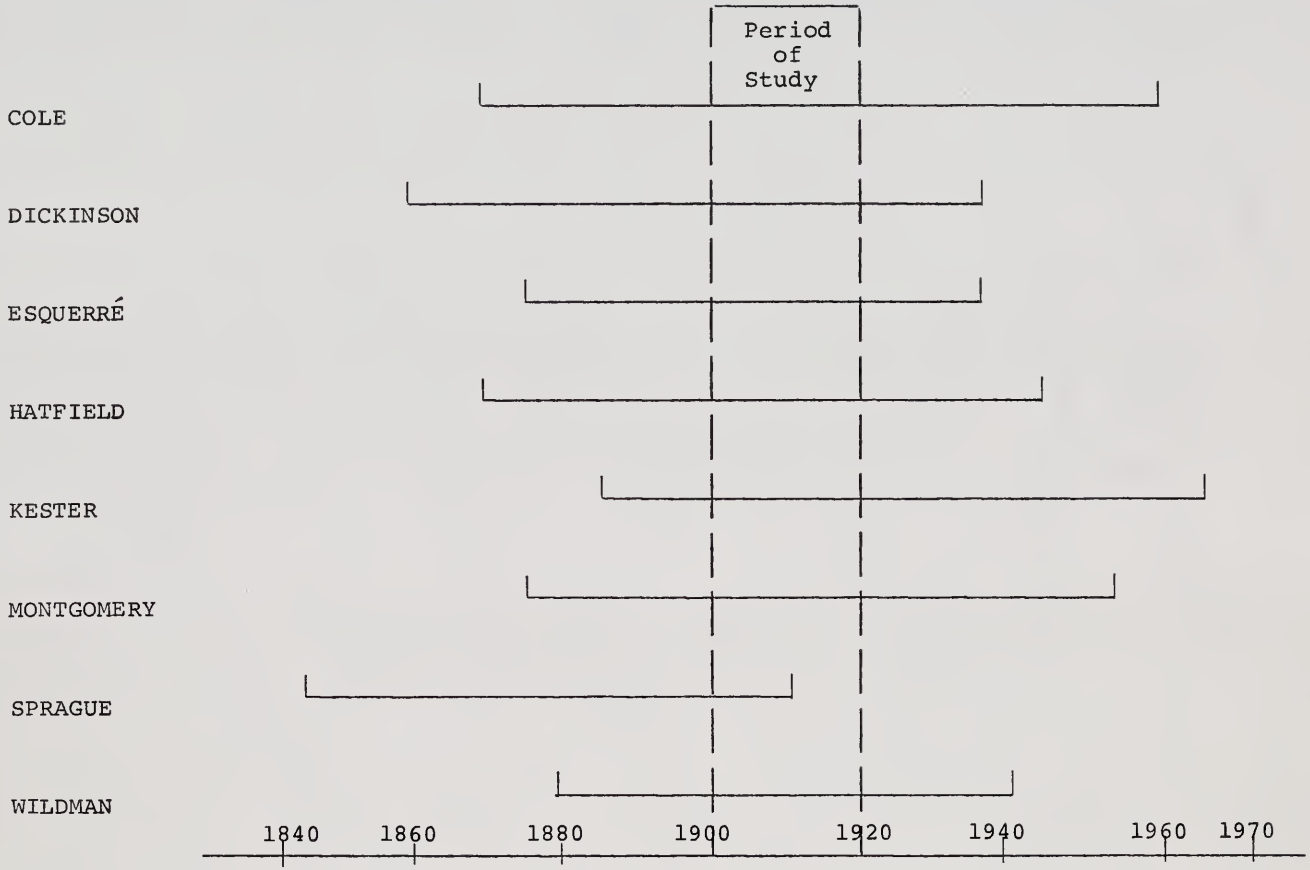

Figure 1. Life spans of some Preclassical accountants.

clerk-bookkeeper for several wholesalers and as an auditor for two corporations.[2] His first known manuscript coincides with the start of his academic career. In 1890 he prepared an article entitled "Cooperative Insurance and Endowment Schemes," for publication in the *Quarterly Journal of Economics*.[3]

Before the business school opened at Harvard he offered a course in accounting principles to seniors at the college. No credit was given for the work as it was considered a ". . . vocational training course."[4] When the first faculty of the Business School was appointed in 1908, Cole was among its members, serving as an assistant professor. In 1913 and 1916 he received promotions, and upon his retirement in 1933 he held the rank of Professor Emeritus of Economics and Social Philosophy. What is believed to be his last article, "Our Outdated Accounting," appeared in the July, 1933, issue of the *Harvard Business Review*.[5]

Though not active as a CPA, Cole maintained ties with the practitioners, and was an honorary member of the Massachusetts Society of Certified Public Accountants. His career of service outside accounting included teaching English and composition. At that time, under the pseudonym Christopher Craigie, Cole wrote *An Old Man's Romance* (1895). From 1894-1895 he was secretary for the Massachusetts

Commission for the Unemployed and during World War I he held a commission as a Captain in the Quartermaster Corps.

Cole married in 1898 and raised two daughters, Catriona and Elizabeth. In 1909 he wrote a major non-accounting work *The American Hope*,[6] a commentary on the principles of American life as he viewed them.

Cole's classroom techniques were recalled by Walker who said:

> Many of Professor Cole's Business School students will remember his precise speech, his refusal to use or to attempt to understand slang expressions, his meticulous explanations and his impatience with slovenliness and carelessness.[7]

Accounts: Their Construction and Interpretation, Cole's important financial accounting treatise, appeared in 1908 and was revised in 1915.[8] *Fundamentals of Accounting* a widely used textbook which he coauthored with Anne Geddes was published in 1921. Professor Cole authored books and many articles on the subject of institutional and hospital accounting and cost accounting.

His death on December 15, 1960, ended a career of service of which over forty years had been spent teaching accounting.

Arthur Lowes Dickinson (1859-1935)

Arthur Lowes Dickinson was born in London, England, on August 8, 1859. Much of what is known of his ancestry is through the biography of his brother, Goldsworthy Lowes

Dickinson, the noted poet and writer.[9] The Dickinson family included three sisters in addition to the brothers.

Dickinson was educated at Charterhouse School and Cambridge, graduating in 1882 as a Wrangler in Mathematical Tripos, the highest honors in mathematics at the school; in 1888 he received an M. A. At Cambridge he was tutored by John Neville Keynes. Later when Dickinson was living in America he was host to the son of his former tutor, John Maynard Keynes and introduced the young Keynes to George O. May.[10]

In her study of Dickinson's career, Mary Murphy states:

> When Arthur Lowes Dickinson came down from Cambridge in 1882, he considered with some care the various occupational avenues open to a young Englishman possessed of the additional qualification of a First in mathematics. Many fields beckoned to him, both at home and in the Empire. . . .
>
> After deep consideration of all occupations open to him, Dickinson selected for himself a fledgling profession—public accountancy. This profession, because of rapidly expanding business opportunities, offered him a promising field for a career, and afforded him the chance of using his mathematical training in an occupation dedicated to public service.[11]

Dickinson was first prizeman of the 1886 Institute examinations and began to practice as a chartered accountant in 1887. On May 17, 1887, he delivered his first paper, "Life Assurance Accounts."[12] He and Mary Jennings were married in 1888 and they raised two daughters, Mary and Dorn.

Under an arrangement with the controlling English firm, Dickinson was sent to the United States in April, 1901, to assume the senior partnership of the American accounting practice which was to become Price, Waterhouse & Company.[13] During the twelve years Dickinson resided in America he embraced the country as his own, obtaining citizenship in 1906 and establishing his professional credentials in Illinois (1903) and New York (1913) by obtaining his certificate as a public accountant.[14]

Dickinson acted to unite the many independent state accounting groups by sponsoring the Federation of Societies of Public Accountants in America[15] and serving as President in 1903. In the best tradition of the British profession Dickinson, through his efforts and example, played an important part in encouraging accountants to build strong ties with academicians and other professionals.[16]

In 1904 the Federation undertook sponsorship of the Congress of Accountants, the first attempt at a national and international meeting of North Atlantic accounting professionals. Dickinson was instrumental in assuring the meeting's success and delivered the significant paper "Profits of a Corporation."[17]

During 1905 Dickinson served as secretary of the American Association of Public Accountants (which was to absorb the Federation). He was a member of many other

professional groups including the New York State Society of CPAs, the Royal Statistical Society (England) and the Institute of Actuaries (England).

One of his first contributions as an American practitioner was to devise a unique format for the annual accounts of the United States Steel Corporation, a milestone in the advance of adequate disclosure in corporate financial statements.[18]

The strain of developing a national practice and the efforts put forth in behalf of the profession during his decade of leadership and participation in the American profession led Dickinson to resign his senior partnership in New York and return to England in 1913, shortly before the outbreak of World War I.[19] In England he continued to work in behalf of the public interest and the profession, receiving knighthood from King George in recognition of his services to that country during the war.[20]

While he lived in England Dickinson's presence continued to be felt in America. The publication of his book *Accounting Practice and Procedure* (1914)[21] and several other contributions to the literature, combined with occasional visits to the states, kept him abreast of the American accounting scene. His retirement in 1923 was acknowledged internationally in tribute to his leadership and influence.[22] He continued even after retirement to

add to his record of public service by accepting a government appointment to investigate the condition of the railways in India.[23]

During his retirement Dickinson found time for several return visits to New York and until his death on February 28, 1935, he was in constant touch with the profession.[24] In tribute to Dickinson, Maurice Peloubet remarked:

> He was first of all a practical professional accountant. He was the advisor of many of those responsible for the conduct of some of our largest industries. In the period of consolidation and reorganization of corporations at about the turn of the century, his influence was felt in many of the most important of these. Beyond this, however, he was a profound scholar and a clear and illuminating writer.[25]

This natural scholarly ability never drew Dickinson into the classroom formally as professor or instructor. However, in 1929 the Arthur Lowes Dickinson Fund was established at the Harvard Graduate School of Business in recognition of Sir Arthur's contributions to American accountancy. The income from this fund has been used to conduct research and for the appointment of a distinguished accountant to serve as the "Dickinson Lecturer."[26]

In 1951 Dickinson was admitted to the Accounting Hall of Fame at the Ohio State University. The nominating remarks stated:

> He brought to his task much more than theoretical and practical training in accounting, he brought a broader intellectual background, a rugged integrity, an eager desire to advance the profession and a personality that commanded respect and inspired those with whom he worked.[27]

Paul-Joseph Esquerré (1872-1934)

Born in Plaisance, Gers, France, on May 16, 1872, Esquerré was a student at the Lyceum of Auch, the Academy of Toulouse and the University of France. He held a B. ès L. and earned his CPA certificate in New York (1911). In 1893 he had come to America to work as a bacteriologist at the New York Pasteur Institute.[28] Previously he had served with the French Army (2nd Regiment Zouaves) in Algiers.[29]

On July 10, 1905, he was hired by the firm of Haskins & Sells, probably in connection with the audits of insurance companies instigated by the Armstrong investigation, for he had acquired his accounting skills working in the insurance field. Before leaving to begin a teaching career at NYU Esquerré was promoted by the firm and a note on his resignation form indicates that he had worked satisfactorily and would be reemployed upon request.[30]

It has been said of Esquerré that he ". . . was primarily a teacher. He said it was his function to make his students 'think like accountants.'"[31] In 1917 Esquerré became a member of the City College of New York

where he taught accounting theory and problems.[32] Between his positions on the faculties of the New York schools he had undertaken the development of his own school, The Esquerré Postgraduate School of Accountancy, which Peloubet recalls as offering ". . . the first really successful . . . [review] course for the CPA examination. . . ."[33]

A 1913 article by Esquerré, "Goodwill, Patents, Trademarks, Copyrights and Franchises," was selected by Moonitz and Littleton as one of the significant accounting essays of the period. They noted that it ". . . raises the relevant issues concerning intangibles in a clear and forthright manner."[34]

Esquerré's book, *Applied Theory of Accounts* (1914) was widely used and later reissued as *Accounting* (1927). This work may have been significant for its nonconformity of view above all else. As the publisher remarked regarding the later edition:

> In this . . . book [Esquerré] turns his guns on the conventional ways of handling a number of major problems, as statement preparation and valuation procedure. He shows where in his estimation, existing practice falls short and advances sound, refreshingly flexible methods which he feels accomplish better the objectives in view.[35]

Of what is known of Paul-Joseph Esquerré there seems to be evidence that he was a colorful individual with a "Napoleonic flair."[36] An original thinker, he

provided a continental influence on early accounting thought in America.

Esquerré was a member of the American Institute and the New York Society. Homer Pace, editor of *The American Accountant*, commented on Esquerré's role among professional groups as follows:

> His humor, satire and constructive thinking have enlivened many a meeting of the New York State Society of Certified Public Accountants, and his fame has extended far beyond the environs of this metropolis.[37]

One of his last works, on the topic of depreciation, appeared in 1928. He died at the age of 62 on August 15, 1934, and was survived by his wife, Alice Macdona Esquerré.

Henry Rand Hatfield (1886-1945)

Hatfield was born in Chicago on November 27, 1866, the same year as Cole. He was raised in a religious environment, the son of the Rev. Robert W. and Elizabeth (Taft) Hatfield. In 1892, he received a bachelor's degree from Northwestern and in 1897 he earned his doctorate at Chicago.

From 1886 to 1890 he was affiliated with the municipal bond business. He began his teaching career at Washington University (St. Louis) where he remained as an instructor in political economy until he returned to the University of Chicago. At Chicago he served as an instructor from 1898 to 1902 and as an

assistant professor and Dean of the College of Commerce and Administration (1902 to 1904).

He moved West in 1904 and from that date until his death he was associated with the University of California (Berkeley) rising to the position of Dean of Faculties.[38] As an accounting instructor, Hatfield was apparently an innovator as noted by Allen:

> It is interesting to know that as early as 1902 a departure from the regular method of teaching the elementary course was made by a well-known teacher of accounting [Professor Hatfield]. In this course accounts were studied and interpreted from the point of view of the businessman rather than of the professional bookkeeper.[39]

Hatfield's most memorable work is not necessarily his most theoretically important. His "An Historical Defense of Bookkeeping," a fondly regarded effort tracing the heritage of accountancy, came long after his major treatise *Modern Accounting* (1909).[40] "Defense" was given as a speech before the American Association of University Instructors in Accounting on December 29, 1923.[41] It is oft quoted and was also chosen by Moonitz and Littleton as a significant essay of the period. In 1927, *Modern Accounting* was reissued under the title of *Accounting* after substantial updating and revision. The appeal of this work continues to the present day, with a 1971 reprint offered by the Scholars Book Co. headed by Professor Sterling of Kansas.

Hatfield apparently spoke and wrote German fluently and enjoyed travel on the Continent.[42] One of the products of his trips abroad appears to have been his earliest article length manuscript 'Zwei Pfadfinder' (Two Pathfinders) published in Germany in 1909 on the subject of the accounting contributions of Jones and Foster, two nineteenth century American writers.[43]

Hatfield was among the college professors who gathered at the Deshler Hotel in Columbus, Ohio, in December, 1916, to organize a national association of college instructors in accounting. He served that organization as the first Vice President and as President during the third year.[44] Among his other professional activities Hatfield served as Vice President of the American Economics Association in 1918, as a Senator of Phi Beta Kappa, 1923 to 1928, and in 1929 was appointed the United States representative to the International Congress on Commercial Education in Amsterdam.

His service to the accounting profession was highlighted by participation with Thomas Sanders of Harvard and Underhill Moore of Yale during the 1930s in the preparation of *A Statement of Accounting Principles*, an early attempt to formulate the basic concepts upon which accountancy functioned in the American business community.

His interest in accounting history, as evidenced by "Defense," was a source of inspiration to many including A. C. Littleton who dedicated his own important research *Accounting Evolution to 1900* to Professor Hatfield in recognition of the latter's influence.[45]

Hatfield received many distinctive honors during his lifetime.[46] In 1951 he was elected to the Accounting Hall of Fame with these remarks:

> Professor Hatfield was an inspiring teacher, gifted author and one whose keen insight and independent thinking were potent influences in the early development of accounting theory.[47]

Hatfield married in 1898 and had two sons, Robert and John, and one daughter, Elizabeth. His later works include "Replacement and Book Value," which appeared in the *Accounting Review* in 1944. Hatfield died on Christmas day, 1945, a month before his seventy-ninth birthday.

Several years after his passing he was remembered by Peloubet in these words:

> Professor Hatfield is the type of the pioneer scholar and the formative writer in accountancy. It is to men like him that we owe the development of the large and varied accounting literature we have today and the educational opportunities which enable us to train men for the ever increasing difficulties and complexities of the profession.[48]

Roy Bernard Kester (1882-1965)

Kester, born in Cameron, Missouri, September 11, 1882, is the junior member of the accountants selected to represent the Preclassical period. He received an A. B.

in 1902 from Missouri Wesleyan College. "Kester also studied at Colorado College in Colorado Springs in 1906 and at the University of Chicago in 1907."[49] He received a B.C.S. (1911) and an M.A. (1912) at the University of Denver and received his doctorate at Columbia in 1919. His dissertation topic was *A Study in Valuation of the Commercial Balance Sheet*.

Kester's teaching career began as an instructor in mathematics at Missouri Wesleyan in 1902. Later he taught in Denver and East Denver High School and finally at the University of Denver. From 1915 until his retirement in 1949 he was on the Columbia University faculty, serving twenty-seven of those years as full Professor of Accounting.

Kester's practical experience included several years in Denver as a public accountant, having received his certificate in Colorado in 1914. After 1917 he was associated with the firm of Boyce, Hughes and Farrell in New York and served continually in the capacity of a consultant, including important assignments with the Federal government.

Being the youngest of the Preclassicists, many of Kester's publications overlap into the Classical era—the years after 1920, but his major work *Accounting Theory and Practice* is clearly a product of Preclassical thinking.[50]

One of Kester's first articles appeared in 1920 in the *Spice Mill* a journal of the spice and coffee trade.[51] Professor Kester married in 1915 and had a daughter; his wife died at an early age leaving him a widower before 1920.

His wide influence within the early profession can be appreciated from the list of important assignments he undertook. For example, as early as 1920 he was appointed to chair the National Association of Cost Accountants' special committee investigating the topic of interest cost.[52]

A paper he delivered at the 1920 program of the American Association of University Instructor's meeting was noted by Scovill as the forerunner of the important role Kester would play in the development of that organization, as Vice President from 1922 to 1924 and as President in 1925.[53] Prior to coming East, Kester had served as President of the Colorado State Board of Certified Public Accountants and from 1925 to 1928 he was research director of the National Association of Cost Accountants. He also served on the committee on accounting procedure of the American Institute.[54] His influence upon accounting instruction is apparent when considering the number of editions of his popular texts. Originating in 1917, his *Advanced Accounting* was last revised in 1946 and *Principles of Accounting* in 1939.

In 1957 he was inducted into the Accounting Hall of Fame.[55] His last noted article "Sources of Accounting Principles," appeared in the *Journal of Accountancy* of 1942 and was selected by Moonitz and Littleton as a significant accounting essay.[56]

Professor Kester died in 1965.

Robert Heister Montgomery (1872-1953)

Like Hatfield and Sprague, Montgomery was the son of a minister. Born in Mahanoy City, Pennsylvania, September 21, 1872, young Montgomery moved often as the needs of his father's calling demanded.[57] He received his formal education in public schools and night schools.

"On Monday morning, February 4, 1889, sixteen-year-old Robert H. Montgomery entered the building at 58 Walnut Street, Philadelphia to take up his duties as an office boy [in the employ of John Heins, public accountant]. . . ."[58] Nine years later Montgomery had risen to the level of partner in the newly formed firm Lybrand, Ross Brothers and Montgomery. Today that firm is among the largest in international public accounting practice.

1899 he became a charter member of the Pennsylvania Institute of Certified Public Accountants, having received his certificate under the laws of that state. During the Spanish-American War he volunteered and served in the Puerto Rican Campaign.[59] Again in 1917

he was called upon to serve in the military with the rank of Lieutenant Colonel. His duties limited him to the home front as a planner with the War Industries Board even though he made several attempts to obtain an overseas transfer.[60]

Between his periods of military service Montgomery supplemented his interest in accounting by undertaking the study of law. In 1900 he was admitted to the Bar in Pennsylvania. This legal background and his auditing experience were readily adaptable to meet the complications which arose when national tax laws were enacted in 1909 (excise) and 1913 (income). After the war when the permanent character of the income tax became apparent Montgomery continued to provide leadership in tax accounting.

> The emergence of Montgomery as an authority on accounting can loosely be placed during the period 1904 to 1914. He first attracted widespread attention with his presentation of a paper at the Congress of Accountants in 1904. The next year he edited and published an American Edition of Dicksee's *Auditing: A Practical Manual for Auditors*.[61]

Also in 1905 he contributed an important article to the initial issue of the *Journal of Accountancy* on the topic of professional ethics.[62]

When the Pennsylvania Institute began evening classes for accountants in September, 1902, Montgomery taught the accounting theory portion of the course.[63]

This was the start of a teaching career which saw him lecture at the University of Pennsylvania and New York University during the years 1904 to 1906. Montgomery recalled:

> Evening courses in accounting were established at Columbia University in 1910. I assumed the task of teaching the first class and of obtaining instructors to take over all additional classes.
>
> In due course as the number of classes increased I was made full Professor of Accounting in 1919. . . .[64]

From as early as 1899 Montgomery worked to promote the professional organizations of American accountancy. He was the President of the American Association of Public Accountants (now the American Institute) from 1912 to 1914; of the New York Society of Certified Public Accountants, 1922 to 1924; and of the American Institute from 1935 to 1937.[65] His interests, as did Hatfield's, transcended the American profession. In 1926 Montgomery headed the New York delegation to the International Accounting Congress in Holland. In 1929 he served as President of the Third International Congress in New York City.

Montgomery was a dedicated collector of early accounting texts and books of account. In 1926 he donated his collection to the Columbia University library. It is a group of works which represent several centuries of accounting thought and serves as an important research source.[66] Montgomery's distinguished service to his country and the profession was recognized in 1949 with the

award of the American Institute's Gold Medal.[67] In 1951, along with Paton and May, he was one of the charter inductees to the Accounting Hall of Fame. The Hall of Fame citation read: "As one who was steadfast in the demand for high ethical standards and as a teacher and author, Colonel Montgomery was one of the Founders of the profession of accounting in the U. S."[68]

Montgomery died May 2, 1953, in his Miami home at the age of eighty, being survived by his wife.

Charles Ezra Sprague (1842-1912)

Charles E. Sprague, senior member of the Preclassical group, served a variety of professions during his lifetime. Born October 9, 1842, in Nassau, New York, he was the son of the Rev. Ezra Sprague and his second wife.

"In the fall of 1856 [Sprague] enrolled at Union College, Schenectady, as a freshman; the youngest student [age 14] to be admitted to the freshman class up to that time."[69] He was a brilliant pupil winning all the prizes for which he was eligible and was elected to Phi Beta Kappa at graduation in 1860. In 1862 he received a Master of Arts degree from the same school. In 1893 he was awarded an honorary Ph.D. also from Union.[70]

Having taught at Greenwich Union Academy after graduation, he enlisted in the Union Army in May, 1862, at

the start of the War of the Rebellion. His letters to his mother which are included in the biography by Mann, provide a valuable insight of young Sprague as he witnessed the bloodshed of that period.

> "I was not so lucky this time" read a short note by Sprague. Rebel fire had torn a hole in his left shoulder at Little Round Top. . . .
>
> The title "Colonel" by which he was known for so many years came to him for his "gallant and meritorious service at the Battle of Gettysburg. . . ."
>
> On December 30, 1868, he was made a brevet colonel in the New York Volunteers in recognition of his courage and sacrifice.[71]

Upon discharge from active service in 1864 and until 1870 he taught at various military academies in New York State and authored a number of articles on military tactics. Later he was asked to assist the commandant of the U. S. Military Academy (West Point) in revising the book of tactics used there. In 1866 he married Ray Ellison of New York City; they had four daughters; two died before reaching their twenty-first birthdays.

His career as a banker began in 1870. Partially because of his skill as an interpreter his application for a clerk's position at the Union Dime Savings Bank in New York City was accepted. He rose through several positions to become President of that institution in 1892.

As early as 1880 he was involved in the publication of financial news. In August of that year he

assumed the editorship, along with Seldon Hopkins, of the *Book Keeper*, a fortnightly business publication.[72]

Between 1880 and 1900, Sprague's influence on American accountancy, then in its formative stages, became pronounced. His efforts to provide a continuing number of stimulating articles on the problematic aspects of practice were but one example of his role.[73] In 1895 when public accountants in New York were soliciting passage of the very first CPA law:

> Col. Sprague took the draft of the bill to Albany, and there saw his friend Mr. Melvil Dewey, the . . . Secretary of the Regents of the University of New York, whose counsel was eagerly sought and very useful.[74]

In an analysis of the evolution of the CPA Movement Wilkinson adds:

> I wish to emphasize that the program . . . which . . . was later embodied into law was initiated by three men whom we should revere. . . Major Henry Harney . . .; Colonel Charles Sprague . . .; Honorable Melvil Dewey. . . .[75]

Upon passage of the law Sprague served on the first Board of CPA Examiners which was appointed by the Regents of New York. As a CPA (certificate #11) Sprague was active in the affairs of professional groups. He was President of the Institute of Accounts (now defunct) and it is believed he did much to promote the publication of *Accountics*, a pioneering professional accounting magazine first issued in April, 1897.[76]

When the New York University School of Commerce, Accounts and Finance commenced operation in 1900, Sprague was appointed to the faculty to teach the theory of accounts, and he established a wide reputation as an accounting teacher and author during the first decades of this century.[77] "In 1902 Professor Sprague . . . offered a course entitled 'Philosophy of Accounts.' In this, accountancy was considered from the standpoint of science. Illustrations were fully used but emphasis was upon the philosophy of the subject as a phase of economic theory."[78]

As an author he wrote two accounting classics, *The Accountancy of Investment* (1904)[79] and *The Philosophy of Accounts* (1907).[80]

In addition to his multiple vocations as a soldier, banker, teacher and accountant Sprague was also a linguist. He is reported to have spoken sixteen languages[81] and, as an avocation, was an American authority on Volapük (world's speech) and Esperanto, two of the so-called universal languages.[82] Volapük was devised in the 1870s by the German priest Johann Martin Schleyer and adopted by Sprague in some parts of his own vocabulary. The simplified prose noted in his writing is the by-product of this influence. In 1902 he prepared a *Handbook on Volapük* in an attempt to draw serious attention to the commercial applications to which the language could be put.[83]

Sprague's death on March 21, 1912, came after a short illness from pneumonia.[84] He was admitted to the Accounting Hall of Fame in 1953.

John Raymond Wildman (1878-1938)

A direct descendant of William Brewster of Mayflower fame, John R. Wildman was born in Yonkers, March 15, 1878.[85] He entered Yale University, but when the Spanish-American War came he elected to enter government service, being assigned as a hospital steward in the Puerto Rican Regiment. Later he entered the employ of the Department of Education of Puerto Rico on August 15, 1900, as a bookkeeper and became disbursing officer and Chief of the Division of Disbursements and Accounts. As such he was charged with the supervision of the accounting for forty-six school boards and the devising and installing of a system of accounts for them.

Upon returning to New York in 1905 he applied to Haskins & Sells for employment. There was no immediate opening, but in July, 1905, the requirements of the Equitable Life Assurance Society engagement led to his employment on July 24, 1905, as an assistant accountant at $25.00 a week.

Wildman enrolled in accounting courses at New York University in 1906, taking the work at night. He graduated in June, 1909, the recipient of the accounting prize, with a B.C.S. (cum laude) and was offered an appointment as

instructor in accounting which he accepted effective August 30th. Earlier that same year he had taken and passed the CPA examinations. In 1911 Wildman received the degree of Master of Commercial Science also from NYU.

Wildman is the personification of the attributes cited in Chapter I as hallmarks of the Preclassicist. He was a professionalist, a respected practicing accountant and an inspiring and popular teacher. His classroom manner is described by Peloubet:

> In the college year 1912-1913 I took a course in cost accounting under John Raymond Wildman. . . . Professor Wildman was a man of great dignity and impressive presence, but was at the same time a well-liked and popular teacher with the undergraduates. . . .
>
> One of Professor Wildman's characteristics or gifts was the ability to write on complex subjects with great clarity.[86]

"His influence extended beyond New York University through his books and his many articles on accounting."[87] Wildman's major works include *Principles of Accounting* (1913), *Cost Accounting* (1913), and *Principles of Auditing* (1916).[88] Several early issues of the *Journal of Accountancy* contain the series "Department of Practical Accounting," a problem oriented sequence of discussions prepared by Wildman to provide instruction in problem solving and ". . . to show the application of accounting principles."[89]

He continually made addresses to businessmen, bankers and lawyers with the intention of encouraging a

stronger interest in formal commercial education, particularly as it related to accounting.

Professor Wildman was one of the founders of the American Accounting Association. The Association's formative meeting was held in Columbus, Ohio, in 1916 with about seventeen in attendance, including Professor Hatfield. Wildman was elected the first President.[90]

Mr. Wildman rejoined Haskins & Sells on January 16, 1918, charged with organizing ". . . the H & S research and training unit."[91] On December 1, 1918, he was admitted to partnership; however, he continued to be Professor of Accounting at NYU until 1923. One of his innovations upon returning to the firm was to sponsor the publication of an intra-firm magazine, *The Haskins & Sells Bulletin*, which was first issued in March, 1918. Printed monthly and usually containing eight pages, it was a compendium of firm policy statements, theoretical vignettes, practical audit advice and personnel news. As one of the first such publications it was a credit to Wildman's foresight and evidenced his respect for the power of the printed word as a means of strengthening the internal operation of a growing professional organization.

Wildman pioneered technical research and innovation in practice. As early as 1926 he outlined a research program designed to eliminate the arbitrary approaches which appeared as the result of purely pragmatic

applications in accounting practice.[92] Earlier, in 1924, he had served as chairman of the New York Society's special technical committee which was considering the feasibility of various forecasting duties which had been proposed for accountants.

Wildman was a prolific but careful writer. His later works in particular evidence the product of an orderly and mature approach to accounting. He abhored publication for *publication's* sake, commenting to his colleagues that ". . . there was a great deal of trash on the market . . ." because of the lack of critical thinking before writing for print.[93]

Wildman's personality has been variously described. For example, Dean Madden of NYU recounts: "Mr. Wildman was always a hard worker, dominant yet quietly so, aggressive but never unpleasantly, tense but not appearing so, with a doggedness that survived all discouragements that beset his path toward the objective he was seeking to attain."[94] Dr. Joseph J. Klein, a contemporary of Wildman, made reference to what must have been Wildman's attention to detail, suggesting that Wildman was always proper and somewhat of a "stuffed shirt."[95] To the contrary, Howard C. Greer pointed out, ". . . he had red hair and a flamboyant demeanor—[he] once said in a meeting that a newspaper headline reading WILD MAN AT LARGE must have referred to him."[96]

Whether "flamboyant" or a "stuffed shirt" Wildman left his mark on his co-workers, fellow practitioners and students. Two of the young men he was directly responsible for recruiting to work for Haskins & Sells, Arthur B. Foye and John W. Queenan, later became succeeding managing partners of that large international accounting firm.

Wildman was very closely associated with the undertaking of *The Statement of Accounting Principles*. Foye notes that when the ". . . Haskins & Sells Foundation projected the 'Statement of Accounting Principles' in July, 1935, Mr. Wildman through his knowledge of and acquaintance with distinguished educators . . . arranged for Professor Thomas H. Sanders . . . and Professor Henry Rand Hatfield . . . to be two of the three independent authorities."[97]

Regarding Wildman's role in the project, Sanders added:

> The work which the Foundation has entrusted to the committee has required frequent and intimate association between Mr. Wildman and myself. Although I have for years known and admired his ability and character . . . I have been constantly surprised by his penetration, understanding and unfailing sound judgement.[98]

The death of his wife of thirty years, Louise M. Wildman on October 18, 1932, was a severe emotional shock and caused him to submit to an extended period of rest. Later he remarried but further illness led Wildman to request that his retirement be commenced June 1, 1936, at

the age of fifty-eight. He died of a heart attack on September 21, 1938, in Upper Montclair, New Jersey.[99]

Identifying a School of Thought

In the early twentieth century significant achievements in the development of financial accounting thought occurred in America. Tempered by British theory, American accountancy developed through professional action, legislation and formal education during the first two decades of this century, establishing a base of experience and theory from which later developments would flow.

The historical identification and explication of a body of knowledge, such as accounting thought from 1900 to 1920, could be nicely refined by the application of a suitable frame of reference. Or, alternatively expressed: How can a body of theoretical material be compactly and properly characterized?

In economics a common method is to designate related theories as evidencing a School of Thought, such as that of the Mercantilists, Physiocrats, Austrians and Monetarists. But accounting thought has scarcely ever been considered in this fashion. Lack of a suitable precedent requires reviewing the notion of a School of Thought and identifying those properties which can be used to structure it in a program of research.[100]

For example, one way of identifying a School of Thought in accounting would be to establish schools parallel to those which have accepted meaning in economics. This method would provide some preexisting analysis as a guide, assuming a type of historical parallelism between economics and accounting.

Another approach would be to group scholars whose ideas (as revealed in previous research) can be identified as exhibiting a consistent theme. Studies by Littleton and Zimmerman,[101] Heakal,[102] Skadden,[103] Donley,[104] Hansen[105] and others can be described as attempts to furnish parts of a unified and coherent articulation of the beliefs that have attended the evolutionary development of various topical substrata in the body of accounting theory.[106]

Criteria for a school could also be derived in isolation—with the period under study being set out totally apart from its relationship with other periods. Based on the existing knowledge of the Preclassical writers and the forthcoming analysis of their contributions such a singular composition could be proposed and justified on the basis of analytical expediency.

A Derivative Notion for a School

Each of the three approaches cited as possible means of identifying a School of Thought in accounting

have their advantages and failings. The potential failings are of interest at this point and are thought to be the following:

Economic similarity.—This method rests on the attributes of analogy between the manner in which accounting thought and economic thought relate. Though there is much discussion on this point it is presumed that accounting theory and economic theory seek to serve sufficiently different ends so that it is not expected that they would be so strongly parallel to justify constructing a notion for accounting Schools of Thought based *solely* on those extant in economics.[107]

The Littleton-Zimmerman premise.—With stress upon a "unified and coherent articulation" this approach might be interpreted as precluding from a school any notion which is even slightly at variance with peer precepts. For while the notion of a school should evidence agreement on what are identified as the main issues, it should not require blanket conformity as an admission factor. The stringency suggested by this format seems to dampen its attractiveness as a singular school concept.

The isolative notion.—This notion seems to contradict an important attribute of what Professor Deinzer and others would hold out as a valid portion of the historical premise, namely recognition of antecedents and consequences. As Deinzer asserts:

> The historical premise is that events are interactions; the latter have both antecedents and consequences.[108]

Recognition of this suggestion requires denoting the influence of events before the period and the effects of the events of the period on subsequent activities (given that events represent ideas as well as other phenomenon). If this is to be the situation a School of Thought cannot be established in the isolation of its own environment, for such would fail to regard the broader issues of theoretical heritage and legacy.

It would seem proper now, recognizing the limitations of each method, to propose a derivative concept of a School of Thought. Such a notion should attempt to preserve the strengths and minimize the weaknesses of the other notions already examined.

A derivative notion.—As a point of departure, portions of a definition used in research at the University of Illinois have been selected:

> A school of thought is an *observed pattern* [1] of evolution which arose as the result of *criticism* [2] advanced to *previous patterns* [3] of thought regarding their . . . *adequacy* [4] in the face of *changing conditions* [5].[109] (Emphasis and enumeration supplied.)

At least five reference points are discernible in this expression:

[1] Reference to result as in observed pattern.

[2] Reference to ideation as in criticism.[110]

[3] Reference to antecedents as in previous patterns.

[4] Reference to relativity as in adequacy.

[5] Reference to environment as in changing conditions.[111]

All of these points seem to properly relate to the process of thought and suggest elaboration.

While it is not evident that a pattern [1] is an absolute, it does appear that agreement on basic issues as set out, is an element of a pattern. For example, comparable positions on such a general concept as historical cost valuation would constitute a pattern in the sense understood.[112] Such a view would not require agreement in regard to less general issues within a body of knowledge.

Reference points [2] and [3] relate to the *transformative* character of knowledge. For example, a consideration of Brief's research reveals precedents of the historical cost concept well before the period under study.[113] This would indicate that the Preclassical writers did not originate such a notion but accepted and transformed it in a fashion peculiar to their needs.

Points [4] and [5] recognize that the acceptability of such a transformation is a relative matter within a given environment. Further, a stable environment would be expected to evoke activity which would be more traditional than innovative and a changing environment would be expected to stimulate altering propositions for action.

The deficiency in the points listed thus far would appear to be partly terminological and partly omissive—namely, lack of reference to transformation (in lieu of evolution) and lack of reference to *consequences* as noted in the Deinzer premise. To resolve these matters the Illinois proposition is modified and a provisional derivative notion of a School of Thought is now proposed as discernible in the following definitional form.

A School of Thought is an observed pattern of conceptual transformation which:

1. Arises in response to criticism of extant paradigms with regard to their warrantability in the face of changing conditions.[114]

2. Furnishes viable modifications to and/or unique formulations of paradigms required by changing conditions.

3. Provides a significant influence on the development of subsequent paradigms.

This notion, with the amendments cited, adds a sixth reference point, namely:

[6] Reference to consequences as in subsequent paradigms.

It is not supposed that this derivative notion is free from defects with respect to historical methodology or historiography, for this reason it was introduced as "provisional."[115] However, it is deemed that the criteria which it infers provide a sufficient basis for developing a later judgement with regard to the existence of a

School of Thought among writers of the Preclassical era. This evaluation will be made in the concluding chapter.

Chapter Summary

The first part of this chapter introduced synoptic personal data about the eight writers selected to represent the period of financial accounting development from 1900 to 1920. This information was provided as colligatory evidence—setting out the backcloth for forthcoming theoretical analysis.

The latter portion of the chapter set forth a provisional notion of a School of Thought. The criteria discernible from this concept will be used in evaluating the importance of the theoretical contributions of Preclassicism as a part of the concluding chapter.

NOTES

1. Notes to the chapter will contain supplemental accounts about some of the personal views and interrelationships between the writers. These observations are not offered as evidence of a theoretical dependence but are considered useful in providing a more complete background of the group as needed for historical research.

2. John J. Kahle, *American Accountants and their Contribution to Accounting Thought*, Master's thesis, Catholic University of America, 1956, p. 17.

3. W. M. Cole, "Cooperative Insurance and Endowment Schemes," *Quarterly Journal of Economics*, v. 5, 1890-1, pp. 466-89.

4. Mark C. Walker, "William Morse Cole," *Massachusetts CPA Review*, January, 1961, pp. 178-9.

5. W. M. Cole, "Our Outdated Accounting," *Harvard Business Review*, July, 1933, pp. 478-89.

6. _____, *The American Hope*, New York: D. Appleton & Co., 1910.

7. Walker, *loc. cit.*

8. Montgomery considered the merits of the Revised Edition of Cole's *Accounts*, in the *American Economic Review*, September, 1915. He prefaced his review with the remark that he considered Cole to be an ". . . unquestioned authority on accounts."

9. E. M. Forster, *Goldsworthy Lowes Dickinson*, London: Edward Arnold Publishers Ltd., 1934, p. 44.

10. Paul Grady, editor, *Memoirs and Accounting Thought of George O. May*, New York: The Ronald Press Company, 1962, p. 35.

11. Mary Murphy, "An Accountant in the 'Eighties-I,'" *Accountant*, July 26, 1947, p. 53.

12. A. L. Dickinson, "Life Assurance Accounts," *Accountant*, August 6, 1887, p. 464.

13. C. W. DeMond, *Price, Waterhouse & Co. in America*, New York: Price, Waterhouse & Co., 1951, p. 50.

14. N. E. Webster, *The American Association of Public Accountants: Its First Twenty Years 1886-1906*, New York: American Institute of Accountants, 1954, pp. 344-5.

15. Mary Murphy, "Arthur Lowes Dickinson: Pioneer in American Professional Accountancy," *Bulletin of the Business Historical Society (Business History Review)*, April, 1947, p. 28.

16. In 1910 Dickinson and Cole exchanged views during the annual meeting of the American Economic Association in St. Louis. The subject of their papers considered the role of accounting in the determination of costs and prices. One of the issues involved was the treatment of interest as a cost. That topic became widely discussed and later sparked an important theoretical controversy.

17. *Official Record of the Proceedings of the Congress of Accountants at St. Louis*, New York: Federation of Societies of Public Accountants, 1904, p. 175; see Chapter 6 for the significant remarks of this address.

    Montgomery and Dickinson became well acquainted as a result of the Congress in St. Louis. Both gave important papers at the meeting. A rare photo of some of the delegates appears in volume 1 of Carey's *The Rise of the Accounting Profession*, p. 208. In that picture Dickinson and Montgomery appear seated next to one another in the front row.

18. *Proceedings of the Annual Institute on Accounting*, 1950, The Ohio State University, pp. 86-7.

19. In a series of nine articles published in the *Accountant* during July and August, 1947, Mary Murphy traces the life of Dickinson upon his return to England.

20. Fred May, "Sir Arthur Lowes Dickinson," *Accountant*, May 5, 1925, p. 707.

21. Hatfield reviewed *Accounting Practice and Procedure* in the December, 1914 *Journal of Accountancy*. It is a thorough analysis of Dickinson's book and points up some apparent disagreements between author and reviewer.

22. Dickinson's retirement was commented upon in several sources, to include: *Accountant*, July 21, 1923, p. 85; *Canadian Chartered Accountant*, September, 1923, p. 128; *Journal of Accountancy*, September, 1923, p. 202; *London Times*, July 13, 1923, p. 18, col. G.

23. The results of this study were reported in *Report on the System of Accounting, Audit and Statistics of the Railways owned and managed by the Government of India*, 1926-7, 3v.

24. Notices of Dickinson's death appeared in the *New York Times*, March 2, 1935; *Accountant*, March 9, 1935; *Canadian Chartered Accountant*, v. 26, 1935, pp. 243-4.

25. M. E. Peloubet, "The Imprint of Personalities on the Accounting Profession," *New Jersey Society of CPA's, Fifty Years of Service, 1898-1948*, p. 18.

26. T. H. Sanders, *Dickinson Lectures in Accounting*, Cambridge: Harvard University Press, 1943, p. vii.

27. *Proceedings of the Annual Institute on Accounting*, 1950, The Ohio State University, pp. 86-7.

28. "P. J. Esquerré Dead After Brief Illness," *New York Times*, August 17, 1934, p. 15, col. 5.

29. Rita Perine, editor, *The Accountants' Directory and Who's Who—1920*, New York: The Forty-Fifth St. Press, 1920, p. 385.

30. As the result of an interview with Mr. John W. Queenan, retired senior partner of Haskins & Sells, on May 23, 1972, I received a copy of the firm's personnel report citing Esquerré's history with the firm as an employee and Esquerré's reason for resignation.

    Both Wildman and Esquerré obtained their public accounting experience on the staff of the New York office of Haskins & Sells. They joined the firm in the same month, July, 1905. When Wildman departed

Haskins & Sells in 1909 he joined the teaching staff at New York University. In 1912 when Esquerré resigned from the firm the records note: "Became attached to teaching staff of New York University School of Commerce, Accounts and Finance." There seems to be evidence to indicate that Esquerré had been teaching at NYU for several years before 1912 (see "Announcements" *Journal of Accountancy*, March, 1912, p. 235) and opened his own office at 32 Broadway in the spring of that year. The discrepancy between the reports is unexplained and has not been further investigated. If Esquerré was a faculty member at NYU before 1912, however, as suggested in the "Announcements" it increases the probability that he was acquainted with Sprague who taught at NYU until his death in 1912. At that time Wildman was an assistant professor and involved in administering the department of accounting at New York University. In correspondence dated July 10, 1972, Professor Emeritus Gould Harris of NYU recalls the account of an exchange involving Esquerré and Wildman apparently when both were teaching there. "He [Esquerré] hurled a text of John R. Wildman's viz., *Principles of Accounting*, across the room with a devastating comment. The comment was to the effect that he [Esquerré] did not agree with Wildman's statement that Capital is an accountability. Esquerré said, 'It is a liability.'" The significance of this remark is considered in Chapter VI.

31. Maurice E. Peloubet, letter of correspondence to Gary J. Previts, May 16, 1972.

32. Committee on History, "The City College of New York: A History of Beginnings," *New York Certified Public Accountant*, November, 1956, p. 666.

33. Peloubet, letter of May 16, 1972.

34. M. Moonitz and A. C. Littleton, *Significant Accounting Essays*, Englewood Cliffs: Prentice-Hall, Inc., 1965, p. 479.

35. "Advertisement," *The American Accountant*, June, 1927, p. 49.

36. In the preface to his *Applied Theory of Accounts*, Esquerré said, "It is the purpose of this book to instruct the student in the principles of accounting, as the practice drills with tin soldiers instructed

Napoleon the First in the principles of war." (p. iv) This statement followed a brief reference to the value of theory in preparation for actual involvement in the real world of business of war.

Some of Esquerré's personal traits were added to recollections about him. Mr. Queenan, in the interview cited above with Dr. Joseph J. Klein, an early faculty member of the City College of New York, offered their rememberances. Apparently Esquerré's "forgetfulness" was a characteristic as well known among fellow staff men as was his expectoratory speech among his faculty colleagues.

37. Homer S. Pace, "Introductory Comments," *The American Accountant*, July, 1928, p. 19.

38. Kahle, *op. cit.*, pp. 50-1.

39. C. E. Allen, "The Growth of Accounting Instruction Since 1900," *Accounting Review*, June, 1927, p 154.

40. *Modern Accounting* received a searching review from Cole in the *Journal of Political Economy*, 1909. "On the whole," commented Cole, "the book is to be heartily commended for the sanity of the author's individual judgements, for its gathering of information about the practice or lack of uniformity in practice, of modern accounts, and for its encyclopaedic character."

41. H. R. Hatfield, "An Historical Defense of Bookkeeping," Moonitz and Littleton, *op. cit.*, p. 3.

42. Stephen A. Zeff, "Introductory Comments," *Journal of Accounting Research*, Autumn, 1966, p. 169.

43. H. R. Hatfield, 'Zwei Pfadfinder,' *Zeitschrift für Buchhaltung* (Linz), no. 4, 1909, pp. 80-6. For a discussion of Jones and Foster, see Chapter V.

44. Professor Zeff has documented Hatfield's role in promoting the development of the American Accounting Association in *The American Accounting Association: Its First 50 Years*. He has also prepared, but not published, a brief chronology of Hatfield's life which was provided for my use in this research.

45. A. C. Littleton, *op. cit.*, dedication page.

46. "Award of Merit for Hatfield Books Should Stimulate Authors," *The American Accountant*, January, 1929, pp. 28-30. "Remarks accompanying presentation . . ." by John F. Forbes, American Institute library, New York, 3p.

47. *Proceedings of the Annual Institute on Accounting*, 1951, The Ohio State University, pp. 34-5.

48. Peloubet, "Personalities," *op. cit.*, pp. 18-20.

49. Kahle, *op. cit.*, p. 61.

50. Kester's "modern" approach to accounting instruction, which was based upon acquainting the students with the form and use of statements before introducting them to fictitious transactions was noted with a hint of disapproval by W. H. Lawton in his review of Kester's book in the *Journal of Accountancy*, December, 1917, p. 489.

51. R. B. Kester, "Standardized Costs," *Simmons Spice Mill*, December, 1920, pp. 1982-96.

52. "Report of the Special Committee," *1921 Yearbook of the National Association of Cost Accountants*, pp. 45-7.

53. H. T. Scovill, "Reflections of Twenty-Five Years in the American Accounting Association," *Accounting Review*, June, 1941, p. 170.

54. Moonitz and Littleton, *op. cit.*, p. 51.

55. *Proceedings of the Annual Institute on Accounting*, 1956, The Ohio State University, p. 81.

56. Moonitz and Littleton, *op. cit.*, p. 151.

57. A. R. Roberts, *Robert H. Montgomery: A Pioneer Leader of American Accounting*, Ph.D. dissertation, University of Alabama, 1971.

58. *Ibid.*, p. 21.

59. R. H. Montgomery, *Fifty Years to Accountancy*, New York: Privately printed by The Ronald Press Company, 1939, p. 179.

60. *Ibid.*, p. 184.

61. Roberts, *op. cit.*, p. 230. Montgomery's editorship of an American version of Dicksee's *Auditing* was made possible by Dickinson's intervention. Montgomery commented in his published memoirs that if it had not been for Dickinson's advice and guarantee to Mr. Dicksee the book probably would not have been written.

Littleton (*Accounting Review*, July, 1952, p. 405) felt that Montgomery's contribution in editing Dicksee was minimal saying that he had "made a page by page comparison" between the British text and the American, and that it was clear that the British text had been faithfully redone but for changes in money figures (pounds to dollars) and elimination of British case law and statutory rules.

When Montgomery brought out his *Auditing Theory and Practice* in 1912 the preface noted: "I am . . . indebted to John R. Wildman, CPA of the New York University who . . . read my manuscript and from whom I received many suggestions which I am sure will make this book more helpful to students." Hatfield reviewed the book in the *Journal of Political Economy* in 1913. "The primacy among treatises on auditing," he said, "which until the present has been held by Dicksee's work, now passes to Montgomery's *Auditing Theory and Practice*.

Montgomery's influence in tax accounting as well as in auditing and financial accounting is well known. Incorporated in the 1916 edition of his auditing theory book was a 100-page appendix on income tax procedure. Later Montgomery prepared a separate volume entitled *Federal Income Tax Procedure*.

Cole praised the second edition of *Auditing* in the *American Economic Review* of March, 1917. "Montgomery's *Auditing* is standard," said Cole, "and it is so largely because it puts emphasis where emphasis belongs—on intelligence and judgement. . . ."

62. Moonitz and Littleton, *op. cit.*, p. 519.

63. T. Edward Ross, "Random Recollections of an Eventful Half Century," *L. R. B. & M. Journal*, January, 1937, p. 20.

64. Montgomery added in his memoirs, *Fifty Years*, p. 53: "At a time when I needed a good assistant I was fortunate in being able to induce Roy B. Kester to come on from Denver. Professor Kester proved to be a good administrator, a good teacher and a good friend."

In Van Metre's history of the Columbia business school it was noted that: "Kester was . . . Montgomery's right-hand man . . . he managed to encompass the theory and principles of accounting, which he and Montgomery developed, in two thick volumes which had become the most widely used accounting textbooks in American business schools."

65. Appendix II of Roberts' work contains a list of positions held by Montgomery in various accounting organizations.

66. Peragallo's *Origin and Evolution of Double-Entry Bookkeeping* made extensive use of the collection.

67. X. Bender Tansill, "Lest We Forget—Lest We Forget," a personal unpublished research project on early accountants, 15p, American Institute library, New York.

68. *The Accounting Hall of Fame*, pamphlet published by the Dept. of Accounting, College of Administrative Science, The Ohio State University, 1968.

69. Helen Scott Mann, *Charles Ezra Sprague*, New York: New York University, 1931, p. 3. This is a biographical work and does not attempt to analyze Sprague's theoretical contributions.

70. *Ibid.*, p. 9.

71. *Ibid.*, pp. 32-2.

72. *The Book Keeper*, August 31, 1880, p. 56.

73. In the two decades before the turn of the century Sprague authored no less than a dozen articles relating to finance, banking and accounting.

74. George Wilkinson, *The CPA Movement*, New York: Wilkinson, Reckitt, Williams & Co., 1903, p. 3.

75. George Wilkinson, "The Genesis of the CPA Movement," *The Certified Public Accountant*, September, 1928, p. 264.

76. Zeff notes that the term "accountics" has been traced to a lecture given by Sprague in 1887. *The American Accounting Association: Its First 50 Years*, p. 15n.

77. Committee on History, "The School of Commerce, Accounts, and Finance of New York University," *New York Certified Public Accountant*, April, 1953, p. 262.

78. C. E. Allen, *loc. cit.*

79. *Proceedings of the Annual Institute on Accounting*, 1952, The Ohio State University, p. 64.

80. One of Hatfield's first book reviews appeared in the *Journal of Accountancy* in November, 1908. The subject was Sprague's work *The Philosophy of Accounts*. Such was his regard for the book that Hatfield described his review as ". . . the pleasant, though superfluous task of paying tribute to the masterly . . . treatise, with which no other American work can properly even be compared. . . ." In 1923, Hatfield commented, in the preface to the fifth reissue of *Philosophy* that works on accounting which have appeared since Sprague's ". . . show clearly the influence of Sprague's teaching."

81. Kahle, *op. cit.*, p. 124.

82. Mann, *op. cit.*, p. 42.

83. C. E. Sprague, *Handbook of Volapük, Grammer, Exercises and Vocabulary*, New York: Steiger, 1902.

84. Mann, *op. cit.*, p. 66.

85. A. B. Foye, "John Raymond Wildman," Unpub. personal research, February 16, 1970. Since early 1970 the writer has had correspondence with Mr. Arthur B. Foye, retired senior partner of the accounting firm, Haskins & Sells, with regard to John R. Wildman. Mr. Foye supplied a multipage biography which was used, in part, in the writing of the firm's history. Reference to the Foye Biography will be dated February 16, 1970, when the initial material was received.

86. Maurice E. Peloubet, letter of correspondence to Gary J. Previts, dated June 22, 1970, pp. 1-2.

87. *Principles of Auditing* was the object of Cole's consideration in a 1916 critique appearing in the *American Economic Review*. Cole concluded, "No discussion of auditing is complete without the sort of things that this book gives, and many of the things are not available . . . anywhere else in book form."

88. Foye, *op. cit.*, p. 3.

89. John R. Wildman, "Department of Practical Accounting," *Journal of Accountancy*, January, 1912, p. 58.

90. *Haskins & Sells • Our First Seventy-Five Years*, New York: Haskins & Sells, 1970, p. 44.

91. *Ibid.*, p. 43.

92. John R. Wildman, "Research in Accounting," *Bulletin of the American Institute of Accountants*, February 15, 1926, pp. 2-5.

93. J. R. Wildman, "A Research Program," *Accounting Review*, March, 1926, p. 49.

94. John T. Madden, letter of correspondence to Haskins & Sells, dated September 21, 1938.

95. Interview with Dr. Joseph J. Klein, May 26, 1972, New York City.

96. Howard C. Greer, letter of correspondence to Gary J. Previts, postmarked April 21, 1970.

97. Foye, *op. cit.*, p. 10. Wildman's passing prompted these remarks from John T. Madden, Dean of the School of Commerce at NYU and an accountant:

> His death on the eve of the meeting of the American Institute of Accountants, which is to devote a considerable amount of time to 'The Statement of Accounting Principles,' will doubtless overshadow that session.

98. Foye, *op. cit.*, p. 11.

99. "John R. Wildman," *The Certified Public Accountant*, October, 1938, p. 14.

100. H. D. Marshall and Natalie J. Marshall, *The History of Economic Thought*, New York: Pitman Publishing Corp., 1968. School of Thought is used loosely by Peragallo in his *magnum opus* (see Chapter V, note 1) and by Hatfield in his review of *The Philosophy of Accounts*.

101. A. C. Littleton and V. K. Zimmerman, *Accounting Theory: Continuity and Change*, Englewood Cliffs: Prentice-Hall, Inc., 1962.

102. Mohamed Sabry Mohamed El-Tayib Heakal, *A Classification of the Schools of Accounting Thought*, Ph.D. dissertation, University of Illinois, 1968.

103. D. H. Skadden, *Accounting Theory and Practice Concerning the Use of Net Worth Reserves, 1900-1950*, Ph.D. dissertation, University of Illinois, 1955.

104. H. E. Donley, *The Evolution of Corporate Surplus Theory*, Ph.D. dissertation, University of Missouri, 1953.

105. R. E. Hansen, *An Historical Development of Accounting for Joint Ventures*, Ph.D. dissertation, Indiana University, 1968.

106. Littleton and Zimmerman, *op. cit.*, p. v.

107. R. J. Chambers, *Accounting Evaluation and Economic Behavior*, Englewood Cliffs: Prentice-Hall, Inc., 1966, pp. 13-4; K. Shwayder, "Economic Income as an Accounting Concept," *Abacus*, August, 1967, pp. 23-35.

108. H. T. Deinzer, *Development of Accounting Thought*, New York: Holt, Reinhart, Winston, 1965, p. 10; S. Ratner, "Dewey's Contribution to Historical Theory," in *John Dewey, Philosopher of Science and Freedom*, New York: Dial Press, 1950, pp. 134-52.

109. Heakal, *op. cit.*, p. 65.

110. Ludwig von Mises, *Theory and History*, Binghamton, New York: Vail-Ballou Press, 1957, p. 159.

111. von Mises, *loc. cit.*

112. Stephen Addam Zeff, *A Critical Examination of the Orientation Postulate in Accounting, with Particular Attention to Its Historical Development*, Ph.D. dissertation, University of Michigan, 1962.

113. Richard Paul Brief, *Nineteenth Century Capital Accounting and Business Investment*, Ph.D. dissertation, Columbia University, 1964. The specific meaning of transformation appears in Chapter VII, note 1 below.

114. T. S. Kuhn, *The Structure of Scientific Revolutions*, Chicago: The University of Chicago Press, 1962. Paradigm is used in the sense of being a "dominant explanation."

115. Friedrich Gundolf, "Historiography," *Philosophy and History*, R. Klibansky and H. J. Paton, editors, New York: Harper & Row, 1963, pp. 277-82.

CHAPTER III

THE CONDITIONING ENVIRONMENT

Introduction

The industrial revolution in America which began prior to the War of the Rebellion completed another phase before the end of the nineteenth century—a period of business growth characterized by horizontal integration and the formation of the first large corporations.[1] "Finance capitalism," the next step in American economic development, had its birth about the start of the twentieth century, and was evidenced by a wave of vertical mergers.[2] This pattern of merger activity, after a tremendous spurt at the turn of the century, continued steady over a span of two decades (Table 1). During these years other important changes took place as well, to include the beginnings of America's rise to a position of world power in the wake of the Spanish-American War and, with the advent of World War I, its growing dominance in the arena of international finance.

Inroads made by big business in the pattern of the nation's economy brought efforts to preserve the competition of rugged individualism revered in the

TABLE 1

Trusts and Mergers 1860-1919

Decade Ending	Number of Combinations	Capitalization in Millions
1869	2	$ 13.2
1879	4	135.2
1889	18	288.0
1899	157	3,151.2
1909	1903	4,897.0
1919	1076	3,668.0

Adapted from: W. W. Jennings, *A History of Economic Progress in the United States*, New York: T. Y. Crowell Co., Publishers, 1926, p. 634; *Historical Statistics of the United States Colonial Times to 1957*, Department of Commerce, Bureau of the Census, Washington, 1960, p. 572.

American pioneer spirit, with the government beginning to abduce laissez-faire attitudes in favor of regulatory policies.

The pressures of rapid growth within the industrial sector and significant changes in the economic environment affected the accounting profession. As the newly recognized advisors of the financial community, accountants found themselves challenged to develop new methods to report the financial results of this economic activity. The purpose of this chapter is to inquire about and set out

those broad factors evident in the conditioning environment which can be related to the developing role which professional financial accounting was becoming identified with during the first two decades of this century.

The General Pattern of American Economic Growth and Technological Change 1900 to 1920

A substantial rate of growth in gross national product was achieved during the vicenary period beginning in 1900. Table 2 focuses attention on the growth of that era of combination and contrasts it to the growth achieved during the later period after 1920.

TABLE 2

Growth Trends in the American Economy 1879-1959 (percentage increase per year)

Item	1879-1919	1919-1959
GNP in constant prices	3.72	2.97
Population	1.91	1.30
Per capita GNP in constant prices	1.76	1.64

Adapted from: Joint Economic Committee, Congress of the United States, *Employment, Growth and Price Levels*, Washington: Government Printing Office, 1960, p. 34.

The effects of these impressive gains can be seen in the rising level of individual income as well. As the population data in Table 2 suggests, the demographic profile of the country was changing rapidly,[3] swelled by a peak immigration of about 1¼ million in 1907.[4] But in spite of these increases and an unprecedented price inflation of just under 2½ percent a year the trend of real per capita income was on the rise during the period.[5] Table 3 indicates the trend of real per capita income growth.

TABLE 3

Real Per Capita Income in the United States during 1900-1919

Year	Amount	Year	Amount
1900	$460	1912	$520
1904	482	1916	560
1908	496	1919	590

Adapted from: Harold M. Somers, "The Performance of the American Economy, 1866-1918," in *Growth of the American Economy*, Harold F. Williamson, editor, New York: Prentice-Hall, Inc., 1951, p. 658.

The Scale of Business Activity

Table 4 summarizes the turning points of important cycles of business activity during 1900-1920.[6] While cycle

TABLE 4

Selected U. S. Business Cycle Data 1899-1920

Peak Date	Trough Date	Months Duration	
		Ascending	Descending
June 1899	Dec. 1900		18
Aug. 1902	Aug. 1904	20	25
May 1907	June 1908	33	12
Jan. 1910	Jan. 1912	19	23
Jan. 1913	Dec. 1914	13	23
Aug. 1918	Mar. 1919	44	6
Jan. 1920		10	

Adapted from: A. F. Burns, *The Business Cycle in a Changing World*, New York: National Bureau of Economic Research, 1969, p. 16.

data is not designed to show the growth which occurred it indicates the rhythm of the alternating expansion and contraction of total production and sales. Such information suggests the uncertain character of the times as well as the significant economic turning points of the period, inferring the importance of events which occurred at or near these points in time.

The opening of the century was marked by a mild recession of activity. The next trough, a moderate one, occurred in 1904. A third one—this time more severe—occurred in 1908. It was preceded by the spectacular

financial panic of 1907. Each of these troughs, as it happened, came in years of presidential elections. Before World War I subsequent low points, marking turnings of the cycles, occurred in early 1912 and 1914.[7]

The phenomenal increase in auto production which took place during the first two decades of this century accented the new age of American industrialism.[8]

TABLE 5

Annual Automotive Production in the United States 1900-1920

Year	Production of Cars and Trucks	Year	Production of Cars and Trucks
1900	4,192	1911	210,000
1901	7,000	1912	378,000
1902	9,000	1913	485,000
1903	11,235	1914	569,054
1904	22,830	1915	969,930
1905	25,000	1916	1,617,708
1906	34,000	1917	1,873,949
1907	44,000	1918	1,170,686
1908	65,000	1919	1,933,595
1909	130,986	1920	2,227,349
1910	187,000		

Adapted from: Walter P. Chrysler, "The Automobile Industry," in *The Development of American Industries: Their Economic Significance*, New York: Prentice-Hall, Inc., 1933, p. 642.

America was slowly but unquestionably transforming into an automobile economy. Consider the output of 1916, 1918 and 1920 in relation to industrial stock price activity during the same period as shown in Figure 2.[9]

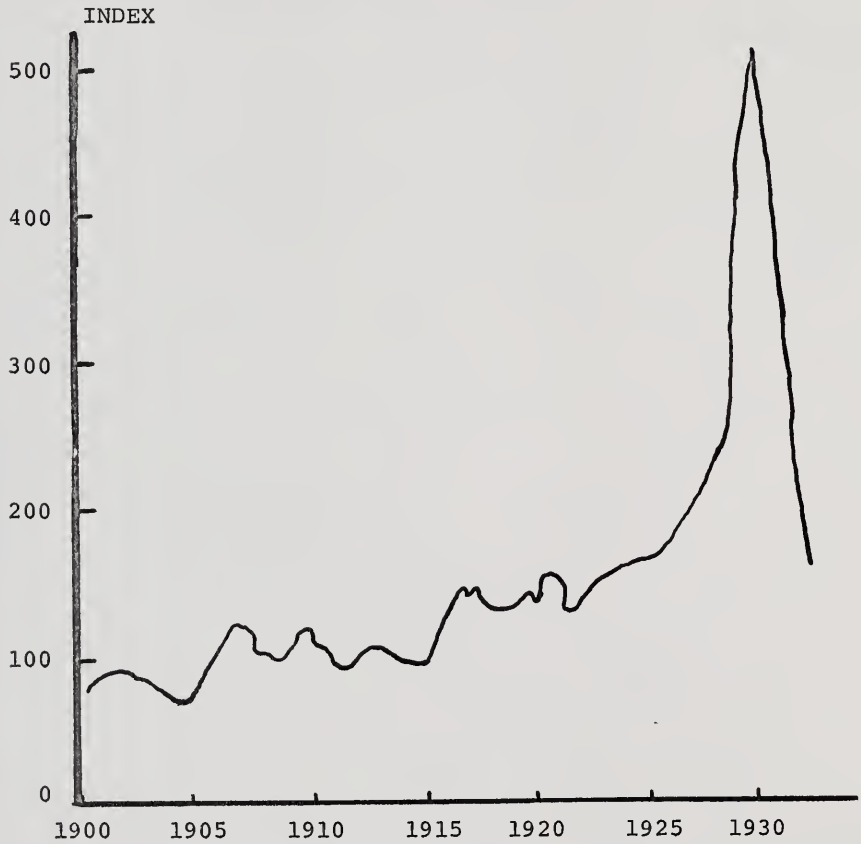

Figure 2. Index of prices of industrial stocks 1900-1930.

Adapted from: G. F. Warren and F. A. Pearson, *Prices*, New York: John Wiley & Sons, Inc., 1933, p. 281.

While changes in the popular means of transportation were becoming apparent, developments in the use of electrical energy, brought about by Edison's genius, had altered mechanical and illuminating applications of power. Demand for electricity sired large public utility companies and equipment manufacturers such as Westinghouse and General Electric. It stirred the interest of other inventors, leading to the wireless transmission of sound, so that by 1920 the first full time commercial radio station was in operation.[10] Amidst these innovations in late 1903, the Wright brothers made their first successful flight; by 1919 the Midwest had been united by air service and by 1920 coast-to-coast air travel was established.[11]

America's Growing Presence in the World Economy

The United States' success in the Spanish-American War, the Roosevelt Corollary to the Monroe Doctrine[12] and the rise of the American Navy to second position internationally contributed to a growing awareness of the young nation's presence in the world.[13] America's population, which in 1800 had consisted of about 5 million people (chiefly of British stock) exceeded 100 million by 1914. This twentyfold increase compared to a fourfold increase for Russia, a threefold increase for the United Kingdom and a twofold increase for the total world population.[14]

In addition to these developments there were other reasons for America's growing international influence:

1. In 1914 the Panama Canal was opened giving the United States an effective route for its two-ocean navy.

2. From 1897 to 1919 American investment in the Western Hemisphere and the world increased tenfold, as shown in Table 6. Because of this increased investment, the United States became net lender internationally before the twentieth century,[15] although it remained a net debtor because of its own past borrowings.

TABLE 6

American Foreign Investment 1897-1919 (cumulative direct and portfolio investment in millions)

Year	Total Investment in Europe and Canada	Times Increased Since 1897	World Total	Times Increased Since 1897
1897	$ 340.7	-	$ 684.5	-
1908	1,086.4	3.19	2,524.8	3.68
1914	1,559.0	4.58	3,513.8	5.13
1919	3,529.6	10.37	6,955.6	10.16

Adapted from: Cleona Lewis, *America's Stake in International Investments*, Washington: The Brookings Institute, 1938, p. 606.

3. In 1915 for the first time in history, U. S. exports exceeded imports by $1 billion and, with the balance of payments shifting as a result of World War I,[16] America became a creditor nation with the center of international finance moving from London to New York City.[17]

These factors, combined with insular possessions in two hemispheres, gave the United States a potential voice in the affairs of Europe and Asia which it could not have claimed just a few years earlier.[18]

The Private Sector—Business and Financial Environment

The Era of Vertical Integration

When the U. S. Steel Corporation was "Morganized" in 1901 it represented a new level of "Money Power" dominance,[19] beyond the limits conceived even in the large trusts already in existence (Table 7).

The U. S. Steel merger epitomized the era of "vertical" combination of industry (1898-1904) as distinct from the "horizontal" era of earlier years (1879-1893).[20] This giant holding company represented Carnegie's producing mills added to a majority of the nation's most important steel fabricators, with the coup being completed by the acquisition of Rockefeller's Mesabi ore fields.[21] Steel was a likely choice of this exemplar undertaking since in 1900 American output had grown such that it almost equaled that of Great Britain and Germany combined.[22]

This early era of industrial combination was unique, occurring when the ingredients, which made such large scale industry feasible, matured around 1900 after having fermented for decades. Among these factors were

TABLE 7

Some Early Industrial Trusts[a]

Company	Incorporation State	Incorporation Date	Plants Controlled	Total Capitalization
Standard Oil Co.	N. J.	1899	c. 400	$ 95,500,000
Amalgamated Copper Co.	N. J.	1899	11	175,000,000
American Smelting and Refining	N. J.	1899	121	201,550,400
Consolidated Tobacco Co.	N. J.	1901	c. 155	145,000,000
United States Steel Corp.	N. J.	1901	c. 785	1,319,000,000
International Mercantile Marine Co.	N. J.	1902	6	170,786,000

Adapted from: John Moody, *The Truth about the Trusts*, New York: Moody Publishing Company, 1904, p. 453.

[a]Some 298 lesser trusts are summarized in Moody's work. These units controlled some 3400 plants with a combined capital of approximately $4 billion.

the marked specialization of the period, the establishment of a nationalized system of markets, the opening of new international markets, the availability of large concentrations of capital, the formulation of an industrial work force and the development of new management and mass

production techniques. Furthermore cut-throat competition, sanctioned by many of the first large trusts, threatened the profitability of small scale firms leading them to submit to buy-out pressures of large corporations who were exhibiting the benefits of large scale operation. In the two decades after 1900, American manufacture, spurred by consolidation and the war effort, responded favorably to its new environment doubling the volume of production and exhibiting a rate of technological growth which increased at twice that of population.[23]

The Extent of Concentration

By 1900 the corporate form of organization had been adopted by the majority of industrial sector enterprises. Ripley noted that in 1904, 70 percent of industrial wage earners were employed by corporate businesses, accounting for 73 percent of the value of manufactures.[24]

Table 8 depicts the vast amounts of capital formed during the period, in substantial part through sales of stocks and bonds to the general public. The experts at tapping this market were the investment bankers of New York led by J. P. Morgan. As such statistics suggest the growth of big business and large scale finance was dependent upon the activity of these men.

TABLE 8

U. S. Capital Formation 1889-1918

Decade	Gross (Millions of 1929 Dollars)	Net	Gross (Percent per Annum)	Net
1889-1898	6,499	3,922	4.7	5.4
1899-1908	8,932	5,059	4.0	4.3
1909-1918	12,556	6,590	3.6	3.0

Adapted from: S. S. Kuznets, *National Produce Since 1869*, New York: National Bureau of Economic Research, 1946, p. 119; J. Steindl, *Maturity and Stagnation in American Capitalism*, Oxford, England: Basil Blackwell, 1952, p. 185.

The Evolution of Finance Capitalism

> Following a line of reasoning expressed particularly by German economic historians . . . capitalism [developed] through a series of stages. The mercantile stage, in which America had grown up, was characterized by the importing and exporting merchant as the most important type of entrepreneur. This stage was superseded in the early nineteenth century by individual capitalism, with the independent small-scale factory proprietors as the dynamic or formative influence.[25]

The industrialists were the important entrepreneurs during the era of horizontal integration, having developed such corporate empires as Standard Oil and the New York Central.

> As business grew larger and more corporate the need for raising capital from the investing public brought the investment banker into prominence until by 1900 he was conceived to be the most important figure in a stage called finance capitalism.[26]

Aided by state laws designed to encourage large capitalizations (New Jersey in 1890; Delaware in 1899) the holding company concept enabled promoters to skirt initial Federal antitrust regulations because its formation involved no contracts or agreements between competitors.[27] New ownership instruments such as no par stock and low state incorporation taxes abetted Morgan's syndicates which coordinated new capital offerings with an ease that betrayed his power.[28] The half-dozen banking partnerships handling American security floatations were so closely associated and were so important in the formation of new companies that they were condemned as a "Money Trust."[29]

In 1911 and 1912 a committee of the U. S. House of Representatives, headed by Congressman Pujo of Louisiana, investigated the "trust." The report of the committee asserted:

> If by a "money trust" is meant an established and well-defined identity and community of interest between a few leaders of finance which has been created and is held together through stockholdings, interlocking directorates and other forms of domination over banks, trust companies, railroads, public service and industrial corporation, and which has resulted in a vast and growing concentration of control of money and credit in the hands of a comparatively few men—your committee has no hesitation in asserting as a result of its investigation that this condition—exists in this country today.[30]

The Politics of Adjustment

The public's concern over a "money trust" was a manifestation of their covert anxiety regarding the broad

scale of change which the American economy was undergoing. The spector of business combinations ran counter to the principles to which Americans had become accustomed in a self-reliant agrarian society. As the nation became industrialized the factory worker, the farmer and the small merchant[31] sought to cushion the impact of change by obtaining assistance from the government.[32] In 1905 popular pressure led the State of New York to authorize a legislative investigation (the Armstrong committee) of the relationship between the investment bankers and the three largest insurance companies in the country, New York Life, the Mutual of New York and the Equitable Life Assurance Society.[33] Disclosures by the committee included the fact that J. P. Morgan and Co. had gained control of the three insurance firms via interlocking directorates or exchanging officers, assuring a ready market for Morgan's offerings through the never failing resource of reserves created by small policyholder premiums.[34]

Further, the Armstrong investigation noted the control of commercial bank stock by the life insurance companies which effectively extended the ownership of the investment bankers to large commercial banks. As a result of these findings legislation was ordered requiring insurance companies to divest their bank stock holdings.

Later it was discovered that the insurance companies had sold their bank stocks to investment bankers who were controlled by or closely associated with the initial insurance group, thus preserving the status quo.

As early as 1911 states such as Kansas began to require registration of security issues. These so-called "Blue Sky" laws (allegedly to prevent sharps from selling even the clear blue sky) were a common device in attempts to control investment fraud. The "Blue Sky" concept was held to be within the bounds of constitutionality when challenged in the Supreme Court in 1916.[35]

In 1913 under Gov. Woodrow Wilson, New Jersey passed the "Seven Sisters Acts" aimed at preventing a variety of corporate abuses. These forthright laws only served to demonstrate the futility of an individual state's action, since corporations simply elected to change domicile from New Jersey to a less restrictive state in order to avoid prosecution. Investor protection and financial disclosure, when considered in light of state's rights, were considered to be matters for state control and therefore on what seemed to be constitutional grounds, Federal law fell silent on the matter.[36]

The Public Sector—The Changing Role of Government in Business

Progressives and Their Legislation

Popular suspicion of big business, accented by the journalistic expose of the "muckrakers"[37] directed public

opinion against industry on a national level so that by the presidential campaigns of 1908 and 1912 the issue of restoring "old-fashioned" competition through Federal legislation was foremost. In 1912 the Democratic candidate Woodrow Wilson of New Jersey stated:

> American industry is not free, as once it was free. . . . Why? Because the laws of this country do not prevent the strong from crushing the weak.[38]

Wilson won the 1912 election and with the assistance of a sympathetic Congress gained passage of ". . . the greatest list of progressive legislation in any like period of American history to that time. . . ."[39] Some of the most important pieces of this legislation were:

The Underwood Tariff (October 5, 1913).—In 1909 in response to challenges, the Supreme Court upheld the corporate tax of the Payne-Aldrich Act as a constitutional excise tax. It further stipulated, however, that an amendment to the Constitution would be necessary before a direct income tax could be imposed.[40] Upon ratification of the 16th amendment early in 1913 the Underwood-Simmons Act levied a nominal but direct income tax which was designed to offset a deficiency in revenues expected to arise from the revision of tariff rates.[41] The income tax became law in October, 1913, effective retroactively to March of that year.

The Federal Reserve Act (December 12, 1913).—The concentration and control of capital funds brought to light

by the Armstrong investigation and Pujo committee, together with the experiences of the panic and bank crisis in 1907, led to proposals for national bank reform.[42] Under the provisions of this law a central banking system composed of twelve reserve bank districts and a supervisory board was created.[43] The nation had been without such a central agency under government supervision since the dissolution of the Second United States Bank before the Civil War.

The Federal Trade Commission Act (September 26, 1914 and the Clayton Act (October 15, 1914).—The 1914 legislation was enacted in an attempt to provide a remedy for the apparent shortcomings of the Sherman Act of 1890.[44] There were several singular principles of substantive law embodied in the 1914 acts relating to trade competition and monopoly to include:[45]

1. Condemning the general use of "unfair methods of competition," these being declared unlawful (Section 5, Federal Trade Commission Act).

2. Forbidding the use of tying and exclusive dealing arrangements and price discrimination where such would "substantially lessen competition" (Sections 2 and 3, Clayton Act).

3. Imposing limitations on interlocking directorates and intercorporate stockholdings as determinable by effects on competition (Sections 7 and 8, Clayton Act).

The War Industries Board

Where progressive legislation left off the War Industries Board picked up the role of asserting

governmental influence over the business community. The Board, created during World War I, succeeded in establishing an experience base for price, wage and profit controls.[46] Under the chairmanship of Bernard M. Baruch, the Board exercised absolute power over the process of manufacture, fixing prices and determining priorities of production and delivery.[47]

Altogether these developments established a precedent for governmental participation in the administration of the economy. But whether these acts were more than symbolic is a matter of debate since each legislative attempt to reduce competitive obstacles encountered a sort of "Newton's law of regulatory control,"[48] whereby the restrictive force was met by an equal and opposing reaction from industry. This led to a bureaucracy of regulation so complex that neither the commission involved or the regulated industry could clearly discern the intent of the law.

The courts were of little assistance in unscrambling the tangle, having themselves reversed their field from a trend of early "antibigness" decisions—as in the Northern Securities case,[49] to a position characterized by the 1911 "rule of reason" decision which held that size alone did not evidence illicit intentions and that the basis of government action must be proof of monopolistic intent.[50]

An Accepted Economic Model

Americans were wary of a corporate society, where the impersonal seemed to dominate every business from the ". . . local beauty shop to the United States Steel Corporation."[51] During American industrial maturation popular and intellectual sentiment became divided with regard to a posture for social justice and the ability of the macroeconomy to be regulated without government action. Some felt as Charles W. Eliot, the President of Harvard, who said: "It is quite unnecessary in this country to feel alarm about the rise of a permanent class of very rich people."[52] Eliot believed, in the Classical tradition, that the natural influences over man and the economy would provide for redistribution of the wealth in the long run.

Eliot's beliefs were not shared by President Arthur Twining Hadley of Yale who feared that the great concentrations of wealth foretold the coming of ". . . an emperor in Washington within twenty-five years."[53] Professor Bullock of Harvard echoed this common suspicion saying that, "If experience ever demonstrated that the argument of many economists are correct than we shall be confronted with the grim fact that competition is dead and that monopoly is inevitable. . . ."[54]

Such was the concern over basic economic doctrines that the need for reexamination of the assumptions underlying extant theory was apparent. Economists prepared explanations of the forces at work in the market, often in sharp contrast with one another.

A Reshaping of Economic Thought

The doctrines of the Classical school, guided by the logic of John Neville Keynes, adapted and advanced by Alfred Marshall under the banner of Neoclassicism, provided an accepted model for American business during the years around the turn of the century. Marshall's teaching was characterized by static equilibrium analysis with changes being studied through the device of the "representative firm."[55] Essentially, Classical models possessed self-regulating features, insuring long period equilibrium through price and wage adjustments. But some shortcomings in the British doctrine became apparent as the era of combinations and "growth and development" progressed. Schumpeter notes that there was, for example, a general lack of any economic theory with regard to costs and prices for large industries such as railroads, public utilities, trusts and cartels—pointing out that what did exist was ". . . merely a rich crop of historical and 'descriptive work.'"[56]

This void, combined with the challenges to assumptions about perfect competition and industrial

efficiency of scale encouraged criticism by so-called "social economists."[57] Some of these reformers were unorthodox, like the followers of Henry George the single tax advocate;[58] others were clearly more liberal like Hobson;[59] and some were notable theoretical gadflies, like Veblen.[60]

Among American academic economists acquiring a substantial reputation were J. B. Clark and Irving Fisher.[61] Fisher's treatise, *The Nature of Capital and Income* (1906) attempted to furnish an economic foundation for business ownership analysis through what he called ". . . a sort of philosophy of economic accounting, . . . [to] supply a link long missing between ideas and usages underlying practical business transactions and the theories of abstract economics."[62] Fisher distinguished between capital and income on a stock vs. flow basis and attempted to clarify the meaning of total income and profit.

Confusion among economists about notion of profit was surrounded by a misunderstanding about physical productivity and service as criterion. This led to the remark in 1921 that, ". . . it is not surprising that the theory of profit has remained one of the most unsatisfactory and controversial divisions of economic doctrine."[63] Frank Knight's comment prefaced his work which attempted to unravel parts of the knotty problem of profit under conditions of risk and uncertainty.[64] While Knight's

effort was separated from Fisher's by more than a decade their contemporary influence represented tips of an emerging theoretical iceberg which evidenced the mass of economic ideas in flow below the surface of print. In this respect Neoclassical writers provided the cornerstone material for important notions which subsequently appeared. Sraffa's paper of the 1920s for example was destined to stimulate a new branch of thought, detailed in the works of two writers, Chamberlin and Robinson. They proposed the concept wherein the hitherto separate theories of monopoly and competition were fused in a reconstituted value theory of imperfect competition.[65]

The Rise of the Accounting Profession

As the changes which grew out of the puissant environment of the early twentieth century had caused economists to restudy their doctrines, so this new industrial epoch placed unique demands on accountancy. An editorial which appeared in the January, 1900, issue of *The Public Accountant* (Pennsylvania) describes the trusted position attained by accountants at the dawn of the new century.

> At no time in our history has such great prosperity been known in this country. Money is plentiful . . . and manufactures and trade are springing into new life all over the country. The revival . . . and the great prosperity has had its effect very considerably on accountants. The starting of new business enterprises has caused them to be retained in cases larger and more important than ever before.

> The profession is slowly, but surely forcing itself into its proper place among the other professions and is becoming more and more important each day. It is becoming known to the manufacturer, to the merchant and to the banker and financier. Such a state of affairs was comparatively unheard of . . . that a new enterprise, involving millions of capital, should retain a Public Accountant even before its counsel, yet such is the case and it is not a single case either. Were we at liberty to do so, we could state case after case in which the accountant was the trusted advisor of the promoters of the largest business combinations the world has ever seen.[66]

Written a year before the formation of the United States Steel Corporation, these remarks bear out the important advisory function which accountants were called upon to perform during the era of consolidations.

The Growth of Certified Public Accountancy

There were less than 250 CPAs in America at the beginning of this century. By 1920 over 5000 original certificates had been issued, with those from New York, New Jersey and Pennsylvania accounting for about one in every four.[67] In attempts to harness this surge of growth accountants formed professional associations, including the American Association of Public Accountants and the Federation of Societies of Public Accountants in America which merged in 1905 and became known as the American Institute of Accountants in 1917.[68]

The young American profession, lacking the depth of experience, borrowed theoretical premises and procedures

from the British who had pioneered the professionalization of accountancy a few decades earlier.

In England accountants were trained by a strict apprenticeship routine which required that the aspirant be "articled" with an established accounting firm. When it became apparent that British methods were not fully suited or adaptable to American ways the latter were quick to establish their own standards.[69] For example, under New York law a certificate was issued only after successful completion (waivers ignored) of the four part CPA examination covering Accounting Theory, Commercial Law, Auditing and Practical Problems. Five years of accounting experience was required in addition to a high school education and certain moral, character and citizenship qualifications.[70]

The rigorous nature of the CPAs educational standard can be appreciated relative to typical levels of formal education at that time. For example, in 1900, the median level of schooling attained in America was 7.9 years; by 1910 this figure had increased to 9.7 years and by 1920 the level had reached 10.1 years—still well below the minimum requirement set for admission to the profession as in New York.[71]

The Theoretical Adaptation of Practical Knowledge

In the early stages of its professional life accountancy relied almost *exclusively* on the doctrine of

pragmatism as the means of determining individual solutions to important accounting questions. The practical answer alone was viewed as a "sufficient" answer. But under the pressure of economic growth and social change, pragmatism failed to offer the sophisticated broad and flexible base of consistent fundamental doctrine required in an industrial society served by the accounting profession. What was needed was a complementary approach to "practical" experience which would delineate financial accounting precepts in such a way that they could be readily identified and easily applied to changing situations. Accountants turned to theoretical adaptation as a means of defining the set of financial accounting principles needed. The theoretical approach became useful particularly in formal course instruction which was being introduced at the collegiate level.[72] Wide scale acceptance of theory as a teaching and problem solving device and the recognition of its important role in the search for a conceptually consistent body of financial accounting principles is one of the peculiar and important achievements of accountancy during the Preclassical period.[73]

Chapter Summary

The years around the turn of the century through the First World War constituted the age which felt the initial impact and consequences of American industrialization. Technology and manufacture advanced at a pace

never before achieved. Change and growth were rapid and had to be faced by the executive and the accountant without benefit of historical precedent. People were drawn to the urban industrial areas such that by 1920 the census revealed that for the first time more Americans lived in urban areas than rural.[74]

Significant political events marked these years. The death of Queen Victoria of England in 1901 signaled the passing of an era of reserved propriety just as the assassination of President McKinley that same year opened the way for the personality politics of Teddy Roosevelt.[75] In 1908, Taft succeeded his protégé Roosevelt but by 1912 the politics of adjustment had set in and Woodrow Wilson was elected to succeeding terms on a progressive platform.[76] World War I plunged the United States headlong into a world economy it had entered less spectacularly a generation earlier causing individual and economic adjustments of a type never before experienced by Americans.[77] By 1919, at the close of the war period, the Eighteenth Amendment (Prohibition) was ratified and in the following year women's suffrage was recognized with the passage of the Nineteenth Amendment.

The size of business enterprises during these years led to a need for large amounts of capital which in turn required financing on an unprecedented scale.

Industrialists and investment bankers, gaining control of a large segment of the economy, aroused the public's fear. Big government was called upon to preserve a competitive norm which reflected the traditions popularized in agrarian America.

In response to the changing and often conflicting information requirements which were developing during the advent of big business and big government, accountants asserted their importance in a new and growing professional role. The demands of business and government tested the young profession which lacked experience but was developing strongly. Initially, American accountants followed the lead of the British profession, borrowing procedures and theory when there was a need. Soon however the mythical characteristic of "American ingenuity" asserted itself and out of the necessities of American practice were born the specialized inventions which would become the framework for a body of financial accounting principles.

Overall, the economic and social events of this period fashioned the institutions of our modern way of life. The effects which the growth and changes in the conditioning environment of the period had on the development of Preclassical accounting, its function and theory, now need to be considered.

NOTES

1. Harold U. Faulkner, *The Decline of Laissez Faire 1897-1917*, New York: Harper & Row, 1968, p. 3.

2. George W. Edwards, *The Evolution of Finance Capitalism*, London: Longmans, Green and Co., 1938.

3. L. E. Davis and others, *American Economic Growth: An Economist's History of the United States*, New York: Harper & Row, 1972, p. 123.

4. Reginald C. McGrane, *The Economic Development of the American Nation*, Boston: Ginn and Company, 1950, p. 504.

5. John B. Inglis, *The Development of Accounting Principles in the United States*, Boston: Bureau of Business and Economic Research, Bentley College of Accounting and Finance, 1964, p. 21.

6. Lawrence Abbott, *Economics and the Modern World*, New York: Harcourt, Brace and Company, 1960, p. 219.

7. George Soule, *American Economic History*, New York: Holt, Rinehart and Winston, 1961, p. 340.

8. John Chamberlain, *A History of American Business*, Part XI, "The Rise of Detroit," *Fortune*, March, 1962, p. 125.

9. *Ibid.*, p. 126.

10. Fred Albert Shannon, *America's Economic Growth*, 3rd Edition, New York: The MacMillan Company, 1951, p. 621.

11. *Ibid.*, p. 616.

12. Ross M. Robertson, *History of the American Economy*, 2nd Edition, New York: Harcourt, Brace & World, 1964, p. 379.

13. Samuel P. Hays, *The Response to Industrialism, 1885-1914*, Chicago: The University of Chicago Press, 1957, p. 165.

14. William Woodruff, "The Emergence of an International Economy 1700-1914," *The Fontana Economic History of Europe*, v. 4, Section II, p. 53.

15. Shannon, *op. cit.*, p. 579.

16. Faulkner, *op. cit.*, p. 88.

17. "The March Abroad of American Capital," *The Haskins & Sells Bulletin*, October, 1924, pp. 1-2.

18. Arthur Meier Schlesinger, *Political and Social Growth of the United States: 1852-1933*, New York: The MacMillan Company, 1939, p. 295.

19. John Chamberlain, *A History of American Business* Part IX, "The Rise of Money Power," *Fortune*, January, 1962, p. 107.

20. Robertson, *op. cit.*, p. 352.

21. Chamberlain, *loc. cit.*

22. Shannon, *op. cit.*, p. 630.

23. Faulkner, *op. cit.*, pp. 115, 157.

24. W. Z. Ripley, *Main Street and Wall Street*, Boston: Little, Brown, and Company, 1927, p. 19.

25. Thomas C. Cochran, *The American Business System: A Historical Perspective, 1900-1955*, New York: Harper & Row, 1957, p. 79.

26. Cochran, *Systems*, p. 54.

27. *Ibid.*

28. Ripley, *op. cit.*, pp. 46-7.

29. Thomas C. Cochran, *Basic History of American Business*, Princeton, New Jersey: D. Van Nostrand Co., Inc., 1959, p. 75.

30. Faulkner, *op. cit.*, p. 43.

31. F. W. Tuttle and J. M. Perry, *An Economic History of the United States*, Cincinnati: South-Western Publishing Co., 1970, p. 325.

32. Hays, *op. cit.*, p. 140.

33. *Ibid.*, p. 84.

34. Faulkner, *op. cit.*, pp. 40-1.

35. M. L. Lindahl and W. A. Carter, *Corporate Concentration and Public Policy*, 3rd Edition, Englewood Cliffs: Prentice-Hall, Inc., p. 124.

36. David F. Hawkins, "The Development of Modern Financial Reporting Practices among Manufacturing Corporations," *Business History Review*, Autumn, 1963, p. 161.

37. Hays, *op. cit.*, p. 89.

38. Woodrow Wilson, *The New Freedom*, New York: Doubleday, Page & Co., 1913, p. 15.

39. Shannon, *op. cit.*, p. 673.

40. Hays, *op. cit.*, p. 137.

41. "U. S. Income Tax," *Accountant*, August 2, 1913, p. 152.

42. Robertson, *op. cit.*, p. 325.

43. George Soule, *Prosperity Decade From War to Depression: 1917-1929*, New York: Harper & Row, 1968, p. 52.

44. Lindahl and Carter, *op. cit.*, p. 504.

45. *Ibid.*, p. 516.

46. Schlesinger, *op. cit.*, p. 411.

47. Soule recounts that on September 21, 1917, the showdown between industrialists and the government took place. By March, 1918, the Board had established a Price Fixing Committee.

48. Robertson, *op. cit.*, p. 295.

49. B. H. Meyer, *A History of the Northern Securities Case*, Madison, Wisconsin: University of Wisconsin, Economics and Political Science Series, v. 1, no. 3, July, 1906.

50. Lindahl and Carter, *op. cit.*, p. 504.

51. Arthur Stone Dewing, *The Financial Policy of Corporations*, 3rd Revised Edition, New York: The Ronald Press Company, 1926, p. 9.

52. Charles W. Eliot, *Great Riches*, New York: Thomas L. Crowell & Co., 1906, p. 37.

53. Chamberlain, "The Rise of Money Power," p. 107.

54. Cochran, *Systems*, p. 55.

55. Robert L. Heilbroner, *The Worldly Philosophers*, Revised Edition, New York: Simon and Schuster, 1961, p. 177.

56. Joseph A. Schumpeter, *History of Economic Analysis*, New York: Oxford University Press, 1954, p. 948.
    Macroeconomics as a body of thought did not clearly emerge until around J. M. Keynes' time. An agrarian macro-notion, *produit net*, advanced by the Physiocrats and the "national dividend" proposed by Marshall were concepts of limited operational importance in an industrialized-urban economy of 1900.
    A GNP statistic and supporting data provided to the public by a government agency was also unknown in the early years of this century. Not until 1903 when the Federal Government established the Department of Commerce and Labor was there an indication of a centralized government interest in gathering and maintaining in depth economic data series. The private National Bureau of Economic Research bore most of the burden of early aggregate analysis, having first published national income information in 1921.

57. Henry William Spiegel, *The Rise of American Economic Thought*, Philadelphia: Chilton Company, 1960, pp. 154-8.

58. Philip Newman, *The Development of Economic Thought*, New York: Prentice-Hall, Inc., 1952, pp. 315-26.

59. John A. Hobson, *Problems of Poverty: An Inquiry into the Condition of the Industrial Poor*, London: Metheun & Co., 1895.

60. An important contribution of the first decade was to be found in the work of one of Veblen's Chicago students, who became the prototype of the modern economic historian, Wesley Clair Mitchell. Mitchell's

interest was directed toward the aggregate phenomenon of the business cycle and the lack of a suitable theory for it. When his views were published in 1913 they asserted internal causes, not external phenomenon like Jevon's sun spots, as the significant factors in cycle theory. Prosperity was tabbed the forerunner of depression. He concluded:

> The waning, like the waxing of prosperity, therefore, must be due, not to the influence of "disturbing causes," from outside, but to processes which run regularly within the world of business itself (*Business Cycles*, p. 473).

61. Charles Gide and Charles Rist, *A History of Economic Doctrines*, 7th Edition, Boston: D. C. Heath and Company, 1948, p. 100n.

62. Irving Fisher, *The Nature of Capital and Income*, New York: The MacMillan Company, 1906, p. vii.

63. Frank Knight, *Risk, Uncertainty and Profit*, New York: Augustus Kelley, 1964 (copyright, 1921), p. 22.

64. *Ibid.*

65. Schumpeter, *op. cit.*, p. 1150.

66. T. Edward Ross, "A Record of Half a Century in the Accountancy," *L. R. B. & M. Journal*, January, 1937, p. 19.

67. James Don Edwards, *History of Public Accounting in the United States*, East Lansing: Bureau of Business and Economic Research, Michigan State University, 1960, p. 362.

68. Richard Brown, *History of Accounting and Accountants*, New York: Augustus Kelley, 1968 (copyright, 1905), p. 277.

69. "C. E. Sprague Reports," *The Book Keeper*, September 14, 1880, p. 71.

70. "Divisions of Accountancy," *The Pace Student*, May, 1920. By 1920 all states had passed legislation except New Mexico.

71. Davis, *op. cit.*, p. 208.

72. C. E. Allen, "The Growth of Accounting Instruction since 1900," *Accounting Review*, June, 1927, p. 166.

73. Seymour Walton, "Practical Application of Theoretical Knowledge," *Journal of Accountancy*, October, 1917, p. 224.

74. Shannon, *op. cit.*, p. 601;
Tuttle and Perry, *op. cit.*, p. 547.

75. Schlesinger, *op. cit.*, p. 309.

76. Hays, *op. cit.*, p. 141.

77. Tuttle and Perry, *op. cit.*, p. 545.

CHAPTER IV

CONSIDERATION OF THE BASES OF PRECLASSICAL FINANCIAL ACCOUNTING THOUGHT

Introduction

An historical explication of Preclassical financial accounting thought as undertaken in this research is founded upon two important associations:

1. The correspondence between conditioning environmental factors and the functions of a social enterprise during any era—accounting being one part of the social enterprise.

2. The causal relationship between accepted and emerging accounting functions and the need for a set of conceptually consistent principles to provide a theoretical basis for financial accountancy.

This chapter seeks to establish some important aspects of these associations and to consider the epistemic tendencies of accounting thought initiated in response to the developments of the times.

The Conditioning Environment: Indirect and Direct Influences on Preclassical Accounting Functions

How the economic and social ferment of the early twentieth century transformed accounting functions can be better perceived by considering the individual effects of some of the important indirect and direct environmental factors.

Indirect Factors

Collegiate accounting curricula.—While college work in accounting was not yet a requirement for the certificate, the need to expand college level coursework in accounting became apparent to leaders of the early profession. Acceptance of accountancy as a subject in collegiate business programs was an accomplishment of this age. In 1900, there were no American colleges which recognized accounting as a major field of study for a bachelor's degree. By 1920, over forty institutions were offering accounting as a major concentration.[1] This came as the result of efforts by practitioners as well as academicians and reflected their awareness of the fact that professional status would require educational attainments beyond high school if training was to be made available in the specialized body of knowledge becoming identified with accountancy.

A distinctive feature of early accounting education at the undergraduate level was its practical orientation. Many of the first accounting professors entered the classroom with substantial business experience and often continued practice during their teaching careers. Accounting instruction, as a result, tended to represent an explanation of what was currently being done in practice, serving to explain basic procedures long relied upon by the working accountant.[2]

Price level disparity.—The fluctuating value of the dollar is not a unique post World War II phenomenon. From the close of the Civil War until 1897 there was a continual fall in the commodity prices and a corresponding deflation, interrupted only by a slight reverse trend between 1879 and 1882. From 1897 to 1920, there was a countering rise in the commodity prices and inflation.[3] By 1910, the 1900 dollar had depreciated 17 percent and by 1920, the 1900 dollar was worth only 40 percent of its original value. This represented a greater inflation than experienced between 1940 and 1960.[4]

This duodirectional change in prices created increasingly difficult valuation questions for accountants which were further complicated by the problems of obsolescence which had appeared in the wake of tremendous technological advances. During the Preclassical years, important discussions attended the growing recognition of price level problems but not until the Classical era, after 1920, was a comprehensive work in price level adjustment forthcoming. Sweeney's *Stabilized Accounting*, represented a theoretical and procedural breakthrough, proposing methods patterned after foreign exchange techniques to compensate for price level effects in corporate accounts and reports.[5]

The "economic man" and accounting.—The dawn of the twentieth century found the works of Mill and Marshall

in the main stream of popular economic thought. Accountants had become familiar with the Classical brand of economics through training or experience so that if Preclassical accounting thought was influenced by a body of economic doctrine it was probably the Classical variety supplemented by the works of Marshall and perhaps Taussig. The suggestion of accounting and economic thought association is not made for the purpose of proposing an intense research of the relationship, but to acknowledge by inference where accounting theory demonstrated affinity to popular economic premises. An important example of this related to the Classical assumption known as the "economic man" which suggests that *a* primary motivator of man in the economic milieu is the desire to maximize gain. It seems warranted to assert that the attention given to "Profits" and its increasing import among Preclassicists, even before the income tax law, resulted from a recognition and acceptance of the tenents of this assumption as reflected in a corresponding emphasis on profit determination as a most important aspect of accountancy in an industrial society.[6]

Direct Factors

The accepted degree of financial disclosure.—As noted in the discussion of "Blue Sky" laws in the preceding chapter, investment regulation and financial reporting

matters were generally deemed to be matters of state concern despite the fact that state control was subject to question in terms of uniformity and effectiveness.[7] Weak state laws, loose security distribution methods and the absence of definite accounting standards contributed to the dissatisfaction of stockholders, aggravating a basic discontent caused by inadequate reporting and acting to preserve well into the Preclassical period the mode of secrecy surrounding corporate financial disclosure. The continuing acceptance of secrecy acted as a channeling influence on accounting's functional scope, focusing disclosure patterns on internal management needs more than on the needs of external parties such as investors and stockholders.

Income tax legislation.—Perhaps more than any other single event, tax legislation brought professional accountants into regular contact with new clients.[8] The income basis for taxation required a complete and permanent record of the business's financial history. Such a formal data requirement was comparatively new for many businesses (taxes had heretofore been levied on a stock-in-hand basis) and tested accountants' abilities with regard to the principles of economics and business procedure as well as their knowledge of the specialized body of tax regulations. In short, income taxation established a demand for an

experienced and qualified business specialist to gauge the adequacy of the accounting systems of a business and the results therefrom.[9] In this way the accountant's function as tax advisor to the businessman and as consultant to the government, aiding in the development of regulations, was fashioned.

Just as the advent of income taxation broadened the range of accounting functions so it served to sharpen the need being felt for conceptual guidance in achieving compliance with the general goals set out in an income based system of taxation. For example, a 1918 regulation stated:

> Approved standard methods of accounting will ordinarily be regarded as clearly reflecting income. (Article 23, Reg. 45, Act of 1918)[10]

Such vague specifications for income determination marked another reason for formulating a structure of accounting concepts which would be relied upon to provide a more genuine consideration of the facets of income determination.

Requirements of the war effort.—Contact between accountants, government officials and financiers was heightened by the activity of World War I. One important example of how the war effort shaped the scope of accounting's audit function was the engagement of an accounting firm by J. P. Morgan & Co. Morgan was acting as the munitions purchasing agent for the British and

French governments, and engaged Arthur Young and Company to audit the shipments and voucher payments in connection with contracts involving several companies. "This engagement was significant," Professor Edwards says, "because it became the first and largest audit conducted with . . . detail under modern business conditions."[11]

In similar fashion, accountants throughout the country were being pressed to update and modify the audit function within the frame of big business's transactional volume, not to mention the exigencies of war. Citing these factors Staub mentions that:

> There developed the necessity for making the audit one of selected tests of accounts rather than an endeavor to examine all transactions of the period. . . .
>
> One result of this development was more and more emphasis on the accountant's review of the manner in which the management had dealt with the recording and classification of transactions of the company from the standpoint of sound accounting principles and the consequent dependability of the determination of income and presentation of financial condition.[12]

Case law.—Audit and advisory responsibilities dominated the accountants' activities during the first years of this century but the import of a third duty encompassing an attest function to provide third parties (individuals and government) with impartial information about the financial condition of a company was gaining recognition. A factor which tempered the advance of attest responsibility was case law which supported a contract

view of accountants' liability similar to that held in British law.[13] As late as 1919 the contract principle was reaffirmed, effectively limiting accountants' responsibility to third party investors. The particulars of the 1919 suit named Lybrand, Ross Bros. and Montgomery as defendants. "A third party investor, alleging negligence, had sued to recover a loss suffered in purchasing stock in reliance on a financial statement certified by the firm."[14] The court held that since there was no contractual relation between the plaintiff and defendants they owed no duty to the former; therefore there was no cause for action for negligence.

Without a clear case precedent establishing accountants' attest responsibility with regard to investors there were few external pressures upon the profession or its clients to modify statement disclosures to include information which would be of particular value to interested investor parties.

Proposals for Federal regulation of accounting.— Federal efforts to regulate accounting, to include rudimentary prescriptions of expense classifications and statement formats had progressed gradually since 1894 with the systems of large public utilities and trusts being the primary object of governmental concern.[15] Not until 1917 did Federal agencies exhibit significant

interest in attempting to remedy the problem of inappropriate standards with regard to a broad third party group. In conjunction with a pronouncement by the Federal Reserve Board calling for certification of statements supporting the applications for discounting commercial paper, the Federal Trade Commission's first chairman proposed a sweeping plan to standardize statement forms and audit procedures as well as a program requiring the registry of public accountants on a national basis.[16]

While most of the aspects of this ambitious plan were not achieved, the Commission, with the American Institute and Federal Reserve cooperating, did issue a monograph containing tentative proposals for audit procedures and statement formats to be used in preparing the balance sheet and income statement. First titled "Uniform Accounts," the publication was later named *Approved Methods for the Preparation of Balance Sheet Statements*, and became a widely recognized procedural guide. Nicknamed the "accountant's bible," this first attempt to standardize accounting on a national scale achieved a distribution of about 65,000 copies before it was revised and retitled in 1929.[17]

An important object lesson of this episode was the realization that the task of establishing standards for financial accounting was much easier to propose than to accomplish. The heroic plan initially submitted by

government officials presupposed the existence of a structure of fundamental accounting principles when in fact such a design had not yet been formulated. The impotence of uniformity attempts at this point of accountancy's development served to reemphasize the importance of seeking to set out a group of fundamental accounting concepts, a recommendation that many leaders considered foremost in plans to advance the effectiveness of professional service.

Initiating the Inquiry for A Set of Financial Accounting Principles

By the midpoint of the period under examination, the CPAs audit and advisory functions were well recognized and established, but the third party attest function lagged, partly because of legal precedent and partly because the attitude of the financial community did not sharply discourage secrecy in financial disclosure.[18] As this triad of accounting functions took shape the important challenge which emerged to confront the profession was to compose a consistent set of accounting principles upon which the corresponding functional duties could be suitably based and adequately defined. The fact that accountants had multiple and often conflicting needs to consider and two principle statement forms to perfect did not appear to disturb their commitment to seek out a single valid set

of principles to serve as the basis for accounting action. For, they felt, through the exercise of their "professional judgement," tempered by individual epistemic and experiential factors, accountants would be capable of discriminating the use of concepts between different functional ends much as if designating an acceptable surrogate of a logical universal.[19]

That Preclassical writers perceived the need of employing such "logical" flexibility can be inferred from remarks by Dickinson before important professional gatherings such as the annual meeting of the AAPA in 1908 when he said:

> It should here be noted that there is a marked difference between a statement of profits prepared for and certified to an Annual Meeting of Stockholders and one that is prepared for the purpose of showing to perspective investors the earning capacity of the business.[20]

Before the same group four years later he added:

> All of us know perfectly well there is no book for accountants. I do not mean literally . . . there is none [but that], it is very seldom that you find two cases exactly alike. You have to take every case on its own merits and deal with it as you see it. If you should put down all the rules in the world you would have cases to which the rules would not apply. You have to use your experience . . . and that is the reason why we are here as professional accountants—because we have to gain experience, judgement and tact in dealing with accounts and taking the best of the many different ways of determining matters.[21]

Some Epistemic Tendencies of Preclassical Theory

The search for financial accounting concepts would not be restricted to the source of experiential knowledge

alone, for pragmatism was limited by its individuality. The need for theoretical adaptations to compliment practical perceptions became more generally recognized as practitioners themselves became more sophisticated. Theorization provided a ready means of summarizing and systematizing the many particular facets and personal rules of thumb which had accumulated within a purely pragmatic strain of accounting.

Some of the early attempts into the field of principles determination proceeded along the definitional path, seeking to establish a uniform accounting terminology. As early as 1909 and for several years thereafter a special committee on accounting terminology grappled with accounting definitions in anticipation of an eventual recommendation for an accountant's lexicon.[22] Although these early attempts were sporadic they evidenced an extant awareness of the need to begin a series of progressive explicative steps which would introduce order into the profession's vocabulary while furnishing an important glossary of terms which could serve as basic tools in the attempt to formulate theory.

For several years some accounting thinkers, like Sprague, understanding the important role theory would play in the development of financial accounting, had been exploring the applicability of philosophical methodologies

to accounting theory construction and verification. Sprague's epistemology was based upon deductive premises. He noted in the introductory remarks to his major work *The Philosophy of Accounts* that:

> As a branch of mathematical and classificatory science, the principles of accountancy may be determined by a priori reasoning and do not depend upon the customs and traditions which surround the art.[23]

Others called for a more expedient and inductive mode of thought which gave weight to experience as the guide for accountants' judgements. Walton stated:

> Being based on experience, theory is able to go further and to illuminate a subject and give practical aid to the actual worker. It does this by applying the law to other activities besides those from which it was formulated. . . .
>
> Thus theory, using man's limited experience, is able so to instruct man that his future experience broadens out into a practically unlimited field.[24]

There was a third logical methodology available to accountants during these first days of theory exploration which was to be found in the rudimentary writings of an English social philosopher-economist. In 1891, John Neville Keynes, the Cambridge dialectician published his major work, *The Scope and Method of Political Economy*,[25] which served to reconcile the views of historical inductivists and Classical deductivists with regard to appropriate epistemologies for the discovery of economic doctrines. The merits of this combined approach, having been made available to students of economics, were probably also

recognized by many of the first American accounting professionals including those academicians who had more reason to consider the merits of Keynes' approach in the course of their own advanced studies. Practitioners, in particular those who had been schooled in England, may also have been exposed to this blended form of reflection. Dickinson, for example, had been raised in Britain and educated at Cambridge where he was tutored by Keynes just a few years before the latter published the work cited.

While the inductive experiential mode of thought may have dominated popular attempts at theorizing, the lines of emphasis were being drawn that evidenced the growing importance of other epistemologies.[26] Academic inquiry, for example, tended toward deductive reasoning or the postulational approach in opposition to the inductivists led by practitioners who asserted that principles were simply "conventions."[27] This bifurcation of theoretical method signaled the start of what would become a more pronounced split between practicing accountants and academicians during the subsequent Classical period, particularly when several novel proposals supported principally by academicians began to appear.[28]

Chapter Summary

The economic and social ferment of the early twentieth century had a significant effect on the types of

financial accounting duties undertaken by Preclassical accountants. At the outset auditing as a preventive and detective procedure was the widely recognized function of the accountant qua professional. Audit expertise led to accountants being selected as trusted financial advisors and consultants during the era of industrial combination. When public concern over disparate ownership and management became apparent in the rising progressive political mood, professional accountants promoted wider use of the attest function by expanding the scope of certified financial statements.[29] While auditing and consulting remained the principal functions, by the end of the era the emphasis was gradually shifting, with growing importance being attached to the multiple aspects of the attest responsibility. In advance of this changing emphasis, leading accountants had convinced executives of many large corporations to adopt a fuller disclosure posture with regard to financial information. U. S. Steel, Equitable Life and General Motors, among others, led the departure from the common attitude of secrecy.

With accountants' responsibilities now converging about a triad of functions there was a clear need to seek and identify a set of broad and flexible concepts upon which these oft-conflicting functions could be grounded. During this stage, Preclassical accountants, understanding

the problems of such functional diversity, asserted their professional judgement (more often in necessity than in sufficiency) as the basis for action, reflecting theoretical propositions which would "evolve" into the broad concepts being sought. As a result, the notions and principles they proposed had a distinct "practical" flavor tending to serve as a form of explanative justification for accepted procedure.[30]

Preclassicists groped and progged for a suitable epistemology, initiating a series of definitional investigations as a start. These efforts presaged a signal achievement of the Preclassical period whereby a wider acceptance of abstract approaches was pioneered and the search for basic concepts (implied by the growing use of the term "accounting principle") was initiated. These accomplishments should not be undervalued, for they serve to set this period apart from the purely pragmatic approach to accounting evident in previous practice, while also furnishing the base of experience from which the more comprehensive approaches of Classical accounting thought would be advanced.[31]

These considerations warrant the use of the term "Preclassical" as a *descriptive* (as noted in Chapter I) to emphasize the fact that this was a period of initial inquiry and formative thinking when the search for

accounting principles was often pursued as pure probation given a lack of historical precedent in the midst of unparalleled economic growth and change.

Among the men committed to this unique inquiry were eight accountants whose experience, intellectual capacity, position and dedicated ability provided them with excellent qualifications to contribute importantly to the undertaking of the period. The next chapters will explicate and comparatively analyze the particulars of their notions with regard to asset valuation and profit determination.

NOTES

1. C. E. Allen, "The Growth of Accounting Instruction since 1900," *Accounting Review*, June, 1927, p. 166.

2. Howard C. Greer, "Benchmarks and Beacons," *Accounting Review*, January, 1956, p. 3.

3. John B. Inglis, *Development of Accounting Principles in the United States*, Boston: Bureau of Business and Economic Research, Bentley College of Accounting and Finance, 1964, p. 20.

4. Percival F. Brundage, "Roadblocks in the Path of Accounting," *Harvard Business Review*, September, 1951, p. 110.

5. Henry W. Sweeney, *Stabilized Accounting*, New York: Holt, Rinehart and Winston, Inc., 1964 (copyright, 1936).

6. The "individualistic" emphasis of Classical economics is also reflected in the "personalistic" and "proprietary" duality premises of Preclassical accounting (see Chapter V).

   Another similarity between Neoclassical economics and Preclassical accounting exists in the scale of their respective models. Neoclassical analysis concentrated on the firm. Preclassical accounting is correspondingly firm oriented, structuring measurement in terms of a firm's acquisitions, investments, revenues and expenditures. While it may not be warranted to assert that this resemblance follows from a causal relationship between economics and accounting the common analytical emphasis is worth noting if only because of the point of similarity in itself.

   Significant macro developments in accounting and economic theory seem to have been a post- (J. M.) Keynesian phenomenon.

   An apt "caveat" with regard to analogies between accounting and economic theory was expressed by John B. Canning in his work *The Economics of Accountancy* (1929), p. 4:

There seems to be a popular impression that accountancy is a branch of economics. Without materially enlarging the usually expressed scope of economics this impression might be difficult to justify. Fortunately little or nothing depends on this decision.

7. David F. Hawkins, "The Development of Modern Financial Reporting Practices among Manufacturing Companies," *Business History Review*, Autumn, 1963, p. 161.

8. B. C. Lemke, "The Development of Accounting in the United States," *Accounting Research*, v. 8, 1957, p. 230.

9. Homer S. Pace, "Accounting in Relation to the Income Tax," *The Pace Student*, August, 1920, pp. 129-30.

10. Percival F. Brundage, "The Influence of Government Regulation on Development of Today's Accounting Practices," *Journal of Accountancy*, November, 1950.

11. James Don Edwards, *History of Public Accounting in the United States*, East Lansing: Bureau of Business and Economic Research, Michigan State University, 1960, p. 106.

12. Walter A. Staub, *Auditing Developments during the Present Century*, Cambridge: Harvard University Press, 1942, p. 10.

13. The duties of British accountants were set out in specific legislation known as the Companies Acts. American accountants however had no such guide with regard to the limits of their legal responsibilities beyond extant case law which tended to follow British precedent. But American practice was not comparable to British in the basic sense that the former's services were not required by law and therefore were more purely demand derived. Such a disparity was not descried in the suits filed against American accountants. While the leaders of the profession were advocating acceptance of attest responsibility accountants who adopted a purely business point of view about their practice probably welcomed the court decisions which limited their chances of being sued by another group, even though this somewhat selfish view served to undermine claims that accountancy was a true profession motivated by its concern from the common good.

14. John L. Carey, *The Rise of the Accounting Profession*, v. I, New York: AICPA, 1969, pp. 252-8.

15. Railroads first came under uniform account rules in 1894 when the Interstate Commerce Commission issued its classification of operating expenses which was later revised in 1901. In 1907, following the Hepburn Act, the Commission's authority was extended to include required standardization of reporting for railroads under its jurisdiction. On the state level, the New York Public Service Commission, formed in 1908, issued a number of uniform account prescriptions for gas, electric, telephone and street railway companies. Not until the Transportation Act of 1920 and the issuance of regulations by the Federal Power Commission in 1921, however, was regulatory action deemed to have been sufficiently strong to bring about a noticeable change in the information reported to utility shareholders (see note 10 above, P. F. Brundage).

16. Edwards, *op. cit.*, p. 134.

17. "Instructions for Verification of Financial Statements" (Editorial), *Journal of Accountancy*, May, 1929, p. 361.

18. A most comprehensive review of the state of accountancy during the Preclassical period is provided by Arthur Lowes Dickinson in an address contained in the *1908 Yearbook of American Association of Public Accountants*, pp. 188-254. He cites the principle functions of accountancy in America during this period and refers to the growing need for accountants to accept a third party attest responsibility. To the extent that accountants had begun to certify statements used for bank credit application and were acting as "de facto" tax consultants they were already performing "quasi-attest" duties with regard to third party bankers and government interests.

19. Yuji Ijiri, *The Foundations of Accounting Measurement*, Englewood Cliffs: Prentice-Hall, Inc., 1967, pp. 6-13.

20. A. L. Dickinson, "Accounting Practice and Procedure," *1908 Yearbook of American Association of Public Accountants*, p. 208.

21. A. L. Dickinson, "The Abuse of the Audit in Selling Securities," *1912 Yearbook of American Association of Public Accountants*, p. 62.
    For expressions of other Preclassicists' comments regarding the role of professional judgement and the diversity problems of accounting's multifunctional role see: William Morse Cole, *Fundamentals of Accounting*, pp. 339, 343; J. R. Wildman, *Principles of Accounting*, p. 285; R. H. Montgomery, *Journal of Accountancy*, June, 1919, p. 92 and *Auditing Theory and Practice* (1912), p. 9 and A. L. Dickinson, "The Duties and Responsibilities of Public Accountants," *Accountant*, July, 26, 1902, p. 750.

22. Henry R. M. Cook, "Discussion: Report of the Special Committee on Accounting Terminology," *1909 Yearbook of American Association of Public Accountants*, pp. 184-6.

23. C. E. Sprague, *The Philosophy of Accounts*, New York: The Author, 1907, Preface.
    The fundamental axiom of accounting, assets = liabilities + proprietorship, is recognized to have been popularized by Sprague. Later, Classical writers, led by Paton, modified the axiom to assets = equities.

24. Seymour Walton, "Practical Application of Theoretical Knowledge," *Journal of Accountancy*, October, 1917, p. 277.

25. John N. Keynes, *The Scope and Method of Political Economy*, 4th Edition, New York: Augustus M. Kelley, 1965 (copyright, 1891).

26. Not until the 1940s was significant attention given to the study of Keynes' form of binary logic as utilized in accounting theory. Based on the premises of Dewey's epistemology, the impact of this approach is inchoate.

27. W. B. Gower, "Advisory Accountancy," *Journal of Accountancy*, October, 1920, p. 263.

28. The major items include:

    A Tentative Statement of Accounting Principles, 1936; *A Statement of Accounting Principles*, 1938; *An Introduction to Corporate Accounting Standards*, 1940; *Structure of Accounting Theory*, 1953 and *A Statement of Basic Accounting Theory*, 1966.

These proposals were published under the auspices of the American Accounting Association, a group which is academically oriented.

29. George O. May, "Qualifications in Certificates," *Journal of Accountancy*, October, 1915, p. 248.

30. Gower, *op. cit.*, p. 266.

31. Some of the distinguishing aspects of the Classical period of accountancy are set out in Chapter I of this research. Essentially, it can be characterized through two accountants, W. A. Paton an academician and proponent of the postulation approach, and G. O. May, renown practitioner, who advocated the pragmatic view that accounting principles were merely conventions derived from experience.

    The Classical period is also distinguished from the Preclassical by the degree to which the third party attest function dominated the role of the accountant in society. Not until the Classical period, when the changing legal influence brought on by the Ultramares case and changing federal legislation affected through the SEC, was accountancy to be so totally guided by attest considerations. The full impact of third party attest responsibility in itself tends to differentiate Classical from Preclassical accountancy.

CHAPTER V

PRECLASSICAL ASSET VALUATION THEORY

Introduction

The issue of value in accounting can be reduced to the questions reflecting a duality of:

1. What is to be valued?
2. Whose rights are represented in the valuation?

The significance of this duality in accounting theory and the history of its transformation as a colligatory consideration to Preclassical thought is an appropriate point at which to begin the study of Preclassical value concepts.

An Historical Transformation of the Duality Premise

From the era of Pacioli to the present day the acculturation of financial recordkeeping can be depicted in terms of the relationships represented by statements of equality in the system of double entry.[1] The Italian form (1) which is the earliest known example of this consists of:

Form of Premise	Derived Functions
(1) property = claims	recordkeeping

This expression stresses "doubleness" more than equilibrium and not until advances traceable to seventeenth century English practice was the format importantly modified.

In its second phase (2) the duality involved maintaining equalness:

Form of Premise	Derived Functions
(2) goods = liabilities	constructive (journal) bookkeeping

This emphasis is called the "personalistic" duality with both creditors and owners deemed to be "owed" by the business which is viewed as an entity in itself—which in effect results in all claims of external parties being viewed as liabilities.[2] The "personalistic" emphasis survived well into the Preclassical period and traces of it appear in the underlying approaches of Cole,[3] Dickinson,[4] and Esquerré.[5] Entries in the "personalistic" system were commonly derived from these "personal" maxims:

Whatever owes you is debtor
Whatever you owe is creditor

or

Debit what you receive
Credit what you give[6]

The limitations of "personalistic" duality, first noted by Jones and Foster, led to another modification of the premise identified as the "natural" or "materialistic" emphasis.[7] The early nineteenth century American writers just cited and some German contemporaries, notably Augsburg and Kurzbauer,[8] are credited with initiating the development of this approach which matured in America under the influence of Sprague and in Germany under Hugli.[9] As early as 1880, Sprague developed a deductive structure for this system stressing a physical concept of assets and limited recognition of intangibles—all being valued on the exchange cost basis.[10] Sprague's materialistic duality shunned the entity distinction, identifying the owner-proprietor with business net wealth (the residual after providing for creditor-liability) claims.[11] The attributes of this approach are:

	Form of Premise	Derived Functions
(3)	assets = liabilities + proprietorship	accountantship and professional auditing

The deductive system of accounts which Sprague developed from this equation culminated in his work *The Philosophy of Accounts* (1907).

Sprague's disciple Wildman provided the next modifying proposition. Using Sprague's own notion of accountability (4), Wildman proposed the following:[12]

Form of Premise	Derived Functions
(4) assets = liabilities + accountabilities	advisory and modified attestation

In accenting the difference between proprietorship and accountability, Wildman provided a unique and important approach to recognizing the new and rising class of non-management ownership rights and the fiduciary position which executives of corporations held with regard to the permanent investments of stockholders. Wildman's premise, like Sprague's, ignored the entity fiction. Instead, Wildman expressed the belief that ". . . the great corporations are in effect magnified individuals."[13] This suggested that accountability was oriented to individual owner-proprietors much as was Sprague's duality.[14]

The Sprague-Wildman approaches reflected a broadening of the area of accounting responsibility to encompass audit and advisory as well as a limited attest (via accountability) function. Taken together these considerations suggest the need to explicate the important portions of Preclassical asset valuation theory which were affected by the transformation of the duality premise.

A Preclassical Valuation Model

"Accountancy is a profession having to do with the recording, verification and presentation of facts involving the acquisition, production, conservation and transfer of

values."[15] This self-description, by the 1915 profession's committee on terminology, suggests the importance of the valuation process in Preclassical accounting, ending in the preparation of the statement of financial condition (balance sheet).

Dickinson, Hatfield,[16] Kester,[17] Montgomery[18] and Sprague were explicit in their views with regard to the primacy of the statement of financial condition. For example, Dickinson said:

> The objective of a set of books kept on sound principles and with accuracy is to enable the actual financial condition to be ascertained at any time.[19]

Sprague was more direct:

> The Balance Sheet may be considered as the groundwork of all accountancy, the origin and the terminus of every account.[20]

Cole[21] and Wildman,[22] while not given to challenge these statements directly, tended to focus a comparable degree of attention to operating analysis and the income report, which was then viewed as more of a source of supplemental information much as present tendencies are to view the statement of funds as supplemental.

Sprague dictated that asset values, established at exchange price, were recognized only to the extent that they represented ". . . material things now in possession and . . . material things which shall be in possession . . . [rights]."[23] An exchange cost basis of initial value as selected by Sprague reflected accepted practice

and the theory of Classical economists, including Smith and Mill.[24] Preclassicists began to challenge the acceptance of *pure historical cost* as the *continuing* basis of value and successfully substituted a subjective structure from which a modified historical cost valuation basis could be formed with historical cost continuing to provide the *initial* basis for valuation. The components of the modified cost theory included several notions, including those of depreciation, appreciation and amortization. A comparative analysis of these and other valuation topics will provide the pattern for the analysis which is forthcoming in this chapter.

Inventory Valuation

Hatfield dilated the problems of merchandise inventory valuation and also described the following practice:

> [T]he first principle of valuation . . . that of the "going concern" in strict logic demands that merchandise for sale be valued at the present selling price, with a reduction to cover selling expenses. . . .
>
> The conservative rule, generally adopted [however], is that merchandise is to be inventoried at cost except where there is a decline in value, in which case the lower value is to be used.[25]

Dickinson rigorously dictated his approach, citing the following steps for ascertaining the correct value:

a. An accurate enumeration of the quantities on hand.

b. An accurate ascertainment of the actual cost of the different manufactured articles, either completed or in progress.

c. A specific reduction in the prices of raw materials of the amount by which the market valuations at the close of the fiscal period fall short of cost.

d. A proper provision for all stock which is old or depreciated or for any reason likely to be unsalable.[26]

Hatfield and Dickinson favored the lower of cost or market, for reasons of conservatism. This justification was found wanting, in part, by Kester:

> The effect of valuing the stock-in-trade at a lower market than cost is to bring into the period's results a loss which may never be realized, either because the change in purchase market may not be reflected in the sale market, or because if so reflected, the market may swing back before the actual sale of stock is made. . . .
>
> If valuation is to be made at the market when that is lower than cost, consistency would seem to demand that, when the market is higher than cost . . . market value should be used. . . .
>
> [T]he valuation formula of cost or market, whichever is lower, while based on conservatism may unnecessarily and improperly burden the current income account. Valuation at cost, on the other hand, while placing the profit or the loss in the period when realized may cause the balance sheet to present an entirely inadequate and even misleading story as the basis for credit. To remedy this, three courses are open:
>
> 1. Carry the market valuation . . . in a footnote. . . .
>
> 2. In case market value is less . . . set up a reserve out of profits. . . .

> 3. Carry in an inner column in the body of the balance sheet, the present market value.
>
> It would seem . . . that the valuation at cost with the present market value on the face of the balance sheet, is the most desirable. . . .[27]

Esquerré was less willing to compromise on the issue of cost, stating the following case against the cost or market rule:

> The inventory of a . . . concern should be valued at cost. It has been held that it is proper to compute it on the basis of the market value, if such a value is smaller than cost; but is generally denied that market value higher than cost can be used. If the lower value is allowed there is no reason why the higher value should not be. There is, however, a good reason why market values should not be used at all. Accounting is not interested in what would happen "if," but in what has actually happened; and since the goods unsold were purchased at a certain price, profits realized are to be measured by comparing that price with the proceeds. To reduce the inventory to a value lower than cost is to add to the cost of the goods sold during the period . . . [a] result [which] is contrary to the truth.[28]

Another precept of Preclassical inventory valuation stemmed from an awareness of the problems involved in proposing assumptions about inventory flow.[29] Kester and Dickinson urged use of a FIFO (first-in; first-out) flow as the acceptable substitute in circumstances where no other suitable determination could be made. This suggestion may have improved upon, but did not depart from the traditional practice sanctioned by the British as noted by Dicksee and others.[30]

Preclassical inventory concepts can be considered "modern" in the sense that they too acknowledged the presently accepted cost or market rule. However, even this attribute cannot be called "novel" since both Littleton[31] and Parker[32] have traced lower of cost or market through centuries of development. Finally it is even questionable whether this approach, based on conservatism, constitutes a theory or whether it is more nearly a descriptive of traditional pragmatism. Gilman for one argues:

> Conservatism is obviously not a principle, since a principle is fundamental [to] truth whereas the essence of conservatism is understatement and understatement "falls below the truth or fact."[33]

If then Preclassicists are to be credited with innovative inventory thought it is to be found in the objections which they raised to conservatism. Both Kester and Esquerré expressed or implied the notion of consistency in this regard and Kester, in particular, directed attention to the responsibility of accountants to avoid "misleading" statement users—an indication of an awareness of inventory valuation and its relation to the question of adequate disclosure.[34]

Depreciation Theory[35]

The lack of a *theory* of depreciation at the end of the nineteenth century has been well established in

the works of Brief, Litherland and Woodward.[36] While depreciation policies existed, no systematic methods, based on theoretical considerations were used. Charges were not viewed as expenses but were debits of actual expenditures for maintenance and renewals made as charges to the periodic revenue accounts.[37]

Growing recognition of the need for a theory of depreciation stemmed from the expanding information demands of a new class of accountable executives who sought to obtain more current valuation data than was contained in the historical cost representation of value. Also, income tax deductions for depreciation were a persuasive factor, although important recognition of depreciation theory antedated even this influence.

Origins of Depreciation Thought

The necessity of allowing for depreciation was noted by Mill in *Principles of Political Economy:*

> If, for instance, a machine worth 500£ loses one-fifth of its value by each year's use, 100£ must be added to the return to make up this loss, and the price of the commodity will [have to] be [increased] . . . .[38]

Under the English Companies Act of 1862 there was a requirement for valuing stock and plant ". . . at cost with deduction for deterioration in value as charged to the reserve fund or profit and loss."[39] The vagueness

of this precept however, and the commonness with which income disclosure was evaded during this period, made this requirement of less consequence than it may have otherwise been.

Alfred Marshall also treated the subject of depreciation:

> [I]f [improvements] are being deteriorated, the equivalent of the injury done to them must be deducted from the income they are made to yield before we can arrive at [their] *Net* income. . . .[40]

Not until about 1907 did the issue of depreciation become a public issue of interest to American businessmen. In that year a depreciation requirement affecting regulated companies was proposed by the ICC which suggested that:

> The question of depreciation . . . was "fundamentally a question of value, and not a question of maintaining the original capacity or a standard of operating efficiency." The amount at which the percentage rate was to be applied was [based therefore on] original cost, as opposed to replacement value.[41]

Preclassicists advanced a theory of depreciation basing their suggestions upon two diverging views, the "sound value" and "operating charge" approaches.[42] The sound value approach was favored by creditors and the accountants who sought to provide them and their representatives with estimates most useful in credit granting decisions. Kester addressed this issue:

> Sound valuation is the thing which the balance sheet should set forth. Is it not sometimes possible that an amount of depreciation for this purpose may . . . bring about inequitable results from the standpoint of operating costs?[43]

In affirmative reply to his own question, Kester then asserted the importance of the operating view of depreciation.

Dickinson championed the sound value approach:

> [P]rovision should be made each year for renewing the proportion of original cost equivalent to the estimated life, so that by the end of the term the whole is provided for.[44]

He also noted:

> [A]ny depreciation due to wear and tear arising out of the use of Fixed Assets must be made good out of earnings before the surplus can be applied to the payment of any divident unless these Fixed Assets are of a wasting nature, such as mines.[45]

Hatfield attacked the issue from another angle—that the basis for allocation of fixed asset cost must be in proportion to the benefits received:

> The real question is not whether the original value has been maintained, but whether the consumers have paid enough to cover the ordinary operating expenses and depreciation.[46]

Esquerré chose to distinguish between wear and obsolescence, introducing a sublimation to depreciation theory by proposing to separate the charge for specially built equipment (obsolescence) from depreciation on standard machine models—an approach somewhat resembling a negative type of Marshallian quasi-rent. This was necessary, he urged, because special machines incurred a unique risk of obsolescence and subjected the firm to a probable loss which should be accounted for distinctly from the problematic loss caused by simple wear and tear.[47]

If the views just recounted fail to impress one with the comprehensive nature of Preclassical depreciation theory, excerpts from a 1914 article by Wildman should assist in sharpening a sense of appreciation:

> The value of all physical property tends to decrease owing to such causes as use, abuse, oxidation deterioration, disintegration, inadequacy, obsolescence and even change of ownership. . . . Since the passing of physical property is inevitable, provision for its loss should be made from . . . profits. The accounting term used to denote this charge . . . is "depreciation."
>
> Immediately, the argument arises that if the property is adequately maintained a charge for depreciation is not necessary. Even if wear and tear are synonymous with maintenance (which it is probably is not intended to be) there would still be going silently on that subtle deterioration which is accomplished by time . . . wherein repairs and maintenance will not avail. . . .
>
> The life of the property is primarily the basis for determining the duration of the value. . . .
>
> To determine the amount to be written off annually there are several methods at hand, namely, the fixed percentage, the fractional method with weighted years, declining balance unscientific, declining balance scientific, sinking fund and revaluation.
>
> Few rules concerning depreciation may be consistently laid down. Of the necessity of providing for it, however, there should be no question, even though the property is adequately maintained.
>
> Finally, conservatism should govern, remembering that at best depreciation is only an estimate.[48]

Preclassical depreciation was not only theoretically significant, it was also memorably phrased. For example, Hatfield's now famous remarks prefaced his depreciation theory:

> All machinery is on an irresistible march to the junk heap, and its progress, while it may be delayed, cannot be prevented by repairs.[49]

The practitioner's choice between sound value or operating approaches would probably have been sound value. It could be characterized as typical because it seemed a more satisfactory response to the customs and wishes of the major accounting consumers of the era—creditors and bankers. Tax considerations, on the other hand, strengthened the propensity to adopt an operational approach—seeking to provide more rapid and perhaps more liberal charges in order to reduce the cash outlay for tax expense. But even this consideration is offset by the realization that long-range planning considerations of executives would tend to require sound value notions so that investment and replacement decisions could be done adequately in a technology oriented economy which was becoming more attuned to the importance of capital investment decisions. Finally, the "value" orientation of regulatory agencies and the decisions of courts seemed to favor sound value.[50]

The unsettled state of depreciation theory (sound value versus operating charge) should not be permitted to cloud the significance of the moment however. Indeed, historically and theoretically, the Preclassicists pioneered and promoted the acceptance of depreciation

such that by the close of their era it had won a place in valuation theory. Furthermore, as Kester pointed out with regard to the two different approaches: "Theoretically there is no conflict of views . . . only a different emphasis."[51] With the ascent of depreciation theory accounting value theory became one of "modified historical cost."

Appreciation Theory

As indicated in the price-level discussions of the previous chapter, inflation was a unique phenomenon to early twentieth accountants, whose experience had been based on the long secular price decline of the post Civil War period. In part as a result of this novelty, the problem of accounting for inflationary effects on valuation was less well understood than, for example, the issue of depreciation. Because of the lack of price level theory and supportive data a separate technique for price level adjustment was inconceivable. Appreciation to Preclassicists, therefore, represented the action of two forces (not clearly perceived as distinct):

1. Changes in price-level.
2. Changes in replacement cost, which reflected econo-technological factors and other variables.

Appreciation as an accounting concept at this point failed to adequately discriminate between these two factors. As

a result, Preclassical appreciation methods consisted of one approach to reflect *both* incremental elements. The one approach consisted of subjective professional appraisal.

Appreciation Income

One of the most controversial aspects of the appreciation topic relates to its recognition or non-recognition in the income accounts. Preclassicists were generally against admitting unrealized income items such as appreciation. Montgomery recapped this position:

> The argument may be urged that there is a certain appreciation of values which offsets . . . depreciation. Such a claim as applied to a statement of current operations, is, of course absurd and will hardly be considered seriously by an accountant.[52]

Others, while less vehement, also chose to dissent from recognizing such income.

Kester and Wildman[53] proposed compromise measures for the treatment of appreciation, consisting of appreciation reserve accounts. Kester concentrated on the appraisal increments of land and real estate values[54] and Wildman saw balance sheet use of appraisal estimates as acceptable only when they were clearly identified with "estimates of unrealized value."[55] Hatfield's views favored the reserve approach;[56] he also made a valuable contribution to the subject in his research of appreciation practice. In 1909, he disclosed:

> German custom seems to be steadfastly opposed to marking up the value of the fixed assets, even as an offset to previous excessive depreciation. . . . But such an action is justified in England, and is not unknown in American practice, as for instance by the Excelsior Water and Mining Company, in which instance . . . action was subsequently sanctioned by the Supreme Court of California.[57]

Dickinson, perhaps reflecting a bit the British attitude, was more liberal with regard to appreciation. He departed from the realization posture urged by most Preclassicists, stating his case as follows:

> It is necessary to recognize that there are causes at work, particularly in the young and growing communities, which may render a statement prepared on the basis of cost of capital assets misleading and even prejudicial to the proper interests of present owners. Over a period of years changes in value due to rise or fall in prices may be sufficiently permanent to render it unfair to one business to maintain original cost values as compared with another whose assets have been created at widely varying costs.
>
> It is true that from the point of view of earnings such increment cannot be taken as in any way a proper offset to losses due to wear and tear, depreciation or obsolescence; but this does not alter the fact that in spite of an insufficient provision for depreciation on some assets, there may be an actual increase on the total value of all assets. . . .
>
> This condition must be recognized and is frequently met by means of careful appraisals of all properties, the resulting increase (or possibly decrease) being taken up as a special credit or debit to Profit and Loss account (or Surplus) and shown as entirely distinct from operating results.[58]

Montgomery, less willing than any of the others to accord recognition to appreciation increments, suggested: ". . . a footnote on the balance sheet is all

that is required . . . and any adjustment of the account in the books by increasing the asset and crediting surplus is rarely permitted by good accounting practice."[59]

A Preclassical Norm

The permissive tendency of Dickinson, while singular, is not to be dismissed, for his influence was widespread and hardly ever taken lightly.[60] If this liberal approach was widely adopted, condoning the inclusion of appraisal increments in the profit and loss account, it may have contributed to the tendency to inflate asset values and income figures in turn serving to spark the flames of financial speculation which consumed the market during the "roaring twenties."

Preclassical appreciation theory, using Kester and Wildman's notions as the norm—were not as liberal as what Dickinson proposed, yet were decidedly more accommodating than in any subsequent period. They reflected the pressures of a unique American age when price inflation and industrial expansion squeezed traditional valuation doctrines into relatively radical postures.

The shortcomings of Preclassical appreciation theory stemmed from the inability to properly separate price level and nonprice level factors (due in part to the lack of price level techniques and data), using

appraisal estimates to reflect both. The inadequacy of the appraisal approach would not become clearly apparent until some pioneering thoughts, as evidenced in Sweeney's work, appeared during the Classical era of accountancy.

Investment Valuation

In the face of the large scale investments and the growing number of corporate holding companies created in the age of vertical integration, the need for the development of a long term investment valuation theory became paramount. Preclassicists were sensitive to this need with Sprague being an unquestioned pioneer of debt instrument valuation and the interest thereon. Kester set out the principles of long term stock investment and Dickinson established a temporary investment theory. All of these will be considered here as evidence of Preclassical notions.

Debt Instrument Valuation

Sprague's work in the area of debt investment appears to be a spinoff of his banking responsibilities. His reputation as to bonds and the interest on bonds was widely acknowledged. As Wildman observed, ". . . perhaps Sprague gave more thought to the subject of [bond]

interest than any other man who has written on the subject."[61] *The Accountancy of Investment* published in 1904 set out the theoretical and functional guidance which Sprague suggested; including the following:

> In the strictest sense . . . investment implies divesting one's self of the possession and control of one's assets and granting such possession and control to another.
>
> All investment is made with a view to revenue, which is the share of earnings given for the use of capital.
>
> In considering the forms of account for investment . . . first take up those in which there is never any value to be considered other than par, such as direct mortgages and loans upon collateral security.
>
> When we consider investments whose price fluctuates . . . the problem is more difficult because there are several prices which . . . may be desired . . . the original cost, the market value, the par and the book value or amortized value. The original cost and the par value are the extremes; one [to be recorded] at the beginning and one at the end of the investment. The book values are intermediate to these and represent the investment value, falling or rising to par by a regular law [scientific amortization] which maintains the net income at the same rate. . . . The market value is not an investment value but a commercial one . . . it is the price at which the investor *could* withdraw his investment; but until he has done so, he has not profited by its rise, nor lost by its fall. So long as he retains his investment, the market value does not affect him nor should it enter into his accounts. . . .[62]

With regard to the treatment of bond purchase discount and premium, Sprague attacked practices which failed to recognize amortization of discount; pointing out that a ". . . logical mind would have forced . . . the conclusion that discounts as well as premiums were

subject to the law of amortization, and that a discount was always 'the capitalization of a reduction of the rate of interest.'"[63] Sprague insisted that accounting treatment of bond investment and premium must be consistent and that no case could be made for the opposite, namely that ". . . bonds bought at discount differ from bonds bought at premium in that there is not the same certainty of the discounts being eventually earned as of the premium being lost."[64] This argument is false, said Sprague, because ". . . the premium is not lost at maturity, but has gradually been refunded to us and the discount is not lost, but gradually withheld from us."[65]

With regard to the terminological particulars in bond accounting, Sprague's disciple Wildman disagreed with the use of the term amortization employed by Sprague to mean apportionment of both premium and discount. Wildman preferred the word accumulation with regard to discount, using amortization only with regard to premium.[66]

Stock Investments—Long Term

Kester again is selected as a spokesman for Preclassicists with regard to a theory of long-term stock investment:

> It may seem that, inasmuch as the investment is in the nature of a fixed asset, valuation should always be at full cost; that market fluctuations should have no effect. The last half of this statement is correct but the first part needs modification. It is to be expected that a concern in

> purchasing stock of another will not pay more than it considers the stock to be worth. The price may be more or less than the face value of the stock, depending upon the existence of an element of goodwill or the overstatement of the assets on the books of the company; or again, where the stock is bought on the open market many other factors may cause a variance of the purchase price from the par value of the stocks. . . .
>
> Were the investment simply an inanimate asset . . . cost . . . would be proper. So many things can happen to an operating corporation that cannot befall an inanimate asset . . . that . . . to value both on the same basis is hardly tenable. Accordingly a true basis is secured for valuing . . . an investment on the books of a holding company [in the following manner]. . . .
>
> Any increase in value over cost is due to the profits made by the subsidiary enterprise and in the case of its complete ownership by the holding company these belong in full to the holding company. If all the profits are disbursed as dividends . . . no change in value [occurs]. . . .
>
> The net amount of the enhancement in value is the difference between the net profit made by the subsidiary and that portion paid out of dividends—the portion reinvested in the business. . . . That this policy of increasing the value of investment is conservative and sound is apparent when one considers that holding company's ownership of the subsidiary [as a majority owner, reflects through] controls [over] the latter's policies, including the dividend policy. . . .
>
> The profit taken onto the books of the holding company by the above method is a real, not a book, profit.[67]

Temporary Investments

Dickinson set out a theory of temporary investment values in 1904, which included recognizing market value gains on temporary investments—a practice questioned in

lieu of the realization premise. Dickinson, however, argued that temporary investments ". . . have no relation whatever to the business and can be disposed of without in any way interfering with its earning capacity, other than the loss of dividends thereon." In keeping with the requirements of consistency he also noted that marketable securities should be carried at market when market is below cost.[68] Kester held that it would be more valid on theoretical grounds to place valuation at cost with a footnote to show market value.[69] Both also acknowledged the possibility of incorporating a reserve account to maintain a record of fluctuations in market value but recognized that this would only be desirable in the case of large temporary investments whose value fluctuated widely.

The important recognition accorded the theories cited is evidenced by the widespread acceptance they received by important peers including others of the Preclassical group. Sprague's techniques appear to be both a unique and masterful rendition of bond valuation principles. Dickinson's and Kester's views, which were also well composed, probably reflected well established practice.

The Valuation of Intangibles

Goodwill

A long disagreement among English accountants with regard to valuation of Goodwill presaged Preclassical attention to the matter. The particulars of the dispute were noted by Hatfield:

> The question has arisen as to whether Goodwill having once been properly entered in the books at its cost price should continue at that figure, or whether it should be subject to periodical revaluation or regularly written off. . . . Child, Cooper, Guthrie and Pixley are among those favoring a writing off of Goodwill, while Dicksee, Caldicott, Garcke and Fells and James argue that it may be continued at its original figure regardless of changes in its value. . . . Welton in general opposes writing off of Goodwill but says that it should be done when the Company has not earned the anticipated profits on which the valuation of Goodwill was based . . . with Guthrie [this] writing down of Goodwill is conditioned on the company having unusual profits which can be appropriated for that purpose.[70]

Dickinson sided with Dicksee, pointing out that ". . . Goodwill . . . is to some extent dependent upon the profits earned and . . . being consequent upon and not a cause of the earning of profits [is] . . . not therefore to be taken into account in ascertaining them."[71]

Esquerré's views, while broadly conceived, were only partially receptive to Dickinson's recommendations, for while Esquerré did consider purchased Goodwill a permanent asset, he believed that Goodwill might consist of factors other than Goodwill generated by purchase. For example:

> There does not seem to be a valid objection to the charging of the operating shortcomings of what might be called the "probation period" of a newly established business to an account which would record the cost of obtaining the Goodwill of the community.[72]

Wildman recognized three occasions which gave rise to Goodwill:

> To reduce the rate of return on capital investment [as in the case of a business enjoying extraordinary returns which elects to capitalize the Goodwill responsible for these higher returns and thereby reduce the rate of return].
>
> To dispose of it by sale or consolidation.
>
> To give a proper value to an established business before the admission of a new partner.[73]

Cole's position, which expressed typical caution, considered that:

> Because the value of Good-will is so problematical, the usual practice in accounting is to refrain from showing it as an asset upon the books unless it has been paid for. . . .
>
> To put on the books what is paid for Good-will purchased . . . is to show costs. . . .
>
> [If purchased on the basis of anticipated perpetual excess earnings], Good-will . . . is an asset forever . . . however it is not uncommonly written off on the theory that old Good-will does wear out and new Good-will takes its place—but if new maintains or replaces old, no reason except conservatism exists for writing off Good-will.[74]

Hatfield opposed permanent capitalization of Goodwill on the grounds that it presented a certain number of years excess earnings purchased, and based on the number of years used in this determination, it should

be written off over the period in question.[75] Montgomery recognized a similar basis in valuing Goodwill but leaned in favor of retaining the asset on the books.[76] Wildman, noting the abundance of practice opted for a reserve account for Goodwill saying: "The tendency in the value is to decline and the safest policy to adopt would probably be to make provision for a reserve to offset Goodwill . . ." based on the estimated life.[77]

Sprague it can be argued, may not have admitted estimated Goodwill to the balance sheet; how he viewed purchased Goodwill is not clear. Consider this remark:

> The balance sheet has limitations. The personality of the proprietor, his skill, his experience, tho [*sic*] important elements of his capital can never be brought into his balance sheets.[78]

It is not unusual that Preclassical thinkers evidenced a wide range of opinion on the problem of Goodwill—the slipperyness of the whole notion, long debated among Europeans, has yet to be firmly resolved even in light of a recent fiat by the Accounting Principles Board in Opinion no. 17.[79]

Patents and Trademarks

With regard to other intangibles, most commonly the debate centered around the topic of legal rights, such as patents and trademarks.

Dickinson argued for capitalization on a practically permanent basis, claiming that ". . . by the

time the original patent has expired, the corporation may have built up a practical monopoly, or at any rate such a lucrative business that the original cost of the patent is now replaced by the admitted value of Goodwill."[80]

Others, notably Cole and Hatfield, disagreed, suggesting periodic amortization over the legal life. Kester was in agreement with them, pointing out that more than just the legal life of patents was involved since supercession and obsolescence of the patent's usefulness also must be considered. Altogether then these views were summed in the expression, now an accounting cliché, that the amortization of patents should be calculated with regard to the legal life or useful life whichever is less. Present theory is largely unchanged from this.

A trademark's value because of its indefinite life is not as readily accorded the formula type treatment which seems to fit patents. Esquerré discussed the variety of concepts which could be used to handle trademark value:

> If kept in force [trademark] value should not be written off. If abandoned they may be closed by a debit to profit and loss, precisely like all other assets which have outlived their usefulness; or they may be written off gradually during a period of years, upon the theory that, although given up, they have brought Goodwill to the business of future years; or [as proposed by Dickinson] their original cost may be transferred to Goodwill to be written down with that asset if such is the policy of the concern.[81]

Current thinking, allowing flexibility, shadows the theory of Esquerré, established nearly sixty years ago. If there is any difference it is in a tendency to be more conservative, considering a write off over a shorter term on the premise that rapid loss in value can be expected in the face of fast changing consumer tastes and markets.[82]

Preclassical intangible valuation theory testifies to the difficulties encountered when theoretical schemes face the spectra of reality. Despite the diversity however, it represented some acute thinking on the part of Preclassicists and represents a worthy addition to their other contributions, providing sets of logical premises for quantifying the value of economic "abstracts" which only a few years earlier were bereft of much serious consideration by accountants.

Development of Disclosure Premises

Preclassical valuation theory was significantly influenced by the needs of the growing and sophisticated community of investment and commercial bankers. In particular "sound value" preferences and conservative propensities were reflected in accounting valuation theory. Furthermore, in attempts to assist the members of this community, accountants placed growing emphasis on

standardization of certified statements. Leaders of the profession, including Dickinson and Montgomery, recognized however that uniformity was not a substitute for adequate "publicity" and they used every opportunity to advance fuller disclosure, intent on shaping what Dickinson and Montgomery noted to be the "revolution in commercial accounting and balance sheets."[83] As early as 1910, Montgomery proposed a two point program of compulsory corporate publicity aimed at advancing the level of protection afforded stockholders of national corporations. "Protection to the stockholders," said Montgomery, "would be afforded by the compulsory audit and report."[84]

These efforts were manifest in part through the "Uniform Accounts" monograph of the Federal Reserve issued in 1917. The balance sheet format prescribed in this booklet was one long supported by Montgomery and imitated the unique sequencing described by Sprague some thirty years earlier.

Chapter Summary

The student of theory and history should beware of any heroic attempts to distill the contributions of so many men for so many years into too compact an expression (*tot homines quot sententiae*). Overgeneralizations

notwithstanding, Preclassical valuation theory is surprisingly complex and complete.

The most significant contribution of their value theory lay in the structuring of a theory of depreciation which had been lacking heretofore. Their appreciation theory, and its tenant of noninclusion of appraisal income indicates the influence of the realization per sale principle—a throw back on "stewardship" bookkeeping. As well they took action to implement greater financial publicity to aid creditors and stockholders. From these attempts, experience was gained which insured more successful outcomes in the years to follow.

Preclassicists clearly understood the going concern as opposed to liquidity concept of valuation and adopted the former.[85] They recognized but chose to defer, with the possible exception of Cole, the implications of an "entity" notion. Instead a proprietorship accountability orientation *mutatis mutandis*, which stressed responsibility of managers to absentee-owners, was in evidence.[86]

The doctrine of conservatism continued as an important factor in Preclassical theory, partly because of its traditional weight bequeathed from British accountancy and probably in part because of the desired and desirable connection it seemed to insure with the banking community.

Kester's reference to "consistency" with regard to inventory and the allusion of others with regard to "logical sameness" indicates the degree of acceptance which this principle had achieved.[87]

Above all else, however, the significant achievement which arises from the study of Preclassical valuation theory is not the modification of the underlying duality premises or the widespread reference to accounting principles—generally believed to be of later origin. A unique contribution of Preclassicism was its ability to suggest several theoretical concepts of sufficient validity to bring about a modification of the pure historical cost valuation model. In establishing the subjective valuation concepts upon which depreciation, appreciation and amortization theories were based, Preclassicists asserted the importance of the societal role which *professional* accountants filled by the exercise of their trained judgement. The continuing use of cost as the year to year basis of value (via a mechanical cost inventory of a firm's assets) left little room for "professional judgement." But as the valuation process of "derivation" (as identified by Sprague) achieved customary usage, professional judgement became a necessary adjunct of its acceptable employment in the process of asset valuation. Accountants' opinions as the basis for valuation and

income determination in turn served as a foundation for extension of credit and the successful issuance of equity securities.[88]

Preclassical cost modification theories also supplied the precedent from which the subsequent inquiry of Classical accountants would be patterned—as in the search for a specific price-level theory.[89]

While notably identified with balance sheet valuation issues, Preclassical writers did not ignore operating theory. While perhaps it is fair to assert that their emphasis was directed toward the balance sheet at the outset, there was a slow but deliberate shift toward income analysis during the period beginning with the "indirect" or net wealth approach to income determination. By 1914, the issues of income determination were coming to the fore. Arthur Young, founder of a leading national firm and an important member of the profession, observed at the annual meeting of 1914 that:

> The experience of the past year has shown that the services of accountants have been largely called for in the ascertainment of net income. This work will undoubtedly grow in the future.[90]

The response of Preclassical theory to this mildly understated challenge and the particulars of income determination during this period are the next topic of study.

NOTES

1. E. A. Peragallo, *Origin and Evolution of Double-Entry Bookkeeping*, New York: American Institute Publishing Co., 1938, p. 107.

2. S. C. Yu notes that the origin of the entity concept is not clearly established; some claiming it did not function before the latter part of the 19th Century, while Gilman asserts that it existed as a part of Pacioli's theory (S. C. Yu, "A Reexamination of the Going Concern Postulate," *International Journal of Accounting*, Spring, 1971, p. 46n).

3. W. M. Cole, *The Fundamentals of Accounting*, joint author with Anne Elizabeth Geddes, Boston: Houghton Mifflin Company, 1921, p. 321.

4. A. L. Dickinson, *Accounting Practice and Procedure*, New York: The Ronald Press Company, 1914, p. 14.

5. P. J. Esquerré, *Applied Theory of Accounts*, New York: The Ronald Press Company, 1914, p. 320.

6. Esquerré, *Ibid.*, p. 74 and T. Jones, *Bookkeeping and Accountantship*, New York: John Wiley, 1885, p. ivn.

7. "Two Pathfinders" (Editorial), *Journal of Accountancy*, May, 1909, pp. 42-3.

8. F. Hugli, "Zwei Pfadfinder" translated by A. C. Littleton as "Two Pathfinders of Accountancy," *The Certified Public Accountant*, February, 1927, pp. 35-7.

9. "Two Pathfinders," *loc. cit.*; W. H. Lawton, Review of: *Accounting Theory with Special Reference to the Corporate Enterprise*, *Journal of Accountancy*, April, 1923, p. 313.

10. C. E. Sprague, "The Algebra of Accounts," *The Book Keeper*, July 20, 1881, p. 42.

11. According to Littleton and Zeff: "F. W. Cronhelm, writing in 1818 espouses the proprietary view: 'The purpose of Bookkeeping, as a record of property, is to show the owner at all times the value of his whole

capital and every part of it.'" His duality premise was:

positive property - negative property = stock

This reference supplies a vital link in the transformation of duality and also affords support to the assertion that the accountants, like Classical economists, considered "Capital" at this point of time, as "physical goods" vs. a conceptualization of capital as the means of roundabout production (see note 23).

12. J. R. Wildman, *Principles of Accounting*, New York: The William G. Hewitt Press, 1913, pp. 52, 56, 193 and C. E. Sprague, *op. cit.*, p. 130.

13. Wildman, *op. cit.*, p. 4.

14. This view stressed that "accountability," an offshoot of proprietorship in a modern era, was an orientation which stressed the stewardship of managers with respect to the permanent investment made by owners. As such the manager-owner relationship shunned the entity fiction.

Subsequent to these precepts, which served as the basis for Preclassical theory, a notion of equilibrium advanced by Paton appeared:

	Form of Premise	Derived Functions
(5)	assets = equities	third party attest

Under this approach the "entity" postulate was reestablished. Patonian equilibrium differs from "personalistic" duality in the point of view that under the latter outsiders merely had *claims to* the assets, whereas under the former the outsiders have *equities in* the business. (This distinction is noted by J. B. Canning, *The Economics of Accountancy* (1929), pp. 53-56). Another way of stating the distinction is that Paton reasserted the "identity" emphasis in duality in place of Sprague's deductive "equation" emphasis.

Conceivably the next phase of transformation will reflect more subjective and social elements (see *Business Week*, September 9, 1972, pp. 137-9) and may appear under the following guise:

	Form of Premise	Derived Functions
(6)	social assets = social equities	the social audit; macroaccounting

See Bauer and Fenn, *The Corporate Social Audit*, New York: Russell Sage Foundation, 1972 as discussed in *Business Week*, September 23, 1972, pp. 88-92. This phase is predicted despite the efforts of Vatter and others to introduce a "fund" premise (W. Vatter, *The Fund Theory of Accounting and Its Implications for Financial Reporting*, 1947, Ch. I).

15. "Report of Committee on Accounting Terminology," *1915 Yearbook of American Association of Public Accountants*, pp. 160-2.

16. H. R. Hatfield, *Modern Accounting: Its Principles and Some of Its Problems*, New York: D. Appleton, 1909, p. v.

17. R. B. Kester, *Accounting Theory and Practice*, New York: The Ronald Press Company, 1917-21, v. 1, pp. 13-4, v. 2, p. vi.

18. R. H. Montgomery, "Influence of the War on Balance Sheets," *Journal of Accountancy*, July, 1919, pp. 1-8.

19. Dickinson, *op. cit.*, p. 31.

20. C. E. Sprague, *The Philosophy of Accounts*, New York: The Author, 1907, p. 26.

21. Cole, *op. cit.*, p. 44.

22. Wildman, *op. cit.*, pp. 283-4.

23. Sprague, *op. cit.*, p. 32. This physical conception, as commented upon in note 11 above, reflected the English economists view of capital, particularly the strain of Smith and Mill. (For a synopsis of this concept, see J. S. Schumpeter, *History of Economic Analysis*, p. 647.)

24. The body of Classical economic value theory from Smith through Senior to Mill contains a certain "looseness" according to Schumpeter. Apparently some accountants were impressed by Mill's claim with regard to the terminality of his own value theory, when he said: "Happily there is nothing in the laws of value which remain for the present or any future writer to clear up; the theory of the subject is complete." (*Principles*, Book III, Chapter I, para. 1). More than likely accountants

in England accepted market price as cost without recognition of the unresolved and crude state of equilibrium analysis surrounding it. Attention to exchange price as value was the centerpiece of Smith's early equilibrium system, later Mill and Marshall would advance the long run analysis under terms of "necessary" and "normal" price tags (Schumpeter, *Ibid.*, pp. 189, 308, 589, 603, 626).

George O. May remarked: "When the accountant records an asset acquired at cost and retains it at that figure even though its value is greater than cost, he does so because it is the cost that is significant to him, not because he desires to value the asset and accepts cost as the measure of value, in default of any better." (Review of: *Accounting Method* by C. R. Rorem, *American Bar Association Journal*, November, 1929, p. 716).

This comment is typical of the traditional view of the accountants role as steward qua statistician and recordkeeper, the modern equivalent of which is represented by "objectivity" notions.

25. Hatfield, *op. cit.*, pp. 101ff. S. Zeff cites Dicksee's "going concern" rationale at 1900 in his research (*A Critical Examination of the Orientation Postulate in Accounting*, Ph.D. dissertation, University of Michigan, 1962, p. 84n).

26. A. L. Dickinson, "Profits of a Corporation," *Official Record of the Congress of Accountants at St. Louis*, New York: Federation of Societies of Public Accountants, 1904, p. 182.

27. Kester, *op. cit.*, v. 2, p. 226.

28. Esquerré, *op. cit.*, p. 104.

29. Kester, *op. cit.*, v. 2, p. 235 and Dickinson, "Profits," *loc. cit.*

30. L. R. Dicksee, *Auditing: A Practical Manual for Auditors*, American Edition, R. H. Montgomery, editor, New York: The Editor, 1905, p. 213.

31. A. C. Littleton, "A Geneology for 'Cost or Market,'" *Accounting Review*, June, 1941, pp. 161-7.

32. R. H. Parker, "Lower of Cost or Market in Britain and the United States: An Historical Survey," *Abacus*, December, 1965, pp. 156-72.

33. S. Gilman, *Accounting Concepts of Profit*, New York: The Ronald Press Company, 1931, p. 233.

34. Kester, *op. cit.*, v. 2, p. 226. In the third (1921) edition of Montgomery's *Auditing*, the lower of cost or market rule is attacked. In its place Montgomery suggests selling price as an inventoriable value. This suggestion appears to be the result of the early 1920s adjustments to the "automotive" economy and is not thought of as representative of the Preclassical period.

35. Preclassical depreciation theory means a system of accounting which aims to distribute the cost of a physical capital asset, less salvage (if any) over the estimated useful life of the unit . . . in a rationale manner. It is viewed as *either* a process of valuation or operational cost allocation. The difference being a matter of emphasis.
    Classical accountancy's view of depreciation would assert that "it is a process of allocation, *not of* valuation" (*Accounting Research and Terminology Bulletins*, Final Edition, New York: AICPA, 1961, p. 76).

36. R. P. Brief, "Nineteenth Century Accounting Error," *Journal of Accounting Research*, Spring, 1965, *passim*; D. A. Litherland, "Fixed Asset Replacement a Half-Century Ago," in *Contemporary Studies in the Evolution of Accounting Thought*, M. Chatfield, editor, Belmont, California: Dickenson Publishing Co., 1968, p. 171 and P. D. Woodward, "Depreciation-The Development of an Accounting Concept," *Accounting Review*, January, 1956, pp. 71-6.

37. R. P. Brief, *Nineteenth Century Capital Accounting and Business Investment*, Ph.D. dissertation, Columbia University, 1964, p. 71.

38. J. S. Mill, *Principles of Political Economy*, W. J. Ashley, editor, London: Longmans, Green and Co., 1929, p. 465. Professor Brief cites an expression in Ricardo's work as an evidence of earlier depreciation notions.

39. G. O. May, see note 24 above.

40. Alfred Marshall, *Principles of Economics*, 8th Edition, London: MacMillan & Co. Ltd., 1964, p. 354n.

41. P. F. Brundage, "Milestones on the Path of Accounting," *Harvard Business Review*, June, 1951, p. 73; see note 44 below as an indicator of the profession's response to ICC proposals.

42. The depreciation of land is not taken into specific consideration in this analysis. Montgomery, however, accords the matter complete attention (see *Auditing*, 1915, p. 331).

43. R. B. Kester, "Principles of Valuation as Related to the Function of the Balance Sheet," *Papers and Proceedings, American Association of University Instructors in Accounting*, 1923, p. 11. Kester's doctoral dissertation, written during the later stages of the period also dealt with balance sheet valuation.

44. A. L. Dickinson, "Some Special Points in Accounting Practice," *Business World*, May, 1905, p. 235.
What constituted "estimated life" was dealt with at length by Dickinson in a series of three letters to Professor H. C. Adams in 1908—on the subject of regulatory depreciation policy. In the letter of April 30, 1908, two concepts of estimated life were cited, the latter being preferred:

> One conception of this term "estimated life" assumes that all repairs, renewels and rebuildings will be carried out as the necessity therefore arises, and that the estimated life is simply the period which will elapse before it finally becomes necessary or desirable to abandon the property entirely.

Such a concept said Dickinson, has no regard for:

> . . . renewals or rebuildings, and does not in the slightest degree provide for wear and tear as it accrues, but only for obsolescence. . . .
> Another . . . conception of the term "estimated life," is that it means the average effective life of the property . . . a depreciation scheme which distributes original cost over the term of such an estimated life will clearly be sufficient . . . (Treatment of maintenance and Depreciation Accounts (ICC), p. 9, Price, Waterhouse & Company library, New York).

45. Dickinson, "Profits," *loc. cit.*, p. 174.

46. H. R. Hatfield, "Some Neglected Phases of Accounting," *Electric Railway Journal*, October 16, 1915, p. 801.

47. Esquerré, *op. cit.*, pp. 241-2.

48. J. R. Wildman, "Depreciation from a Certified Accountant's Point of View," *Electric Railway Journal*, April, 1914, pp. 332-3.

49. Hatfield, *Modern Accounting*, p. 121.

50. Brundage, *op. cit.*, p. 73.

51. Kester, *Accounting Theory and Practice*, v. 2, p. 138.

52. R. H. Montgomery, "The Importance of Uniform Practice in Determining the Profits of Public Service Corporations Where Municipalities Have the Power to Regulate Rates," *Official Record of the Proceedings of the Congress of Accountants at St. Louis*, New York: Federation of Societies of Public Accountants, 1904, p. 149.

53. J. R. Wildman, *op. cit.*, p. 274.

54. Kester, *Accounting Theory and Practice*, v. 2, pp. 304-5.

55. J. R. Wildman, "Appreciation from the Point of View of the Certified Public Accountant," *Accounting Review*, December, 1928, p. 405.

56. Hatfield, *Modern Accounting*, p. 223.

57. H. R. Hatfield, "Some Variations in Accounting Practice," *Journal of Accounting Research*, Autumn, 1966, p. 177. German inflation became rampant after World War I; these remarks do not reflect that condition.

58. Dickinson, *Accounting Practice and Procedure*, pp. 80-1.

59. R. H. Montgomery, *Auditing Theory and Practice*, New York: The Ronald Press Company, 1912, p. 194.

60. Hatfield quipped that ". . . to oppose Dickinson's opinion on accounting matters, the layman must indeed be daring" (*Modern Accounting*, p. 171).

61. Wildman, *Principles of Accounting*, p. 249.

62. C. E. Sprague, *The Accountancy of Investment*, New York: Business Publishing Company, 1904, pp. 13, 74 *passim*. Spelling peculiarities noted in Sprague's prose evidence the influence of the universal language Volapük. Reference is also made to note 23 and the notion of physical capital related to the Classical economists as evident in these clauses.

63. C. E. Sprague, "Premiums and Discounts," *Journal of Accountancy*, August, 1906, pp. 294-6. In this instance, "logical" meant consistent.

64. G. O. May, "The Proper Treatment of Premiums and Discounts on Bonds," *Journal of Accountancy*, July, 1906, pp. 174-86 and Dickinson, *Accounting Practice and Procedure*, p. 66.

65. Sprague, "Premiums and Discounts," p. 295.

66. J. R. Wildman, "Department of Practical Accounting," *Journal of Accountancy*, April, 1913, p. 271.

67. Kester, *Accounting Theory and Practice*, v. 2, pp. 259-63.

68. Dickinson, "Profits," *op. cit.*, pp. 183-4. In answer to an inquiry by the Chicago practice office on the subject of "futures contracts," and profits and losses on such Dickinson said: "In all cases in which the commodities are dealt with on . . . Exchanges and there are . . . daily quotations . . . we are of the opinion that the profits or losses . . . on all contracts open on the day . . . the books are closed should be . . . taken into account" (Two letters to Chicago, . . . Price, Waterhouse & Company library, New York).

69. Kester, *Accounting Theory and Practice*, v. 2, p. 243.

70. Hatfield, *Modern Accounting*, pp. 115-6.

71. Dickinson, "Profits," *op. cit.*, p. 179.

72. P. J. Esquerré, "Goodwill, Patents, Trade-Marks, Copyrights and Franchises," *Journal of Accountancy*, January, 1913, p. 26. A half-century later the article was republished by Moonitz and Littleton who

remarked: "The article . . . raises the relevant issues concerning 'intangibles' in a clear and forthright manner" (*Significant Accounting Essays*, p. 479).

73. Wildman, *Principles of Accounting*, p. 143.

74. Cole, *op. cit.*, p. 368.

75. Hatfield, *Modern Accounting*, p. 117.

76. Montgomery, *Auditing*, p. 131.

77. Wildman, *Principles of Accounting*, p. 146.

78. Sprague, *Philosophy*, pp. 32, 37.

79. *Intangible Assets*, Opinions of the Accounting Principles Board, no. 17, August, 1970, in *Journal of Accountancy*, October, 1970, pp. 85-9.

80. Dickinson, "Profits," *op. cit.*, pp. 178-9.

81. Esquerré, "Goodwill," *op. cit.*, p. 30.

82. H. Simons, *Intermediate Accounting*, 5th Edition, Comprehensive volume, Cincinnati: South-Western Publishing Co., 1972, p. 547.

83. A. L. Dickinson, "Relation between the Accountant and the Banker," *Journal of Accountancy*, May, 1909, p. 56 and R. H. Montgomery, "Influence of the War," *op. cit.*, p. 3.

84. R. H. Montgomery, "Governmental Supervision and Its Effect on the Profession of Public Accountants," *Journal of Accountancy*, June, 1910, p. 93.
    The "American" format, with assets (left) and liabilities and equities (right) in order of cash convertability was contrary to the English style but similar to the Continental form. The controversy over the proper format in American practice ceased shortly after the "Uniform Accounts," proposal was published in 1917.

85. Kester, *Accounting Theory and Practice*, v. 2, pp. 83-4; Hatfield, *Modern Accounting*, pp. 83, 101 and Sprague, *Philosophy*, p. 92.

86. Professor Zeff is not convinced of the importance of a distinction between entity-subject and proprietary-beneficiary views, noting that such are often reduced ". . . to a matter of tweedledum and tweedledee unless it can be convincingly demonstrated that one will produce genuinely different accounting results than will the other" (p. 114).

    The differences in duality positions however as viewed by this writer, at least as between "personalists" and "materialists," suggests a contradiction of those views which serve as the foundation of their profit and interest theories. This matter is taken up in the discussion of interest on invested capital as part of the material in the next chapter.

87. Gilman, *Accounting Concepts of Profit*, p. 236. Dickinson also made reference to a notion of consistency in his 1904 Speech according to Gilman.

88. Cole, *op. cit.*, pp. 339, 343; Kester, *Accounting Theory and Practice*, v. 2, p. 97 and Montgomery, *Auditing*, p. 181.

89. An important aspect of Preclassical value theory will be taken up in the explication of income theory since the indirect approach to income measurement revolves about the asset valuation approach. The veracity of the valuation results become a direct influence upon the net worth residual, which highlights the result that undervaluation of assets means understated net worth and vice versa.

90. "Report of the Committee on Federal Legislation," *1914 Yearbook of American Association of Public Accountants*, p. 222.

CHAPTER VI

PRECLASSICAL INCOME DETERMINATION THEORY

The Transformation of Income Determination

Income theory and the significance it bears to the accounting process is older than contemporary accountants may recognize. A profit and loss account systemized in the double-entry framework has been found to antedate Pacioli, the earliest use being described by Peragallo in the accounts of pepper merchants in Geneo c. 1340.[1]

What is perhaps the earliest bookkeeping text in English, Mellis' *A Brief Instruction* (1543) contains a chapter treating of ". . . that famous accompt called profite and losse, or otherwise Lucrum and Damnum and how to order it in the Leager."[2] The existence of the profit and loss account in medieval English records does not imply the presence of modern concepts, for, according to Winjum, there was no evidence of attention to such notions as periodicy or matching, and the success or failure of a business for a specific period was not emphasized. Instead the attention was on the value of the enterprise, whether temporary partnership or factorage activities or trade in specific commodities or to certain ports.[3]

By the nineteenth century the increasing importance of corporations caused attention to focus on entrepreneurs and capitalists as a class. In the "personalistic" record systems of the era claims of capitalists (whether creditors or owners) constituted "liabilities" or "identities" of the firm's assets. Colonial American systems probably were patterned after the British view including the personalistic and entity connotations which were reinforced in American law under the *Dartmouth College v. Woodward* decision (U. S. 518-636; 4L 629) in which Chief Justice Marshall's famous "personal" definition of a corporation was given. Income theory during this phase of development has not been the subject of explication beyond the broad efforts of Littleton and Brief.[4] The former notes the important role of British joint-stock companies in forcing the development of accounting, suggesting that these companies ". . . were the catalyst in whose presence the permanent investment of capital assets was united with the mechanism for measuring income . . ." as available through double entry's organic ability to differentiate between capital and income. "The nineteenth century," declared Littleton, "saw bookkeeping expand into accounting."[5]

Recognizing the temporary vs. permanent investment commitments of distinct classes of creditor-lenders and owner-shareholders led to popularization of the "materialistic" duality in American systems. Wildman's duality

(assets = liabilities + accountabilities), an offshoot of the "materialistic" premise (assets = liabilities + proprietorship) suggested the importance of the fiduciary role of the manager, entrusted with the value of assets permanently invested by owners. Preclassical income theory was formed within the framework of these last two dualities, although Cole, Esquerré and Dickinson evidenced "personalistic" tendencies.[6]

In the preceding chapter it was noted that the Preclassical accounting technique of income determination consisted of the indirect or balance sheet approach—whereby "Profits" were determined as a by-product of the valuation process through the periodic measurement of change in "net wealth." The assumption was that accountability was over a *stock of wealth* as opposed to the operational analysis of a *wealth flow*.[7] This assumption continued to underline Preclassical income theory with the important qualification that as the income tax law effects began to tell on accounting functions a genuine shift toward the "flow" approach can be detected, particularly in the work of Wildman.

Economic Theory and Accounting Profit

Parallels to Mill's and Marshall's profit concepts and measurement techniques are evident in the corresponding theories of the Preclassicists, particularly Dickinson,

Esquerré, Kester and Wildman.[8] Cole patterned his views after those of his Harvard colleague Taussig, who Schumpeter said ". . . excepting certain formal reservations, was not entirely unlike Marshall."[9]

The features of Mill's profit theory are supplied as the basis for comparison. Mill's theory considered profit to include payments for:

> Wages of superintendence; later refined by Marshall in light of Mangoldt's views as the Neoclassical notion "wages of management."
>
> Premium of risk-bearing.
>
> Interest on the owned part of capital (in the physical sense of capital) employed by the capitalist. This item (sometimes called "entrepreneur profits") is critically important in the study of Preclassical theory since most of the writers included this element in their notion of profit. It served as the point of contention in the "interest (imputed or paid) as a manufacturing cost" debate discussed below.[10]

Cole, quoting Taussig, challenged the elements of Mill's profit, asserting that the last element should be excluded. "So much only of a business man's income," said Taussig, "is to be regarded as profits as is in excess of the interest on the capital which he manages."[11]

A representative view of Preclassical income theory in the mold of Mill's theory, was expressed by Dickinson, with clear reference to risk bearing and entrepreneural factors being compensated for by "Profit":

> It must be premised that the object of investment of money in any undertaking is to realize a profit. The inducement to an individual to invest his capital

> in an industry . . . is largely the fact that by so doing he not only can obtain remuneration for his own services but can also obtain a higher return on the capital invested—that is a higher rate of interest, although at the same time he takes increased risks.[12]

Kester cited Marshall, Devas and Segilman as spokesmen for economic theories of profit, but sided with Dickinson, noting that ". . . the chief difference [between proper accounting income and economic income is] . . . that interest on invested capital is in economics looked upon as an expense deduction before the determination of profits."[13]

Preclassical income theory, bound as it was to Mill was also flavored with the views of Marshall and Taussig (via Wildman and Cole, respectively) to suggest that a good deal of confusion abounded as to what a Preclassicist meant when he said "Profit."[14] This confusion was noted by Cole and caused him to issue what can be called *Cole's caveat* with regard to conceptualizing about accounting "Profit": "In common parlance," warned Cole, ". . . the word 'Profits' means much or little. Knowing this, men always interpret it with a mental footnote."[15]

The Technique of Income Measurement

Disagreement about what was a suitable concept of profit did not shatter the pattern of Preclassicism since

the members of the group were in almost complete accord about the income measurement approach to be employed, the indirect approach.[16] This indirect or net wealth technique can also be traced to Mill through Marshall. Ultimately it achieved a place in American accounting literature being sanctioned by Dickinson, Sprague, Hatfield and Esquerré;[17]

> John Stuart Mill, *Principles of Political Economy*, Book II, Chapter XV, p. 418.
>
> The [capitalist's] . . . profit consists of the excess of the produce above the advances.
>
> Alfred Marshall, *Principles of Economics*, Book II, Chapter IV, p. 62.
>
> When a man is engaged in business, his profits for the year are the excess of his receipts from the business during the year over his outlay for his business. The difference between the value of his stock of plant, material, etc. at the end and at the beginning of the year is taken as part of his receipts or as part of his outlay, according as there has been an increase or decrease of value.
>
> Arthur Lowes Dickinson, "Profits of a Corporation," 1904, p. 1.
>
> In the widest possible view, Profits may be stated as the realized increment in value of the whole amount invested in an undertaking; and conversely, Loss is the realized decrement in such value.
>
> Charles Ezra Sprague, *The Philosophy of Accounts*, p. 61.
>
> Profit, Gain, Revenue, Income, Earnings . . . are used in various connections with slightly varying shades of meaning, but their general purport is: Increase of Wealth. Loss, Expense, Charge, Outlay [as] synonyms are used in various connections . . . but their general purport is: Decrease of Wealth.

Henry Rand Hatfield, *Modern Accounting*, pp. 14, 195.

> Proprietorship represents the net wealth . . . .
>
> The Profit and Loss account . . . shows changes in net wealth. It shows not . . . the net wealth as a single sum, or the accretions of wealth during the entire previous business career as distinct from original capital, but . . . just what changes have been brought about during the fiscal year.

Paul-Joseph Esquerré, *Applied Theory of Accounts*, p. 436.

> Operating profit is that part of the trading capital which has returned in excess of the value of the outgo.

Nearly a half-century later, Percival Brundage, having cited the indirect approach to "Profits" specified in Dickinson's 1904 address, remarked about the universality of the approach:

> The emphasis placed on the balance sheet and the conception of income as the difference between balance sheets, was, . . . the point of view in accounting circles generally.[18]

This approach also had established legal recognition. For example in the Spanish Prospecting Company case of 1910, the decision stated:

> The word "profits" has . . . a well-defined legal meaning, and this meaning coincides with the fundamental conception of profits in general parlance. . . . "Profits" implies a comparison between the state of business at two specific dates usually separated by an interval of a year. The fundamental meaning is the amount of gain made by the business during the year. This can only be ascertained by a comparison of assets of the business at the two dates.[19]

An Important Difference

The tendency of Preclassical accountants to imitate the measurement *techniques* of British economists

should be distinguished from implying a clear *contemporary* correspondence in the *theories of value* employed by the two groups in accomplishing a net wealth determination. As noted in the previous chapter, accountants' value theory was based upon exchange price, an objectively determinable cost.[20] Even the significant cost modification advances of Preclassicists in terms of depreciation and appreciation were belated and minor achievements when compared to Neoclassical economics which had by this time absorbed utility theory, reflecting the unique and complex assumptions of Menger, including imputation of product values to agents, and analysis of exchange equilibrium and factor homogeneity.

All of this suggests that Preclassical income theory and technique corresponded more to Mill than to Marshall. The significance of the contrast being that any disparity in the value theories between the two could prove out in the form of a different net wealth residual even though the identical "indirect" technique of measurement was employed.

"Two little pieces of paper,"—A Beginning

Dickinson was selected to present a paper on the subject of the "Profits of a Corporation" at the 1904 Congress of Accountants in St. Louis. Sterrett, one of the members of the planning committee for the Congress,

recounted the process by which Dickinson was "chosen" to be the spokesman on this topic:

> [A] party of men were . . . in an office in New York City . . . discussing a list of topics that had been suggested for papers for [the] Congress. Among the topics on that list was . . . "Profits of a Corporation." Two or three men . . . suggested that they would . . . like to write a paper on that subject. . . . [A]fter some expression of opinion another gentleman [Dickinson] took from his pocket two little pieces of paper, and in a smiling way said [that] . . . he had already started it. . . ."[21]

From the seed thoughts in these"two little pieces of paper" grew both the structuring theory and reporting format which are identified with Preclassical income thought and much of modern income measurement as well.

The sound accounting principles (as Dickinson called them) for the determination of "Profits," quoted from the 1904 address contain the following points:

1. All waste, both of Fixed and Circulating Assets, incident to the process of earning Profits by the conversion of Circulating Assets must be made good out of Profits earned.

2. Profits realized on sales of Fixed Assets should be first applied to make good estimated depreciation (if any) in other Fixed Assets not resulting from the ordinary conduct of business. If there is no such depreciation, such Profits may be distributed as dividends, but should be distinguished from the Operating Profits.

3. A sufficient surplus should be accumulated (in addition to the provisions required to maintain Wasting Capital Assets under Clause 1) for the purpose of making good Losses due to shrinkage in values of Fixed Assets arising from causes other than the ordinary operations of the company.[22]

Pixley, a renown author of the British profession, made the following remarks at the Congress after Dickinson had completed his address. "I think he has placed all his points on so thoroughly sound a basis that I do not think one of us could possibly raise objection to any doctrine he has laid down."[23]

The impact of the profit paper was immediate as noted by a contemporary, Tipson, in his text on auditing published the same year:

> Attention is specially called to a most admirable paper by . . . Dickinson . . . on 'The Profits of a Corporation'. . . . It contains information on specific points, too often overlooked by the irreflective, treated in detail in an eminently practical manner.[24]

Principles of Preclassical Income

It was pointed out in the explication of value theory in the preceding chapter that several "modern" concepts were widely used in the first two decades of American professional accountancy. Since value theory is a core consideration in the indirect profit approach, the implications of these concepts should be kept in mind with regard to their impact on income.

Among the principles cited in value theory were consistency, conservatism, full-disclosure, objective historical cost (as modified by depreciation and appreciation), a going concern assumption and a proprietary

orientation postulate. These notions will be supplemented by principles such as realization, equity (matching) and periodicity, in the analysis of income theory.

Sales As the Basis for Realization

Historically no other accounting concept is accepted so readily by accountants as realization.[25] The pedigree of realization was studied by Littleton who asserts that it originated from a Classical economic tenet. He quotes Adam Smith to the effect that Profit could only arise if "goods changed masters."[26]

Preclassical views on realization are abundant, as can be seen from these examples from Hatfield, Dickinson, Wildman and Esquerré:

Hatfield, *Modern Accounting*, p. 227

> Profits are in fact realized when . . . the transaction is completed. . . . It matters not whether this is represented by cash or by the note of the purchaser, or by other assets . . . provided there is no valid doubt as to their . . . value. If the claim against the purchaser is good, profit has been realized.

Dickinson, "Profits of a Corporation," p. 19

> [T]he usual practice is to consider the Profit realized when a sale takes place and the amount of the sale price is charged to the purchaser.[27]

Wildman's concept of realization, reflecting his experience as a practitioner, pointed to the principles of contract as determining the basis:

> A sale is a contract between two parties, wherein certain specified goods ready for delivery have been offered and accepted. A sale must,

> therefore, comply with legal requirements of a contract. It is not necessary for payment to be made in order that a sale take place.[28]

In resolving the issue of inventory valuation Montgomery cites the realization principle, concluding that ". . . the fact remains that the goods in the inventory have not been sold and no profit has been earned."[29] He later reaffirms this position when discussing uncompleted contracts. "It may be urged," he points out, "that the taking of a profit on uncompleted work is an extreme case of anticipating earnings, a practice which is condemned throughout this book."[30]

The pattern of sales realization which emerges from these views and is implied in the writings of the others generates sufficient support to warrant the addition of this principles to the list of those gaining acceptance during the period.

Equity—A Basis for Allocating Expense

Perhaps "matching" rather than "equity" would be a better expression of the meaning of this notion. As commonly understood, matching implies that a proper measurement of net income is achieved by offsetting against the revenues of the operation all costs inherent in the process of achieving those revenues, implying the necessity of accrual procedures.[31] Dickinson alluded to matching in the first clause of his "Profit" principles

and Sprague's notion of it is found in the chapter dealing with his Economic (nominal) accounts:

> While increase in wealth is taking place, it is almost always attended by a . . . parting with assets in the expectation of ultimately recovering assets of greater value. These decreases are offsets to the increases. . . .[32]

Cole expressed the premise in terms of a New England colloquialism, saying that in order to determine the division of ultimate profit and loss between periods it is necessary to ". . . put each period on its own feet."[33]

It remained for Hatfield however to explicate the issue involved, which he perceived as a matter of "equity":

> The public, while a permanent body, is made up of changing individuals. In so far as the body of consumers changes, injustice may be done to the consumers of one or another period, if an expense which should properly be paid by the consumers of one period, is so treated than the consumers of another period are burdened by it. An expense capitalized wrongfully, burdens later consumers. The position is reversed when what is properly a capital expenditure is treated as a current expense. The whole question reduces to equity. . . .[34]

Gilman, in his Classical review of the *Accounting Concepts of Profit*, did not single out the matching concept as being found in Preclassical writings. Commonly the notion of matching is identified with Paton and Littleton and their standard 1940 work, but there appears to be sufficient discussion of it among Preclassicists to assert that it was a notion under progressive development long before it was highlighted by Paton and Littleton.

Periodicity—a time assumption for income determination

Periodicity is a crucial adjunct of matching. Hatfield and Cole noted this in their remarks above, and Paton and Littleton's matching notion was designated as "periodic matching."[35]

Periodic measurement of income, as a legal prescription antedates even the Preclassical writers however. As early as 1862 the English Companies Acts (para. 79) required that:

> Once at least in every year the Directors shall lay before the Company in General Meeting a Statement of Income and Expenditure for the past year, made up to a date not more than three months before such meeting.[36]

Lisle, a leading British writer noted, around the turn of the century, that ". . . income must always be considered with reference to the period during which it is accrued or earned."[37]

Sprague remarked that the Economic (nominal) accounts which are provided to measure specific income and expense items should "run for a definite time." The significance being that:

> No comparison of these summaries with another can be useful unless they cover an equal time. The rate of progress must be ascertained by obtaining a common denominator in time. It is therefore the best accounting practice to keep economic accounts open for the year (or balancing period) and then, with the greatest nicety, carry the net result into the main proprietary account. . . .[38]

Indeed the notion of an accounting period so captured Sprague's attention that he devoted a whole chapter in his comparatively slim *magnum opus*, *The Philosophy of Accounts*, to a consideration of its implications for accountancy.

Initial Federal tax regulations brought about a farcical and somewhat confusing turn of events with regard to the periodicity aspects of income determination, requiring that businesses file returns of income based exclusively on a calendar year end (Section 38, Tariff Act of 1909). This requirement effectively compelled an enterprise to terminate its fiscal year of December 31 since the cost and inconvenience of closing again at the "natural" year end would have proved prohibitive. Professional accountants actively opposed the tax regulation, being aware of the importance of flexibility in the determination of fiscal dates (and wanting also to spread their work season over a more manageable period). Shortly thereafter the regulations were amended to reflect the view that accountants supported. From that time down to the present, periodicity has remained synonymous with annualized income measurement and disclosure.[39]

Some Examples of Preclassical Thought

Several income determination procedures, three of which will be considered here, typify some of the

successful (and unsuccessful) innovations traceable to Preclassicists. In one instance, more is at issue than procedure. In the debate over the treatment of interest as a cost, the points of contention chart back to the economic tenets of opposing views.

Interest on Invested Capital as a Cost

Labeled as ". . . the first genuine controversy in the country on accounting theory" by the noted contemporary historian, Zeff, the topic is bereft of attention in modern accounting theory. At issue was whether the investment of stockholders earned a distinct return, similar to opportunity cost, which, if imputed at a pure rate of interest would be properly accountable as an added cost of production (or operation) in determining net income. All of the Preclassicists here studied, but for Cole, rejected the inclusion of such an item as cost. Dickinson and Wildman presented the majority arguments, basing their position on the profit theory of Mill which considered interest on owner's investment as a portion of the distributive share. Cole countered with his view, based on Taussig's position, that such interest was not a share to the capitalist in the sense of a profit share—but an economic cost and therefore a business cost.

Wildman said:

> As a general proposition it is contrary to economic theory . . . to charge the accounts of a business with interest on capital. Such capital

> is invested in and not lent to the business and receives its share in the distribution of profit which results from its employment in the enterprise.[40]

Dickinson's views were that:

> The profit or return consists of the difference between the sale price of the product and the cost of producing and selling that product. . . . [I]nterest or rent or any other item in the nature of a return upon capital invested cannot possibly form a part of the cost of products. . . .[41]

Cole countered, on a practical note, that:

> On the announcement of the figure of profits under an agreement which makes no provision for interest, the first mental act of anyone interested in the business is to see what relation those profits bear to the capital—so as to see what are the excess profits over a reasonable return on investment. Instinctively interest is a first deduction,—partly because it has a definite basis that can be figured and partly because it is the one thing that everyone counts on.
>
> We have seen that . . . practical necessity requires us to at least consider interest in virtually all calculations when investment is involved; and . . . in financial statements practical convenience is served by the treatment of [such] interest as a charge or cost, rather than as a residue or profit.[42]

Beside a conflict of issue with regard to economic theory, the interest as a cost controversy implied a relative inconsistency from the point of view of duality premises with which some of the participants can be identified. Personalists (assets = liabilities), reflecting the entity principle which treats all capitalists, whether owners or creditors, as one, should have found it necessary (economic theory aside) to account for all costs of capital as expense whether on debt or on equity.

Materialists (assets = liabilities + proprietorship) did not accept an entity fiction, since business to them was merely viewed as an extension of the economic individual or proprietor.[43] It would seem to be in accord with this nonentity position to reject interest on investment as a cost since it could be consistently held to be more an intrapersonal transfer than a cost between two "legal" persons—the business and the owner. Materialists then could choose to reject imputed interest as a cost and be consistent both with their duality premise and the tenets of Classical economic theory. But personalists, including Dickinson and Esquerré, in refusing to include interest as a cost—interest on the "liability" to owners by a distinct business entity—leave themselves subject to a charge of muddled thinking at least. Should not the cost of borrowing, generated by business "liabilities," be an appropriate charge to operations even if it requires an imputational calculation? Or, how can creditors (owners being creditors under the personalistic view) share in "Profits"?[44]

Perhaps Cole, also a personalist, sensed this curious dilemma and adopted Taussig's view in response to it, for he is the only personalist who was not caught up in the apparent inconsistency between the economic and duality contrasts.

Hatfield's Hedge[45]

Hatfield composed a compromise between the pro and con views on the interest debate. As a materialist and chief apostle of Sprague's views, the omission of the imputed interest would have accorded with his duality position. But he was apparently taken by the practical side of Cole's argument and proposed the following alternative, itemizing the interest on invested capital as a specific division of "Profits" at the bottom of the operating statement.

Net Profit		$13,480
Allocation of profit:		
Interest on capital	$ 3,000	
Profit allocated to capital	10,000	13,000
Profit unappropriated		$ 480

Figure 3. Hatfield's hedge illustrated.

Such a treatment of interest on investment assumed that an appropriate rate could be determined for use in imputing the interest allocation. Hatfield did not disclose the rate used or detail the computation of the $3,000. *Hatfield's hedge* circumvents another unsavory aspect of the minority position as well—having to specify the booking of the interest on investment as income without having a clear

parallel based on realization (a general suggestion for the entry is: debit interest expense of operations; credit income on invested capital).

The weight of authoritative support and the long intellectual coat tails of Mill proved a sufficient combination to insure the noninclusion of interest on investment (paid or imputed) as a cost of production. The traditional acceptance of this approach obtains to the present without noticeable challenge and probably without any appreciation for the circumstances under which it was conceived. It would seem that in light of the advancing state of distribution theory, the friable nature of this notion will soon be detected and reconstituted in favor of an alternative more in likeness to the position outlined by Cole.

Cole's Neglected Discounts

Cole, whose precise prose and attention to detail are manifest throughout his life's work, suggested that:

> [D]iscounts offered and not taken are of as much importance as those taken and consequently should be reported accurately . . . when not taken. . . . [A]n account, perhaps, "Neglected Discounts," should be debited. . . .[46]

This procedure became widely recognized such that it is standard fare in today's intermediate texts, being shown as purchase discounts lost, a financial management expense.[47]

Wildman's Trade Discounts

Montgomery, in discussing common treatment of trade discounts, remarked:

> Trade discounts are direct deductions from the purchases on one hand and from the sales on the other. That is, no ledger account should be kept for trade discounts, and the term itself rarely appears in the books of account.[48]

This view constitutes the basis of most modern treatment which affords no recognition of such items.[49] But Wildman's visceral exactness caused him to propose an alternative and his views were accorded space in Montgomery's text as part of the discussion of the topic. Wildman stated:

> In large operations, where the fixing of prices is delegated by the administrative officers to the respective heads of purchasing and sales departments, the recording of the data in question facilitates the compilation of statistics which will show the average discounts . . . as an index of the efficiency of the heads of the . . . departments, as well as . . . a guide to the . . . officers in reaching conclusions and formulating policies concerning these phases of the business. . . .[50]

A Preclassical Income Disclosure Format

Included in Dickinson's 1904 paper on "Profits" was an outline for an income statement arrangement which soon became *the* income format, serving to displace the income account format commonly used for presentation purposes (Figure 4).

A growing popularity of the format compelled authors, like J. J. Klein, to include it in their texts, recognizing that ". . . it must be presented for the sake

Gross Earnings (whether sales of products, transportation earnings, professional earnings, etc.)		$.....
Deduct—Cost of Manufacture or Operation:		
(a) Manufacture (for a manufacturing concern):		
Labor	$.....	
Material	.....	
General Manufacturing Expenses ...	.....	
(b) Cost of Operation (for concerns not manufacturing) (Under suitable headings according to the nature of the business) ..	$.....	$.....
Gross Profits		$.....
Other Earnings		.....
Deduct—		
Expenses of sale (manufacturing business only)	$.....	
Expenses of management (if distinct from operation)	.....	
		$.....
Net Profits from Operation		$.....
Deduct—		
Interest on Bonds	$.....	
Other Fixed Charges	.....	
		$.....
Surplus for year		$.....
Extraordinary Profits (detailed)		.....
Surplus brought forward from preceding year		.....
		$.....
Deduct—		
Extraordinary charges not applicable to the operations of the year	$.....	
Interest and Dividends on Stocks	.....	
		$.....
Surplus carried forward		$.....

Figure 4. Dickinson's income statement format.

of the student because the university schools are teaching it and [CPA] examiners are asking for it."[51] Dickinson's arrangement was novel not only in form but, as compared to Lisle's proposal,[52] it also afforded a singular position to selling expenses—below the cost of goods sold section instead of within it. This handling produced cost of goods sold and gross profit figures which reflected product revenues and direct costs only—a distinction maintained ever since.

Most all of the Preclassicists either adopted or adapted Dickinson's style. By 1917 it appears to have been so well regarded that it was included in the "Uniform Accounts" monograph of the Federal Reserve as the model income statement,[53] and it remained the gist of that model when the monograph was revised in 1929.[54] The wide circulation of this government document, along with the initial acceptance afforded the original 1904 address by Dickinson, led to the dominance of this arrangement over any others.[55]

Chapter Summary

Preclassical income theory bears a strong resemblance to Classical economic concepts and the inherent differences therein. The accountants' affinity to economic doctrine extended to measurement techniques as well, reflecting the net wealth approach traced to Mill's writings.

Dickinson's views, perhaps above all others, imitated Mill's, leaving a profound mark on the theory of the period.

The essential element in the controversy with regard to income determination reflected sets of diverse beliefs based on changing economic notions of "Profit." Cole, for example, disagreed with Dickinson, opting for a view which corresponded more to Neoclassical than to Classical economic theory. Hatfield also seemed inclined to question the common position represented by Dickinson, at least in so far as he broke out a separate calculation of owner's interest on invested capital. All of this indicates that there was a lack of agreement on some important basic issues; much as was alluded to in the remarks identified as *Cole's caveat* earlier in the chapter.

Developing from the heat of this debate, the income statement acquired nearly equal stature with respect to the balance sheet by the close of World War I. One theory explaining this meteoric ascent was offered by Hatfield, who credits the rationale of the changing emphasis to Schmalenbach and his important work, *Dynamic Accounting*, which contained ideas popularized around the turn of the century. "According to Schmalenbach," Hatfield recalled, "the balance sheet is merely a connecting link between two income statements. . . ." It is only when a business ends that an accurate determination of income can be made.[56]

Under this view the income statement became the essential tie between two static reporting points. Wildman was responsive to this view, noting that it was "essential" for the income statement to be used to join the statements of ownership at the two dates.[57]

Nevertheless, the representative view of Preclassical writers identifies them with the indirect approach to income determination even though they fostered notions (including a report format and operating principles) which in a few short years would be perfected as the building blocks of accounting's Classical income doctrine.

On the basis of these accomplishments it seems improper to "label" Preclassicists as mere balance sheet accountants—as has been the tendency.[58] For in establishing a modified cost valuation theory, which introduced subjectiveness into accounting, net wealth determination they revolutionized the indirect approach which they had acquired in bequest from preceding generations. Further, they prepared a basis for the accession of income theory to a position of prevalence among Classical accountants.

NOTES

1. E. Peragallo, *Origin and Evolution of Double-Entry Bookkeeping*, New York: American Institute Publishing Company, 1938, p. 10.

2. *Accounting Research and Terminology Bulletins*, Final Edition, New York: AICPA, 1961, "Accounting Terminology Bulletins, Review and Resume," p. 15.

3. James Ole Winjum, "Accounting in Its Age of Stagnation," *Accounting Review*, October, 1970, p. 760.

4. A. C. Littleton, *Accounting Evolution to 1900*, New York: Russell & Russell, 1966, Chapter XI; A. C. Littleton and V. K. Zimmerman, *Accounting Theory: Continuity and Change*, Englewood Cliffs: Prentice-Hall, Inc., 1962, Chapters 3-4.

5. Littleton, *op. cit.*, pp. 165, 213.

6. See notes 3 through 5, Chapter V. Also notes 14 and 85 in that chapter as they concern the issue of how important differences in orientation of the duality premises are viewed.

7. It seems that the Preclassical concept of capital and interest, in line with the "physical goods" notion of the English economists, was considered to be a yield on such items. Professor Fisher's great work, *The Nature of Capital and Income*, was not readily accepted by accountants of the period as an appropriate conception of capital, interest and income. (See: "Income Defined at Last, (Editorial), *Journal of Accountancy*, February, 1928, pp. 125-35, written by George O. May; see also Sprague's remarks in *The Philosophy of Accounts*, pp. 41-2 which suggest he understood Fisher's arguments, although he chose not to implement the latter's approach.)

   Fisher, a contemporary of many of the Preclassicists, did not achieve a popular recognition among accountants until well after the period under study (see John B. Canning's *The Economics of Accountancy*, 1929). This lack of acceptance among accountants is curious, particularly in view of the high praise which Fisher earned from Schumpeter, who claimed that:

1. Fisher was the first to show that the yield of capital goods, whatever else it may be, is not interest (p. 647).

2. *Nature of Capital and Income* (1906) which was much admired by Pareto . . . [presented] the first economic theory of accounting, [and] is (or should be) the basis of modern income analysis.

3. [S]ome future historian may well consider Fisher as the greatest of America's scientific economists up to our own day (p. 872).

(*History of Economic Analysis*, New York: Oxford University Press, 1954).

The writer, in citing an internal standard of what is meant by "Profit" considers Knight's concept as the appropriate view. In this notion profits are not in any way to be taken as a "yield" or reward for riskbearing in the common meaning of the term, but rather are more a chance gain, a by-product of economic change and uncertainty. Under this view any and all economic factors, to include management "talent" when compensated at their fair competitive rates tend to exhaust the amount available for economic distribution.

The term "Profits" (in quotation marks) as used generally through the chapter has no restricted sense, being used in a loose sense to provide a broadly acceptable term.

Modern concepts of income, which reflect more of the psychic and subjective aspects of well-offness (Hicks and Alexander), that is, "How much can one consume and maintain a static well-being?" or "How much can a firm distribute to shareholders and maintain a static well-offness?" These approaches are not represented in Preclassical accounting because Fisher, Hicks and Alexander were largely post analytical in terms of their influence on accounting thought. A "maintenance" notion of income, however, is not post analytical; Smith having used it in *Wealth of Nations*—but in relation to maintenance of physical capital as opposed to psychic well-being (see *History of Economic Analysis*, p. 628).

8. Wildman espoused certain Neoclassical doctrines, while Esquerré, Dickinson and Kester appear to be disciples of Mill. Wildman cites the four main factors of production as land, labor, capital and business organization, the latter being a distinct Marshallian agent.

9. Schumpeter, *op. cit.*, p. 871.

10. *Ibid.*, p. 646.

11. W. M. Cole, "Interest on Investment in Equipment," *Journal of Accountancy*, April, 1913, pp. 235-6. Taussig's choice of "businessman" as the center of profit attention may be viewed as evidence of the throw back to the "economic man" emphasis in Classical economic theory.

12. A. L. Dickinson, "The Fallacy of Including Interest and Rent as Part of Manufacturing Cost," *Journal of Accountancy*, December, 1911, p. 588.

13. R. B. Kester, *Accounting Theory and Practice*, v. 2, New York: The Ronald Press Company, 1918, p. 389.

14. Adam Smith described his approach to profit in terms of surplus:

> The lowest ordinary rate of profit must always be something more than what is sufficient to compensate the occasional losses to which every employment is exposed. It is this surplus only which is neat or clear profit (*An Inquiry Into the Nature and Causes of the Wealth of Nations*, New York: P. F. Collier & Son Corp., "The Harvard Classics," v. 10, 1961, p. 98).

This view affords an interesting comparison to that of Montgomery which was in term Kester's choice as the "best working definition" of profits:

> The net profit of a business is the surplus remaining from the earnings after providing for all costs, expenses and reserves for accrued or probable losses (R. H. Montgomery, *Auditing Theory and Practice*, 1912, p. 184).

15. Cole, *op. cit.*, p. 235.

16. H. R. Hatfield, *Modern Accounting: Its Principles and Some of Its Problems*, New York: D. Appleton, 1909, pp. v, 197.

17. There is also reason to suggest, based upon the recent research of Winjum, that "stock taking" as a method of determining enterprise status was a well recognized but nonperiodic activity as early as 1700 (*The Role of*

Accounting in the Economic Development of England: 1500-1750, p. 61).

Economists as well might point out that on a macrolevel the eighteenth century doctrines of the Physiocrats included recognition of periodicity and the gain therefrom, or *produit net*.

18. P. F. Brundage, "Milestones in the Path of Accounting," *Harvard Business Review*, June, 1951, p. 72.

19. *Ibid.*, pp. 72-3.

20. This topic was considered in Chapter V under "Preclassical asset valuation."

21. *Official Record of the Congress of Accountants at St. Louis*, A. L. Dickinson, editor, New York: Federation of Societies of Public Accountants, 1904, p. 171.

22. A. L. Dickinson, "Profits of a Corporation," *ibid.*, p. 175. The terms fixed and circulating capital are Adam Smith's (*History of Economic Analysis*, p. 635) peculiar term to describe (fixed) capital from which the owner derives profit by keeping it and (circulating) capital from which the owner derives profit by parting with it.

23. *Ibid.*, p. 198.

24. Frederick S. Tipson, *Auditing*, New York: The Author, Preface.

25. S. Gilman, *Accounting Concepts of Profit*, New York: The Ronald Press Company, 1939, p. 100.

26. A. C. Littleton, "Variety in the Concept of Income," in *Contemporary Studies in the Evolution of Accounting Thought*, M. Chatfield, editor, Belmont, California: Dickinson Publishing Company, 1968, p. 291.

27. A. L. Dickenson, *Accounting Practice and Procedure*, New York: The Ronald Press Company, 1914, p. 93. See also Chapter V, note 67 regarding realization on "futures" contracts, when daily markets are in existence. As well Dickinson stated in his 1904 address in St. Louis that he held a "cash value" could be imputed to temporary marketable securities based on a mean market value ("Profits," *op. cit.*, p. 184).

28. J. R. Wildman, *Principles of Accounting*, New York: The William G. Hewitt Press, 1913, p. 199; also on p. 274 the more direct statement: "Profits, strictly speaking do not arise until a sale has taken place."

29. Montgomery, *op. cit.*, p. 104.

30. *Ibid.*, p. 188.

31. Two leading members of the American profession, Broaker who held New York certificate #1 and Chapman #2 described the practitioner's view of income determination typical around 1897:

> The . . . profit and loss account . . . states the entire income for the period to which it relates without regard to whether the same has been collected or received in cash . . . and . . . the total expenses properly chargeable against said income without regard to whether the same have been paid or are still owing, and therefore takes cognizance of outstanding assets and liabilities at the commencement and close of said period . . . ." (*The American Accountants' Manual*, v. 1, New York: Broaker & Chapman, 1897, p. 9).

32. C. E. Sprague, *The Philosophy of Accounts*, New York: The Author, 1907, p. 59.

33. W. M. Cole, *The Fundamentals of Accounting*, joint author with Anne E. Geddes, Boston: Houghton-Mifflin Company, 1921, p. 285.

34. H. R. Hatfield, "Some Neglected Phases of Accounting," *Electric Railway Journal*, October 15, 1915, p. 800.

35. W. A. Paton and A. C. Littleton, *An Introduction to Corporate Accounting Standards*, Chicago: American Accounting Association, 1940, p. 7.

36. George O. May, Review of: *Accounting Method*, by R. C. Rorem, *American Bar Association Journal*, November, 1929, p. 716.

37. J. R. Wildman, "Some Additional Questions" (Correspondence), *Journal of Accountancy*, September, 1919, p. 380.

38. Sprague, *Philosophy*, p. 60.

39. Release of quarterly data to investors has become a frequent but random supplement to operating disclosure on an annual basis. Furthermore this data does not come under the accountant's certificate. One of the early Preclassical advocates of quarterly reporting was Elijah Watt Sells in 1914.

40. J. R. Wildman, "Department of Practical Accounting," *Journal of Accountancy*, August, 1912, p. 136.

41. Dickinson, "Fallacy," *op. cit.*, p. 589.

42. W. M. Cole, "Interest on Investment," *op. cit.*, pp. 235-6.

43. Wildman, *Principles of Accounting*, p. 223 and W. H. Lawton, Chapter V, note 9.

44. See note 6 above. Cole was a follower of Taussig, even though he did evidence a tendency toward the personalistic duality. Esquerré's violent dissent on the duality issue is cited in Chapter II, note 30.

45. H. R. Hatfield, *Accounting: Its Principles and Problems*, Lawrence, Kansas: Scholars Book Co., 1971 (copyright, 1927), p. 351.

46. W. M. Cole, *Accounts: Their Construction and Interpretation*, Boston: Houghton-Mifflin, 1908, p. 272.

47. H. Simons, *Intermediate Accounting*, 5th Edition, Comprehensive volume, Cincinnati: South-Western Publishing Co., 1972, p. 254.

48. Montgomery, *Auditing*, p. 267.

49. Simons, *Intermediate Accounting*, p. 253.

50. Montgomery, *Auditing*, pp. 201-2.

51. Jos. J. Klein, *Elements of Accounting: Theory and Practice*, New York: D. Appleton, 1913, p. 225. Klein, one of the first to study accounting at the doctoral level wrote his dissertation on the subject of commercial credit development from colonial times to the early twentieth century. An avid book collector, his nineteenth century collection is housed in the University of Florida Accounting Archives.

52. George Lisle, *Accounting in Theory and Practice*, London: William Green & Sons, 1900, p. 58.

53. *Federal Reserve Bulletin*, April 1, 1917, p. 283.

54. "Verification of Financial Statements," *Journal of Accountancy*, May, 1929, pp. 321-54.

55. The format of the income statement, while a testament to the strength of accounting tradition also exhibits a questionable rigidity with regard to the scope of operating data disclosure. Financial analysts are quick, and probably correct, to point out that the extant structure has outlived a good part of its usefulness, betraying its heritage of "indirect" and internal emphasis. Some specific deficiencies include:

    1. Lack of third party oriented data such as product line information and similar disaggregated functional data.

    2. Lack of data from which statistical and/or predictive operations can be readily based and/or concluded.

    3. Lack of data on a sufficiently frequent basis at price-level adjusted amounts with certificate assurance.

56. H. R. Hatfield, "A Survey of Developments in Accounting," *Papers on Auditing Procedure and Other Subjects*, AI[CP]A, 1939, p. 8. The text of Hatfield's speech refers to Schmalenbach's work as *Dynamic Balance-Sheet*. It is curious that he does not cite Irving Fisher's contribution of 1906 (see note 7 above) since Fisher's flow view of income seems to correspond to the continuity notion of Schmalenbach.

57. Wildman, *Principles of Accounting*, p. 301.

58. M. S. H. Heakal, *A Classification of the Schools of Accounting Thought*, Ph.D. dissertation, University of Illinois, 1968, p. 32.

CHAPTER VII

A CRITICAL EVALUATION OF PRECLASSICAL ACHIEVEMENTS

The Import of Preclassicism

Professional financial accounting in America made important strides toward maturity during the first decades of this century. Among leading members of the young profession, several men appeared most qualified in position, ability and experience to serve as authoritative spokesmen for accounting's Preclassical era. Early theory considerations, important personalities and environmental factors, economic and social, have been explicated with the end in view of establishing the significance of this phase of financial accountancy's historical transformation.[1]

In Chapter II, a derivative notion of a School of Thought was proposed. Within the framework of this notion exist criteria useful in evaluating whether the theoretical contributions of the Preclassicists constitute such a school. The derivative notion stated:

> A School of Thought is an observed pattern of conceptual transformation which:
>
> 1. Arises in response to criticism of extant paradigms with regard to their warrantability in the face of changing conditions.

2. Furnishes viable modifications to and/or unique formulations of paradigms required by changing conditions.

3. Provides a significant influence on the development of subsequent paradigms.[2]

Did Preclassical advances comply with these characteristics? An affirmative response appears warranted upon consideration of the following propositions:

a. Prior to the period under study the value theory of accounting rested almost exclusively upon the concept of historical cost qua exchange price, as found in the doctrines of prominent Classical economists. This pure historical cost approach to value constituted one of the dominant explanations or paradigms of financial accounting.

b. Members of the Preclassical group, representative of the young American profession, challenged the acceptability of this paradigm in the face of changing concepts of wealth, value and profit—which now began to reflect subjective as well as objective measures. The pure historical cost paradigm was transformed by Preclassicists into a modified cost paradigm characterized by important formulations of theories for depreciation, amortization and appreciation.

c. This modified paradigm was a significant attribute of Preclassicism, as was the growing attention being placed on profit determination. Roots of modern profit principles were found as early as 1904 in the speech delivered by Dickinson to the Congress of Accountants at St. Louis.

These incohate notions, emphasizing the indirect approach to profit determination, suggest an awareness of the forthcoming importance of earning capacity as a success criterion for resource allocation in the industrializing American economic system.[3] On the merit of these considerations—the

transformation of pure historical cost and the pioneering of modern profit theory—Preclassical accountancy warrants identification as a School of Thought.[4]

Such a distinction credits Preclassicists with making early and important contributions which advanced the body of accounting knowledge and asserts that they widely recognized and utilized theory as a device in seeking to explain and resolve pragmatic conflicts.

So that the attributes of employing the school notion are perceived, it is well to recall some of the properties of the device — for a School of Thought is a total explicative fiction used by the theoretician and historian as a formal or informal classificatory stratagem. The strength of the school procedure is that it affords a directness of approach and convenience of identification suited to the connotative analysis of what might otherwise prove to be chunks of knowledge too bulky and bony for intellectual digestion. A school emphasizes succinctness of those principles and uniform patterns of thought which appear among contemporaries. The weakness inherent in this approach is that not all exceptions to the uniform thought patterns studied are noticed. Often these exceptional notions are those which contain the seeds of ideas that will triumph in the future.[5] Preclassicists, for example, proposed different emphases with regard to

both valuation and income theory, yet overall they supplied a pattern of thought which forms the foundation of Classical accountancy.

Reviewing these factors terminates the evaluation of the Preclassical era as a vigesimal period constructed for use in this formal research effort.

Signal Contributions of Individual Preclassicists

Notwithstanding the importance of establishing the existence of Preclassical school, the conclusions of this research must also be directed toward an evaluation of the individuals who acted as its representatives. For the school exists only to mirror the achievements of the men who can be identified with it and proper recognition for the achievements of the era should be accorded them. An emphasis and/or recapitulation of some of the important contributions of the eight Preclassical writers selected now seems in order.

Cole

One of the pioneer authors of professional financial accounting, Cole devoted his life to a career of teaching at Harvard. One of his notable achievements stemmed from his terrier like determination to advance the theory of interest on invested capital as a cost, despite solid opposition from a majority of fellow accountants.

Another important contribution of Cole followed from his interest in perfecting the statement of balance sheet changes.[6] A forerunner of modern fund analysis, this statement (which he called the "where got, where gone" statement) was an adaptation of crude railroad cash change reports. Cole's efforts, regardless of their bruntness, probably advanced fund analysis and if nothing else helped to preserve the procedure from atrophying. This in itself is a considerable achievement considering the important place which fund analysis now commands in financial disclosure.[7]

Dickinson

A father of modern income theory, Dickinson was the epitome of Preclassical professionalism. His 1904 paper suggested the important theory of modified cost valuation, specifying its effect on the indirect approach to profit determination. The income statement format he proposed at an early date remains an essential part of the structure of modern financial reporting.

Trained at Cambridge, in Britain, much of the economic and accounting theory he acquired there was transferred to American thought by virtue of his influence. This is particularly evident in the now traditional treatment of interest on invested capital in the theory of accounting income. His abiding devotion to the public service aspects

of accountancy were evident as early as 1902 when he advocated the assumption of a third party attest duty. It seems reasonable to conclude that the ultimate acceptance of this duty by accountants stems in large part from his early and continual efforts in behalf of the attest function.[8]

Esquerré

A tempermental but intellecual Frenchman, Esquerré immigrated to America before the turn of the century. He acquired his accounting skills in the insurance industry after abandoning a career in bacteriology. Somewhat of a theoretical "gadfly," Esquerré had no inhibitions about challenging traditional approaches—as in his criticism of the lower of cost or market rule and the suggested bifurcation of depreciation charges. Overall he acquired a wide reputation as a practitioner, teacher and professional. His theory of intangibles remains the principle vestige of his early influence—his place in the history of accounting thought appearing to have been almost entirely forgotten.

Hatfield

The chief apostle of Sprague's proprietary duality, Hatfield was an acknowledged theoretical historian, international accounting authority, research scholar and academician.[9] Recognized as the first full time professor

of accounting, he worked at developing the pedagogy of accounting, being among the first to direct attention toward the needs of the executive as opposed to those of the bookkeeper.[10]

His early work, *Modern Accounting*, is a groundbreaking digest of accounting practice which seems to have supported the precedent for basing the justification of a theory[11] on its correspondence to the customary approaches of the working accountant—a tendency which Hatfield was prone to perpetuate in his works such as *A Statement of Accounting Principles* (1938).[12]

Kester

As the junior member of the group, Kester can be credited with preaching the doctrines of Preclassicism to a wide audience by means of his popular texts which were used for nearly four decades.[13] A representative compendia of Preclassical theory, these works emphasized net wealth valuation and the doctrines of depreciation with which the Preclassical school is identified. A fitting description of Kester's role would be to say that he was to Preclassical accountancy what J. S. Mill was to Classical economics; a belated but essential force in the theory of his school.

Montgomery

Probably the most pragmatic of the Preclassicists, Montgomery was a self-educated, confident and decided professional. He distinguished himself by service to the profession as an educator, author, practitioner and servant of government. Among his most memorable pontifications were those included in the foreword to Peragallo's important study on the origins of the Italian accounting system. Because of their context and terminal implications these remarks deserve consideration as a penetrating insight of Montgomery's rationale:

> Accounting methods which have endured are those which have met the test of pragmatists. . . .
>
> [Accounting] draws upon the resources of many sciences, but remains an art, varying in effectiveness with the knowledge and skills of the practitioner—this is the lesson of history.[14]

Among the earliest contributors to the distinctly American professional literature, Montgomery also published the first works dealing with the problems of accounting for income taxation. His pragmatic auditor's view of theory was often expressed in terms of a strong conservative bias. He once remarked, for example, that: "In deciding whether an expenditure should be capitalized or charged as an expense it is better to be conservative than accurate."[15] The précis of successful Preclassical

practitioners, Montgomery was also a clear prototype of George O. May, whose pragmatic and conservative propensities importantly influenced the development of accountancy in the Classical period.

Sprague

Patriarch of the Preclassical system of accounting, more than any other of his ilk Sprague significantly advanced the theoretical framework of early American accountancy. In the 1880s his deductive system of equations had achieved recognition as a root plan for accounting theory in its period of professionalization. Sprague's achievements are all the more impressive when considered in relation to the surroundings in which they were conceived. As told by Paton, Sprague wrote mostly without the benefit of theoretical precedent—transforming the incipient notions of some early writers into a concise and relatively complete system of accounting.[16] His *magnum opi*, *The Accountancy of Investment* and *The Philosophy of Accounts*, are evidence of his command of inferential logic and a testament to the influence of Classical economics on early accounting theory.

Wildman

A disciple of Sprague, Wildman modified the former's duality into a fiduciary expression, recognizing the

accountable relationship between the business executive and absentee owners. A frequent contributor to the literature, Wildman wrote on nearly every important accounting topic. His influence in academic circles as a teacher and administrator was pronounced, as noted by the effect he had on many of his promising students including Foye and Peloubet.

Respected by his contemporaries, Wildman served as the first President of the forerunner of the American Accounting Association, having been instrumental in its formation. Later he headed the unique research department of Haskins & Sells and coauthored an important work on the accounting for no par stock. As research director at Haskins & Sells he was involved in the preparatory activities for *The Statement of Accounting Principles* which was released the year of his death.

Perhaps the least acclaimed amongst the Preclassicists, Wildman's efforts in behalf of the early profession, his role as professor and research practitioner, compel those with a sense of equity to accord him much wider regard.

Culminating Remarks

Within the mill race of changing events which typified the early twentieth century American economy, accountants groped for the fundamental precepts which would provide

a basis for defining and discharging the growing burden of responsibilities which they were being called on to accept. The theoretical feats of this era are rooted in the concepts advanced by a group which has been designated the Preclassical school of American financial accounting thought. The identification of this school aids in affirming the importance of research into the history of accounting thought by serving to preserve a link in the chain of accounting's theoretical heritage. Hopefully the outcome of this research may assist scholars in avoiding the error characterized by the maxim *tabula rasa*. For in being able to identify the Preclassical lineage of many modern notions today's thinkers should be better capable of discriminating between what is a unique contemporary contribution and what may be largely réchauffé.[17]

NOTES

1. Transformation suggets modification by means of a controlled reasoned process of inquiry. It is the preferred historical descriptive to evolution which has undesirable biological and nonrational connotations and development which is at best a mildly equivocal term and at worst totally meaningless.

   Transformation also implies that modificatory processes are graduated in the human-intellectual sphere due to the weight of tradition, epistemic prejudice, and experience, all of which often improperly assert an aura of terminality to extant approaches.

   Finally, in an historical context, transformation conceptualizes one era as rooted in the ultimate achievements of preceding eras; the accomplishments of any extant period being the result of rational interaction between the agent, his environment, experience and epistemic presuppositions—all which are involved in the ongoing process of intellectual inquiry into the essential framework of social enterprise.

2. See T. S. Kuhn *The Structure of Scientific Revolutions*, pp. 43ff, for a discussion of paradigms.

3. Testaments of extant reclassical influence can be found in today's basic texts; depreciation theory remains a most subjective portion of valuation, and income statements reflect the format supplied by Dickinson in 1904.

4. All of this is not unchallengeable with respect to the "type of theory" which the Preclassicists contributed. A criticism of the notion of a school, as defined herein and further of the notion of a Preclassical school as just asserted, is that each accepts the view of theory as a *response to* environmental stimuli rather than as a factor which acts in *anticipation of* the needs of such conditions. Professor R. Sterling, among others, might argue that only to the extent that Preclassicists *foresaw* the growing import of profit determination and supplied concepts of use to income theory, could they be identified as a School of Thought. This view of what constitutes a theoretical advance deserves consideration. At this point, however, the

validity of its contention in terms of the historical significance of the contributions of the Preclassicists is dispensed with as deserving of notice but not debate.

5. Jacob Oser, *The Evolution of Economic Thought*, 2nd Edition, New York: Harcourt, Brace & World, Inc., p. 6.

6. W. M. Cole, Accountants: *Their Construction and Interpretation*, Boston: Houghton Mifflin, 1908, p. 101 and W. M. Cole, *The Fundamentals of Accounting*, joint author with Anne Elizabeth Geddes, Boston: Houghton Mifflin Company, 1921, p. 347.

7. L. S. Rosen and D. T. DeCoster, "'Funds' Statements: A Historical Perspective," *Accounting Review*, January, 1969, pp. 124-36.

8. See the discussion of Dickinson's public service career aspirations as cited by Mary Murphy in Chapter II. Dickinson's protégé, George O. May, oft credited with achieving goals apparently perceived by Preclassicists, remarked that it was from Dickinson that he had learned most about the art of accounting. *(Memoirs and Accounting Thought of George O. May*, dedication page).

9. S. A. Zeff, *Henry Rand Hatfield, Outline of Professional Career*, Unpub. preliminary research, Tulane University, 1965.

10. See note 39, Chapter II.

11. W. M. Cole, Review of: *Modern Accounting*, by H. R. Hatfield, *Journal of Political Economy*, November, 1909, pp. 647-8.

12. W. B. Gower, "Advisory Accountancy," *Journal of Accountancy*, October, 1920, pp. 265-6.

13. T. Van Metre, *A History of the Graduate School of Business, Columbia University*, New York: Columbia University Press, 1954 (see note 64, Chapter II).

14. E. Peragallo, *Origin and Evolution of Double-Entry Bookkeeping*, New York: American Institute Publishing Co., 1938.

15. R. H. Montgomery, "Influence of the War on Balance Sheets," *Journal of Accountancy*, February, 1917, p. 145.

16. Interviews with W. A. Paton, Sr., March 2-3, 1972, Gainesville, Florida.

17. Réchauffé refers to the tendency to "re-invent the wheel" or put "old wine in new bottles." Those intellectualists who believe man's experience alone colors the blank slate (tabula rasa) with which he is born, tend to undervalue historical inquiry and are prone to citing as original many discoveries which are really the "heated up left-overs" of earlier generations.

APPENDIX

WILLIAM MORSE COLE

"Cooperative Insurance and Endowment Schemes," *Quarterly Journal of Economics*, v. 5, 1890-91, pp. 466-89.

"The Endowment Orders," *Quarterly Journal of Economics*, v. 7, 1892-93, pp. 487-9.

An Old Man's Romance: a tale written by Christopher Craigie, Boston: Copeland and Day, 1895.

When Coinage of Silver is Free, Matthews Publishing Company, Boston, 1896, 27p.

Syllabus of a course of six lectures on the Causes of the unequal distribution of Wealth, treated with special reference to the Principles underlying the problems of Labor, Land and Capital, Philadelphia: American Society for the Extension of University Teaching, Series E, no. 16, 1896.

Syllabus of a course of six lectures in the Constitutional History of the United States, Philadelphia: American Society for the Extension of University Teaching, Series F, no. 18, 1896.

Accounts: Their Construction and Interpretation, Boston: Houghton Mifflin, 1908.

"Comments—Round Table on Accounting," *American Economic Review*, 1909, pp. 59-61 and *Journal of Accountancy*, February, 1909, pp. 295-6.

Review of: *Modern Accounting*, by H. R. Hatfield, *Journal of Political Economy*, November, 1909, pp. 647-8.

Review of: *Chapters on Municipal Administration and Accounting*, by Frederick A. Cleveland, 1909, *Political Science Quarterly*, v. XXV, p. 150.

"Institution Accounting and Records," *Journal of Home Economics*, November, 1910, pp. 572-81.

Accounting and Auditing, Minneapolis: Cree Publishing Company, 1910.

The American Hope, New York: D. Appleton & Co., 1910.

"Accounting Methods for Determining Costs and Prices," *Bulletin of the American Economic Association*, April, 1911, pp. 124-35.

"Uniform Accounting for Institutions," *Journal of Home Economics*, February, 1912, pp. 39-50.

"Income Statements for Institutions," *Journal of Accountancy*, February, 1913, pp. 79-89.

"Interest on Investments in Equipment," *Journal of Accountancy*, April, 1913, pp. 232-6.

Cost Accounting for Institutions, New York: Ronald Press Company, 1913.

Bookkeeping, Accounting and Auditing, Chicago: Washington Institute, 1914, Chicago: Lincoln Institute of Business, c1921.

Problems in the Principles of Accounting, Cambridge, Mass.: Harvard University Press, 1915.

Accounts: Their Construction and Interpretation, Revised and Enlarged Edition, Boston: Houghton Mifflin Company, 1915.

Review of: *Principles of Auditing*, by John Raymond Wildman, *American Economic Review*, September, 1916, pp. 644-7.

Review of: *Auditing Theory and Practice*, 2nd Edition, by R. H. Montgomery, *American Economic Review*, March, 1917, pp. 130-2.

List of best books in Accounting used in courses in Graduate School of Business Administration, Harvard University, September, 1921.

The Fundamentals of Accounting, joint author with Anne Elizabeth Geddes, Boston: Houghton Mifflin Company, 1921.

Solutions and Answers for the Fundamentals of Accounting, joint author with Anne Elizabeth Geddes, Boston: Houghton Mifflin Company, c1921.

"Problem in Joint Costs," *Harvard Business Review*, July, 1923, pp. 428-37; *Paper Trade Journal*, August 2, 1923, pp. 53-6 and *Official Publications*, National Association of Cost Accountants, v. 5, no. 2, October 1, 1923.

Economic Success, New York: The MacMillan Company, 1926.

"Confusion of Terms," *Journal of Accountancy*, March, 1927, pp. 192-8 and *Licentiate in Accounting*, June, 1927, pp. 141-7.

"Confusion in Accountancy Terms," *Australasian Accountant and Secretary*, August, 1927, pp. 249-53.

Review of: *Profits, Dividends and the Law*, by P. Reiter, Jr., *Accounting Review*, December, 1929, pp. 85-9.

"Theories of Cost," *Accounting Review*, March, 1936, pp. 4-9.

"Our Outdated Accounting," *Harvard Business Review*, July, 1933, pp. 478-89.

Capitalism and State Control of Capital, Philadelphia: Fidelity Mutual Life Insurance Company, n.d.

ARTHUR LOWES DICKINSON

"Life Assurance Accounts," *Accountant*, 1887, pp. 455-64.

"Interest and Sinking Funds," *Accountant*, October 10, 1891, pp. 715-20.

"Duties and Responsibilities of the Public Accountant," *Accountant*, July 26, 1902, pp. 745-51 and *Commerce, Accounts and Finance*, April, 1902, pp. 23-7.

"Profits of a Corporation," *Accountant*, October 22, 1904, pp. 442-53; *Official Record of the Congress of Accountants at St. Louis*, New York: Federation of Societies of Public Accountants, 1904, pp. 171-203 and *Incorporated Accountants Journal*, 1904-5, p. 34ff.

"Introduction," *Auditing: A Practical Manual for Auditors*, Authorized American Edition, R. H. Montgomery, editor, New York: The Editor, 1904, pp. 11-4.

"Present status of negotiation between the Federation and Association," *Official Record of the Congress of Accountants at St. Louis*, New York: Federation of Societies of Public Accountants, 1904, pp. 113-6.

Official Record of the Congress of Accountants at St. Louis, A. L. Dickinson, editor, New York: Federation of Societies of Public Accountants, 1904.

"Profession of the Public Accountant," *Accountant*, May 27, 1905, pp. 650-8 and *Auditor*, 1905, pp. 165, 185.

"Duties and Responsibilities of the Public Accountant with Regard to New Issues of Stocks and Bonds," *Journal of Accountancy*, November, 1905, pp. 16-27.

"Some Special Points in Accountancy Practice," *Accountant*, April 22, 1905, pp. 495-504; *Auditor*, 1905, pp. 105, 130, 158 and *Business World*, April, 1905, pp. 157-61; May, 1905, pp. 233-6.

"Notes on Some Problems Relating to the Accounts of Holding Companies," *Accountant*, May 19, 1905, pp. 647-9 and *Journal of Accountancy*, April, 1905, pp. 487-91.

"The Accounts of 'Holding' Corporations," *Businessman's Magazine*, Detroit, 1906, pp. 86-8.

"Remarks on Accounting Impartiality," *1906 Yearbook of American Association of Public Accountants*, pp. 26-7.

Treatment of Maintenance and Depreciation Accounts (ICC) 1908, Three letters to Professor H. C. Adams, Price, Waterhouse & Company library, New York.

Memorandum on treatment of repairs and improvements, 1908, joint author with G. O. May, Price, Waterhouse & Company library, New York.

"Accounting Practice and Procedure," a paper to be presented at the Annual Meeting of the American Association of Public Accountants, Atlantic City, New Jersey, October 20-23, 1908, 47p; *1908 Yearbook of American Association of Public Accountants*, pp. 188-254; *Accountant*, December 12, 1908, pp. 740-58; *Incorporated Accountants' Journal*, 1908-1909, pp. 51ff; *Journal of Accountancy*, October, 1908, pp. 415-25; November, 1908, pp. 7-18 and December, 1908, pp. 96-110.

"Relation between the Accountant and the Banker," *Journal of Accountancy*, May, 1909, pp. 55-7.

Accounting for Modern Corporations, joint author with William W. Lybrand and Frank Herbert MacPherson, Chicago: American School of Correspondence, 1909. Later editions published by the American School of Correspondence, 1919 and the American Technical Society, 1922.

"Accountancy Practice and Procedure," *Cyclopedia of Commerce, Accountancy, Business Administration*, 1910, v. 7, pp. 239-80.

"Profits of a Corporation," *Cyclopedia of Commerce, Accountancy, Business Administration*, 1910, v. 6, pp. 255-97.

"Business Ideals," *The American Business Manual*, R. H. Montgomery, editor, P. F. Collier & Sons, New York, 1911, 3v. Reprinted 10p, 1928.

"The Economic Aspects of Cost Accounts and Its Application to the Accounting of Industrial Companies," *Journal of Accountancy*, March, 1911, pp. 325ff and *Bulletin of the American Economic Association*, 4th Series, no. 2, April, 1911, pp. 110-23.

Leading Principles, August 2, 1911, Two letters to Chicago Practice Office, Price, Waterhouse & Company library, New York.

Remarks of Mr. Dickinson relating to a paper read by Professor Cole at a meeting of the American Economic Association, St. Louis, 1911, Price, Waterhouse & Company library, New York.

"Economic Aspect of Cost Accounts and Its Application to the Accounting of Industrial Companies," *Journal of Accountancy*, March, 1911, pp. 325ff.

"Fallacy of Including Interest and Rent as Part of Manufacturing Cost," *Journal of Accountancy*, December, 1911, pp. 588-93.

"The Abuse of the Audit in Selling Securities," Discussion, *1912 Yearbook of American Association of Public Accountants*, pp. 59-63.

"Fallacy of Including Rent and Interest as Part of Manufacturing Cost" (continued), *Journal of Accountancy*, August, 1913, pp. 86-93.

Accounting Practice and Procedure, New York: The Ronald Press Company, 1914.

Excess profits taxation in Great Britain, 1917, 7p. Price Waterhouse & Company library, New York.

"Corporation Profits," *Accountancy and Business Management*, 1920, v. 4, pp. 247-87.

"Accounting Practice and Procedure," *Accountancy and Business Management*, 1920, v. 4, pp. 289-330.

"Publicity in Industrial Accounts with a Comparison of English and American Methods," *Accountant*, October 4, 1924, pp. 469-90 and *Journal of Accountancy*, October, 1924, pp. 254-74.

Statement to be submitted to the Committee on National Debt and Taxation, 17p, 1924, Price, Waterhouse & Company library, New York.

"American Association of Public Accountants," *Accountant*, November 28, 1925, pp. 845-6.

"Construction, Use and Abuse of Cost Accounts," *Accountant*, October 23, 1926, pp. 266-74; *Journal of Accountancy*, July, 1927, pp. 1-20; *Canadian Chartered Accountant*, November, 1928, pp. 147-67 and *Public Accountant*, January, 1929, pp. 218-26, February, 1929, pp. 235-47.

Report on the System of Accounting, Audit and Statistics of the Railways owned and managed by the Government of India, 1926-27, 3v. forms and tables. Price, Waterhouse & Company library, New York.

"The General Principles of an Efficient System of Transport Accounting," *Journal of the Institute of Transport* (England), March, 1932, pp. 1-16; *Accountant*, September 24, 1932, pp. 387-97.

PAUL-JOSEPH ESQUERRÉ

Review of: *Colliery Accounts*, by Mann and Judd, *Journal of Accountancy*, October, 1909, pp. 467-8.

"New York CPA Examination of June, 1912," *Journal of Accountancy*, August, 1912, pp. 77-98; September, 1912, pp. 192-210 and October, 1912, pp. 310-21.

"Goodwill, Patents, Trade-Marks, Copyrights and Franchises," *Journal of Accountancy*, January, 1913, pp. 21-34.

"New York CPA Examination of January, 1913," *Journal of Accountancy*, May, 1913, pp. 377-90 and June, 1913, pp. 459-66.

Applied Theory of Accounts, New York: Ronald Press Company, 1914.

Problems Involving the Application of the Theory of Accounts, New York: Ronald Press Company, 1915.

"Some Aspects of Professional Accounting," *Administration—The Journal of Business Analysis and Control*, July, 1921, pp. 102-7.

"CPA Problem and Its Solution," *Administration—The Journal of Business Analysis and Control*, November, 1921, pp. 686-9.

Practical Accounting Problems: Theory, Discussion and Solutions, 2v. New York: Ronald Press Company, 1922.

"Resources and Their Application" (Correspondence), *Journal of Accountancy*, May, 1925, pp. 424-30.

Accounting, New York: Ronald Press Company, 1927.

"Philosopher-Accountant Takes Inventory of Soul of Profession," *The American Accountant*, July, 1928, pp. 19-22.

"Accountant Criticizes Alternate Plan for Railroad Depreciation Accounting," *The American Accountant*, October, 1928, pp. 18-22.

HENRY RAND HATFIELD

"Management of Surplus Reserves," Discussion. *Papers and Proceedings, American Economic Association, 16th Annual Meeting*, Third Series, no. 1, February, 1904, pp. 272-77.

Lectures on Commerce, editor, Chicago: University of Chicago Press, 1904.

Review of: *The Philosophy of Accounts*, by C. E. Sprague, *Journal of Accountancy*, November, 1908, pp. 67-9.

'Zwei Pfadfinder' (Two Pathfinders), *Zeitschrift für Buchhaltung* (Linz), no. 4, 1909, pp. 80-6.

Modern Accounting: Its Principles and Some of Its Problems, New York: D. Appleton, 1909.

Review of: *Accounting Every Business Man Should Know*, by E. E. Garrison, *Journal of Accountancy*, August, 1910, p. 305.

"Some Variations in Accounting Practice," *Journal of Accounting Research*, Autumn, 1966, pp. 169-82; speech of September 9, 1911.

Review of: *Auditing Theory and Practice*, by R. H. Montgomery, *Journal of Political Economy*, 1913, p. 781.

Review of: *Accounting Practice and Procedure*, by A. L. Dickinson, *Journal of Accountancy*, December, 1914, pp. 480-2.

"Some Neglected Phases of Accounting," *Electric Railway Journal*, October 16, 1915, pp. 799-802.

"Historical Defense of Bookkeeping," *Papers and Proceedings, American Association of University Instructors in Accounting, 1923*, pp. 65-75; *Journal of Accountancy*, April, 1924, pp. 241-53.

"Foreword," *The Philosophy of Accounts*, 5th Edition, by Charles E. Sprague, New York: The Ronald Press Company, 1923, pp. xvii-xxi.

Review of: *Managerial Accounting*, by J. O. McKinsey, *Journal of Accountancy*, May, 1925, pp. 432-3.

Review of: *Accounting*, by W. A. Paton, *Journal of Accountancy*, November, 1925, pp. 389-90.

Review of: *Original translation of the treatise on double-entry bookkeeping by Frater Lucas Pacioli*, by Pietro Crivelli, *Papers and Proceedings of the American Association of University Instructors in Accounting, 1925*, pp. 153-6.

"Earliest Use in English of the Term Capital," *Quarterly Journal of Economics*, May, 1926, pp. 547-8.

"What is the Matter with Accounting?" *Journal of Accountancy*, October, 1927, pp. 267-9; *Canadian Chartered Accountant*, January, 1928, pp. 213-25 and *Licentiate in Accountancy*, January, 1928, pp. 237-48.

Review of: *Goodwill and other Intangibles*, by J. M. Yang, *Accounting Review*, December, 1927, pp. 409-11.

Accounting: Its Principles and Problems, New York: D. Appleton, 1927.

Review of: *Accounting for Value as Well as Original Cost*, by H. G. Baldwin, *Accounting Review*, June, 1928, pp. 218-9.

Review of: *How to understand Accounting*, by Howard C. Greer, *Accounting Review*, June, 1928, pp. 201-2.

"Accounting Paradox," *Accounting Review*, December, 1928, pp. 342-4.

"Developments in Education for Business During the Past Fifteen Years in the United States," in *The Proceedings for the International Congress on Commercial Education, Amsterdam: 1929*, pp. 62-74.

"Comments on the Symposium on Appreciation," *Accounting Review*, March, 1930, p. 10ff.

"How can they say such things?" *The American Accountant*, 1931, p. 50.

"How can they say such things?-II," *The American Accountant*, 1931, p. 365.

"The Montgomery Library," *The American Accountant*, 1931, p. 207.

"A Fable," *Accounting Review*, September, 1932, p. 175ff.

"Check-list of Early Bookkeeping Texts," joint author with A. C. Littleton, *Accounting Review*, September, 1932, pp. 194-206.

Review of: *The Cultural Significance of Accounts*, by D. R. Scott, *Journal of Accountancy*, September, 1932, p. 230.

Review of: *Advanced Accounting*, by F. H. Streightoff, *Journal of Accountancy*, December, 1932, pp. 474-5.

Review of: *Introduction to Principles of Accounting*, by H. A. Finney, *Journal of Accountancy*, December, 1932, pp. 474-5.

"Accounting Principles and Statutes," *Journal of Accountancy*, August, 1934, pp. 90-7.

"Operating Deficit and Paid-In Surplus," *Accounting Review*, September, 1934, pp. 237-41.

"What they say about Depreciation," *Accounting Review*, March, 1936, pp. 18-26.

Review of: *Stabilized Accounting*, by H. W. Sweeney, *Journal of Accountancy*, December, 1936, pp. 272-4.

A Statement of Accounting Principles, joint author with T. H. Sanders and U. Moore, American Accounting Association, 1938.

Review of: *Origin and Evolution of Double-Entry Bookkeeping*, by E. Peragallo, *Journal of Accountancy*, 1939, pp. 317-8.

"Survey of Developments in Accounting," *AIA Papers on Auditing Procedure and Other Subjects*, 1939, pp. 5-11.

"Accountants Adventures in Wonderland," *Journal of Accountancy*, December, 1940, pp. 527-32.

"Financial Aspects of Depreciation" (Correspondence), *Journal of Accountancy*, January, 1940, pp. 48-9.

"Accounting Trivia" (Accounting Exchange), *Accounting Review*, September, 1940, pp. 417-9.

Accounting, Principles and Practices, joint author with T. H. Sanders and N. L. Burton, Boston: Ginn and Company, 1940.

"Accounting Boners" (Correspondence), *Journal of Accountancy*, April, 1942, p. 355.

"On the Unreliability of Arithmetic" (Correspondence), *Journal of Accountancy*, October, 1942, pp. 355-7.

Review of: *No Royal Road: Luca Pacioli and His Times*, by R. Emmett Taylor, *Journal of Accountancy*, January, 1943, pp. 76-7.

"Neither Pietra nor Flori" (Correspondence), *Journal of Accountancy*, February, 1943, pp. 165-6.

Surplus and Dividends (Dickinson Lectures), Cambridge, Massachusetts: Harvard University Press, 1943.

"Replacement and Book Value," *Accounting Review*, January, 1944, pp. 66-7.

ROY B. KESTER

Problems and Practice Data for Elements of Accounting, New York: University Printing Office, Columbia University, 1916.

Practice Data and Problems for Principles of Accounting, joint author with S. B. Koopmans, New York: The Authors, 1916.

Accounting Theory and Practice, a first year text. New York: The Ronald Press Company, 1916.

Accounting Theory and Practice, New York: The Ronald Press Company, v. 1, "Principles of Accounting," 1917; v. 2 "Advanced Accounting," 1918; v. 3, "Accounting Applications to Various Forms of Industry," 1921.

Discussion: "Development of Accounting Courses," *Papers and Proceedings, American Association of University Instructors in Accounting, 1919*, p. 64.

A Study in Valuation of the Commercial Balance Sheet, Ph.D. dissertation, Columbia University, 1919; Chapters IV to XXVII in *Accounting Theory and Practice*, v. 2.

"Standardized Costs," *Simmons Spice Mill*, December, 1920, pp. 1982, 1988, 1992, 1994, 1996.

"Aim and Scope of Graduate and Research Work in Accounting," *Papers and Proceedings, American Association of University Instructors in Accounting, 1920*, pp. 20-6.

Fundamentals of Accounting, joint author with S. B. Koopman, New York: The Ronald Press Company, 1921-23, 2v.

"Cost Accounting," *Spice Mill*, May, 1921, pp. 760-3.

Discussion: "Inventory Valuation," *Papers and Proceedings, American Association of University Instructors in Accounting, 1921*, pp. 77-9.

"Report of the Special Committee," *1921 Yearbook of National Association of Cost Accountants*, pp. 45-7.

Principles of Accounting, 2nd Edition, New York: The Ronald Press Company, 1922.

Teacher's Manual for Fundamentals of Accounting, joint author with S. B. Koopman, New York: The Ronald Press Company, 1922.

"Principles of Valuation as Related to the Function of the Balance Sheet," *Papers and Proceedings, American Association of University Instructors in Accounting, 1923*, pp. 9-14.

Depreciation, New York: The Ronald Press Company, c1924.

Discussion: "Classifying Students," *Papers and Proceedings, American Association of University Instructors in Accounting, 1924*, pp. 86-8.

"Sees Accountant as Executive Understudy; Talk to Actuaries Describes Him as 'Rare Bird' who Interprets Reports and Tactfully Suggests Action," *Eastern Underwriter*, December 4, 1925, p. 34.

Advanced Accounting, 2nd Edition, New York: The Ronald Press Company, 1925.

"Importance of the Controller," *Accounting Review*, September, 1928, pp. 237-51.

"Research Methods as Applied to Accounting Practice," *1928 Yearbook of Eastern Commercial Teachers*, pp. 73-86.

"Advantages Flowing from Standardized Balance Sheets are Enumerated," *The American Accountant*, October, 1929, p. 550.

"Standardization of the Balance Sheet," paper presented at the International Congress on Accounting, Hotel Commodore, New York, September 9-14, 1929, 23p. *Proceedings, International Congress on Accounting, 1929*, pp. 593-615; *Accountant*, November 30, 1929, pp. 685-92.

Comments: "Research Program," *Accounting Review*, March, 1929, pp. 43-55.

Review of: *American Investment Trusts* by John Francis Fowler, *Accounting Review*, December, 1930, pp. 333-4.

Principles of Accounting, 3rd Edition, New York: The Ronald Press Company, 1930.

Advanced Accounting, 3rd Edition, New York: The Ronald Press Company, 1933.

"Examinations for Certified Public Accountants," *Journal of Accountancy*, November, 1935, pp. 357-69.

"School of Professional Accountancy," joint author with Roswell McCrea, *Journal of Accountancy*, February, 1936, pp. 106-7.

"Education for Professional Accountancy," *Accounting Review*, June, 1936, pp. 99-105.

Review of: *A Statement of Accounting Principles*, by Sanders, Hatfield and Moore, *Journal of Accountancy*, March, 1938, pp. 264-6.

"Practitioner's Responsibilities for Accountancy Education," *Accounting Review*, September, 1938, pp. 259-65.

"Practitioner's Responsibilities in a Program of Education for the Accountant," *Proceedings of the First Institute on Accounting*. The Ohio State University, 1938, pp. 26-33.

"Foreword," *Stabilized Accounting*, by H. W. Sweeney, 1938.

"Unbalanced Objectives in Financial Accounting," address before the Third National Accounting Conference, Edison Electric Institute, Chicago, Illinois, November 14, 1939. *Edison Electric Institute Bulletin*, November, 1939, pp. 531-4; *General Accounting Group*, pp. 70-3.

Principles of Accounting, 4th Edition, New York: The Ronald Press Company, 1939.

Comments: "An Introduction to Corporate Accounting Standards," *Journal of Accountancy*, June, 1940, pp. 442-5.

"Corporate Financial Reporting," *Proceedings of the Columbia Accounting Institute*, 1940, pp. 3-8.

Proceedings of the Columbia Accounting Institute, joint editor with Howell A. Inghram, 1940, 1941, 1942.

"Special Purpose vs. General Purpose Financial Statements," *Proceedings of Third Accounting Clinic*, Pennsylvania Institute of Certified Public Accountants, Harrisburg, 1940.

"Sources of Accounting Principles," *Journal of Accountancy* December, 1942, pp. 531-5.

"Measurement in Accounting," *New York Certified Public Accountant*, October, 1944, pp. 611-9.

"Internal Auditing in the Commerce School Curriculum," *Internal Auditing Now and After the War*, Institute of Internal Auditors, 1944, pp. 194-200.

Advanced Accounting, 4th Edition, New York: The Ronald Press Company, 1946.

"Foreword," *Auditing*, by Burns, Baker and Smith, New York: The Ronald Press Company, 1948.

ROBERT HEISTER MONTGOMERY

"The Public Accountant," *Public Accountant*, March, 1900, p. 106.

"The Importance of Uniform Practice in Determining the Profits of Public Service Corporations Where Municipalities Have the Power to Regulate Rates," *Official Record of the Proceedings of the Congress of Accountants at St. Louis*, New York: Federation of Societies of Public Accountants, 1904.

"The Value and Recent Development of Theoretical Training for the Public Accountant," *Business Man's Magazine and the Book Keeper*, September, 1905, pp. 417-9.

"Professional Standards: A Plea for Co-operation Among Accountants," *Journal of Accountancy*, November, 1905, pp. 28-39.

Auditing: A Practical Manual for Auditors, by L. H. Dicksee, American Edition, R. H. Montgomery, editor, New York: The Editor, 1905.

"The Other Side of Questions" (Letter to the Editor), *Journal of Accountancy*, January, 1906, pp. 246-7.

"The Work of the Auditor," *Journal of Accountancy*, April, 1906, pp. 492-500.

"Discussion of Professional Ethics," *Journal of Accountancy*, December, 1907, pp. 94-5.

"Co-operation Between Auditors and Bookkeepers," *Business Man's Magazine and the Book Keeper*, November, 1908, pp. 361-5.

Auditing, Chicago: American Correspondence School, 1909.

Auditing: A Practical Manual for Auditors, by L. A. Dicksee, 2nd American Edition, R. H. Montgomery, editor, New York: The Ronald Press Company, 1909.

"Governmental Supervision and Its Effect on the Profession of Public Accounting," *Journal of Accountancy*, June, 1910, pp. 81-94.

The American Business Manual, editor, New York: P. F. Collier & Son, 1911.

"Federal Control of Corporations," *Journal of Accountancy*, October, 1912, pp. 272-90.

Auditing Theory and Practice, New York: The Ronald Press Company, 1912.

"Corporate Tax Returns," evidence presented before the House Ways and Means Committee, January 13, 1913, *Journal of Accountancy*, February, 1913, pp. 136-9.

"The Fallibility of Unverified Financial Statements," *Journal of Accountancy*, July, 1913, pp. 1-10.

"The President's Address," *Journal of Accountancy*, October, 1913, pp. 265-7.

"Outline of Address on the 'Income Tax Law,'" *Proceedings of a Meeting held December 6, 1913, to discuss the Federal Income Tax, the Pending Currency Bill and the National Budget*, pp. 5-9.

"Professional Ethics," *Journal of Accountancy*, December, 1913, pp. 94-6.

"Memorandum on the Right and Desirability of Experts to Charge Higher Rates for the Services of Their Assistants Than the Compensation Directly Paid to Such Assistants," *Journal of Accountancy*, May, 1914, pp. 372-4.

"An Accountancy Laboratory," *Journal of Accountancy*, June, 1914, pp. 405-11.

Review of: *Principles of Factory Cost Keeping*, by Edward P. Moxey, Jr., *Journal of Accountancy*, June, 1914, p. 475.

"Report of the President," *Journal of Accountancy*, October, 1914, pp. 241-4.

Review of: *Accounts, Their Construction and Interpretation for Business Men and Students of Affairs*, by Williams Morse Cole, *American Economic Review*, September, 1915, pp. 606-8.

Auditing Theory and Practice, Student's Edition, New York: The Ronald Press Company, 1915.

"How Teachers Can Increase the Efficiency of Accounting and Bookkeeping Courses," *Addresses and Proceedings of the Fifty-Fourth Meeting*, Ann Arbor, Michigan: National Education Association, 1916.

Auditing Theory and Practice, 2nd Edition, New York: The Ronald Press Company, 1916.

"Turnover" (Letter to the Editor), *Journal of Accountancy*, February, 1917, p. 145.

Income Tax Procedure 1917, New York: The Ronald Press Company, 1917.

Income Tax Procedure 1918, New York: The Ronald Press Company, 1918.

"Influence of the War on Balance Sheets," *Journal of Accountancy*, July, 1919, pp. 1-8.

Income Tax Procedure 1919, New York: The Ronald Press Company, 1919.

"An Accountant at Sea and Other Places," *L. R. B. & M. Journal*, December, 1920, pp. 3-5.

Excess Profits Tax Procedure, New York: The Ronald Press Company, 1920.

Income Tax Procedure 1920, New York: The Ronald Press Company, 1920.

"An Accountant at Sea and Other Places," *L. R. B. & M. Journal*, January, 1921, pp. 5-9; February, 1921, pp. 14-7, 19; March, 1921, pp. 1-5, 10.

"Claims for Refund of Tax on Stock Dividends" (Letter to the Editor), *Journal of Accountancy*, July, 1921, p. 6.

"Reorganization and the Closed Transaction," *The Federal Income Tax*, edited by Robert Murray Haig, New York: Columbia University Press, 1921.

"Auditing," *Auditing Combinations, Corporations, Profits, Practice*, v. 4 of *Accountancy and Business Management*, Chicago: American Technical Society, 1921.

Auditing Theory and Practice, v. I, 3rd Edition, New York: The Ronald Press Company, 1921.

Excess Profits Tax Procedure 1921, New York: The Ronald Press Company, 1921.

Income Tax Procedure 1921, New York: The Ronald Press Company, 1921.

New York State Income Tax Procedure 1921, New York: The Ronald Press Company, 1921.

"Why Should We Have a New Federal Tax Law?" *Journal of Accountancy*, November, 1922, pp. 334-45.

"Income Tax Suggestions," *Administration—The Journal of Business Analysis and Control*, December, 1922, pp. 641-6.

Auditing Theory and Practice, v. II, 3rd Edition, New York: The Ronald Press Company, 1922.

Income Tax Procedure 1922, New York: The Ronald Press Company, 1922.

Income Tax Procedure 1923, New York: The Ronald Press Company, 1923.

"Accountants as Receivers," *L. R. B. & M. Journal*, February, 1924, p. 10.

"Income Tax: Specific Cause," *The Incorporated Accountant's Journal*, March, 1924, pp. 152-6.

"Substance or Form," *L. R. B. & M. Journal*, November, 1924, p. 17.

Auditing Principles, joint author with Walter A. Staub, New York: The Ronald Press Company, 1924.

Income Tax Procedure 1924, New York: The Ronald Press Company, 1924.

Income Tax Procedure 1925, New York: The Ronald Press Company, 1925.

"Some Recent Decisions in Income Tax Law," *Lectures and Transactions of the Incorporated Accountants Students' Society of London for the Year 1925*, London: Incorporated Accountants' Students' Society of London, 1925.

"Appraisal of Goodwill: A True Estimate of Real and Tangible Values Must be Based on Business Success in Both Good and Bad Periods," *Bulletin, National Retail Dry Goods Association*, March, 1926, pp. 16-7, 34; *Bulletin of the American Institute of Accountants*, October 15, 1926, p. 10 (résumé).

"Early Days," *L. R. B. & M. Journal*, May, 1926, pp. 1-3.

"Legislation for the Accountancy Profession," *Pace Student*, July, 1926, pp. 3-5, 16-9; *Bulletin of the American Institute of Accountants*, August 15, 1926, p. 10 (résumé); *Chartered Accountant*, October, 1926, pp. 5-8 and *International Accountants' Congress, Amsterdam, 1926*, pp. 205-24.

Income Tax Procedure 1926, v. 1, New York: The Ronald Press Company, 1926.

Review of: *Accounting—Its Principles and Problems*, by Henry Rand Hatfield, *Accounting Review*, June, 1927, pp. 189-93.

"Accountants' Limitations," Address delivered at Annual Meeting of American Institute of Accountants, Del Monte, California, September 20, 1927, *The American Accountant*, October, 1927, pp. 5-9; *Canadian Chartered Accountant*, March, 1928, pp. 261-84 and *Journal of Accountancy*, October, 1927, pp. 245-66.

Auditing Theory and Practice, 4th Edition, New York: The Ronald Press Company, 1927.

Financial Handbook, editor, New York: The Ronald Press Company, 1927.

Income Tax Procedure 1927, v. I and II, New York: The Ronald Press Company, 1927.

"Accountants as Arbitrators," *L. R. B. & M. Journal*, May, 1928, pp. 17-8.

"North American Company's Dividends" (Letter to the Editor), *Journal of Accountancy*, July, 1928, pp. 42-3.

Letter to the Editor, *The American Accountant*, October, 1928, p. 55.

"Fundamental Problems Press for Solution" (Letter to the Editor), *The American Accountant*, May, 1929, p. 527.

"Advantages of Attending the International Congress," *The American Accountant*, July, 1929, p. 369.

Federal Tax Practice, joint author with J. Marvin Haynes, Roswell F. Magill and James O. Wynn, New York: The Ronald Press Company, 1929.

Income Tax Procedure 1929, New York: The Ronald Press Company, 1929.

"Auditing," *Encyclopedia of Social Sciences*, v. 2, New York: The MacMillan Company, 1930.

"Retroactive Tax Legislation," *Credit Executive*, January, 1932, p. 13.

"Accounting and the Concept of Income," address at Columbia Tax Symposium, July 12, 1932; available at the American Institute library, New York.

Federal Tax Handbook, New York: The Ronald Press Company, 1932.

"The Auditor's Responsibility in Relation to Balance Sheets and Profit and Loss Accounts From the American Point of View," *Accountant*, September, 1933, pp. 436-41.

"The Auditor's Responsibility in Relation to Balance Sheets and Profit and Loss Accounts—The American Point of View," *Fourth International Congress on Accounting 1933*, London: Gee & Co (Publishers) Ltd., 1933.

Federal Tax Handbook 1933-34, New York: The Ronald Press Company, 1933.

Financial Handbook, 2nd Edition, editor, New York: The Ronald Press Company, 1933.

"Cost Protection and Pricing," *Certified Public Accountant*, June, 1934, pp. 324-9.

"Deficiencies in Credit Department Organization," *Credit Executive*, December, 1934, pp. 14-5.

Auditing Theory and Practice, 5th Edition, New York: The Ronald Press Company, 1934.

Federal Tax Handbook 1934-35, New York: The Ronald Press Company, 1934.

"Taxable Income and the Tax Board," *L. R. B. & M. Journal*, May, 1935, pp. 1-3.

"Problems Affecting Credit Executives and Accountants," discussion at a forum of the New York Credit Men's Association, May 7, 1935, *New York Certified Public Accountant*, October, 1935, pp. 3-17.

Federal Taxes on Estates, Trusts and Gifts 1935-36, joint author with Roswell Magill, New York: The Ronald Press Company, 1935.

Federal Tax Handbook 1935-36, New York: The Ronald Press Company, 1935.

"Accounting Methods Must be Revised to Meet the Increasing Burden of Taxation," *Journal of Accountancy*, August, 1936, pp. 90-102.

"The Tax on Undistributed Income," *Harvard Business Review*, Autumn, 1936, pp. 19-28.

"The Natural Business Year," *L. R. B. & M. Journal*, November, 1936, pp. 1-13, 23.

"Report to the President," *Journal of Accountancy*, November, 1936, pp. 322-33.

Federal Taxes on Estates, Trusts and Gifts 1936-37, joint author with Roswell Magill, New York: The Ronald Press Company, 1936.

Federal Income Tax Handbook 1936-37, New York: The Ronald Press Company, 1936.

"Fiscal Years of New Corporations," paper for the National Business Year Council, 1936; available at the American Institute library, New York.

"The Curse of Balancing, or Theory v. Practice," *Journal of Accountancy*, April, 1937, pp. 279-81.

"Treatment of Discount on Bonds" (Letter to the Editor), *Journal of Accountancy*, July, 1937, pp. 58-9.

"Tax Reform or What?" address at the Annual Meeting of the Cotton-Textile Institute, October 27, 1937; available at the American Institute library, New York.

"What Have We Done, and How?" *Journal of Accountancy*, November, 1937, pp. 333-48.

"Tribute to William M. Lybrand," *L. R. B. & M. Journal*, January, 1938, pp. 39-40.

"Dealings in Treasury Stock: We Call It Capital—The Courts Call It Income," *Journal of Accountancy*, June, 1938, pp. 466-79.

"Dealings in Treasury Stock" (Letter to the Editor), *Journal of Accountancy*, August, 1938, pp. 112-3.

"Federal Taxes on Income and Profits," *L. R. B. & M. Journal*, November, 1938, pp. 5-7.

"Foreword," *Origin and Evolution of Double-Entry Bookkeeping*, by E. Peragallo, New York: American Institute Publishing Co., 1938.

Federal Taxes on Estates, Trusts and Gifts 1938-39, New York: The Ronald Press Company, 1938.

Federal Tax Practice, Revised Edition, joint author with J. Marvin Hayes, C. J. McGuire and James O. Wynn, New York: The Ronald Press Company, 1938.

Fifty Years of Accountancy, New York: Privately printed by The Ronald Press Company, 1939.

"The Public Aspects of Accounting, *L. R. B. & M. Journal*, December, 1940, pp. 9-10.

Auditing Theory and Practice, 6th Edition, New York: The Ronald Press Company, 1940.

Federal Tax Handbook 1940-41, New York: The Ronald Press Company, 1940.

"What to do with What's Left—If Any," address at the Union League Club, May 22, 1941; available at the American Institute library, New York.

"Present Day Credit Problems," *Credit Executive*, November-December, 1941, pp. 237, 259.

Excess Profits and Other Federal Taxes on Corporations 1941-42, New York: The Ronald Press Company, 1941.

Federal Taxes on Estates, Trusts and Gifts 1941-42, New York: The Ronald Press Company, 1941.

"Current Problems of Financial Statements," *United States Investor*, June, 1942, pp. 27-32.

"Is the Profession Going Legalistic?" *Journal of Accountancy*, December, 1942, pp. 523-4.

"Post War Accounting," *New York Certified Public Accountant*, September, 1943, pp. 485-9.

"The Amazing Section 722, The More Amazing Section X, The Still More Amazing Fact That a Chain is Only as Strong as Its Weakest Link, The Race is Not Always to the Swift Nor the Contest to the Strong," *L. R. B. & M. Journal*, November, 1943, pp. 5, 17.

"The Blessed Language," *Journal of Accountancy*, December, 1943, p. 104.

Montgomery's Federal Taxes on Estates, Trusts and Gifts 1942-43, New York: The Ronald Press Company, 1943.

Montgomery's Federal Taxes on Estates, Trusts and Gifts 1943-44, New York: The Ronald Press Company, 1943.

Montgomery's Federal Taxes on Corporations 1942-43, New York: The Ronald Press Company, 1943.

Montgomery's Federal Taxes on Corporations 1943-44, v. I, New York: The Ronald Press Company, 1943.

"Administrative Tax Accounting—Fallacies in Section 41," *L. R. B. & M. Journal*, September, 1944, pp. 14-7.

"The Importance of Being Troubled and Unsettled," *L. R. B. & M. Journal*, September, 1944, pp. 9, 18.

"Capital Surplus—Help Wanted," *Journal of Accountancy*, October, 1944, pp. 285-7.

"The International Congress of 1904," *Termination and Taxes and Papers on Other Current Accounting Problems*, papers presented at the Seventy-Fifth Annual Meeting of the American Institute of Accountants, October 16-19, 1944, New York: American Institute of Accountants, 1944.

Montgomery's Federal Taxes on Estates, Trusts and Gifts 1944-45, New York: The Ronald Press Company, 1944.

"Are We Taxing Tax-Exempt Institutions?" *Taxes—The Tax Magazine*, May, 1945, pp. 386-9.

Montgomery's Federal Taxes on Estates, Trusts and Gifts 1945-46, joint author with James O. Wynn, New York: The Ronald Press Company, 1945.

Montgomery's Federal Taxes—Estates, Trusts and Gifts 1944-45, v. I, New York: The Ronald Press Company, 1945.

Montgomery's Federal Taxes—Estates, Trusts and Gifts 1946-47, joint author with James O. Wynn, New York: The Ronald Press Company, 1946.

Montgomery's Federal Taxes on Corporations 1945-46, v. I, joint author with Conrad B. Taylor and Mark E. Richardson, New York: The Ronald Press Company, 1946.

"Accountants Should Not Be Expected to Forecast the Future," *Journal of Accountancy*, December, 1947, p. 460.

Montgomery's Federal Taxes—Estates, Trusts and Gifts 1947-48, joint author with James O. Wynn, New York: The Ronald Press Company, 1947.

Montgomery's Federal Taxes—Corporations and Partnership 1946-47, v. I, joint author with Conrad B. Taylor and Mark E. Richardson, New York: The Ronald Press Company, 1947.

"Should Accountants Recognize Leap Years?" (Correspondence), *Journal of Accountancy*, August, 1948, p. A-14.

Montgomery's Federal Taxes—Estates, Trusts and Gifts 1948-49, joint author with James O. Wynn, New York: The Ronald Press Company, 1948.

Montgomery's Federal Taxes—Corporations and Partnerships 1947-48, v. I, joint author with Conrad B. Taylor and Mark E. Richardson, New York: The Ronald Press Company, 1948.

Montgomery's Federal Taxes—Corporations and Partnerships 1948-49, joint author with Conrad B. Taylor and Mark E. Richardson, New York: The Ronald Press Company, 1948.

Montgomery's Auditing, 7th Edition, joint author with Norman J. Lenhart and Alvin R. Jennings, New York: The Ronald Press Company, 1949.

"Curse of Balancing," *Journal of Accountancy*, August, 1950, p. 127; *The Ohio C. P. A.*, Autumn, 1950, pp. 26-7 and *L. R. B. & M. Journal*, December, 1950, pp. 34-5.

Montgomery's Federal Taxes—Estates, Trusts and Gifts 1949-50, joint author with James O. Wynn and Harold G. Blattmachr, New York: The Ronald Press Company, 1950.

Montgomery's Federal Taxes—Corporations and Partnerships 1949-50, joint author with Conrad B. Taylor and Mark E. Richardson, New York: The Ronald Press Company, 1950.

Montgomery's Federal Taxes—Corporations and Partnerships 1950-51, joint author with Conrad B. Taylor and Mark E. Richardson, New York: The Ronald Press Company, 1951.

Montgomery's Federal Taxes—Excess Profits Tax 1950-51, joint author with Conrad B. Taylor and Mark E. Richardson, New York: The Ronald Press Company, 1951.

"The Death of Joseph M. Pugh," *L. R. B. & M. Journal*, August, 1952, p. 4.

Montgomery's Federal Taxes—Estates, Trusts and Gifts 1951-52, joint author with James O. Wynn and Harold G. Blattmachr, New York: The Ronald Press Company, 1952.

Montgomery's Federal Taxes—Corporations and Partnerships 1951-52, joint author with Conrad B. Taylor and Mark E. Richardson, New York: The Ronald Press Company, 1952.

Prefaces to R. H. Montgomery's "Federal Income Taxes," 1917-50, New York: Lybrand, Ross Bros. & Montgomery, 1952.

Uniform Classification of Accounts for Anthracite Coal Operators, test, monthly report, prepared by R. V. Norris and R. H. Montgomery, 2v., 437 Chestnut Street, Anthracite Bureau of Information, n. d.

CHARLES EZRA SPRAGUE

Various and Unspecified Articles, *The Army and Navy Journal*, 1868-80.

The Book Keeper, joint editor with Seldon R. Hopkins, New York City, 1880.

"The Algebra of Accounts," *The Book Keeper*, July 20, 1880, pp. 2-4; August 3, 1880, pp. 19-22; August 17, 1880, pp. 34-5 and August 31, 1880, pp. 51-3.

"The Cheque Bank," *The Book Keeper*, September 28, 1880, pp. 81-2.

"The Detection of Errors in Balance Sheets," *The Book Keeper*, October 12, 1880, pp. 97-101.

"Addition by Means of Subtraction," *The Book Keeper*, October 26, 1880, p. 119.

"Outlay and Income," *The Office*, November, 1889, pp. 207-8.

"Algebra of Accounts," *The Office*, May, 1889, pp. 91-2; July, 1889, pp. 122-3 and August, 1889, pp. 144-5.

"Tabular Bookkeeping," *The Office*, September, 1890, pp. 240-1.

"Line-by-Line Accounts," *Business*, January, 1896, pp. 29-31.

"The CPA Law" (Correspondence), *Business*, July, 1896, p. 320.

"Detecting Errors in Accounts," *Business*, June, 1897, pp. 176-9.

"In the Company Street," *Personal Recollections of the War of Rebellion*, Second Series, New York Commandery of the Military Order of the Loyal Legion of the United States, New York: 1897, pp. 126-39.

"Logismography I," *Accountics*, January, 1898, pp. 73-5.

"Logismography II," *Accountics*, February, 1898, pp. 117-21.

"Proposed Tax on Mortgages," *Banking Law Journal*, New York, 1900, pp. 70-2.

"Proposed Mortgage Tax in New York State," *Gunton's Magazine*, 1900, pp. 218-25.

Handbook of Volapük, Grammer, Exercises and Vocabulary, New York: Steiger, 1902.

"The Basis for Valuation for Securities," *The Book Keeper*, January, 1904, pp. 76-80.

"Premium on Bonds," *Business Man's Magazine and the Book Keeper*, July, 1904, pp. 883-4.

The Accountancy of Investment, New York: Business Publishing Company, 1904.

"Computing Present Values," *Business Man's Magazine and the Book Keeper*, July, 1905, pp. 755-6.

Extended Bond Tables, New York: Business Publishing Company, 1905.

Problems and Studies in the Accountancy of Investment, New York: The Author, 1906.

"Premiums and Discounts," *Journal of Accountancy*, August, 1906, pp. 294-6.

"Problems and Studies in Accountancy of Investment," *Business World*, October, 1905, pp. 550-5; November, 1905, pp. 619-25; December, 1905, pp. 691-7; January, 1906, pp. 32-41; February, 1906, pp. 110-6; April, 1906, pp. 286-93 and May, 1906, pp. 386-94.

"Proper Basis of Bond Accounts When Held for Investment," *Annals of the American Academy*, September, 1907.

"Valuation of Bonds on an Income Basis," *Annals of the American Academy*, September, 1907.

The Taxation of Savings Banks, *Proceedings of the National Municipal League, no. 13, 1907*, pp. 280-7.

Additional Extended Bond Tables, New York: The Author, 1907.

"Fallacy in Bond Values," *Journal of Accountancy*, November, 1907, pp. 1-4.

Tables of Compound Interest, New York: The Author, 1907.

The Philosophy of Accounts, New York: The Author, 1907.
Journal of Accountancy, January, 1907, pp. 181-8; February, 1907, pp. 261-75; March, 1907, pp. 364-75; April, 1907, pp. 449-61; May, 1907, pp. 33-45; June, 1907, pp. 122-30; July, 1907, pp. 198-210; August, 1907, pp. 287-97; September, 1907, pp. 363-8; October, 1907, pp. 432-50; November, 1907, pp. 23-40 and January, 1908, pp. 205-10.

"Stock Value of a Bond," *Journal of Accountancy*, July, 1908, pp. 174-6 and *Accountant*, September 12, 1908, pp. 314-5.

"Postal Savings Banks," *Independent*, December 24, 1908.

Amortization, New York: The Author, 1908.

Text-book of the Accountancy of Investment, New York: The Author, 1909.

"Embezzlement and Accountability," *Journal of Accountancy*, June, 1909, pp. 85-96.

"Continuity of Interest," *Journal of Accountancy*, March, 1910, pp. 340-3; *Accountant*, May 7, 1910, pp. 655-7.

"Surplus and Dividends," *Bankers Monthly*, December, 1910.

Logarithms to 12 Places and Their Use in Interest Calculations, New York: The Author, 1910.

"Test of 3-1/2 Per Cent Interest," *Bankers Monthly*, November, 1911.

"Table of Factors for Computing Twelve Place Logarithms," *Spectator*, n. d.

JOHN R. WILDMAN

Review of: *Cost Accounts*, by W. Strachan, 3rd Edition, *Journal of Accountancy*, October, 1909, pp. 466-7.

Review of: *Efficiency as a Basis for Operation and Wages*, by H. Emerson, *Journal of Accountancy*, December, 1909, pp. 145-7.

"Cost Accounting," *Journal of Accountancy*, November, 1910, pp. 1-9; December, 1910, pp. 119-26; January, 1911, pp. 186-94; February, 1911, pp. 267-76; March, 1911, pp. 346-57 and April, 1911, pp. 422-38.

Cost Accounting Problems, New York: Accountancy Publishing Company, 1910.

Cost Accounting, New York: Accountancy Publishing Company, 1911.

"Department of Practical Accounting," *Journal of Accountancy*, January, 1912, pp. 58-65; February, 1912, pp. 144-51; March, 1912, pp. 224-35; April, 1912, pp. 295-304; May, 1912, pp. 370-81; June, 1912, pp. 436-44; July, 1912, pp. 53-63; August, 1912, pp. 133-43; September, 1912, pp. 226-34; October, 1912, pp. 327-33; November, 1912, pp. 407-16; December, 1912, pp. 494-500; January, 1913, pp. 65-71; February, 1913, pp. 128-33; March, 1913, pp. 189-97; April, 1913, pp. 264-72; May, 1913, pp. 357-64; June, 1913, pp. 449-58; July, 1913, pp. 54-63; August, 1913, pp. 124-31; September, 1913, pp. 234-44; October, 1913, pp. 319-26; November, 1913, pp. 375-83 and December, 1913, pp. 461-7.

"Response to 'Criticism of the Department of Practical Accounting'" (Correspondence), *Journal of Accountancy*, July, 1912, pp. 70-2.

"Interest on Owned Capital," *Journal of Accountancy*, June, 1913, pp. 428-31.

Principles of Accounting, New York: The William G. Hewitt Press, 1913.

"Depreciation from a Certified Accountant's Point of View," *Electric Railway Journal*, April, 1914, pp. 332-3.

Elementary Accounting Problems, New York: The William G. Hewitt Press, 1914.

Introduction to Accounting, New York: The William G. Hewitt Press, 1915.

"Correspondence Course in Accounting," joint author with A. L. Holmes, *Proceedings before National Electric Light Association, 1916* (accounting volume), pp. 155-60, 202-6.

"Accounting and Modern Industry," *Electric Railway Journal*, October 14, 1916, pp. 793-5.

"Relation Between Secondary Schools and Universities with Regard to the Teaching of Bookkeeping and Accounting," a paper read before the Eastern Commercial Teachers' Association, April 20, 1916, New York University, 21p.

"Part Which Accounting Should Occupy in Any Scheme of National Preparedness," a paper read before the American Economic Association at Columbus, Ohio, December 19, 1916, 8p; *American Economic Review*, March, 1917, supplement, pp. 224-8.

Principles of Auditing, New York: The William G. Hewitt Press, 1916.

Review of: *Predetermination of Prices*, by F. A. Parkhurst, *American Economic Review*, March, 1917, pp. 133-4.

Auditing Studies, pamphlet, New York: The William G. Hewitt Press, 1917.

"Address of the President," *American Association of University Instructors in Accounting, Papers and Proceedings*, 1917, pp. 7-10.

Review of: *Cost Accounting*, by J. L. Nicholson and J. F. D. Rohrbach, *Journal of Accountancy*, April, 1919, p. 318.

Review of: *New Modern Illustrative Bookkeeping*, by C. F. Rittenhouse, *Journal of Accountancy*, May, 1919, p. 397.

"Some Additional Questions" (Correspondence), *Journal of Accountancy*, September, 1919, pp. 380-1.

"Certified Financial Statements as a Basis for Credit," *Journal of Accountancy*, September, 1920, pp. 161-8.

"Supervising the Work of the Accounting Staff," *Journal of Accountancy*, October, 1920, pp. 245-51.

"Los estades financieros visados por contadores publices in les solicitudes de credito bencario," traducida del *Journal of Accountancy* per Alberto Arevalo, *Hacienda y Administracion*, Julio-Diciembre, 1920, pp. 217-24.

"Looking at Financial Statements," *Haskins & Sells Bulletin*, August, 1924, pp. 56-7.

"Educational Program of the Institute," *Papers and Proceedings, American Association of University Instructors in Accounting, 1924*, pp. 33-6.

"Preface," *Natural Business Year and Thirteen Other Themes*, by E. W. Sells, New York: Haskins & Sells, 1924.

"Favorite Methods of Business Crookdom," *Papers and Proceedings, American Association of University Instructors in Accounting, 1925*, pp. 127-9.

"Accounting Classification Suggested," *The American Accountant*, February, 1926.

"Research in Accounting," *Bulletin of the American Institute of Accountants*, February 15, 1926, pp. 2-5.

"Early Instruction in Accounting," *Accounting Review*, March, 1926, pp. 105-7.

"Research Program," *Accounting Review*, March, 1926, pp. 43-55.

"Interpretation of Financial Statements," *Journal of Accountancy*, March, 1926, pp. 185-95; *Canadian Chartered Accountant*, September, 1927, pp. 80-90; *New York Credit Men's Association Bulletin*, March, 1926, pp. 112-6; April, 1926, pp. 185-90 and *Pace Student*, July, 1926, p. 21ff.

"Activities of American Institute," *The American Accountant*, February, 1927, p. 34.

"Significant Developments Relating to No-Par Shares," *Haskins & Sells Bulletin*, June, 1927, pp. 42-4.

"Styles in No-Par Stock Laws," *Haskins & Sells Bulletin*, December, 1927, pp. 93-5.

"Shares of Capital Stock Without Par Value," Address before the New York State Society of Certified Public Accountants, January 9, 1928, *News Bulletin, New York State Society of Certified Public Accountants*, January 26, 1928.

"Diversity of No-Par Stock Statutes Creates Problem for Accountant," *The American Accountant*, February, 1928, pp. 19-21.

"Profit Dividends and Appreciation," *Haskins & Sells Bulletin*, March, 1928, pp. 21-3 and *Bulletin of the American Institute of Accountants*, April 18, 1928.

"Discount on No-Par Shares," *Haskins & Sells Bulletin*, May, 1928, p. 34.

"Accountants Certificates," *Certified Public Accountant*, June, 1928, pp. 163-4.

"Classification of Accountancy Services," *Accounting Review*, June, 1928, pp. 124-30.

"Endorsement of a Natural Business Year," *The American Accountant*, October, 1928, p. 54.

"Appreciation from the Point of View of the Certified Public Accountant," *Accounting Review*, December, 1928, pp. 396-406 and *Haskins & Sells Bulletin*, January, 1929, pp. 2-7.

Capital Stock Without Par Value, joint author with Weldon Powell, Chicago: A. W. Shaw Company, 1928.

"Service Classification," New York: Haskins & Sells, 1928, five typewritten pages.

"Preferred Surplus," *Haskins & Sells Bulletin*, March, 1929, pp. 26-8.

"No-Par Discount," *Haskins & Sells Bulletin*, June, 1929, pp. 46-7.

"Guide Rule for Proper Rate-Base Audit," *The American Accountant*, 1929, p. 542.

"Depreciation and Obsolescence as Affected by Appraisals," Paper presented at the International Congress on Accounting held at Hotel Commodore, New York, September 9-14, 1929, 11p; *Proceedings, International Congress on Accounting, 1929*, pp. 420-30 and *Accountant*, November 2, 1929, pp. 538-41.

"A Symposium on Appreciation," *Accounting Review*, March, 1930, p. 1ff.

Cost Accounting Studies, New York: W. T. Green, 1920.

Review of: *The Accountants Index*, *Journal of Accountancy*, July, 1921, pp. 73-4.

"Correlation of Accounting Instruction in Universities with the Needs of Public Accountants," *Papers and Proceedings, American Association of University Instructors in Accounting, 1921*, pp. 27-32.

"Sensible Accounting for Social Agencies," *Haskins & Sells Bulletin*, January 15, 1922, p. 206.

"Training Young Accountants," *Journal of Accountancy*, June, 1922, pp. 431-7.

"Consideration of the Sinking Fund Method as a Basis for Amortizing Franchises," *Haskins & Sells Bulletin*, December 15, 1922.

Principles of Accounting, Revised Edition, New York: The William G. Hewitt Press, 1922.

Some Obstacles in the Path of Capital Stock Without Par Value, pamphlet, New York: Haskins & Sells, 1922.

"Sinking Fund Method for Amortizing Franchises," *Journal of Accountancy*, January, 1923, pp. 16-21 and March, 1923, pp. 233-5.

"Consideration of the Sinking Fund Method as Basis for Amortizing Franchises—A Rejoinder," *Haskins & Sells Bulletin*, March, 1923.

"Some Obstacles in the Path of Capital Stock Without Par Value," *Certified Public Accountant*, January, 1923, pp. 14-8, 24.

"Cost Accounting in Relation to Business Cycles," *Official Publications*, National Association of Cost Accountants, v. 4, no. 21, July 16, 1923 and *Accountant*, July 19, 1924, pp. 110-4.

"Back to the Land of Matches," *Haskins & Sells Bulletin*, November 11, 1923, pp. 82-5.

"Recasting Procedure," *Haskins & Sells Bulletin*, June, 1924 and *L. R. B. & M. Journal*, October, 1924, pp. 8-9.

"Accountant's Liability for Failure to Discover Fraud," paper read before the Eighth Annual Fall Conference of the New York State Society of Certified Public Accountants, New York City, October 20, 1930; *Bulletin, New York State Society of Certified Public Accountants*, October, 1930, pp. 36-44 and *Robert Morris Associates Monthly Bulletin*, December, 1930, pp. 224-9.

"Foreword," *History and Survey of Accountancy*, by W. T. Green, New York: Standard Text Press, 1930.

"How Can They Do Such Things?" *The American Accountant*, 1931, p. 116.

"Buying Your Own Stock," *The American Accountant*, January, 1932, pp. 16-18.

"Capital Adjustment Theory of Treasury Stock," *The American Accountant*, May, 1932, pp. 135-9.

SELECTED BIBLIOGRAPHY*

Books and Monographs

Abbot, Lawrence, *Economics and the Modern World*, New York: Harcourt, Brace and Company, 1960.

American Accounting Association, *A Statement of Basic Accounting Theory*, Chicago, 1966.

American Association of Collegiate Schools of Business, *Faculty Personnel*, Bloomington, Indiana, 1926.

American Institute of Certified Public Accountants, *Accounting Research and Terminology Bulletins*, Final Edition, New York: AICPA, 1961.

Broaker, F. and Chapman, R., *American Accountants' Manual*, v. 1, New York: Broaker & Chapman, 1897.

Brown, Richard, *History of Accounting and Accountants*, New York: Augustus Kelley, 1968 (copyright, 1905).

Burns, A. F., *The Business Cycle in a Changing World*, New York: National Bureau of Economic Research, 1969.

Canning, J. B., *The Economics of Accountancy*, New York: The Ronald Press Company, 1929.

Carey, John L., *The Rise of the Accounting Profession*, v. I and II, New York: AICPA, 1969, 1970.

Chambers, R. J., *Accounting Evaluation and Economic Behavior*, Englewood Cliffs: Prentice-Hall, Inc., 1966.

Chatfield, M., editor, *Contemporary Studies in the Evolution of Accounting Thought*, Belmont, California: Dickenson Publishing Company, 1968.

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*For materials of the eight Preclassical writers of this study refer to the chronological listings for each individual in the Appendix.

Cochran, Thomas C., *Basic History of American Business*, Princeton, New Jersey: D. Van Nostrand Co., Inc. 1959.

_____, *The American Business System: A Historical Perspective, 1900-1955*, New York: Harper & Row, 1957.

Congress of the United States, Joint Economic Committee, *Employment, Growth and Price Levels*, Washington, 1960.

Davis, L. E., and others, *American Economic Growth: An Economist's History of the United States*, New York: Harper & Row, 1972.

Deinzer, H. T., *Development of Accounting Thought*, New York: Holt, Rinehart, Winston, 1965.

DeMond, C. W., *Price, Waterhouse & Co. in America*, New York: Price, Waterhouse & Co., 1951.

Dewing, Arthur Stone, *The Financial Policy of Corporations*, 3rd Revised Edition, New York: The Ronald Press Company, 1926.

Dickinson, A. L., editor, *Official Record of the Congress of Accountants at St. Louis*, New York: Federation of Societies of Public Accountants, 1904.

Dicksee, L. R., *Auditing: A Practical Manual for Auditors*, American Edition, R. H. Montgomery, editor, New York: The Editor, 1905.

Edwards, George W., *The Evolution of Finance Capitalism*, London: Longmans, Green and Co., 1938.

Edwards, James Don, *History of Public Accounting in the United States*, East Lansing: Bureau of Business and Economic Research, Michigan State University, 1960.

_____ and Salmonson, R. F., *Contributions of Four Accounting Pioneers*, East Lansing: Bureau of Business and Economic Research, Michigan State University, 1961.

Eliot, Charles W., *Great Riches*, New York: Thomas L. Crowell & Co., 1906.

Faulkner, Harold U., *The Decline of Laissez Faire 1897-1917*, New York: Harper & Row, 1968.

Fisher, Irving, *The Nature of Capital and Income*, New York: The MacMillan Company, 1906.

Forster, E. M., *Goldsworthy Lowes Dickinson*, London: Edward Arnold Publishers Ltd., 1934.

Foster, B. F., *A Concise Treatise on Commercial Bookkeeping*, Second Edition, Boston: Perkins & Marvin, 1837.

Garner, S. Paul, *Evolution of Cost Accounting to 1925*, Tuscaloosa: University of Alabama Press, 1954.

Gide, Charles and Rist, Charles, *A History of Economic Doctrines*, 7th Edition, Boston: D. C. Heath and Company, 1948.

Gilman, S., *Accounting Concepts of Profit*, New York: The Ronald Press Company, 1939.

Glover, J. S. and Cornell, W. B., *The Development of American Industries: Their Economic Significance*, New York: Prentice-Hall, Inc., 1933.

Grady, Paul, editor, *Memoirs and Accounting Thought of George O. May*, New York: The Ronald Press Co., 1962.

Green, W. L., *History and Survey of Accountancy*, New York: Standard Text Press, 1930.

Hansen, Palle, *Regnskabslaboratoriets Skrifter (The Accounting Concept of Profit)*, Amsterdam: North Holland Publishing Co., 1962.

Haskins & Sells · Our First Seventy-Five Years, New York: Haskins & Sells, 1970.

Hays, Samuel P., *The Response to Industrialism, 1885-1914*, Chicago: The University of Chicago Press, 1957.

Heilbroner, Robert L., *The Worldly Philosophers*, Revised Edition, New York: Simon and Schuster, 1961.

Historical Statistics of the United States Colonial Times to 1957, Department of Commerce, Bureau of the Census, Washington: Government Printing Office, 1960.

Hobson, John A., *Problems of Poverty: An Inquiry into the Condition of the Industrial Poor*, London: Metheun & Co., 1895.

Ijiri, Yuji, *The Foundations of Accounting Measurement*, Englewood Cliffs: Prentice-Hall, Inc., 1967.

Inglis, John B., *The Development of Accounting Principles in the United States*, Boston: Bureau of Business and Economic Research, Bentley College of Accounting and Finance, 1964.

Jennings, W. W., *A History of Economic Progress in the United States*, New York: T. Y. Crowell Publishers, 1926.

Jones, T., *Bookkeeping and Accountantship*, New York: John Wiley, 1855.

Keynes, John N., *The Scope and Method of Political Economy*, 4th Edition, New York: Augustus M. Kelley, 1965 (copyright, 1891).

Klein, Jos. J., *Elements of Accounting: Theory and Practice*, New York: D. Appleton, 1913.

Klibansky, R. and Paton, H. J., editors, *Philosophy and History*, New York: Harper & Row, 1963.

Knight, Frank, *Risk, Uncertainty and Profit*, New York: Augustus Kelley, 1964 (copyright, 1921).

Kuhn, T. S., *The Structure of Scientific Revolutions*, Chicago: The University of Chicago Press, 1962.

Kuznets, S., *National Product Since 1869*, New York: National Bureau of Economic Research, 1946.

Lewis, Cleona, *America's Stake in International Investments*, Washington: The Brookings Institute, 1938.

Lindahl, M. L. and Carter, W. A., *Corporate Concentration and Public Policy*, 3rd Edition, Englewood Cliffs: Prentice-Hall, Inc., 1959.

Lisle, George, *Accounting in Theory and Practice*, London: William Green & Sons, 1900.

Littleton, A. C., *Accounting Evolution to 1900*, New York: Russell & Russell, 1966 (copyright, 1933).

_____, *Structure of Accounting Theory*, Chicago: American Accounting Association, 1953.

_____ and Zimmerman, V. K., *Accounting Theory: Continuity and Change*, Englewood Cliffs: Prentice-Hall, Inc., 1962.

MacNeal, Kenneth, *Truth in Accounting*, Lawrence, Kansas: Scholars Book Co., 1970 (copyright, 1939).

Mann, Helen Scott, *Charles Ezra Sprague*, New York: New York University, 1931.

Marshall, Alfred, *Principles of Economics*, 8th Edition, London: MacMillan & Co. Ltd., 1964 (copyright, 1920).

Marshall, H. D. and Marshall, Natalie J., *The History of Economic Thought*, New York: Pitman Publishing Corp., 1968.

McGrane, Reginald C., *The Economic Development of the American Nation*, Boston: Ginn and Company, 1950.

Meyer, B. H., *A History of the Northern Securities Case*, Madison, Wisconsin: University of Wisconsin, Economics and Political Science Series, v. 1, no. 3, July, 1906.

Mill, J. S., *Principles of Political Economy*, W. J. Ashley, editor, London: Longmans, Green and Co., 1929.

Mitchell, W. C., *Business Cycles and Their Causes*, Berkley: University of California Press, 1913.

Moody, John, *The Truth about the Trusts*, New York: The Moody Publishing Co., 1904.

Moonitz, M. and Littleton, A. C., *Significant Accounting Essays*, Englewood Cliffs: Prentice-Hall, Inc., 1965.

Murphy, Mary, "International Accounting Practice," *Advanced Public Accounting Practice*, Homewood, Ill.: Richard D. Irwin Co., 1966.

Newman, Philip, *The Development of Economic Thought*, New York: Prentice Hall, Inc., 1952.

Oser, Jacob, *The Evolution of Economic Thought*, 2nd Edition, New York: Harcourt, Brace & World, Inc., 1970.

Paton, W. A. and Littleton, A. C., *An Introduction to Corporate Accounting Standards*, Chicago: American Accounting Association, 1940.

Perine, Rita, editor, *The Accountants' Directory* and *Who's Who—1920*, New York: The Forty-Fifth St. Press, 1920.

Peragallo, Edward, *Origin and Evolution of Double-Entry Bookkeeping*, New York: American Institute Publishing Co., 1938.

Proceedings of the Annual Institute on Accounting, 1950, The Ohio State University.

_____, 1951, The Ohio State University.

_____, 1952, The Ohio State University.

_____, 1956, The Ohio State University.

Ripley, William Z., *Main Street And Wall Street*, Boston: Little, Brown, and Company, 1927.

Robertson, Ross M., *History of the American Economy*, 2nd Edition, New York: Harcourt, Brace & World, 1964.

Sanders, T. H., editor, *Dickinson Lectures in Accounting*, Cambridge: Harvard University Press, 1943.

Schlesinger, Arthur Meier, *Political and Social Growth of the United States: 1852-1933*, New York: The MacMillan Company, 1939.

Schmalenbach, Eugen, *Dynamic Accounting* (Translated by G. W. Murphy and K. S. Most), London: Gee and Company (Publishers) Limited, 1959.

Schumpeter, Joseph A., *History of Economic Analysis*, New York: Oxford University Press, 1954.

Shannon, Fred Albert, *America's Economic Growth*, 3rd Edition, New York: The MacMillan Company, 1951.

Sheldon, E. and Moore, W., editors, *Indicators of Social Change*, New York: Russell Sage Foundation, 1968.

Simons, H., *Intermediate Accounting*, 5th Edition, Comprehensive volume, Cincinnati: South-Western Publishing Co., 1972.

Smith, Adam, *An Inquiry Into the Nature and Causes of the Wealth of Nations*, New York: P. F. Collier & Son Corp., "The Harvard Classics," v. 10, 1961.

Soule, George, *American Economic History*, New York: Holt, Rinehart and Winston, 1961.

_____, *Prosperity Decade From War to Depression: 1917-1929*, New York: Harper & Row, 1968.

Spiegel, Henry William, *The Rise of American Economic Thought*, Philadelphia: Chilton Company, 1960.

Staub, Walter A., *Auditing Developments during the Present Century*, Cambridge: Harvard University Press, 1942.

Steindl, J., *Maturity and Stagnation in American Capitalism*, Oxford, England: Basil Blackwell, 1952.

Stone: Williard E., editor, *Foundations of Accounting Theory*, Gainesville, Fla.: University of Florida Press, 1971.

Storey, Reed K., *The Search for Accounting Principles*, New York: AICPA, 1963.

Sweeney, Henry W., *Stabilized Accounting*, New York: Holt, Rinehart and Winston, Inc., 1964 (copyright, 1936).

The Accounting Hall of Fame, Dept. of Accounting, College of Administrative Science, The Ohio State University, 1968.

Tipson, Fredrick S., *Auditing*, New York: The Author, 1904.

Trueblood, R. M. and Sorter, G. H., editors, *William W. Werntz: His Accounting Thought*, New York: AICPA, 1968.

Tuttle, F. W. and Perry, J. M., *An Economic History of the United States*, Cincinnati: South-Western Publishing Co., 1970.

Van Metre, T., *A History of the Graduate School of Business, Columbia University*, New York: Columbia University Press, 1954.

Vatter, W., *The Fund Theory of Accounting and Its Implications for Financial Reporting*, Chicago: The University of Chicago Press, 1947.

von Mises, Ludwig, *Theory and History*, Binghamton, New York: Vail-Ballou Press, 1957.

Warren, G. F. and Pearson, F. A., *Prices*, New York: John Wiley & Sons, Inc., 1933.

Webster, N. E., *The American Association of Public Accountants: Its First Twenty Years 1886-1906*, New York: American Institute of Accountants, 1954.

Wilkinson, George, *The CPA Movement*, New York: Wilkinson, Reckitt, Williams & Co., 1903.

Williamson, Harold F., editor, *Growth of the American Economy*, New York: Prentice-Hall, Inc., 1951.

Wilson, Woodrow, *The New Freedom*, New York: Doubleday, Page & Co., 1913.

Winjum, James Ole, *The Role of Accounting in the Economic Development of England: 1500-1750*, monograph 6, Urbana: Center for International Education and Research in Accounting, 1972.

Woodruff, William, "The Emergence of an International Economy 1700-1914," *The Fontana Economic History of Europe*, v. 4, Section II.

Zeff, S. A., *The American Accounting Association: Its First 50 Years*, Chicago: American Accounting Association, 1966.

Editorials, Reviews, Notices and Reports

"Income Defined at Last" (Editorial), *Journal of Accountancy*, February, 1928, pp. 125-35.

"Instructions for Verification of Financial Statements" (Editorial), *Journal of Accountancy*, May, 1929, pp. 355-62.

Intangible Assets, Opinions of the Accounting Principles Board, no. 17, AICPA, August, 1970.

"John R. Wildman," *The Certified Public Accountant*, October, 1938, p. 14.

Lawton, W. H., Review of: *Accounting Theory and Practice*, A First Year Text, by R. B. Kester, *Journal of Accountancy*, December, 1917, pp. 488-90.

_____, Review of: *Accounting Theory with Special Reference to the Corporate Enterprise*, *Journal of Accountancy*, April, 1923, pp. 313-4.

Littleton, A. C., Review of: *Dicksee's Auditing*, 7th Edition, *Accounting Review*, July, 1952, pp. 405-6.

May, George O., Review of: *Accounting Method*, by R. C. Rorem, *American Bar Association Journal*, November, 1929, pp. 715-6.

"Obituaries" of Sir Arthur Lowes Dickinson, *New York Times*, March 2, 1935; *Accountant*, March 9, 1935, p. 345; *Canadian Chartered Accountant*, v. 26, 1935, pp. 243-4.

"P. J. Esquerré Dead After Brief Illness," *New York Times*, August 17, 1934, p. 15, col. 5.

Report of the Special Committee on Accounting Terminology, *1909 Yearbook of American Association of Public Accountants*, pp. 159-91.

Report of the Committee on Accounting Terminology, *1915 Yearbook of American Association of Public Accountants*, pp. 160-6.

Report of the Committee on Federal Legislation, *1914 Yearbook of American Association of Public Accountants*, pp. 222-3.

"Retirement Announced," Arthur Lowes Dickinson, *Accountant*, July 21, 1923, p. 85; *Canadian Chartered Accountant*, September, 1923, p. 128; *Journal of Accountancy*, September, 1923, p. 202 and *London Times*, July 13, 1923, p. 18, col. G.

"Two Pathfinders" (Editorial), *Journal of Accountancy*, May, 1909, pp. 42-3.

Van Metre, T., *A History of the Graduate School of Business, Columbia University*, New York: Columbia University Press, 1954.

Vatter, W., *The Fund Theory of Accounting and Its Implications for Financial Reporting*, Chicago: The University of Chicago Press, 1947.

von Mises, Ludwig, *Theory and History*, Binghamton, New York: Vail-Ballou Press, 1957.

Warren, G. F. and Pearson, F. A., *Prices*, New York: John Wiley & Sons, Inc., 1933.

Webster, N. E., *The American Association of Public Accountants: Its First Twenty Years 1886-1906*, New York: American Institute of Accountants, 1954.

Wilkinson, George, *The CPA Movement*, New York: Wilkinson, Reckitt, Williams & Co., 1903.

Williamson, Harold F., editor, *Growth of the American Economy*, New York: Prentice-Hall, Inc., 1951.

Wilson, Woodrow, *The New Freedom*, New York: Doubleday, Page & Co., 1913.

Winjum, James Ole, *The Role of Accounting in the Economic Development of England: 1500-1750*, monograph 6, Urbana: Center for International Education and Research in Accounting, 1972.

Woodruff, William, "The Emergence of an International Economy 1700-1914," *The Fontana Economic History of Europe*, v. 4, Section II.

Zeff, S. A., *The American Accounting Association: Its First 50 Years*, Chicago: American Accounting Association, 1966.

Editorials, Reviews, Notices and Reports

"Income Defined at Last" (Editorial), *Journal of Accountancy*, February, 1928, pp. 125-35.

"Instructions for Verification of Financial Statements" (Editorial), *Journal of Accountancy*, May, 1929, pp. 355-62.

Intangible Assets, Opinions of the Accounting Principles Board, no. 17, AICPA, August, 1970.

"John R. Wildman," *The Certified Public Accountant*, October, 1938, p. 14.

Lawton, W. H., Review of: *Accounting Theory and Practice*, A First Year Text, by R. B. Kester, *Journal of Accountancy*, December, 1917, pp. 488-90.

_____, Review of: *Accounting Theory with Special Reference to the Corporate Enterprise*, *Journal of Accountancy*, April, 1923, pp. 313-4.

Littleton, A. C., Review of: *Dicksee's Auditing*, 7th Edition, *Accounting Review*, July, 1952, pp. 405-6.

May, George O., Review of: *Accounting Method*, by R. C. Rorem, *American Bar Association Journal*, November, 1929, pp. 715-6.

"Obituaries" of Sir Arthur Lowes Dickinson, *New York Times*, March 2, 1935; *Accountant*, March 9, 1935, p. 345; *Canadian Chartered Accountant*, v. 26, 1935, pp. 243-4.

"P. J. Esquerré Dead After Brief Illness," *New York Times*, August 17, 1934, p. 15, col. 5.

Report of the Special Committee on Accounting Terminology, *1909 Yearbook of American Association of Public Accountants*, pp. 159-91.

Report of the Committee on Accounting Terminology, *1915 Yearbook of American Association of Public Accountants*, pp. 160-6.

Report of the Committee on Federal Legislation, *1914 Yearbook of American Association of Public Accountants*, pp. 222-3.

"Retirement Announced," Arthur Lowes Dickinson, *Accountant*, July 21, 1923, p. 85; *Canadian Chartered Accountant*, September, 1923, p. 128; *Journal of Accountancy*, September, 1923, p. 202 and *London Times*, July 13, 1923, p. 18, col. G.

"Two Pathfinders" (Editorial), *Journal of Accountancy*, May, 1909, pp. 42-3.

Walker, Mark C., "William Morse Cole," *Massachusetts CPA Review*, January, 1961, pp. 178-9.

Articles

"A Tentative Statement of Accounting Principles," *Accounting Review*, June, 1936, pp. 187-91.

"Advertisement," *The American Accountant*, June, 1927, p. 49.

Allen, C. E., "The Growth of Accounting Instruction since 1900," *Accounting Review*, June, 1927, pp. 150-66.

"Award of Merit for Hatfield Books Should Stimulate Authors," *The American Accountant*, January, 1929, pp. 28-30.

Brief, R. P., "Nineteenth Century Accounting Error," *Journal of Accounting Research*, Spring, 1965, pp. 12-31.

_____, "The Origin and Evolution of Nineteenth Century Asset Accounting," *Business History Review*, Spring, 1966, pp. 1-23.

Brundage, P. F., "Milestones on the Path of Accounting," *Harvard Business Review*, July, 1951, pp. 71-81.

_____, "Roadblocks in the Path of Accounting," *Harvard Business Review*, September, 1951, pp. 110-8.

_____, "The Influence of Government Regulation on Development of Today's Accounting Practices," *Journal of Accountancy*, November, 1950, pp. 384-91.

Chamberlain, John, *A History of American Business*, Part IX, "The Rise of Money Power," *Fortune*, January, 1962, pp. 107ff.

_____, *A History of American Business*, Part XI, "The Rise of Detroit," *Fortune*, March, 1962, p. 125ff.

"Collaboration With the Federal Trade Commission," *Federal Reserve Bulletin*, January 1, 1917, pp. 21-3.

Committee on History, "The School of Commerce, Accounts and Finance of New York University," *New York Certified Public Accountant*, April, 1953, pp. 260-2.

Committee on History, "The City College of New York: A History of Beginnings," *New York Certified Public Accountant*, November, 1956, pp. 663-70.

Cook, Henry R. M., "Discussion: Report of the Special Committee on Accounting Terminology," *1909 Yearbook of American Association of Public Accountants*, pp. 184-6.

"Division of Accountancy," *The Pace Student*, May, 1920, pp. 81-2.

Grower, W. B., "Advisory Accountancy," *Journal of Accountancy*, October, 1920, pp. 262-6.

Greer, Howard C., "Benchmarks and Beacons," *Accounting Review*, January, 1956, pp. 3-14.

Gundolf, Friedrich, "Historiography," in *Philosophy and History*, pp. 277-82.

Hawkins, David F., "The Development of Modern Financial Reporting Practices among Manufacturing Companies," *Business History Review*, Autumn, 1963, pp. 135-68.

Hugli, F., "Zwei Pfadfinder" (Translated by A. C. Littleton), "Two Pathfinders of Accountancy," *The Certified Public Accountant*, February, 1927, pp. 35-7.

Lemke, B. C., "The Development of Accounting in the United States," *Accounting Research*, v. 8, 1957, pp. 318-27.

Litherland, D. A., "Fixed Asset Replacement a Half-Century Ago," in *Contemporary Studies in the Evolution of Accounting Thought*, pp. 167-75.

Littleton, A. C., "A Geneology for 'Cost or Market,'" *Accounting Review*, June, 1941, pp. 161-7.

_____, "Variety in the Concept of Income," in *Contemporary Studies in the Evolution of Accounting Thought*, pp. 289-96.

May, Fred, "Sir Arthur Lowes Dickinson," *Accountant*, May 5, 1925, p. 707.

May, George O., "Qualifications in Certificates," *Journal of Accountancy*, October, 1915, pp. 248-59.

May, George O., "The Proper Treatment of Premiums and Discounts on Bonds," *Journal of Accountancy*, July, 1906, pp. 174-86.

Murphy, Mary, "An Accountant in the 'Eighties-I,'" *Accountant*, July 26, 1947, pp. 53-4 (First of nine bi-weekly vignettes).

_____, "Arthur Lowes Dickinson: Pioneer in American Professional Accountancy," *Bulletin of the Business Historical Society (Business History Review)*, April, 1947, pp. 27-38.

Pace, Homer S., "Accounting in Relation to the Income Tax," *The Pace Student*, August, 1920, pp. 129-30.

_____, "Introductory Comments," *The American Accountant*, July, 1928, p. 19.

Parker, R. H., "Lower of Cost or Market in Britain and the United States: An Historical Survey," *Abacus*, December, 1965, pp. 156-72.

Peloubet, M. E., "The Imprint of Personalities on the Accounting Profession," *New Jersey Society of CPA's, Fifty Years of Service, 1898-1948*, pp. 18-21.

Postan, M. M., "Function and Dialectic in Economic History," *The Economic History Review*, 1962, no. 3, pp. 397-407.

Ratner, S., "Dewey's Contribution to Historical Theory," in *John Dewey, Philosopher of Science and Freedom*, New York: Dial Press, 1950, pp. 134-52.

Rosen, L. S. and DeCoster, D. T., "'Funds' Statements: A Historical Perspective," *Accounting Review*, January, 1969, pp. 124-36.

Ross, T. Edward, "Random Recollections of an Eventful Half Century," *L. R. B. & M. Journal*, January, 1937, pp. 7-25.

Sanders, Thomas H., "A Review of Reviews of Accounting," *Journal of Accountancy*, January, 1946, pp. 9-26.

Scovill, H. T., "Reflections of Twenty-Five Years in the American Accounting Association," *Accounting Review*, June, 1941, pp. 167-75.

Shwayder, K., "Economic Income as an Accounting Concept," *Abacus*, August, 1967, pp. 23-35.

"The March Abroad of American Capital," *The Haskins & Sells Bulletin*, October, 1924, pp. 73-4.

"Uniform Accounts," *Federal Reserve Bulletin*, April 1, 1917, pp. 270-84.

"U. S. Income Tax," *Accountant*, August 2, 1913, p. 152.

"Verification of Financial Statements," *Journal of Accountancy*, May, 1929, pp. 321-54.

Walton, Seymour, "Practical Application of Theoretical Knowledge," *Journal of Accountancy*, October, 1917, pp. 276-82.

Wilkinson, George, "The Genesis of the CPA Movement," *The Certified Public Accountant*, September, 1928, pp. 261-6.

Winjum, James Ole, "Accounting in Its Age of Stagnation," *Accounting Review*, October, 1970, pp. 743-61.

Woodward, P. D., "Depreciation-The Development of an Accounting Concept," *Accounting Review*, January, 1956, pp. 71-6.

Yu, S. C., "A Reexamination of the Going Concern Postulate," *International Journal of Accounting*, Spring, 1971, pp. 37-58.

Zeff, Stephen A., "Introductory Comments," *Journal of Accounting Research*, Autumn, 1966, pp. 169-70.

Dissertations and Unpublished Material

Brief, Richard Paul, *Nineteenth Century Capital Accounting and Business Investment*, Ph.D. dissertation, Columbia University, 1964.

Donley, H. E., *The Evolution of Corporate Surplus Theory*, Ph.D. dissertation, University of Missouri, 1953.

Forbes, John F., "Remarks accompanying presentation of award to H. R. Hatfield, 1928," American Institute library, New York, 3p.

Foye, A. B., "John Raymond Wildman," Unpub. personal research, February 16, 1970.

Hansen, R. E., *An Historical Development of Accounting for Joint Ventures*, Ph.D. dissertation, Indiana University, 1968.

Heakal, Mohamed Sabry Mohamed El-Tayib, *A Classification of the Schools of Accounting Thought*, Ph.D. dissertation, University of Illinois, 1968.

Johnson, L. L., *An Interpretation of Accounting Conflicts*, Ph.D. dissertation, University of Missouri, 1941.

Kahle, John J., *American Accountants and their Contribution to Accounting Thought*, Master's thesis, Catholic University of America, 1956, p. 17.

Litherland, D. A., *A Half Century of Accrual Accounting, 1886-1936*, Ph.D. dissertation, University of Illinois, 1951.

May, G. O., "Comments on an article by Prof. H. R. Hatfield: What is the matter with accounting?" 1950, Price, Waterhouse & Company library, New York, 1p.

Roberts, A. R., *Robert H. Montgomery: A Pioneer Leader of American Accounting*, Ph.D. dissertation, University of Alabama, 1971.

Skadden, D. H., *Accounting Theory and Practice Concerning the Use of Net Worth Reserves, 1900-1950*, Ph.D. dissertation, University of Illinois, 1955.

Stabler, Henry F., *A Study of Selected Contributions of George O. May to Accounting Thought*, Ph.D. dissertation, University of Alabama, 1968, p. 7.

Tansill, X. Bender, "Lest We Forget-Lest We Forget," Unpub. research on early accountants, American Institute library, New York, 15p.

Wyatt, A. R., Influence of Traditions in Accounting, Ph.D. dissertation, University of Illinois, 1953.

Zeff, Stephen Addam, *A Critical Examination of the Orientation Postulate in Accounting, with Particular Attention to its Historical Development*, Ph.D. dissertation, University of Michigan, 1962.

Zeff, Stephen Addam, *Henry Rand Hatfield, Outline of Professional Career*, Unpub. preliminary research, Tulane University, 1965.

Correspondence Utilized

Elwell, F. H., letter of correspondence to Gary J. Previts, dated September 24, 1971.

Foye, A. B., letter of correspondence to Gary J. Previts, dated February 16, 1970.

_____, dated March 9, 1970.

_____, dated April 20, 1970.

_____, dated July 27, 1970.

_____, dated January 29, 1971.

Goldberg, Louis, letter of correspondence to G. J. Previts, dated April 14, 1970.

Greer, Howard C., letter of correspondence to Gary J. Previts, postmarked April 21, 1970.

Harris, G. L., letter of correspondence to G. J. Previts, dated 10 July, 1972.

Johns, R. S., letter of correspondence to G. J. Previts, dated July 1, 1972.

Klein, J. J., letter of correspondence to G. J. Previts, dated July 10, 1972.

Madden, John T., letter of correspondence to Haskins & Sells, dated September 21, 1938.

Paton, W. A., letter of correspondence to G. J. Previts, dated March 23, 1970.

Peloubet, Maurice, letter of correspondence to Gary J. Previts, dated June 22, 1970.

_____, dated May 16, 1972.

Queenan, John W., letter of correspondence to Gary J. J. Previts, dated June 22, 1972.

Interviews

Klein, Dr. Joseph J., May 26, 1972, New York City.

Newlove, Dr. George Hillis, February 7, 1972, Austin, Texas.

Paton, Sr., Dr. W. A., March 2-3, 1972, Gainesville, Florida.

Queenan, Mr. John W., May 23, 1972, New York City.

BIOGRAPHICAL SKETCH

Gary J. Previts was born October 23, 1942, in Cleveland, Ohio. After graduating (B.S.B.A., magna cum laude) with a major in accounting from John Carroll University in 1963, he studied as a University Fellow at The Ohio State University for the next year, receiving a Master of Accountancy in 1964. A Certified Public Accountant since 1965, he was a member of the professional staff of Haskins & Sells, Cleveland, before and after a two-year tour of active duty in the United States Army Transportation Corps (1965 to 1967). During military service, Mr. Previts served as a company grade officer at Fort Gordon (Augusta) and Fort Benning (Columbus), Georgia, and Camp Friendship (Utapao), Thailand.

In 1968 he began his teaching career on the faculty of Augusta College, serving as an assistant professor of business administration for two years before entering the doctoral program at the University of Florida. A member of the AICPA, Mr. Previts is also a member of several state societies and the American Accounting Association. During his study at the University of Florida he was awarded a Georgia Society of CPAs fellowship, an American Accounting

Association fellowship and, in 1972, an Arthur Andersen Foundation dissertation fellowship.

Mr. Previts is married and has a son.

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

Williard E. Stone

Williard E. Stone, Chairman
Professor of Accounting

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

Ralph H. Blodgett

Ralph H. Blodgett
Professor of Economics

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

Robert E. Nelson

Robert E. Nelson
Assistant Professor of Finance

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

Joseph M. Perry

Joseph M. Perry
Associate Professor of Economics

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

Jack R. Vernon

Jack R. Vernon
Associate Professor of Economics

This dissertation was submitted to the Department of Accounting in the College of Business Administration and to the Graduate Council and was accepted as partial fulfillment of the requirements for the degree of Doctor of Philosophy.

December, 1972

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