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Bookkeeping in the secondary school

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MASTER'S THESIS

B O O K K E E P I N G

in the

SECONDARY SCHOOL

Written By

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BOOKKEEPING in the SECONDARY SCHOOL

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BOOKKEEPING and ACCOUNTING

Comparatively few people are able to distinguish between bookkeeping and accounting. As a matter of fact, the two terms are often employed synonymously by the business man. Despite the absence of a clearly defined line of demarcation between the work of the bookkeeper and the sphere of the real accountant, an attempt will be made to clarify ideas regarding these terms.

Joseph J. Klein, in his preparation,¹ "Accountancy and the Business Professions", to the High School Teachers Association of New York City in 1911, said

"The accountant is not an expert bookkeeper, though every accountant knows bookkeeping thoroughly. He devises and installs systems of accounts, and having done so, the bookkeeper continues the task of keeping the books - that is, recording the transactions of the business. Then the accountant reviews or audits the work to establish its correctness. In times of uncertainty, or whenever unusual conditions arise, he is called upon to act as an investigator and as a commercial or business councillor."

The bookkeeper, knowing that the basic principle of his science is the maintenance of debit and credit equality, is satisfied by an entry for any given transaction which results in such an equation. The accountant, while also observing the fundamental principles, goes a step further. He not only insists upon the equality, but also upon the charge or credit to the correct account or class of accounts. In other words, the accountant is always on the alert for a distinction between capital and income. An illustration or two will be of assistance now.

It is found that the factory needs painting.² The expenditure amounts to \$200. The bookkeeper would credit cash and, in many cases, would be satisfied with a debit to some such capital or real

¹ Elements of Accounting, Joseph J. Klein, Page 19.

² Accounting and Office Methods, J.W. Shaw, " 65.

account as Building, Plant, or Real Estate. The charge of the account-
ant would be to an income or nominal account, as Repairs of Expenses.
In another case,¹ the cost of shoeing or stabling horses is sometimes
charged to an account called Horses and Wagons, whereas it should be
entered in the Stable Expenses account. We may thus sum up the great
distinction between bookkeeping and accounting as residing in a dif-
ference in the ends aimed at; the former striving for a trial balance,
and the latter for a balance sheet.

In this paper, I shall discuss, not accounting but bookkeeping
as it should be taught, its place in the curriculum, and other details
concerned.

¹ Accounting Practice and Procedure, A.L. Dickinson, Page 14

JUSTIFICATION of the IMPORTANT POSITION of BOOKKEEPING

in the

Secondary School Curriculum

Does bookkeeping deserve the high position which it occupies in commercial education? It surely does in view of its recognized importance in the business community. Modern educators are agreed that not because of its utilitarian value, but also because of its disciplinary value, bookkeeping deserves the position of major subject in the commercial course, which it now occupies.¹

Bookkeeping holds its place also by virtue of the fact that it affords the best possible opportunity for giving the pupil an all-round knowledge of business. It furnishes the very best means of teaching business -- why and how it is carried on, and its classification into retail, wholesale, manufacturing, and so forth. Incidentally, it enables the teacher to develop in the student business habits such as punctuality, neatness, accuracy, and courtesy. It affords also a valuable means of emphasizing the all-important trait of character known as initiative. Through bookkeeping, the student can be taught the absolute necessity of attention to minor but vital details.³ He can be made to feel what it means to assume responsibility, to execute orders, and to work consistently and patiently for a final result. The habit of sustained effort on one task is no mean asset to any worker, and to the young business employee, it is of vital importance.

Conner T. Jones² justifies the position of bookkeeping, saying that no subject can be admitted to a course of study unless it has a

¹Principles and Methods in Commercial Education. Kahn & Klein Page 152.

²Teaching Business Subjects in Secondary Schools. Conner T. Jones P. 104.

³Practical Bookkeeping. J. B. Griffith. Page 3.

large measure of educational value. During the last few years there has been a tendency in some school systems to attempt to evaluate the various subject in the curriculum on the basis of their educational value, and to assign credit units on the basis of such evaluation. In order to determine its importance, let us study first the aims of a bookkeeping course. Conner T. Jones¹ (see foot-note on previous page, page 106 in this book) gives the aims of the bookkeeping course as follows:

1. To develop the fundamentals of accounting.
2. To teach the art of bookkeeping.
3. To give instruction concerning business practice.
4. To develop the mind, particularly the analytical and imaginative abilities.

Thus the course in bookkeeping may be made highly vocational and used as the means of training bookkeepers,² or it may be used as a means of approach to the study of the administrative problems of a business. In the one place the emphasis of the course will be placed on training in technique for those who expect to follow bookkeeping as a vocation. In the other case, while not disregarding the vocational aspect, the major emphasis is placed rather upon the uses to which the information furnished by the bookkeeping record will be put, than upon the technique involved in making the record. There certainly cannot be many who will disagree to the relative value of the two points of emphasis.

The bookkeeping course is the groundwork of commercial training. When so used the technique of the course, while a very necessary part of the training, is overshadowed by the function of the bookkeeping record. When so presented, the bookkeeping course, as largely as any other in the high school curriculum, will "develop the mind, particularly the analytical and imaginative abilities," and so have large educational value, while serving also the minor aims of "teaching the

¹Teaching Business Subjects in Secondary Schools. C.T.Jones, Page 106
²Accounting Principles and Practice. G.E.Bennet, Introd. Page 31.

art of bookkeeping," "developing the fundamentals of accounting," and
"giving instruction concerning business practice."

BOOKKEEPING STATISTICS

A recent survey¹ shows that 5.8% of all the commercial workers are bookkeepers, 2.5% are stenographer-bookkeepers, 21% are doing work subsidiary to bookkeeping, and 6.7% are executives. This makes a total of 36% who must know the elements of bookkeeping, either to hold their present positions or to advance in their work. The help wanted data shows that 5% are bookkeepers, 1% stenographer-bookkeepers, 23.5% are doing work subsidiary to bookkeeping, and 1.8% are executives. This makes a total of 30.3% whose present or future employment depends upon their knowledge of bookkeeping.

The survey shows further that 42% of all the commercial workers studied bookkeeping, 2% completed the course in it, while 5.8% are using it in their vocations. Of those who use it in their vocations, 63% are men while 85% of the stenographer-bookkeepers are women. 59% of all who studied bookkeeping did so before going to work, while 41% of all the commercial workers had studied the subject after going to work. 42% of all the workers had studied the subject, 18% said it would be helpful, and 6% were studying, making a total of 66% who had been brought to a realization of the need of bookkeeping. With only one exception the men executives mentioned some form of accounting as being helpful to them.

Bookkeeping is thus far from being extinct as some surveys would indicate. It is most prominent as a vocation in small offices and exists in the larger office as a super-structure, unifying subsidiary office work. Bookkeeping is interwoven with work of entire departments, is necessary to the handling of considerable correspondence, and is invaluable to executives.

¹ Vocational Education Magazine, J.O. Mallott. June 1924. Page 825.

Bookkeeping should be introduced at the beginning of the second year in high school, or even in the second term of the first year. The pupil should ordinarily pursue some work in industrial or economic history, commercial geography, business arithmetic, and so forth, to provide a suitable background before taking up the study of bookkeeping. In the high school only the fundamental principles of bookkeeping and accounting should be treated. There is little or no place for treating specialized phases such as bank bookkeeping, or bookkeeping for railways.

The chief source of uniformity in the content of the bookkeeping course springs from the fact that many schools use the same text book. While a great deal of thought has been given on the part of many teachers as to how much of the subject can be handled with good result in the first course, how much in the second course, and how much in the other courses, the condition as to uniformity and standardization is really chaotic. Since, however, the method must be predicated to a certain extent on some hypothesis as to content, it becomes necessary to differentiate as definitely as possible, the work of the various courses. The following content for each of the three one-year courses of study is suggested.

In the first course, the essential technique of the subject should be covered. This will comprise the function and methods of use of the journal and the ledger, with some indication of the refinements of method, bringing about the saving of labor in the making of the record; the use of business papers, and documents as supporting the bookkeeping record; the simpler problems of the balance sheet and the statement of profit and loss; and the basic relationship between these statements and the management of the business.

The second course should develop the further refinements of the record and methods used in the saving of labor; the relation of accounting to the form of business organization, that is, the peculiarities of the single proprietorship, the partnership, and the corporation, and how these peculiarities are reflected in the accounts; a fuller and broader treatment of the principles of balance sheet valuation; and the basic significance of the balance sheet, and the statement of profit and loss in the management of a business.

The third course should treat of the fundamentals of accounting and manufacturing; the more difficult problems met in partnership, and in corporate accounting; and, once again, a fuller treatment of the inter-relations of accounting and business management.

With this arrangement of three one-year courses in bookkeeping for the commercial high school, at least two years of the bookkeeping course should be required of all students, and of course, the full three years should be required of those students looking toward accounting as a profession.

The Committee on the Reorganization of Secondary Education¹, appointed by the National Education Association in 1919, suggested, in its report, the following course in high school bookkeeping.

The Committee feels that it seems best to offer an elementary course in bookkeeping and business practice, in the first year, so that the pupil will feel that he is really beginning a business curriculum. To deny him a chance to start this important business subject is likely to drive the pupil into the private business school without sufficient academic education to insure future growth and advancement. However, his immaturity will necessarily limit the bookkeeping of this year to fundamentals. Formal bookkeeping should not be attempted in the first year. The pupil is too immature to grasp its intricacies, and even if he could comprehend them and become

¹ Report of Committee of N.E.A. June 1919.

fairly proficient in account-keeping, he could secure no desirable employment in this field, owing to his youth. This year's course should, therefore, ground the pupils in the fundamentals of business practice, develop business habits, and interest him in bookkeeping to which this elementary work directly leads. While one of the purposes is to interest pupils in vocational business training, the first lessons in business here recommended should also be planned so as to fit for immediate employment those who cannot, or will not, go into the second year. Since it is neither possible nor desirable to develop expert bookkeepers in the first year, it is practicable to reduce elementary bookkeeping to the level of a first year student and thereby start him on the road to ultimate expertness in the clerical field in case economic pressure forces him to go to work before the advanced phases of the subject are reached.

In the second year, formal bookkeeping may be introduced.¹ The long set, however, with infrequent posting and closing, should give way to short exercises that furnish better drill material and lend themselves to better class teaching. A connected series of transactions may well be used to test the pupil in the principles taught. The pupil who has finished this year's work should be able to keep a simple set of books, or to assist with a more elaborate one. He should also be well qualified to give satisfaction in many clerical positions for which boys are in great demand.

In the third year, the bookkeeping course should continue the practice and drill of the preceding year, using more complex forms, columnar books of original entry and auxiliary ledger. Trading and profit and loss statements, and balance sheets in simpler forms of bookkeeping to the more exacting demands of larger and more highly specialized business may also be a distinctive feature.

Partnership and corporation forms of business organization

¹Boston School Committee, Document No.7. 1918, Page 3.

10.

should be illustrated. Retail, wholesale, jobbing, and manufacturing businesses should receive attention in so far as they require differentiation. The kind of business used is of less importance than the character of the set of books illustrated. Special entries, adjustment entries, and correction entries belong in the work of this year.

The more difficult bookkeeping involved in the distribution of profits in business ventures under partnership and corporate control should receive attention this year. Problems, short exercises, and other drill materials that lend themselves to class instruction, as well as connected series of transactions, are of vital importance. As in elementary bookkeeping, both class and individual instruction should be given daily. The pupil who finishes this year's work should have a thorough knowledge of bookkeeping practice and should be able to assume responsibility in connection with fairly difficult bookkeeping duties.

In the fourth year,¹ the more advanced problems in bookkeeping may be studied. For those students who plan to enter business through the bookkeeping channel, and those who expect to enter the accounting field ultimately, advanced bookkeeping should be offered as an elective in the fourth year. The topics and systems here suggested should not be treated as exhaustively as in advanced accounting courses. The instruction should be adapted to the class, and nothing should be attempted which is beyond their ready comprehension.

Such a course will reveal and develop latent ability along accounting lines; give the boy or girl the necessary confidence to attack the work of his first position; hold more students in high school for the fourth year; and render more effective the earlier bookkeeping instruction.

¹Boston School Committee, Document No. 8, 1920. Page 6.

Various instructors in bookkeeping employ different methods of teaching bookkeeping to their classes. The following are the most common.

The Account Method.¹

The account method uses the account as the basis for the development of the principles of bookkeeping. The account is taught first because business transactions affect accounts. A knowledge, therefore, of the underlying principles of accounts is essential. The pupil must know the meaning of accounts before he can intelligently understand the relation^{of} transactions to such accounts. The early teaching of bookkeeping, then, consists in training the student to analyze transactions and to determine the accounts affected. Likewise it is a very important factor in teaching bookkeeping that the student understand the relation of the books of original entry to the ledger accounts affected by the transaction. It is only a mechanical process to teach the student to make a record of sales in a special book known as a sales journal, but it is much more important to teach him the relation between the sale and the accounts affected by the sale. If the student understands the meaning and results of accounts, it is an easy matter to explain why it is advisable to make a record of transactions of the same kind in one book and transfer the total or result to a ledger account.

The Balance Sheet Method.²

Through the use of the equation of the balance sheet, bookkeeping can be tied up at once with mathematical principles with which the

¹Teaching Business Subjects in Secondary Schools. Conner T. Jones, P. 75.
² " " " " " " " P. 110.

pupil is already familiar. The three elements of the equation - assets, liabilities, and proprietorship should usually be taught first in terms of the personal possessions and debts of the student. Once the ideas of the terms of the equation are perceived, it is comparatively a simple matter to expand each of the three terms into the several titles most frequently used in business.

The concept of proprietorship is fundamental in all business, and the growth of proprietorship is the goal aimed at by all business management. Accordingly, the next topic in point of development is that of the comparative balance sheet, by means of which, with certain limitations, the growth in proprietorship during a given period of time can be determined. Seeing the changes in proprietorship, the student desires to know the reasons for such changes. This inquiring attitude of mind brings about the introduction, at this point, of the profit and loss statement, involving a study of the sources of income and the causes of expenses. Once the concept of income and expense is grasped, a detailed expansion of these general terms into the various titles used is comparatively simple.

The Journal Method¹

The journal method of bookkeeping instruction develops theories and principles, using the journal as a basis, recording therein all original entries. The modified journal, the special books, adjusting entries, financial statements, closing and reversing entries, and finally the most advanced complications, are studied in order.

Special Methods²

THE CLASSROOM RECITATION - Inasmuch as some part of the work in bookkeeping must be done at home, it becomes of moment to decide what

¹ & ² Principles and Methods in Commercial Education. Kahn and Kline.

division shall be made with class recitation and home tasks. As a general proposition, all new work should be developed in school. We know of no greater incentive to serious effort on the part of the student, than that which comes from the emulation fostered by the oral recitation. The problems involved in the transactions should be solved by the pupils at home or on the blackboard, and these solutions should be criticized by the class. The writing of the books could very properly be done at home, subsequently. No extended comment need be made regarding the necessity for some individual instruction in this subject. It is the opinion that the vicious practice of all individual work, so long deemed the only means of imparting a knowledge of accounts, will soon give way to the orderly classroom method which obtains in other subjects of the curriculum.

PREPARATION AT HOME - As was stated above, the home is the best place for the entering of transactions, the posting, and most of the routine work. It is true, of course, that all home work is open to the possibility of fraud. Whenever it is suspected, skilful questioning on the work not done honestly will reveal the futility of the practice and discourage it. The general principle which should decide the teacher in the separation of home from class tasks has already been given. It may be restated in a different form. The recitation period is too valuable to be taken up for work which may well be done away from the instruction supervision. But nothing that has been said here must be construed as in apposition to the doctrine that eternal vigilance is necessary in order to keep our students in the right path. Their work must be inspected constantly, so as to nip carelessness in the bud and error in the making, for all of us recognize how much harder it is to turn over a new leaf than to commence properly.

REVIEWS - Teachers have often admitted that reviews are so trying and hard, that they either set examinations in lieu of them or

else just continue the course. But reviews are pedagogic necessities; so, because of their exceedingly great value to clinch the essentials of a series of lessons and to enable the instructor to know how effective his teaching has been, let us consider further the topic. Let us first distinguish between quizzes and reviews. The former consists of a series of questions on work previously taught, arranged in a manner without any necessary recognition of that which is permanent value; and in professional schools, it is usually associating with coaching and cramming. Even under the most ideal conditions, its chief function is to test. On the other hand, the review is a good aid to the teacher. It enables him, by a series of well-planned questions, graded in the order of logical development, to emphasize the principles of a topic, and to drive home the general ideas connected with a subject rather than the details. It is the means whereby the last appeal to the permanent memory is made; it aims to bind the association processes in the final attempt to make this matter an important organized part of the mind. Hence, it is not enough to plan a series of questions to which answers are expected; the teacher must so elucidate these replies that the subject-matter be assimilated by the class.

EXAMINATIONS - The subject of formal examinations has been much discussed of late. Many arguments have been advanced against them; probably as many have been offered in their favor. The evils of cramming may be avoided, and some sort of tests are almost universally accepted as necessary.

Teachers of bookkeeping are fortunate in that their subject lends itself to examination which really tends toward development of power on the part of the student. It is well to have some examinations come unexpectedly so as to prepare pupils for the emergency calls of real life, but with these we do not now concern ourselves.

Formal examinations should come after reviews. They then make possible the expression without which the impression is always more or less vague and indefinite. In this sense, they are a positive teaching aid. The questions should not consist of definitions and rules because preparation for these foster the cramming process. They should consist of problems which require real thought. For example, the preparation of statements from trial balances calls for discussions -- discriminations and comparisons. Such questions as "Why does the expense account show a debit balance?" is of greater value than "Name two accounts which always show a debit balance." The first calls for reasons, the second may be guessed at or easily crammed for. Instead of setting questions on journalizing transactions which are familiar, make pupils apply their general and fundamental knowledge.

The relative weight which the final examination results should have in comparison with that allowed for class recitation and book work cannot be decided easily. It appears that it is unwise to give the former greater importance than is attached to the term's work. This subject, however, is more a matter of school policy than of class management. In all test work the teacher should look for principles and understanding, rather than skill. If principles and methods are well understood, skill will naturally follow.

In all bookkeeping teaching¹ it has been proved that the deductive method is stultifying, but the inductive was found fruitful of good results. Rules should be evolved by a process of discovery, and mere memoriter work should be discouraged.

"That which one understands, one need not memorize."

¹Report of Reorganizing Committee, N.E.A. July 10, 1924. Page 3.

Inasmuch as the subject of bookkeeping is receiving serious attention on the part of educators who are probably competent to produce texts of more permanent merit than those now in use, authorities refrain from recommending any books. There can be no doubt, however, that a text embodying the pedagogic doctrines would fill a real want. If, then, no ideal work is available, shall all texts be abandoned? Most emphatically no! Every practical teacher knows that for purposes of efficient review, texts are necessary. They are also valuable time savers in that a student may employ them for general reference in the matter of forms, commercial paper, definitions, and so forth; and they give abundant drill material, also furnishing the over-worked teacher with a list of transactions. The text book should give photographic reproductions of bookkeeping forms. It should also give problems that are real.

The text book should not be used as a basis of teaching, but rather as a reference and a guide. Its principal uses should be as discussed above and in addition, to give drill exercises, thus saving time in the dictation of problems, and, in the newer texts, to furnish illustrations of bookkeeping forms and commercial papers not easily obtainable elsewhere. Finally, the good text serves to crystallize the classroom discussion of a topic and affords the best medium for reviews.

MACHINE BOOKKEEPING

It is essential that a course in machine bookkeeping should have a place in the high school commercial curriculum.¹ At what point in the curriculum, who should take it, and whether it should be taught as a part of the regular bookkeeping course or as a separate course, are problems which must be solved.

The problem confronting the heads of the commercial departments when introducing a course in machine bookkeeping, is different from that which confronts the heads of departments in ~~business~~ business schools or office managers when they install bookkeeping machines. In the high school, the work must fit in with the regular program of the school, and of the pupil. A plan must be provided to give the pupil the necessary training on the machine and at the same time not interfere with the other subjects which must be taken.

Machine bookkeeping is a senior occupation, calling for a mature, well trained operator with judgment and skill.² The position carries with it responsibility, calls for intelligence, and the pupil should have a good all around preliminary training before taking up this work. It is not advisable to give the course to young and immature pupils, since they have not sufficient foundation on which to work, and would not be able to secure employment after completing the course. For the younger pupils, for those who go into the junior occupations, a course should be given in junior business training in the first year.

Some educators feel that machine work can be successfully taught in connection with the regular bookkeeping work; others feel that it is desirable to handle it as a separate course. The plan adopted will depend somewhat on the time that can be given to the course and the equipment one has at his disposal.

¹Vocational Education Magazine, Jan. 1925 P. 23

²Sept. 1924 Page 917

Machine bookkeeping is taught in connection with the regular bookkeeping course. After the pupils have been taught and are well grounded in the fundamental principles of bookkeeping, they are assigned to work on the machines. Pupils are first given, individually, a sufficient number of lessons to become thoroughly familiar with the manipulation of the machine. After they have acquired a working knowledge of the machine, they take up the commercial work, for which only the Accounts Receivable are used, since the handling of Accounts Payable is very similar to Accounts Receivable and presents no difficulties. Accounts are kept with customers, involving the handling of sales and receipts of payments on account. After the commercial work is completed, bank work is taken up. This involves the handling of checks and deposits, and statement and ledger sheets. The method employed for this work is identical with that used in the banks. Each day's work is posted and proved in both the commercial and the bank work. The proper method of filing the ledger sheets is also taught.

From ten to twelve weeks should be ample time for the course. From ten to fifteen periods are necessary to teach the pupil the proper manipulation of the machine. The average pupil completes the commercial work in from ten to twelve periods. The bank work usually requires a little less time as the pupil becomes more proficient as the work progresses. We make provision to give additional time when necessary. A sufficient quantity of work is given for a good knowledge of the machine and for developing accuracy, neatness, and skill. Pupils finishing this course become very efficient operators, and are in demand by banks and commercial institutions.

COMMERCIAL ARITHMETIC and BUSINESS TRAINING

in the Bookkeeping Course

Commercial arithmetic and business training should be correlated with the bookkeeping course in the secondary school. As outlined in the report of the Committee on the Reorganization of Secondary Education, such courses should be given in the first year so that the pupil will feel that he is really beginning a business curriculum.¹ The Committee also suggested that such courses be given during the first year so that pupils who are forced to go to work before the advanced phases of bookkeeping are reached, will at least be prepared to accept a position calling for the understanding of general business principles.

Many school systems give a course in commercial arithmetic and business practice during the first year, labelling the course, Bookkeeping I. An outline of such a course follows.²

1. Percentage (Including a general arithmetic review).
2. Profit and Loss.
3. Interest and Discount.
4. Stocks and Bonds.
5. Partial Payments (In some schools).
6. Business Forms (The most common).
7. Foreign Exchange.
8. Other Applications of Percentage.
 - a. Taxes.
 - b. Customs (Including tarriff).
9. Compound Interest and Its Applications(If time permits).

METHODS OF TEACHING - There is little to say about special methods in connection with this course that has not already been said above. In this connection, it will only be necessary to make a few brief remarks. Should the inductive method be used in this

¹ Bulletin #55, U.S. Bureau of Education, 1919.

² Commerce: Monogram 6. Denver, Colorado, Public Schools, 1924.
(Also suggested by several other sources which I have compiled)

course, in view of the fact that many of the topics have already been presented in the lower grades? It should be used, by all means, because it is the only concrete approach to the subject, and because it brings out the better relation between the concrete experience of the pupil and the numerical work. The Herbartian formal steps lend themselves very nicely to the presentation of the subject. In the preparation stage, we should emphasize motive or purpose. The stages of presentation and generalization do not involve much effort. The stage of application is perhaps the most important one in connection with drill, from the standpoint of results. A continued, liberal, and varied use of the blackboard is favored for two reasons:

1. Teacher can inspect more work easily, and
2. Students enjoy this kind of exercise.

The teacher should at all times aim to inculcate accuracy, speed, and ability to tackle new problems.

Office practice and routine should also be studied in connection with the bookkeeping course. In many cities, such a course covers a whole year and is given as a separate course. It may, however, be studied in conjunction with a course in Business Training. At what point in the curriculum, and whether it should be taught as a part of the regular bookkeeping course or as a separate course, are, as was discussed in "Machine Bookkeeping", problems which must be solved by the various school departments. These courses are, however, important and should be taught in connection with other commercial courses.

PENMANSHIP

Penmanship is also included in the first year course in book-keeping. It is sometimes continued for two years, being spread as a part of every bookkeeping lesson, the first five minutes given to this work. The aim of such instruction is to develop legibility and speed, so that it may be applied efficiently in bookkeeping work. A legible, neat hand, quickly and easily executed, should be developed. The cramped finger writing of the past decades no longer obtains. Educators are now quite unanimously in favor of free-arm, muscular-movement writing. By free-arm movement writing, all do not mean the very same thing. Upon one point, however, all are agreed. It signifies a more general use of the arm muscles and a corresponding decrease in the employment of the fingers.

In this work the teacher must be a leader. He should teach by example. He should emphasize correct position, proper models, and sufficient practice. The first essential is to break up the cramped style too frequently characteristic of the grammar school child. For this purpose large ovals, loops, and straight-line exercises have proved themselves most serviceable. Exercises involving ovals and straight lines, gradually decreasing in size, give control. After the principles have been mastered, most difficult phases should be worked upon. Home work should be assigned, and both sides of a foolscap sheet will be about sufficient in amount. For particularly weak pupils, extra work may be necessary.

A marking scheme whereby each pupil is given credit for each letter or figure as soon as acceptable, and where extra drill is required upon work not satisfactory, has often proved helpful.

THE TEACHER OF BOOKKEEPING

Besides those qualifications inherent in the make-up a very good teacher, certain other factors are almost essential for the best results in the teaching of bookkeeping. No such teacher can be a bookworm. He must have first hand knowledge of the world outside the schoolroom. For this reason it is best that he should acquire some actual office experience. The man who has nothing else to offer except his practical experience cannot teach the subject; the bookkeeper or accountant is not the person for the classroom.

The ideal instructor, then, is he who, in addition to the culture and training of the college and university, has had the benefits of practical experience in the world of business.

What, then, shall constitute the new course of study? Thomas H. Sanders, Professor of Accounting, Harvard University, School of Business Administration, in the January, 1926 issue says,¹

"The opinion is widely expressed that the teaching of bookkeeping in high schools has been a somewhat stationary affair for some -- too many years, that little of the progress which has taken place in the presentation of accounting to college students has been reflected in the analogous field of high-school bookkeeping, and that the time is ripe for advance in the handling of this important subject. Indeed, some changes are believed to be imperative if bookkeeping is to continue to hold a substantial place in the curriculum. What shall these advances be? In what direction should they aim?

In answering such questions it is necessary to fall back on first principles. The discussion on the objectives of commercial education has revealed a consensus of opinion that, along with a substantial vocational training, there can and should be developed "certain qualities of mind," "a forward-looking attitude and understanding of the basic principles of economics and science," an ability in the student "to take his place in the community as a productive factor," and "business intelligence through reflective thought."

Can bookkeeping be made to serve these purposes? If these objectives come to be generally accepted as the aims of business education, bookkeeping will have little alternative in the matter; it will either measure up to these high demands or it will gradually cease to be an important element in the commercial curriculum. The friends of bookkeeping have little doubt as to which of these results will ensue; they hold that it can be organized in such a

¹Spotlights on Commercial Education, Volume 3, Jan. 1926. Page 8.

way that it will serve as one of the leading instrumentalities for this broader education. One of the leading educational administrations in the United States has already announced a bookkeeping program which coincides in a singular degree with the above summary of aims for commercial education as a whole. The new High School Syllabus for the State of New York prescribes that, in addition to presenting the customary technique of the subject, bookkeeping must teach students to understand assets, liabilities, capital, and profit and loss sufficiently well to enable them to interpret the condition of an individual business; must show the value of business statements to the management; must give some idea of the reasons which actuate prudent men in the conduct of business; and must present the fundamentals of business organization and procedure. It is altogether likely that other educational bodies will similarly announce themselves in favor of the broader, larger viewpoint, and that the narrow and immediately occupational aspects of bookkeeping will be relegated to a place of secondary importance."

What, then, must be the characteristics of the bookkeeping course which shall fulfill these requirements? How will such a course differ from what has been common practice? ¹

In answering these questions it should first be said that some movement in the direction indicated is already under way. Many progressive teachers, realizing the needs of the times, and alive to their opportunities, have here and there cut loose from the older traditions, and have, in some cases for years past, done their best, with such material as was available, to offer a higher type of bookkeeping training. The experience of such teachers makes it possible to point rather definitely to four main fields in which improvement can be achieved.

In the first place, the most productive high-school teaching

¹Aims of Course of Study, High School of Commerce, Boston. School Document 1912.

of bookkeeping will not use the method known as individual instruction; instead it will be of the type known as socialized instruction, combined with individual laboratory experiment and testing. Just as business men, drawn together by community of interests, hold conferences in which they discuss their common problems, each contributing from his own experience, and learning from that of others, so the students of bookkeeping can and should join in conference over the significant phases of typical transactions and business situations. Class discussion should be the elixir of the bookkeeping course.

And while class discussion should be the energizing influence, so the bookkeeping problem is the pupil's opportunity for individual research and experiment. Through it he learns laboratory procedure; in it he manipulates the recording material, acquires facility in the conventional setting down of fundamental facts, and ability in associating related facts for the purpose of discovering still other facts, and learns to draw logical conclusions or to suspend judgment until new data are available.

In the second place, it is possible to organize the subject matter of the course into a more orderly, reasoned process than the somewhat piecemeal presentation which results from teaching the mechanics of bookkeeping by rule of thumb. The subject thereby becomes a more valuable educational instrument, more effective in promoting those qualities of mind, that forward-looking attitude, and that business intelligence which have been accepted as the objectives of business training. The balance-sheet introduction to the subject lends itself perfectly to this more orderly and consecutive development. From a study of the balance sheet it is possible to develop, in logical steps, an understanding of the principles of debit and credit, of the accounts of the books of original entry, and simultaneously to learn the business significance and uses of

these records and of the statements derived from them.

In the third place, it is necessary to eliminate from bookkeeping courses much of the mechanics, the constant repetition of simple processes, and the lengthy arithmetical computations which have consumed much of the time devoted to the course. More time is thereby made available for discussion of the uses and purposes of the records, and for the constant application of information derived from the books to the management of the business. And although it is not maintained that high-school students can have a mature grasp of the problems of business management, yet they can be led to realize what those problems are, and to take the initial steps in the direction of their solution. They can acquire an appreciation of the things which make for business success, and can understand both the causes and the symptoms of failure. If bookkeeping be properly taught, the records will always bring out the full significance of transactions, their cumulative effect, and the implications for the management. The making of such records, moreover, affords opportunity for observing standard business practices in planning the season's business in buying, in selling, in manufacturing, in making banking connections, and in other activities of business administration.

The fourth field for improvement is that of the vocational training proper, the presentation of a technique which the students may expect to use in actual business positions. It has already been said that improvement lies partly in the direction of eliminating much mechanical work, such as has commonly been found in the long practice sets. This voluminous detail diverts the attention of teachers and students from the real purposes of bookkeeping instruction; moreover, more concentrated instruction can be given in such operations as invoice extensions and interest calculations in commercial-arithmetic courses. It is desirable that the bookkeeping

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technique presented, the forms shown, and the procedure recommended shall represent good modern business practice and shall be typical of actual conditions. In this respect it must be admitted that some of the material found in textbooks is there merely because it has been inherited from older generations of textbook writers; the later writers have perhaps feared to drop this material, lest they be accused of "leaving something out." If the time devoted to technical processes is to be curtailed, however, as is now generally agreed, it is all the more important that such technique as is given to the student should be sound, representative, and usable.

In one respect, however, we shall persist in being a little old-fashioned. Our psychological friends inform us that it is no longer proper to speak of "cultural" and "noncultural" subjects, that there is no such thing as "general mental training." We accept this amendment to a cherished doctrine; it requires little research to discover, for example, that a training in the classics, that supercultural field, has not always resulted in usual power, in minds of exceptional balance, or in citizens more useful than their fellows. But it is possible to carry the revolt against these psychological generalities too far. It is still true that some subjects will develop more useful mental qualities than others, or qualities which are applicable over a wider field of human activity. It is still true that a subject which is capable of a reasoned and systematic presentation must conduce more to the inculcation of logical and methodical habits of mind than one which cannot be so presented. It is still true that a subject which records many of the principal activities of men in such a way as to exhibit motives, causes, and results must give greater exercise to the judgment, and must develop a better understanding of affairs, than do subjects which are less vital and less widely applicable. And in particular

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it is true that any one subject will be effective in these respects to the degree in which it is presented with order, logic, sound example, and vivid application to practical affairs. It must be the aim of teachers of bookkeeping to accomplish these results; the subject is capable of them if properly handled.

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