1919

Official cost accounting and cost finding plan of the Midland Club (second edition) designed and prepared for manufacturing confectioners

Malleable Founders' Society

OFFICIAL COST ACCOUNTING AND COST FINDING PLAN

OF THE

MIDLAND CLUB

2ND EDITION

OFFICIAL

COST ACCOUNTING AND COST FINDING PLAN

OF THE

MIDLAND CLUB

(Second Edition)

Designed and Prepared

For Manufacturing Confectioners

BY THE

Cost Accounting Committee

OF THE

MIDLAND CLUB

Consisting of

H. E. WYLLIE, *Chairman,*
Minnehaha Candy Co., Sioux Falls, S. Dak.

GEO. E. WILLIAMSON,
John G. Woodward Co., Council Bluffs, Iowa.

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By the Board of Directors
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PREFACE—SECOND EDITION.

It is rather significant that a second edition of this book is necessary to supply the demand.

Manufacturing Confectioners have long realized that the Industry was in dire need of better and simpler accounting methods than have heretofore been available. They have also been fully aware of the many benefits to be derived from *Uniform* Accounting Methods within the Industry. It was quite natural, therefore, that the simplicity and adaptability of this Plan of Cost Finding and Cost Accounting should appeal to them.

The practical man wants cost finding and cost accounting stripped of all theories and fine distinctions and wants it done at a minimum of expense and confusion. He wants *direct methods,* devoid of complicated procedure, so that every step to the final result may be clearly traced; and he will not countenance anything that involves a lot of theory. He knows that the usual distribution of certain expenses to the various departments, and over the output of the factory, is a theoretical proposition and produces only approximations at great expense. He can see too many contingencies in his business to upset these theories and has neither time nor inclination to thresh out involved accounting problems every time a contingency arises. Nor is he willing to spend a lot of time and money to get approximate results when such results can be obtained to his entire satisfaction at a minimum of expense and effort.

Therefore, this Plan of Cost Finding and Cost Accounting, which dispenses with all such debatable and troublesome distributions, and which takes the more direct method of disposing of such expenses by lodging them against Income immediately, appeals strongly to the practical business man.

Manufacturers also feel that, by means of this Plan of Cost Finding and Cost Accounting which is equally adaptable to large and to small factories, no matter where located or how financed, Uniform, Comparable Methods of Cost Finding within the Industry are now within the bounds of possibility. A big step toward the goal is the approval of this Plan by the following Associations of Manufacturing Confectioners—

The Midland Club
The Western Confectioners' Association
The National Confectioners' Association

Each of these Associations has recommended to their members the adoption of this Plan. Many installations have already been made, many more are in process, and many more have been contracted for. It therefore is only a question of a short time when many manufacturers may avail themselves of the benefits to be derived from comparisons of Operating Results.

In the preparation of this second edition some slight errors have been corrected; some statements have been slightly altered to make them clearer; some additions have been made, but the general plan remains undisturbed. The principal alteration is in the arrangement of the Earnings & Expense Report shown on Page 73, and in the explanation of the same on Pages 59 and 60. This has been done to show more clearly the "Net Income from Sales." The principal addition is the explanation of the Excise Tax Reserve Account on Page 48.

COST ACCOUNTING COMMITTEE
of the
MIDLAND CLUB.

LETTER OF SUBMISSION.

MR. PRESIDENT, *and*
Board of Directors of the Midland Club:—

At the Annual Meeting of the Midland Club held in Chicago, January 22nd, 1919, the following resolution was passed:

"WHEREAS, Standardization of costs is highly essential to the betterment of our industry, we recommend that the President appoint a Committee of three to inquire into the matter and suggest to the Board of Directors at as early a date as possible some plan whereby a simplified and uniform cost system can be adopted by our entire membership."

Under this resolution President Palmer appointed your Chairman of the Cost Accounting Committee with instructions to select two members to serve on the Committee with him. At his request the Chairman was given authority to increase the membership of the Committee to five members. The following is the personnel of your Cost Accounting Committee:

Mr. H. E. Wyllie, Chairman—Minnehaha Candy Co., Sioux Falls, South Dakota.

Mr. Geo. E. Williamson—John G. Woodward Co., Council Bluffs, Iowa.

Mr. E. K. Rice—Johnson Biscuit Co., Sioux City, Iowa.

Mr. F. G. Hanson—Allan-Peck Co., Superior, Wis.

Mr. J. R. Copeland—Clinton-Copeland Co., Burlington, Iowa.

The Committee has held four meetings, one in each of the following cities:

May 14th, Omaha, Nebr.
June 17th and 18th, St. Paul, Minn.
Aug. 5th and 6th, Des Moines, Iowa.
Sept. 10th, Sioux Falls, S. Dak.

In addition to this three members of the Committee attended the joint meeting of the Missouri River Zone and the Western Confectioners' in Denver July 10th and 11th, and your Chairman read a paper on the work this Committee had done up to that time.

The members located at each meeting place excepting Omaha, were called into the meeting for a discussion and explanation of the plans. Intense interest has been shown in every instance, the need of this work has been proven beyond a doubt, and almost unanimous approval of our plans has been given. The purpose of holding the meetings in different cities was to create interest in the work, get the ideas of manufacturers generally, and to explain the plans as they developed to as many members as possible.

The resolution authorizing this Committee was interpreted as having for its object the preparation of Cost Accounting and Cost Finding methods that would be simple enough and elastic enough to be uniformly adopted by large and small manufacturers, and by means of which manufacturers could know more accurately what their products cost them, thereby eliminating the cause of many of the demoralizing trade practices indulged in.

At the present time our members cannot compare costs; cannot even discuss this subject intelligently, because they do not consider elements of cost in a like manner, and they are not therefore, comparable; or if they do by chance consider elements of cost in an identical manner, the chances are that their capital investments are so different that their costs are not comparable. It means practically nothing to one manufacturer for another to tell him that his Gross Profits do average or should average a certain per cent of his sales, because the second manufacturer does not know what that means unless he knows how the first manufacturer arrives at his Cost and Gross Profits. Manufacturers might as well talk in all the languages of the earth as talk in terms of Gross Profit and Cost, unless they know that they are all considering elements of cost in a like manner. The adoption, by all the members, of uniform Cost Accounting and Cost Finding methods is the only possible means of transforming this chaotic condition into a condition whereby every member can be and will be greatly benefitted by an exchange of views with his associates in this organization.

But the adoption of uniform Cost Accounting and Cost Finding methods will not make this possible unless the system is so designed that it puts all manufacturers on a common ground. There is no man living who can devise a system that will show the necessity of everyone getting the same Gross Profit percentage because the Gross Profit required is determined by varying financial and physical conditions. But it is possible to devise a system of Cost Accounting and Cost Finding that will absolutely produce comparable Costs and will produce comparable Gross Profits with reservations. It is such a system that your Committee has prepared for your consideration, and is respectfully submitted herewith.

In planning this system, records, routine and red tape have been studiously avoided as far as possible; but the very nature of the work requires some bookkeeping recommendations. The plan is prepared, however, in such a manner that the first section is devoted entirely to fundamentals that constitute the principle of uniformity and should be followed to the letter if the object aimed at is to be attained.

The second section is devoted to accounting and bookkeeping recommendations to assist in applying these principles of uniformity in a manner that will produce the greatest amount of economic data with the least expense of time, money and effort.

The first section should be adopted exactly as outlined; the second section may be adopted in whole or in part according to each manufacturer's desires, or it may be entirely eliminated for the present and adopted later.

In submitting this plan, however, your Committee urges the Board of Directors to approve and submit to the annual meeting of the Midland Club in January, 1920, suitable resolutions covering the following recommendations:

FIRST:—

That in order to continue to a successful conclusion the work started by the present Cost Accounting Committee, and to keep the subject alive continuously, a Cost Accounting Committee should be established as a regular standing Committee of the Club. And the Board of Directors should be empowered to designate the number of members to sit on this Committee and to designate their terms of office.

SECOND:—

It is considered by the present Cost Accounting Committee as highly essential to the successful installation and operation of this or any other uniform accounting system, that an experienced Accountant or firm of Accountants be regularly employed by the Club at a fixed annual salary to assist members in the installation of this accounting system and to further advise them on any matters pertaining to accounting. The expenses and $10.00 per day should be paid to the Club by all members making use of this Accountant's time on installation work. The Board of Directors on the advice of the Cost Accounting Committee should be empowered to select such Accountant or firm of Accountants and enter into a contract, such as it may be necessary to make, provided, however, that the net expense to the Club for the maintenance of this Accountant shall not exceed $3,600 per annum.

THIRD:—

It will be a great convenience and saving to the members of the Club to carry a limited stock of Standard forms used in this Accounting System, in the office of the Cost Accountant. The Secretary should be authorized to purchase such forms and in such quantities as the Cost Accounting Committee may direct, and to sell them to members installing this system at approximately cost prices.

Finally we want to thank all members who have so generously given us their time wherever we have met and also those who have responded to our inquiries, and those who have promised us support.

Respectfully submitted,

H. Ellis *Chairman.*

Geo. E. Williamson

E. K. Rice

J. R. Copeland

H. Hussing

Members Cost Accounting Committee
of the Midland Club.

Section I

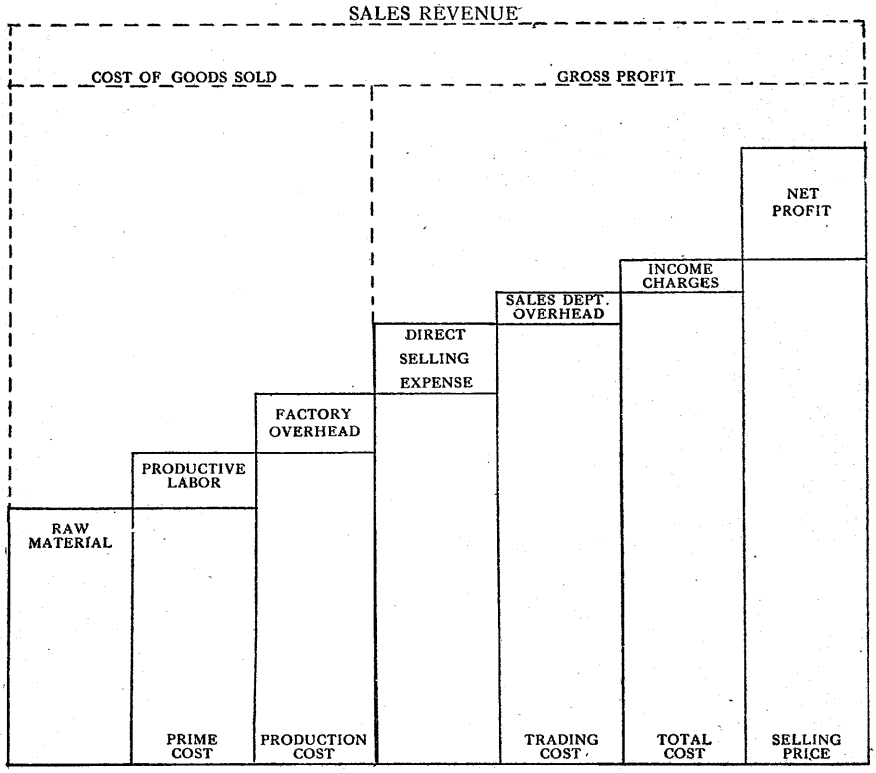

CHART
SHOWING EXPENSE AND COST FACTORS
TO BE CONSIDERED IN COST ACCOUNTING

DESIGNED BY
H. E. WYLLIE
SIOUX FALLS, S. D.
FOR
COST ACCTS. COM.
OF
THE MIDLAND CLUB

Section I

FUNDAMENTAL PRINCIPLES.

Before going into the details of the plan of Cost Accounting and Cost Finding, it is necessary that all manufacturers have a common understanding of the underlying principles established; the meaning of terms used; and also be advised of the reasons for certain segregations that have been made.

This entire system is built up on the fundamental principles clearly set forth in the chart shown on the opposite page.

The entire activities of the business are conducted to produce Sales Revenue. The Chart represents the Sales Revenue and shows the disposition of that Revenue.

It will be noted that there are two prime divisions of the Sales Revenue, namely: "Production Cost" and "Gross Profit." The essential thing is to properly and uniformly allocate all items of cost and expense to these two divisions.

The steps from Raw Material and its conversion to Finished Product, its sale and the resulting Net Profit, are built up in natural chronological sequence. The materials are put together by the Productive Labor; these two factors constituting Prime Cost, to which is added the manufacturing expenses (Factory Overhead) incidental to the process and the result is the cost of the finished product, the Production Cost; the end of the first division.

The goods are then sold at the expense of maintaining salesmen (Direct Selling Expense) to which is added the other miscellaneous expenses incident to the sale of merchandise (Sales Department Overhead), and the result is the cost of the goods sold plus the cost of selling them (Trading Cost).

Out of the proceeds of the sale, the charges against Income are provided for (Income Charges), and what remains is Net Profit.

These are the natural steps from beginning to end, and this is the way the proposed Cost Finding and Cost Accounting system is built up.

In actual practice the cost of an article will be built up to the end of the first division, all of which constitutes the Production Cost. The producing end of the business stops here. It is entirely disposed of.

The Sales Department now takes hold. It must produce the Gross Profit required to leave a satisfactory Net Profit. A selling price is established by ascertaining the percentage of sales necessary, first, to cover Direct Sales Expense; next, Sales Department Overhead; next, Income Charges, and finally, the Net Profit.

The records must be arranged to reveal this necessary information and then it is just a question of using the information at hand in the manner prescribed and the desired results will be obtained.

As an example, the cost sheet shows a piece of goods cost 30c per pound to produce. The records reveal the following information:

The direct selling expense is......	10 % of the sales
The sales dept. overhead is........	1½% of the sales
The income charges amount to.....	3½% of the sales
The net profit desired is..........	10 % of the sales
Total Gross Profit required....	25 % of the sales

The sale must return sufficient revenue to pay for the production of the goods and still leave 25% of the sale for Gross Profit. The cost of the goods is 30c per pound. 25% of the sale is equivalent to 33⅓% of the cost. 33⅓% of 30 = 10. 10c must be added to the cost to determine the selling price. 30c plus 10c = 40c, the selling price.

It is recommended that this chart be referred to frequently in connection with all that follows.

DEFINITIONS.

As used in this Report:—

Cost Accounting means providing and keeping the records of the operation of the business in such a manner that important economic information concerning any phase of the business may readily be obtained; and in such a manner that it can be the basis of a practical, dependable Cost Finding plan.

Cost Finding means the gathering together of all elements of Cost entering into the manufacture of individual batches up to the point of selling.

Prime Cost means the cost of Raw and Package material plus the cost of Labor actually used in the production of a batch.

Factory Overhead means expense incurred in the operation of the plant that does not enter directly into the goods themselves, but is necessary to their production.

Production Cost or Cost of Production means Prime Cost plus Factory Overhead. It is the cost of the goods ready for sale and shipment.

Direct selling expense means the cost of maintaining salesmen, including their salaries, expenses and commissions.

Sales Department Overhead means expense incurred in connection with the sale and distribution of merchandise, that is not for any specific territory, but is for all territories in general. Practically, it consists of everything in connection with selling excepting the maintenance of salesmen.

Sales Revenue means the net returns from the sale of merchandise. It is the Gross Sales minus the merchandise returned.

Gross Profit means the difference between Sales Revenue and Cost of Production, or cost of goods sold in the case of merchandise jobbed.

Trading Cost means the Production Cost plus Direct Selling Expense and Sales Department Overhead.

Trading Profit means the difference between the Sales Revenue and the Trading Cost.

Net Profit is what remains of the Trading Profit after the Income Charges have been deducted. Net Profit is what remains as a result of all your activities, out of which is paid the Federal Income Taxes, and Dividends.

Income Charges consist of rent, interest, insurance, taxes, depreciation, cash discount on sales and bad account losses, and are deducted from the Trading Profit to determine the Net Profit.

On account of the importance of this group of expenses, an explanation should be given for this segregation, and the benefits resulting therefrom set forth.

REASONS FOR SEGREGATING INCOME CHARGES.

As stated before, the adoption of uniform Cost Accounting and Cost Finding methods will avail us little unless such methods are devised primarily to put all manufacturers on a common ground.

The first thing, therefore, that has to be taken into consideration is the different manner in which manufacturers conduct their business. We have to remember that one manufacturer owns his own building, and is sufficiently capitalized to take care of that investment, while another manufacturer does not own his own building, but rents, and is only sufficiently capitalized to take care of manufacturing requirements; one manufacturer may be sufficiently capitalized that he needs to borrow very little money, some of them none at all; while another manufacturer is capitalized to an extent which compels him to borrow heavily; one manufacturer may have long term bonds outstanding, another manufacturer none at all; one manufacturer may carry a heavy stock and heavy insurance, on account of his ideas of doing business; another manufacturer may be located in a central market, and therefore, carry very little stock and therefore very little insurance; one manufacturer may have tremendous taxes, another manufacturer may have very low taxes; one manufacturer may have one method of figuring depreciation, another manufacturer another method, a third manufacturer may ignore depreciation entirely. All of these varying conditions have resulted in lack of uniformity in figuring costs; have prevented comparisons of costs. They are the factors that get manufacturers off of a common ground.

The different methods of distributing and apportioning these expenses constitute the most discussed subject in Cost Accounting, and really are the cause of making the subject of Cost Accounting a bugbear. This is really entirely unnecessary, and if we will go back to first principles, we will realize that every one of these items of expense—rent, interest, insurance, taxes, depreciation, etc., are primarily concerned with the use and conservation of capital, and not with the cost of manufacturing.

A great many people class these expenses as Production Overhead, and burden down the Production Cost with them. This is unfair to the manufacturing department; it is impracticable in our judgment; it unnecessarily makes Overhead an important factor in Cost Finding, and they cannot be distributed to various departments or classes of merchandise in an equitable or satisfactory manner, because it must be done on some arbitrary basis; and it prevents comparisons of Costs and Gross Profits by those engaged in the same line of business.

The very nature of these expense items suggests their relation to the use and conservation of capital.

The purpose of any investment of capital is to derive an income. Income is, therefore, "Returns" to capital which is employed, no matter what the form of that capital may be. Capital is not necessarily money, but it is spoken of in terms of dollars and cents, because it has a money value. It may be converted into money, or it may earn money for its owner. Anything that produces income, except labor, is capital.

It is manifest that property in the form of real estate and buildings is capital. Rent is paid for the use of property. That rent is "Returns" to the owner for the use of his capital by someone else. It is his income. It is "Returns" to his capital. If the enterprise that rented this property, owned it and, therefore, did not have to rent, they would require just as much more capital in their business as this property would cost. In this case their enterprise would have to earn just as much for them as it did when they rented. There would be just as much income required to satisfy the capital employed.

This same argument is equally true of interest. If an enterprise did not borrow capital they would require just that much more of their own capital invested in the business.

What difference does the ownership of the capital make? Because one bunch of capital is represented by shares of stock, another by bonds, and another by a lease, and another by a note, does it alter the fact that "Returns" to capital is income? Are not rent and interest, therefore, in the same category as dividends? They are all alike. They are income from the use of capital in different forms and taking different names to distinguish the nature of the investment from which such income is derived.

If you own 100 shares of stock in a concern, and it pays a 7% dividend, that corporation charges that 7% against the earnings of the business, or, in other words, against the income of capital invested.

If you also own the building the said concern occupies, and they pay you rent for it, and you also loan them money and they pay you interest for it, is there any rhyme or reason for the corporation to charge these items against Production Cost, and the dividends against the earnings? These items have no bearing on the Cost of Production. The fact that part of the capital being used is represented by a lease and part of it by shares of stock and part of it by a note, does not add one cent to the cost of manufacture. Therefore, it is maintained that rent and interest are not proper charges to Production Overhead and Production Cost.

Now there are certain expenses incurred in the ownership of capital. Expense in keeping it intact, in conserving it. Your capital is protected by your government and this expense is called taxes.

You provide against the possible impairment of your capital by fire, water, tornado, personal injury claims, etc., and this expense is called insurance.

You provide against the impairment of your capital through wear and tear, through obsolescence, through inadequacy, and this expense is called depreciation.

It doesn't cost you one cent more to manufacture a piece of goods when you make these provisions than when you don't. But if you don't make these provisions, you may some day have a lot less capital.

If, for example, a stock of wax paper burns up, has that added anything to the cost of candy? No—it has simply reduced the owner's capital unless he was insured.

Inasmuch as capital produces income, what is more logical than to charge the expense of maintaining it against the returns that it produces?

It is maintained, therefore, that these expense items are improper charges to the manufacturing and selling departments, because they are purely and distinctly incurred to protect and conserve capital. They are, therefore, proper charges to only one account and that is income.

It is not intended to deny that these expenses are part of the cost of operating the business as a whole; it is simply contended that they are not factors of Production Cost.

The contention, based on logic, has been made that rent, interest, taxes, insurance and depreciation are concerned with capital and not with costs, and therefore, should be set up as a group chargeable against income. But there is a further reason for doing this. By keeping these items out of cost you do not lose the value of cost comparisons—one period with another—one department with another—one article with another.

The world progresses "by comparison" and we should make efforts to so arrange our records that comparisons may be made and really mean something to us.

Supposing one year you rent or borrow money or do both, and you charge rent and interest to the cost of manufacture. And the next year you increase your capital and occupy your own building and don't have to borrow. You have lost the value of all comparisons, and your cost figures are going to show that it cost you more to manufacture when renting and borrowing than under the new arrangements. But did it? You used the same amount of capital in both cases; the difference is that in one case you paid rent and interest for the use of it, and in the other case you paid dividends for the use of it.

Under the new financial arrangements your cost of manufacturing will show a decrease, if you had previously charged these items to production cost. If you reduce your selling price accordingly, how are you going to pay dividends on the increased capital invested?

By the segregation of these items of expense, which have been grouped under the title "Income Charges," we dispense entirely with the necessity of distributing them over the various departments in the business, and dispense with the necessity of attempting to apportion a share of them to each article on which we are figuring costs. It is absolutely impossible to devise an equitable method of distributing these expenses to departments, or to particular products. By segregating these charges and taking them out of costs entirely, all manufacturers, no matter what their plan of operation is, can be put on common ground. It will make no difference whether they rent, or own their own building; whether they borrow money, or don't borrow money. It will make no difference where they are located, they can figure their costs and compare them, and each will have a thorough understanding of what the other means when he speaks of his Gross Profits.

DEPARTMENTIZATION.

In any Cost Accounting and Cost Finding system it is highly essential that the business first be departmentized according to the physical arrangement and equipment and nature of the product. It is not necessary that all factories have the same departments, but whatever the department arrangement of a factory is, these departments should be reflected on the general books in "Department Operating Accounts," and the expenses classified according to those departments. In no other way can costs be as accurately obtained.

Before putting this plan into operation, therefore, it should be determined what departments can be logically established in the factory, and then accounts opened as shown under classification of expenses, on page 30.

OVERHEAD CLASSIFICATION.

The subject of Overhead is of very much less importance since the expenses grouped under "Income Charges" have been eliminated as factors of Production Cost. It, however, must be taken into consideration and be handled in as equitable a manner as possible. The plan of Overhead Classification is based on the natural functions of the business; that is, Producing and Selling.

Under this plan, three main classes of Overhead are set up, viz:

General Overhead.
Sales Department Overhead.
Factory Overhead.

And in addition to these are Overhead expenses that are incurred in connection with specific manufacturing departments.

The purpose of this classification is to avoid as much arbitrary distribution of these expenses as possible. (See chart on page 23.)

Under the name of each Department is a group of Overhead expenses that can be definitely determined as being incurred for each department. In addition to these, each department should bear its proportionate share of the total Factory Overhead.

Under Factory Overhead are grouped those expenses that can be clearly determined as being incurred in connection with the production of goods generally, but cannot be allocated to specific manufacturing departments.

Under Sales Department Overhead are grouped those expenses that can be clearly determined as being incurred in connection with the sale or distribution of goods.

Under General Overhead are grouped expenses of such a nature that it is impossible to determine just what portion of them are incurred in connection with production and what portion in connection with selling. The total of such expenses are distributed to Production (Factory Overhead) and to Selling (Sales Department Overhead) on a basis considered most equitable. After this distribution has been made there remains only two Overhead Groups, viz: Sales Department Overhead and Factory Overhead.

REASONS FOR SEGREGATING OPERATING EXPENSES.

In the preparation of these plans the segregation of operating expenses into certain groups has been done with a view to placing the product manufactured in a plant on a par with the merchandise bought for re-sale. It is grossly unfair to burden the cost of production with expenses that have been incurred as much through handling other merchandise as through handling the product of the manufacturing plant. Also when the product manufactured carries practically all of such expense, the manufacturer is misled as to the profit he is making on the merchandise bought for re-sale. This is decidedly bad business. So in the classification and grouping of expenses, a definite line has been established between the producing and selling operations of the business. (Note the chart on page 8.)

On one side of the line is set up the Production Cost of goods manufactured in the plant. In exactly the same position should be set up the cost of merchandise bought for re-sale. They are on a par. Their physical location is on the shipping room floor, or stock room.

On the other side of the line is set up the cost of selling both the product of the plant and the merchandise bought for re-sale. It is absolutely impossible to determine what expense has been incurred in the sale of either one of the other. They should each bear their proportionate share of the expense. The selling expense is therefore, figured as a percentage of the Total Sales.

The classification of expenses shown on page 30, is made in conformity with the principles set forth in the chart and General Ledger accounts should be opened as directed under each group.

The items of expense given are intended only as a guide. The list is not supposed to be complete nor supposed to fit all cases. Enough items are shown however, to enable each manufacturer to revise the list in accordance with his particular requirements. Care should be exercised however, not to deviate from the main principle. With the exception of Income Charges, the main classes or groups only, represent General Ledger accounts.

A General Ledger account should be opened for each of the following groups:

General Overhead.
Sales Department Overhead.
Factory Overhead.
Sales Department Direct Selling Expense.
Cream Department Productive Labor.
Cream Department Overhead.
Hard Candy Department Productive Labor.
Hard Candy Department Overhead.
Chocolate Department Productive Labor.
Chocolate Department Overhead.

Every Manufacturer should have the first four accounts exactly as shown and every manufacturer should have a Productive Labor account and an Overhead account for each manufacturing department, but some may have more manufacturing departments and some fewer manufacturing departments. The names of departments given are merely used as guides and should be changed to suit the local conditions in each factory.

In the classification shown on page 30, the group titles prefixed by letters are not intended for accounts. They are simply used as a matter of convenience in distributing expenses.

The details prefixed by numerals are intended as names of accounts in a subsidiary ledger, but not in the General Ledger. Such a ledger is recommended although it is not absolutely necessary. In case such a ledger is installed it should be a stock form of loose leaf ledger similar to an ordinary Sales Ledger. At the close of each month the trial balance of each group in this subsidiary or detail ledger should be proven with its main control account in the General Ledger, in the same manner that Sales Ledgers are balanced with their control account in a General Ledger. The charges to subsidiary ledger accounts would be posted from the same entries in the books of original entry that the postings are made to the control account in the General Ledger.

DISTRIBUTION OF OVERHEAD ON GENERAL LEDGER.

Under the title of "Overhead Classification," reference was made to the distribution of Overhead. This has to do with distributing the General Overhead account to Sales Department and Factory Overhead account, and after this has been done, with distributing Factory Overhead account to the various Manufacturing Department Overhead accounts. The plan of this distribution is clearly shown by the chart on page 23.

The selection of a satisfactory basis for this distribution is usually a troublesome problem; but by the elimination of the Income Charges as factors of cost, the subject of Overhead has had the "sting" taken out of it, and the method or basis employed in its distribution is of minor importance. The method, however, should be determined on equitable lines and it is believed the use of the "Direct Expense" basis is the most equitable for this industry. By this basis the distribution is accomplished in the following manner:—

At the end of each month or whatever the closing period may be, the total net charges for the period to the following accounts should be ascertained. To make the process clear hypothetical figures are used:

General Overhead	$2,100.00
Sales Dept. Overhead	300.00
Sales Dept. Direct Selling Exp..........	1,500.00
Factory Overhead	1,200.00
Cream Dept. Prod. Labor..............	500.00
Cream Dept. Overhead	100.00
Hard Candy Prod. Labor...............	525.00
Hard Candy Dept. Overhead...........	75.00
Choc. Dept. Prod. Labor...............	1,000.00
Choc. Dept. Overhead	200.00
	$7,500.00

The following process should then be followed:—

GENERAL OVERHEAD—$2,100.00

To be distributed to Sales Department Overhead Account and Factory Overhead Account.

Sales Dept. Overhead (before distribution of Gen'l Overhead)			$ 300.00	
Sales Dept. Direct Selling Expense			1,500.00	
Total Selling Expense			1,800.00=	33⅓%
Factory Overhead (before distribution)		$ 1,200.00		
Cream Dept. Prod. Labor	$ 500.00			
Cream Dept. Overhead	100.00			
Hard Candy Dept. Prod. Labor	525.00			
Hard Candy Dept. Overhead	75.00			
Choc. Dept. Prod. Labor	1,000.00			
Choc. Dept. Overhead	200.00	2,400.00	3,600.00=	66⅔%
			$5,400.00=	100%

Apportionment of General Overhead	$2,100.00	
To Sales Dept. Overhead 33⅓% of	2,100.00=	$ 700.00
To Factory Overhead 66⅔% of	2,100.00=	1,400.00
		$2,100.00

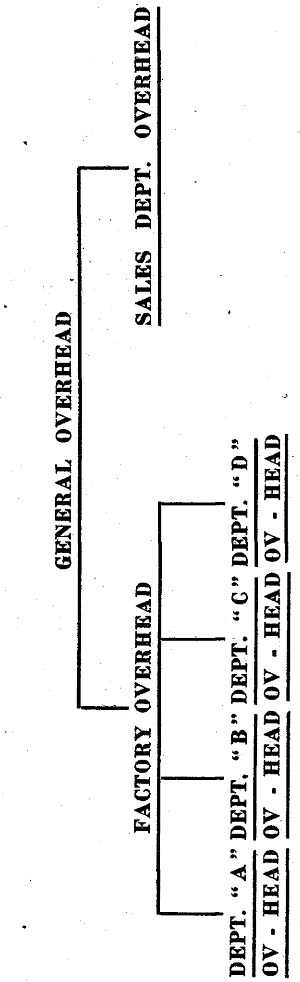

CHART SHOWING PLAN OF OVERHEAD DISTRIBUTION

DESIGNED BY
H. E. WYLLIE
SIOUX FALLS, S. D.
FOR
COST ACCTG COM.
OF
THE MIDLAND CLUB

After the Journal entry for this distribution has been made and posted, the Factory Overhead should be distributed according to the following process:—

Factory Overhead (before distribution of General Overhead)	=	$1,200.00
Factory Overhead proportion of General Overhead..	=	1,400.00
Factory Overhead after distribution of General Overhead	=	$2,600.00

Cream Dept. Prod. Labor..........$	500.00			
Cream Dept. Overhead............	100.00	600.00	=	25%
Hard Candy Dept. Prod. Labor.....	525.00			
Hard Candy Dept. Overhead.......	75.00	600.00	=	25%
Choc. Dept. Prod. Labor...........	1,000.00			
Choc. Dept. Overhead	200.00	1,200.00	=	50%
		$2,400.00	=	100%

Apportionment of Factory Overhead ....$	2,600.00	
To Cream Dept. Overhead 25% of..	2,600.00=$	650.00
To Hard Candy Dept. Overhead 25% of	2,600.00=	650.00
To Choc. Dept. Overhead 50% of...	2,600.00=	1,300.00
		$2,600.00

The new net charges for the period would be as follows:—

General Overhead	Nothing	
Sales Dept. Overhead.............		$1,000.000
Sales Dept. Dir. Selling Exp........		1,500.00
Factory Overhead	Nothing	
Cream Dept. Prod. Labor..........$	500.00	
Cream Dept. Overhead............	750.00	
Hard Candy Dept. Prod. Labor.....	525.00	
Hard Candy Overhead............	725.00	
Choc. Dept. Prod. Labor...........	1,000.00	
Choc. Dept. Overhead............	1,500.00	5,000.00
		$7,500.00

These accounts would now be nominally closed and would contain all the information for use in figuring costs.

APPLICATION OF OVERHEAD IN COST FINDING.

The application of Overhead in figuring costs is not a matter of bookkeeping; but the method employed must be in conformity with the system of Cost Accounting.

There are seven principal methods employed but it is useless to discuss their merits in this report. The method selected by this committee is the one known as the "Direct Labor Hour" basis or "Productive Labor Hour" basis. This one was selected because it is not affected by a fluctuating raw material and labor market; and because it does not penalize those products in the manufacture of which high priced material and labor are used, and which as a rule require no more overhead expense than the lower cost products.

In operating under this plan it is necessary to ascertain the aggregate number of hours employed in actually producing goods in each Department each month. In other words the hours employed for which the wages paid were charged to the several "Productive Labor" accounts. This does not mean all the hours put in by those who as a rule are employed in productive work; but the hours actually employed in producing goods. If an employee is paid for nine hours a day and spends eight hours a day cooking, and one hour a day scouring and cleaning up, his productive labor hours would be only eight hours. The other hour would be charged as unproductive labor to the Overhead account of the department in which he was employed.

These productive labor hours should be reported on the Daily Payroll Report, and be built up from day to day until the end of the month on the Payroll Record in the same manner that an employee's wages are recorded. This is the simplest way and as an example would result in data as follows:

Cream Dept. Productive Labor Hours......	1,200
Hard Candy Dept. Productive Labor Hours.	1,000
Choc. Dept. Productive Labor Hours......	5,000

At the close of each month after the Overhead has been distributed, the total net charges to each of the Department Overhead accounts should be drawn off and the amount of each divided by their respective Productive Labor Hours employed for the same period.

For example:—

Cream Dept. Overhead...$750 divided by 1,200=62½c per P.L.H.
Hard Candy Dep. Overhead 725 divided by 1,000=72½c per P.L.H.
Choc. Dept. Overhead....1,500 divided by 5,000=30c per P.L.H.

These rates should then be used in figuring costs for the next month. This will be more fully explained under the subject of "The Cost Sheet."

This performance should be repeated each month. For the first month it will be necessary to estimate the rates. From then on the rates for each month should be averaged with the rates for preceding months. Beginning the second year the first year's average should be used and so on.

In connection with this an "Overhead Loss and Gain Record" should be kept, as per form on page 35.

This is done by each month dividing the actual Overhead net charges of each Department by that Department's total productive labor hours. This will give the actual Overhead Rate. If the *actual rate* is larger than the *rate used* there has been a loss on Overhead. If the reverse is true, there has been a gain on Overhead. The number of P. L. H. employed in each Department should be multiplied by the difference between the two rates for the respective Departments to show the total loss or gain in dollars and cents.

This record should be made up monthly to keep close watch on this matter and to enable the establishment of a more accurate rate the beginning of the next year.

EXPLANATION OF THE COST SHEET.

This cost sheet (see insert page 36) should be thoroughly studied before being used. It is designed to gather the cost information in the exact order that the piece of goods is made. The Foreman of each department should be furnished with a quantity of these blanks. In cases of centers that are to be processed in another department, a separate sheet should be turned in to the cost clerk by each department. The Packing Department, however, should use the same sheet made up by the department that finishes the goods. In this manner a cost is arrived at for every step in the course of manufacture. This will be found valuable at the time of pricing inventories of unfinished goods, and also of locating in just what department unusual costs of manufacture occur.

This cost sheet is almost self explanatory if care is used in studying titles at the top of each column, and the printing opposite each space provided for totals.

In spaces provided for labor, it is intended that the names of workmen shall be given and each individual's time extended.

The total of all raw materials used should be carried to the extreme right hand column. Then the total of all productive labor should be carried to the same column. These two totals added together give the Prime Cost. To this total is added the Factory Overhead, obtained by multiplying total productive labor hours by the Overhead Rate established for that department. These two totals added together give the cost of product up to that point. In the case of cream centers to be further handled in the Chocolate Department, the Cream Department would turn in the cost sheet to the Cost Clerk at this point.

The Chocolate Department would then start a new cost sheet, filling in the total weight of centers received from the Cream Department in the space indicated. In the case of goods completed and packed in the Cream Department, they would complete the cost sheet before turning it in.

The package material is totaled in the "Amount" column, as is also the packing labor. Then these two totals are added together and the total set down on the next line in the "Amount" column. The Factory Overhead is next extended in the "Amount" column, and added to the amount on the line above and the total carried into the

"Totals" column. This figure added to the total of the first division gives the total cost of Production. Space is provided for the addition of an amount to cover the Excise Tax.

It will be necessary to get the time employed by piece workers in order to figure the Overhead.

It will be observed that Overhead is to be added in each Department and for different processes in the same Department.

Where check marks are shown it indicates that such spaces are not to be filled in with figures.

Spaces are provided at the bottom of the sheet and on the back which are self explanatory. This is valuable information and should always be used.

This form is designed to fold twice and then number and file in pigeon holes or vertical files.

This concludes Section I, which has been so arranged that those who do not wish to go in for a complete system will at least be able to use this Cost Finding method and later on add any or all of Section II.

Appendix to Section I

CLASSIFICATION OF EXPENSES.

INCOME CHARGES.

Items of expense placed in this class are not to be considered as Cost of Manufacturing, and therefore are not to be included in the Cost of Product Sold, and must not be distributed to Departments. For the same reason they must not be taken into consideration when figuring costs, but they must be taken into consideration when determining selling prices, in the same manner that selling expense is provided for.

Rent and Rentals.
Storage.
Interest Paid.
Insurance.
Taxes, Local.
Depreciation.
Cash Discount on Sales.
Bad Account Losses.

An account should be provided in the General Ledger for each of the above items.

OPERATING EXPENSES.

GENERAL OVERHEAD:—

Items placed in this class are, as a rule, of such a general nature that it is impossible to determine what proportion of them is chargeable to the Manufacturing Department and what proportion is chargeable to the Sales Department. Where conditions are such that any of these items of expense are incurred wholly for the benefit of either the Manufacturing Department or the Sales Department, they should, of course, be charged directly to those Departments:—

A—ADMINISTRATIVE:—

1. Office Salaries, including Manager.
2. Postage.
3. Printing and Stationery.
4. Telephone and Telegraph.
5. Traveling—Executives.
6. Charity and Donations.
7. Repairs to Office Fixtures.
8. Office Supplies.
9. Incidentals.

GENERAL OVERHEAD—Continued

B—RECEIVING AND SHIPPING DEPARTMENTS:—

(Where inseparable; otherwise only Receiving Department.)

1. Wages.
2. Packing Material.
3. Supplies.
4. Repairs to Equipment.
5. Incidentals.

C—DRAYAGE EXPENSE:—(Where Receiving and Shipping are inseparable; otherwise only Receiving Drayage).

1. Gasoline.
2. Lubricating Oils and Greases.
3. Tire Expense.
4. Wages of Drivers.
5. Truck Repairs.
6. Garage Rent.
7. Supplies.
8. Incidentals.
9. Extra Truck Hire.

D—LABOR UNPRODUCTIVE:—Unproductive Labor not wholly employed in any particular department, such as porters and elevator operators.

An account should be provided in the General Ledger for "General Overhead" and accounts may be provided in a subsidiary record for the details thereof. At closing periods the total of "General Overhead" account should be apportioned by journal entry to "Factory Overhead" account, and to "Sales Department Overhead" account on the basis of their Direct Expenses and Direct Labor.

SALES DEPARTMENT OVERHEAD:—

Items placed in this class are those expenses that are incurred wholly for the benefit of the Sales Department, or practically so.

SALES DEPT. OVERHEAD—Continued

E—General:—

1. Sales Manager's Salary—(If time is wholly employed in sales promotion.)
2. Credit Manager's Salary.
3. Collection Expense.
4. Exchange.
5. Advertising Manager's Salary—(If time is wholly employed in sales promotion.)
6. Advertising.
7. Sample Department Wages.
8. Sample Department Supplies.
9. Product used for samples.

F—SHIPPING DEPARTMENT EXPENSE:—(Where separate from Receiving Department.)

1. Wages.
2. Packing Material (cases, excelsior, twine, paper, etc.)
3. Supplies (stencil paper, crayons, marking ink, etc.)
4. Repairs to Equipment.
5. Incidentals.

G—DRAYAGE EXPENSE:—(Where separate from Receiving.) (Same items as General Overhead Group "C.")

H—PERCENTAGE OF GENERAL OVERHEAD ACCOUNT:—

An account should be provided in the General Ledger for "Sales Department Overhead." Accounts may also be provided in a subsidiary record for the details thereof.

FACTORY OVERHEAD:—

Items placed in this class are those expenses that are incurred wholly for the benefit of the manufacturing departments, or practically so.

J—SUPERVISION AND UP-KEEP:—

1. Superintendent's Wages.
2. Cost and Stock Clerk's Wages.
3. Repairs to Equipment.
4. Supplies (such as brooms, soap, sweeping compound, etc.)
5. Laundry.
6. Incidentals.

K—HEAT, POWER AND REFRIGERATION EXPENSE:

1. Engine room and Mechanics' Wages.
2. Fuel.
3. Oil.
4. Engine room supplies.
5. Repairs to equipment.
6. Water if purchased.
7. Gas if purchased.
8. Power if purchased.
9. Lights if purchased.
10. Refrigeration if purchased.
11. Incidentals.

L—PERCENTAGE OF GENTRAL OVERHEAD ACCOUNT:—

An account should be provided in the General Ledger for "Factory Overhead." Accounts may be provided in a subsidiary record for the details thereof. At the closing periods the total of "Factory Overhead" should be apportioned by journal entry to each of the Manufacturing Departments on the basis of the Direct Expenses and Direct Labor of those departments. In case a factory is equipped to meter steam, water, gas, power, lights and refrigeration to departments direct, that should be done.

SALES DEPARTMENT—DIRECT SELLING EXPENSES:—

Charges to this account consist solely of salesmen's salaries, commissions and expense.

CREAM DEPARTMENT—PRODUCTIVE LABOR:—

Charges to this account should consist solely of labor employed in this department in the actual production of goods, such as candy makers, cooks, helpers, etc. Their time spent in cleaning up and scrubbing, etc., should not be charged here.

CREAM DEPARTMENT—OVERHEAD:—

1. Unproductive labor—Foreman, labor cleaning up, idle time, etc.
2. Direct expense—Miscellaneous supplies, lubricating oils, brooms, etc.
3. Percentage of Factory Overhead—After General Overhead has been apportioned.

HARD CANDY DEPARTMENT—PRODUCTIVE LABOR:—

Charges to this account should consist solely of labor employed in this department in the actual production of goods, such as candy makers, spinners, helpers, and packers, unless a special department is provided for packing. Time spent in cleaning up, etc., should not be charged here.

HARD CANDY DEPARTMENT—OVERHEAD:—

1. Unproductive labor—Foreman, case nailers, labor cleaning up, idle time, etc.
2. Direct expense—Miscellaneous supplies, lubricating oils, brooms, etc.
3. Percentage of Factory Overhead—After General Overhead has been apportioned.

CHOCOLATE DEPARTMENT—PRODUCTIVE LABOR:—

Charges to this account should consist solely of labor employed in this department in the actual production of goods, such as Chocolate Dippers, Machine Operators, and Packers, unless a special department is provided for machine run goods, and for chocolate packing. Time spent cleaning up, etc., should not be charged here.

CHOCOLATE DEPARTMENT—OVERHEAD:—

1. Unproductive labor—Foreladies, tray girls, truckers, nailers, etc.
2. Direct expense—Miscellaneous supplies, plaques, oils, brooms, etc.
3. Percentage of Factory Overhead—After General Overhead has been apportioned.

Accounts should be provided in the General Ledger for Sales Department Direct Selling Expense, Cream Department Productive Labor, Cream Department Overhead Hard Candy Department Productive Labor, Hard Candy Department Overhead, Chocolate Department Productive Labor, Chocolate Department Overhead, and similar accounts for any other Departments that the business requires. Accounts may also be provided in a subsidiary record for the details thereof.

OVERHEAD LOSS AND GAIN STATEMENT

DEPARTMENT "A"

MONTH	PROD. LABOR HOURS	DEPARTMENT OVERHEAD EXPENSES	ACTUAL P. L. H. RATE	RATE USED	GAIN OR LOSS RATE	GAIN OR LOSS AMOUNT
Jan.	1187	270.36	22¾	20	—.02¾	—32.64
Feb.	912	222.02	24⅓	20	—.04⅓	—39.49
March	1157	194.82	17	20	+.03	+34.71

DEPARTMENT "B"

MONTH	PROD. LABOR HOURS	DEPARTMENT OVERHEAD EXPENSES	ACTUAL P. L. H. RATE	RATE USED	GAIN OR LOSS RATE	GAIN OR LOSS AMOUNT
Jan.	1090	230.30	21	25	+.04	+43.60
Feb.	787	208.62	26½	25	—.01½	—11.80
March	907	192.47	21¼	25	+.03¾	+34.01

DEPARTMENT "C"

MONTH	PROD. LABOR HOURS	DEPARTMENT OVERHEAD EXPENSES	ACTUAL P. L. H. RATE	RATE USED	GAIN OR LOSS RATE	GAIN OR LOSS AMOUNT
Jan.	4335	487.40	11¼	15	+.03¾	+162.56
Feb.	3286	408.34	12½	15	+.02½	+ 82.15
March	4286	421.59	10	15	+.05	+214.30

DEPARTMENT "D"

MONTH	PROD. LABOR HOURS	DEPARTMENT OVERHEAD EXPENSES	ACTUAL P. L. H. RATE	RATE USED	GAIN OR LOSS RATE	GAIN OR LOSS AMOUNT
Jan.	2625	332.34	12¾	15	.02¼	+ 59.06
Feb.	4039	457.18	11½	15	.03½	+141.36
March	2422	377.63	15½	15	—.00½	— 12.11

No.........................

CANDY COST SHEET

FOR BATCH OF

....

Date ....192........

Made out by..
Foreman

Checked by..
Supt.

Approved by..
Cost Clerk

GROSS PROFITS

Sales Value of Batch:

....	Lbs. Boxes @ Doz.	....	Lb. per box $............................. Doz.

Cost of Batch: - - - - $........ ....

Gross Profit........... ....% of Sale - $ ....

FORM C-10

STANDARD COST SHEET

....DEPARTMENT

Cost of Batch of...192........

RAW MATERIAL OR PRODUCT IN PROCESS	POUNDS	Other Weights or Measures	PRICE	AMOUNT	TOTALS
Sugar—Centers					
Sugar—Coating					
Sugar—Nut Meats					
Corn Syrup					
Boiling Starch					
Mazetta					
Cream, No.					
Sponge, No.					
Milk					
Acomine					
Gelatine—Albumen					
Flavors and Colors					
MANUFACTURING OR DIPPING LABOR	**TIME**	**TRAYS**	**RATE**		
Total Cost—Raw Material and Manufacturing Labor	✓			✓	
Plus for Factory Overhead		P. L. H. @		✓	
Total Weight and Cost of Product (Unpacked)					
PACKAGE MATERIAL	**QUANTITY**		**PRICE**		
Wrappers—(Glassine or Foil)					
Glassine Bags					
Boxes No.					
Boxes No.					
Pails and Pockets, etc.					
Half Pails and Pockets, etc.					
Wooden Boxes					
Wax Paper					
Pulp Boards					
Ribbons					
Cups					
					✓
Total Cost—Package Material					✓
PACKING LABOR	**TIME**	**PIECES**	**RATE**		
					✓
Total Cost—Packing Labor					✓
Total Cost—Package Material and Packing Labor	✓				✓
Plus for Factory Overhead		P. L. H. @			
Total Yield and Cost of Product Ready for Shipment				✓	
Plus Charge for Excise Tax % of Total Cost				✓	
Total Cost Including Tax					

Net Weight—10 Boxes Penny Goods......................lbs.; 10 Bars....................ozs. Shrinkage in Weight....................lbs.....................%.

Count—1 pound centers ....pcs. Count—1 pound coated goods....................pcs. Temperature Cooked to....................

Section II

Section II

THE PURPOSE OF TWO SECTIONS.

The prime purpose of this Cost Accounting and Cost Finding plan is to provide first, a simple, uniform method of figuring costs that will be comparable.. There are many manufacturers who would not consider any plan that necessitated radical changes in their present methods of accounting. There are also many who would not take the time to look into the merits of any plan if it appeared to be complicated. Any comprehensive plan necessarily must be complicated to a certain extent on account of the nature of the subject. Therefore, in order to present a plan that would receive the consideration the subject is entitled to, and to get results, it was considered best to deviate from the usual and logical Text Book order of subjects, and present the plan in two main sections arranged in the order of their importance toward attaining the ultimate object. The first section covers the essential objective; that of providing a simple, uniform, comparable Cost Finding system, with just enough accounting to establish a basis for, and control of the system.

Section II provides additional features that are very essential to a real control of a manufacturing business, and which, if adopted in connection with Section I, will provide a very complete Cost Accounting and Cost Finding system.

Section I may be adopted by itself and a great step in advance will have been taken; but the adoption of Section II by itself, will help but little. The adoption of both at the same time is strongly urged, *but only in those factories where competent bookkeepers, well versed in accounting principles, are employed.*

It is not the intention to make any recommendations for special books of original entry although specially prepared books would undoubtedly greatly facilitate the recording of business operations, and this is a matter that should be given serious consideration at as early a date as possible.

LEDGER ARRANGEMENT AND THE FINANCIAL STATEMENT

To facilitate the preparation of a Financial Statement, the accounts should appear in the General Ledger, in the same order that the Resources and Liabilities appear on the Financial Statement.

When a Financial Statement is submitted to a banker for the purpose of establishing a line of credit, the first thing he will look for is the ratio of cash assets to current liabilities. Therefore, it is well to arrange the accounts in the ledger in the order shown on page 65, and to prepare the Financial Statement in the form shown on page 68.

It will be observed that Cash Assets are shown first in a detail column, and the total carried into the debit column. This shows at a glance the total Cash Assets.

Next is the group of Fixed Assets, and then any Deferred Charges or prepaid expenses that may be carried.

Next come the Liabilities immediately beneath. The Current Liabilities are shown first in the detail column and the total carried into the credit column. This shows at a glance the total Current Liabilities opposing the Cash Assets. Mortgages should follow next in similar manner. Reserves should be carried in a group by themselves, but this should not be construed to mean Reserves for Depreciation or Bad Account Losses.

Following should come the Proprietorship or Net Worth accounts such as Capital Stock Outstanding, Surplus and Undivided Profits.

This makes a Financial Statement that is very easy to analyze.

The references indicated as "Detail 1," etc., refer to Details of items on the Financial Statement that are built up from several accounts. These Details are shown on pages following the Financial Statement.

The Detail of the Income item is, of course, made up of Earnings and Expense accounts or as called by some people, Profit and Loss, or Loss and Gain Accounts.

The Nominal Accounts and Departmental Accounts do not appear in the Financial Statement, nor in the supporting Details for the reason that they are washed out in building up the Earnings and Expense Accounts.

From this brief explanation of the make-up of the Financial Statement, it will readily be seen what a great convenience it is to have the Ledger Accounts arranged in conformity with the arrangement of the Financial Statement.

EXPLANATION OF PRINCIPAL ACCOUNTS.

It is not necessary for the purpose of this report to explain all of the Capital Accounts, so only those of particular interest will be taken up as they occur in further explanations.

Sales Ledger Accounts:—

It is well to classify sales as City Sales and Country Sales, and in such cases, a control account should be carried on the General Ledger for each Sales Ledger. These control accounts should be kept in balance always. These control accounts it must be understood, represent charges to customers and must not be confused with sales accounts.

Bad Account Reserve:—

This represents a Reserve set up each month to provide against Bad Account Losses. An estimate should be made from past experience, of the per cent of sales the losses are expected to be, as for instance, ¼ of 1%. Then each month set up in this Reserve account that percentage of the current month's sales, charging Bad Account Losses account. The idea being to get into each month every possible charge so that at the end of the year there will not be any appreciable shrinkage of accumulated net profits. When making up Detail No. 2 of the Financial Statement, this Reserve should be deducted from total accounts receivable. It should never be shown as a Liability or Net Worth account.

Freight Claims:—

This account represents unpaid freight claims. The detail is carried in a Claim Journal. Debits would be posted from this Claim Journal and credits from the Cash Received Record. The balance unpaid in the Claim Journal should always agree with this control account.

Raw Material, Etc.:—

Raw Material, Package Material and Supplies accounts represent the investment in these commodities. These accounts would be charged with purchases and would be credited with what is used monthly. In this manner these accounts would represent an inventory of these commodities on hand.

Merchandise in Transit:—

This account is suggested for use when merchandise is paid for before arrival. When the bill is paid this account would be charged. When the merchandise is received a journal entry would be made crediting this account and charging the proper merchandise or expense account. This prevents loss of merchandise in transit without your knowledge.

Product in Process:—

An explanation of this account involves a further explanation of the Product in Process Journal given on later pages. At the close of each month this account should be charged by journal entry from the Product in Process Journal with all materials used during the month. It should also be charged at the close of each month with the total Productive Labor employed in each department and with the total Overhead apportioned to each manufacturing department as shown by those Departmental accounts. As soon as the monthly inventory is prepared the total Product in Process should be ascertained. This should be deducted from the *total net charges* to Product in Process account, and the difference credited to Product in Process account by journal entry, the charge being to the Candy Product account. This must necessarily produce a debit balance on the Product in Process account exactly equal to the inventory. Typical journal entry on page 78.

Candy Product:—

After the charge to this account has been made as explained in above paragraph the total amount of Candy Product on hand as revealed by the Inventory should be deducted from the *Total Net Charges* to Candy Product account. The difference should be credited to Candy Product account by journal entry; the charge being to the Cost of Product Sold account, explained later. This should produce a debit balance on the Candy Product account, exactly equal to the inventory, and would represent investment in Finished Candy Product.

Candy Merchandise:—

This account represents investment in Candy Merchandise bought for re-sale. It is charged with all purchases of candy, gum, etc. The total Candy Merchandise on hand at the close of the month as revealed by the inventory should be deducted from the *total net charges* to Candy Merchandise account and the difference credited to Candy Merchandise account by journal entry, and charged to Cost of Candy Merchandise Sold account, explained later. This should leave a debit balance on the Candy Merchandise account exactly equal to the inventory.

Other similar accounts may be opened for any number of classes of merchandise that are bought for re-sale such as Cigars, Fountain Supplies, etc., but there must always be companion accounts for each class, just as Cost of Candy Merchandise Sold and Candy Merchandise Sales are companion accounts to Candy Merchandise Account.

Equipment Accounts:—

One account may be carried for all equipment, but on account of the various rates of depreciation permissible it is better to have a separate account for each class carrying a different rate. Such accounts should be charged with purchases and credited only with sales of equipment and with equipment worn out and discarded. It should never be credited with Depreciation charged off.

Depreciation Reserve:—

Depreciation should be figured for a year and the total divided by twelve. Each month one-twelfth should be charged to Depreciation account and credited to this account. Whenever a piece of equipment is worn out and discarded, or sold, this account should be credited with an amount ascertained by deducting from the original cost the sum of what had previously been set up in Reserve plus the amount received in cash for the old machine. Then this account should be charged with the total amount set up in reserve for this machine and the proper equipment account credited. The cash received for the old machine should be credited to the proper equipment account. This will keep out of equipment accounts all discarded or sold equipment and will keep out of the Reserve account all reserve on discarded and sold equipment.

Insurance Inventory:—

All Insurance Premiums should be charged to this account. Each month one-twelfth of the total annual premium should be credited to this account and charged to "Insurance."

Taxes Reserved:—

The theory is that taxes should be charged against the year in which the assessment is made, because if a corporation should liquidate its affairs at the close of the calendar year they would be liable for the taxes when they become due and payable even if they had discontinued business. Therefore, to be safe, just before the books are closed at December 31st, the amount of taxes against the company should be ascertained from the County Treasurer's Office and set up in the Tax Reserve Account and charged to Taxes Paid Account. Then when the Taxes fall due and are paid, the payment should be charged to the Tax Reserve Account. This, of course, is just for the beginning and on the assumption that no monthly reserve has previously been set up. Beginning with the month of January, an estimate of the taxes for the ensuing year should be made and one-twelfth of the estimate credited to Tax Reserve and charged to Taxes Paid each month. Then at the close of the current year the actual taxes levied should be ascertained and the Reserve Account adjusted to equal the levy.

Vouchers Payable:—

This account is only to be used where the voucher system of disbursements is used. It represents all accounts payable. The credits to this account are posted from the Voucher Register and the debits from the Disbursement Journal or Bank Journal and sometimes from the General Journal. The Voucher system is recommended for all who do not now employ it for the reason that it simplifies the distribution of expenses and purchases. Those who do not employ the voucher system would have an account entitled Purchase Ledger or Accounts Payable instead of Vouchers Payable.

Capital Stock Accounts:—

Capital Stock Authorized should always be shown on the Financial Statement and from it should be deducted Capital Stock Unissued, the difference being the outstanding stock which is the only stock having any value. Therefore, there should be two Capital Stock accounts on the books; one Capital Stock Authorized and the other Capital Stock Unissued. Capital Stock unissued should never be treated as an Asset under the title of Treasury Stock, for the very good reason that it is not Treasury Stock and isn't worth a cent. The only stock that can honestly be called Treasury Stock is that in which the Corporation's funds have been invested.

Net Income:—

The only credits to Net Income account would be balances from Trading Income account, Miscellaneous Income account, Purchase Discount account, Bad Account Collections account, and Interest Received account. The only charges to Net Income account would be the "Income Charges" and the Federal Income Taxes and the balance divided between Surplus and Dividends which should only be done through act of the Board of Directors. There should be no entries to this account excepting at the close of the year.

Miscellaneous Income:—

This account is provided to take up all of the Miscellaneous incomes, such as receipts from sales of cooperage, scrap paper, tea lead, etc., and anything else not otherwise provided for. It should be credited to Net Income at the close of the year.

Purchase Discounts:—

There should be no charges to this account until the close of the year when it should be credited to Net Income account. It is a mistake to carry Discounts Paid and Discounts Received in the same account. There should be an account for each provided.

Interest Received:—

This account should be credited with all interest of a general nature; but not Interest on Sinking Fund Investments, which should have its own Interest Account. There should be no debits to this account until the end of the year when it is credited to Net Income account.

Bad Account Collections:—

This account is provided to receive the collections of Bad Accounts that have in previous years been charged as Bad Account Losses. By using two separate accounts for these transactions, the make-up of the Income Tax Return is greatly facilitated. This account should be credited to Net Income at the close of the year.

Trading Income:—

At the close of the year this account is credited with all of the Gross Earnings accounts and charged with the Direct Selling Expense account and the Sales Department Overhead account. The balance of this account is then credited to Net Income account.

Income Charges:—

Each of the Income Charges, viz: Rent, Interest Paid, Local Taxes Paid, Insurance, Depreciation, Bad Account Losses and Sales

Discounts Paid, should have an account of their own. At the close of the year they should all be charged to the Net Income account.

Candy Product Sales:—

A sales summary should be used on which the sales throughout the month should be classified, such as Candy Product Sales, Candy Merchandise Sales (Candy bought for re-sale), Cigar Sales, etc. At the close of the month all sales of candy product should be credited to this account. Any returns should be summarized in the same manner as Sales, and Candy Product Returned should be charged to this account. The difference between the credits for each month and the charges for each month represent the Net Sales for the month. This account is closed only at the close of the year when its balance is credited to Candy Product Gross Earnings.

Cost of Candy Product Sold:—

At the close of each month this account is charged from the Candy Product account as explained under that title. This account is only closed at the end of the year when its balance is charged to Candy Product Gross Earnings.

Candy Merchandise Sales:—

This account should be credited with Candy Merchandise Sold as shown by Sales Summary at the close of each month, and should be charged with Candy Merchandise Returned. At the end of the year the balance of this account should be credited to Candy Merchandise Gross Earnings.

Cost of Candy Merchandise Sold:—

At the close of each month this account is charged from the Candy Merchandise account as explained under that title. At the end of the year the balance of this account is charged to Candy Merchandise Gross Earnings.

Any other Merchandise Sales accounts and Cost of Merchandise Sold accounts would be handled in the same manner as Candy Merchandise.

Candy Product Gross Earnings:—

This account is only used at the close of the year. It is charged with Cost of Candy Product Sold and credited with Candy Product Sales (net). The balance of this account is then credited to Trading Income account.

Candy Merchandise Gross Earnings:—

This account is handled in the same manner as Candy Product Gross Earnings, as are all other Merchandise Gross Earnings accounts.

Sales Department Direct Selling Expense:—

This account is charged with Salesmen's Salaries, Expenses and Commissions or Bonuses. At the close of the year the balance of the account should be charged to Trading Income account.

Sales Department Overhead:—

This account is charged with all Sales Department Overhead Expenses, including the Sales Department's proportion of General Overhead. At the close of the year the balance of this account should be charged to Trading Income account.

General Overhead:—

The only charges to this account should be those of such a general nature that they cannot be considered as being incurred for the benefit of any specific department. At the close of each month the balance of this account should be distributed to Sales Department Overhead account and Factory Overhead account as explained under the title "Distribution of Overhead."

Factory Overhead:—

This account should be charged with those expenses incurred wholly for the benefit of the Manufacturing Departments including a portion of the General Overhead Account. At the close of each month the balance of this account should be distributed to the various manufacturing departments, as explained under the title of "Distribution of Overhead."

Cream Department Productive Labor.

Hard Candy Department Productive Labor.

Chocolate Department Productive Labor.

Each of these accounts are charged monthly from the payroll record with their respective charges. The accounts are then charged to Product in Process account.

Cream Department Overhead.
Hard Candy Department Overhead.
Chocolate Department Overhead.

Each of these accounts are charged monthly from the several books of original entry that may be used and at the end of the month are charged to the Product in Process account.

If Detail or subsidiary ledgers are carried as suggested elsewhere, the total of such details should be proven with these control accounts.

Excise Tax Reserve:—

This account is provided to take care of Excise Taxes that manufacturing Confectioners are compelled to collect for the Government.

If these taxes are added to customers' bills, the amount of the sale and the amount of the Tax can very easily be shown separately on the Sales Summaries; if, however, the billing prices include the taxes, then from the totals shown on the Sales Summary, the amount of the taxes must be deducted. The actual Sales only should be credited to the Sales Accounts, and the amount of the Taxes should be credited to this account. When the tax is sent to the Government, the payment should be charged to this account, thus closing the transaction..

INVENTORIES.

This entire accounting plan will render much more valuable information if monthly inventories are taken and a monthly Financial Statement is prepared. Monthly Inventories are therefore recommended, although the same plan may be used in connection with quarterly or semi-annual inventories. Monthly inventories may sound like an immense task and they are undoubtedly very trying and aggravating, but at the same time the good results obtained by this procedure well warrant the inconveniences. They make possible the closest kind of a check on the operations of the business, stopping leaks before they cause too much damage; and in addition they call to the attention of executives, slow moving stocks, and force stock room employees to keep their stocks in the very best of condition at all times. The first few inventories will undoubtedly be full of inaccuracies, but this is to be expected on account of the inexperience of employees in taking inventories. Every manufacturer should insist on the merchandise being carefully and neatly piled so that it can all be easily gotten to. Uniform piling of merchandise will eliminate many mistakes.

Monthly inventories need be taken only of Product in Process, Candy Product, Candy Merchandise, and other merchandise bought for re-sale, if the method of handling materials used is adopted as recommended under the title of Stock Cards and Material Reports. If Stock Cards and Material Reports are not installed, the monthly inventory should include also Raw Material, Package Material, and Supplies.

For taking the inventory, the form shown on page 81 is recommended. If the inventory is taken exactly as indicated by the headings on this form, many errors will be avoided.

When taking the inventory, every item should be taken as it lies regardless of what class of merchandise it is. In other words, those taking the inventory should not skip around to get all of one class of merchandise grouped together on the sheet. The columns provide for the classification at the time the inventory is extended.

Used in connection with the Stock Cards and Material Reports, everything in the manufacturing departments should be classified as

Product in Process, whether it is unused materials or unpacked finished product.

In pricing the Product in Process inventory the costs at the different stages in the process of manufacturing as shown by the cost sheets should be used.

In pricing the Candy Product inventory the finished goods costs as shown by the cost sheets should be used. This, however, is only practical in those factories where frequent cost sheets can be obtained. It is, therefore, suggested that the Candy Product inventory be priced at the selling price and then from the total Candy Product, deduct the Gross Profit percentage of sales that the previous month's report established.

In pricing the Candy Merchandise inventory and inventory of all other merchandise bought for re-sale, the actual cost price plus freight should be used.

The inventory should be carefully figured and then checked and then the totals of each class, as indicated by the column headings, used to close the books for the period as explained in the definitions of accounts. The percentage of Gross Profit to sales should always approximate what has been used in establishing selling prices.

After the office has become familiar with the journal entries required to close the books they will run down the Gross Profit that the inventory produces before the figures go on the books, and errors in the inventory will be run down before the closing is proceeded with.

MATERIAL REPORTS, STOCK CARDS AND PRODUCT IN PROCESS JOURNAL.

In order to avoid taking inventory of Raw Material, Package Material and Supplies more than once a year, a perpetual inventory is recommended. This will be a benefit also to the buyer for the reason that he will have a ready reference of the rate of usage and of past purchases.

The perpetual inventory outfit consists of Stock Cards, Material Reports and a Product in Process Journal. Forms of Stock Cards and Material Reports are shown on pages 82-85.

To begin with a stock card should be provided for every commodity of Raw Material, Package Material and Supplies used. When the system is installed, the quantity shown on the inventory should be entered in the space headed, "Balance on Hand." As purchases are made, the copy of the buyer's order should be entered on the card under the heading "Purchases." When the merchandise arrives the entry should be made from the Receiving Report, on the same line as the Purchase is entered, under the heading, "Receipts." When the entry is made, the quantity received should be added to the "Balance on Hand," and the new balance on hand entered in the space so headed. It must be understood that these cards are used only for quantities in units of measure and not for values in dollars and cents.

On the back of the cards, space is provided for the entry of materials used. This will be explained in connection with the material reports.

These stock cards should be kept in a vertical file, subdivided under the titles of Raw Material, Package Material and Supplies, and under each title they should be arranged in the order of groups carried in a Detail or subsidiary ledger.

Each Foreman should be provided with a pad of each report form. As materials or supplies are delivered to his department, the Foreman should enter the name of the article and the quantity on this form. At the close of the day all reports should be turned in to the stock clerk, who should enter the quantities on the back of the stock card for each item and at the same time enter the cost price of the article on the material report. Once a week the quantities used should be totaled on all cards and the quantity deducted from the "Balance on Hand" column of the Stock Card.

After the Material Reports have been priced and extended in the "Credit Amount" column, the amounts should be distributed in the "Debit" columns. In the case of pails delivered, for instance, those used in the Stock Room for pailing candy merchandise bought in barrels, the amount should be charged to Candy Merchandise account, and therefore should be entered in the Candy Merchandise column. If the pails were used in the Chocolate Department to pail up a run of chocolate goods, the amount should be entered in "Product in Process" column, because it is to be charged to "Product in Process" account.

In the case of the Daily Report of Supplies used the charges should be to the various Overhead accounts as the case would indicate.

As soon as these reports are completed they should be entered in the Product in Process Journal.

This need be only a very simple, inexpensive twenty-four column stock book with an explanation space at the extreme left. One-third of the book should be reserved for Raw Material Reports, one-third for Package Material Reports, and one-third for Supplies. The first column should be headed "Charge Product in Process," the second, "Charge Candy Merchandise," the rest should be headed with the names of the Detail Ledger accounts such as sugar, glucose, cocoanut, peanuts, etc., until each detail ledger account has been provided for. Each report should be entered on a separate line, showing the date, the name of the department, and the report number. In the case of Raw Material and Package Material the total of each of the "Debit" columns on the report should be entered in their respective columns, and each individual item should be entered in its respective column. The total of the first two columns in the Journal should balance with the total of all the other columns. At the end of the month the totals of the first two columns should be journalized as directed in the journal entries given, charging Product in Process and Candy Merchandise and crediting Raw or Package Material as the case may be.

The totals of all other columns should be posted to the credit of their respective accounts in the Detail Ledger.

The supplies should be handled in a similar manner, excepting that the charges are made to various expense accounts, and instead of the first two columns balancing with all others, there may be half a dozen debit columns to balance with all other columns.

The charges to the Detail Ledger accounts should be made from the original entry for the invoices.

Whenever the stock of any commodity is low, it should be inventoried and checked against the "Balance on Hand" on its stock card. An entry should be made on a Daily Material Report for the quantity necessary to reconcile the inventory with the Stock Card, but the quantity should not be extended at the cost price. Instead, the "Balance on Hand" after adjustment of the quantity should be extended at the latest cost price. This amount should be checked against the Detail Ledger account for the same item, after taking into consideration receipts and consumption for the current month, and any difference entered on the adjustment material report being put through. This will put the stock cards and also the Ledger accounts in balance with the actual inventory. Inventories of some items should be taken every week. In this manner, shrinkages, errors, etc., are being constantly adjusted, and at the close of the year there should be practically no adjustment of the accumulated net profits necessary.

In cases where several commodities are carried as a group in one account on the detail ledger, the entire group will have to be inventoried and adjusted at the same time.

In connection with the material reports it will be of considerable assistance in checking materials used, if the stock requisition shown on page 86 is adopted. The form is self-explanatory. The Foreman should make this out and deliver to the Elevator Operator or Stock Clerk who would deliver the materials and enter on the form the quantity delivered. This should be turned in to the office daily, and when the material reports are delivered to the office, the items on the stock requisition should be checked against the items on the material reports. This will often catch items which the Foreman may neglect to report.

PAYROLL RECORD.

No Payroll Record or Reports are included in this plan for the reason that it is safe to assume that every manufacturer gives his payroll close attention and uniformity in this is not essential. On account of the adoption of the Productive Labor Hour basis, however, for application of Overhead in figuring costs, it is necessary that the Payroll be kept by Departments, and be classified as Productive and Unproductive and that the Productive and Unproductive Hours be recorded.

Also the transfer of employes from one department to another will have to be provided for.

If it is found necessary to devise a plan and prepare forms for keeping the Payroll in the required manner, this can be done by the Club's Accountant on request.

WORKING UP THE FINANCIAL STATEMENT.

Assuming that the books have been closed and the Trial Balance has been taken off and the books found to be in balance, the next step is to make up the Financial Statement. This should be made up from the Ledger Accounts and the form shown on pages 68-72 should be closely followed.

Where one single account is provided for on the face of the statement, no details are necessary. But where several accounts are grouped together under one item on the face of the Statement, the Detail should be made up first and then the total or balance of the Detail should be carried to the Statement. So it will be found more convenient to work up the Statement and the details at the same time, taking care of each ledger account in the order that it appears on the ledger.

It should be observed that Bad Account Reserve is to be deducted from the total of Accounts Receivable and the remainder carried to the face of the Statement. This should also be noted in connection with the equipment accounts and depreciation reserve.

Accumulated Income Detail No. 7 is not the name of an account but merely the name of a Detail. On account of determining each month's profits separately, it is necessary to accumulate them in a Detail so as to carry the Accumulated Net Income to the face of the Statement.

From this point on the Details must be worked up beginning with the last one and working toward the front step by step.

Using January as an example, Detail No. 10—Cost of Product manufactured in January, is made up by turning to the Product in Process account, and taking off the material, productive labor and overhead expenses that have been charged to that account during the month. Care must be exercised to see that the net charges for the month are taken. That is, all minor debits and credits for the month must be taken into consideration as well as the big charges made in the closing entry. To the total Material, Productive Labor and Overhead expenses for the month must be added the Product in Process inventory (balance of the account) the first of the current month. From this total, must be deducted the inventory (balance of the account) the end of the current month. The net result represents the cost of the product manufactured in the current month. This figure is then carried to the next previous Detail, No. 9AA as Cost of Product manufactured the current month.

The Candy Product Account should now be turned to, and Detail No. 9AA (Cost of Candy Product Sold) made up. The inventory (balance of account) the first of the current month should be set down on the first line. The amount for the second line has been carried up from Detail No. 10, and it should be noted that this amount should agree with the amount of the journal entry crediting Product in Process and charging Candy Product in the closing entries.

It should be observed that this Detail and all the others working toward the front are made up in "Balance" form. These first two items in Detail No. 9AA, then should be entered in the debit column of the Detail. Any credits to Candy Product account for the month, consisting mainly of sample credits, should be entered on the next line in the credit column. Then the inventory (balance of account) the end of the month should be entered in the credit column. The difference between the totals of these two columns should now be set down on the next line in the credit column, as Cost of Candy Product Sold in the current month. This figure should agree with the amount in the closing entry that credited Candy Product account and charged Cost of Candy Product Sold account.

This figure, the balancing figure in Detail No. 9AA, should now be carried to Detail No. 9A, "Candy Product Gross Earnings," and set down in the debit column on the fourth line as indicated.

The Candy Product Sales Account should now be turned to. The Gross Sales are the total credits to Candy Product Sales Account for the month and should be set down in the item column of the Detail. From this amount should be deducted the total debits to the Candy Product Sales account for the month, which represent the returned Candy Product for the month. The difference between the Gross Sales and the Returns represents the Net Sales, which should be carried to the credit column of the Detail.

The Cost of Candy Product Sold has been carried up from Detail No. 9AA and set down in the debit column. Now the difference between the debit and credit columns should be set down in the debit column as Candy Product Gross Earnings. This figure should then be carried to Detail No. 9, Trading Income, and set down on the first line in the credit column.

The Candy Merchandise Sales account should now be turned to in order to make up the "Candy Merchandise Gross Earnings" Detail

No. 9B. The Gross Sales, Returns and Net Sales are ascertained in the same manner as for Candy Product Sales.

Next, the "Cost of Candy Merchandise Sold" account should be turned to and the charge to that account for the current month should be entered in the debit column on the fourth line of this Detail. The total of the debit column should now be deducted from the credit column and the remainder set down in the debit column to balance. This constitutes the Candy Merchandise Gross Earnings, which should be carried to Detail No. 9, Trading Income, and set down in the credit column.

Details for Cigar Merchandise and any other Merchandise bought for re-sale should be handled in the same manner as candy merchandise Details.

To complete Detail No. 9, Trading Income, it is necessary to turn to the Direct Selling Expense account and Sales Department Overhead account in the General Ledger and set down in the debit column of this Detail the net charges to these accounts for the current month; that is, the difference between the debits for the month and the credits for the month.

If the total of the credit column of this Detail is greater than the total of the debit column, the difference should be set down in the debit column and vice versa. If in the debit column, it represents Trading Income; if in the credit column, it represents Trading Loss. If a Trading Income it should be carried to the credit column of Detail No. 8, Net Income; if a Trading Loss it should be carried to the debit column of Detail No. 8, Net Income.

All of the other items in Detail No. 8, Net Income, represent Ledger accounts and the difference between the debits and credits for the month, in those accounts, should be set down in the debit or credit column of this Detail as the case may be.

If the total of the credit column is greater than the total debit column of this detail the difference should be set down in the debit column, and vice versa. If in the debit column, it represents Net Income; if in the credit column, it represents Net Loss.

This figure should now be carried to Detail No. 7, Accumulated Income. The Accumulated Income for the previous months (excepting months in the previous fiscal year) should be taken from the previous months' statement and set down in the credit column of the Detail if a gain, in the debit column if a loss. The gain or loss for the current month should be set down on the next line; in the credit column if a gain and in the debit column if a loss.

The accumulated Net Income or Loss including the current month should be set down in the column necessary to make both columns balance. If this balancing figure is in the debit column, it is Net Income; if in the credit column, it is Net Loss for the period including the current month. This figure should be carried to the face of the Financial Statement as Net Gain (or Loss) for ——— months. If a gain it should be entered in the credit column; if a loss it should be entered in the debit column.

The debit column and the credit column of the face of the Financial Statement should now be footed. If both columns agree the Statement is in balance; otherwise, it is out of balance. If it is found out of balance, the error will usually be found in the make up of the Income Details. Frequently it will be found that balances of accounts have been used where only the difference between the *month's* debits and *month's* credits should have been taken. In many cases errors are also likely to occur through taking only the *month's* debits and forgetting some small unusual *month's* credit items.

It should also be observed that where the balancing figure of one Detail is carried to another Detail it is always placed in the opposite column. That is, if the balancing figure of one Detail is in a credit column it should be placed in the debit column of the Detail it is carried to, and vice versa.

It should also be observed that this process of working from one Detail to another, up to Net Income, is exactly the same as making journal entries in closing the books. If the principle of this is grasped, the making up of this statement will be found to be a very simple matter and errors will be quickly found.

WORKING UP THE EARNINGS AND EXPENSE REPORT.

This report, see form on page 73, should be made up immediately after the Financial Statement is out of the way. This report merely gathers together the information contained in the Trading Income and Net Income Details of the Financial Statement and presents it in more convenient form and in addition shows the percentage of earnings and expense to sales at every step.

Beginning with Total Gross Earnings, this figure is the total of the Earnings shown in the credit column of Detail No. 9, Trading Income. If there should be any Gross Losses, they should be deducted from the Gross Earnings and the difference carried to this Report. The total Gross Earnings should be set down in the second column of the Earnings and Expense Report. This figure divided by the total Net Sales gives the Gross Profit per cent of sales, which should be set down in the fourth column.

The Direct Selling Expense and Sales Department Overhead should next be set down and should be taken from Detail No. 9, Trading Income. These figures should be set down in the first column, added together and the total set down in the second column and this total deducted from the Gross Earnings. The difference should be set down on the next line, same column, opposite "Trading Income." This should agree with the balance of Trading Income Detail that was carried to Net Income Detail.

The Direct Selling Expense and Sales Department Overhead should each be divided by the total Net Sales to give the Direct Selling Expense per cent of Sales and the Sales Department Overhead per cent of Sales, and these percentages should be set down in the third column and the total carried into the fourth column. This percentage should be deducted from the Gross Earnings percentage and the difference set down on the next line below, opposite "Trading Income." On the line opposite Trading Income, would be the Trading Income amount in the second column and its percentage of Net Sales in the fourth column.

The Net Income Detail No. 8, of the Financial Statement should now be turned to and the items set down in the first column of this Earnings and Expense Report in their respective places as indicated. The total of the debits should be carried to the second column and be subtracted from the Trading Income and the balance set down on the next line below opposite "Net Income from Sales." The total of the credits should be carried to the second column and be added to the "Net Income from Sales" and the total set down on the next line below as Total Income for the month.

Each of the items of Income and Charges to Income should be divided by total Net Sales and the percentages set down in the third column. The totals of these percentages should be carried into the fourth column and added or deducted as the case may be. Wherever a total amount occurs it should be divided by the total net sales to prove the additions or subtractions of percentages as there will be slight variations.

The percentages shown on this report are the ones to use in establishing selling prices when figuring costs. (See formula on page 10, Section 1.) It must always be remembered, however, that these are percentages of Sales and not percentages of Costs.

A table is appended showing what percentage of costs should be used to get a desired percentage of sales when establishing selling prices.

In addition to this report it is very essential that Sales Statistics by Salesmen and Sales Statistics by Merchandise classes be prepared monthly, but they would be so entirely different for practically every factory, that it would be useless to do other than simply make the suggestion that such statement be prepared.

COMPARATIVE COST RECORD.

In order to simplify comparisons of costs taken at different times on the same piece of goods, a Comparative Cost Record form is shown opposite page 80 to be used in connection with the cost sheets.

A Comparative Cost Record sheet should be provided for each piece of goods in the line. In the box heading it will be noticed a space has been provided for "Standards." In the space over the column headed "Count per pound of centers" should be entered the *standard* count per pound of centers. Over the column headed, "Per cent of coating to total weight" should be entered the *standard* percentage. Over the column headed, "Count per pound finished," should be entered the *standard* count per pound finished. Over the column headed, "Gross Profit per cent of Sales," should be entered the *standard* Gross Profit the piece should make.

This sheet is designed for both plain and coated goods. For plain goods, the space headed, "Coated Goods," should be omitted. For coated goods the cost on centers would be entered under the heading "Centers and Plain Goods" and the cost on chocolate room work would be entered on the same line, under the heading "Coated Goods."

It should be the aim of every manufacturer to get a cost on every piece of goods at least once in thirty or sixty days. The first test should be numbered "one," the second, "two," and so on. In the case of coated goods, the cost on the centers and the cost of the coating process should take the same numbers.

Only one line on the comparative record should be used for each complete cost.

As the cost sheets are entered they should be checked against the *standards* established, and the manufacturing departments promptly notified of any wide discrepancies. If too great a difference exists, another cost should be immediately taken.

After cost sheets are entered they should be filed in pigeon boxes or vertical files, each piece of goods in numerical order.

TEST OF STANDARDS.

A test of Standards in every factory is strongly recommended, especially in the case of coated goods, bars, and stick candy. Lack of uniformity is bad for the dealer and bad for the manufacturer, especially if too great a percentage of coating is used.

A form will be found for a "Dipping Test" and for a "Spinning Test" on pages 87 and 88. In the case of the Dipping Test, it should be taken on four or five dippers, dipping the same piece of goods. And in the case of stick candy the test should be taken on every spinner on every batch.

These tests can be taken as often or as seldom as the individual manufacturer desires, but it stands to reason that the closer check that is kept on dipping and spinning the more uniform and more profitable the output will be.

When these tests are turned into the office they should be checked against the standards recorded in the comparative cost record, and the Superintendent or Foreman notified of any glaring differences.

Appendix to Sec. II

GENERAL LEDGER ACCOUNTS.

The following General Ledger accounts are listed in the order in which they should appear in the General Ledger. All factories will not have the same accounts, but those given here are grouped according to nature as a guide for any revision.

CASH RESOURCES:—

- Cashier's Revolving Fund.
- Bank Accounts.
- Liberty Bonds.
- Salesmen's Advance Funds.
- Sales Ledger, City.
- Sales Ledger, Country.
- Bad Account Reserves—Contra to Sales Ledger Accounts.
- Freight Claims, Unpaid.
- Raw Material.
- Package Material.
- Supplies.
- Merchandise in Transit.
- Product in Process.
- Candy Product.
- Candy Merchandise.
- Cigar Merchandise.
- Notes Receivable.

FIXED RESOURCES:—

- Machinery and Parts.
- Factory Tools and Fixtures.
- Office Furniture and Fixtures.
- Autos and Trucks.
- Depreciation Reserve—Contra to Equipment Accounts.

DEFERRED CHARGES OR PREPAID EXPENSES:—

- Insurance Inventory.
- Prepaid Advertising.

CURRENT LIABILITIES:—

- Vouchers or Accounts Payable.
- Notes Payable.
- Excise Tax Reserve.

FIXED LIABILITIES:—

- Mortgages Payable.

RESERVES:—

Taxes Reserved.
Commission Reserves.
Contingent Reserve.
Advertising Reserve.

NET WORTH ACCOUNTS:—

Capital Stock Authorized.
Capital Stock Unissued—Contra to Capital Stock Authorized.
Surplus.

INCOME ACCOUNTS:—

Net Income.
Miscellaneous Income.
Purchase Discounts.
Bad Account Collections.
Interest Received.
Trading Income.
Rent and Rentals.
Storage.
Interest Paid.
Insurance.
Local Taxes Paid.
Depreciation.
Cash Discount on Sales.
Bad Account Losses.

EARNINGS AND EXPENSE ACCOUNTS:—

Candy Product Sales.
Cost of Candy Product Sold.
Candy Merchandise Sales.
Cost of Candy Merchandise Sold.
Cigar Merchandise Sales.
Cost of Cigar Merchandise Sold.
Candy Product Gross Earnings.
Candy Merchandise Gross Earnings.
Cigar Merchandise Gross Earnings.
Sales Department Direct Selling Expense.
Sales Department Overhead.
General Overhead.
Factory Overhead.
Cream Department Productive Labor.
Cream Department Overhead.
Hard Candy Department Productive Labor.
Hard Candy Department Overhead.
Chocolate Department Productive Labor.
Chocolate Department Overhead.

FINANCIAL STATEMENT.

....................1920.

....................Company.

RESOURCES:—			
Cash on Hand..........Detail 1	$.......		
Accounts Receivable ...Detail 2	$.......		
Merchandise ....Detail 3	$.......		
Notes Receivable	$.......	$.......	
Equipment ....Detail 4	$.......	$.......	
Deferred Charges ......Detail 5	$.......	$.......	
LIABILITIES:—			
Accounts Payable ......Detail 2	$.......		
Notes Payable	$.......		$.......
Mortgages Payable	$.......		$.......
Reserves ....Detail 6	$.......		$.......
Capital Stock Authorized.......	$.......		
Capital Stock Unissued.........	$.......		$.......
Surplus			$.......
Net Income ...Month...Detail 7	$.......	$ (loss)	$ (gain)
		$.......	$.......

DETAIL 1.

CASH ON HAND.

Cashier's Revolving Fund	$.........
............National Bank	$.........
............National Bank	$.........
Liberty Bonds	$.........
Salesmen's Advance Funds	$.........
Amount to Statement..............	$.........

DETAIL 2.

ACCOUNTS RECEIVABLE AND PAYABLE.

	Receivable	Payable
Sales Ledgers, City	$.........	$.........
Sales Ledgers, Country..................	$.........	$.........
Freight Claims Unpaid...................	$.........	
Vouchers Payable		$.........
Excise Tax Reserve		$.........
	$.........	$.........
Less Bad Account Reserve..............	$.........	
Accounts Rec. to Statement.........	$.........	
Accounts Pay. to Statement.........		$.........

DETAIL 3.

MERCHANDISE.

Raw Material	$.........
Package Material	$.........
Supplies	$.........
Merchandise in Transit	$.........
Product in Process	$.........
Candy Product	$.........
Candy Merchandise	$.........
Cigar Merchandise	$.........
Amount to Statement	$.........

DETAIL 4.

EQUIPMENT.

Machinery and Parts	$.........
Factory Tools and Fixtures.............	$.........
Office Furniture and Fixtures...........	$.........
Autos and Trucks	$.........
	$.........
Less Depreciation Reserve	$.........
Amount to Statement	$.........

DETAIL 5.

DEFERRED CHARGES
(or Prepaid Expenses)

Insurance Inventory	$.........
Prepaid Advertising	$.........
Amount to Statement	$.........

DETAIL 6.

RESERVES.

Taxes Reserved	$.........
Commission Reserve	$.........
Contingent Reserve	$.........
Advertising Reserve	$.........
Amount to Statement..............	$.........

DETAIL 7.

ACCUMULATED NET INCOME.

Income........Months previous		$.........
Net Gain this month............Detail 8		$.........
Net Income.........Months to Statement	$.........	
	$.........	$.........

DETAIL 8.

NET INCOME.
For..............(Month).

Income:—		
Trading Income Detail 9..............		$.........
Purchase Discount		$.........
Interest Received		$.........
Miscellaneous Income		$.........
Bad Account Collections		$.........
Charges to Income:		
Rent	$.........	
Storage	$.........	
Interest Paid	$.........	
Insurance	$.........	
Local Taxes	$.........	
Depreciation	$.........	
Cash Discount Paid	$.........	
Bad Account Losses	$.........	
Net Income to Detail 7................	$.........	
	$.........	$.........

DETAIL 9.

TRADING INCOME.

Earnings:—		
Candy Product Gross Earnings Det. 9A		$.........
Candy Mdse. Gross Earnings Det. 9B		$.........
Cigar Mdse. Gross Earnings Det. 9C		$.........
Expenses:—		
Direct Selling Expenses..............	$.........	
Sales Department Overhead..........	$.........	
Trading Income to Detail 8.............	$.........	
	$.........	$.........

DETAIL 9A.

CANDY PRODUCT GROSS EARNINGS.

Gross Sales	$.........		
Less Returns	$.........		
Net Sales			$.........
Cost of Candy Prod. Sold Det. 9AA.....		$.........	
Candy Prod. Gross Earnings to Det. 9....		$.........	
		$.........	$.........

DETAIL 9B.

CANDY MDSE. GROSS EARNINGS.

Gross Sales	$.........		
Less Returns	$.........		
Net Sales			$.........
Cost of Candy Merchandise Sold........		$.........	
Candy Mdse. Gross Earnings to Det. 9....		$.........	
		$.........	$.........

DETAIL 9C.

CIGAR MDSE. GROSS EARNINGS.

Gross Sales	$.........		
Less Returns	$.........		
Net Sales			$.........
Cost of Cigar Merchandise Sold.........		$.........	
Cigar Mdse. Gross Earnings to Det. 9....		$.........	
		$.........	$.........

DETAIL 9AA.

COST OF CANDY PRODUCT SOLD.

Candy Product Inventory Jan. 1st........	$.........	
Cost of Prod. Mfg. in Jan. Det. 10.......	$.........	
Samples and other credits...............		$.........
Candy Prod. Invy. Jan. 31st.............		$.........
Cost of Candy Prod. Sold, Jan. to Det. 9A		$.........
	$.........	$.........

DETAIL 10.

COST OF PRODUCT MFG. IN..........(Month).

Material into Process in January.........	$.........
Productive Labor in Pro. in January.....	$.........
Department Overhead in Pro. in January..	$.........
Total	$.........
Plus Prod. in Process Invy. Jan. 1st......	$.........
	$.........
Less Prod. in Process Invy. Jan. 31st.....	$.........
Cost of Product Mfg. in Jan. to Det. 9AA	$.........

EARNINGS AND EXPENSE REPORT.

MONTH OF

	Items	Total	% of Net Sales	% of Net Sales
GROSS EARNINGS: ..		$.......		%
SELLING EXPENSES:—				
Direct Selling Exp.....	$.......		%	
S. D. Overhead	$.......	$.......	%	%
TRADING INCOME: ..		$.......		%
CHARGES TO INCOME:—				
Rent	$.......		%	
Storage	$.......		%	
Interest Paid	$.......		%	
Insurance	$.......		%	
Local Taxes	$.......		%	
Depreciation	$.......		%	
Cash Disc. Paid	$.......		%	
Bad Acc't Losses	$.......	$.......	%	%
NET INCOME FROM SALES THIS MONTH		$.......		%
OTHER INCOME:				
Purchase Discount	$.......		%	
Interest Received	$.......		%	
Misc. Income	$.......		%	
Bad Acc't Collections ..	$.......	$.......	%	
TOTAL INCOME:		$.......		%

TABLE FOR FIGURING SELLING PRICES FROM COSTS.

Select in this column the Gross Profit percentage desired.	And multiply cost of merchandise by figure on same line in this column.
5%	1.0525
10%	1.11
12½%	1.143
15%	1.1767
16⅔%	1.20
20%	1.25
25%	1.3334
30%	1.4288
33⅓%	1.50
35%	1.5388
37½%	1.60
40%	1.6667
45%	1.82
50%	2.00
62½%	2.6667

Assuming that your Expenses average 15% of your sales, and your Turnover is quick, you would probably want to make 10% Net Profit on sales. You should therefore figure on 25% Gross Profit. Opposite 25% in the first column, you find 1.3334 in the second column. Your merchandise costs you for example 30c per lb. 30x1.334=40c. Your selling price should therefore be 40c pound.

REGULAR JOURNAL ENTRIES FOR CLOSING THE BOOKS.

After all the books of original entry have been posted and while the inventory is being extended and checked, the following regular Journal Entries should be prepared.

Product in Process
To
Raw Material
For Raw Material put into Process during the month of January as per Product in Process Journal, Page 1.

Product in Process
Candy Merchandise
To
Package Material
For package material put into Process and used for packing candy merchandise during month of January as per Product in Process Journal, Page 51.

General Overhead	B2
General Overhead	B3
Factory Overhead	J4
Factory Overhead	K4
Cream Dept. Overhead	2
Hard Candy Overhead	2
Choc. Dept. Overhead	2

To
Supplies
For supplies used in various Departments during month of January as per Product in Process Journal, Page 101.

Sales Department Overhead E9
To
Candy Product
For samples used in Sample Department during month of January as per Sample Record.

Factory Overhead
Sales Department Overhead

To

General Overhead

For distribution of General Overhead on the basis of Factory and Sales Department Direct expenses for month of January.

General Overhead		$2,100.00
To Factory Overhead 66⅔%	=$1,400.00	
To Sales Dept. Overhead 33⅓%	= 700.00	

Cream Department Overhead
Hard Candy Dept. Overhead
Chocolate Dept. Overhead

To

Factory Overhead

For distribution of Factory Overhead on the basis of Cream, Hard Candy and Chocolate Departments direct expenses for month of January.

Factory Overhead		$2,600.00
To Cream Dept. Overhead 25%	=$ 650.00	
To Hard Candy Dept. Overhead...25%	= 650.00	
To Choc. Dept. Overhead 50%	= 1,300.00	

Product in Process

To

Cream Department Prod. Labor
Hard Candy Dept. Prod. Labor
Choc. Dept. Prod. Labor

For Productive Labor used in Production during month of January as per Productive Labor in General Ledger.

(This entry closes these accounts.)

Product in Process

To

Cream Department Overhead
Hard Candy Department Overhead
Choc. Department Overhead

For Overhead expense incidental to Production during January as per Manufacturing Dept. Overhead accounts in General Ledger.

(This entry closes these accounts.)

Local Taxes Paid

To

Local Tax Reserve

For 1/12 of the estimated taxes for 1920.

Insurance

To

Insurance Inventory

For 1/12 of the Annual Premiums Paid.

Depreciation

To

Depreciation Reserve

For 1/12 of the estimated depreciation for 1920.

Bad Account Losses

To

Bad Account Reserve

For January's proportion of estimated Bad Account Losses for 1920.

1/4 of 1% of January's Sales = $........

The Inventories should be taken up next as they constitute the basis of the cost of goods sold.

Candy Product

To

Product in Process

Cost of Candy Product completed in January determined by inventory of Product in Process.

Total Net Charges to Product in Process Acc't...	$.........
Less. Prod. in Process Invy. Jan. 31st..........	$.........
Charge to Candy Prod. Account...............	$.........

(This should leave a balance in Prod. in Process equalling the Prod. in Process Inventory.)

Cost of Candy Product Sold

To

Candy Product

Cost of Candy Product sold in January as determined by Candy Product Inventory.

Total Net Charges to Candy Prod. Acc't........	$.........
Less Candy Prod. Invy. Jan. 31st..............	$.........
Charge to Cost of Candy Prod. Sold Account...	$.........

(This should leave a balance in Candy Prod. account exactly equal to the Candy Prod. Inventory.)

Cost of Candy Merchandise Sold

To

Candy Merchandise

Cost of Candy Merchandise sold in January determined by candy merchandise inventory January 31st.

Total Net Charges to Candy Merchandise......	$.........
Less Candy Merchandise Inventory Jan. 31st....	$.........
Cost of Candy Merchandise Sold in January....	$.........

(This should leave a balance in Candy Merchandise Account exactly equal to Candy Merchandise Inventory Jan. 31st.)

Accounts carried for other merchandise bought for re-sale should be handled in the same manner. This is all the regular monthly Journal Entries that are necessary. The rest of the information is worked up on the monthly Financial Statement and supporting Details. At the close of the fiscal year, however, the following Journal entries are necessary, but should not be made up until the monthly books are closed and the last month's statement drawn off:—

Candy Product Sales
Candy Merchandise Sales
Cigar Merchandise Sales
To
Candy Product Gross Earnings
Candy Merchandise Gross Earnings
Cigar Merchandise Gross Earnings
To close the books for fiscal year ending....................

Candy Product Gross Earnings
Candy Merchandise Gross Earnings
Cigar Merchandise Gross Earnings
To
Cost of Candy Product Sold
Cost of Candy Merchandise Sold
Cost of Cigar Merchandise Sold
To close the books for fiscal year ending....................

Candy Product Gross Earnings
Candy Merchandise Gross Earnings
Cigar Merchandise Gross Earnings
To
Trading Income
To close Gross Earnings Account for fiscal year ending..................

Trading Income
To
Sales Department Direct Selling Expense
Sales Department Overhead
To close Selling Expense Accounts for fiscal year ending...............

Trading Income
Miscellaneous Income
Purchase Discounts
Bad Account Collections
Interest Received

To

Net Income

To close Income Accounts for fiscal year ending.............

Net Income

To

Rent
Storage
Interest Paid
Insurance
Taxes, Local
Depreciation
Cash Discount on Sales
Bad Account Losses

To close Income Charges Accounts for fiscal year ending....................

There will naturally be many other Journal Entries at the close of the year, but these are the fixed annual income entries.

Percentages used in these entries are merely used as illustrations, and must not be construed as percentages recommended.

FORM C-11

COMPARATIVE COST RECORD

NOTE: FOR BAR GOODS STATE "NET WEIGHT OF TEN BARS" IN PLACE OF "COUNT PER POUND OF CENTERS" AND "COUNT PER POUND FINISHED"

(NAME OF GOODS) (CLASS)

CENTERS AND PLAIN GOODS							COATED GOODS								PACKED				GROSS PROFIT		
STANDARDS																					
DATE OF TEST	Cost of Sugar per 100 lbs.	Cost of Corn Syrup per 100 lbs.	Cost of Productive Labor per 100 lbs.	Cost of Factory Overhead per 100 lbs.	Cost per Pound of Centers	Cost of Centers per 100 lbs.	Method of Dipping	KINDS OF COATING USED	Cost of Coating per 100 lbs.	Per Cent of Coating to Total Weight	Cocoa Butter or Subs used per 100 lbs. of Coating	Cost of Dipping Labor per 100 lbs. Finished	Cost of Factory Overhead per 100 lbs. Finished		Count per Pound Finished	Cost on Trays per 100 lbs.	Pounds per Box or Pail or Count per Box	Cost per Pound, Carton or Box Packed	Sale Price per Pound Carton or Box	Gross Profit of Sale Price	Gross Profit % of Sale

Sheet No. ....
Entered ....
Priced ....
Extended ....
Checked ....

INVENTORY

.... DEPT.

LOCATION ....

Page No. ....

Date ....

	QUANTITY	NAME	SYMBOL	HOW PACKED	REDUCED QUANTITY	COST PRICE	PER	1 CANDY PRODUCT	2 CANDY MDSE.	3	4	5 PRODUCT IN PROCESS	TOTAL
		Forward											
		Forward											

(Reduced from 12x9½ in.)

STOCK RECORD CARD NO.

ARTICLE FREIGHT PER UNIT LOW MARK

PURCHASES					RECEIPTS		BALANCE ON HAND	
PURCHASED FROM	DATE	QUANTITY	PRICE	TERMS	DATE	QUANTITY	DATE	QUANTITY

(Front of Card—Reduced from 9¾x8 in.)

RECORD OF QUANTITIES USED

DATE	REF.	QUANTITY	DATE	REF.	QUANTITY	DATE	REF	QUANTITY	DATE	REF	QUANTITY

(Back of Card—Reduced from 9¾x8 in.)

DAILY REPORT
OF
RAW MATERIALS
DELIVERED TO DEPARTMENTS

____________ DEPT. NO.________

DATE____________________

	ITEMS	QUANTITY	COST PRICE	CREDIT AMOUNT	A/C	DR. PR. IN PROC.		DR. CANDY MDSE.	

(Reduced from 5x8¾ in.)

DAILY REPORT
OF
PACKAGE MATERIALS
DELIVERED TO DEPARTMENTS

_______________ DEPT. No. __________

DATE ____________________

ITEMS	QUANTITY	COST PRICE	CREDIT AMOUNT	A/C	DR. PR. IN PROC.		DR. CANDY MDSE.

(Reduced from 9x8¼ in.)

DAILY REPORT
OF
SUPPLIES
DELIVERED TO DEPARTMENTS

____________ DEPT. No.________

DATE________________

	ITEMS	QUANTITY	COST PRICE	CREDIT AMOUNT	A/C	DR. FACT. OVERHEAD	DR. DEPT. OVERHEAD	DR. GEN'L OVERHEAD

(Reduced from 9x8¾ in.)

STOCK REQUISITION No.________

FOR________________________________ DEPT.________________

(DATE)

Quantity Wanted		Materials Wanted	Quantity Delivered	

This Requisition must be in the hands of the Stock Man not later than 4:30 p. m. of the day before the material is to be used. The Stock Man must have the material, listed hereon, in the department ordering, not later than 7 a. m. the following day.

No verbal orders for material wanted, should be given. In contingencies, for immediate delivery, use this form and mark "special."

All Requisitions must be handed in to the office by the Stock Clerk every night.

(Reduced from 5½x8½ in.)

DIPPING TEST

__________ DEPT DATE __________

1	2	3	4	5 o	6
NAME AND FLAVOR OF GOODS	DIPPERS' NUMBERS	NUMBER OF CENTERS PER POUND BEFORE DIPPING	NUMBER OF PIECES PER POUND AFTER DIPPING	DIF. IN WEIGHT BEFORE AND AFTER DIPPING	PER CENT OF CHOCOLATE

REMARKS

NOTE: When taking test on bar goods, Columns No. 3 and No. 4 should be used for net weight of 10 bars before and after dipping. Column No. 6 is used for

o per cent of Chocolate used. For centers, divide each item in column No. 5 by corresponding item in column No. 3. For bars, divide each item in column No. 5 by corresponding item in column No. 4.

(Reduced from 8½x11 in.)

SPINNING TEST

____________________ DEPT. DATE ____________________

NAMES OF SPINNERS	NAME OF GOODS	NUMBER OF STICKS PER POUND PER BATCH									
		1	2	3	4	5	6	7	8	9	10
						MORNING					
						AFTERNOON					

(Reduced from 8½x11 in.)

INDEX