UNITED STATES DEPARTMENT OF AGRICULTURE

BULLETIN No. 865

Contribution from the Bureau of Markets
George Livingston, Chief

Washington, D. C. ▼ August 16, 1920

A CLASSIFICATION OF LEDGER ACCOUNTS FOR CREAMERIES

By

GEORGE O. KNAPP and BURTON B. MASON, Assistants in Market Business Practice, and A. V. SWARTHOUT Investigator in Market Business Practice

CONTENTS

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By George O. Knapp and Burton B. Mason, *Assistants in Market Business Practice,* and A. V. Swarthout, *Investigator in Market Business Practice.*

CONTENTS.

INTRODUCTION.

In presenting this "Classification of Ledger Accounts for Creameries" it is the aim of the Bureau of Markets to emphasize the importance of the use of a definite and logical classification of accounts for keeping the financial records of any business and to describe in detail a classification which can be used advantageously by creameries. The use of such a classification is not only a great aid to the bookkeeper in the performance of routine duties, but its consistent use also insures a uniform method of presenting the financial information from year to year regardless of changes in the personnel. The use of these uniform methods by an industry as a whole makes possible the exchange of data regarding business operations, which is of untold value as a guide to efficient operation.

It is felt that the consistent use of the classification described herein will be of great benefit to the entire creamery industry. The explanatory paragraphs will be found helpful in deciding questions arising from a new or unusual transaction, the necessary entries for which may be unknown to the bookkeeper.

In order to open the Ledger accounts for a set of double-entry books, it is necessary to take a physical inventory of all assets and to take into consideration all liabilities of the concern. These items

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should be arranged in the form known as a Balance Sheet, with assets on the left and liabilities on the right. (See illustration on p. 34.) The difference between the total assets and total liabilities will represent the net worth, either as capital stock, surplus, deficit, or good will. These accounts are described at length under their respective captions. The assets should be arranged in the order of their probable cash realization and the liabilities in the order of their probable priority as to liquidation. A set of Ledger sheets should be headed with the account captions as shown herein.

The items appearing on the Balance Sheet should then be entered in the Journal,[1] the amount of each item being posted from the Journal to the proper Ledger account. As succeeding transactions are classified, entered in the Journal, and posted to the proper Ledger accounts, the Ledger will contain a summary of the financial facts of the business, arranged under their proper designation, each summary being known in bookkeeping as an account. The various accounts should be classified according to their nature into the following groups, which are defined in order that it may be clearly understood how they differ from one another.

Current Assets are items of cash and those which can be readily converted into cash or its equivalent.

Fixed Assets are those of a permanent nature which are used in conducting the business, such as land, buildings, machinery and equipment.

Prepaid Expense is that which is paid in advance of usage.

Current Liabilities are obligations which are due, or about to become due, or are those which are increasing daily but are not payable until some future date.

Reserve accounts are those by means of which a certain amount is set aside out of the earnings of the company for some specific purpose.

Net Worth accounts are those which represent the ownership, including any accumulated profits or losses of the company.

Income accounts are those through which the revenue of the company is reflected.

Expense accounts are those which reflect the cost of conducting the business. It should be remembered that the cost of conducting the business may not be actually paid in cash during the period in which the expense is incurred.

Index tabs labeled with the above headings will be found convenient in locating the various Ledger accounts.

The necessity of making the complete segregation of accounts shown in the following charts may be questioned by those who have

[1] See U. S. Department of Agriculture Bulletin No. 559, Accounting Records for Country Creameries, by John R. Humphrey and G. A. Nahstoll. 1917.

never recognized an accounting system as a vital assistance to the management. The real purpose of accounting is not only to show the board of directors, or proprietor, that the business has been conducted at a profit or loss, and that no fraud has been committed, but also to present facts concerning the business in such a manner that the management may direct the operations intelligently.

In securing the very best benefits possible from an adequate accounting system, nothing can take the place of an independent audit by a reputable firm of public accountants. Some of the advantages to be derived from such an audit may be summarized as follows:

(1) An impartial and disinterested opinion of the general policy and administration of the business is secured.

(2) The financial records are carefully examined, and reports presented in the best possible form.

(3) Opinion is rendered as to whether the methods in use could be improved and whether or not adequate reserves are being accumulated to care for depreciation, bad accounts, etc.

The cost of such an audit may seem prohibitive to some of the smaller organizations. However, this expense may be somewhat reduced by the formation of a cooperative auditing association, such as is now in existence in some sections of the country. It is strongly recommended that an audit of the kind referred to above should be made at the close of the fiscal year.

Probably some organizations will not require all of the accounts shown in this classification. For instance, in a creamery holding no notes, neither the Notes Receivable account nor the Notes Receivable Discounted accounts would be used. Also, in small concerns it might be unnecessary to carry separate accounts for factory labor and office salaries, and other similar items. Some organizations may require additional accounts. The discussion in this bulletin should enable any creamery bookkeeper to set up intelligently a complete set of accounts.

By comparison with U. S. Department of Agriculture Bulletin No. 559, it will be noted that some of the procedure outlined therein differs from that described in this publication. These changes have been found desirable after observation of actual operations extending over a period of several years.

CHART OF LEDGER ACCOUNTS.

BALANCE SHEET ACCOUNTS (NOS. A TO I, INCLUSIVE).

Assets.

Liabilities, Reserves, and Net Worth.

INCOME AND EXPENSE ACCOUNTS (NOS. J TO P, INCLUSIVE).

Income Accounts.

ASSETS.

A. CURRENT ASSETS.

CASH ON HAND (A 1).

DEBIT.	CREDIT.
1. With the total of undeposited checks and cash as shown by Balance Sheet at the time of opening the books. 2. With the total of undeposited checks and cash at the close of the period.	1. With the total of undeposited checks and cash at the beginning of the period.

In order that a complete Trial Balance may be taken from the Ledger, without consideration of unposted items in any book of original entry, it is desirable that a Cash on Hand account be opened and maintained in the Ledger. Into this account is posted the amount of actual cash in the office at the time of opening the books and at the close of each accounting period. At the beginning of the following period, this amount should be entered as the first item in the Cash Journal, the debit being entered in the Cash column, the credit in the General Ledger column, from which it is posted to this account.

It is always desirable that all cash receipts be deposited during the accounting period in which they are received, and that all disbursements be made by check. Often, however, small items are paid in cash. Such expenditures should be covered by an order, which is approved by the manager, showing the amount, the date, account chargeable, and any other necessary information, and should be signed by the payee. At the end of each period a check should be drawn for an amount equal to the disbursements. The charge for this check should be made in the Cash Journal to the various Expense accounts and the check must be included in the next bank deposit.

Bank Account (A 2).

(Name of bank.)

Debit:	Credit:
1. With the balance in the bank as shown by the Balance Sheet at the time of opening the books. 2. With the total of all deposits during the period. 3. With interest credited by the bank.	1. With the amount of overdraft as shown by the Balance Sheet at the time of opening the books. 2. With the total of all amounts disbursed by check during the period. 3. With interest charged by the bank on overdraft.

This account will appear in the Ledger under the name of the bank and should be debited with the amount of cash on deposit at the beginning of the period. This balance is determined by taking the balance rendered by the bank and deducting therefrom the total of all outstanding or uncanceled checks. Normally the balance shown by the bank will be in excess of that shown by the organization.

Debits and credits to this account for interest receipts and payments, and exchange charges will arise from debit and credit memoranda submitted by the bank at the time of rendering its statement.

Notes Receivable (A 3).

Debit:	Credit:
1. With the face value of notes of others on hand as shown by the Balance Sheet at the time of opening the books. 2. With the face value of the notes received during the period.	1. With amounts paid on notes by their makers, settlements made in any other manner or amounts charged Loss and Gain as uncollectable.

When notes are taken in payment for subscription to capital stock the total amount of such notes should be debited to this account. When notes are discounted at the bank, their face value, less the discount charged, should be debited to the Bank Account. This, however, does not change the notes, there being a contraliability to the bank for the full face value of the notes discounted. This liability is further discussed under Notes Receivable Discounted.

Accounts Receivable Control (A 4).

Debit:

1. With the total amount charged to customers' individual account as shown by the Balance Sheet at the time of opening the books.
2. At the close of the period with the total of all sales charged to customers' accounts during the period.

Credit:

1. At the close of the period with the total amount received from customers on account.
2. With any other credits to customers' accounts, including the writing off of doubtful accounts.

Inasmuch as the total of all charges and credits applying to the customers' individual accounts constitute the entries to the above account, it is apparent that this account is a control over the customers' individual accounts. It should in all cases be made to agree with the total of the individual accounts before a Trial Balance is taken. The balance, which is the total amount due from customers, must equal the net total of the balance of the individual amounts.

Patrons' Accounts Receivable (A 5).

Debit:

1. With the amount of any purchase by patrons during the period.

Credit:

1. With any payments on account by patrons.
2. With any deductions from patrons' vouchers at the time of making settlement.

This is a control account for sales to patrons, and should be operated in a manner similar to Accounts Receivable Control, all sales being posted to accounts from the sale slip, and the total of these sales being entered in this account from the Journal.

It may happen that a patron who has furnished only a small amount of butter fat during the period will have purchased from the creamery more than his voucher will cover. The voucher, however, should be fully made out, showing all amounts to the patron's credit and the charges against him, together with the balance due the creamery. The balance on this account, together with the amount of any new purchases, should be deducted from the next vouchers, or the patron required to make payment in full.

Manufactured Products Inventory (A 6).

Debit:

1. With the value of all manufactured products (and merchandise) on hand as shown by the Balance Sheet at the time of opening the books.
2. With the value of all manufactured products (and merchandise) on hand at the close of the fiscal period.

Credit:

1. Immediately after the beginning of a new period with the balance of this account.

It is not intended to carry the inventory of manufactured products currently in the Ledger, although at the time of opening the books it is necessary to show this amount in order to arrive at a true basis of the net worth of the organization. The inventory should include products on hand, and any which may have been shipped on consignment and not paid for by the consignee. If part payment has been made on consigned goods, the amount of this payment should be deducted from the inventory.

Under cooperative methods of conducting a creamery, distribution is made to to patrons for all butter, or other product, actually manufactured during a period, whether or not it has all been sold. This necessitates a slightly different accounting for inventories of manufactured products than is used under the ordinary plan of business operations, the amount of the inventories being credited to Sales accounts at the end of the fiscal period, and charged to these accounts at the beginning of a new period, instead of these entries being made in the Purchases accounts. The following Journal entries will illustrate:

COOPERATIVE CREAMERY.

Debit.		Credit.
$350	Manufactured Products Inventory.	
	Butter Sales	$350

To place inventory on books at end of fiscal period before closing books:

Debit.		Credit.
$350	Butter Sales.	
	Butter Inventory	$350

To close Butter Inventory account at the beginning of the new fiscal period.

PRIVATE CREAMERY.

Debit.		Credit.
$350	Manufactured Products Inventory.	
	Butter Fat Purchases	$350

To place inventory on the books at the end of the fiscal period before closing the books.

Debit.		Credit.
$350	Butter Fat Purchases.	
	Manufactured Products Inventory	$350

To close inventory account at the beginning of the new fiscal period.

Operating Supplies Inventory (A 7).

Debit:	Credit:
1. With the cost of all operating supplies on hand as shown by the Balance Sheet at the time of opening the books. 2. With the cost of all operating supplies purchased. 3. With all freight, express, and drayage charges on operating supplies.	1. At the close of the period with the cost of all operating supplies used during the period. 2. With the cost of all supplies sold or disposed of in any other manner.

Operating Supplies include such items as fuel, oils and greases, packages and liners, butter color, salt, glassware, acid, washing powder, etc.

An Inventory Report (see U. S. Department of Agriculture Bulletin No. 559, p. 11) should be kept at all times. The balance on this report must agree with the balance on this account.

By reference to the descriptions of the Operating Expense accounts (Nos. M 2 and M 3) it is easy to determine what account should be charged with the supplies used.

B. SECURITIES.

Sinking Fund (B 1).

Debit:	Credit:
1. With all amounts withdrawn from the general funds of the business and deposited in a special fund for the specific purpose of meeting some fixed obligation at a future time. 2. With any income derived from the money in this fund. (Credit Sinking Fund Reserve.)	1. With any amount expended for the purpose for which the special fund was created.

A sinking fund is an amount of money periodically withdrawn from the business and invested in securities or deposited in a separate bank account for the purpose of meeting a fixed liability at some future time. For the purpose of determining the amount to be set aside each period, reference may be made to any of the published bond tables.

Further discussion of this subject will be found under Sinking Fund Reserve, page 19.

C. FIXED ASSETS.

Land (C 1).

Debit:	Credit:
1. With the original purchase price of land as shown by the Balance Sheet at the time of opening the books. 2. With all costs pertaining to the original purchase. 3. With the cost of any permanent improvement made subsequent to the purchase.	1. With the total book value of any land sold.

Land should be carried on the books at actual costs and should not be increased or decreased because of a change in value. The difference between the selling price and the original cost of any real estate should be debited or credited, as the case may be, to Surplus Adjustment account.

Buildings (C 2).

Debit:	Credit:
1. With the original purchase price of the buildings as shown by the Balance Sheet at the time of opening the books. 2. With costs of all new construction. 3. With the cost of all additions or alterations when such costs increase the usefulness of the plant. 4. With the excess of the cost of the replacement over the original cost of the part replaced.	1. At the time of sale or destruction with the total book value of any building sold or destroyed.

As the land and buildings are frequently purchased at the same time, the purchase price will include both assets. Care must be exercised that a proper division of these assets is made as depreciation is to be figured only upon the buildings.

MACHINERY AND EQUIPMENT (C 3).

DEBIT:	CREDIT:
1. With the cost of all the machinery as shown by the Balance Sheet at the time of opening the books. 2. With the cost of additions or alterations provided the efficiency is materially increased. 3. With freight, express, and drayage charges on any purchase. 4. With cost of installation.	1. With the total book value of any machinery and equipment that is sold or discarded.

This account should be charged with the costs of all items of machinery and equipment, which, under ordinary circumstances, will last three years or more, such as engines, boilers, motors, etc. When any article which has been charged to this account is to be replaced, the asset account should be credited with the cost value placed on this item at the time of opening the books or at the time of subsequent purchase. Example: A piece of machinery costing $100 was replaced by a new one costing $150, cash being paid for the new article. The Journal entry would be made as follows:

DEBIT.		CREDIT.
$100	Reserve for Depreciation on Machinery and Equipment.	
	Machinery and Equipment........................	$100
	(For discarded machine costing $100.)	
150	Machinery and Equipment.	
	Bank Account..................................	150
	(For purchase of new machine.)	

To the invoice value of any machinery purchased should be added any expense incurred, such as freight or installation charges. In case the amount set aside as Reserve for Depreciation on Plant is not sufficient to cover the original cost of the item replaced, the loss sustained should be charged to an account specifically captioned. Example: A boiler costing $150 was completely destroyed by an explosion. At the time the account Reserve for Depreciation on Machinery and Equipment shows a credit balance of $100. It was necessary to pay $200 for a similar boiler. The following Journal entries should be made:

DEBIT.		CREDIT.
$50	Reserve for Depreciation on Machinery and Equipment.	
100	Loss, boiler explosion.	
	Machinery and Equipment....................	$150
	(For loss on Machinery and Equipment on account of explosion.)	
200	Machinery and Equipment.	
	Bank account................................	200
	(For purchase of new boiler.)	

In the above entries it should be carefully noted that the full amount set aside as a Reserve for Depreciation on Machinery and equipment has not been entirely exhausted by this loss, inasmuch as this fund is set aside to cover depreciation on all the machinery and equipment, and only the relative proportion applying to the boiler can be charged to the reserve account.

The account, Loss, boiler explosion, should be periodically reduced by the following entry:

Debit.			Credit.
$10	Expense, boiler explosion.		
		Loss, boiler explosion........................	$10
		(For periodical charge to amortize loss resulting from explosion.)	

At the close of the fiscal year the account Expense, boiler explosion, should be carried to Loss and Gain account.

Tools (C 4).

Debit:	Credit:
1. With the estimated value of all the small tools as shown by the Balance Sheet at the time of opening the books.	1. With the book value of any tool sold and not replaced.

This account should include such articles as hammers, wrenches, and small hand tools, which will under ordinary circumstances last for a period of less than three years. Further discussion of this subject will be found under Tool Replacement. The supply of tools on hand should be inventoried at least once each year, and any large variation from this account should be adjusted.

Motor Vehicles (C 5).

Debit:	Credit:
1. With the cost of any trucks as shown by the Balance Sheet at the time of opening the books. 2. With the purchase price of new trucks.	1. With the book value of trucks disposed of or destroyed.

Office Furniture and Equipment (C 6).

Debit:	Credit:
1. With the total costs as shown by the Balance Sheet at the time of opening the books. 2. With additional purchases. 3. With freight, express, or drayage charges incident to purchase. 4. With cost of installation.	1. With the book value of any article sold, discarded, or destroyed.

This account should include such articles as desks, filing cases, adding machines, typewriters, ledger, journal binders, etc., which should last for an indefinite period of time. This equipment should be inventoried every year, and the account adjusted to agree with the actual value.

D. PREPAID EXPENSE.

Prepaid Insurance (D 1).

Debit:	Credit:
1. With the total amount of fire insurance premiums prepaid as shown by the Balance Sheet at the time of opening the books. 2. With the amount of fire insurance premiums paid.	1. At the close of the period with the portion of fire insurance premiums expired. 2. With the returned premium when any policy is canceled.

Usually policies run for a year and are paid for in advance. This payment is charged to the Prepaid Insurance account and represents an asset value. The amount is reduced periodically by a charge to Insurance Expense, the credit being carried to the Prepaid Insurance account.

Printing and Stationery (D 2).

Debit:	Credit:
1. With the estimated value of the stock on hand as shown by the Balance Sheet at the time of opening the books. 2. With the cost of all purchases during the period.	1. At the close of the period with the estimated value of the amount used during the period. 2. With any amount disposed of otherwise.

It is advisable to carry a Printing and Stationery account, inasmuch as such supplies will be purchased in quantities sufficient to cover several months' usage. Prorating the expense over the period during which it will be used is preferable to burdening the month in which the purchase is made with the entire cost and thus possibly affecting the profits for the period. In this case Printing and Stationery Inventory account will be credited with the value of the amount used, the corresponding debit being carried to Office Supplies.

LIABILITIES, RESERVES, AND NET WORTH.

F. CURRENT LIABILITIES.

Notes Payable (F 1).

Debit:	Credit:
1. With the amounts paid in partial or entire settlement of signed obligations. 2. With signed obligations given in renewal.	1. With the face value of all signed obligations of the organization as shown by the Balance Sheet at the time of opening books. 2. With the face value of any obligations subsequently issued.

Should a note be renewed, thus in effect giving a new note for the old note, debit this account for the face value of the old note, and credit the account with the amount of the new note.

A careful record should be maintained of all notes given, showing date issued, to whom, date of maturity, and rate of interest.

ACCOUNTS PAYABLE (F 2).

DEBIT:	CREDIT:
1. With payment on account. 2. With purchased goods returned for credit. 3. With allowances on purchases. 4. With cash discount on purchases.	1. With amounts due creditors on open accounts at time of opening the books as shown by the Balance Sheet. 2. With the invoice value of merchandise purchased on credit. (Debit the various Inventory or Expense accounts.)

Separate accounts should be opened for firms with which a large credit business is conducted currently. Miscellaneous accounts payable may be handled in one account under the caption Miscellaneous Accounts Payable.

It is not the intention to carry individual Ledger accounts with all the various creditors, owing to the fact that in many cases only a single purchase will be made from one concern and that practically all invoices will be paid during the period. Care must be exercised when entering checks to ascertain whether they should be charged to accounts payable when goods are purchased on credit, or to an inventory or expense account when goods are purchased for cash.

When the invoice has been credited to Accounts Payable, the check given in payment must be charged to Accounts Payable. As the canceled check is a sufficient receipt, it is suggested that invoices be stamped "Paid ———, 19—," and filed alphabetically for future reference.

A method preferable to that just described, especially for larger organizations, is the use of a voucher payable register, description of which may be found in most books on accounting.

ACCOUNTS PAYABLE PATRONS (F 3).

DEBIT:	CREDIT:
1. With the amount paid patrons by cash or check.	1. With the net amount due patrons as shown by the Balance Sheet at the time of opening the books. 2. At the close of the period with the net amount due patrons for deliveries during the period.

The liability to patrons will be closed at the time payment is made by a debit to Accounts Payable Patrons, the corresponding credit being made to Cash or Bank Account.

At the time of opening the books, it may occasionally be impracticable to determine the actual amount due the patrons, but this should be estimated as closely as possible, set up as a liability, and then any difference between the estimated and actual amounts should be charged or credited to Surplus Adjustment account. Example: If the estimated amount were $1,350 and the actual amount proved to be $1,410, the Journal entry at the time of payment would be:

DEBIT.		CREDIT.
$1, 035	Account Payable Patrons.	
60	Surplus Adjustment account.	
	Bank Account........................	$1, 410

If the estimated amount was $1,410 and the actual amount was $1,350 the entry at the time of payment would be:

Debit.		Credit.
$1,410	Account Payable patrons.	
	Surplus Adjustment account	$60
	Bank Account	1,350

In both the above cases the Accounts Payable Patrons account would be closed. The Surplus Adjustment account should be closed into Surplus account as described on page 22.

Notes Receivable Discounted (F 4).

Debit:	Credit:
1. With the face value of notes discounted when settled for either by maker of through payment by the organization to the bank.	1. With the face value of all notes receivable discounted as shown by the Balance Sheet at the time of opening the books. 2. With the face value of all notes subsequently discounted.

By referring to the explanation under Notes Receivable, it will be noted that mention was made of notes receivable discounted, the proceeds of which were debited to the Bank Account, thus raising a liablilty. In case a note that has been discounted is not paid at maturity, the organization will be obliged to make payment to the bank for the face value of this note, in which case the following entry will be made:

Debit.		Credit.
$100	Notes Receivable Discounted.	
	Bank Account	$100
	(For note of James Benton not settled for by him at maturity.)	

In case the note was met at maturity, the following entry would be made:

Debit.		Credit.
$100	Notes Receivable Discounted.	
	Notes Receivable	$100
	(For note of James Benton settled for by him at maturity.)	

In both the above cases the liability to the bank was liquidated—first, by payment of the obligation by the organization, and second, by the maker. Therefore, Notes Receivable Discounted should be debited in either case. In the first instance, however, the concern still owns the note against James Benton which is an asset for future disposal, while in the second instance the note will be canceled and returned to the maker.

When notes are discounted, the amount of the discount is to be considered as an expense and charged to an account called Interest Expense.

Debit.		Credit.
$490	Bank Account.	
10	Interest.	
	Notes Receivable Discounted	$500
	(For notes discounted at bank with 10 per cent discount.)	

COLLECTIONS ON NOTES DISCOUNTED (F 5).

DEBIT:	CREDIT:
1. With the amount paid to the bank to liquidate Notes Receivable Discounted.	1. At the end of the period with the total amount deducted from patrons' vouchers applying on Notes Receivable which have been discounted.

In organizing a new association, notes are frequently accepted in payment for subscription to capital stock, and then discounted at the bank, the proceeds being used for the purchase of necessary equipment. In payment of these notes a certain amount is deducted from the patrons' vouchers each period, and these collections should be paid to the bank to apply on patrons' notes receivable which have been discounted. In such cases the following Journal entry should be made:

DEBIT.		CREDIT.
\$100	Collections on Notes Discounted.	
	Bank Account............................	\$100
	(For payment to Blank Bank of collections received to date on patrons' notes discounted.)	

It will be evident that when the total of the payments to the bank for patrons' notes previously discounted equals the total of the face value of such notes, this liability will have been liquidated and the canceled notes should be returned to the organization or to the various makers. At this time an entry should be made debiting Notes Receivable Discounted and crediting Notes Receivable.

Such creameries deduct a certain fixed amount per pound on products delivered by the patrons during the period, the amount so deducted being applied on the payment of the notes. It is preferable to make this deduction in even dollars—\$1, \$3, etc.

ACCOUNTS PAYABLE HAULERS (F 6).

DEBIT:	CREDIT:
1. With the amount paid haulers.	1. With the amount due haulers as shown by the Balance Sheet at the time of opening the books. 2. With the amount due haulers for services during the period. (This amount is deducted from the patrons' vouchers.)

In some creameries the patrons employ haulers to deliver their product, the creamery paying the hauler, and later this payment is deducted on the patrons' vouchers. Such disbursements do not constitute an operating expense to the organization. When the creamery makes no charge to the patrons the hauling becomes an operating expense and should be handled as any other expense account. (See p. 26.)

G. ACCRUED LIABILITIES.

Interest Accrued (G 1).

Debit:	Credit:
1. With the interest accrued on notes receivable during the period.	1. With the interest received on notes receivable.
2. With the interest paid on notes payable.	2. With the interest accrued on notes payable during the period.

The above method is believed to be advisable for smaller concerns, however. When the amount of interest accrued on either notes receivable or notes payable is considerable, it is suggested that separate accounts be opened for each of the above items, showing Interest Accrued and Notes Receivable as an asset, and Interest on Notes Payable as a liability. (See also discussion under Interest, p. 30.)

Payroll (G 2).

Debit:	Credit:
1. With all amounts paid to employees for services, including advances.	1. With the amount of unpaid labor as shown by the Balance Sheet at the time of opening the books.
	2. With the amount of the pay roll, including all advances, at the close of the period, as shown by the time sheet.

It is necessary to include all employees on the pay roll regardless of the department in which they are employed. The following Journal entry, which should be made at the end of each period, will illustrate the operation of this account. Example: The entire pay roll is $400 and $20 has been advanced during the period.

JOURNAL ENTRIES.

Debit.		Credit.
$135	Factory Labor.	
265	Office Labor.	
	Payroll	$400
	(For periodical pay roll.)	
380	Payroll.	
	Bank Account	380
	(For payment of periodical pay roll.)	

Inasmuch as the $20 was charged to the Payroll account at the time the advance was made, the credit of $380 to the Bank Account will close the Payroll account.

Occasionally an employee may desire an advance on his labor account, in which case the Payroll account should be debited for the amount advanced. It is not considered advisable to carry Ledger accounts with employees because of cash advances, but very careful note should be made of such advances to prevent duplicating the payment.

Should an employee purchase merchandise, the sale should be charged to his personal account. At the end of the period, or whenever the pay roll is made up, a check should be drawn in favor of the employee for the full amount of his wages. The employee should then settle his account in the regular way. By following this procedure the records will reflect clearly the transactions involved.

The following Journal entry will illustrate this procedure:

DEBIT.		CREDIT.
$8.50	John Jones.	
	Merchandise Sales	$8. 50
	(For sale of merchandise to John Jones, employee.)	

John Jones would then receive his entire wages and would settle for his account by the following transactions:

DEBIT.		CREDIT.
$8.50	Cash.	
	John Jones	$3. 50
	(For payment of John Jones' account.)	

TAXES ACCRUED (G 3).

DEBIT:	CREDIT:
1. With the amount actually paid for taxes.	1. With the amount of accrued taxes as shown by the Balance Sheet at the time of opening the books. 2. At the close of the period with its proportion of estimated annual taxes.

At the beginning of the fiscal year an estimate of the taxes which will become due during the succeeding 12 months should be made. The amount of this estimate, if given careful consideration, can be made to approximate very closely the taxes which are actually assessed. Normally, this amount will show a credit balance which represents the liability for taxes accrued but not due. However, when the tax payment is made during the fiscal year there will be a debit balance. This will be gradually adjusted as the periodical entries are made. Any balance on this account after the yearly taxes have been paid should be transferred at the end of the fiscal year to the Taxes account.

H. RESERVES.

RESERVE FOR DOUBTFUL ACCOUNTS (H 1).

DEBIT:	CREDIT:
1. With all accounts charged off as uncollectible.	1. With the amount reserved to cover doubtful accounts as shown by the Balance Sheet at the time of opening the books. 2. At the close of each period with its proportion of estimated annual loss due to bad accounts.

Any collections received on an account that has been previously charged off should be credited to this account. This periodical charge should be based on the amount of annual sales and previous losses from this source.

RESERVE FOR DEPRECIATION ON MOTOR VEHICLES (H 2).

Debit:	Credit:
1. With the book value of any item discarded or replaced by new equipment.	1. With the amount of reserve as shown by the Balance Sheet at the time of opening the books. 2. At the close of the period with the proportion of annual loss resulting from wear, tear, or obsolescence. 3. With the amount received from the sale of scrapped or discarded equipment.

It is suggested that a rate of not less than 25 per cent be charged off annually.

RESERVE FOR DEPRECIATION ON PLANT (H 3).

Debit:	Credit:
1. With the book value of any item discarded or replaced by new equipment.	1. With the amount of reserve as shown by the Balance Sheet at the time of opening the books. 2. At the close of the period with the proportion of annual loss due to wear, tear, and obsolescence. 3. With the amount received from the sale of any disacrded or scrapped material.

Owing to the conditions existing in some types of plants and to the peculiar nature of the work involved, the wear and tear on equipment is excessive. Special consideration should be given to these plant conditions in order that adequate reserves for depreciation may be provided.

In an organization where a more detailed segregation of accounting data is desired, this account should be replaced by a separate account showing reserves for depreciation on buildings, machinery, equipment, etc.

RESERVE FOR DIVIDENDS PAYABLE (H 4).

Debit:	Credit:
1. At the time of payment with the total of checks paid to the stockholders as dividends.	1. At the close of the period with the proportion of the annual dividend to the stockholders. (Debit Dividend Appropriation.)

It can be readily understood that those stockholders who have loaned their money to the organization, taking certificates of stock as security thereon, are entitled to be reimbursed for the use of their money, and in many instances this reimbursement is authorized by the by-laws. However, only those stockholders whose subscriptions have been fully paid should receive any share of the dividend payment. A periodical entry should be made as follows:

Debit.		Credit.
$50.	Dividend Appropriation.	
	Dividends Payable..................	$50.
	(To set aside an amount to be used in paying dividends at the close of the fiscal year.)	

At the end of the fiscal year sufficient funds should have been reserved to cover the dividend. When the dividend checks are written an entry should be made debiting Dividends Payable account and crediting Bank Account. In case this entry does not close the Dividends Payable account, it should be closed by a debit or credit, as the case may be, to Surplus Adjustment.

The Dividends Payable account will be carried only by cooperative creameries. It should be constantly borne in mind that the dividends thus provided are not deductible as an expense item in computing the income tax.

SINKING FUND RESERVE.

In the by-laws of a large number of creameries there is found a provision for the creation of what is called a sinking fund. This so-called sinking fund is created by withholding from the income distributable to patrons a certain amount per pound of butter fat received. This fund is to be used to pay the expenses of the creamery.

Referring to the definition of a sinking fund given on page 9 it is at once evident that the mere withholding from patrons of a certain amount per pound of butter fat received will not establish a sinking fund, or anything which in any way resembles such a fund, inasmuch as the amount provided by the by-laws has not been "withdrawn from the general funds of the business," nor has it been "invested in securities or deposited in a savings account." In reality the only thing which has been accomplished is the placing of a limit on the operating expenses and the creating of a reserve against which certain expenses are chargeable. Under this method part of the expenses are charged into the Loss and Gain account at the end of the year, and another part (those charged to Sinking Fund Reserve) are not. It is then impossible to determine from the books the cost of operating the business without considerable additional work and only an expert bookkeeper is able to prepare a statement which will show the true cost.

Too little consideration is given to the fact that on account of the variation in the total operating expense from month to month, deductions for expense based on an estimate must necessarily be either more or less than the actual expense. Either will affect the returns from future operations; a deficit will require that deductions be made from income in addition to those necessary for current expenses, and a surplus will make necessary the distribution of the previous year's earnings thus accumulated. For this reason it has been found that the creation of a reserve to meet expenses is extremely undesirable, and it is recommended that the by-laws of creameries operating under this plan be amended, and that such a plan be omitted in the organization of new creameries. This method of controlling expenses serves no useful purpose and the greatest benefits to all concerned would result if it could be replaced by a more modern and efficient one.

However, numerous creameries will probably retain this clause in their by-laws, and therefore the accounting procedure necessary in such cases will be discussed here. When the by-laws contain the provisions just referred to, the term Operating Reserve should be used to indicate the account to which will be credited all income withheld from distributions to patrons for this purpose of meeting expenses. The terms Sinking Fund Reserve (see p. 20) and Sinking Fund must not be used in this connection.

OPERATING RESERVE.

DEBIT:	CREDIT:
1. With all expenditures which this reserve is created to meet.	1. With amounts withheld from distribution to patrons for the purpose of meeting expenses.

Unusual losses, new equipment, and other items are frequently included in this account, as well as the expense items for which the account was created. This should never be done. The amounts set aside to defray expenses are charged into the Loss and Gain account against gross income, and will ordinarily be allowable as a deduction in preparing income tax returns, whereas amounts set aside to provide for unusual items are not allowed as a deduction in preparing such returns, and are not chargeable in the Loss and Gain account against gross income.

Should it be desirable to set up a reserve to meet a contingency which may arise in the future, a special account should be opened for this purpose.

SINKING FUND RESERVE (H 5).

Debit:	Credit:
1. With the amount of the sinking fund when the obligations for which it was created have been paid. (Credit Surplus.)	1. With the amount to be set aside periodically to provide for the payment of a fixed obligation at some future time. (Debit Sinking Fund Appropriation.)

It should be noted, also, that a Sinking Fund Reserve can be created out of profits, whether or not a sinking fund as described on page 9 has been created.

I. NET WORTH.

CAPITAL STOCK (I 1).

Debit:	Credit:
1. With the par value of shares retired or canceled.	1. With the par value of all shares issued as shown by the Balance Sheet at the time of opening the books. 2. With the par value of all shares sold subsequently.

The capital stock of a corporation is divided into shares, each share usually having a designated par value. These shares may be transferred from one individual to another without affecting the capital of the corporation. The ownership of a share of capital stock is evidenced by a stock certificate.

In organizing a corporation, a subscription list should first be prepared, the signers of which bind themselves by law to purchase the number of shares subscribed. No certificate of stock should be delivered to a stockholder until his subscription has been fully paid. Until such payment is made, a temporary certificate may be given to the subscriber to be exchanged for the regular stock certificate on completion of payment.

When a subscription list has been prepared and the corporation formed on this basis, it is often provided that the subscription may be paid in installments. To credit these partial payments direct to the capital stock account is undesirable. In view of this, when the subscription list has been completed an entry should be made debiting Subscription account and crediting Capital Stock account for the amount subscribed. When payments of the subscription are made, either by cash or note, in full or in part, these payments should be credited to Subscription account and not to Capital Stock account. The following entries will illustrate:

Debit		Credit.
$10,000	Subscription account.	
	Capital stock	$10,000

For subscription shown on subscription list No. 1.

Debit.		Credit.
$4,000	Cash.	
1,000	Notes Receivable.	
	Subscription account	$5,000

50 per cent payment of the following subscriptions:
(List of those making payment.)

In case the entire capital stock is paid at one time, the following method might be used.

Entries to illustrate issue of capital stock and payment thereof:

Debit.		Credit.
$8,000	Cash.	
2,000	Notes Receivable.	
	Capital Stock	$10,000

(Representing payment of capital stock issued to the following:)

When shares of stock are acquired or sold for more or less than par value, the premium or discount should be charged or credited as the case may be to Premium and Discount on Capital Stock account. For example, if a going concern desires to sell additional shares, the shares being above par in value, an entry should be made as follows:

Debit.		Credit.
$105	Cash.	
	Capital Stock	$100
	Premium and Discount on Capital Stock	5

(For sale of one share of stock at $5 premium.)

Likewise, if shares were sold at a discount, there would be a debit to Premium and Discount on Capital Stock.

The balance in this account should be written off into the Surplus account by periodical charges usually extending over a term of years.

It occasionally happens that capital stock is offered for sale, and is purchased by the organization, to be held for resale at some future date. While this transaction may seem to resemble closely a retirement of the capital stock so purchased, and as such chargeable to the Capital Stock account, accountants generally have preferred to charge a purchase made in this manner to an account called Treasury Stock. In case the purchase was made above par, the entry should be:

Debit.		Credit.
$105	Treasury Stock.	
	Cash	$105

(For purchase of one share of stock from Chas. Brown at $5 premium.)

When Treasury Stock is sold, the total amount received from such sale should be credited to the Treasury Stock account. Although it is not incorrect to charge the par value of this purchase to Capital Stock, it is a procedure not to be recommended.

In case the organization is not a corporation, but a partnership, sole ownership, or association, the Capital Stock account would be replaced by accounts indicating the ownership, membership, or amount of certificate of indebtedness outstanding.

SURPLUS (I 2.)

DEBIT:	CREDIT:
1. With any debit balance of the Loss and Gain account at the close of the fiscal year.	1. With the amount of surplus as shown by the Balance Sheet at the time of opening the books. 2. With the net profit as shown by the credit balance of the Loss and Gain account at the close of the fiscal year.

Any balance from the Surplus Adjustment account should be carried to the Surplus account at the end of the fiscal year, either as a debit or credit. In many organizations the Surplus account represents the excess of assets over liabilities and capital stock. However, when a certain amount, commonly called a Reserve for Sinking Fund (see p. 19), is set aside out of earnings each year to retire the capital stock at a definite time, this reserve, together with the Capital Stock and Surplus, equals the excess of assets.

When the opening Balance Sheet shows the liabilities, capital stock, and accumulated reserves to be in excess of the total assets including good will, the Surplus account will show a debit balance. When this is the case there has evidently been a loss through operation which in reality amounts to an impairment of capital. The amount of such debit balance should be debited to an account captioned Deficit. At the close of each following fiscal year, the Loss and Gain account and the Surplus Adjustment account should be closed into this account until the deficit is written off.

The Deficit account is in reality the debit side of the Surplus account, but should be carried under a different caption. For example, if there is no surplus and a Loss is sustained during the year, the loss shown by the debit balance of the Loss and Gain account is an impairment of the capital and should be carried to the Deficit account by the following Journal entry:

DEBIT.		CREDIT.
$1,500	Deficit.	
	Loss and Gain	$1,500

(To close Loss and Gain into Deficit account.)

If the company makes a net profit of $2,000 during the succeeding year, the Journal entry will be as follows:

DEBIT.		CREDIT.
$2,000	Loss and Gain.	
	Deficit	$1,500
	Surplus	1,500

(To close the Deficit and Loss and Gain account.)

LOSS AND GAIN (I 3).

DEBIT:	CREDIT:
1. With the balance of any account charged with purchases of raw material for manufacture. 2. At the close of the fiscal year or other accounting period with the debit balance of all Expense accounts.	1. With the balances of all Income accounts.

During the year it is frequently found that errors or omissions were made in the work of closing the books for the previous year. These corrections should not be made through the Loss and Gain account but by making the adjustments direct to the Surplus account or to a Surplus Adjustment account. Any unusual item of profit or loss, such as might arise from a sale of land, buildings, etc., must not be entered in the Loss and Gain account, but must be entered in the Surplus account.

By referring to the illustration on page 35, it will be seen that the result of the Income and Expense Statement is the showing of Net Profit. This is the balance of the Loss and Gain account. It is now desirable to show what disposition is made of the net income, and this is effected by the last section of the statement, captioned Distribution of Net Profit. This is sometimes accomplished by the use of another account called Undivided Profits. However, it seems that the same results may be accomplished by the method here shown, without opening the additional account in the Ledger.

INCOME ACCOUNTS.

J. SALES.

Butter Sales (J 1).

Debit:	Credit:
1. With the sale value of any butter that may be returned by a customer. 2. With the balance at the close of the fiscal year. (Credit Loss and Gain.	1. At the close of each period with the total sales during the period.

Cream Sales (J 2).

Debit:	Credit:
1. With the sale value of any cream that may be returned by a customer. 2. With the balance at the close of the fiscal year. (Credit Loss and Gain.)	1. At the close of the period with the total sales during the period.

Milk Sales (J 3).

Debit:	Credit:
1. With the sale value of any milk that may be returned by a customer. 2. With the balance at the close of the fiscal year. (Credit Loss and Gain.)	1. At the close of the period, with the total sales during the period.

Cheese Sales (J 4).

Debit:	Credit:
1. With the sale value of any cheese that may be returned by a customer. 2. With the balance at the close of the fiscal year. (Credit Loss and Gain.)	1. At the close of the period, with the total sales during the period.

BUTTERMILK SALES (J 5).

DEBIT:

1. With the sale value of any buttermilk that may be returned by a customer.
2. With the balance at the close of the fiscal year. (Credit Loss and Gain.)

CREDIT:

1. At the close of the period, with the total sales during the period.

K. MISCELLANEOUS INCOME.

MERCHANDISE SALES (K 1).

DEBIT:

1. With the sale value of any merchandise that may be returned by a customer.
2. With the balance at the close of fiscal year. (Credit Loss and Gain.)

CREDIT:

1. At the close of the period, with the total sales during the period.

This account is to take care of sales of miscellaneous merchandise, such as eggs, grain, etc.

The credit balances of all Sales accounts should be credited to Loss and Gain at the close of the fiscal year, thus closing the Sales accounts.

Any sales to patrons of supplies, packages and liners, salt, ice, or other merchandise, which are used in the manufacture, packing, or shipping of products should be credited to the Inventory accounts affected, and debited to Patrons' Accounts Receivable.

DISCOUNT RECEIVED (K 2).

DEBIT:

1. With the credit balance at the close of the fiscal year. (Credit Loss and Gain.)

CREDIT:

1. With any income arising from cash discounts deducted from invoices paid.

EXPENSE ACCOUNTS.

L. RAW MATERIAL.

BUTTER FAT PURCHASES (L 1).

DEBIT:

1. With the amount to be paid to the patrons for butter fat delivered during the period.

CREDIT:

1. With the amount of undistributed balance.
2. With the debit balance at the close of the fiscal year. (Debit Loss and Gain.)

There are two distinct methods of settling with patrons for deliveries of butter fat. The first method is to pay according to the market quotations regardless of operating expense; the second is to pay the patrons the entire net income, that is, the total receipts from product, less the total expense. The second method is to be followed in nearly all cooperative creameries.

In creameries following the first procedure, the periodical debit to butter-fat purchases will be the total of deductions for butter delivered to patrons for hauling, for supplies sold to patrons, for collections on notes, etc., as well as payments in cash or by check, as shown by the recapitulation of patrons' vouchers on the Patrons' Settlement Sheet.

Suppose that the Patrons' Settlement Sheet at the close of the period shows:

Amount to be paid by check	$9, 500
Butter sales to patrons	450
Supplies sold to patrons	40

The entry would be:

Debit.		Credit.
$9,900.	Butter Fat Purchases.	
	Patrons' Accounts Receivable—Butter Sold	$490
	Accounts Payable Patrons	9, 500

The procedure under the second method is fully described on page 20, U. S. Department of Agriculture Bulletin 559, "Accounting Records for Country Creameries." However, it has been found desirable to substitute for the account Patrons' Overdrafts, the account Patrons' Accounts Receivable, operation of which is described on page 7 of this bulletin.

In some creameries any balance undistributed is allowed to accumulate and is distributed at a later date in the form of a patronage dividend. When this is done, the undistributed balance should be credited to an account captioned Patronage Dividend account and should not be carried forward to the next Operating Statement.

A patronage dividend is in reality a deferred payment and is advised against, as it necessitates considerable clerical labor, with no apparent advantage. The Patronage Dividend account would be closed by debit, and the corresponding credit to the Bank account.

The Undistributed Balance account is not raised in the Ledger, inasmuch as it is immediately closed by a debit, the corresponding credit being carried to Butter Fat Purchases.

However, in preparing a Balance Sheet, such undistributed balance should be shown as a part of the liabilities as illustrated on page 34.

Skim Milk Purchases (L 2).

Debit:	Credit:
1. With the amount due patrons for skim milk purchased during the period.	1. With the debit balance at the close of the fiscal year. (Debit Loss and Gain.)

Underpayments and Overpayments (L 3).

Debit:	Credit:
1. With the amount paid to patrons on account of errors in vouchers.	1. With the amount received from patrons on account of errors in vouchers.

This account would be used only by creameries operating on the cooperative plan; when it would be shown on the Operating Statement as all other expenses.

Should it happen that an error is made in figuring a patron's voucher, any balance due him should be immediately paid upon verification as to the accuracy of the claim and the amount carried to the debit of this account.

In case an overpayment has been made to a patron, he should be induced, if possible, to reimburse the company immediately. Otherwise the amount will appear as a deduction on his next voucher, which is undesirable. Such refunds will be a credit to this account.

The balance of this account should be carried to Butter Fat Purchases' account, either as a debit or credit, as the case may be, before the Loss and Gain account is written up.

AUTOMOBILE TRUCK OPERATION (L 4).

Debit:	Credit:
1. With all expenses incurred for oil, gasoline, rent, driver's wages, license fees, and cleaning.	1. With the debit balance at the close of the fiscal year. (Debit Loss and Gain.)

If the situation warrants, a separate labor account under Collection and Delivery Expenses may be maintained, but in most cases this would be an unnecessary segregation. The Automobile Truck Operation expense account should show the expense of actual operation, exclusive of repairs.

REPAIRS ON AUTOMOBILE TRUCK (L 5).

Debit:	Credit:
1. With the cost of all items of repairs on automobile trucks during the period.	1. With the debit balance at the close of the fiscal year. (Debit Loss and Gain.)

Considerable care must be exercised in determining what should be charged to this account. These charges should include repairs of all sorts, but should not include charges for replacement of entire unit. Additional equipment to a truck increasing its valuation should be charged to Automobile Truck Inventory account.

DEPRECIATION ON AUTOMOBILE TRUCKS (L 6).

Debit:	Credit:
1. At the close of the period, with proportion of annual reserve set aside to cover the estimated wear and tear on automobile truck.	1. With the debit balance at close of the fiscal year. (Debit Loss and Gain.)

HAULING EXPENSE.

In some orgainzations this expense, or a part of it, is paid by the patrons. When the entire cost is so paid, the proper method of bookkeeping is described under Accounts Payable Haulers on page 15. However, when any part of this cost is paid by the creamery, an account captioned Hauling Expense should be opened under the Raw Material account. All amounts paid to haulers would be charged to this account, and all charges to producers would be credited to this account. The debit balance would represent the expense to the creamery of collecting the raw material.

M. OPERATING EXPENSE.

LABOR (M 1).

Debit:	Credit:
1. With the amount actually earned for the period by all factory employees as shown by the time sheet. (Credit Payroll account.)	1. With the debit balance at the close of the fiscal year. (Debit Loss and Gain.)

It will be noticed that this account is not charged with *advances* to employees nor with the amount *paid* to employees, but with the amount actually *earned* during the period. All payments, of whatever nature, are charged to Payroll account. (See p. 16.)

POWER AND REFRIGERATION (M 2).

Debit:	Credit:
1. With the cost of all material of any nature used as fuel in producing power. 2. With the cost of electricity used for light and power. 3. With the cost of water. 4. With cost of all materials used in refrigerating machines or ice boxes (such as ammonia, calcium, ice, etc.).	1. With the debit balance at the end of the fiscal period. (Debit Loss and Gain.)

In those organizations which desire detailed information relative to the cost of power and refrigeration, this account should be replaced by others which will give the desired detail.

MANUFACTURING SUPPLIES (M 3).

Debit:	Credit:
1. With the cost of all materials used in the process of manufacturing, such as packages and liners, salt, butter color, starter, etc.	1. With debit balance at the end of the fiscal period. (Debit Loss and Gain.)

REPAIRS ON PLANT (M 4).

Debit:	Credit:
1. With the total amount expended for repairs to buildings, machinery, and equipment, as shown by invoice or other vouchers.	1. With the debit balance at the close of the fiscal year. (Debit Loss and Gain.)

Considerable care must be exercised in determining what should be charged to this account. These charges should include repairs of all sorts but should not include charges for replacement of entire units. The various invoices covering such expenditures should be carefully analyzed and treated individually.

Another method of taking care of these expenses for repairs to machinery and equipment, as well as to buildings, is to set up a Reserve for Depreciation on both these assets sufficient to cover all such expenses. This latter method is being recommended by some accountants.

DEPRECIATION ON PLANT (M 5).

Debit:	Credit:
1. At the close of the period with the proportion of the annual reserve set aside to cover the estimated wear, tear, and obsolescence on buildings and machinery and equipment.	1. With the debit balance at the close of the fiscal year. (Debit Loss and Gain.)

The periodical proportion of the wear and tear on the plant is an expense and should be very carefully estimated. The question of the proper rate to apply as a charge for depreciation for an entire plant is one that can hardly be covered by a general statement, as local conditions are rarely comparable. In some instances a machine may last five years; in others it may last hardly a year, depending upon its load and care. The rate of depreciation will vary from 3 per cent in some cases to 20 per cent, depending upon the kind of building and machinery in use.

TOOL REPLACEMENT (M 6).

Debit:	Credit:
1. With the total amount expended for small tools during the period.	1. With the debit balance at the close of the fiscal year. (Debit Loss and Gain.)

Inasmuch as the investment in small tools will remain substantially the same at all times, it is suggested that in order to avoid taking an inventory and setting up a Reserve for Depreciation on Tools, all purchases be carried direct to Tool Replacement expense. This method is believed to be much more simple and satisfactory than that of maintaining a depreciation account as in the case of machinery and equipment.

N. ADMINISTRATION AND SELLING.

EXPRESS, FREIGHT, AND DRAYAGE (N 1).

Debit:	Credit:
1. With any cost of freight, express, and drayage on inbound goods when such an expense can not be allocated to a particular inventory account. 2. With any cost of freight, express, and drayage on product shipped.	1. With the debit balance at close of the fiscal year. (Debit Loss and Gain.)

All other charges for freight, express, or drayage should be charged direct to the inventory account for the article purchased.

TELEPHONE, TELEGRAPH, AND POSTAGE (N 2).

Debit:	Credit:
1. With the total amount expended during the period for items of postage, telegraph, telephone, and messenger fees.	1. With the debit balance at close of the fiscal year. (Debit Loss and Gain.)

OFFICE SALARIES (N 3).

Debit:	Credit:
1. With any amount actually earned by office employees applying to the period covered by the pay roll. (Credit Payroll account.)	1. With the debit balance at close of the fiscal year. (Debit Loss and Gain.)

For further discussion on handling this account, see Labor Expense and the comments under Payroll.

OFFICE SUPPLIES (N 4).

Debit:	Credit:
1. At the close of the period with the estimated amount of printing, stationery, and supplies consumed. (Credit Printing and Stationery Inventory.) 2. With the cost of current purchases of small supplies.	1. With the debit balance at close of the fiscal year. (Debit Loss and Gain.)

As it is impracticable to determine the exact amount consumed periodically, a iberal estimate of the consumption, rather than an attempt at actual inventory, should be charged to this account.

TAXES (N 5).

Debit:	Credit:
1. At the close of the period with the proportion of the annual tax chargeable to the period. (Credit Taxes Accrued.)	1. With the debit balance at close of the fiscal year. (Debit Loss and Gain.)

INSURANCE (N 6).

Debit:	Credit:
1. At the close of the period with the proportion of the annual amount chargeable to the period. (Credit Prepaid Insurance.)	1. With the debit balance at close of the fiscal year. (Debit Loss and Gain.)

INTEREST (N 7).

DEBIT:	CREDIT:
1. At the close of the period with the interest accrued during the period on Notes Payable. (Credit Interest Accrued.) 2. With the discount charged on notes receivable discounted.	1. At the close of the period with the interest accrued during the period on notes receivable.

The debits or credits offsetting the entries of interest accrued will be made to the Interest Accrued account. At the close of the fiscal year the debits of this account should be transferred to the debit of the Loss and Gain account, and the credits should be transferred to the credit of Loss and Gain account.

The above method is advisable for small concerns. However, in case both interest paid and interest earned be considerable, it is suggested that separate accounts be opened for Interest Expense and Interest Earned.

LOSS FROM BAD ACCOUNTS (N 8).

DEBIT:	CREDIT:
1. At the close of the period with the proportion of the estimated annual loss through bad accounts. (Credit Reserve for Doubtful Accounts.)	1. With the debit balance at the close of the fiscal year. (Debit Loss and Gain.)

MISCELLANEOUS EXPENSE (N 9).

DEBIT:	CREDIT:
1. With the cost of any items of expense not chargeable to any of the foregoing accounts.	1. With the debit balance at the close of the fiscal year. (Debit Loss and Gain.)

To this account should be charged donations to charitable organizations and any other expense that can not be charged to any of the other accounts.

O. PURCHASES.

MERCHANDISE PURCHASES (O 1).

DEBIT:	CREDIT:
1. With the cost of all merchandise purchased for direct sale during the period.	1. With the debit balance at the close of the fiscal year. (Debit Loss and Gain.)

P. APPROPRIATION ACCOUNTS.

Dividend Appropriation (P1).

Debit:	Credit:
1. At the close of the period with the proportion of annual dividend chargeable to the period. (Credit Reserve for Dividends Payable.)	1. With the debit balance at the close of the fiscal year. (Debit Loss and Gain.)[2]

For further discussion, see Reserve for Dividends Payable, page 18.

Sinking Fund Appropriation (P2).

Debit:	Credit:
1. With the amounts deducted from gross income as authorized by the by-laws or by order of the Board of Directors. (Credit Sinking Fund Reserve.)	1. With the debit balance at the close of the fiscal year. (Debit Loss and Gain.)[2]

For further discussion, see Sinking Fund Reserve, page 19.

TRIAL BALANCE.

While the Trial Balance is not a financial statement, it serves to prove the postings of the entries to the Ledger from the books of original entry. It is a summary of the various balances as they appear in the Ledger and should be drawn off before closing the Expense and Income accounts into the Loss and Gain account. If no mistake has been made in posting to the Ledger, the total of the debits will equal a total of the credits. A trial balance should always be taken at the end of every period and all errors should be located and corrected at once.

CLOSING THE BOOKS.

Preparatory to closing the books, an inventory should be taken of all supplies on hand and should be written up in permanent form. With it should be included a schedule of expense items, such as postage, stationery, and supplies on hand, and of the unconsumed balances of such accounts as Prepaid Insurance and Prepaid Taxes.

The balances of all Expense, Income, and Purchase accounts should be transferred to the Loss and Gain account in order to ascertain the net income or loss for the season's operation. The accounts should then be ruled, and the balance brought down. This balance is the net income for the year. Against this net income should then be charged the balances of the Dividend Appropriation and Sinking Fund Appropriation accounts. The balance of the Loss and Gain account should then be transferred to the Surplus account.

After the books are closed and a post-closing Trial Balance has been taken to prove the mechanical accuracy of the work, the various financial statements are made up for presentation to the Board of Directors.

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[2] Care should be exercised that this balance be transferred to Loss and Gain only after the net income has been determined, as shown by the form illustrated on page 35 and 36.

The following Journal entries will illustrate the procedure necessary to close the books:

ENTRY NO. 1.

DEBIT.		CREDIT.
000	Butter Sales.	
000	Cream Sales.	
000	Milk Sales.	
000	Cheese Sales.	
000	Buttermilk Sales.	
000	Merchandise Sales.	
	Loss and Gain	000
	(To close the Sales accounts into Loss and Gain.)	

ENTRY NO. 2.

000	Discount Received.	
	Loss and Gain	000
	(To close the Discount Received account into Loss and Gain.)	

ENTRY NO. 3.

000	Loss and Gain.	
	Butter Fat Purchases	000
	Skim Milk Purchases	000
	Merchandise Purchases	000
	(To close the Purchase accounts into Loss and Gain.)	

ENTRY NO. 4.

000	Loss and Gain.	
	Labor	000
	Power and Refrigeration	000
	Manufacturing Supplies	000
	Repairs on Plant	000
	Tool Replacement	000
	Depreciation on Plant	000
	Automobile Truck Operation	000
	Repairs on Automobile Truck	000
	Depreciation on Automobile Truck	000
	Express, Freight, and Drayage	000
	Telephone, Telegraph, and Postage	000
	Office Salaries	000
	Office Supplies	000
	Underpayments and Overpayments	000
	Taxes	000
	Insurance	000
	Interest	000
	Loss from Bad Accounts	000
	Miscellaneous	000
	(To close the Expense accounts into Loss and Gain.)	

At this point the Loss and Gain account should be ruled and the balance brought down as net income or net loss. The following entry should then be made:

DEBIT.		CREDIT.
000	Loss and Gain.	
	Dividend Appropriation	000
	Sinking Fund Appropriation	000
	(To close the Appropriation accounts into Loss and Gain.)	

The balance of the Loss and Gain account should then be transferred to the Surplus account upon direction of the Board of Directors.

BALANCE SHEET.

After closing the Expense and Income accounts into Loss and Gain there will remain in the Ledger the Asset, Liability, Reserve, and Net Worth accounts, which are the Balance Sheet accounts. As has previously been stated, the Assets accounts should be arranged on the left-hand side of the Balance Sheet in the order of their probable cash realization and the Liabilities and Net Worth accounts arranged on the right-hand side in the order of their probable priority as to liquidation. The purpose of the Balance Sheet is to present the assets and liabilities of the organization in concrete form and reveal the net worth as at a certain time. It is one of the most important statements to be prepared and should show by comparison with former similar statements, the financial progress of the organization.

The following form of a Balance Sheet is recommended as a model to be used in preparing these statements. Attention is invited to the fact that while the Ledger shows the various reserves for depreciation as a credit balance, they are shown on the Balance Sheet as a deduction from assets, and also that while good will may be considered as an intangible asset, it is shown on the credit side of the Balance Sheet as a deduction from the Net Worth accounts. This procedure is in conformity with the recommendation of the Federal Reserve Board.

Balance Sheet as at December 31, 19—.

BLANK CREAMERY COMPANY.

Account No.	Assets.	Current year.	Last year.
	Current Assets:		
	Cash—		
A 1	On Hand		
A 2	In Bank		
A 3	Notes Receivable		
	Interest Accrued on Notes Receivable		
A 4	Accounts Receivable		
H 1	Less Reserve for Doubtful Accounts		
A 5	Patrons' Account Receivable		
	Inventories—		
A 6	Manufactured Product: Butter		
A 7	Operating Supplies		
	Total Current Assets		
B 1	Sinking Fund		
	Fixed Assets:		
C 1	Land		
C 2	Buildings		
C 3	Machinery and Equipment		
H 3	Less Reserve for Depreciation on Plant		
C 4	Tools		
C 5	Motor Vehicles		
H 2	Less Reserve for Depreciation		
C 6	Office Furniture and Equipment.		
	Total Fixed Assets		
	Prepaid Expense:		
D 1	Prepaid Insurance		
D 2	Printing and Stationery		
	Total Prepaid Expense		
	Totals		

Account No.	Liabilities.	Current year.	Last year.
	Current Liabilities:		
F 1	Notes Payable		
F 2	Accounts Payable		
F 3	Accounts Payable Patrons		
	Undistributed Balance[1]		
F 4	Notes Receivable Discounted		
F 5	Collections on Notes Discounted.		
	Accrued Liabilities—		
G 1	Interest Accrued on Notes Payable.		
G 2	Payroll		
G 3	Taxes Accrued		
	Total Current Liabilities		
	Reserves:		
H 6	Dividends Payable		
H 7	Sinking Fund		
	Total Reserves		
	Net Worth:		
I 1	Capital Stock Authorized		
	Less Unsubscribed		
I 2	Surplus and Undivided Profits		
	Less Deficit		
	Total Net Worth		
	Totals		

[1] To be distributed to patrons the following month.

INCOME AND EXPENSE STATEMENT.

The Income and Expense Statement is an itemized statement of the entries made to the Loss and Gain account, arranged in such a way as to set forth clearly the results of the operations of the periods involved.

The following form of Income and Expense Statement will be found convenient for exhibiting the operations of the creamery for either a monthly or a yearly period. Whenever possible a monthly statement of income and expense is advised. In the past no standard form of Income and Expense Statement has been used; therefore, this form should fill a very definite need. By its use not only the stockholders and directors may follow the details of the business, but a ready comparison may be made between the costs of operation of various periods.

The amounts shown as sales and purchases in this statement should be net figures. That is, merchandise returned by the buyer should be deducted from the total sales, and merchandise returned by the company to the concern from whom it was purchased should be deducted from the total purchases.

In preparing the trading section of the Income and Expense Statement, it will be found that a space is provided for showing the inventory at the beginning of the period separately from the purchases. If the entries have been made in the order provided, the amount of the inventory existing at the close of the previous period should be the first item in the various Purchase accounts. By deducting this amount from the balance on the Purchase accounts the purchases for the period may be found.

THE BLANK CREAMERY COMPANY, BLANK, VERMONT.

Income and Expense Statement for ...., 19—.

Account No.		Current year.			Last year.		
J 1	Butter Sales	....			....		
J 2	Cream Sales	....			....		
J 3	Milk Sales	....			....		
J 4	Cheese Sales	....			....		
J 5	Buttermilk Sales	....			....		
	Total Sales		....			....	
	Less Returned Sales		....			....	
	Net Sales			....			....
	Raw Material:						
L 1	Butter Fat Purchases	....			....		
L 2	Skim Milk Purchases	....			....		
L 3	Underpayments and Overpayments	....	....		....	....	
	Collection Expense:						
L 4	Auto Truck Operation	....			....		
L 5	Repairs on Auto Trucks	....			....		
L 6	Depreciation on Auto Trucks	....	....		....	....	
	Total Cost of Raw Material		....			....	
	Operating Expense:						
M 1	Labor	....			....		
M 2	Power and Refrigeration	....			....		
M 3	Manufacturing Supplies	....			....		
M 4	Repairs on Plant	....			....		
M 5	Depreciation on Plant	....			....		
M 6	Tool Replacement	....			....		
	Total Operating Expense		....			....	
	Add:		....			....	
	Inventory beginning of year		....			....	
			....			....	
	Deduct:						
	Inventory end of year		....			....	
	Manufacturing Cost of Goods Sold			....			....
	Gross Profit			....			....

Income and Expense Statement for ...., *19*—Continued.

Account No.		Current year.			Last year.		
	Gross Profit forward			....			....
	Administration and Selling:						
N 1	Express, Freight, and Drayage	....			....		
N 2	Telephone, Telegraph, and Postage	....			....		
N 3	Office Salaries	....			....		
N 4	Office Supplies	....			....		
N 5	Taxes	....			....		
N 6	Insurance	....			....		
N 7	Interest	....			....		
N 8	Loss from Bad Accounts	....			....		
N 9	Miscellaneous Expense	....			....		
	Total Administration Expense			....			....
	Operating Profit			....			....
	Miscellaneous Income:						
K 1	Merchandise Sales		....			....	
O 1	Merchandise Purchases	....			....		
	Inventory beginning of year	....			....		
		....			....		
	Less Inventory end of year	....			....		
	Cost of Merchandise Sales		....			....	
	Merchandise Profit		....			....	
	Discount Received		....			....	
	Net Miscellaneous Income			....			....
	Net Profit			....			....
	Distribution of Net Profit:						
P 1	Dividend Appropriation		....			....	
P 2	Sinking Fund Appropriation		....			....	
I 2	Surplus		....			....	
	Total			....			....

INSTALLATION OF ADDITIONAL EQUIPMENT.

It may be well to discuss the procedure to be followed in case additional equipment is installed or new buildings are constructed to accommodate the expansion of the business. This expense may possibly be met by selling more capital stock. However, if the authorized capital stock has been entirely sold, this procedure would first necessitate receiving approval of the proper State officials to increase the capitalization. This method of securing additional funds is often impracticable, however, and the amount may be raised by placing a sufficient mortgage on the plant to meet the cost of the proposed expansion. In case the plant is mortgaged, an amount sufficient to liquidate the indebtedness at maturity will necessarily have to be deducted periodically from the gross earnings. This is the proper scope of the sinking fund as referred to in the first paragraph in this discussion. The interest on the mortgage should be paid annually and included in the Operating Expense. This amount deducted should be regularly deposited in a savings account, and there should in no case ever be a possibility of using this fund to pay current expenses.

However, if neither of the above methods can be adopted, it will then become necessary to anticipate the expansion and withhold periodically a certain amount from the earnings. The amount thus withheld should be deposited in a savings account and not merged with the ordinary bank account. The following entries will illustrate the procedure to raise the reserve and other accounts. Assume that $5,000 is the necessary amount to be raised for the purpose of installing a new refrigerating plant.

Debit.		Credit.
$1,000	Additional Equipment Appropriation (Refrigerating Plant).	
	Reserve for Additional Equipment..................	$1,000
	(Appropriation of income for purchase of refrigerating plant.)	
1,000	Savings Account.	
	Bank Account....................................	1,000
	(To set aside appropriation in special Savings account.)	

The above entries should be made periodically until the necessary amount has been raised.

Debit.		Credit.
$5,000	Bank Account.	
	Savings Account..................................	$5,000
	(To withdraw fund from Savings account, making it available for the purchase of refrigerating plant.)	
5,000	Refrigerating plant.	
	Bank Account....................................	5,000
	(For purchase of plant.)	
5,000	Reserve for Additional Equipment.	
	Surplus..	5,000
	(To close Reserve account into Surplus.)	

The required Ledger accounts would be:

Savings Account.

Debit:	Credit:
1. With the periodical deposits to apply on the purchase of the refrigerating plant.	1. With the amount withdrawn for the purpose of expansion.

Any remaining balance should then be carried to the regular checking account by a credit to this account and a debit to the Bank Account.

Refrigerating Plant.

Debit:	Credit:
1. With cost of new equipment at the time of purchase.	1. With the total book value of any part of the refrigerating plant sold or disposed of otherwise.

Reserve for Additional Equipment.

Debit:	Credit:
1. With the purchase price of new equipment covered by this reserve. (Credit to Surplus.)	1. With amounts periodically deposited in the Savings account for the purpose of expansion.

The balance of this account should be carried to the Surplus Adjustment account.

ADDITIONAL EQUIPMENT APPROPRIATION.

Debit:	Credit:
1. At the close of the period with the proportion to apply to the purchase of additional equipment.	1. With the debit balance at the close of the fiscal year. (Debit Loss and Gain.)[3]

It is suggested that instead of carrying the reserve set up for the purpose of expansion to the Sinking Fund Reserve account, these accounts just illustrated be set up, in order that the books may reveal the entire history of the expansion. As before stated, the sinking fund should be an amount of cash actually set aside to liquidate a fixed liability at some future date. It should never be maintained for the purpose of defraying current expenses.

THE NATURE OF BOOKKEEPING.

In order that the procedure herein described may be more clearly understood the nature of bookkeeping is briefly discussed here.[4]

The Standard Dictionary defines bookkeeping as follows:

> The art, method, or practice of recording business transactions distinctly and systematically in blank books provided for the purpose, so as to show goods and moneys received, disposed of, and on hand; the credits given, and the assets, liabilities, and general status of the business, person, or house.

If bookkeeping is "the art of recording business transactions," the account must be considered the material expression of this art, since all bookkeeping eventually centers in the construction of certain accounts which will reflect the result of business transactions.

For the purpose of recording and expressing the "general status of the business," accounts are classified as:

> Asset Accounts: Representing all values which are owned and invested in the business; or earned, although not received, and those which have been expended for the benefit of a future period.
>
> Liability Accounts: Representing all debts to outsiders due and now payable, due but not yet payable, and incurred to become due and payable at some future date.
>
> Net Worth Accounts: Representing the original proprietorship and the effects of the operations on the proprietorship.[5]

Since Asset, Liability, and Net Worth accounts are representative of the actual properties themselves, these names are used to designate the properties, as well as their representative accounts.

Since the Assets are all that are owned and the Liabilities are all obligations to outsiders, the net worth must of necessity be the difference between the first two, or the rights of the proprietorship to the excess thus determined. The following statement, therefore, shows the equality existing beween the total assets on the one side and the sum of the liabilities and net worth on the other.

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[3] Care should be exercised that this balance be transferred to Loss and Gain only after the net profit has been determined, as shown by the form illustrated on pp. 35 and 36.

[4] Bookkeeping as discussed herein is limited to what is known as the double-entry method.

[5] Income and Expense accounts are Net Worth accounts of a temporary nature. They are fully described on pages 23 to 30 for the purpose of showing the details of the operations and their ultimate effect on net worth.

ASSETS=LIABILITIES+NET WORTH.

All accounts being included in one of these groups, it is evident that all transactions must be considered in the light of their effect on the respective groups.

It is also evident that any transaction affecting one of the groups must likewise produce an equal net change in the other groups, except in a few instances when the transaction by its nature effects a change in the detail of one of the three groups and does not change the total of the affected group. We may classify these changes as:

Increase or decrease in assets.
Increase or decrease in liabilities.
Increase or decrease in net worth.
Transfer between items within any one group.

The customary bookkeeping names for these changes are "debit" and "credit." These same titles are used to show the side of the account on which the entry is made, debit being used for the left-hand side and credit for the right-hand side. Keeping these names in mind, the statement changes may be classified as follows:

DEBIT:	CREDIT:
(1) Increase in assets.	(1a) Decrease in assets.
(2) Decrease in liabilities.	(2a) Increase in liabilities.
(3) Decrease in net worth.	(3a) Increase in net worth.

It may be well to consider some of the more usual transactions which will arise in a business, and to note the way in which they affect our statement, and the classification shown above.

(1) Capital stock issued upon payment of cash. The result is an increase in the asset Cash and a corresponding increase in the Net Worth account Capital Stock. Using the above table, the transaction would be entered by a debit to Cash (1) and a credit to Capital Stock (3*a*).[6]

(2) Capital stock paid for by a note. The result is an increase in the asset Notes Receivable, and an equal increase in the Net Worth account, Capital Stock. Therefore, debit Notes Receivable (1) and credit Capital Stock (3*a*).

(3) A note receivable is paid in cash, without interest. There is an increase in the asset Cash and a decrease in the asset Notes Receivable. This is one of the transactions described as being a transfer affecting the detail of one of the three parts of the business statement, and not in any way changing the totals of the part. Being both an increase and a decrease in asset values, we must debit Cash (1), the asset increased, and credit Notes Receivable (1*a*), the asset decreased.

(4) Purchase of merchandise for cash. The asset Merchandise has increased; the asset Cash has decreased. Applying our table we have a debit to Merchandise (1) and a credit to Cash (1*a*).

(5) Purchase of merchandise on account. We have an increase in the asset Merchandise and an increase in the liability Accounts Payable; therefore, we will debit Merchandise (1), and credit Accounts Payable (2*a*).

(6) Merchandise sold for cash. There is an increase in the asset Cash and a decrease in the asset Merchandise. Debit Cash (1) and credit Merchandise (1*a*).[7]

(7) Merchandise sold on account. There is an increase in the asset Accounts Receivable and a decrease in the asset Merchandise. Debit Accounts Receivable (1) and credit Merchandise (1*a*).

[6] All numbers shown in parentheses thus (3*a*) refer to the number of entry in the table.

[7] Sales of merchandise or product actually affect two parts of our statement; i. e., that part of the sale price which represents the actual cost of the merchandise is a decrease in the asset, while the part representing profit is an increase in the net worth. These sales in actual practice are credited to Merchandise Sales and closed into Loss and Gain account at the end of the fiscal period.

(8) Employee is paid wages in cash. There is a decrease in the Net Worth and a decrease in the asset Cash. Wages are a cost of operation and therefore decrease the net worth. They are an expense as distinguished from income. Debit Labor (temporary Net Worth account) (3*a*) and credit Cash (1*a*).

After this manner, all transactions can be analyzed and classified to indicate the proper entry to be made.

Again referring to our statement, Assets=Liabilities+Net Worth, and to the discussion and illustrations which follow the statement, it should be noted that every transaction is composed of two parts, the debits and the credits, and that these two parts are always exactly equal and opposite in their effect.

If, then, we start with any statement, the two sides of which must be equal, and every transaction affecting this statement has its two sides equal, the two sides of the result must be equal. As the sides are called in bookkeeping debit side and credit side, or debit and credit, respectively, we may formulate the following rule: The debits and credits by which any transaction is recorded must be equal.

In this discussion we have considered only the three elements assets, liabilities, and net worth, and have classified the transactions as affecting two or more of these elements. . In observing the changes in net worth, there are other effects to be considered besides the question that a change has occurred, and the total amount of such change.

It would be possible to discover this effect (in total) by recording the increases and decreases directly in the Net Worth account. However, when we attempt to discover the reasons for the increase or decrease in the total net worth, we are at a loss to do so, for our records have not been arranged so that results can be collected with proper regard to the relevant cause.

For this reason it is desirable that we introduce another series of accounts called Income and Expense accounts, which are in reality subdivisions of the Net Worth accounts.

Into these accounts are entered the various changes which are the result of the business operations, and which either increase or decrease the net worth, the Income accounts showing the increases and the Expense accounts showing the decreases. The net results of these accounts will show, then, the effect, increase or decrease, on the net worth of the business.

To arrive at the net result of these operations the various Expense accounts should be closed, their total being carried as a debit to the Loss and Gain account and the various Income accounts carried as a credit to the same account. The resulting balance of the Loss and Gain account is the net income or loss for the period. which result should be carried to the Surplus or Deficit accounts by order of the Board of Directors if the concern is a corporation or association, or to the proprietorship account if owned by a partnership or individual.

It will be noted that in making the annual entries to the debit and credit of this account, all the Income and Expense accounts will be balanced or closed. Accounts so closed should be ruled in red ink so that the year's business will be kept separat and distinct from that of the succeeding year.

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