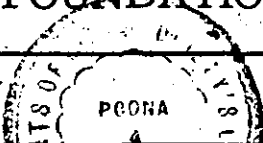


PUBLICATION OF THE GRADUATE SCHOOL
OF BUSINESS ADMINISTRATION
GEORGE F. BAKER FOUNDATION—HARVARD UNIVERSITY

VOLUME XXVII, NUMBER 4
JUNE, 1940



BUREAU OF BUSINESS RESEARCH
BULLETIN NUMBER 112

EXPENSES AND PROFITS OF
LIMITED PRICE VARIETY CHAINS
IN 1939

BY

ELIZABETH A. BURNHAM



PRICE \$1.00

HARVARD UNIVERSITY
GRADUATE SCHOOL OF BUSINESS ADMINISTRATION
BUREAU OF BUSINESS RESEARCH
SOLDIERS FIELD, BOSTON, MASSACHUSETTS

**PUBLICATION OF THE GRADUATE SCHOOL OF BUSINESS
ADMINISTRATION — Individual Issues**

BUSINESS RESEARCH STUDIES

No. 1.	Merchandising of Cotton Textiles — Methods and Organization, by M. T. Copeland and E. P. Learned (1933)	\$1.00
No. 2.	Raw Material Prices and Business Conditions, by Melvin T. Copeland (1933)	\$1.00
No. 3.	The Behavior of Consumption in Business Depression, by Arthur R. Tebbutt (1933)	\$1.00
No. 4.	Department Leasing in Department Stores, by Stanley F. Teele (1933)	\$1.00
No. 5.	International Raw Commodity Prices and the Devaluation of the Dollar, by Melvin T. Copeland (1934)	\$1.00
No. 6.	Managing Cloth Inventories in the Cotton Textile Industry, by John J. Madigan (1934)	\$1.00
No. 7.	Truck Selling: Simultaneous Selling and Delivery in Wholesale Food Distribution, by Lars J. Sandberg (1934)	\$1.00
No. 8.	The Effect of Size on Corporate Earnings and Condition, by William Leonard Crum (1934)	\$1.00
No. 9.	Management and the Worker: Organization in an Industrial Plant, by Roethlisberger and Dickson (1934)	Out of Print
No. 10.	Corporate Earning Power in the Current Depression, by William Leonard Crum (1935)	50 cents
No. 11.	A Test of the Consumer Jury Method of Ranking Advertisements, by N. H. Borden and O. S. Lovekin (1935)	\$1.00
No. 12.	The Use of Statistical Techniques in Certain Problems of Market Research, by T. H. Brown (1935)	Out of Print
No. 13.	The Distribution of Wealth: A Survey Based Upon Federal Estate-Tax Returns, by W. L. Crum (1935)	Out of Print
No. 14.	Law and Labor Relations: The Industrial Disputes Investigation Act of Canada, by E. M. Selekman (1936)	\$1.00
No. 15.	Unemployment and Prospects for Reemployment in Massachusetts, by D. H. Davenport and J. J. Croston (1936)	Out of Print
No. 16.	Determination of Confusion in Trade-Mark Conflict Cases, by Neil H. Borden (1936)	\$1.00
No. 17.	The Compensation of Executive Officers of Retail Companies, 1928-1935, by J. C. Baker (1937)	Out of Print
No. 18.	Organization, Functions, and Financing of State Public Utility Commissions, by C. O. Ruggles (1937)	Out of Print
No. 19.	A Raw Commodity Revolution, by Melvin T. Copeland (1938)	Out of Print
No. 20.	The Co-operative Banks of Massachusetts, by Donald H. Davenport (1938)	\$1.00
No. 21.	The Risk of Unemployment and Its Effect on Unemployment Compensation, by James W. Horwitz (1938)	\$1.00
No. 22.	Merchandise Testing as a Guide to Consumer Buying, by Mabel T. Gragg with N. H. Borden (1939)	\$1.00
No. 23.	Executive Compensation Practices of Retail Companies, 1928-1937, by John C. Baker (1939)	Out of Print
No. 24.	Portfolio Policies of Commercial Banks in the United States: 1920-1939, by Pearson Hunt (1940)	\$1.50
No. 25.	Recent and Prospective Developments in Accounting Theory, by William A. Paton (1940)	\$1.00

BUREAU OF BUSINESS RESEARCH: RECENT BULLETINS

CHAIN STORES

No. 112.	Expenses and Profits of Limited Price Variety Chains in 1939, by Elizabeth A. Burnham	\$1.00
No. 110.	Expenses and Profits of Limited Price Variety Chains in 1938, by Stanley F. Teele	\$1.00
No. 107.	Expenses and Profits of Limited Price Variety Chains in 1937, by Stanley F. Teele	\$1.00
Expenses and Profits of Limited Price Variety Chains: 1935, No. 103; 1934, No. 98; 1933, No. 95; 1932, No. 93; 1931 and 1929, No. 89		\$1.00 each
No. 101.	Operating Results of Department Store Chains and Ownership Groups: 1929, 1931-1934, by S. F. Teele	\$1.00
No. 99.	Expenses and Profits of Food Chains in 1934, by Carl N. Schmalz	Out of Print
No. 94.	Chain Store Expenses and Profits: An Interim Report for 1932, by Malcolm P. McNair	\$1.00
No. 90.	Expenses and Profits of Department Store Chains and Ownership Groups in 1931, by Malcolm P. McNair	\$1.00
No. 87.	Operating Results of Drug Chains in 1929, by Carl N. Schmalz	\$1.00
No. 86.	Operating Results of Shoe Chains in 1929, by Carl N. Schmalz	\$1.00
No. 84.	Expenses and Profits in the Chain Grocery Business in 1929, by Malcolm P. McNair	\$1.00

CONSUMER CO-OPERATIVES

No. 108.	Operating Results of Consumer Co-operatives in the United States in 1937, by Carl N. Schmalz	\$1.00
----------	--	--------

DEPARTMENT STORES (See also CHAIN STORES)

No. 111.	Operating Results of Department and Specialty Stores in 1939 by Malcolm P. McNair	\$2.50*
No. 109.	Operating Results of Department and Specialty Stores in 1938, by Malcolm P. McNair	\$2.50*
No. 106.	Operating Results of Department and Specialty Stores in 1937, by Carl N. Schmalz	\$2.50*
No. 102.	Operating Results of Department and Specialty Stores in the Pacific Coast States: 1935	50 cents
Operating Results of Department and Specialty Stores: 1935, No. 100; 1934, No. 96; 1933, No. 92; 1932, No. 91; 1931, No. 88; 1930, No. 85		\$1.00 each
No. 61.	Department Store Operating Expenses for 1926 (Prelim.), and Financial Ratios for 1923, 1924, 1925	50 cents
Operating Results of Department and Specialty Stores: 1927, No. 74; 1926, No. 63; 1924, No. 53; 1922, No. 37		50 cents each

(Earlier Bulletins are listed on inside back cover)

*To firms furnishing figures for the department store studies, to members of the National Retail Dry Goods Association, which financed the work, and to educational institutions, etc., the list price of Bulletins Nos. 106, 109 and 111 is \$1.00, and the regular discounts apply.

Orders for the several issues of the Publication of the Graduate School of Business Administration should be addressed to the Bureau of Business Research, Harvard Business School, Soldiers Field, Boston, Massachusetts. Whenever possible the remittance should accompany the order. Checks should be made payable to the Bureau of Business Research.

Trade, quantity, and educational discounts on application. The prices of these publications are revised from time to time. Lists showing the prices current at any time may be obtained from the Bureau of Business Research.

**EXPENSES AND PROFITS OF
LIMITED PRICE VARIETY CHAINS
IN 1939**

BY

ELIZABETH A. BURNHAM



**HARVARD UNIVERSITY
GRADUATE SCHOOL OF BUSINESS ADMINISTRATION
BUREAU OF BUSINESS RESEARCH
SOLDIERS FIELD, BOSTON, MASSACHUSETTS**

HARVARD UNIVERSITY
GRADUATE SCHOOL OF BUSINESS ADMINISTRATION

GEORGE F. BAKER FOUNDATION

WALLACE B. DONHAM, *Dean*

HOWARD T. LEWIS, *Director of Research*

Copyright, 1940

BY THE PRESIDENT AND FELLOWS OF
HARVARD COLLEGE

Publication of the Graduate School of Business Administration, Harvard University. Issued at Soldiers Field Station, Boston, Mass., six times a year, during the months of January, March, May, June, July, and November. Entered as second class matter, May 17, 1913, at the post office at Boston, Mass., under the Act of August 24, 1912.

FOREWORD

The report provided in this bulletin presents the results of the Bureau's ninth annual survey of operating margins, expenses, and profits of limited price variety chains. To the officers of the Limited Price Variety Stores Association the Bureau and the School wish to express appreciation for the financial aid which made it possible to continue this study. We are particularly indebted to Dr. Paul H. Nystrom for his interest in the work. The Bureau is also grateful for the support given to the research by executives of the individual chains. The many operating details provided by these officers constitute the basic materials for the study.

The bulletin herewith presented is one of a series published by the Bureau on distribution costs. In accordance with the established practice in such studies, the statements received in connection with the research are considered as confidential and no one outside the small Bureau staff has access to the figures of cooperating firms. Nor is the identity of these firms disclosed without first securing their permission.

The current study has been made under the direction of Miss Elizabeth A. Burnham, the Bureau's Research Supervisor.

HOWARD T. LEWIS
Director of Research

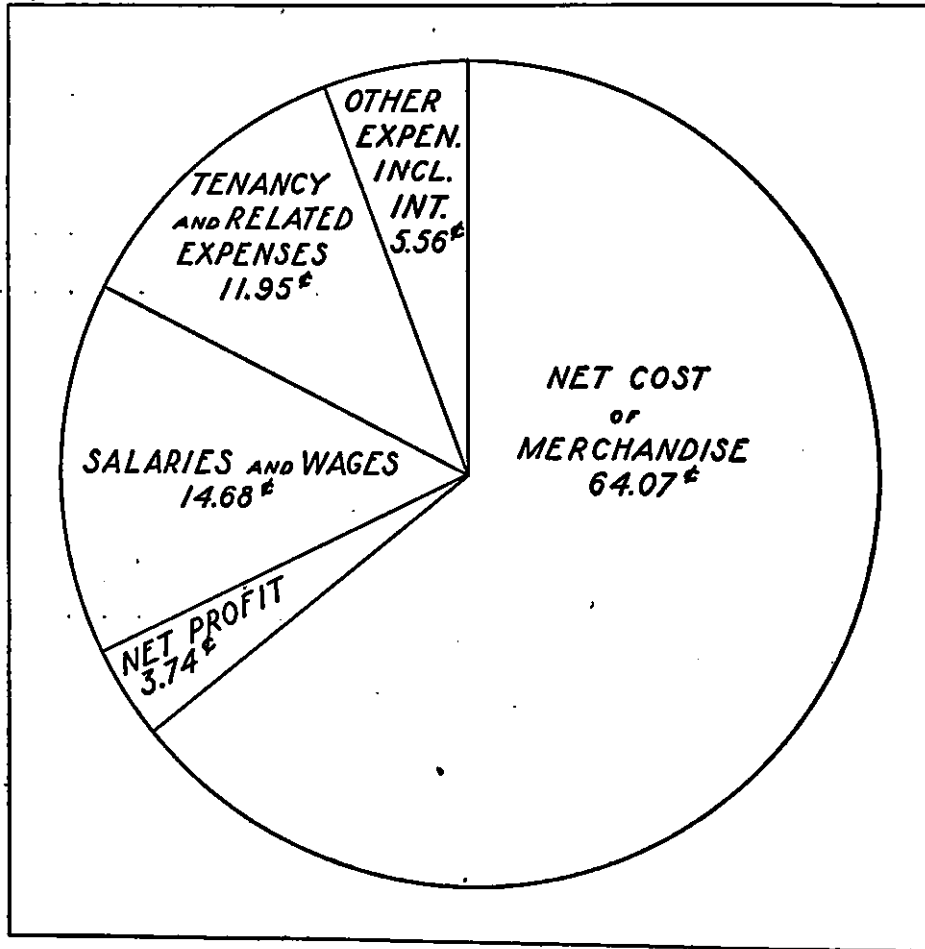
BOSTON, MASSACHUSETTS
JUNE, 1940

CONTENTS

	PAGE
Summary	1
Year-to-Year Trends	
1939 Earnings Greater Than in 1938	3
Expenses Climb	5
Factors Underlying Fluctuations in Sales Volume	6
Operating Results for 1935-1939 Classified by Volume Groups	7
Retail Inventory and Stock-Sales Ratios	8
 Chart: Summary Statistics: 1924-1939	 3
 Tables: Operating Percentages for 15 Chains: 1929, 1931-1939	 4
Per Store Operating Figures for 15 Chains: 1929, 1931-1939	5
Distribution of Stores of 15 Chains According to Size of City: 1932-1939	6
Operating Results Classified by Volume: 1935-1939	7
Stock-Sales Ratios and End-of-Month Inventories: 1934-1939	8
 Productivity of Employees	
Number of Persons Employed	9
Sales per Employee and per Employee-hour: 1939	11
Trend in Employee Productivity: 1937-1939	12
 Tables: Number of Employees per Store	 9
Sales per Employee and per Employee-hour: 1939	10
Sales per Employee and per Employee-hour: 1937-1939	12
 Basic 1939 Tables	
Sale Volume per Store Varies within Wide Limits	13
Sales of Apparel and Accessories Important	14
Operating Results for All Reporting Chains	14
Operating Results Classified According to Total Volume of Sales	16
Operating Results Classified According to Number of Stores	21
Operating Results Classified According to Sales per Store	21
Operating Results Classified by Merchandise Emphasis	25
 Tables: Distribution of Stores According to Sales per Store	 13
Sales by Merchandise Lines	14
Tables Showing Detailed Operating Figures for:	
All Chains Reporting	15 and 16
Chains Classified According to Sales per Chain	18 and 19
Chains Classified According to Number of Stores Operated	23
Chains Classified According to Average Sales per Store	24
Goal Figures for Chains Classified According to Sales per Chain	22
Stock-Sales Ratios and End-of-Month Inventories Classified According to Sales per Chain	20
 Appendix	
Explanatory Notes	27

SUMMARY OF PERFORMANCE OF VARIETY CHAINS IN 1939

A. Disposition of the Consumer's Dollar



**B. Combined Results of 47 Chains
Operating 5,695 Stores**

Net Sales	\$921,276,295	100.00%
Net Cost of Merchandise Sold	\$590,291,314	64.07%
Salaries and Wages	135,191,498	14.68
Tenancy Costs and Related Expenses ..	110,125,818	11.95
Other Expense	51,249,017	5.56
Total Cost	\$886,857,647	96.26%
Net Profit	\$34,418,648	3.74%
Total Net Other Income	28,655,262	3.11
Net Gain	\$63,073,910	6.85%

APPENDIX

The Bureau follows certain accounting and statistical procedures for the purpose of obtaining comparability among reports from individual firms and for the purpose of making the published figures as representative as possible. Definitions of the accounting items and brief discussion of the more important procedures are covered in the following explanatory notes.

Base of Percentages. All percentages in this bulletin, unless otherwise indicated, are based on net sales as 100%.

Gross Margin. The term "gross margin" is increasingly used in preference to "gross profit." It represents the amount remaining after the deduction of net cost of goods sold from net sales. Net cost of goods sold is billed or invoice cost of goods sold, less cash discounts taken and allowances received, plus transportation charges, and plus proper charges for merchandise depreciation and stock shortages. The treatment of transportation charges as part of the merchandise cost makes the gross margin figure lower by the amount of such charges than it otherwise would be.

Transportation Charges. Variety chains ordinarily do not undertake extensive warehousing operations; most of their merchandise is shipped directly from manufacturers to stores. For this trade, therefore, all transportation charges are considered as part of the cost of merchandise, following the generally accepted accounting practice in other fields of retail business.

Salaries and Wages. The salary and wage classification embraces all items of pay roll expense both in stores and in the central organizations, including the compensation of chief executives. One change in the definition of the account made for the 1936 study and continued in following years should be noted. Pensions, included in the salaries and wages item in earlier studies, are now considered as miscellaneous expense.

Tenancy Costs. Tenancy costs comprise all expenses on property used in the business. They therefore cover, in the case of leased property, not only rentals paid but other payments made in lieu of rent, such as taxes, insurance, repairs, and amor-

tization of leaseholds. Charges on owned real estate included in this account comprise taxes, insurance, repairs, and depreciation on owned real estate, plus a fair charge for interest on equity in land, buildings, and improvements, as well as interest actually paid on mortgages. The definition of the tenancy cost account for 1939 differs in two respects from that for 1929, 1931, and 1932, but is the same as that obtaining in the years 1933 through 1938. Charges for amortization of major improvements on leased property, formerly combined with charges for depreciation on fixtures and equipment, have been allocated to the tenancy cost item. Also, since many of the firms lease stores for which heat is provided by the landlords, the cost of heat has been included with other real estate charges in order to assure comparability. In making comparisons between the figures given in this bulletin and those given in the bulletins for 1929, 1931, and 1932, allowance should be made for this change in definition.

Interest. In order to obtain comparability between businesses using different methods of financing, interest at the rate of 6% on the average net worth exclusive of real estate, leaseholds, and goodwill is considered as an expense, as well as interest actually paid other than mortgage interest. Interest computed on real estate equity and mortgage interest are considered as tenancy expense. From the sum of the actual interest payments and the interest on owned capital is deducted the amount of interest and dividends received.

Total Expense including Interest. Total expense including interest is the complete cost of doing business, comprising, in addition to the usual outlays, salaries of executives, proprietors, and partners; rental charges for owned real estate; and interest on owned capital.

Net Profit. The above procedure with respect to interest leads to a narrow definition of net profit as a theoretically residual sum over and above a customary interest return on invested capital.

Net Other Income. Net other income has three component parts: profit or loss from real estate operations; interest on net worth other than real

estate; and other revenue, net. In the first of these are included net profit or loss on owned real estate not used in the business, interest previously charged as expense on the investment in owned real estate used in the business, profit or loss on real estate which has been sublet, and profit or loss of any subsidiary real estate holding companies. Under interest on net worth is credited back the interest at 6% on the average net worth excluding real estate, previously included as an operating expense in arriving at the net profit on merchandising operations. Miscellaneous revenue, including such receipts as dividends from manufacturing and/or foreign subsidiaries, commissions from leased sections, and income from weighing machines and telephones, is considered as sundry revenue, net.

Net Gain. To arrive at the final net gain or net business profit, net other income is added to the net profit. Therefore the net gain figure, while not affording, from a statistical standpoint, so valid an interchain comparison as the net profit figure, may be taken as roughly approximate to net business profit in the commonly understood sense. Net gain is expressed both as a percentage of net sales and as a percentage of the average net worth. The use of the average net worth as a base for this figure introduces the complication of differing policies in regard to real estate. For a chain which, either directly or through a subsidiary real estate corporation, owns many of the stores operated, the total average net worth is large in proportion to the net sales volume; and as a result the rate of return on invested capital is low as compared with that for a chain owning little or no real estate.

Taxes. The tax account includes all tax expense except real estate taxes, included under tenancy costs, and federal and state taxes on net income, treated as a deduction from net gain. Where state or municipal taxes on sales or gross income are not collected directly from customers but are absorbed by the chain as expense, such cost is included under sales taxes, a subdivision of the tax account. Other tax expense includes special chain taxes, licenses, taxes on equipment and merchandise inventory, corporate taxes, the federal capital stock tax, payments for unemployment and old age taxes made in compliance with the Social Security Act, and other taxes not specifically mentioned elsewhere.

Rate of Stock-turn. The rate of stock-turn, or rapidity of merchandise turnover, is calculated by dividing the cost of merchandise sold by the aver-

age inventory at cost. For chain enterprises the average inventory includes merchandise both in stores and in warehouses. Stock-turn figures of two types have been computed: the first rate, available for all chains, is based on the average of the beginning and ending inventories; and the second rate, available for part of the chains only, is based on the average of 12 monthly inventories.

Methods. The 47 statements used in the study were carefully examined for comparability and completeness of data. Whenever questions arose concerning the omission of or the interpretation of material, letters were written to the individual firms requesting additional information. Usually the necessary material was forthcoming. In other cases when it seemed probable that the omission of a figure by a firm was equivalent to a zero entry, zero figures were used in arriving at the averages presented. When it was evident that one reported expense figure covered two or more accounts, adjustments were made to allocate the amount to the proper accounts. In still other instances where material was not reported, the averages were based on a reduced sample; usually medians only are presented in this latter case, and asterisks in the tables indicate the absence of averages for such items.

Aggregates and Averages. Some of the figures included in this report are averages based on aggregate dollar figures. Thus, for instance, in the second column of Table 14, where the gross margin is reported as 35.93%, this means that the aggregate gross margin of the 47 reporting chains bore that percentage relationship to the aggregate net sales of those chains. Such aggregate figures manifestly are weighted according to sales volume. These average figures based on dollar aggregates obviously do not afford a good year-to-year comparison unless only identical firms are used, since the averages are substantially affected by the omission or addition of one or two large firms.

Median Figures. Many of the other data presented in this report consist of median figures. These figures are based on percentages computed for each firm in the group individually. Such figures, therefore, give equal weight to each chain, irrespective of sales volume and number of stores. The median is the middle figure in an array of percentages listed in order from the smallest to the largest. Thus, in column 3 of Table 14, where the gross margin is stated as 34.54%, this means that when the gross margin percentages for the chains

were arranged in order from the smallest to the largest, 34.54% was the percentage which stood at the midpoint. In the interpretation of the median figures it should be noted that because of their statistical nature the medians for the individual

items of expense ordinarily will not add to the median total expense, and the median net profit as a rule will not correspond precisely to the difference between the median gross margin and the median total expense.

BUREAU OF BUSINESS RESEARCH: EARLIER BULLETINS IN PRINT

BUILDING MATERIALS

- No. 81. Operating Expenses of Building Material Dealers in 1928 \$1.00
Operating Expenses of Building Material Dealers: 1927, No. 75; 1926, No. 64 50 cents each

GROCERY—RETAIL (*See also* CHAIN STORES)

- Operating Expenses in Retail Grocery Stores: 1924, No. 52; 1923, No. 41; 1919, No. 18; 1914, No. 5 50 cents each
No. 13. Management Problems in Retail Grocery Stores (1918) 50 cents

GROCERY—WHOLESALE (*See also* CHAIN STORES)

- Operating Expenses in the Wholesale Grocery Business: 1923, No. 40; 1919, No. 19 50 cents each
No. 8. Operating Accounts for Wholesale Grocers (revised edition—1920) 50 cents

GROCERY—MANUFACTURERS

- No. 79. Marketing Expenses of Grocery Manufacturers for 1927 and 1928 \$1.00
No. 77. Marketing Expenses of Grocery Manufacturers for 1927 50 cents
No. 69. Marketing Expense Classification for Grocery Manufacturers (1928) 50 cents

JEWELRY—RETAIL

- Operating Results of Retail Jewelry Stores: 1927, No. 76; 1926, No. 65; 1925, No. 58; 1923, No. 47; 1922, No. 38;
1919, No. 23 50 cents each

PAINT AND VARNISH—WHOLESALE

- No. 66. Operating Expenses in the Wholesale Paint and Varnish Business in 1926 50 cents
No. 60. Preliminary Report on Operating Expenses in the Wholesale Paint and Varnish Business in 1925 50 cents

PLUMBING AND HEATING SUPPLY—WHOLESALE

- No. 72. Departmentizing Merchandise and Expense Figures for Plumbing and Heating Supply Wholesalers (1928) 50 cents
No. 71. Operating Expenses of Plumbing and Heating Supply Wholesalers in the Central States in 1927 50 cents

PUBLIC UTILITIES

- No. 68. Interstate Transmission of Power by Electric Light and Power Companies in 1926 50 cents

SHOE—RETAIL (*See also* CHAIN STORES)

- Operating Expenses in Retail Shoe Stores: 1922, No. 36; 1921, No. 31; 1919, No. 20 50 cents each
No. 10. Management Problems in Retail Shoe Stores (1913-1917) 50 cents

SHOE—WHOLESALE

- No. 6. System of Accounts for Shoe Wholesalers (1916) 50 cents

STATIONERY AND OFFICE OUTFITTING—RETAIL

- No. 80. Operating Results of Retail Stationers and Office Outfitters in 1928 50 cents

TEXTILES

- No. 17. International Comparisons of Prices of Cotton Cloth—January, 1919-March, 1920 50 cents

MISCELLANEOUS

- No. 82. Distribution of Hard Fibre Cordage (1927), by Howard T. Lewis 50 cents
No. 73. Operating Expenses of Wall Paper Wholesalers in 1927 50 cents
No. 62. Operating Expenses of Private Schools for the Year 1925-26 50 cents
Operating Expenses in the Wholesale Automotive Equipment Business: 1924, No. 51; 1923, No. 42 50 cents each
No. 25. Labor Terminology (1921) (In cloth) 50 cents