

COMMERCIAL STANDARDS MONTHLY.

MONTHLY NEWS BULLETIN OF COMMERCIAL STANDARDS GROUP, BUREAU OF STANDARDS.

January 15th, 1929

S. F. TILLMAN, Editor

No. 46.

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ADDRESS INQUIRIES TO "COMMERCIAL STANDARDS"
ROOM 316 COMMERCE BUILDING,
WASHINGTON, D. C.

"SIMPLIFIED PRACTICE AVOIDS FAILURES"

1. RESULTS AND BENEFITS OF APPLYING SIMPLIFIED PRACTICE TO CARBON BRUSHES AND BRUSH SHUNTS

The Division of Simplified Practice has completed a survey to determine the results and benefits which followed the simplification of carbon brushes and brush shunts. A brief report of the findings has been prepared and may be had on application.

For a number of years past manufacturers of brushes and shunts have found it necessary to spread their production and investment over a wide range of sizes. Distributors have had to maintain large investments in order to stock a complete line. Manufacturers of brush holders have likewise been burdened with the production and stocking of a great variety of sizes. Moreover, the situation has been getting worse instead of better. New motor designs have continually added to the already extensive list of brushes and holders. In 1926 there was in the automotive field alone a choice of over two thousand sizes of carbon brushes. In April of that year Simplified Practice Recommendation No. 56 - Carbon Brushes and Brush Shunts - was adopted by a general conference of manufacturers, distributors, and users. In September 1927 a standing committee of the industry, appointed by the original general conference, met and revised the recommendation. This supplementary action was an excellent example of progressive development in the elimination of waste, whereas the original recommendation only went so far as to establish increments of dimensions, thus endeavoring to discourage the increase in varieties.

The recommendation as it now stands lists specific dimensions for length, width, etc. While not restricting combinations of dimensions, the revision represents the first step toward concentration on a limited number of sizes. Those responsible for initiating this program, and those who are supporting it, wish to have an answer for the question - What has been accomplished by the application of this simplified practice during its effective period which began November 1, 1926?

In October, 1928, a letter was addressed to all manufacturers, distributors and users of carbon brushes, who had accepted the recommendation, asking that they review their experience with it, with a view to determining its benefits in dollars and cents. A total of 218 letters were sent out. Replies received numbered 91, of which 6 were from manufacturers of brushes; 8 from distributors; 25 from public utilities; 22 from builders of motors and generators, and 30 from other users.

From the viewpoint of possible benefits derived, the degree of adherence accorded the recommendation by industry is of primary importance. Although an actual survey of production has not yet been made, the attitude of the manufacturers indicates that the simplified schedule is being adhered to wherever there is offered any freedom of choice.

The public utilities companies, replying as users, have, in the main, experienced no monetary benefit as yet. However, it is significant of their interest and faith in simplified practice that the majority look forward to such benefits as prompter delivery, reduction of replacement stocks, etc.

A study of the replies indicates that the smaller manufacturers are in an equally favorable position with their larger competitors, so far as regards the potential benefits of the program.

The most general opinion set forth in the replies is that it is too early to expect important savings. This, it is pointed out, is due to the fact that a great portion of brush sales consists of items for the maintenance of present equipment which, of course, includes, together with more modern motors and generators, much that is old and nearly obsolete, but still serviceable. In the opinion of some it will be five years before the gradual obsolescence of machines using odd sizes of brushes, and absorption of new designs in only the simplified types, will effect a sufficient change in the market to allow the realization of such benefits as reduced inventory investment, simplification of production, etc. in any large-scale.

SIMPLIFIED PRACTICEEdwin W. Ely.2. DIVISION OF SIMPLIFIED PRACTICE.

Simplified Practice represents a common-sense application of the principle of eliminating "too much" variety in both production and selling, by establishing a "simplified" list of sizes, dimensions, styles, and types, which represent those varieties in major demand. A list of the simplified practice recommendations developed by industry may be secured upon request, from the Division of Simplified Practice.

Welded Chains.

This program, known as Simplified Practice Recommendation No. 100, has been sent to manufacturers, distributors and users of welded chain, for signed acceptance. The simplification was approved at a general conference of representatives of all interested elements in the industry, held at the Department of Commerce on November 15, 1928. Subject to acceptance by the industry, it will become effective February 1, 1929.

Hospital and Institutional Cotton Textiles.

The Standing Committee for this Simplified Practice Recommendation, No. 74 has reaffirmed the existing schedule, without change for another twelve months. This program, originally approved by a general conference of all interests, on June 10, 1927, became effective October 1, 1927.

Files and Rasps.

Simplified Practice Recommendation No. 6 concerning this subject first entered into effect on November 1, 1923. The listed sizes and types of files and rasps, recently reviewed by the Standing Committee of the industry, has been reaffirmed for another year.

Composition Books.

This simplified practice recommendation has received the required degree of support from the industry and has been issued in printed form. Copies may be secured from the Superintendent of Documents, Government Printing Office, Washington, D. C., for 5 cents a copy. It is known as Simplified Practice Recommendation No. 84, Composition Books. The effective date was September 1, 1928.

Shipping Tags.

The Simplified Practice Committee of the industry has prepared a tentative program, which will be presented to a general conference of all interests on January 25, 1929.

Glass Containers For Drugs.

At the first meeting of the Joint Simplified Practice Committee held on December 13, 1928, Mr. Philip I. Heuisler, Vice-President of The Emerson Drug Company of Baltimore, was appointed Chairman. It was unanimously decided to have a survey made among manufacturers of glass containers for data upon which to base a definite simplified practice recommendation. The Chairman appointed a subcommittee to supervise the survey.

A survey questionnaire, to ascertain the facts concerning current production and demand for bottles for carbonated beverages has been prepared by the simplified practice committee. This questionnaire has been sent to the bottle manufacturers. The composite report of replies received will form the basis for a general conference of all interests, held under the auspices of the Department.

With the cooperation of the Division of Simplified Practice, the industry is now conducting a preliminary survey among the packers of pickles and condiments, for the purpose of determining whether or not this type of glass container is susceptible of simplification.

Olive Jars.

At the present time the packers of green olives are crystalizing their ideas relative to the feasibility of eliminating those sizes of olive jars for which there is a relatively small demand.

Indiana Hotel Association.

Upon invitation of the Indiana Hotel Association, a representative of the Division of Simplified Practice addressed the annual convention of Hotel men, at Indianapolis, Indiana, on December 1, 1928, on "Simplification and Standardization in the Hotel Field."

Wheelbarrows.

A meeting of manufacturers of wheelbarrows was held on December 14th, at Cleveland, Ohio. A questionnaire to be sent to all wheelbarrow manufacturers requesting sales figures of the various sizes and types of barrows was drafted at the meeting. The information obtained from this survey will furnish the basis for a simplified practice recommendation.

Steel Bathroom and Medicine Cabinets.

The Simplified Practice Committee of Manufacturers, which was appointed by the November 1, 1928 meeting of medicine cabinet manufacturers, met in Chicago, on December 27, 1928, to discuss the results of a survey recently completed by that industry. The data thus acquired will form the foundation for a proposed Simplified Practice Recommendation.

3. COMMITTEE MEMBER.

Mr. Harold R. Young, Secretary of the Retailers' National Council, Munsey Building, Washington, D. C., has been appointed a member of the Planning Committee of the Division of Simplified Practice. The Retailers' National Council is made up of the following National Retail Associations, having a combined membership of 150,000 retail merchants, employing 1,000,000 people, and having aggregate annual sales of \$10,000,000,000: National Retail Furniture Association, National Association Retail Clothiers and Furnishers, National Association of Retail Grocers, National Retail Hardware Association, Garment Retailers of America, The National Association of Retail Druggists, National Shoe Retailers Association, National Federation Implement Dealers' Association, and National Retail Dry Goods Association.

4. PRAISE FOR BULLETIN.

In the December issue of the Heart of America Purchaser the editor of that publication pays the Commercial Standards Monthly News Bulletin the following compliment: "The monthly news bulletin is a very interesting bulletin. It contains each month the

things that are being considered by the many groups that they are working with, tells the steps that are being taken, and how no recommendations are published until they have been accorded 80 per cent of the industry's acceptance, according to volume of output. The Commercial Standards Group is a very important one and we hope that it will continue to operate in the same effective fashion that it has in the past." The appreciation of the staff of the Commercial Standards Group is extended to the Heart of America Purchasor for this endorsement of our work and of the Bulletin. Many of the trade papers have placed the Commercial Standards Bulletin on their "exchange" mailing list for their publications, which is greatly appreciated. Material used in the Commercial Standards Bulletin may be used by other publications.

5. INDEXES OF BULLETINS.

Indexes for the 1st and 2nd year of the Commercial Standards Monthly News Bulletin is in the course of preparation. To give us an idea as to the number of copies to be printed, it is requested that readers interested in having a copy of each index, for which there will be no charge, make such request as soon as convenient. Requests should be addressed to the Editor, Monthly News Bulletin, Commercial Standards Group, Room 316, Commerce Building Washington, D. C.

6. SIMPLIFIED INVOICE LEAGUE.

During the past month a large railroad system has reported to the Division of Simplified Practice the following benefits from the use of the simplified invoice form. (1) Uniformity of size, permitting quick handling in checking as well as filing, and maintains a neat record. (2) Uniformity of information, this enables various people who handle invoices to do it more quickly, as there is only one place for order number, terms, F. O. B., price, receipt of material, etc., which saves considerable time in checking and handling the invoice: (3) An employee once familiar with a single invoice is better able to handle invoices with more accuracy and dispatch as information is shown at the same place on each invoice. This also applies to the shipper when making up the invoice, as to information that must be shown.

One purchasing agents' association is using stationery with the simplified invoice form printed on the reverse side. This is very conspicuous and effective. The Purchasing Agents' Association of Los Angeles has forged to the front, in securing and forwarding reports covering the survey on the simplified invoice form. This association has forwarded thirty-one (31) reports to date and expects to secure reports from at least one hundred (100) firms in their section.

The Division of Simplified Practice invites all firms and associations to review their incoming invoices over a period of ten (10) to fifteen (15) days, and then inform us as to the number which conform in all respects to the simplified invoice form. Invoices which only partly conform to this standard should not be counted. Our intention is to publish these reports in each issue of The Commercial Standards Monthly. Our purpose is to promote the general adoption of this form, wherever possible and practicable in the movement for elimination of waste. For the current report of the league see Appendix.

7. MANUFACTURERS PRODUCE SHOE BOXES.

A successful cooperative standardization effort is described in "Applying Research to Production," a report prepared for the New England Council by the Policyholders' Service Bureau of the Metropolitan Life Insurance Company. Several shoe manufacturers in Auburn,

Maine, who had experienced difficulty in obtaining prompt deliveries of cardboard boxes, determined, through a joint study, that a large percentage of their needs could be filled by a limited number of standard sizes. A company was organized to supply member companies, each manufacturer holding a certain percentage of stock. The company is run on a non-profit basis. Orders are ordinarily sent sufficiently in advance to allow the box plant to take advantage of low prices when laying in stock, but standardization makes it possible to stock up sufficiently to meet emergency demands. There is a standard price for all standard size boxes, exceptions being charged for according to a special cost sheet.

8. NEW FOR OLD

Recent years have seen many changes in alternating current motor designs that have greatly simplified and extended their applications, states "POWER," editorially in the December number of that publication. The editorial writer says that no longer is the use of induction motors limited to the general purpose squirrel-cage type, with its comparatively low starting torque and high starting current, and to the wound-rotor type. The designs of squirrel-cage motors have been extended until there is now a type for practically every constant-speed application. Along with these developments, starting equipment has been simplified.

9. NEEDED CONVENIENCE

A growing number of retail stores, particularly drygoods stores, men's furnishing and haberdasheries, are now using a form of monthly statement which asks the customer to detach the upper section, bearing the firm's name and address and return it with his or her remittance. While this procedure simplifies the accounting work for the store, it inconveniences the customer who wishes to keep accurate and complete records, for the section bearing the itemized account does not always carry the firm's name. When it does, the firm's name is actually printed in very small type or is very poorly located.

When the name of the firm is omitted from the lower, or customer's half, the customer has to bother to write the name on it, or file all stubs from the same firm in an envelope, with the firm's name written on it. In the second case, the small type and poor location interfere with easy identification and make filing awkward. National Retail Associations whose members use this form of statement or bill-head might well simplify and standardize it with greater regard for their customer's convenience. Millions of charge accounts, and the general practice of monthly statements on them warrant more attention to the monthly inconvenience and annoyance caused by the type of statement above described. The cost to correct its faults will be many times offset by the increased good will and appreciation of all to whom this present form is a nuisance.

10. SIMPLIFIED SALES SLIP

A meeting of controllers, managers of training bureaus, purchasing agents and publishing house representatives was held last month at San Francisco to consider a proposed simplified sales slip for use in department stores. Another conference will be held by the same group this month to consider the proposal. It has been suggested that the proposed simplified sales slip be made a national project and that it be submitted to the Division of Simplified Practice for study to this end.

11. SIMPLIFYING SUPPLIES

The West Penn System, Pittsburgh, Pennsylvania, has been doing considerable work along the lines of simplifying its materials and supplies. As a result they have reduced stock value 59 per cent; reduced items carried in stock 61 per cent reduced labor by 30 per cent; reduced space used by 50 per cent and improved its service by 50 per cent. The company has issued a standard stock catalogue, which is revised periodically. One standard has been adopted for similar material used by more than one department and no new standards are permitted except under the approval of the standardization committee.

12. STANDARD BASKETS

The standard container act of 1928, in the opinion of the Solicitor for the Department of Agriculture, renders inactive all state laws fixing weights per bushel for fruits and vegetables, when such commodities are sold in baskets meeting the requirements of the Standard Container Act. The Department made this announcement to warn growers to dispose of baskets prior to November 1, 1929, if they are illegal under the Act.

13. SUPPORTING SIMPLIFICATION

There is a vast difference in the procedure used in France in the development of simplification as compared to that used in the United States. In this country simplified practice has been carried out entirely on a voluntary basis between manufacturers, distributors and consumers. In France the Committee on Standardization of Machinery submit to public inquiry projects under consideration. The closing date for the inquiry is fixed at a certain period by the committee, after which time the objections raised are considered. If there are no objections the project is in effect at once.

14. THE CONSUMER SPEAKS

"When I buy a hat or a cigar, I know I pay part of the rent, the light and heat bill, the clerk's wage, and other inescapable costs entailed in storekeeping." writes E. M. West in "Advertising and Selling" on "The Consumer Speaks Up." In his article Mr. West says, "I am glad to pay not these specific items, of course, but for the courtesy and convenience I get. But I am not willing to pay, if I can help it, for credit losses, accounting errors, unwanted stocks, incomplete stocks, unskillful buying spoilage, missed discounts, usurious interest, and kindred charges that contribute nothing to my satisfaction but restrict my satisfaction. Every dollar paid for needless service or useless facilities reduces by one dollar what the consumer could spend for production of larger outputs to create greater wealth and more consumer buying power." Mr. West evidently knows that simplified practice eliminates needless duplication and waste. Simplified practice reduces the varieties of any given commodities to those necessary to serve the demand.

COMMERCIAL STANDARDS

I. J. Fairchild

15. COMMERCIAL STANDARDS PROJECTS

Foremost in the mind of the buyer today is the question of quality. He demands assurance as to quality and is thoroughly satisfied only by deliveries certified to conform to strict standards emanating from sources of highest respect and authority. The Commercial Standard constitutes an authoritative yardstick for measuring quality, acceptable alike to the reputable producer and the keen consumer.

Brass Pipe Nipples. A general conference of producers, consumers and general interests held at the William Penn Hotel, Pittsburgh, Pennsylvania, on December 14th, unanimously adopted a Recommended Commercial Standard for Brass Pipe Nipples, which requires that this commodity shall be made from new tested iron-pipe-size brass pipes in accordance with United States Government Master Specification, F. S. E. No. 342a. It also requires that the threads on such pipe nipples shall be cut and gauged in strict conformity to the American Standard for Taper Pipe Threads; that the end shall be properly chamfered to remove burrs and includes tables of stock sizes and number to be packed in cartons. The conference set July 1, 1929, as the effective date for new production and September 1, 1929 as the date for clearance of existing stock. The conference also unanimously voted to request the Bureau of Standards to prepare a list of willing-to-certify manufacturers on the basis of this commercial Standard. A standing committee was appointed with the understanding that the Commercial Standard will be considered annually for revision in order that it may be kept continually in accord with current practice and the advance in the art.

Regain of Mercerized Cotton Yarn. The producers and consumers of mercerized cotton yarn will meet at 10:00 A. M. Tuesday January 15, 1929 in Room 704 Commerce Building, Washington, D. C., to consider the adoption of a Commercial Standard for Regain of Mercerized Cotton Yarn as a basis for daily trade. The regain proposed by the National Association of Hosiery and Underwear Manufacturers is 7.53% which corresponds to a moisture content of 7.0%. Since mercerized cotton yarn as well as other textile fibers are sold by weight which varies with the actual moisture content it is obvious that an arbitrary standard of moisture content will enable buyers and sellers to apply a correction factor to actual weight as a basis for computing total price of the shipment. It is believed that the establishment of standard will provide a more equitable basis for sale of mercerized cotton yarn and will eliminate one of the major sources of dispute. Copies of the Proposed Commercial Standard with accompanying report by Mr. E. M. Schenke, Research Associate at the Bureau of Standards are available upon request.

Dress Patterns - Corresponding Body Measurements. There will be a general conference of producers, distributors and users of dress patterns at 10:00 A. M., Thursday, February 7th, 1929 in Exhibit Room No. 6, Pennsylvania Hotel, New York City, New York, to consider the establishment of a Commercial Standard covering classifications and corresponding body measurements for dress patterns. The recommendation includes composite body measurements for bust, waist, and hip for each of the various sizes and classifications recognized by the dress pattern manufacturers. These measurements do not include allowances for fit, freedom or style as such allowances are considered to constitute a part of the individuality of the various makes of dress patterns. The measurements recommended are a practical compromise between average of anthropometric measurements from various sources, the experience of pattern manufacturers and commercial practice and are intended to suit the average requirements, bearing in mind that final fit is established by adjustment to suit the individual.

All those interested in production, distribution or use of dress patterns are invited to attend the above conference in order that the standard as finally adopted may be acceptable to all major interests. It is hoped also that the adoption of the standard will prove helpful to those who teach costume art and to those who buy, sell or use piece goods for dress making purposes. Copies of the proposed standard are available upon request.

Commercial Standards as a Business Stabilizer. Recent conferences with leading executives in several major lines have disclosed the very definite reaction on their part that Commercial Standards offer an important means for stabilizing business by reducing the variety of specifications, by reducing waste in manufacture, by improvement of labor relations, by increasing turnover, by lowering selling cost, by steadying demand and by enabling the purchaser to buy with greater confidence and assurance as to both quality and quantity.

SPECIFICATIONS

A. S. McAllister

16. CONSUMER GROUP COOPERATION.

Increased interest in the certification and labeling plans is being shown by the various consumer groups, including not only the Federal, State, and Municipal agencies, but also the public utility purchasers, the public school business officials, and the officers of hospital associations. The Chief Coordinator has made plans for increasing the effectiveness of the certification plan by showing the Federal purchasing agencies how best to make use of the "Willing-to-Certify" lists. Hospital, public school, and public utility officials have taken steps to bring the certification plan and lists of "willing-to-certify" manufacturers to the attention of their purchasing officers.

17. WILLING TO CERTIFY LISTS.

Approximately 2,000 separate manufacturing firms have expressed their desire to be placed on the "Willing-to-Certify" lists of manufacturers developed by the Division of Specifications of the Bureau of Standards. These lists now relate to 248 different commodities. There are now 7,393 "willing-to-certify" manufacturers on these lists. In November of 1927 there were 75 commodities covered with 1,609 manufacturers on the lists.

18. LACK OF STANDARDIZATION.

Insufficient standardization by different railroads prevents the manufacturers from producing materials economically for all, editorially states the Railway Age adding that some roads are sluggish in adopting or perfecting material-handling methods that will diminish costs of distribution to points of use. The railroads spend so large a sum in the aggregate each year for the materials and supplies with which to operate, maintain and improve their properties, that the cost of these materials should logically receive much study and attention.

AMERICAN MARINE STANDARDS

A. V. Bouillon

19. NEWS OF COMMITTEE'S WORK.

Ballot form was distributed early in the month for election of the Executive Board for the calendar year 1929. The ballots are to be opened and canvassed this month by a special committee appointed for the purpose. A revised roster of the membership as of December 1st, was distributed at the same time.

There were further evolutions in the proposed standard design of cap for tubular steel cargo booms. It is now expected that the latest design developed will be approved for promulgation at the January meeting of the Executive Board.

The following publications containing promulgated marine standard specifications were distributed during December: AMSC 35 - Insulation of piping and machinery on ships, AMSC 36 - Magnesia molded pipe covering and blocks; AMSC 37 - Magnesia asbestos plaster; AMSC 38 asbestos millboard; AMSC 39 - Hair felt for insulation AMSC - 40 - Cotton duck for insulation coverings; AMSC 41 - Metallic packing for condenser tubes.

The organization has now promulgated 87 standards generally classified as follows:

Hull details.....	38
Engineering (Machinery) details.....	25
Ship operation details and supplies.....	23
Special standard.....	1

First issues of alphabetical and classified indexes to these standards have been prepared and copies are to be distributed with the Secretary's Quarterly Report for October, November and December.

The following members were added to the technical committees: Ernest P. McRitchie, Naval Architect Union Plant, Bethlehem Shipbuilding Corporation, Ltd., San Francisco - Technical Committee on "Hull Details." A. L. Becker, Consulting Engineer, San Francisco, - Technical Committee on "Engineering Details." Bernard Mills, Superintending Engineer, American-Hawaiian Steamship Company, San Francisco; and M. E. Arkills, Safety Engineer, Water-front Employers of Seattle - Technical Committee on "Ship Operation Details and Supplies."

The first meeting of the Board elect for 1929 and the annual meeting of the membership are to take place at the Department of Commerce, Washington, D. C., respectively on January 28th, and 29th. The purpose of the membership meeting is to review the activities and the manner in which they are being carried on. Criticism and advice have been invited. Good progress was made during the past year which was made possible by the helpful cooperation received from members and participants in technical activities. A considerable program is being developed for 1929.

DOMESTIC COMMERCE

20. ADVANTAGES OF UNIT PACKING.

An article in the November "Bulletin" of the National Retail Dry Goods Association discusses retailers' increasing interest in, and demand for, unit packing. Some of its advantages over the old method of bulk packing for incoming merchandise are reduction of packing costs to the store, even though it assumes the entire cost of such packing, reduction of mark-downs due to handling, lower adjustment costs because of fewer delivery damage complaints fresh and clean condition of goods when they reach the customer, ease of stocking and handling, and stimulation of sales by saving the customer's time. The packing of merchandise selling units at the factory so that it may be delivered to the consumer without repacking, is held feasible if the unit of sale can be determined in advance, the article sold from sample, and the order filled from stock in the original package, provided individual display is not required because of differences in design, color, size or imperfection, or because the article requires some kind of finishing and polishing. The Association's member stores are now receiving in unit packages some 350 items, a list of which may be obtained upon request from the New York Office of the Association, Pennsylvania Building, New York,

21. CHEMICAL DIVISION.

The Chemical Division, which has already rendered numerous services to Domestic Commerce, has just formed a new section to deal with the Domestic Commerce phase of its work. It is planned that this more intensive service to domestic commerce shall ultimately include the following lines:

1. Studies covering distribution methods and practices pertinent to the respective commodity groups;
2. Costs of distribution and trade promotion;
3. Promoting extension of uses, markets, and by-products utilization;
4. Promoting simplification, standardization, and limitation of varieties;
5. Surveys as to sources and availability of raw materials;
6. Buying methods and practices;
7. Studies on obsolescence, depreciation, etc., of plant, equipment, and products;
8. Promoting periodic production, stock, and distribution statistics, by industries and geographical areas, as indicators of the trend of consumption.

The Chemical Division will welcome suggestions from the various branches of the industry on profitable lines of investigation, and stand ready to undertake studies for which the demand is sufficiently urgent and well-defined and in which it will have the industry's wholehearted cooperation.

Investigations which can readily be carried on by the individual, the association, consultants, or the trade press will logically not enter into the Division's program. Furthermore, any proposal must be economically sound in order that it may involve the wholehearted cooperation of the branch of the industry concerned. For example, in this connection it may involve the setting up of a liaison committee by the industry in each study project to insure this decidedly requisite cooperation. A trade association can perform a very useful function by serving as a stimulating and clearing medium for the problems of the industry.

The first piece of work to be undertaken by the new section will be a survey of the lye industry. The industry has requested such a survey because of the apparent reduction in per capita consumption of lye and the need for exact statistics before their efforts can be intelligently directed toward increasing the use of lye. Hog, poultry, and cattle sanitation, lye as a water softener, and numerous other phases may be considered.

22. COST ANALYSIS FOR DISTRIBUTION.

The Domestic Commerce Division's study of wholesale distribution costs for electrical equipment, is being carried on in a house doing about a million dollar business annually in a small southern city. Although there is considerable variation among wholesale distributors of electrical goods, this house is believed typical for the purpose of costing, customers and commodities.

One of the great problems of the electrical industry is the requirement that much of the material handled must be made specifically for particular jobs and can not be carried in stock by the usual distributor. Electrical goods fall largely into two classes, contract items which must be made up as jobs arrive, and merchandise or items carried in stock and sold to regular retail dealers. Because of the prejudice among electrical contractors against wholesalers who sell such merchandise to retailers, most distributors confine themselves to one of the two types of customers. Consignment handling of several lines of commodities makes for further distribution costs in this field.

Another problem is represented by the competitive basis of sale for much of the volume, in connection with bids on jobs. Indications point to large orders being the unprofitable ones in this industry, whereas in the hardware and grocery trade studies small orders were found to be unprofitable. An official of the firm being studied estimates that little profit is made on orders of over \$500 value. A definite answer on the comparative profitableness of large and small orders is anticipated from this study, and also the arrival at some method handling losses from obsolescence of merchandise, which is apparently a large factor.

23. DESCRIBES CLEVELAND CENSUS.

In a speech before the Atlantic City Convention of the Association of National Advertisers, Gorton James, Chief, Domestic Commerce Division, Department of Commerce, pointed out as a major handicap of United States Commerce and industry the lack of statistical data on distribution comparable with the detailed production statistics available, and described the steps taken to meet the need. Mr. James discussed, besides the census of wholesale and retail distribution conducted in eleven cities, the trial census of industrial purchases being made in Cleveland to bring out what information should be secured in the proposed National Census of Distribution and how to prepare schedules to obtain it. The data sought include itemized purchases of manufacturers in 1927 classified in four groups; (1) raw materials; (2) semifinished goods; (3) mill supplies (materials used in the general maintenance of the plant exclusive of that used in repairs to machinery and the conditioning of plant equipment); and (4) plant equipment (including repairs and maintenance supplies for conditioning it).

24. DISTRIBUTION COSTS.

The answer to competition is not price cutting, but reduction of waste in physical distribution, says "Distribution Economy". In this connection, the magazine says, "When your goods leave the production line are they handled with the same mechanical skill that produced them? Are they packed so that each package will take the lowest possible rates, yet carry without damage hazard? Are they loaded and braced safely? Have the most economical combinations of rail, motor, water or air transportation been used? Have you public or private warehouse facilities to enable you to take advantage of carload rates, and at the same time maintain spot stocks in strategic marketing areas? Are your commodities moved mechanically at all times to reduce handling costs? These are the problems of every industrial executive.

25. HANDLING COSTS STUDIED.

The Foodstuffs Division of the Department of Commerce has undertaken a special study of handling costs for canned vegetables, fruit, meats, fish, soups and milk. Plans are being made for a complete study of the handling costs of canned foods through canners, wholesale distributors, including various types of jobbers, and retailers. This information will be applied to the different commodities, further broken down into grades and sizes. The findings will present the conditions with relation to drop shipments and packing house handling.

The study will be under the supervision of the Division's Grocery Specialist. Studies are to be made in different parts of the country, so that comparisons may be had between outstanding houses in their field in each region. Such studies are now under way in representative houses in the Middle West. Briefly the method is to allocate the cost of handling to the different departments or classifications of merchandise; and then to conduct further research on canned foods. A major object of the study is to promote the use by the wholesale grocer of more scientific accounting methods in computing his costs of handling various types of canned foods, which represent such an important part of his business.

26. "THE HOME THAT THE BUDGET BUILT."

One of the large New York Department stores has a model house in one of its sections where actual demonstrations are given of the efficacy of budgeting and the merchandise purchasable on the budget plan. The section is reported exceedingly popular.

BUILDING AND HOUSING.

J. F. Taylor.

27. NEWS OF THE DIVISION.

With the legislation of 41 States meeting this January, the Standard City Planning and Zoning Enabling Act, which were drafted by the Advisory Committee on City Planning and Zoning, have been in active demand from civic and business groups and local officials throughout the country. Legislation relating to some or all of the topics covered in these Acts was passed in 27 states in 1927, which indicates a widespread demand on the part of municipalities for laws and charter amendments which enable them better to make and carry out city plans and cooperate with the officials of other cities, towns, villages and counties in regional planning programs.

The Standard City Planning Enabling Act, which was recently published and embodies the result of more than three years work by the advisory committee covers the appointment of city and town planning commissions and defines their powers and relations to other branches of local governments. It also provides for effective regulation of the subdivision or platting of land, including new sub-developments in a belt beyond the city limits, for control of building in the bed of mapped streets, and for the establishment of regional planning commissions. The document contains full explanatory notes, which indicate that States not wishing to cover all the subjects enumerated in the Act may use parts of it, alone, or to supplement existing legislation.

The first printing of 10,000 copies of "Present Home Financing Methods" was sold out in November by the Superintendent of Documents, Government Printing Office, within two weeks of its announcement by the Department. A second larger printing has now been completed, and orders can be filled promptly at the rate of 5 cents a copy, \$4.50 a hundred, \$45.00 a thousand, and \$25.00 for each additional thousand on larger orders. Among the quantity purchasers have been prominent building and loan associations, savings banks, employers, trade associations whose members are interested in home financing, and other business groups who want existing home financing facilities improved, as an encouragement to active building of new homes on a sound, economic basis.

RESEARCH28. INGENUITY DEVELOPED.

Industrial research today is supported by a little group of earnest thinkers. Industry, full of mediocre triumphs but still woefully weak in economy, conservation and utilization, will gain its full power only when research gains its full recognition says "Manufacturers News" editorially in discussing the fact that "Extremity Develops Ingenuity." This Editorial says that every raw material has uses still undiscovered; almost every industrial process produces by-products whose value still is unrealized; every factory has wastes to be reclaimed and every operation can be performed in a better and more economical way.

29. NEW ERA IN COTTON.

Discussing "A New Era In Cotton Textiles" in a recent issue of "Commerce and Finance," Herbert G. Beede, Secretary of Fales and Jenks Machine Company, said that the essentials of a successful cotton mill proposition, without regard to the personnel, would include a definite policy of limiting the product to a few standard and non-conflicting lines rather than too much diversification or on the other hand an outstanding ability to handle style and seasonal goods.

30. PIONEER IN RESEARCH.

In a recent article appearing in, "The Railway Age", Mr. H. D. Browne, Engineer of Lists, The Chicago and North Western Railroad, said that not only was this the pioneer road of Chicago, but also the pioneer road in the Middle West to establish a department for testing materials, both chemically and physically.

One of the necessary tasks of this department is the formulation of specifications to govern the purchase and testing of various kinds of materials used by the railroad in the construction and repair of locomotives, cars, bridges, etc. Every effort is made to improve the quality of materials through a study of manufacturing methods, the application of proper specifications and careful attention to testing and inspection.

31. TECHNICAL PAPER.

A paper entitled "Temperature Measurement of Molten Cast Iron" by H. T. Wensel and W. F. Roeser, of the Bureau of Standards, has been selected by the Board of Awards of the American Foundrymen's Association as one of the three best papers in the association's field, published during 1928. Each of the three papers selected, covers a different line of work, the paper by Wensel and Roeser falling under the classification of work in gray iron. The prize will be presented at the annual convention of the association, to be held in Chicago next spring...

32. THEORETICAL RESEARCH.

People who have but slight acquaintance with science or the work of scientific men sometimes wonder why so much scientific work is so very "theoretical." They recall the definition of a specialist as "one who learns more and more about less and less," or the remark of Anatole France, that a savant is "one who is interested in something that is fundamentally uninteresting." Yet discoveries that must be made to lay foundations or clear the way for future progress are often not themselves of immediate practical use. Science is like a mosaic pavement, into which successive fragments of truth must be fitted with regard to beauty and completeness of the pattern as a whole, without too much concern for the practical uses that might be made of the fragments individually. Then, when the pattern has become fairly complete, the man who is chiefly interested in the practical applications of science will discover that the orderly and systematized knowledge that has been placed at his disposal has greatly simplified his task.

33. THE WAY TO NET PROFITS.

"As the thoughtful man travels the new way to net profits and explores its tributary by-ways, he observes that the road leads through a composite understanding of markets, merchandising, distribution, sales forecasting, production planning, expense budgeting, and analytical research," is the message of Mr. Fred W. Sibley, Vice President, Bankers Trust Company of New York, contained in "Commerce and Finance" regarding "The New Way to Net Profits."

According to Mr. Sibley, knowledge of markets and marketing conditions is of primary importance in that it shapes production schedules to maximum advantage, minimizing inventory and labor turnover problems and simplifying financial budget almost to accounting routine. To the executive responsible for such procedure there inevitably comes the realization that his business is inextricably tied up with that of his fellow men, and that unfair competition is an economic evil which feeds upon itself, working to accomplish its own destruction as surely as that of the competitor it hopes to destroy. Just as water must flow freely or become stale, so must there be an unrestricted flow of information as between consumer and producer throughout the entire stream of distribution.

34. WHITTEMORE HONORED.

The James Turner Morehead Medal has been awarded to Herbert L. Whittemore, of the Bureau of Standards, for his outstanding welding research work in the oxyacetylene field. Since 1927 Mr. Whittemore has been chief of the engineering mechanics section of the Bureau of Standards. In this position he has had charge of a group of large testing machines which is unequalled anywhere, including the 2,000,000 pound precision Emery testing machine and the 10,000,000 pound Olsen machine which is the largest in the world. Mr. Whittemore was elected a junior member of the American Society of Mechanical Engineers in 1903 and a member in 1910.

UTILIZATION OF WASTE.

35. GOVERNMENTAL SAVINGS.

A review of the annual reports of the Public Printers from 1922 to 1927, show how that official is conducting a waste elimination program through simplification and standardization in connection with the management of the Government Printing Office.

Through the adoption of standardized letterheads, as to paper stock and size, it is estimated that the saving is \$15,000 a year. By the restriction of duplication in the printing of annual reports there has been saved \$43,000. By standardizing wall calendars for all government departments a saving of approximately \$5,000 a year has been effected. In addition to the economies effected by simplification of forms, publication sizes, etc., other savings have been made through better shop practices, more careful supervision over the use of materials and the operation of machinery. In 1924, these savings were \$283,916.25; in 1925, \$312,333.46; in 1926, \$230,838.59; and in 1927, \$388,883.00.

36. NAVY SAVES MONEY.

Because it is necessary that the naval supplies carried in store at the various navy yards and supply depots be in such quantity and material condition as to best meet the needs of the navy, particular attention is given to the utilization of excess material and the disposal of non-standard and inactive items of stock, according to the annual report of the Secretary of the Navy, for the fiscal year 1928. During the year \$837,000 in excess stocks was utilized by the navy.

37. USES CORNSTALKS.

The first daily newspaper in the world to be printed on cornstalk paper is believed to be the Danville (Illinois) Commercial News, with its 116 page Edition of Progress, Sunday, December 16, 1928. This heralded a new epoch in the paper world. The leading article in the Edition of Progress best describes what this publication on paper produced from farm waste means not only to the paper world, but to the industrial world. This article said,

in part:

"Who can not visualize as he reads these printed columns that the successful establishment of a pulp and paper industry using agricultural wastes as its raw materials means: The stopping of overdrafts on the world's forest resources; Automatic Flood Control by arresting the destruction of forests at the head waters of streams; creation of new sources of income for Agriculture from by-products now wasted; Building of pulp and paper mills where they have never been built before, wherever corn is grown abundantly and there is ample water supply for manufacturing."

ELIMINATION OF WASTE

38. ASSOCIATIONAL WASTES.

According to The Corn Exchange, published by the Corn Exchange National Bank and Trust Company of Philadelphia, "within the city of Philadelphia there are forty-six separate trade organizations trying to do Chamber of Commerce work. They should co-ordinate their activities for the general good of Philadelphia. They should work together as one. Why not Hooverize them?"

39. COST OF DISTRIBUTION.

Efficiency and scientific management are essential factors in the successful operation of the modern industrial plant. Great progress has been made in these directions by American manufacturers during the last decade. Waste has been eliminated in a thousand different ways through improved business practice and through simplification of processes and methods of manufacture. Owing to our great domestic market, factory operation on a gigantic scale has made it possible to apply every advance toward the production of standard commodities of high quality at a low cost.

Dunn's International Review for December, in discussing this subject editorially says: "With this lowering of production costs, it is now recognized that the next great field for the reduction of industrial waste is in methods of distribution. Today, the necessity for satisfactory and economical distribution as a means of passing production economies on to consumers is reinforced by the realization that, in many instances, effective distribution is the deciding factor in the new group competition between industries, commodities, and distributors. The idea of a smoother and more economical passage of merchandise from producers to consumers is growing rapidly and it is to be hoped that the problem will permit of an early solution."

40. "MANAGEMENT WEEK" EXPANDS.

The growth of the movement that was started six years ago to hold Management Meetings all over the country during one week a year has become so large that it has been decided to expand the duration to a month. The month now chosen is April which avoids the disadvantages found in using the former week in October.

The Management Division of the American Society of Mechanical Engineers, has issued a request to Local Sections to arrange if convenient a Management Meeting during the Month of April. The Management Division offers its aid to any local Section in securing speakers for their meeting and requests that the local sections cooperate in any movement in their locality to hold a joint Management Meeting during the Month of April.

There is also a change in the form of stimulating such management activities. The organizations supporting Management Week decided that the movement had progressed to a state where it no longer needs the stimulus of a joint National Committee and that it would be advantageous to decentralize the movement by making the interested organizations responsible for aiding their own local groups. This year local groups can apply directly to their own organizations for assistance in arranging local programs as the joint National Committee has been disbanded. The remarkable success of the week has made this change necessary as from a small beginning in 1922 the movement to secure greater consideration of management problems grew until during Management week of October, 1927, meetings were held in 120 cities with a total attendance of over 35,000. This large growth made the work of the Joint Committee difficult to handle and the decentralizing of it became advisable.

The month of April was considered the most generally convenient time for Management Meetings throughout the country. During that month the Division is willing to aid in the routing of prominent speakers on Management. However, Local Sections and other groups are urged not to overlook including Management in their yearly program just because local conditions may not make it possible to have a meeting in April as the Management Division is always willing to give some assistance to a local meeting on Management at any time during the year.

Local groups wishing assistance for speakers are requested to communicate with W. L. Conrad, 29 West 39th Street, New York, New York, Chairman, Management Division, A. S. M. E.

41. NEW IDEAS.

The greatest demand right now is for ideas which will help to reduce the high cost of distribution, according to William R. Bassett, of Spencer, Trask and Company, New York, New York, in "Class and Industrial Marketing." He expresses the opinion that "new ideas, lowering costs, offer a chance to develop price appeal." He looks for changes to take place in industry, during the next fifteen years, along the following lines. 1. Great reductions in all kinds of costs will expand markets. 2. Business will be simplified in many respects. Outworn trade customs of many kinds will be discarded. 3. Channels of distribution will be cleared of needless obstructions. 4. Discoveries in pure science will reduce the present markets for certain goods, and open markets for new goods. 5. Art will increasingly enter into goods. 6. It is even possible that uneconomic costly competition will come to be frowned on, instead of encouraged by the law.

42. PROSPERITY.

Because mass production must sell cheaply, there can not be tolerated wastes in distribution, because this adds greatly to the final selling price and therefore limits the market, said Edward A. Filene, Boston Merchant, in a recent address to the Springfield (Massachusetts) Merchants' Bureau. He further said that because of the high production pay worker in factories operating on mass principles, it is possible to pay high wages.

43. PURCHASING.

There are few persons responsibly associated with large scale buying and supplying who have not agreed upon the importance of employing standards in their negotiations in order to provide the foundation for competition by sellers and the means by which uniformity can be secured in the quality of the product, remarks Railway Age, editorially in speaking of Standards and Purchasing. The editorial states that the importance of employing standards that

are uniform and of adhering to them in practice, does not seem to be so well recognized. The value of standards to efficient purchasing has been proved beyond a doubt but it still remains to be proved that a buyer, who does not support the practices which standardization calls for, can be depended upon to get the best value for his money.

44. WASTE DUE TO TRAFFIC.

Mr. A. B. Barber, of the National Conference on Street and Highway Safety, has completed a survey, showing the vast losses sustained by the public through traffic delays. He concludes that \$2,000,000,000 a year is a conservative estimate of the Nation's bill for traffic delays. This figure does not, of course, include losses from accidents which run high into the millions of dollars.

For instance, Mr. Barber found that in downtown Boston delays in traffic, cost the community \$24,500,000 a year in addition to losses from accidents which approximate \$2,000,000 a year. Chicago's loss he found to be approximately \$220,000,000 a year. New York's annual tribute to the traffic problem is \$350,000,000 a year, or \$1,000,000 a day.

45. WASTE IN INDUSTRY.

The National Safety Council estimates that accidents cost the American people \$3,200,000,000 annually. This figure, the Council says, is conservative, based on study of best available sources. Leading the loss comes industrial accidents at \$1,000,000,000 annually; home accidents at \$850,000,000; followed by automotive accidents at \$800,000,000 and fires at \$550,000,000. During 1927, the Council reports, there were 95,000 fatal accidents, while 10,000,000 suffered non-fatal injuries. Industrial accidents alone cost 320,000,000 working days.

A report on national vitality prepared in 1909 for the National Conservation Commission, appointed by President Roosevelt, estimated that there were then about 3,000,000 persons seriously ill at all times in the United States. This meant an average annual loss per person of 13 days owing to illness. It was estimated that 42 per cent of this illness was preventable, and that such prevention would extend the average life by more than 15 years. Since that report was issued an apparent reduction in illness has been accomplished.

46. "WASTE WEEK" WORTH WHILE.

"Waste Elimination Week," conducted from October 15 to 20, in all plants of the United States Steel Corporation, gave impressive results, which, according to The Iron Age, as time goes on, should result in substantial savings in production costs. The general response from employees may be realized from the fact that in one group of plants of the American Steel and Wire Company, those of the Worcester district, there were almost as many suggestions from employees as there were men employed. The number of men was 4,700 and the number of suggestions was 4,424. Fully one-half of these are considered useful and more than 100 of them have been recommended for consideration for financial award.

47. NEW PUBLICATIONS OF BUREAU OF STANDARDS. New and Revised Publications of the Bureau of Standards Issued During December, 1928. Bureau of Standards Journal of Research, Vol. 1, No. 6, December, 1928, (R. P. Nos. 32 to 36, inclusive). Price 25 cents, (foreign, 31 cents) RP 32. Physical properties of dental material (gold alloys and accessory materials); R. L. Coleman. Price, 35 cents. RP 33. Use of the under-water spark with the Hilger sector photometer in ultra-violet spectrophotometry; H. J. McNicholas. Price 5 cents. RP 34. Reaction of water on calcium

NEW PUBLICATIONS OF BUREAU OF STANDARDS (Cont'd).

aluminates; L. S. Wells. Price 25 cents. RP 35. Unidirectional radiobeacon for aircraft; E. Z. Stowell. Price 10 cents. RP 36. Studies of machines for extruding clay columns. Augers, spacers, and dies for brick machines; P. C. Grunwell. Price 15 cents.

Scientific Papers. Volume 22, Scientific papers of the Bureau of Standards; Nos. 547 to 572 (bound in cloth). Price \$3.00.

Handbooks. H4 (1928 edition). Discussion of the National Electrical Safety Code. (To accompany the fourth edition of the code). Price \$1.00.

Simplified Practice Recommendation. R56-28 (supersedes R56). Carbon Brushes and brush shunts. Price 10 cents. R81-28. Binder's board. Price 5 cents. R28-28. Hollow metal single-acting swing doors, frames and trim. Price 5 cents. R90-28. Hack-saw blades. Price 5 cents.

Technical News Bulletin. TNB140. Technical News Bulletin, December, 1928.

"Send orders for publications under this heading, with remittance, only to the Superintendent of Documents, Government Printing Office, Washington, D. C. Subscription to Bureau of Standards Journal of Research \$2.75 per year (United States Canada, Cuba, Mexico, Newfoundland, and Republic of Panama); other countries, \$3.50. Subscription to Technical News Bulletin 25 cents (other countries, 40 cents)."

48. APPENDIX.Simplified Invoice League - Reports received from December 1 to January 1, 1929.

Company	Period	Invoices Checked	On Simpli- fied form	Per Cent Adherence
Grand Rapids Railroad Company	-	-	-	75.00
Cadillac Motor Car Company	23 days	3229	2171	67.27
Standard Malleable Iron Company	-	-	-	60.00*
Grand Rapids Gas Light Co.	-	-	-	50.00*
Grand Rapids Varnish Corporation	-	-	-	50.00*
Michigan Seating Company	-	-	-	50.00*
Clark Equipment Company	10 days	-	-	41.25
Southern Ohio Public Service Co	10 days	364	146	40.11
Doerman Rochrer Company	-	-	-	35.00
New York Power and Light Corporation	-	-	-	33.33*
Purchasing Agents Association	-	-	-	33.33
Oklaoma Gas and Electric Company	10 days	-	-	30.30
Gunn Furniture Company	-	-	-	30.00*
Imperial Furniture Company	-	-	-	30.00*
E. A. Featherstone, Incorporated	25 days	720	-	28.00
Terre Haute, Indianapolis and Eastern Traction Company	1 month	1646	444	27.01
Purchasing Agents Ass'n. of Utah	-	-	-	25.00*
Cincinnati Hamilton & Dayton Ry. Co.	15 days	98	24	24.49
Graybar Electric Company	-	-	-	23.50
Union Gas and Electric Company	-	-	-	21.00
Twin City Ass'n. of Pur. Agents	-	-	-	20.00*
Oliver Chilled Plow Works	10 days	-	-	19.85

48. APPENDIX (Cont'd).Simplified Invoice League - Reports Received from December 1 to January 1, 1928 (cont'd).

Company	Period	Invoices Checked	On Simpli- fied form	Per Cent Adherence
L. A. Valve and Fitting Company	1 month	261	-	16.40
General Petroleum Corporation	5 days	1637	-	15.57
F. D. Lawrence Electric Company	-	-	-	15.00
U. S. Electrical Mfg. Company	16 days	274	-	15.00
Regan Forge & Engineering Co.	1 month	390	-	14.75
Neilan, Schumacher & Company	15 days	162	-	14.00
Westinghouse Lamp Company	10 days	-	-	14.00
Penn Ohio System	7 days	761	90	11.83
Utah Light & Traction Company	6 days	109	10	10.90
Pacific Electric Company	15 days	1554	-	10.81
Knappe & Vogt Mfg. Company	-	-	-	10.00
Nichols & Cox Lumber Co.	-	-	-	10.00*
Robins Conveying Belt Co.	10 days	-	-	10.00*
Southern Countries Gas Company	12 days	500	-	10.00
Baker Iron Works	1 month	200	-	9.50
American Manganese Steel Co.	1 month	153	-	9.00
Blue Diamond Company	15 days	300	-	9.00*
National Standard Company	10 days	-	-	8.25
L. A. Railway Corporation	15 days	900	-	8.00
Pacific Wire Rope Company	12 days	237	-	6.50
Howard Auto Company	1 month	275	-	5.50
Llewellyn Iron Works	1 month	2452	-	5.20
Berkey and Gay Furniture Co.	-	-	-	5.00*
Buss Machine Works	-	-	-	5.00*
Dept. of Water and Power	18 days	3000	-	5.00*
Fernholtz Machine Company	15 days	125	-	5.00
Gordon-Harrison Russell Inc.,	15 days	400	-	5.00
Klise Manufacturing Company	-	-	-	5.00*
Pacific Chemical Company	15 days	65	-	5.00
Whiting Mead Company	15 days	300	-	5.00
Riverside Cement Company	14 days	343	-	3.50
Leonard Refrigerator Company	-	-	-	3.00*
Shell Co. of California	2 days	400	-	3.00*
Thomas Hoverty Company	9½ mos.	1049	firms 31	firms 3.00
L. W. Blinn Lumber Company	15 days	400	-	2.00
The Carrom Company	-	-	:	2.00*
Pacific Coast Borax Company	17 days	900	-	2.00
Richfield Oil Company	1 month	8000	-	2.00*
Musto Keenan Company	15 days	106	-	1.19
Challenge Machinery Company	-	-	-	1.00*
Purchasing Agents Ass'n. of Birmingham	-	-	-	1.00*
U. S. Playing Card Company	-	-	-	1.00
Pacific Coast Biscuit Company	1 month	146	-	00.63
Franklin Motor Company	15 days	250	-	00.50
W. P. Fuller and Company	1 month	712	-	00.00

* Approximate.

