# UNITED STATES DEPARTMENT OF COMMERCE WASHINGTON <br> <br> SURVEY OF <br> <br> SURVEY OF CURRENT BUSINESS 

 CURRENT BUSINESS}

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BUREAU OF THE CENSUS
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AND
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IMPORTANT NOTICE
In addition to figures given from Government sources, there are also incorporated for completeness of service figures from other sources generally accepted by the trades, the authority and responsibility for which are noted in the "Sources of Data" an pages $139-142$ of ihe August, 1928, semiannual issue

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## INTRODUCTION

The Survey of Current Business is desigued to present each month a picture of the business situation by setting forth the principal facts regarding the various lines of trade and industry. The figures reported are very largely those already in existence. The chief function of the department is to bring together these data which, if available at all, are scattered in hundreds of different publications. A portion of these data are collected by Government departments, other figures are compiled by technical journals, and still others are reported by trade associations.

At semiannual intervals detailed tables are published giving, for each item, monthly figures for the past two years and yearly comparisons, where available, back to 1913; also blank lines sufficient for six months have been left at the bottom of each table, enabling those who care to do so to enter new figures as soon as they appear (see August, 1928, issue). In the intervening months the more important comparisons only are given in the table entitled "Trend of business movements."

## WEEKLY SUPPLEMENT

Realizing that current statistics are highly perishable and that to be of use they must reach the business man at the earliest possible moment, the department has arranged to distribute supplements every week to subscribers in the United States. The supplements are usually mailed on Saturdays and give fuch information as has been received during the week ending on the preceding Tuesday. The monthly information contained in these bulletins is republished in the Surver, and the supplements also contain charts and tables of weekly data.

## RELATIVE AND INDEX NUMBERS

To facilitate comparison between different important items and to chart series expressed in different units, relative numbers (often called "index numbers, a term referring more particularly to a special kind of number described below) have been calculated. The monthly average for 1923-1925 has usually been used as a base equal to 100 .
The relative numbera are computed by allowing the monthly average for the base year or period to equal 100. If the movement for a current month is greater than the base, the relative number will be greater thran 100 , and vice versa. The difference between 100 and the relative number will give at once the per cent increase or decrease compared with the base period. Thus a relative number of 115 means an increase of 15 per cent over the base period, while a relative number of 80 means a decrease of 20 per cent from the base.
Relative numbers may also be used to calculate the approximate percentage increase or decrease in a movement from one period to the next. Thus, if a relative number at one month is 120 and for a later month it is 144 there has been an increase of 20 per cent.

When two on more series of relative numbers are combined by a system of weightings, the resulting series is denominated an index number. The index number, by combining many relative numbers, is
designed to show the trend of an entire group of industries or for the country as a whole, instead of for the single commodity or industry which the relative number covers. Comparisons with the base year or with other periods are made in the same manner as in the case of relative numbers.

## RATIO CHARTS

In most instances the charts used in the Surver of Current Business are of the type termed "Ratio Charts" (logarithmic scale), notably the Business Indicator charts on page 2. These charts show the percentage increase and allow direct comparisons between the slope of one curve and that of any other curve regardless of its location on the diagram; that is, a 10 per cent increase in an item is given the same vertical movement whether its curve is near the bottom or near the top of the chart. The difference between this and the ordinary arithmetic form of chart can be made clear by an example. If a certain item having a relative number of 400 in one month increases 10 per cent in the following month, its relative number will be 440 , and on an ordinary chart would be plotted 40 equidistant scale points higher than the preceding monthe. Another movement with a relative number of, say, 50 also increases 10 per cent, making its relative number 55 . On the ordinary (arithmetic) scale this item would rise only 5 equidistant points, whereas the previous item rose 40 points, yet each showed the same percentage increase. The ratio charts avoid difficulty and give to each of the two movements exactly the same vertical rise, and hence the slopes of the two lines are directly comparable. The ratio charts compare percentage changes, while the arithmetic charts compare absolute changes.

## RECORD BOOK

As an aid to readers in comparing present data with monthly statistics in previous years, the department is compiling a Record Book of Busingss Statistics, in which data now carried in the Surver of Current Business are shown by months as far back as 1909, if available. Full descriptions of the figures and reports of how the data are used in actual practice by business firms are contained in the Recond Book. The sections covering textiles and metals have already been issued and may be obtained for 10 cents per copy from the Superintendent of Documents, Government Printing Office, Washington, D. C. (Do not send stamps.), Notices of other sections will be given in the Survey as they are issued.

## METHODS OF USE

Methods of using and interpreting current business statistics have been collected by the department from many business concerns and are described in a booklet entitled "How to Use Current Business Statistics," together with methods of collecting statistics. This booklet may be obtained from the Superintendent of Documents, Government Printing Office, Washington D. C., at 15 cents per copy. (Do not send stamps.)

This tsue presents practically complete data for the month of October and contatne text covering the early weeks of November (page 1), for which the baslo figures in table and chart form are presented regularly in the weekly supplements. As most data covering a particular month's business are not available until from 15 to 30 days after the close of the month, a complete picture of that month's operatione can not be presented at an early date, but the weekly supplements give eoery week the lateat data available.

# UNITED STATES DEPARTMENT OF COMMERCE SURVEY OF CURRENT BUSINESS 

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## PRELIMINARY SUMMARY FOR NOVEMBER

The volume of trade during the early weeks of November, as reflected by check payments, was greater than in the corresponding period of 1927. Activity in steel plants was on a higher scale than in either the previous month or the same month a year earlier. The value of new building contracts awarded during the first weeks of the month was slightly lower than in the same period a year ago. Employment in Detroit factories, measuring in large degree the activity in the automobile industry, showed some recession from the previous month but was considerably higher than a year ago.

Loans and discounts of Federal reserve member banks were somewhat higher than in the previous month, showing an advance over the same month of last year, as well. Interest rates on time money showed very little change froin the previous month but were higher than last year. Call-loan rates averaged lower than in October but were higher than
a year ago. Stock prices continued to average higher, while bond prices, which showed a slight advance from the previous month, were lower than a year ago, reflecting the effect of higher interest rates. Brokers' loans reached a new high point during November. The Federal reserve ratio showed only slight change from the previous month but was lower than a year ago.

The wholesale price index averaged somewhat lower than in October, but was still above the level which prevailed in November of last year. Prices for wheat averaged lower than a year ago. Cotton prices averaged higher than in October but were lower than for the corresponding month a year earlier. Iron and steel prices continued to recover and were slightly higher than during the same period of the preceding year. Copper prices averaged higher than in either the previous month or November a year ago. Business failures were approximately the same as in November of last year.

## MONTHLY BUSINESS INDICATORS, 1923-1928

Ratio charts-see explanations on inside front cover. The curves on check payments, wholesale trade, sales of mail-order houses and lo-cent chains, and department stores have been adjusted for normal seasonal variations, and mavufacturing production for the varying number of working days in the month as well]


## MONTHLY BUSINESS INDICATORS

The principal business indicators are shown below, all calculated on a comparable basis, the average for the years 1923 to 1925, inclusive. Thus the table gives a bird's-eye view of the business situation in a concise form, so that trends of the principal indicators may be seen at a glance.

Certain indicators, in which there is a marked seasonal movement, are shown with the average seasonal variations eliminated, as noted below. In this manner a more understanding month-to-month comparison may be made.

| 17EM | MONTHLY AVERAGE |  |  |  |  | 1987 |  |  |  |  | 1828 |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1988 | 1024 | 1225 | 1020 | 1987 | Aug. | Sept. | Oct. | Nov. | Deo. | Jan. | Feb | Mar | Apr. | May | June | July | Aug. | Sept | Oct. |
|  | 1923-1925 monthly average $=100$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| - Total minerals. | 105.0 | 96.0 | 89.0 | 107.0 | 107.0 | 106.0 | 105.0 | 105. 0 | 101.0 | 103. 0 | 103.0 | 103.0 | 105. 0 | 103.0 | 105.0 | 99.0 | 101. 0 | 105.0 | 108.0 | 114.0 |
| Pigiron. | 111.7 | 86.7 | 101. 5 | 109.0 | 101.0 | 98.6 | 92.8 | 93.2 | 88.6 | 90.2 | 96.1 | 97.1 | 107.1 | 106.6 | 109.9 | 103.1 | 102.8 | 105.0 | 102. 5 | 1129 |
| Steel ingots | 104.8 | 88.7 | 106.4 | 113.1 | 104.6 | 101.2 | 04.6 | 95.0 | 90.5 | 01.8 | 115.4 | 117.6 | 130.4 | 124.5 | 121.6 | 108.3 | 110.3 | 120.9 | 120.0 | 1345 |
| Automobiles. | 101.5 | 90.9 | 107.7 | 108.5 | 85.7 | 93. 9 | 78.8 | 66. 5 | 40.7 | 40.5 | 70.2 | 98.1 | 125.2 | 124.2 | 129.0 | 120.2 | 118.7 | 139.7 | 125.8 | 120.7 |
| Cement. | 82.1 | 99.8 | 108.1 | 110.0 | 115.3 | 147.4 | 140.8 | 138. 2 | 1163 | 96.5 | 78.6 | 70.8 | 82.3 | 108.4 | 139.0 | 140.6 | 140.4 | 150.7 | 143.7 | 141.1 |
| Lumber ( 5 species) | 98.6 | 96.2 | 105.2 | 101. 5 | 94.9 | 107.5 | 105. 8 | 101. 5 | 944 | 82.9 | 75.8 | 86.7 | 96.3 | 88.4 | 101.2 | 97.4 | 92.7 | 90.4 | 79.1 |  |
| Cotton (consumption) | 105.9 | 89.7 | 104.4 | 108.8 | 120.3 | 123.4 | 1222 | 119. 4 | 121.9 | 105.8 | 113.5 | 111.8 | 113.3 | 102.3 | 112.6 | 99.5 | 85. 5 | 102. 6 | 95. 9 | 120.6 |
| Wool (consumption). | 112.8 | 94.6 | 92.6 | 88.7 | 97.0 | 88.1 | 1016 | 103.7 | 97.8 | 88.0 | 95.2 | 102.0 | 98.7 | 82.0 | 92.7 | 87.1 | 80.4 | 95.2 |  | 108.6 |
| - Raw material output: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Crops. | 92.0 | 104.0 | 104.0 | 109.0 | 113.0 | 115.0 | 183.0 | 219.0 | 166.0 | 120.0 | 88.0 | 81.0 | 77.0 | 81.0 | 72.0 | 52.0 | 87.0 | 114.0 | 178.0 | 251.0 |
| Forest products | 90.0 | 97.0 | 104.0 | 88.0 | 93.0 | 99.0 | 98.0 | 26.0 | 83.0 | 86.0 | 81.0 | 87.0 | 96.0 | 96. 0 | 101.0 | 97.0 | 88.0 | 90.0 | 78.0 | 84.0 |
| Crude petroleum | 99.4 | 86.9 | 103.7 | 104. 6 | 122.3 | 128.3 | 123.6 | 126.3 | 121.3 | 122.1 | 117.8 | 110.9 | 122.2 | 117.5 | 122.5 | 118.1 | 122.9 | 126.8 | 124.5 | 129.8 |
| Bituminous coal. | 108.0 | 82.5 | 09.5 | 109. 7 | 09.4 | 85. 7 | 95.9 | 101.0 | 93.3 | 94.8 | 101.5 | 94.9 | 100.9 | 73.9 | 84.1 | 82.6 | 83.3 | 94.4 |  | 115.4 |
| Copper | 93.4 | 100.2 | 108. 4 | 110.2 | 104. 8 | 102. 0 | 100.0 | 108.1 | 1032 | 101.9 | 103.8 | 102. 2 | 106.6 | 105. 7 | 111.8 | 111.0 | 111.3 | 116.7 | 116.9 | 130.1 |
| Power and construction: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Electric power. | 92.5 | 88.1 | 109.5 | 122.6 | 183, 3 | 133.5 | 131.7 | 138. 2 | 137.1 | 143.8 | 144.8 | 137.0 | 144.5 | 188.7 | 142.2 | 139.8 | 142.4 | 149.8 | 145.2 | 157.5 |
| Building contracts (37 St | 89.7 | 92.7 | 117.6 | 111.0 | 108.8 | 110.1 | 101.8 | 115.0 | 1062 | 95.2 | 96.0 | 103.7 | 132.7 | 142.4 | 143.5 | 142.2 | 123.7 | 118.8 | 114.2 | 1291 |
| Vnflited orders: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| General index | 121.7 | 87.0 | 91.3 | 84.6 | 74.0 | 71.6 | 60.9 | 67.0 | 67.1 | 71.5 | 81.2 | 81.6 | 81.4 | 76.8 | 73.9 | 75. 2 | 77.1 | 74.7 | 74.7 | 731 |
| U. S. Steel Corporation. | 125.8 | 83.6 | 90.6 | 21 | 71. 1 | 66. $\theta$ | 65. 8. | 70.0 | 72.4 | 83.2 | 89.5 | 92.1 | 90.8 | 81.1 | 71.6 | 76.2 | 74.8 | 75.9 | 77.4 | 736 |
| Stocks: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| General index | 94.5 | 102.0 | 103.5 | 114. 6 | 120.5 | 108.7 | 119.9 | 132.1 | 134.6 | 133.4 | 129.0 | 130.0 | 127.0 | 122.0 | 116.0 | 109.0 | 104.0 | 107.0 | 115.2 | 131.6 |
| Manfd. commodities (28) | 93.8 | 103.2 | 103.0 | 106. 3 | 111.5 | 115.2 | 114.0 | 108.6 | 110.7 | 111.6 | 115.0 | 120.0 | 120.0 | 119.0 | 118.0 | 119.0 | 117.0 | 114.0 | 109.3 | 107.6 |
| Cotton. | 102.5 | 91.4 | 106.2 | 145. 5 | 153.2 | 876 | 135. 1 | 1793 | 2000 | 195.8 | 178.8 | 159.1 | 135.7 | 117.8 | 96.7 | 74.6 | 58.4 | 52.4 | 89.5 | 155.1 |
| Copper (refined) | 106.4 | 113.9 | 73.1 | 64. 8 | 85.4 | 82.7 | 76.4 | 74.1 | 803 | 84.2 | 86.2 | 76.8 | 77.1 | 64.4 | 68.6 | 52.0 | 48.5 | 48.4 | 45.8 | 40.3 |
| Employment: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Prices: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Farm products, to producers. | 97.8 | 97.1 | 106.5 | 98.8 | 94.8 | 95.7 | 101.4 | 100.7 | 093 | 99.3 | 99.3 | 97.8 | 99.3 | 101.4 | 107.2 | 105. 1 | 105. 1 | 100.7 | 102.2 | 993 |
| Wholesale, all commodities | 98.7 | 97.2 | 102. 6 | 99. 1 | 95.4 | 94.4 | 95.6 | 96.1 | 058 | 95.9 | 05.4 | 95.5 | 95.1 | 96.5 | 97.7 | 96.7 | 07.4 | 98.0 | 99.2 | 869 |
| Retail food... | 97. 6 | 97.6 | 104.9 | 107. 6 | 103.6 | 1016 | 102.9 | 104.3 | 1049 | 104.2 | 103. 6 | 101.3 | 101.2 | 101.6 | 102.8 | 102.0 | 102.1 | 103.0 | 105.4 | 1048 |
| Cost of living (including food)....- | 88.1 | 99.8 | 102.3 | 1023 | 09.8 | 88.7 | 90.3 | 99. 8 | 98.8 | 99.9 | 09.2 | 98.4 | 98.1 | 97.9 | 98.4 | 98. 0 | 65.0 | 98. | 99.3 | 993 |
| Distribution (values) : |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| - Bank debits, 141 cities. | 91.2 | 90.7 | 111.0 | 119.6 | 132.5 | 137.6 | 141.0 | 130.7 | 132.1 | 136.9 | 142. 1 | 149.6 | 164.8 | 161.8 | 168.8 | 165.4 | 140.4 | 149.9 | 156.9 | 1610 |
| -Wholesale trade.. | 101.0 | 98.0 | 101.0 | 98.0 | 95.0 | 100.0 | 90. 0 | 91.0 | 950 | 93.0 | 95.1 | 97.0 | 92.8 | 89.2 | 96.2 | 89.2 | 93.7 | 98.5 | 94.1 | 95. 2 |
| - Department stores, sales | 98. 0 | 09.0 | 103.0 | 1060 | 106. | 111.0 | 109.0 | 105. 0 | 1070 | 111. 6 | 105.0 | 105.0 | 105.0 | 103.0 | 104.0 | 104.0 | 108. 0 | 106.0 | 120.0 | 105.0 |
| - Mail-order houses, sales | 22.0 | 98.0 | 110.0 | 115. 0 | 120.0 | 133.0 | 122.0 | 117.0 | 119.0 | 128. 0 | 113.0 | 116.0 | 113.0 | 117.0 | 132.0 | 144.0 | 153.0 | 160.0 | 154.0 | 140.0 |
| - 10-cent chains, sales | 88.0 | 99.0 | 113.0 | 125. 0 | 138.0 | 140.0 | 141.0 | 144.0 | 1400 | 147. 0 | 140.0 | 1420 | 142.0 | 147.0 | 144. 0 | 153.0 | 148.0 | 144.0 | 165. | 1480 |
| Imports. | 97.8 | 93.1 | 109.0 | 114.3 | 107.8 | 114.2 | 105. 9 | 110.1 | 109.. | 102.5 | 104. 6 | 108. 7 | 117.8 | 106. 9 | 109. 6 | 98.2 | 98.4 | 107.3 | 98.9 | 110.0 |
| Exports | 91. 5 | 100.8 | 107.8 | 105. 5 | 106.8 | 88.7 | 1120 | 128.7 | 121.4 | 107.4 | 108.2 | 97.8 | 110.8 | 95.9 | 111. 1 | 102.3 | 99.8 | 100.1 | 111.1 | 146.2 |
| Transportation: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Freight, net ton-miles. | 102. 2 | 95.9 | 101.9 | 109.1 | 101.5 | 1125 | 115.1 | 122. | ${ }^{96} 8$ | 92.7 | 97.2 | 95. | 129.0 | 96.1 | 105. 2 | 100.0 | 105.0 | 113.6 | 132.4 | 852 |
| Finance: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Member bank loans and discounts. | 94.1 | 98.5 | 107.4 | 112.9 | 117.3 | 117.3 | 119.3 | 120.0 | 121.4 | 123.2 | 121.9 | 120.8 | 123.3 | 127.3 | 126.9 | 128.4 | 128. 6 | 125.6 | 127.3 | 1283 |
| Interest rate (commercial paper).. | 116.2 | 90.0 | 93.5 | 100.9 | 95.4 | 92.8 | 92.8 | 92.8 | 92.8 | 92.8 | 92.8 | 92.8 | 95.8 | 101.6 | 104. 4 | 113.2 | 119.0 | 124.8 | 130.6 | 127.6 |
| Federal reserve ratio. | 99.0 | 104.1 | 96.8 | 96.0 | 09. 1 | 101.4 | 98.8 | 98.4 | 92.2 | 86.5 | 95.5 | 96.0 | 95.6 | 90.0 | 89.2 | 84.7 | 88.9 | 90.0 | 86.5 | 870 |
| Price, corporation bonds. | 96.4 | 99.8 | 103.6 | 108. 0 | 112.5 | 112.9 | 113.4 | 114.4 | 114.9 | 115. 6 | 115.9 | 115.8 | 115.7 | 116.0 | 115.0 | 112.3 | 110.9 | 109.8 | 111.0 | 1113 |
| Price, railroad stocks. | 860 | 96.1 | 117.9 | 133.4 | 182.7 | 167.8 | 171.5 | 168. 5 | 171.6 | 171.1 | 169.1 | 164.7 | 170.1 | 176.0 | 178.9 | 169.5 | 170.3 | 173.8 | 178.5 | 1784 |
| Price, industrial stocks. | 86.1 | 91.9 | 122.0 | 132.4 | 171.4 | 183.7 | 193.9 | 186.4 | 190.0 | 193.7 | 193. 5 | 191.2 | 204.8 | 210.4 | 213.2 | 202.1 | 208. 1 | 213.4 | 226.9 | 234.5 |
| Failures (liabilities).. | 106.0 | 100.8 | 87.2 | 804 | 102. | 02.4 | 77.3 | 85. 5. | 85.3 | 120.9 | 112.3 | 106.3 | 129.3 | 82.5 | 85.2 | 68.0 | 69.8 | 137.3 | 80.1 | 82.5 |

## BUSINESS CONDITIONS IN OCTOBER

## PRODUCTION

Industrial production during October, according to the weighted index of the Federal Reserve Board, after adjustments for seasonal variations, remained unchanged from the previous month, each being higher than at any other time on record. The principal gains over a year ago occurred in the output of automobiles, rubber tires, iron and steel, and cement, brick, and glass, while a decline from last year was registered in the output of textiles, lumber, and leather. Mineral production, after adjustment for seasonal conditions,
compared with a year ago, iron and steel and lumber showed larger unfilled orders, while textiles declined.

Wholesalə trade in September, after adjustments for seasonal changes showed larger dollar sales than in either the preceding month or the corresponding period a year earlier, declines from September in meat, dry goods, men's clothing, and boots and shoes being more than offset by increases in other lines. Compared with a year ago only the boot and shoe industry declined, while the dry goods industry remained stationary. The greatest gain from October, 1927, in wholesale

PRODUCTION, STOCKS, AND UNFILLED ORDERS FOR MANUFACTURED COMMODITIES
[1923-1925 monthly average $=100$. A justment has been made for the seasonal movement and relative number of working days lor production. Unfilled orders are principally those of iron, steel, building materials, and textiles. October, 1928 , is the latest month plotted]

showed gains over both the previous month and October of last year, the principal increase over last year occurring in copper.

## COMMODITY STOCKS

Stocks of commodities held at the end of October were higher than at the end of the previous month, but showed a decline from a year ago, due to a decrease in stocks of manufactured goods. Contrasted with the preceding month, stocks of manufactured goods were smaller, while raw materials were larger.

## SALES

The general index of unfilled orders was slightly lower than for the previous month and October of last year. Compared with September, unfilled orders for textiles and transportation equipment were larger but forward business on the books of lumber mills declined. As
trade was recorded by the men's clothing, women's clothing, and furniture lines.

Sales by department stores showed substantial gains over both the previous month and October of last year. Merchandise stocks held by department stores at the end of the month were smaller than a year ago. Sales by mail-order houses were substantially larger than in either the preceding month or October, 1927. The volume of business transacted by 10 -cent chains was also greater than in either the previous month or the same period a year earlier. Grocery, clothing, drug, cigar, and candy chains showed larger dollar volumes than in September, while shoe sales in chain stores declined. Cigar chains were the only type of chain stores to show a decline from a year ago in sales, substantial gains from October, 1927, being recorded by grocery, wearing apparel, drug, candy, and shoe stores.

## PRICES

Wholesale prices, although lower than in September, averaged slightly above those of September, 1927. Few changes from the previous month occurred in the major groups, prices of farm products, foods, hides and leather showing declines, while chemicals advanced and the remaining groups were unchanged. Compared with a year ago, no substantial changes took place. Foods, hides and leather, fuel and lighting, metals and building materials registered small increases, while farm products, textiles, chemicals, house-furnishing goods, and miscellaneous products declined. Classified by State of manufacture, production declined from the previous month with the exception 'of 'semimanu-
unchanged. Increases from a year ago in prices for food and clothing were insufficient to offset declines in the other items comprising the cost of living.

## EMPLOYMENT

The general index of factory employment showed a small gain over both the previous month and the corresponding month of last year. This index moreover does not include any of the new industries, such as aircraft, radio, rayon, etc., where employment conditions are known to be good. Compared with the previous month, most industries for which data are available showed either an increase or no change, declines occurring only in the leather, stone, clay, and glass, and vehicle industries. Many industries re-

PRICE COMPARISONS

factured articles, which showed no change. Finished products and nonagricultural commodities showed increases over October, 1927, while raw materials and semimanufactured articles declined.

The index of prices received by farmers for their produce was lower in October than for either the previous month or for the corresponding month of last year, the only classes to show an increase from Saptember being dairy and poultry goods and cotton and cottonseed, while meat animals and dairy and poultry were the only classes to increase as compared with October, 1927.

The cost of living index showed no change from September but was slightly less than a year ago. Compared with last month, the cost of living was unchanged, while that of food and clothing showed slight declines, Digitized fortheasest of shelter, light, and sundries remaining

Federal Reserve Bank of St. Louis

## WHOLESALE PRICES FOR SPECIFIED COMMODITIES

[Relative numbers, 1926 monthly average taken as 100. October, 1928, is latest month plotted. Data from which these charts are drawn are given on the opposite page]


## WHOLESALE PRICES FOR SPECIFIED COMMODITIES

- Nots.-Prices to producer on farm products and market price of wool are from D. S. Department of Agriculture, Bureau of Agricultural Economics, nonferrous metala Irom the Enginecring and Winino Journal-Press, except tin, which is from the American Metal Market. All other prices are from U. S. Department of Labor, Bureau of Lanor Statitics. So far as possible ell quotations represent prices to producer or at mill

| COMMODITTEA | Unit | ACTUAL PBICR (dollars) |  |  | 1928 avarage $=100$ |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | September, 1928 | October, 1928 | October, 1927 | $\begin{gathered} \text { August, } \\ 1928 \end{gathered}$ | September, 1928 | October, 1928 | September, 1927 | October, 1927 |
| FARM PRODUCTS-AVERAGE PRICE TO PRODUCER |  |  |  |  |  |  |  |  |  |
| Wheat | Bushel. | 0.944 | 0.987 | 1. 137 | 71 | 70 | 73 | 88 | 84 |
| Corn. | Bushel...-- | . 951 | . 847 | . 876 | 141 | 136 | 121 | 136 | 125 |
| Potatoes | Bushel...-- | -648 | . 580 | . 979 | 39 | 35 | 31 | 58 | 53 |
| Cotton...- | Pound....-- | . 0.176 | ${ }_{34} .181$ | . 200 | 125 | 117 | 120 | 149 | 139 |
| Cottonseed. | Ton.......-. | 30.98 | 34.08 | . 36.60 | $\begin{array}{r}136 \\ 147 \\ \hline 85\end{array}$ | 114 154 | 125 | 127 | 135 |
| Cattle, beel | Pound. P -..-- | . 0989 | .0963 .0955 | .0755 .1016 | 147 85 | 154 95 | 149 81 | 115 | 117 86 |
| Lambs. | Pound....-. | . 1197 | . 1157 | . 1122 | 103 | 103 | 100 | 96 | 97 <br> 7 |
| FARM PRODUCTS-MAREET PRICE |  |  |  |  |  |  |  |  |  |
| Wheat, No. 1, northern spring (Minneapolis) | Bushel...- | 1. 201 | 1. 185 | 1. 275 | 78 | 78 | 77 | 85 | 82 |
| Whest, No. 2, red, winter (Chicago) --........ | Bushel.... | 1. 395 | 1. 436 | 1. 344 | 86 | 91 | 93 | 85 | 87 |
| Corn, contract grade No. 2, cash (Chicago) | Bushel..... | . 993 | . 937 | . 878 | 128 | 131 | 124 | 131 | 116 |
| Oats, contraot grades, cash (Chicago) .--................................................. | Bushel....- | . 425 | . 448 | . 498 | 91 | 99 | 104 | 114 | 116 |
| Barley, feeding (Chicago) ............. | Bushel....-. | . 673 | . 617 | . 823 | 105 | 97 | 89 | 120 | 119 |
| Rye, No. 2, cash (Chicago) -........-...-7. |  | . ${ }^{.988}$ | 1. 053 | . 11.939 | 103 | 105 | 110 | 102 | 105 |
| Tobacco, leai, sverape sales, warghouse (Kentucky) ....................... | Cwt | 7.871 | 12. 077 | 11. 331 | 137 | $\begin{array}{r}93 \\ 105 \\ \hline\end{array}$ | 143 | 184 | 134 |
| Cotton, midaling upland (New York) ...-.-.-.-.---.....-..............- | Pound.....- | . 185 | . 196 | . 211 | 110 | 105 | 112 | 125 | 120 |
| Wool, $/ 1 /$ blood combing, Ohio and Pennsylvania fleeces (Boston)..... | Pound | . 54 | . 54 | . 47 | 117 | 117 | 117 | 98 | 102 |
| Cattlo, steers, good to clolce, corn fed (Chicago) -......................... | Cwt. | 16. 188 | 14.625 | 14.325 | 159 | 170 | 154 | 140 | 150 |
| Hogs, hesvy (Chicago)....... | Cwt Cwt | 12.431 5.500 | 10.030 5.350 | 11.055 5.250 | 95 87 | 101 83 | 81 81 | 88 79 | 90 80 |
| Sheop, owes (Chicago). Sheop, lambs (Chicago). | Cwt........ | 5. 14.156 1. | 13. 1350 | 5. 13.865 | -87 | 83 103 | 85 <br> 95 | 79 99 | 80 101 |
| FOOD |  |  |  |  |  |  |  |  |  |
| Flour, standard patents (Minneapolis) ...................................... | Barrel.-...- | 6. 388 | 6. 410 | 7. 231 | 79 | 78 | 76 | 84 | 86 |
|  | Barrel....-- | 5. 650 | 5. 588 | 6. 535 | 78 | 78 | 77 | 92 | 90 |
|  | Pound..... | . 042 | . 039 | . 047 | 95 | 97 | 91 | 110 | 108 |
| Sugar, granulated, in barrels (New York) | Pound. .... | . 056 | . 052 | . 057 | 100 | 102 | 84 | 106 | 104 |
| Cottonseed oil, prime yellow (New York) | Pound.-..- | . 099 | . 099 | - 109 | 80 | 84 | 83 | 91 | 92 |
| Beef, fresh, carcass, good native steers (Chicago)........................... | Pound....- | . 259 | . 255 | - 210 | 149 | 158 | 155 | 116 | 128 |
|  | Pound....-- | - 284 | . 282 | . 225 | 152 | 168 | 165 | 125 | 132 |
| Pork, smoked hams (Chicago)--- ${ }^{\text {a }}$ - | Pound. | . 254 | - 280 | . 233 | 81 | 83 | 84 | 73 | 76 |
| Butter, creamery, 92 score (New York) -.....a) | Pound | .49 .220 | .48 .235 | .48 .245 | 104 | 109 | 107 | 102 | 107 |
| TEXTILES |  |  |  |  |  |  |  |  |  |
| Cotton yarns, carded, white, northern, mulespun, 22-1.cones (Boston) - | Pound....-- | . 358 | . 372 | . 402 | 103 | 100 | 104 | 113 | 112 |
| Cotton-print cloth, $64 \times 60-381 / 2^{\prime \prime}-5.35-\mathrm{yards}$ to pound .................. | Yard.......- | . 074 | . 078 | . 087 | 99 | 98 | 103 | 119 | 115 |
|  | Yard | +.089 | . 090 | . 1111 | 98 | 98 | 96 | 118 | 120 |
| Worsted yarns, 2/32's cross-bred stock, White, in skein (Boston) --...... | Pound | 1. 575 | 1. 575 | 1. 400 | 112 | 110 | 110 | 96 | 98 |
| Woman's dress goods, French, 39 lnches at mills, serge.................... | Yard.....-- | . 988 | . 975 | 1.000 | 99 | 96 | 94 | 94 | 97 |
| Suitings, unflnished worsted-13-ounce, mill.-............................. | Yard.......- | 2.008 | 2.008 | 1.913 | 100 | 100 | 100 | 95 | 95 |
| Suitings, serge, 11-ounce, 66-58 inch | Yard....... | 1. 998 | 1.998 | 2.048 | 92 | 92 | 92 | 95 | 95 |
| Silk, Jspan, 13-15.-....-.-.-. |  | 5.096 | 5. 145 | 5.145 | 78 | 82 | 83 | 82 | 83 |
| Hosiery, women's, pure silk, mill. | Dozen pair. | 10.290 | 10. 290 | 10.780 | 85 | 85 | 85 | 89 | 89 |
| LEATHER |  |  |  |  |  |  |  |  |  |
| Hides, green salted, packers' heavy native steers (Chicago) | Pound | . 246 | . 219 | . 233 | 168 | 175 | 156 | 160 | 186 |
| Hides, caliskins, No. 1, country, 8 to 15 pounds (Chicago).............. | Pound...-- | . 275 | . 246 | . 218 | 159 | 159 | 142 | 121 | 125 |
| Leather, chrome cali, dull or bright "B" grades (Boston)................ | Square foot. | . 565 | . 550 | . 510 | 125 | 125 | 121 | 113 | 113 |
| Leather, sole, oak, scoured backs, heavy (Boston) .--....---.............- |  | . 650 | . 630 | . 550 | 153 | 148 | 144 | 121 | 126 |
| Boots and shoes, men's black calf, blucher (Massachusetts) | Pair.-.-...- | 6. 750 | 6.750 | 6. 5000 | 106 | 106 | 106 | 102 | 102 |
| Boots and shoes, men's dress welt tan call (St. Louis) ....... | Pair | 5. 000 | 5.000 | 5.000 | 102 | 102 | 102 | 102 | 102 |
| FUEL |  |  |  |  |  |  |  |  |  |
| Coal, bituminous, mine-run (composite price) .--.-....................... | Net ton...- | 4. 019 | 4.020 | 4. 199 | 93 | 93 | 93 | 99 | 97 |
| Coal, bituminous, prepared sizes (composite price) .......................... | Net ton...-- | 4. 495 | 4. 639 | 4.932 | 92 | 94 | 97 | 105 | 103 |
|  | Long ton.-- | 13.040 | 13.040 | 13.389 | 93 | 95 | 95 | 97 | 97 |
| Coke, Connellsville (range of prompt and future) furnace-at ovens... | Short ton-- | 2.875 | 2. 910 | 2. 906 | 70 | 70 | 71 | 73 | 71 |
| Petroleum, orude, Kansas-Oklahoma-at wells.............................. | Barrel.-...- | 1.210 | 1.210 | 1. 240 | 64 | 64 | 64 | 64 | 66 |
| METALS |  |  |  |  |  |  |  |  |  |
| Pig iron, foundry No. 2, northern (Pittsburgh). | Long ton.-- | 18.635 | 18.860 | 19.260 | 89 | 90 | 92 | 93 | 93 |
| Pig iron, basic, valiey furnace..---............... | Long ton... | 16. 188 | 17.100 | 17.000 | 86 | 87 | 92 | 92 | 92 |
|  | Long ton... | 32.000 | 32.800 | 33.000 | 91 | 91 | 91 | 94 | 94 |
| Copper ingots, electrolytic, early delivery (New York)................... | Pound....-- | . 1472 | . 1520 | . 1296 | 105 | 107 | 110 | 94 | 94 |
| Brass, sheets, mill ...---............................ | Pound.... | . 194 | . 199 | - 183 | 101 | 102 | 105 | 96 | 96 |
| Lead, plg, desilverized, for early delivery (New York) | Pound | . 0645 | . 0650 | . 0625 | 74 | 77 | 77 | 75 | 74 |
|  | Pound....- | . 4807 | . 4897 | . 5850 | 74 | 74 | 75 | 94 | 90 |
|  | Pound....- | . 0625 | . 0625 | . 0600 | 85 | 85 | 85 | 84. | 82 |
| BUILDING MATEBIAL AND MISCELLANEOUS |  |  |  |  |  |  |  |  |  |
| Lumber, pine, southern, yellow flooring, mll] .-.......................... | M feet. | 37.73 | 37. 73 | 37.98 | 81 | 84 | 84 | 83 | 84 |
|  | Thousand.- | 12.50 | 12.50 | 11.75 | 82 | 76 | 76 | 71 | 71 |
| Cement, Portland, net without bags to trade, f. o. b. plant (Chicago district) | Bartel | 1.600 | 1.600 | 1.600 | 97 | 97 | 97 | 97 | 97 |
|  | Cwt. | 1.850 | 1.850 | 1.800 | 95 | 95 | 95 | 93 | 92 |
| Rubber, smoked sheets (New York) | Pound...... | . 182 | . 187 | . 343 | 40 | 38 | 39 | 70 | 71 |
| Sulphuric seld, $66^{\circ}$ (New Yorts).- | Ton......- | 15. 500 | 15. 500 | 15.200 | 107 | 107 | 107 | 103 | 104 |
| Wood puip, sulphite, domestic, unbleached, news grade (New York).- | Cwt.-..... | 2. 525 | 2. 525 | 2. 525 | 88 | 88 | 88 | 91 | 88 |
|  | Cwt........ | 3. 250 | 3. 250 | 3.250 | 94 | 94 | 94 | 94 | 94 |

NEW BUILDING CONTRACTS AND AUTOMOBILE PRODUCTION
[Relative numbers, monthly average, 1923-1925, taken as 100]


MINERAL PRODUCTION AND RAILROAD TON-MILEAGE
[Relative numbers, monthly average, 1923-1925, taken as 100]


FACTORY EMPLOYMENT, MANUFACTURING, AND ELECTRIC-POWER PRODUCTION
[Relative numbers, monthly average, 1923-1925, taken as 100 ]


## REVIEW OF PRINCIPAL BRANCHES OF INDUSTRY AND COMMERCE

## TEXTILES

Wool imports were larger than in September but were slightly less than a year ago. Wool consumption was greater than in either September or in the corresponding month of last year. The prices for wool and woolens were generally higher than a year ago.

Cotton consumption by textile mills was larger than for either the preceding month or for October of last year. For the first 10 months of the year, however, the consumption of cotton was 13 per cent smaller
of last year, while new orders exceeded those of either prior period. Prices of cotton goods showed a gain over September but were less than a year ago.

Silk imports were larger than for either the previous month or for October of last year. Silk deliveries also exceeded those of either prior period. Silk stocks held at warehouses were less and those at manufacturing plants greater than at the end of either prior period. More broad looms and less narrow looms were active than in September. The activity of silk spinning spindles exceeded that of the previous month but was

THE TEXTILE INDUSTRIES
[Relative numbers, monthly average, 1923-1925, taken as 100. Where available, October, 1928, is latest month plotted]

than for the corresponding period of 1927. Stocks of cotton held at the end of October, both at mills and in public storage, were smaller than a year ago. Exports of raw cotton showed gains over both the previous month and the same month of last year. Cotton prices were slightly above those for the previous month but less than a year ago.

The activity of cotton spindles was greater than during the preceding month but less than a year ago, despite a gain over October of last year in the activity per spindle. Production of cotton textiles exceeded that of the previous month but fell short of the output

less than a year ago. Prices of raw silk were slightly higher than in September but showed no change from a year ago. Imports of rayon were considerably larger than for the previous month but less than a year ago. Rayon prices were unchanged from either prior period.

Textiles spread with pyroxylin showed an increase both from the previous month and from a year ago. Shipments of pyroxylin-coated textiles exceeded those of either prior period and unfilled orders, while less than at the end of September, considerably exceeded last year's total. Sales of fur by dealers advanced both from the preceding month and from October, 1927.

## METALS

Shipments of iron ore in October were slightly less than during the previous month, but larger than a year ago. Pig-iron production was substantially larger than during either the previous month or October of last year. The same number of furnaces were in blast as at the end of September but considerably nore than a year ago, their capacity being greater than in either prior period. Wholesale prices for pig iron were slightly higher than for September but were still generally lower than a year ago.

The output of steel ingots was greater than for either the previous month or the corresponding month of last

New structural-steel orders, on the other hand, were less than for either the previous month or the corresponding month of last year. New orders for fabricated steel plate were the largest recorded since March, 1923, exceeding those of the previous month by 50 per cent. New orders for steel boilers exceeded both in number and square footage those for September and for a year ago.

New orders for machine tools were the largest recorded since March, 1920, being more than double those of a year ago. New orders and shipments of foundry equipment were considerably greater than either the previous month or the corresponding month

## THE METAL INDUSTRIES

[Pelative numbers, monthly average, 1923-1925, taken as 100 . October, 1928, is latest month plotted. Curve covering zine stocks is plotted from 12 months' moving monthly averages plotted on the end month]


year. Unfilled steel orders at the end of October also exceeded those of either prior period. The output and shipments of steel sheets by independent manufacturers showed substantial increases both from the previous month and from October, 1927.

The output both of steel and of malleable castings was considerably greater than during September or the corresponding month of last year. New orders for steel castings, however, were less and those for malleable practically the same as in September, orders for both types being much larger than a year ago.

Shipments of fabricated structural steel during October were the largest recorded since the beginning of 1924 when the compilation of such data was begun.

of last year. Shipments of wood-working equipment exceeded those for either the previous month or for October, 1927; new orders, while greater than a year ago, were less than during September. Shipments of electric industrial trucks and tractors were greater than in either the previous month or the corresponding month of last year.

The mine production of copper showed gains over both the previous month and October, 1927. Exports of refined copper also exceeded those for both prior periods. Deliveries of tin, while slightly less than for September, were greater than a year ago. The October production both of lead and zinc exceeded those of both prior periods.

## FUELS

The output of bituminous and anthracite coal increased seasonally and in each case exceeded that of a year ago. The output for the 10 months to date, however, was less in each case than for the corresponding period of last year. Coal prices showed slight advances from the previous month but were uniformly lower than a year ago. The production of coke was greater than for either the previous month or October, 1927, the decline from last year in the production of

Imports of rubber were substantially larger than during either the previous month or October, 1927. The aggregate amount of rubber imported during the first 10 months of the current year, however, showed little change from that brought into the country during the corresponding period of last year.

## HIDES AND LEATHER

Imports of hides and skins in October were slightly greater than during the previous month, but less than

## THE FUEL INDUSTRIES

[Relative numbers, monthly average 1923-1925 taken as 100 . October, 1928, is latest month plotted where data were available!

beehive coke being more than offset by the increase in by-product coke.

## AUTOMOBILES AND RUBBER

Although the output of passenger cars, both in the United States and Canada, was less than during the previous month, it was larger than is usually recorded at this season of the year, the total for the United States being exceeded in October of earlier years only in one instance, that of October, 1925. The output of trucks, both in the United States and in Canada, was larger than for either prior period. For the first 10 months of the current year, the production, both of passenger cars and of trucks, exceeded that of a corresponding period in any previous year. Shipments of accessories and parts during October, while slightly less than during the previous month, were considerably greater than a year ago.
a year ago, increases in calfskins and goatskins over September more than offsetting declines in cattle hides and sheepskins. Prices of hides were less than in September. The October output of sole leather was greater than during either the previous monthor the corresponding month of last year. Exports of sole and of upper leather also exceeded those of the previous month, although upper leather was exported in smaller quantities than a year ago. Leather prices declined from September but exceeded last year's level.

The production of boots and shoes was larger than for either the previous month or for the corresponding month of last year. For the calendar year to date, however, shoe production showed only a slight increase over last year's output. Shoe prices were generally higher than a year ago but showed no change from the previous month.

## BUILDING AND CONSTRUCTION

Building costs were generally higher than during the previous month and lower than a year ago. The value of new building contracts awarded in October exceeded that reported for either prior period. For the first 10 months of 1928 the value of new building contracts was 7 per. cent greater than for the corresponding months of last year. October contracts awarded in Canada were less than for either the previous month or for October, 1927, although the total for the year to date was considerably larger than for the first 10 months of last year. Fire losses in the United States and Canada were greater during October than for either comparative period. Fire
than at the end of September; those for maple flooring also being less than a year ago. Lumber prices averaged higher than during September; those of hardwoods being higher and those of softwoods being lower than a year ago.

## stone, clay and glass products

The production of face brick averaged higher than in either the previous month or in October, 1927. Shipments and unfilled orders, while less than in September, were greater than a year ago, while smaller stocks were carried than at the end of either prior period. New orders for porcelain and for vitreouschina plumbing fixtures were much larger than during the previous month, those for porcelain being larger

THE AUTOMOBILE AND RUBBER INDUSTRIES
[Relative numbers, monthly average 1923-1925 taken as 100. Where available, October, 1928, is latest month plotted]

losses for the year to date, however, were substantially smaller than in 1927.

## lumber and lumber products

The October output of lumber was generally greater than for the previous month but less than a year ago; among the few exceptions to this trend were California redwood, which declined from September, and Northern pine, which increased over a year ago. Lumber shipments were generally greater than for either prior period, although those of Douglas fir and California redwood declined both from the previous month"and from October, 1927.

The output of flooring, both oak and maple, was greater than during the previous month, that of oak flooring being also greater than a year ago. Flooring shipments exceeded those for either prior period. Digitized for FRASER Unfilled flooring orders, on the other hand, were less

and those for vitreous china but little less than a year ago. Shipments of both types of fixtures also exceeded those of the previous month, but were less than in October, 1927. New orders for architectural terra cotta were considerably larger than for either priorperiod.

The production and shipments of Portland cement were less than in September, but slightly greater than a year ago. For the year to date, however, the cement output and shipments exceeded those for the corresponding period of last year. Cement stocks declined from the previous month, but were greater than a year ago.

New awards for concrete pavements were lower than for the previous month or for the corresponding month of last year. The total for the year to date, however, was 18 per cent greater than for the same period of 1927 .

## FOODSTUFFS AND TOBACCO

The visible supply of wheat, both in the United States and in Canada, increased seasonally and was much greater than a year ago. Receipts of wheat at the principal markets during October also exceeded those of either prior period. Exports of wheat and flour were larger than during the previous month but considerably less than in October, 1927. Prices for winter wheat averaged higher and those for spring wheat lower than for either prior period.

The visible supply of corn was greater than in September, but very much less than a year ago. The Department of Agriculture's estimate indicates the
receipts being less and the shipments greater than in October, 1927. The output of inspected beef also exceeded September's total but was less than a year ago.

Receipts and shipments of hogs at primary markets were larger than during the previous month or the corresponding month of last year. The inspected slaughter of pork products also exceeded those of each prior period, while the cold-storage holdings declined. Prices for hogs and pork products, with the exception of ham, declined from both prior periods.

Receipts and shipments of sheep were larger than during the previous month or October, 1927. The production of lamb and mutton under Federal inspection also exceeded those of each prior period.

THE TOBACCO INDUSTRIES
[Relative numbers, monthly average, 1923-1925 taken as 100. Where available, October, 1928, is latest month plotted]


1928 crop to be slightly larger than that for last year. Receipts and shipments of corn at the principal markets were less than during either the previous month or October of last year. Prices also declined from the previous month but were at a higher level than in October, 1927.
The visible supply of oats was less than in September or a year ago. Receipts at the principal markets also were smaller than for either prior period, although the estimate of the 1928 crop indicated a 25 per cent increase over last year's total. Prices for oats averaged slightly above those for September but were lower than a year ago.
The receipts and shipments of cattle at the primary markets were larger than during the previous month,

Imports of coffee were considerably less than for either the previous month or for the corresponding month of last year. Coffee prices on the other hand ranged higher than for either prior period. An increase in the imports of tea, as compared both with September and with the corresponding month of last year, was accompanied by a decline in price from both periods.
Although the estimate of the 1928 tobacco crop indicated a considerable increase over last year's total, prices were higher than for either the previous month or for October, 1927. The consumption of each kind of tobacco was larger than for either prior period and exports of unmanufactured leaf showed a similar tendency.

## TRANSPORTATION

Car loadings in October were 5 per cent larger than a year ago, the only classes of goods to show a decrease from October, 1927, being grain, livestock, and forest products. For the first 10 months of 1927 car loadings showed a slght deciine from the corresponding period of last year, grain and miscellaneous products being the only classes of goods to show an incranse from October, 1927, in car loadings. Traffic through the inland waterways was uniformly larger than in September and, except on the Alleghany River, larger than a year ago. New orders for freight cars exceeded those of each prior period.

## DISTRIBUTION MOVEMENT

Sales of mail-order houses and 10 -cent chain stores showed substantial increases over both prior periods. Magazine advertising also exceeded that for either the previous month or the corresponding month of last year, and newspaper advertising, while much larger than in September, was 1 per cent less than a year ago. Postal receipts for the 100 important cities $w$ are larger than for either prior period, a similar trend being shown in the issuance of money orders. Dividend and interest payments scheduled for distribution in October exceeded those of either the previous month or the corresponding month of last year.

BUSINESS FAILURES


## BANKING AND FINANCE

Check payments outside of New York City were larger than during either the provious month or the corresponding month of last year Loans and discounts of the Federal reserve member banks showed expansion as compared with both prior periods. Interest rates on time loans were slightly higher and those on call oans lower than during the previous month, both being much higher than a year ago.

New salas of life insurance were slightly less than in September, but wers greater than a year ago, increases from September in ordinary and industrial insurance being more than offset by decreases in group insurance. For the first 10 months of the year, however, the amount of new insurance sold was 8 per cent greater than for the corrssponding period of 1927. Deposits in New York savings banks were slightly less Pthan in September, but were greater than a year ago.


GOLD, SILVER, AND FOREIGN EXCHANGE
Receipts of domestic gold at the mint were much larger than for either the previous month or the corresponding month of last year. The Rand output showed a similar tendency, but to a lesser degree. October imports of gold were much larger and exports much smaller than for either prior period. Silver production exceeded that of September but was less than a year ago, prices being slightly stronger than for either prior period.

Exchange on the principal foreign currencies showed only slight changes from September, increases occurring in the rates with Japan, India, and Brazil. Contrasted with last year the principal changes were downward, declines occurring in the Italian lira, the Swedish krone, Japanese yen, and the Argentinian and Chilean peso.

## INDEXES OF BUSINESS

The index numbers presented in this table are designed to show the trend in production, prices, trade, etc., by commodities or groups. They consist in general of weighted combinations of series of individual relative numbers; often the individual relative numbers are also given. The function of index and relative numbers is explained on the inside front cover. All of the index numbers, except where noted, are based on the average of the years 1923 to 1925, while maxima and minima are given only since 1923, thus eliminating the abnormal period prior to 1923. Complete descriptions and figures for earlier years may be found in the following issues of the Survey (later data being available in the latest semiannual issues): Production, in the July, 1928, issue (No. 83), pages 18 to 22; stocks in the August, 1928, issue (No. 84), pages 20 to 22 ; new orders in the September, 1928, issue (No. 85), page 19; unfilled orders in the January, 1928, issue (No. 77), pages 22 and 23; wholesale trade in the January, 1928, issue (No. 77), page 21; mail-order and chain stores in the May, 1928, issue (No. 81), pages 20 and 21 ; department stores in the April, 1928, issue (No. 80), pages 20 and 21 ; employment, based on 1923 as 100, in the August, 1928, issue (No. 84), page 108; farm prices, in the August, 1928, issue (No. 84), page 27; wholesale prices (Department of Labor), in the November, 1927, issue (No. 75), page 24, and the June, 1928, issue (No. 82), page 23; wholesale prices, commercial, in the August, 1928, issue (No. 84), page 26; cost of living in the August, 1928, issue (No. 84), page 27, and the June, 1926, issue (No. 58), page 24.

| Relative to 1823-1525 monthly average as 100 | Maxt-MinmsinceJan.19231, | Mini-minmsinceJan.1923 | 1927 |  |  | 1928 |  |  | per cent increase ( + ) or decrease (-) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | August | Septem. ber | $\underset{\substack{\text { Octo. } \\ \text { ber }}}{ }$ | August | $\begin{aligned} & \text { Septem. } \\ & \text { ber } \end{aligned}$ | $\underset{\substack{\text { Octo- } \\ \text { ber }}}{ }$ | Oct., 1928, from Sept., ${ }_{1928}$ | $\begin{aligned} & \text { Oct., } 1928, \\ & \text { from Oct.1 } 192 \end{aligned}$ |
| PRODUCTION <br> TOTAL INDUSTRIAL |  |  |  |  |  |  |  |  |  |  |
| Unadjusted, except for working days_ | 117 | 81 | 105 | 106 | 105 | 110 | 115 | 117 | +1.7 | +11. 4 |
| Adjusted for seasonal variations.-.-... | 114 | 83 | 107 | 105 | 103 | 112 | 114 | 114 | 0.0 | +10.7 |
| manufacturing |  |  |  |  |  |  |  |  |  |  |
| Total (adjusted for working days only). | 116. | 79 | 104 | 106 | 104 | 110 | 115 | 116 | +0.9 | +11.5 |
| Total (adjusted for seasonal variations) | 116 | 82 | 107 | 105 | 102 | 113 | 116 | 114 | $-1.7$ | +11.8 |
| Iron and steel.. | 127 | 59 | 102 | 98 | 94 | 121 | 127 | 125 | $-1.6$ | +33.0 |
| Textiles. | 121 | 77 | 119 | 118 | 113 | 109 | 108 | 111 | +2.8 | -1.8 |
| Food products | 106 | 92 | 97 | 93 | 94 | 91 | 97 | 99 | +2.1 | +5.3 |
| Paper and printing | 118 | 91 | 112 | 113 | 111 | 117 | 118 |  |  |  |
| Lumber | 110 | 90 | 95 | 99 | 94 | 86 | 82 | 81 | $-1.2$ | -13.8 |
| Automobiles | 139 | 47 | 89 | 81 | 70 | 133 | 139 | 120 | -13.7 | +71. 4 |
| Leather and shoes | 117 | 86 | 112 | 113 | 108 | 111 | 111 | 106 | -4. 5 | -1.9 |
| Cement, brick, and | 128 | 92 | 115 | 113 | 108 | 118 | 126 | 119 | $-5.6$ | +10.2 |
| Nonferrous metals. | 121 | 87 | 108 | 107 | 106 | 116 | 118 | 120 | +1.7 | +13.2 |
| Petroleum refining | 162 | 84 | 136 | 139 | 142 | 160 | 162 |  |  |  |
| Rubber tires. | 166 | 93 | 119 | 113 | 176 | 154 | 129 | 127 | +0.6+1.6 | +43.1+5.0 |
| Tobacco manufactures | 129 |  | 119 | 123 | 121 | 131 |  |  |  |  |
| Minerals |  |  |  |  |  |  |  |  |  |  |
| Total (adjusted for working days only) .- | 124 | 84 | 111 | 111 | 112 | 110 | 115 | 122 | +6. 1 | +8.9 |
| Total (adjusted for seasonai variations) | 120 | 90 | 106 | 105 | 105 | 105 | 108 | 114 | +5. 6 | +8.6 |
| Bituminous coal. | 125 | 77 | 92 | 92 | 90 | 91 | 94 | 99 | +5.3 | +10.0 |
| Anthracite coal. | 133 | 1 | 106 | 99 | 106 | 95 | 95 | 119 | +25.3 | +12.3 |
| Crude petroleum | 126 | 88 | 123 | 124 | 124 | 122 | 125 |  |  |  |
| Iron-ore shipments | 134 | 0 | 99 | 87 | 95 | 105 | 109 | 115 | +5.5 | +21.1 |
| Copper | 128 | 82 | 101 | 104 | 102 | 116 | 121 | 128 | +5.8 | +25.5 |
| Zinc- | 124 | 93 | 114 | 111 | 110 | 121 | 114 | 110 | -3. 5 | 0.0 |
| Lead. | 123 | 75 | 112 | 111 | 105 | 108 | 115 | 108 | $-6.1$ | -11.0 |
| Silver |  | 85 | 94 | ${ }^{111}$ | 91 | -82 | 79 | 81 | +2.5 |  |
| ANIMAL PRODUCTS (marketings) |  |  |  |  |  |  |  |  |  |  |
| Total | 124 | 79 | 105 | 87 | 95 | 97 | 92 | 102 | $+10.9$ | +7.4 |
| Wool | 421 | 26 | 225 | 89 | 68 | 195 | 54 | 35 | $-54.3$ | -48. 5 |
| Livestock | 131 | 76 | 89 | 85 | 108 | 79 | 92 | 95 | +3.3 | $-12.0$ |
| Poultry and eggs | 148 | 68 | 77 | 75 | 73 | 80 | 76 | 86 | +13.2 | +17.8 |
| Dairy products | 160 | 64 | 123 | 89 | 81 | 117 | 95 | 89 | -6. 3 | +9.9 |
|  | 187 | 44 | 187 | 150 | 154 | 170 | 137 | 153 | +11.7 | $-0.6$ |
| CROPS (marketings) |  |  |  |  |  |  |  |  |  |  |
| Total. | 251 | 45 | 115 | 183 | 219 | 115 | 178 | 251 | +41. 0 | +14.6 |
| Grains* | 205 | 38 | 169 | 178 | 160 | 186 | 165 | 174 | +5.5 | +8.8 |
| Vegetables* | 199 | 60 | 86 | 146 | 199 | 83 | 133 | 151 | $+13.5$ | -24.1 |
| Fruits*--- | 266 | 55 | 124 | 183 | 223 | 165 | 206 | 266 | +29.1 | +19.3 |
| Cotton products* | 353 | 11 | 74 | 186 | 260 | 45 | 184 | 353 | +91.8 | +35.8 |
| Miscellaneous crops* | 266 | 22 | 106 | 220 | 266 | 117 | 206 | 207 | +0.5 | -22.2 |
| FOREST PRODUCTS |  |  |  |  |  |  |  |  |  |  |
| Total.- | 112 | 78 | 99 | 98 | 96 | 89 | 77 | 87 | +13.0 | -9.4 |
| Lumber | 112 | 78 | 102 | 99 | 94 | 88 | 77 | 84 | +9.1 | -10.6 |
| Pulpwood | 151 | 54 | 63 | 84 | 100 | 82 | 68 | 108 | +58.8 | +8.0 |
| Gum (rosin and turpentine) | 161 | 18 | 119 | 124 | 117 | 161 | 129 | 128 | -0.8 | +9.4 |
| Distilled wood..-- | 148 | 65 | 116 | 113 | 104 | 73 | 65 | 85 | $+30.8$ | $-18.3$ |

## INDEXES OF BUSINESS-Continued

| Relative to 1923-1925 monthly average as 100 | $\underset{\substack{\text { Maxi- } \\ \text { mum } \\ \text { since } \\ \text { Jan. } \\ \text { 1933 } \\ \text { 1. }}}{ }$ | Mini-mimsinceJan.1923 | 1927 |  |  | 1928 |  |  | PER CENT INCREASE ( + ) OR DECREASE ( - ) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | August | $\begin{aligned} & \text { Septem. } \\ & \text { ber } \end{aligned}$ | October | August | $\begin{aligned} & \text { Septem- } \\ & \text { ber } \end{aligned}$ | October | Oct., 1928, from Sept. 1928 | $\begin{aligned} & \text { Oct., } 1928, \\ & \text { from } \\ & \text { Oct., } 1927 \end{aligned}$ |
| PRODUCTION-Continued NEW ORDERS |  |  |  |  |  |  |  |  |  |  |
| Total | 139 | 25 | 95 | 98 | 92 | 98 | 95 |  |  |  |
| Textiles | 153 | 30 | 108 | 118 | 103 | 92 | 99 |  |  |  |
| Iron and steel | 144 | 24 | 96 | 99 | 99 | 118 | 124 |  |  |  |
| Lumber. | 141 | 22 | 101 | 103 | 95 | 100 | 92 |  |  |  |
| Paper and printing | 128 | 14 | 102 | 107 | 107 | 108 | 109 |  |  |  |
| Stone and clay products. | 129 | 19 | 98 | 99 | 96 | 97 | 93 |  |  |  |
| STOCKS |  |  |  |  |  |  |  |  |  |  |
|  | 134 | 82 | 109 | 120 | 132 | 107 | 115 | 131 | +13.9 | -0.8 |
| Total manufactured goods | 120 | 88 | 115 | 114 | 110 | 114 | 109 | 108 | -0.9 | -1.8 |
| Foodstuff | 129 | 79 | 129 | 116 | 96 | 117 | 105 | 92 | $-12.4$ | $-4.2$ |
| Textiles- | 138 | 78 | 95 | 108 | 109 | 125 | 118 | 115 | $-2.5$ | +5.5 |
| Iron and steel | 152 | 78 | 117 | 125 | 115 | 131 | 130 | 134 | +3.1 | +16.5 |
| Nonferrous metal | 133 | 74 | 114 | 111 | 113 | 125 | 129 | 128 | -0.8 | +13.3 |
| Lumber--- | 125 | 78 | 122 | 122 | 122 | 98 | 96 | 96 | $\bigcirc 0$ | -21.3 |
| Stone, clay, | 178 | 64 | 123 | 116 | 118 | 140 | 130 | 120 | $-7.7$ | $+1.7$ |
| Leather | 123 | 66 | 69 | 69 | 70 | 72 | 73 | 73 | 0.0 | +1.4 |
| Rubber | 185 | 77 | 140 | 129 | 129 | 134 | 130 | 130 | 0.0 | +3.4 |
| Paper-- | 155 | 46 | 116 | 118 | 107 | 156 | 137 | 139 | +1.5 | +29.9 |
| Chemicals and oils | 125 | 84 | 94 | 97 | 103 | 90 | 97 | 103 | +6.2 | 0.0 |
| Total raw materials | 150 159 | 69 68 | 104 | 124 125 | 149 136 | 102 136 | 120 | 149 | +24.2 +7.6 | 0.0 +14.7 |
| Textiles. | 202 | 43 | 119 96 | 135 | 173 | +66 | 145 96 | 149 | $\begin{array}{r}+7.6 \\ +55.2 \\ \hline\end{array}$ | +14.7 -13.9 |
| Metals. | 136 | 54 | 96 | 103 | 117 | 100 | 116 | 133 | +14.7 | +13.7 |
| Chemicals and oils | 153 | 73 | 89 | 110 | 146 | 93 | 108 | 139 | +28.7 | -4.8 |
| UNFILLED ORDERS |  |  |  |  |  |  |  |  |  |  |
| Total | $15 \%$ | 67 | 73 | 71 | 68 | 75 | 75 | 72 | -4.0 | +5.9 |
| Textiles | 154 | 62 | 85 | 87 | 84 | 66 | 69 | 74 | +7.2 | -11.9 |
| Iron and steel. | 157 | 66 | 66 | 65 | 66 | 75 | 75 | 75 | 0.0 | +13.6 |
| Transportation equipment | 204 | 53 | 66 | 62 | 62 | 60 | 60 | 62 | +3.3 | 0.0 |
| Lumber. | 142 | 56 | 78 | 72 | 62 | 88 | 84 | 69 | $-17.9$ | +11.3 |
| WHOLESALE TRADE |  |  |  |  |  |  |  |  |  |  |
| Grand total, all classes | 124 | 82 | 111 | 112 | 106 | 109 | 110 | 112 | +1.8 | +5. 7 |
| Groceries.- | 119 | 86 | 97 | 102 | 102 | 101 | 101 | 108 | +8.0 | +5. 9 |
| Meats | 130 | 87 | 111 | 117 | 122 | 118 | 130 | 125 | $-3.8$ | +2.5 |
| Dry goods | 128 | 71 | 125 | 113 | 99 | 110 | 105 | 99 | $-5.7$ | 0. 0 |
| Men's clothing | 167 | 43 | 165 | 140 | 101 | 148 | 137 | 122 | -10.9 | +20.8 |
| Women's clothing | 188 | 26 | 98 | 95 | 87 | 92 | 88 | 106 | $+20.5$ | +21.8 |
| Boots and shoes- | 128 | 68 | 122 | 127 | 114 | 119 | 110 | 108 | -1.8 | -5. 3 |
| Hardware | 118 | 82 | 98 | 106 | 105 | 96 | 100 | 108 | +8.0 | +2.9 |
| Drugs... | 125 | 88 | 110 | 122 | 128 | 115 | 119 | 133 | +11.8 | +3.9 |
| Furniture. | 131 | 72 | 111 | 117 | 118 | 108 | 127 | 131 | +3.1 | +11.0 |
| RETAIL TRADE |  |  |  |  |  |  |  |  |  |  |
| Mail-Order Houses (4 houses) | 156 | 64 | 105 | 118 | 147 | 127 | 143 | 183 | +28.0 | +24.5 |
| Chain Stores: |  |  |  |  |  |  |  |  |  |  |
| Ten-cent. | 250 | 62 | 130 | 128 | 153 | 133 | 144 | 163 | +13.2 | $+6.5$ |
| Grocery | 224 | 77 | 170 | 171 | 190 | 205 | 200 | 228 | +14.0 | +20.0 |
| Wearing appare | 350 | 47 | 165 | 198 | 250 | 197 | 246 | 287 | +16.7 | +14.8 |
| Drug-- | 169 | 82 | 140 | 137 | 151 | 169 | 164 | 169 | +3.0 | +11.9 |
| Cigar- | 160 | 79 | 106 | 106 | 111 | 104 | 105 | 107 | +1.9 | $-3.6$ |
| Candy | 161 | 70 | 110 | 119 | 124 | 123 | 122 | 134 | +9.8 | $+8.1$ |
| Shoe-- | 163 | 55 | 101 | 108 | 121 | 109 | 130 | 127 | $-3.1$ | +5.0 |
| Department Stores: |  |  |  |  |  |  |  |  |  |  |
| Stocks---------- | 117 | 83 | 97 | 107 | 113 | 96 | 101 | 110 | +16.0 +8.9 | -2.7 |

INDEXES OF BUSINESS-Continued


INDEXES OF BUSINESS-Continued


ADDITIONAL PRELIMINARY RETURNS, CENSUS OF MANUFACTURES, $1927{ }^{1}$

| Industry | value of products |  |  | ERSONS EMPLoyed |  |  | Industry |  | value of products |  |  | PERSONS EMPLOTED |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1927 | 1925 | Per | 1927 | 1925 | Per |  |  | 1927 | 1925 | Per | 1927 | 1925 | Per |
|  | Thousands of dollars |  | $\underset{\left({ }^{2}\right)}{\text { creasc }}$ | Number |  | crease <br> ${ }^{(2)}$ |  |  | Thousands of dollars |  | $\underset{\left({ }^{2}\right)}{\substack{\text { ineses } \\ \text { ceas }}}$ | Number |  | $\begin{array}{\|l\|l} \text { in- } \\ \text { crease } \\ \left({ }^{2}\right) \end{array}$ |
| Adhesives, other than glue and rubber cement. | 74,945 | $\begin{array}{r} 9,853 \\ 36, \end{array}$ | -19.4 | $\begin{array}{r} 502 \\ 6,337 \end{array}$ | $\begin{array}{r} 561 \\ 6,129 \end{array}$ | $\begin{array}{r} -10.5 \\ 3.4 \end{array}$ | Leather, tanned, curtied, and finished. |  | $\begin{array}{r} 494,781 \\ 251,449 \\ 22 \end{array}$ | 30,844 | -1 | 6,48253,047 | $\begin{gathered} 7,006 \\ 53,043 \end{gathered}$ | -7.5 |
| Asbestos products.-.-.-.-.-.......- |  |  |  |  |  |  |  |  | $\begin{array}{r} 462,014 \\ 217,793 \\ 19,430 \end{array}$ | $\begin{array}{r} 7.1 \\ 15.5 \end{array}$ | ..... |  |  |
| Baskets, 'rattan and willow ware, not including furniture | 20,960150,452 | 16,658 | $\left.\begin{array}{r} 25.8 \\ -3.1 \end{array} \right\rvert\,$ | 8,594 | 6,808 | 26.2 | Lighting equipment manufactureNonclay refractories |  |  |  | 53, 047 |  | 15.3 |
| Batteries, total........................ |  |  |  |  |  |  | Perfumes, cosmetics, and toilet preparations |  | $\begin{gathered} 21,252 \\ 22,24 \end{gathered}$ |  | 14.5 | 4,729 |  | 4,102 |
| Beverages. | 242,515 | 237, 761 | 2.0 | -26,974 | 27,384 <br> 7,886 | $-1.5$ |  |  | 177,09137,734 |  |  |  |  |  |
| Brushes. | 293, 565 | $\begin{array}{r}\text { 45, } \\ 3004 \\ \hline 095\end{array}$ | 4.4 |  |  |  |  | rinting inks............-.-.-......- |  | 34,753 | 8.6 | 2,294 | 2,150 | $-\cdots .7$-0.8 |
| Cement |  |  | -2.4 | 36, 292 | 38, 437 | -5.6 |  | ulp goods | 23,818 | 20, 270 | 17.5 | 2, 88 9 | 3,017 |  |
| Caskets, coffins, burial cases, and mortieians' | 74,89174,625 | 70,41887,276 | $\begin{array}{r} 6.4 \\ -14.5 \end{array}$ | $\begin{aligned} & 11,665 \\ & 26.297 \end{aligned}$ | $\begin{gathered} 11,479 \\ 0 \end{gathered}$ |  |  |  |  | $\begin{aligned} & 5,710 \\ & 2,400 \end{aligned}$ | $\begin{array}{r} 3.2 \\ -1.2 \end{array}$ | $\begin{gathered} 1,633 \\ 673 \end{gathered}$ | $\begin{array}{r} 1,901 \\ 705 \end{array}$ |  |
| mortieians goods. |  |  |  |  |  |  |  |  | $\begin{aligned} & 5,880 \\ & 2,371 \end{aligned}$ |  |  |  |  |  |
| Chocolate and cocoa products. | 122, 783 | 106, 842 | ${ }_{27.8}^{15.1}$ | 6, 427 | 7, 9 , 665 | -9.8 | Roofing tile. |  | 5,435 | 5,84133,536 | -7.0 | 1,410 | 1,302 | -4.3 8.3 |
| Coffee roasting and spice grinding. |  |  |  | $\begin{aligned} & 6,427 \\ & 8,168 \\ & 1,533 \end{aligned}$ |  |  |  |  | 2.5 |  | 11, 029 |  |  |  |
| Draintile- | 4,23827,357 | $\begin{array}{r} 4,10 \\ \mathbf{4 5}, 423 \end{array}$ | $\begin{aligned} & 3.1 \\ & \mathbf{7 . 6} \end{aligned}$ |  | 5, 1056 | $-0.4$ | Sewing machines, cases, and attachments. |  |  |  |  |  | 33, 536 |  |
| Dressed furs ${ }^{\text {a }}$ - |  |  |  | $\begin{aligned} & 1,533 \\ & 5,468 \end{aligned}$ |  | $\begin{array}{r}16.1 \\ \hline 1\end{array}$ |  |  | $\begin{array}{r} 40,2220 \\ 287,060 \\ 1,658 \end{array}$ | 278, 273 | -3.3 | 13, 533 | 15, 406 | -12.3-12.89.7 |
| Engraving, stein and copperplate, and piate printing............. | $38,658$ | $32,106$ | 20.4 | 8,42715,312 | $\begin{array}{r} 7,259 \\ 14,701 \end{array}$ |  |  |  |  |  | 14.7 |  |  |  |
| Face brick | 46,17940,621 | 47, 914 | -3.6 |  |  | 4.2 | Stoneware and yellow and rockingham ware |  | 4,929 | 4,311 | 14.3 | 1,660 | 1,463 |  |
| Fire brick |  | 22, 4 45 | $\begin{array}{r} -9.4 \\ 24.5 \end{array}$ | 12,269 <br> 9,264 | $\begin{array}{r} 13,452 \\ 7,704 \end{array}$ | -8.8 |  |  |  |  |  |  |  |  |
| Floor and wall tile and similar tile- | 842,716 |  |  |  |  | 20.2 |  |  | 59,959. | 61, 224 | -2.1 | 11, 178 | 10,3483,638 | 8.0-3.5-0.6 |
| Furniture and store and office |  |  |  |  |  |  | Vitrified brick or block White ware |  | $\begin{array}{r} 11,049 \\ 32,476 \\ 184,558 \end{array}$ | 11, 764 | -6.1 -1.4 | 3, 510 |  |  |
| fixtures----------1. |  |  |  |  |  |  |  |  |  | -1. | 13, 395 | 13, 480 |  |  |
| Glass meters ana water meters | $\begin{array}{r} 36,715! \\ 279,708 \\ 35,616 \\ 25,953 \end{array}$ | $\begin{array}{r}\text { 295, } \\ 2,746 \\ 28,452 \\ \hline\end{array}$ | $\begin{array}{r\|} -5.5 \mid \\ 31.7 \\ -8.8 \end{array}$ | $\begin{array}{r} 65,813 \\ 7,925 \end{array}$ | $\begin{array}{r} 69,371 \\ 8,250 \end{array}$ | -5.18.5-3.9 | Wool shoddy. <br> Writing ink. |  |  | 12,597 | $\begin{array}{r} 21,022 \\ 6,084 \\ \hline \end{array}$ | -40.1 | 1,679491 | $\begin{aligned} & 2,218 \\ & 524-6.3 \\ & \hline \end{aligned}$ |  |
| Haircloth |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Hollow building ti |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

[^1]
## CONSUMPTION OF ELECTRICAL ENERGY BY INDUSTRIES ${ }^{1}$

## ACTIVITY IN LEADING INDUSTRIES THROUGHOUT THE COUNTRY

(1923-1925 monthly average $=100$ )

| Month | ALL INDUSTRY |  |  |  |  |  | Chemicals and alled products |  |  |  |  |  | Food and klndred products |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1923 | 1924 | 1925 | 1826 | 1927 | 1928 | 1923 | 1924 | 1925 | 1926 | 1927 | 1928 | 1823 | 1924 | 1925 | 1928 | 1927 | 1928 |
| January | 103.9 | 103.0 | 102.9 | 118.4 | 111.5 | 118.4 | 97.7 | 97.7 | 113.2 | 122. 2 | 95.1 | 124.2 | 96.1 | 102.3 | 103.4 | 101.7 | 95.3 | 102.4 |
| February | 113.0 | 111.1 | 112.3 | 123.7 118.5 | 120.7 | 127.7 118.2 | 87.2 83.8 | 92.0 95.1 | 108.8 | ${ }_{1135} 115$ | 105. 3 | 129.1 | 92.7 96.3 | ${ }^{101.8} 8$ | 93.4 87.9 | 98.9 87.3 | 98.5 83.8 | 115.6 108.4 |
| April. | 114.0 | 100.9 | 111.2 | 114.1 | 116.9 | 119.3 | 86.8 | 93.3 | 101. 2 | 111.2 | 108.0 | 131.7 | 101.2 | 95.6 | 89.4 | 98.2 | 104.2 | 105.9 |
| May | 113.6 | 84.4 | 106.8 | 111.3 | 120.7 | 119.0 | 88.5 | 96.0 | 108. 2 | 120.8 | 111.8 | ${ }^{126.3}$ | 106.4 | 103.8 | 99.4 | 102.8 | 115.8 | 103.9 |
| June | 108.1 | 76.8 | 99.7 | 106.6 | 112.5 | 116.4 | 85.8 | 96.1 | 104.0 | 111. 1 | 101.7 | 122.6 | 110.8 | 114.9 | 109.3 | 98.8 | 113.4 | 116.8 |
| July- | 104. 0 | 73.4 | 99.2 | 106.7 | 1110.6 | 120.2 | 87.3 | 89.3 | 104.8 | 115. 7 | 104. 9 | 128.5 | 104.8 | 118.2 | 105.8 | 112. 4 | 121.2 | 129.2 |
| August | 102.2 | 79.8 | 94.3 | 110.9 | ${ }_{118 .}^{110.6}$ | ${ }^{120.8}$ | 78.3 | ${ }_{98}^{92.9}$ | 111.0 | ${ }_{1122.7}^{12}$ | ${ }^{97.8} 8$ | ${ }_{132}^{119}$ | 103.3 | 107.4 | 101.2 | 120.4 | 111.6 | 128.3 |
| October | 107.2 | 92.3 | 107.3 | 119.0 | 119.9 | 132.0 | 107.0 | 114.5 | 121.2 | 120.2 | 115.8 | 129.4 | 105.8 | 102.2 | 103.7 | 107.9 | 120.8 | 138.0 |
| November | 105.9 | 95.9 | 112.8 | 111.9 | 115.2 |  | 99.2 | 126.0 | 127.0 | 99.9 | 115.5 |  | 104.4 | 99.4 | 95.1 | 104.0 | 117.9 |  |
| Decembe | 98.7 | 97.2 | 110.3 | 101.7 | 109.8 |  | 101.2 | 117.4 | 127.8 | 106. 2 | 109.0 |  | 102.2 | 94.9 | 99.4 | 95.2 | 104. 6 |  |
| Monthly average | 107.3 | 92.5 | 105.2 | 113.5 ! | 115.3 | .-.. | 91.5 | 100.7) | 112.4 | 114.4 | 107.6 |  | 102.4 | 103.8 | 99.4 | 103.4 | 109.5 | $\ldots$ |
|  | Rolling mills and steel plants |  |  |  |  |  | Metal working plants |  |  |  |  |  | Mctals |  |  |  |  |  |
| January |  |  |  |  | 120.5 | 131.3 | 116.3 | 104. 3 | 116.0 | 131.5 | 114.0 | 117.4 | 116.3 | 104.3 | 116.0 | 131.5 | 117.7 | 124.4 |
| February |  |  |  |  | 126.8 | 133.8 | 123.5 | 117.0 | 119.3 | 129.9 | 114.3 | 127. 6 | 123.5 | 117.0 | 119.3 | 129.9 | 12.5 | 130.7 |
| March |  |  |  |  | 125. 6 | 124.5 | 113.0 | 110. 4 | 108. 4 | 111.8 | 108.3 | 117.4 | 113.0 | 110.4 | 108. 4 | 121.8 | 117.0 | 121.0 |
| April. |  |  |  |  | 123.5 | 125.4 | 115.8 | 102.8 | 105.2 | 116.0 | 106.3 | 121.7 | 115.8 | 102.8 | 105. 2 | 116.0 | 114.9 | 123. 2 |
| May |  |  |  | 109.9 | 1122.5 | 12125 | 116.8 109.8 | 78.5 68.1 | 98.2 90.7 | 109.3 110.0 | 109.0 | 122.7 | 116.8 109.8 | 78.5 68.1 | 98.2 90.7 | 109.3 109.9 | ${ }_{110.7}^{116}$ | ${ }_{122.7}^{123}$ |
| July. |  |  |  | 109.0 | 113.0 | 121.2 | 113.0 | 62.1 | 90.7 | 107.4 | 104. 4 | 126.3 | 113.0 | 62.1 | 90.7 | 108. 2 | 108.6 | 124. 2 |
| August |  |  |  | 108.2 | 106.4 | 125. 4 | 107.5 | 69.5 | 92.5 | 110.4 | 103.0 | 125.8 | 107.5 | 69.5 | 92.5 | 109.3 | 104.6 | 125.5 |
| Septemb |  |  |  | 120.8 | 109.6 | 141. 2 | 110.0 | 78.7 | 97.2 | 118.5 | 105. 2 | 144.2 | 110.0 | 78.7 | 97.2 | 119.7 | 107.4 | 143.0 |
| October |  |  |  | 123.2 | 111.8 | 144.7 | 106.7 | 78.6 | 96.0 | 122.9 | 109.7 | 144.5 | 106.7 | 78.6 | 96.0 | 123.0 | 110.8 | 144. 6 |
| Novembe |  |  |  | 113.2 | 110.9 |  | ${ }^{103.2}$ |  |  | 114.8 | 106.3 |  |  | 88.2 | 113.8 | 114.2 | 105.7 |  |
| December |  |  |  | 106.2 | 110.6 |  | 96.8 | 100.0 | 113.0 | 113.1 | 101.2 |  | 96.8 | 100.0 | 113.0 | 109.6 | 105.9 |  |
| Monthly average |  |  |  | 2112.9 | 116.3 |  | 111.0 | 88.2 | 102.8 | 117.1 | 107.3 |  | 111.0 | 88.2 | 102.8 | 116.9 | 111.9 |  |
|  | Leather and Its products |  |  |  |  |  | Lumber and its products |  |  |  |  |  | Paper and pulp |  |  |  |  |  |
| January | 116.0 | 98.4 | 96.0 | 90.8 | 102.5 | 112.2 | 82.5 | 105. 3 | 110.5 | 126.2 | 118.8 | 107.7 | 106.4 | 113.0 | 104.8 | 122.7 | 128.7 | 121.3 |
| Februar | 119.4. | 100.4 | 104.4 | 111.2 | 105.6 99 | ${ }_{107}^{118.4}$ | 81.7 81 | 114.0 | 115.0 | 132.8 | ${ }^{116.0}$ | 113.3 | 91.4 1018 | ${ }_{93}^{96.5}$ | ${ }^{98.6 .6}$ | 117.9 | 1160.2 | 124.2 |
| April. | 124.2 | 95.3 | 105.8 | 87.3 | 101.3 | 98.8. | 96.7 | 102.0 | 107.2 | 122.2 | 111.4 | 115.4 | 104.0 | 105.7 | 106.0 | 108.4 | 124.2 | 120.5 |
| May | 116.7 | 90.3 | 96.2 | 87.3 | 96.3 | 98.1 | 97.5 | 101.2 | 106.4 | 117.5 | 136.8 | 110.8 | 115.0 | 111.3 | 111.5 | 100.0 | 124.8 | 136.4 |
| June | 108.5 | 84.3 | 89.5 | 86.6 | 97.8 | 100.2 | 100.2 | 99.8 | 103.4 | 108.4 | 113.4 | 109.2 | 114.6 | 109.0 | 102.4 | 101.9 | 119.8 | 133.7 |
| July | 106. 2 | 80.6 | 92.2 | 86.2 | 96. 3 | 99.0 | 101.8 | 89.7 | 101.2 | 106.0 | 112.9 | 108.8 | 105. 5 | 88.6 | 93.8 | 109.6 | 115.8 | 127.3 |
| August | 111.3 | ${ }^{91.0}$ | 101.5 | 100.0 | 107.0 | ${ }^{94.7}$ | ${ }^{96.8} 8$ | ${ }^{955} 6$ | 104.3 109 | 116.4 | 128.0 | 111.6 | 100. 7 | 86.2 | 96.7 87 | 118.6 | ${ }_{122} 117$ | 129.1 |
| Septemb | 111.8 | 108.8 | 108.5 | 103.3 | 111.0 | 103.8 | 103.4 | 98.5 | 102.0 | 118.8 | 139.2 | 109.3 | 94.2 | 100.0 | 107.7 | 133.4 | 122.7 | 132.0 133.3 |
| Novembe | 93.7 | 99.1 | 93.8 | 105.8 | 104. 5 |  | 108.7 | 104.2 | 113.2 | 112.9 | 135.8 |  | 101.8 | 104.0 | 110.5 | 118.5 | 126.5 |  |
| Decembe | 90.6 | 86.8 | 89.0 | 101.2 | 98.2 |  | 104.6 | 113.0 | 102.0 | 103.7 | 123.3 |  | 101.5 | 98.3 | 113.2 | 118.2 | 122.0 |  |
| Monthly average.. | 111.1 | 94.7 | 99.0 | 96.4 | 101.3. |  | 96.6 | 102.5. | 107.0 | 117.1 | 123.6 |  | 102.9 | 99.8 | 103.8 | 115.5 | 123.0 |  |
|  | Rubber and its products |  |  |  |  |  | Shipbuilding |  |  |  |  |  | Stone, clay and glass |  |  |  |  |  |
| January | 94.0 | 103.5 | 113.7 | 113.2 | 111.2 | ${ }^{120.4}$ | 89.7 | 101.2 | 116.2 | 112.8 | 129.2 | 94.2 | 103.7 | 98.7 | 93.2 | 11.2 | ${ }^{98.4}$ | 105. 2 |
| Februar | 104.0 | 105. 8 | 114.0 | 125.9 | 118.4 | 137.0 | 100.3 | 111.5 | 120.2 | 119.4 | 120.4 | 98.8 | 114. 5 | 102.6 | 101.0 | 118.8 | 105.8 | 127.3 |
| March | 101.4 | 100.8 | 105. 2 | 111.4 | ${ }_{115}^{115} 0$ | 126. 2 | ${ }^{9513} 2$ | 105.7 | 108.8 | 109. 9 | 117.7 | ${ }_{93}{ }^{5} 4$ | 96.7 | 99. | ${ }^{96.7}$ | 105. 2 | 110.2 | 121.1 |
| April | 132.2 | 1008 | 105.2 | 115.4 | 115.7 | 121.7 | 113.2 | ${ }^{90.2}$ | ${ }^{99} 6$ | 127.7 | 1298 | 93.3 | 97.4 | 97.3 | 105.8 | 109.7 | 117.4 | 133.6 |
| May | 125.0 | ${ }^{78.0}$ | 103.2 98.3 | 109.3 | 120.4 114.9 | ${ }_{131.7}^{128.5}$ | 117.6 | 76.1 | 105.2 100.4 | 125.0 128.4 | 134.5 130.5 | 84.0 85.3 | 92.4 94 | 94.2 98.2 | 114.9 110.8 | 117.9 127.2 | 130.2 107.4 | 129.3 128.0 |
| July | 107.7 | 68.2 | 100.8 | 97.3 | 109.0 | 135.3 | 122.7 | 79.1 | 99.2 | 130.8 | 116.7 | 67.2 | 99.2 | 94.2 | 113.0 | 122.0 | 111. 3 | 129.8 |
| August | 17.6 | 72.0 | 96.6 | 98.5 | 117.8 | 138.4 | 127.8 | 86.7 | 102.6 | 110.8 | 112.2 | 67.3 | 93.3 | 99.0 | 104.8 | 124.5 | 114.1 | 135.3 |
| Septembe | 119.0 | 89.6 | 108.8 | 114.0 | 114.4 | 151. 2 | 115.4 | 88.8 | 12.8 | 111.3 | 106. 6 | 72.3 | 104.2 | 105.3 | 111.3 | 129.0 | 118. 2 | 152.0 |
| October | 99.2 | 84.5 | 111.2 | 113.8 | 115.6 | 146. 4 | 94.3 | 85.2 | 105. 6 | 117.0 | 117.2 | 73.8 | 96.5 | 100.4 | 106.7 | 130.7 | 111. 0 | 144.7 |
| Novemb | 103.2 | 91.8 | 122.4 | 112.8 | 117.0 |  | 90.8 | 91.3 | 107.1 | 115.4 | 100.8 |  | 102.8 | 108.8 | 115.0 | 118. 5 | 109.7 |  |
| Decembe | 98.6 | 103.8 | 123.3 | 101.5 | 96.7 |  | 97.8 | 101.8 | 108.4 | 141.0 | 94.6 |  | 100.6 | 103.0 | 116.0 | 122. 5 | 98.8 |  |
| Monthly average | 108.9 | 89.2 | 108.6 | 110.0 | 113.8. | $\cdots$ | 107.2 | $90.9]$ | 107.2 | 120.8 | 117.5 |  | 98.7 | 100.1 | 107.4 | 120.0 | 111.0 | $\cdots$ |
|  | Textiles |  |  |  |  |  | Automoblles, including repair parts |  |  |  |  |  | Metal working Industry ${ }^{\text {P }}$ |  |  |  |  |  |
| January-...............---............. | 116.6 | 105.8 | 106.4 | 119.7 | 127.7 | 116.7 | $\begin{aligned} & 73.2 \\ & 90.2 \end{aligned}$ | 97.4 | 72.7 | 99.1 | 78.1103.4 | 135. 2 | 108.5 | 101.7 | 104.5 | 112.5 | 108.0 | 120.2 |
| February | 126.4 | 103.6 | 117.6 | 117.5 | 136.0 | 127.5 |  | 117.5 | 93.8 | 122.4 |  | 148.7 | 118.2 | 120.4 |  | 126.8 | 112.7 | 134.8 |
| March. | 114.2 | 87.4 | 105.7 | 114.1 | 125.0 | 114.9 | 102.7 | 118.2 | 113.7 | 129.7 | 118. 2 | 136. 2 | 111.5 | 111.2 | 109.0 | 122.2 | 110.6 | 118.6 |
| April. | 117.1 | 87.5 | 109.8 | 101.8 | 128.3 | 109.8 | 119.5 | 115.4 | 132.4 | 136.8 | 128.7 | 148.7 | 118.0 | 105.0 | 110.7 | 120.7 | 112.0 | 125. 4 |
| May | 117.5 | 72.7 | 101.4 | 100.5 | 128.5 | 105.7 | 118.3 | 96.6 | 134.2 | 139.0 | 131.5 | 141.6 | 116.6 | 84.5 | 106.4 | 115.2 | 114.5 | 124.2 |
| June. | 108.0 | 69.2 | 96.2 | 96.3 | 118.8 | 104.7 | 113.6 | 79.5 | 121.4 | 121. 5 | 107.6 | 136.0 | 109.9 | 74.3 | 98.2 | 111.8 | 106. 1 | 124.1 |
| July.-. | 97.1 | 68.6 | 94.2 | 88.7 | 113.0 | 91.8 | 102. 5 | 81.3 | 120.5 | 111.0 | 102.3 | 143.7 | 110.0 | 70.3 | 97.7 | 106.1 | 104.1 | 127.4 |
| ${ }^{\text {August }}$ Septembe | ${ }^{99.2}$ | 74.7 | ${ }^{97.8}$ | ${ }^{94.1} 1$ | 113.0 | 97.3 | ${ }_{106.8}^{99}$ | 85.3 | 78.6 | 132.2 | 108.0 | 143.2 | 104. 1 | 76.1 | 89.4 | 113.2 | 104.0 |  |
| Septembe | 113.8 108.0 | 95. 101.8 | 104.0 | 113.7 | ${ }_{125.2}^{121.2}$ | 112.5 | 106.6 109.7 | 92.2 88.0 | 104.5 136.3 | 129.2 108.2 | 109.5 | 161.0 141.2 | 107.7 105.7 | 84.4 82.8 | 98.4 | 119.3 | 106.5 |  |
| November | 116.9 | 109.7 | 118.3 | 127.5 | 119.2 |  | 97.4 | 75.6 | 122.7 | 82.8 | 100.7 |  | 101.0 | 87.7 | 109.2 | 107.0 | 105.6 |  |
| December | 103.0 | 109.2 | 121.8 | 122.5 | 112.3 |  | 94.6 | 62.8 | 100.0 | 52.1 | 106. 4 |  | 96.1 | 91.6 | 109.2 | 98.7 | 103.9 |  |
| Monthly average. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

[^2]
## CONSUMPTION OF ELECTRICAL ENERGY BY INDUSTRIES--Continued

 ACTIVITY BY GEOGRAPHICAL DIVISIONS| Month | UNITED STATES |  |  |  |  |  | New England |  |  |  |  |  | North Central |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1923 | 1924 | 1925 | 1926 | 1927 | 1928 | 1923 | 1924 | 1925 | 1928 | 1927 | 1928 | 1923 | 1924 | 1925 | 1926 | 1927 | 1928 |
| January | 103.9 | 103.0 | 102.9 | 118.4 | 111.5 | 118.4 | 117.0 | 111.7 | 108.0 | 105.9 | 117.2 | 115.2 | 96.4 | 99.3 | 98.4 | 111.8 | 105. 5 | 117.0 |
| February | 113.0 | 111.1 | 112.3 | 123.7 | 120.7 | 127.7 | 120.3 | 102.1 | 112.7 | 114.0 | 120.4 | 125.2 | 102.0 | 111.8 | 107.3 | 122.6 | 117. 4 | 127.7 |
| March | 107.4 | 102.7 | 108.0 | 118. 5 | 116.8 | 118.2 | 113.2 | 91.3 | 104.7 | 111.8 | 113.4 | 116.9 | 103.2 | 111.9 | 108.2 | 118.2 | 117.4 | 122.3 |
| April. | 114.0 | 100.9 | 111.2 | 114. 1 | 116.9 | 119.3 | 123.8 | 94.0 | 107.0 | 105. 5 | 114.0 | 113.8 | 120.4 | 107.3 | 116.2 | 118.9 | 118. 9 | 129.0 |
| May | 113.6 | 84.4 | 106.8 | 111. 3 | 120. 7 | 119.0 | 120.0 | 82.1 | 101.0 | 105.8 | 115.2 | 109. 1 | 118.6 | 91.4 | 113.2 | 122.4 | 124. 7 | 127.2 |
| June. | 108.1 | 76.8 | 99.7 | 106.6 | 112.5 | 116.4 | 116.4 | 80.6 | 95.1 | 98.6 | 112.0 | 108.4 | 115.0 | 80.7 | 104.5 | 111.0 | 110.9 | 124.6 |
| July | 104.0 | 73.4 | 99.2 | 106.7 | 110.6 | 120.2 | 106. 2 | 71.1 | 91.1 | 92.9 | 109.3 | 102. 4 | 113.2 | 78.6 | 103.4 | 104.1 | 115. 5 | 131.8 |
| August | 102.2 | 79.8 | 94.3 | 110.9 | 110.6 | 120.8 | 999.2 | 72.4 | 94.0 | 100.7 | 105.4 | 102. 2 | 109.2 | 86.4 | 94.1 | 117.2 | 112.5 | 132.4 |
| September | 109.8 | 92.6 | 98.1 | 118.6 | 118.4 | 134.5 | 113.8 | 90.5 | 100.6 | 111.5 | 114.0 | ${ }^{115.3}$ | 111.4 | 91.6 | 105.5 | 121.2 | 116.4 | 149.7 |
| October | 107.2 | 92.3 | 107.3 | 119.0 | 119.9 | 132.0 | 107.0 | 96.0 | 104.0 | 117.8 | 114.0 | 119.3 | 103.2 | 89.1 | 108.8 | 123.4 | 115.0 | 143.5 |
| November | 105.9 | 95.9 | 112.8 | 111.9 | 115.2 |  | 111.3 | 105.2 | 113.3 | 113.3 | 109.7 |  | 98.0 | 90.4 | 122.3 | 107.2 | 111.4 |  |
| December | 98.7 | 97.2 | 110.3 | 101.7 | 109.8 |  | 112.4 | 107.0 | 114.2 | 116.0 | 103.9 |  | 96.2 | 87.5 | 108.8 | 95.2 | 107.8 |  |
| Monthly average | 107.3 | 92.5 | 105.2 | 113.5 | 115.3 |  | 113.4 | 92.0 | 103.8 | 107.8 | 112.4 |  | 107.2 | 93.8 | 107.6 | 114.4 | 114.5 |  |
|  | Middle Atlantic |  |  |  |  |  | Southern |  |  |  |  |  | Western |  |  |  |  |  |
| January | 115.4 | 100.6 | 111.0 | 119. 1 | 114.0 | 116. 2 | 98.3 | 96.5 | 105.9 | 120.0 | 132.8 | 124.8 | 95.7 | 105.3 | 112.0 | 117.8 | 118. 7 | 115.0 |
| February | 117.6 | 108.4 | 115.0 | 118. 3 | 112.5 | 126.6 | 104.0 | 100.6 | 107.7 | 119.3 | 123.4 | 134.8 | 95.3 | 107.3 | 105.8 | 116.5 | 116. 1 | 116.7 |
| March | 118.4 | 97.6 | 106. 3 | 114.9 | 109.6 | 114.2 | 98.8 | 95.7 | 111.6 | 113. 5 | 117.2 | 115.4 | 90.0 | 102.1 | 103.3 | 110.6 | 100.1 | 110.4 |
| April. | 111.7 | 95.2 | 105. 4 | 108.4 | 105.9 | 112.0 | 103.0 | 94.1 | 106.8 | 114.3 | 119.3 | 115.2 | 97.3 | 93.1 | 96.6 | 117.5 | 122. 1 | 117.8 |
| May. | 114.4 | 80.5 | 98.8 | 104.7 | 108.8 | 112.9 | 107.1 | 88.9 | 105.3 | 109.7 | 123.0 | 110.6 | 106.9 | 95.6 | 104.1 | 122.2 | 126.8 | 112.9 |
| June | 109.0 | 77.1 | 96.7 | 98.4 | 101.9 | 113.4 | 100.0 | 85.3 | 99.7 | 106.8 | 120.0 | 114. 6 | 101.1 | 91.4 | 100.3 | 121.2 | 117. 2 | 118. 5 |
| July- | 101.2 | 68.6 | 96.6 | 92.9 | 96.0 | 110.8 | 103.3 | 79.0 | 99.8 | 102. 6 | 112.7 | 112.0 | 110.3 | 97.3 | 100.1 | 114.2 | 125.4 | 116.5 |
| August | 94.1 | 70.7 | 93.8 | 103.8 | 97.4 | 118.3 | 91.6 | 79.0 | 96.6 | 105.7 | 121.0 | 112.8 | 105.4 | 97.0 | 96.1 | 119.8 | 115.3 | 127.5 |
| Septemher | 105.5 | 90.0 | 100.8 | 111.0 | 111.6 | 136.0 | 107.4 | 99.6 | 108.1 | 115.2 | 136.8 | 127.5 | 107.7 | 96. 3 | 104.5 | 120.2 | 124.6 | 150.8 |
| October.. | 104.5 | 101.8 | 108.0 | 112.8 | 111.5 | 133.4 | 103.5 | 105.5 | 112.0 | 122.5 | 134.4 | 129.7 | 98.3 | 96.3 | 101.5 | 116.7 | 125.7 | 148.7 |
| November | 108.7 | 109.2 | 118.2 | 109.3 | 110.4 |  | 104.3 | 111.7 | 121.4 | 134. 2 | 137.8 |  | 93.9 | 97.9 | 104.5 | 112.8 | 117.0 |  |
| December | 101.0 | 107.2 | 117.2 | 107.3 | 109.9 |  | 100.0 | 109.1 | 124. 5 | 120.1 | 128.0 |  | 101.2 | 100.3 | 109.2 | 108.0 | 116.9 |  |
| Monthly average. | 108.5 | 92.2 | 105.7 | 108.4 | 107.5 |  | 101.8 | 95.4 | 108.3 | 115.8 | 125.5 |  | 100.3 | 98.3 | 103.2 | 116.5 | 118.8 |  |

MAGAZINE ADVERTISING ${ }^{1}$
[Number of agate Ines]

| Month | 1909 | 1910 | 1911 | 1912 | 1913 | 1914 | 1915 | 1916 | 1917 | 1918 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| January | 827, 236 | 1,077, 377 | 1, 138, 199 | 1, 201, 757 | 966,694 | 874,890 | 939,868 | 920, 856 | 1,120, 777 | 1, 105, 787 |
| February | 923, 231 | 1, 534, 933 | 1, 250, 196 | 1,381, 661 | 1, 234, 273 | 1, 109, 692 | 1, 107, 716 | 1,195, 631 | 1, 391, 897 | 1, 230, 205 |
| March | 1,110,064 | 1, 524, 130 | 1, 424, 116 | 1, 396, 140 | 1, 374, 138 | 1,317,292 | 1, 208, 866 | 1,406,361 | 1,610, 201 | 1, 412, 148 |
| April | 1,241, 719 | 1, 394, 544 | 1,550, 258 | 1,548,999 | 1,557,186 | 1, 428, 054 | 1, 267, 239 | 1,560, 377 | 1, 838, 118 | 1, 676, 176 |
| May | 1,214, 450 | 1,573,132 | 1, 598,494 | 1,484,454 | 1, 475, 223 | 1, 448, 781 | 1,324, 691 | 1,627, 032 | 1,785, 000 | 1, 624, 088 |
| June | 1,087, 154 | 1,315,363 | 1,323, 201 | 1, 284, 013 | 1, 328, 130 | 1, 262, 512 | 1, 216,698 | 1,464,478 | 1,602, 665 | 1, 499,789 |
| July. | 864, 495 | 1, 073, 324 | 1, 037, 119 | 974, 074 | 950,479 | ${ }^{951,521}$ | 966, 097 | 1,141, 115 | 1,267, 478 | 1,237,323 |
| August | 809, 735 | 867,452 | 893,860 | 788, 508 | 753,373 | 749,541 | 805,507 | 1,052, 473 | 1,031, 128 | 1,019, 227 |
| September | 1,038,465 | 1,078, 150 | 1,100,669 | 1,080,513 | 1,031,619 | 1, 024, 552 | 1,018,901 | 1,255,531 | 1, 265, 734 | 1, 248,476 |
| October- | 1, 336,525 | 1, 408, 849 | 1,478, 278 | 1, 379, 742 | 1,314,680 | 1, 182, 710 | 1, 270, 598 | 1, 644, 060 | 1,703, 763 | 1, 406, 545 |
| November | 1,353, 881 | 1,516, 134 | 1,474, 159 | 1,398,479 | 1,351,705 | 1, 188, 252 | 1,309, 159 | 1,573, 117 | 1, 645,354 | 1,410,473 |
| Decemb | 1, 336, 226 | 1,499,875 | 1, 448,831 | 1, 417,732 | 1,347,349 | 1,107, 636 | 1, 298, 039 | 1,632, 655 | 1, 617,524 | 1,343, 764 |
| Total Monthly average | $\begin{array}{r} 13,149,181 \\ 1,095,765 \end{array}$ | $\begin{array}{r} 15,863,323 \\ 1,321,944 \end{array}$ | $\begin{array}{r} 15,717,380 \\ 1,309,782 \end{array}$ | $\begin{array}{r} 15,336,072 \\ 1,278,006 \end{array}$ | $\begin{array}{r} 14,684,849 \\ 1,223,737 \end{array}$ | $\begin{array}{r} 13,645,433 \\ 1,137,119 \end{array}$ | $\begin{array}{r} 13,733,379 \\ 1,144,448 \end{array}$ | $\begin{array}{r} 16,473,686 \\ 1,372,807 \end{array}$ | $\begin{array}{r} 17,879,639 \\ 1,489,970 \end{array}$ | $\begin{array}{r} 16,214,001 \\ 1,351,167 \end{array}$ |
|  |  |  |  |  |  |  |  |  |  |  |
|  | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 | 1926 | 1927 | 1928 |
| January.... | 1,092,975 | 1, 805, 368 | 1, 330,824 | $1,181,360$$1,427,259$ | $1,457,209$$1,762,080$ | $1,565,215$$1,905,528$ | 1, 598, 324 | 1,901, 534 | $1,954,081$$2,370,318$ | 1, 811, 053 |
| February | 1,447, 206 | 2, 425, 972 | 1,758,934 |  |  |  |  |  |  |  |
| March | $\begin{aligned} & \mathbf{1}, 789,051 \\ & \mathbf{2}, 167,605 \end{aligned}$ | 2,667,691 | 1,768,381 | 1,593, 204 | 2, 010,803 | 2, 172, 222 | 2, 297, 263 | 2, 515, 201 | 2,584, 084 | $2,517,200$$2,925,964$ |
|  |  | 2,914,488 | 1, 820, 158 | 1, 809,541 | 2, 309, 452 | 2, 476,011 | 2, 505, 242 | 2,765,036 | 2,835, 395 |  |
| May--- | $\begin{aligned} & 2,230,079 \\ & 2,201,63 \\ & 1,772,717 \end{aligned}$ | $\begin{aligned} & 2,931,244 \\ & 2,84,948 \\ & 1,971,866 \end{aligned}$ | $1,843,999$$1,684,016$1 | $1,894,637$$1,722,703$ | 2, 219,563$\mathbf{2 , 0 4 6 , 0 5 4}$ | $2,401,448$$2,202,402$ | $\begin{aligned} & 2,420,040 \\ & 2,308,373 \end{aligned}$ | $2,659,718$$2,628,524$ | 2, 9006,865 <br> $2,554,224$ | 2, 2 211, 5124 |
| June. |  |  |  |  |  |  |  |  |  |  |
| July. |  |  | $1,323,685$$1,182,353$ | $1,419,444$1,299821 | $1,693,895$$1,477,856$ | $1,649,886$$1,403,828$ | 1, 1 153,270 | 1,831,974 | 1, 891, 293 | $2,139,405$$1,755,140$ |
| August | 1, 558,744 | 1, 971,866 <br> 1, 970, 612 |  |  |  |  |  |  |  |  |
| September <br> October <br> November. <br> December. | $\begin{aligned} & 2,082,723 \\ & 2,372,144 \\ & (2) \\ & 2,321,060 \end{aligned}$ | $\begin{aligned} & 2,284,687 \\ & 2,667,938 \\ & 2,636,909 \\ & 2,31,906 \end{aligned}$ | $\begin{aligned} & 1,370,244 \\ & 1,545,610 \\ & 1,601,759 \\ & 1,53,967 \end{aligned}$ | $1,525,172$ $1,946,910$ <br> 1,918,395 <br> 1, 860, 98. | $1,752,833$$2,228,560$$\mathbf{2}, 217,625$$\mathbf{2}, 044,051$ | $\begin{aligned} & 1,796,158 \\ & 2,194,504 \\ & 2,194,068 \\ & 2,084,428 \end{aligned}$ | $\begin{aligned} & 2,062,367 \\ & 2,503,568 \\ & 2,660,087 \end{aligned}$ | 2,248, 068 2, 962, 388 | $\begin{aligned} & 2,272,365 \\ & \mathbf{2}, 756,449 \\ & \mathbf{2}, 912,172 \end{aligned}$ | $\begin{aligned} & \begin{array}{l} 2,278,995 \\ 2,876,549 \\ 2,844,599 \end{array} \end{aligned}$ |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
| Total | $\begin{array}{\|r} 3 \\ 3 \\ 3 \\ 3 \end{array}, 941,938,903$ | $\begin{array}{r} 29,494,629 \\ 2,457,886 \end{array}$ | $\begin{array}{r} 19,153,930 \\ 1,596,161 \end{array}$ | $\begin{array}{r} 19,599,431 \\ 1,633,286 \end{array}$ | $\begin{array}{r} 23,219,481 \\ 1,934,957 \end{array}$ | $\begin{array}{r} 24,045,498 \\ 2,003,792 \end{array}$ |  |  | ............ | .............. |
| Monthly average |  |  |  |  |  |  |  |  |  |  |

[^3]FLOOR AND WALL TILE ${ }^{1}$

\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline \multirow{3}{*}{Monte} \& $$
\begin{aligned}
& \text { Produc- } \\
& \text { tion }
\end{aligned}
$$ \& \multicolumn{2}{|l|}{Shipments} \& Stoeks, end of month \& $$
\begin{aligned}
& \text { Produe- } \\
& \text { tion }
\end{aligned}
$$ \& \multicolumn{2}{|l|}{Shipments} \& Stocks, end of month \& $$
\begin{gathered}
\text { Produc- } \\
\text { tion }
\end{gathered}
$$ \& \multicolumn{2}{|l|}{Shipments} \& Stocks, end of month <br>
\hline \& \multicolumn{4}{|c|}{1924} \& \multicolumn{4}{|c|}{1925} \& \multicolumn{4}{|c|}{1926} <br>
\hline \& \multicolumn{2}{|c|}{Square feet} \& Value \& Square feet \& \multicolumn{2}{|l|}{Square feet} \& Value S \& Square feet \& \multicolumn{2}{|l|}{Square feet} \& Value \& Square feet <br>
\hline January .-. \& \multirow[t]{3}{*}{$$
\begin{aligned}
& 4,784,933 \\
& 4,764,692 \\
& 5,067,113 \\
& 4,532,963
\end{aligned}
$$} \& \multirow[t]{2}{*}{3, 3 , 682,495} \& \multirow[t]{2}{*}{\$1,202, 232} \& \multirow[t]{2}{*}{6, 725, 486
7. 241,801

7,} \& $3,707,380$
$3,804,906$ \& 3, ${ }^{3} \mathbf{0 6 1 , 8 1 4}$ \& $\$ 1,090,044$

$1,166,064$ \& \multirow[t]{2}{*}{| 9, 273,492 |
| :--- |
| $9,535,538$ |} \& 5, 0609,911 \& 4, 404, 227 \& \$1,664,517 \& 7, 744, 2006 <br>

\hline February \& \& \& \& \& \& \& \& \& \& \multirow[t]{2}{*}{4,997, 070} \& \multirow[t]{2}{*}{1,861,501} \& 7, 838, 722 <br>
\hline Mpril.-- \& \& $3,988,984$
$4,091,811$ \& $1,187,576$
$1,308,588$ \& $7,844,941$
$8,107,465$ \& 3,953, 531 \& - \& 1, $1,561,768$ \& $9,704,917$
$9,265,448$ \& 5, 659,
5,329

5 \& \& \& $$
\begin{aligned}
& 8,617,235 \\
& 8,513,628
\end{aligned}
$$ <br>

\hline May. \& \multirow[t]{4}{*}{$$
\begin{aligned}
& \begin{array}{l}
3,928,441 \\
3,977,442 \\
3,527,455 \\
3,878,151
\end{array}
\end{aligned}
$$} \& \multirow[t]{4}{*}{3, 539, 444 3, 650,567 3, 923,304} \& \multirow[t]{4}{*}{\[

$$
\begin{aligned}
& 1,221,538 \\
& 1,329,864 \\
& 1,260,824 \\
& 1,329,346
\end{aligned}
$$

\]} \& \multirow[t]{4}{*}{\[

$$
\begin{aligned}
& 8,126,151 \\
& 8,13,130 \\
& 7,747,682 \\
& 7,526,825
\end{aligned}
$$

\]} \& \multirow[t]{4}{*}{| 4, 260, 763 |
| :--- |
| 4, 506, 862 |
| 4, 594, 522 |
| 4,908, 662 |} \& \multirow[t]{4}{*}{\[

$$
\begin{aligned}
& \begin{array}{l}
4,344,017 \\
4,556,067 \\
4,87,211 \\
4,907,158
\end{array}
\end{aligned}
$$

\]} \& \multirow[t]{3}{*}{| 1, 549, 582 |
| :--- |
| 1, 733,089 |} \& 8,495, 827 \& 5, 483, 792 \& 5, 071, 192 \& 1, 889, 848 \& 8,794, 369 <br>

\hline June \& \& \& \& \& \& \& \& 7, 590, 686 \& 5,770,984 \& 5,529,547 \& 2,061, 051 \& 8,565, 048 <br>
\hline July. \& \& \& \& \& \& \& \& 7, 375, 322 \& 5, 847, 698 \& 5, 526, 373 \& 2,094, 805 \& 9, 023,321 <br>
\hline August. \& \& \& \& \& \& \& 1, 801, 931 \& 6, 867, 613 \& 5,842,431 \& 6,006, 805 \& 2, 241, 974 \& 8,797,949 <br>
\hline September \& \multirow[t]{2}{*}{$4,109,773$

$4,422,386$} \& \multirow[t]{2}{*}{| 3,778,454 |
| :--- |
| 4, 060,339 |} \& \multirow[t]{2}{*}{\[

$$
\begin{aligned}
& 1,314,150 \\
& 1,471346
\end{aligned}
$$

\]} \& \multirow[t]{2}{*}{7, 7737,9068} \& \multirow[t]{2}{*}{\[

$$
\begin{aligned}
& 5,194,018 \\
& 5,41,056
\end{aligned}
$$

\]} \& \multirow[t]{3}{*}{| $5,219,495$ $5,515,201$ |
| :--- |
| 5, 057, 176 |} \& \multirow[t]{4}{*}{\[

$$
\begin{aligned}
& 1,905,990 \\
& 2,045,539 \\
& 1,76,390 \\
& 1,911,876
\end{aligned}
$$

\]} \& \multirow[t]{4}{*}{\[

$$
\begin{aligned}
& 6,913,415 \\
& 6,899,880 \\
& 6,926,379 \\
& 7,89,150
\end{aligned}
$$

\]} \& \multirow[t]{4}{*}{\[

$$
\begin{aligned}
& 5,435,254 \\
& 5,921,648 \\
& 5,600,995 \\
& 5,433,438
\end{aligned}
$$

\]} \& \multirow[t]{4}{*}{5,756, 751 5. 110, 662 5, 057, 424} \& \multirow[t]{4}{*}{\[

$$
\begin{aligned}
& 2,119,786 \\
& 2,032,334 \\
& 1,950,251 \\
& 1,924,189
\end{aligned}
$$

\]} \& \multirow[t]{4}{*}{\[

$$
\begin{aligned}
& 8,576,344 \\
& 8,69,152 \\
& 8,770,089 \\
& 9.001,354
\end{aligned}
$$
\]} <br>

\hline October- \& \& \& \& \& \& \& \& \& \& \& \& <br>
\hline November. \& 3,901, 648 \& 3, 298, 604 \& 1, 177, 044 \& 8,085, 835 \& 5, 238, 613 \& \& \& \& \& \& \& <br>
\hline December \& 3, 828, 533 \& 3, 056,289 \& 1,143, 450 \& 9, 125, 005 \& 5, 363, 558 \& 5, 108,444 \& \& \& \& \& \& <br>

\hline Year's total Monthly average \& $$
\begin{array}{r}
50,723,460 \\
4,226,955
\end{array}
$$ \& \[

$$
\begin{array}{r}
44,376,887 \\
3,698,074
\end{array}
$$

\] \& \[

$$
\begin{array}{r}
15,038,061 \\
1,253,172
\end{array}
$$

\] \&  \& \[

$$
\begin{array}{r}
55,051,632 \\
4,587,636
\end{array}
$$

\] \& \[

$$
\begin{array}{r}
54,143,153 \\
4,511,929
\end{array}
$$

\] \& \[

$$
\begin{array}{r}
19,482,729 \\
1,623,561
\end{array}
$$

\] \& 8, 048, 139 \& \[

$$
\begin{array}{r}
66,334,650 \\
5,527,888
\end{array}
$$

\] \& \[

$$
\begin{array}{r}
62,256,369 \\
5,188,031
\end{array}
$$

\] \& \[

$$
\begin{array}{r}
23,316,634 \\
1,943,053
\end{array}
$$
\] \& 8, 577, 701 <br>

\hline \& \multicolumn{2}{|r|}{\multirow[b]{2}{*}{Monte}} \& Produc-

tion \& \multicolumn{2}{|r|}{Shipments} \& Stocks, end of month \& $$
\begin{gathered}
\text { Produc- } \\
\text { tion }
\end{gathered}
$$ \& \multicolumn{2}{|r|}{Shipments} \& \multicolumn{3}{|l|}{Stocks, end of month} <br>

\hline \& \& \& \multicolumn{4}{|c|}{1927} \& \multicolumn{6}{|c|}{1988} <br>
\hline \& \& \& \multicolumn{2}{|r|}{Square feet} \& \multicolumn{2}{|l|}{Value Square feet} \& \multicolumn{2}{|r|}{Square feet} \& Value \& \multicolumn{3}{|l|}{Square feet} <br>

\hline \& \multicolumn{2}{|l|}{January} \& \multirow[t]{4}{*}{$$
\begin{aligned}
& 5,616,791 \\
& 5,186.851 \\
& 5,548,929 \\
& 5,517,956
\end{aligned}
$$} \& \multirow[t]{4}{*}{\[

$$
\begin{aligned}
& 4,436,602 \\
& 4,412,009 \\
& 5,278,465 \\
& 5,022,172
\end{aligned}
$$

\]} \& \multirow[t]{4}{*}{\[

$$
\begin{array}{r}
\$ 1,692,308 \\
1,687,766 \\
2,008,207 \\
1,916,368
\end{array}
$$

\]} \& \multirow[t]{4}{*}{\[

$$
\begin{aligned}
& 10,232,554 \\
& 11,250,739 \\
& 11,493,179 \\
& 11,860,245
\end{aligned}
$$

\]} \& \multirow[t]{4}{*}{} \& \multirow[t]{4}{*}{} \& \multirow[t]{4}{*}{\[

$$
\begin{array}{r}
\$ 1,526,204 \\
1,708,661 \\
2,074,504 \\
2,060,213
\end{array}
$$

\]} \& \multicolumn{3}{|l|}{\multirow[t]{2}{*}{\[

13,963,728
\]}} <br>

\hline \& February \& \& \& \& \& \& \& \& \& \& \& <br>
\hline \& March... \& \& \& \& \& \& \& \& \& 13, 982,1 \& \& <br>
\hline \& \multicolumn{2}{|l|}{April} \& \& \& \& \& \& \& \& 13, 576, 8 \& \& <br>
\hline \& \multicolumn{2}{|l|}{} \& \multirow[t]{4}{*}{$5,252,833$
$5,240,515$
$5,214,383$

$5,554,007$} \& \multirow[t]{3}{*}{| $5,172,391$ $5,173,542$ 5,299 |
| :--- |
| 5, 299, 324 |} \& \multirow[t]{3}{*}{| 1, 936,356 |
| :--- |
| 1,959, 959 |
| 1, 989,451 |} \& \multicolumn{2}{|l|}{\multirow[t]{2}{*}{| $11,894,209$ | $5,728,534$ |
| :--- | :--- |
| $11,971,667$ | $6,192,106$ |}} \& \multirow[t]{3}{*}{| 4 | $5,913,771$ <br> 6 |
| :--- | :--- |
| $-604,309$ |  |
| $\mathbf{6}, 598,763$ |  |} \& \multirow[t]{4}{*}{\[

$$
\begin{aligned}
& 2,214,618 \\
& 2,461,583 \\
& 2,548,456
\end{aligned}
$$

\]} \& \multicolumn{3}{|l|}{\multirow[t]{2}{*}{\[

$$
\begin{aligned}
& 14,430,676 \\
& 13,030,846
\end{aligned}
$$
\]}} <br>

\hline \& June... \& \& \& \& \& \& \& \& \& \& \& <br>
\hline \& \multicolumn{2}{|l|}{\multirow[t]{2}{*}{August}} \& \& \& \& 11, 374, 500 \& \& \& \& \& \& <br>
\hline \& \& \& \& 5,460,747 \& 2, 085, 932 \& 11, 393, 156 \& \& \& \& \& \& <br>

\hline \& \multicolumn{2}{|l|}{September} \& \multirow[t]{4}{*}{$$
\begin{aligned}
& \mathbf{5 , 6 1 2 , 2 7 8} \\
& 5,928,2787 \\
& 5,079,608 \\
& \mathbf{4 , 5 0 0 , 5 2 2}
\end{aligned}
$$} \& \multirow[t]{4}{*}{\[

$$
\begin{aligned}
& 5,696,250 \\
& 5,3626,080 \\
& 4,400,461 \\
& 3,707,753
\end{aligned}
$$
\]} \& \multirow[t]{4}{*}{$2,162,548$

$2,009,768$
$1,67,408$

$1,580,562$} \& \multirow[t]{4}{*}{$$
\begin{aligned}
& 11,359,837 \\
& 12,072,756 \\
& 12,767,315 \\
& 13,288,515
\end{aligned}
$$} \& \& \& \& \& \& <br>

\hline \& October- \& \& \& \& \& \& \& \& \& \& \& <br>
\hline \& November \& \& \& \& \& \& \& \& \& \& \& <br>
\hline \& December \& \& \& \& \& \& \& \& \& \& \& <br>

\hline \multicolumn{3}{|r|}{\multirow[t]{2}{*}{| Year's total $\qquad$ |
| :--- |
| Monthly average $\qquad$ |}} \& \multirow[t]{2}{*}{\[

$$
\begin{array}{r}
64,302,940 \\
5,358,578
\end{array}
$$

\]} \& \multirow[t]{2}{*}{\[

$$
\begin{array}{r}
59,394,796 \\
4,949,566
\end{array}
$$

\]} \& \multirow[t]{2}{*}{\[

$$
\begin{array}{r}
22,701,633 \\
1,891,803
\end{array}
$$
\]} \& \multirow[t]{2}{*}{} \& \multirow[t]{2}{*}{|---.............} \& \& \& \& \& <br>

\hline \& \& \& \& \& \& \& \& \& \& \& \& <br>
\hline
\end{tabular}

${ }^{1}$ Compiled by the $U$. S. Department of Commerce, Bureau of the Census, from data reported by 39 concerns, which produced about 80 per cent of the total production of fioor and wall tile in 1923, including the entire membership of the Associated Tile Manufacturers. Details by grades and kinds are issued each month in mimeograph form.

## TREND OF BUSINESS MOVEMENTS

The following table contains a summary of the monthly figures, designed to show the trend in important industrial and commercial movements. These data represent continuations of the figures presented in the latest semiannual number (August, 1928), in which monthly figures for 1927 and 1928 may be found, together with explanations as to the sources and exact extent of the figures quoted. The figures given below should always be read in connection with those explanations. Data on stocks, unfilled orders, etc., are given as of the end of the month referred to. For explanations of relative numbers, including base periods, see introduction on inside front cover.


## TREND OF BUSINESS MOVEMENTS-Continued



## TREND OF BUSINESS MOVEMENTS-Continued



## TREND OF BUSINESS MOVEMENTS-Continued


$t$ Revised.

TREND OF BUSINESS MOVEMENTS-Continued


TREND OF BUSINESS MOVEMENTS-Continued


TREND OF BUSINESS MOVEMENTS-Continued


TRevised.
${ }^{1}$ Cumulative through Sept. 30.

## TREND OF BUSINESS MOVEMENTS-Continued



## TREND OF BUSINESS MOVEMENTS-Continued

| The cumulatives shown are through October, except where otherwise noted. Earlier data for ttems shown here may beitfound on pages 28 to 137 of the August, 1928, "Survey" | 1928 |  |  |  |  | 1927 |  | PER CENT INcrease ( + ) or DECREASE (-) |  | cumulative total from jan. 1 through ост. 31 |  | Per ct.in-crease( + )or de-creasec- -1cumu-lative1928from1927 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | June | July | August | $\begin{gathered} \text { Septem- } \\ \text { ber } \end{gathered}$ | October | $\begin{aligned} & \text { Septera- } \\ & \text { ber } \end{aligned}$ | October | Oct., <br> 1928, <br> from <br> Sept., <br> 1928 | Oct., 1928, from Oct., 1927 | 1927 | 1928 |  |
| RUBBER-Continued |  |  |  |  |  |  |  |  |  |  |  |  |
| Rubber-proofed fabrics: |  |  |  |  |  |  |  |  |  |  |  |  |
| Total $\qquad$ <br> Auto fabrics | 2, ${ }^{\mathbf{8 9 5}}$ | 3,447 | 4, 613 | 4,966 | 609 | $\begin{array}{r}4,545 \\ \hline 756\end{array}$ | 4, 634 | -21.9 | -25.6 | 8 86,926 8,046 | 828,744 7,533 | ${ }_{-6.4}^{+6.8}$ |
| Raincoat labric.---.-.-.--thous. of yds.- | 1, 351 | 1,951 | 2,598 | 3,179 |  | 3,123 | 3,179 |  |  | ${ }^{8} 15,025$ | 814,192 | -5.4 |
| All other ......-.-....-.thous of yds.- | 707 | 733 | 1,251 | 1,007 |  | 666 | 636 |  |  | ${ }^{8} 4,674$ | 77, 628 | $+63.2$ |
| New orders, auto fabrics...- thous. of yds.- | 884 | 497 | 688 | 1,085 | 1,222 | 955 | 827 | $+12.6$ | +47.8 | 8,502 | 8,761 | +3.0 |
| Production, relative to capacity -_per cent.- | 24.5 | 25.9 | 39.1 | 40.0 | 31.2 | 28.7 | 31.2 | -22.0 | 0.0 |  |  |  |
| Rubber heels: <br> Production $\qquad$ thous. of pairs.- | 18,763 | 17,620 | 21, 289, | 21,451 |  | 18,452 | 21, 151 |  |  | ${ }^{8} \mathbf{1 3 9 , 3 9 8}$ | ${ }^{8} 178,741$ | +28. 2 |
| Shipments-...-........... |  |  |  |  |  |  |  |  |  |  |  |  |
| To shoe manufacturers thous. of pairs.-- | 9,166 9,022 | 12,070 | 11,642 9,244 | ${ }_{9}^{9,207}$ |  | 8,882 8,170 | 10,546 9,305 |  |  | ¢ 72,900 | ${ }^{8} 971,292$ | +25.1 +16.4 |
| To repair trade........thous. of pairs.- | 9,022 884 | 7,372 457 | 9,244 | 9, 899 |  | 8, 172 | 9, 9105 |  |  | $\begin{array}{r} 8 \\ 81,050 \\ 87,529 \end{array}$ | 88 <br> 817 <br> 817 | +16.4 +2.5 |
| Stocks, end of month........thous. of pairs .- | 50,569 | 49,679 | 49,511 | 49,751 |  | 38,696 | 39, 723 |  |  |  |  |  |
| Rubber soles: <br> Production $\qquad$ thous. of pairs.- | 3,321 | 3,168 | 3,461 | 2, 725 |  | 2,634 | 3, 697 |  |  | ${ }^{8} 16,863$ | ${ }^{8} 29,928$ | +77.5 |
| Shiprents- |  |  |  |  |  |  |  |  |  |  |  |  |
| To shoe manufacturers-thous. of pairs.- | 1,977 | 1,897 | 2, 209 | 1,703 |  | 1,390 | 2,169 |  |  | ${ }^{8} 11,420$ | ${ }^{8} 87,187$ | $+50.5$ |
| To repair trade........--thous. of pairs-- For export | 948 41 | 808 55 | 917 46 | 89 |  | ${ }^{996}$ | 1,096 |  |  | 81 <br> 8.899 <br> 869 | 88,342 81,918 | +70.3 +175.2 |
| Stocks, end of month..-.---thous. of pairs.- | 4, 687 | 5,067 | 5,633 | 5,501 |  | 3, 068 | 3, 899 |  |  |  |  |  |
| Mechanical rubber goods: |  |  |  |  |  |  |  |  |  |  |  |  |
| Total....................thous. of dolls.. | 6,126 | 5,157 | 6,306 | 5, 393 |  | 5,467 | 5,244. |  |  | ${ }^{8} 52,540$ | 852, 805 | +0.5 |
| Belting...-...-.-........thous. of dolls-- | 1,568 | 1,396 | 1,888 | 1,412 |  | 1,497 | 1,368 |  |  | ${ }_{8} 13,662$ | 813,090 | -4.2 |
| Hose-1.-.....-.....-.-. thous. of dolls.- | 2, 298 | 1,795 | 2, 068 | 1,731 |  | 1,963 | 1,837 |  |  | ${ }_{8}^{8} 20,831$ | ${ }^{8} 19,771$ | $-5.1$ |
| All other-.-.-.---...-.-thous. of dolls-- | 2, 260 | 1,966 | 2, 360 | 2, 250 |  | 2, 007 | 2, 039 |  |  | ${ }^{8} 18,149$ | ${ }^{8} 19,953$ | +9.9 |
| Rubber bands, shipments --.-.-.-thous. of lbs-- | 192 | 173 | 193 | 186 | 216 |  | 196 | +161 |  |  | 1,935 |  |
| Rubber flooring, shipments....thous. of sq. ft.- | 717 | 477 |  |  | 559 |  |  |  |  |  |  |  |
| HIDES AND LEATHER |  |  |  |  |  |  |  |  |  |  |  |  |
| Imports: Hides |  |  |  |  |  |  |  |  |  |  |  |  |
| Imports: <br> Total hides and stins thous of lbs | 58,091 | 50, 175 | 47,056 | 34,448 | 35,982 | 43,665 | 36, 356 | +4.5. | -1.0 | 370, 637 | 450, 802 | +21.6 |
| Caliskins .......................thous. of libs.. | 4, 457 | 4,134 | 4, 053 | 2,707 | 3,318 | 4,545 | 3,699 | $+22.6$ | -10.3 | 37, 314 | 35, 181 | $-5.7$ |
| Cattle hides....................thous. of lbs-- | 34, 168 | 28, 193 | 26,540 | 18,504 | 17,883 | 25,383 | 21,561 | -3.4 | -17.1 | 192, 134 | 252, 260 | +31.3 |
|  | 8,383 | 7, 873 | 7,951 | 6, 728 | 7,993 | 6,485 | 5,700 | +18.8 | +40.2 | 60, 383 | 78, 455 | +13.1 |
| Stocks, end of month: |  |  |  |  |  |  |  |  |  |  |  | +11.7 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| Cattle hides............-......thous. of lbs.- | 196,561 | 194, 668 | 197, 086 | 203, 227 |  | 188,797 | 200, 220 |  |  |  |  |  |
| Calf and kip skins............thous. of lbs.- | 29,159 | 25,551 | 25,758 | 24, 059 |  | 33,024 | 27,942 |  |  |  |  |  |
| Sheep and lamb skins........thous. of lbs... | 19,026 | 19,658 | 20,747 | 21, 986 |  | 21, 506 | 20,025 |  |  |  |  |  |
| Prices: <br> Green salted, packers' heavy |  |  |  |  |  |  |  |  |  |  |  |  |
| native steers. $\square$ dolls. per lb. | . 224 | . 239 | . 236 | . 246 | . 219 | . 224 | 233 | -11.0 | -6.0 |  |  |  |
| Calfskins, country No. 1.....dolls. per lb.- | . 266 | . 278 | . 275 | . 275 | . 246 | . 210 | 218 | $-10.5$ | +12.8 |  |  |  |
| Inspected slaughter of livestock: <br> United States- |  |  |  |  |  |  |  |  |  |  |  |  |
| Cattle..................-thous. of animals.- | 706 | 662 | 717 | 764 | 801 | 828 | 895 | +4.8 | -10.5 | 7,877 | 7,038 | $-10.7$ |
| Calves .-.............thous. of animals.-. | 398 | 362 | 369 | 352 | 405 | 357 | 413 | +15.1 | -1.9 | 4,091 | 3,961 | -3.2 |
| Swine....-...........thous. of animals.. | 4,078 | 2,984 | 2,545 | 2,508 | 3,713 | 2,534 | 2,969 | +48.0 | +25.1 | 35, 079 | 39, 477 | +12.5 |
| Sheep-..------------thous. of animals.- | 1, 109 | 1,078 | 1,196 | 1,307 | 1,409 | 1,185 | 1,194 | +7.8 | +18.0 | 10,719 | 11,245 | +4.9 |
| Canada- | 99 | 100 | 105 |  | 111 | 98 | 117 |  | -5.1 | 937 | 938 | +0.1 |
| Swine...--..-.-.-.----no. of animals--- | 205 | 164 | 140 | 161 | 200 | 174 | 208 | +24.2 | $-3.8$ | 2,038 | 2,077 | +1.9 |
| Sheop.....-.------.-.-no. of animals | 25 | 45 | 62 | 86 | 142 | 89 | 138 | +65.1 | +2.9 | 442 | 454 | +2.7 |
| Leather |  |  |  |  |  |  |  |  |  |  |  |  |
| Sole and belting leather: |  |  |  |  |  |  |  |  |  |  |  |  |
| Production- Sole only thous, of backs, hends, sides | 1,399 | 1,436 |  | 71,324 | 1,450 | 1,337 | 1,325 | +9.5 | +9.4 | 13,340 | 13.663 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| In process of tanning.-.--thous. of lbs.- | 91, 781 | 90, 949 | 89,508 | 85, 990 |  | 81,015 | 79,600 |  |  |  |  |  |
| Finished.-.-.-.-.-.......thous. of libs.-- | $\begin{array}{r}63,921 \\ 538 \\ \hline 3\end{array}$ | 69,557 | 72,439 ${ }^{996}$ | 74, 243 | 825 | 61, 735 | 60, 811 | +12.6 | +3.1 | 8,190 | 8,338 | +1.8 |
| Price oak, scoured backs _ _- - dolls. per lb--Upper leather: |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| In process of tanning- thous. of sq. ft.- | 143,099 | 147, 443 | 147, 602 | 146, 010 |  | 144, 881 | 147, 790 |  |  |  |  |  |
| Finished...-....-......-thous. of sq. ft-- | 262, 667 | 254, 563 | 253, 854 | 247,386 |  | 241, 835 | 244, 268 |  |  |  |  |  |
|  | 8,949 | 8,403 | 9, 000 | ${ }^{7} 9$ 9, 093 | 11,174 | 10,518 | 12, 1771 | +22.9 | -8.2 | 117, 238 | 114, 261 | -2.5 |
| Chrome calf, "B" grades..dolls. per sq. ft..- | . 53 | . 57 | . 57 | . 57 | . 55 | . 51 | . 51 | -3.5 | +7.8 |  |  |  |
| Leather Products |  |  |  |  |  |  |  |  |  |  |  |  |
| Production $\qquad$ thous. of pairs.- <br> Exports. thous. of pairs.- | 27, 234 | 28,154 | 7 34, 974 | 30,793 |  | 33, 933 | 32,267 |  |  | ${ }^{8} 261843$ | 8262400 |  |
|  | 318 | 344 | 331 | 275 | 340 | 312 | 376 | +23.6 | $-9.6$ | 4,700 | 3,573 | -24.0 |
|  | Wholesale prices- <br> Men's black calf |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Men's dress welt, tan |  |  |  |  | 6. |  |  |  |  |  |  |  |
| calt, St. Louis _-.....dolls. per pair.- | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 0.0 | 0.0 |  |  |  |
| n's black kid, dress <br> welt, lace, oxford..... dolls. per pair. |  |  |  |  | 4.15 |  |  | 0.0 | +3.8 |  |  |  |
|  | 228,039 | 202,051 | 237,043 | 213, 945 |  | 229,990 | 244,090 |  |  | $81,961,901$ | 1,912,163 | $-2.5$ |

TREND OF BUSINESS MOVEMENTS-Continued

${ }^{1}$ Revised.
${ }^{8}$ Cumulative through Sept. 30.

TREND OF BUSINESS MOVEMENTS-Continued


## TREND OF BUSINESS MOVEMENTS-Continued



- See table on p. 48 of the September, 1928, issue for earlier data.

TREND OF BUSINESS MOVEMENTS-Continued


TREND OF BUSINESS MOVEMENTS-Continued

${ }^{7}$ Revised.

TREND OF BUSINESS MOVEMENTS-Continued


7 Revised.

TREND OF BUSINESS MOVEMENTS-Continued


## TREND OF BUSINESS MOVEMENTS-Continued



## TREND OF BUSINESS MOVEMENTS--Continued



## TREND OF BUSINESS MOVEMENTS-Continued



TREND OF BUSINESS MOVEMENTS-Continued


TREND OF BUSINESS MOVEMENTS-Continued

| The cumulatives shown are through October, except where otherwise noted. Earlier data for items shown here may be found on pages 28 to 137 of the August, 1928, "Survey"' | 1928 |  |  |  |  | 1927 |  | PER CENT INCREASE ( + ) or decrease ( - ) |  | cumulative total prom jan. 1 through ост. 31 |  | Per ct. <br> in- <br> crease <br> ( + ) <br> or de- <br> crease <br> ( - ) <br> cumu- <br> lative <br> 1928 <br> from <br> 1927 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | June | July | August | $\begin{aligned} & \text { Septem- } \\ & \text { ber } \end{aligned}$ | October | $\begin{aligned} & \text { Septem- } \\ & \text { ber } \end{aligned}$ | October | Oct. 1928, from Sept., 1928 | Oct., 1928, from Oct., 1927 | 1927 | 1928 |  |
| TRANSPORTATION-Continued <br> Railway Equipment-Continued |  |  |  |  |  |  |  |  |  |  |  |  |
| Freight cars-Continued. <br> Shipments- |  |  |  |  |  |  |  |  |  |  |  |  |
| Domestic.-...............................cars.-. | 5,115 | 4,908 | 5,261 | 3,000 | 2, 345 | 4,393 | 4,101 | -21.8 | -42. 8 | 47, 234 | 35, 108 | $-24.6$ |
| Unfilled orders (railroads)---.......- | 5,15 |  |  |  |  |  |  |  | . ${ }^{\text {i }}$ |  |  |  |
| Total..------....--.........-. cars.- | 12,446 | 13,531 | 8,177 | 6, 619 | 5,437 | 14,437 | 10,901 | -17.9 | -50.1 |  |  |  |
| From manufacturers.....-........ears.- | 9,316 | 10,371 | 5,673 | 3, 878 | 1,880 | 10,799 | 6,991 | $-51.5$ | -73.1 |  |  |  |
| In railroad shops..........--......cars.- | 3,130 | 3,160 | 2,504 | 2, 741 | 3,557 | 3,638 | 3,910 | +29.8 | -9.0 |  |  |  |
| Passenger cars: <br> New orders $\qquad$ cars. | 57 | 19 | 589 | 2 | 56 | 19 | 18 |  | +211.1 | 1,033 | 1,760 | +70.4 |
| Shipments- |  |  |  |  |  |  |  |  |  |  | 1, |  |
| Total.------..-----............cars. | 95 | 123 | 147 | 146 | 68 | 201 | 119 | -53.4 | -42.9 | 1,079 | 885 | $-18.0$ |
| Domestic...-----...-.-.......---cars.- | 95 | 123 | 144 | 143 | 68 | 201 | 119 | -52.4 | -42.9 | 1,040 | 815 | -21.6 |
| Passenger Travel |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Automobiles entered.---.-.-...--number.- | 60, 324 | 111, 642 | 98, 523 | 44,873 | 10,466 | 29,089 | 12,862 | -76.7 | -18.6 | 365, 265 | 378, 126 | +3.5 |
| Arrivals from abroad: |  |  |  |  |  | 31,000 | 31,719 |  |  | ${ }^{8} 242,058$ | 8 217, 218 | -10.3 |
| United States citizens.............................. | 27, 201 | 32,974 | 63, 191 | 80, 233 |  | 75, 557 | 50, 254 |  |  | 8318,984 | ${ }^{8} 350,659$ | +9.9 |
| Departures abroad: |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 7,205 | 7,804 | 6,488 | 8,093 |  | 7,625 | 6,402 |  |  | ${ }^{8} 48,764$ | 855,307 | +13.4 |
| United States citizens...-.........number-- | 53,028 | 68,463 | 50, 323 | 42, 105 |  | 39,748 | 24, 396 |  |  | ${ }^{8} 333,772$ | ${ }^{8} 369,776$ | +10.8 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Passengers carried.-.........-..- thousands. - | 3,095 | 3,073 | 3,312 | 3,081 |  | 3,288 | 2,851 |  |  | 826,910 | 885,962 | $-3.5$ |
| Hotel room occupancy ......per ct. of capacity ..- | 64 | 60 | 63 | 88 | 2 | 68 | 72 | +5.9 | 0.0 |  |  |  |
| Warehouses |  |  |  |  |  |  |  |  |  |  |  |  |
| Public merchandise warehouses, space occupied. per ct. of total. . | 67.2 | 67.1 | 67.9 | 66.1 |  |  |  |  |  |  |  |  |
| PUBLIC UTILITIES |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| operating income...--.-.-.-.thous. of dolls.. | 16,941 | 15,019 | 15,985 | 16,496 |  | 16, 322 | 16, 445 |  |  | ${ }^{8} 143,416$ | 8149,041 | +4.1 +3.9 |
| Telegraph companies: |  |  |  |  |  |  |  |  |  |  |  |  |
| Commercial telegraph tolls_thous. of dolls | 11, 169 | 10,618 | 11,530 | 11,010 |  | 11, 172 | 10,979 |  |  | $8{ }^{895}, 267$ | ${ }^{8} 96,874$ | +1.7 |
| Operating revenue.-...-.--thous. of dolls.- | 14,036 | 13,375 | 14,328 | 13,911 |  | 13,822 | 13,648 |  |  | ${ }^{8} 118,180$ | ${ }^{8} 121,258$ | +2.6 |
| Operating income............thous. of dolls.- | 1,906 | 1,428 | 1,887 | 1,918 |  | 2,085 | 2, 009 |  |  | ${ }^{8} 16,221$ | ${ }^{8} 15,576$ | -4.0 |
| Gas and electric companies: |  |  |  |  |  |  |  |  |  |  |  |  |
| Net earnings...-.-.........---thous. of dolls .-- | 67, 633 | 61,000 | 60,000 | 67,000 |  | 61,897 | 65, 260 |  |  | ${ }_{8}^{18} 560,766$ | ${ }_{8} 618,458$ | +10.3 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| Passengers carried.-..-.-thous. of persons. A verage fare ................................ents. | 760,509 8.081 | 728,849 8.081 | 736,223 8.121 | 717,810 8.121 | 795, 140 | 728,371 7.952 | $\begin{array}{r} 790,712 \\ 7.985 \end{array}$ | +10.8 | +0.6 | 7,791, 941 | 7,712, 505 | -1.0 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| By water power ------ mills. of kw. hours.- | 3, 104 | 3,075 | 73,045 | 2, 785 |  | 2, 201 | 2,390 |  |  | ${ }_{8}^{8} 23,245$ | 8 8 867 | +18.4 +28 |
| By fuels-.--....--..-. mills. of kw. hours | 3,906 | ${ }^{7} 4,068$ | 7 4,460 | 4,485 |  | 4,404 | 4,542 |  |  | ${ }^{8} 36,941$ | ${ }^{8} 37,966$ | +2.8 |
| In street railways, <br> manfg. plants, etc. _-mills. of kw. hours - |  |  |  |  |  | 439 | 450 |  |  | ${ }^{8}$ 4,071 | ${ }^{8} 3,871$ | -4.9 |
| In central stations-...-..--mills. of kw. hours.. | 6, 638 | 6,759 | ; 7,123 | 6,915 |  | 6, 166 | 6, 482 |  |  | 855,115 | ${ }^{8} 60,419$ | +9.6 |
| Electric power production (Canada): |  |  |  |  |  |  |  |  |  | ${ }^{8} 10,221$ |  |  |
| By water power......-.-mills. of kw. hours. | 1, 226 | 1,231 | 71,292 | 1,260 |  | 1,184 | 1,295 |  |  | ${ }^{8} 10,084$ | ${ }^{8} 11,413$ | +13.2 |
| Exported....-------.-mills. of kw. hours -- | 127 | 130 | 145 | 130 |  | 154 | 143 |  |  | 81,230 | ${ }^{8} 1,172$ | -4.7 |
| Electric power, gross revenue.....-.................thous. of dolls.. | 149, 500 | ${ }^{7} 146,600$ | ${ }^{7} 148,200$ | 156, 100 |  | 144, 400 | 150,800 |  |  | ${ }^{8} 1,295,200$ | 89,809,900 | $+664.4$ |
| EMPLOYMENT AND WAGES |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| Massachusetts_..............rel. to 1919-23-- | 73.6 | 72.9 | 74.2 | 75.6 | 78.8 | 87.1 | 87.4 | +4.2 | -9.8 |  |  |  |
| New York State................-rel. to 1923.- | 82.2 | 81.5 | 82.5 | 84.3 | 86.0 | 87.5 | 87.6 | $+2.0$ | -1.8 |  |  |  |
| New Jersey ------------------rel. to 1923 -- | 90 | 90 | 91 | 94 | 95 | ${ }_{84}^{95}$ | 95 | +1.1 | 0.0 |  |  |  |
| Pennsylvania...---.-.-.-.-.-.-.rel. to 1923-- | 80 | 79 | 81 | 81 | 82 | 84 | 84 | +1.2 | -2. 4 |  |  |  |
|  | 74 | 75 | 74 | 77 | 74 | 74 | 73 | -3.9 | +1.4 |  |  |  |
| Maryland.....................--rel. to 1924.. | 86. 5 | 85.6 | 88.1 | 89.0 | 90.4 | 94.0 | 92.5 | $+1.6$ | -2.3 |  |  |  |
|  | 124.1 | 123.3 | 124.0 | 124.0 | 126.0 | 118.8 | 119.7 | +1.8 | +5.3 |  |  |  |
|  | 85.1 | 83.4 | 85.6 | 86.8 | 86.9 | 85.3 | 85.3 | $+0.1$ | +1.9 |  |  |  |
|  | 92.9 120.6 | 125.7 ${ }^{96.8}$ | 137.7 | 135.4 | 97.0 131.3 | 95.9 90.3 | 94.9 88.3 | -0.0 | +4.2 +48. |  |  |  |
|  | 76,580 | 76,679 | 78,420 | 78,910 |  | 72,247 | 69,046 |  |  |  |  |  |
| Detroit ...............................-. ${ }^{\text {number-. }}$ | 262,651. | 273, 796 | 293, 457 | 294, 829 | 285, 936 | 196,580 | 192,411 | -3.0 | +48.6 |  |  |  |
|  | 36,922 | 37, 314 | 37, 385 | 38,077 | 38,090 | 35, 544 | 35, 195 | 0.0 | +8.2 |  |  |  |
|  | 454,952 | 451, 125 | 456, 303 | 466, 357 | 475, 686 | 484, 115 | 484, 819 | +2.0 | -1.9 |  |  |  |
| Oklahoma-..--.....................number-- | 27,888 | 29,405 | 31, 137 | 30, 812 | 31,960 | 29,948 | 27, 624 | +3.7 | +15.7 |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| New York State (weekly) ..thous. of dolls.- | 13,413 | 13, 149: | 13,411 | 13,862 | 14, 171 | 14, 317 | 14, 195 | +2.2 | -0.2 |  |  |  |
| Oklahoma (weekly) --.-.-.-thous. of dolls.- | 743 | 793 | 877 | 865 | 868 | 970 | 741 | +0.3 | +17.1 |  |  |  |
| Wisconsin--------.-.-.-----rel. to 1923--1 | 104.8 | 98.7 | 108.7 | 106.5 | 110.2 | 101.7 | 100.6 | $+3.5$ | +9.5 |  |  |  |
|  | 89.0 | 87.2 | 89.0 | 92.0 | 94.0 | 95.0 | 94.2 | +2.2 | -0.2 |  |  |  |
| New Jersey-......-......---..--rel. to 1923.- | 98 | ${ }_{76}{ }^{6}$ | ${ }_{89}^{99}$ | 102 | 105 | 102 | 102 | +2.9 | +2.9 |  |  |  |
|  | 83 | 76 | 83 76 | 88 | 87 | 83 76 | ${ }_{76}^{85}$ | +4.8 +1.3 | +2.4 |  |  |  |
|  | 78 | 74 131 | 76 139 | 77 135 | 78 137 | 76 136 | ${ }_{126} 12$ | +1.3 +1.5 | +2.6 |  |  |  |
| Ohio construction*-..-.-........rel. to 1923 | 116 | $131{ }^{\text {i }}$ | 139 | 135 |  | 136 | 122 | +1.5 | +12.31 |  |  |  |

TREND OF BUSINESS MOVEMENTS-Continued

| The cumulatives shown are through October, except where otherwise noted. Earlier data for items shown here may be found on pages 28 to 137 of the Augtust, 1928, "Survey" | 1928 |  |  |  |  | 1927 |  | PER CENT INCREASE ( + ) OR DECREASE (-) |  | cumulative total FROM JAN. 1 THROUGH OCT. 31 |  | Per ct. <br> in- <br> crease <br> ( <br> or de- <br> crease <br> ( - ) <br> cumu- <br> lative <br> 1928 <br> from <br> 1927 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | June | July | August | $\begin{aligned} & \text { Septem- } \\ & \text { ber } \end{aligned}$ | October | $\underset{\text { ber }}{\text { Septem- }}$ | October |  | Oct., <br> 1928, <br> from <br> Oct., <br> 1927 | 1927 | 1928 |  |
| EMPLOYMENT AND WAGES-Contd. |  |  |  |  |  |  |  |  |  |  |  |  |
| Employment, Canada_--.-.-.rel. to Jan. 1920.- | 116.3 | 119.9 | 119 |  |  | 109.0 | 107.5 |  |  |  |  |  |
| Employment, trade-unions: <br> United States.................per cent of total. | 89.0 | 88.0 | 91.0 | 90.0 | 91.0 |  |  | +1.1 |  |  |  |  |
| Canada....................-per cent of total.. | 96.8 | 97.5 | ${ }_{97.6}$ |  |  | 96.9 | 96.1 | +1.1 |  |  |  |  |
| Anthracite mines: |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 113.8 92.8 | 105.1 62.0 | 107.9 86.7 | 110.8 92.5 | 112.8 | 118.7 112.0 | $19.8$ | $+1.8$ | -5.8 +9.5 |  |  |  |
| Federal civilian employees, Wash- <br> ington, D. C., end of month $\qquad$ | 1132.8 81,388 | 61,650 | 62, 111 | 62, 010 |  | 60, 267 | 109.4 60,236 |  | +9.5 |  |  |  |
| A verage weekly earnings, factories: nlinois | 29.28 | 27.45 | 29. 13 | 28.31 | 28,57 | 27.65 | 28. 59 | +0.9 | -0.1 |  |  |  |
| New York State........................-.-. dolls.- | 29.48 | 29.15 | 29.39 | 29.72 | 29.79 | 29.57 | 29.28 | $+0.2$ | +1.7 |  |  |  |
|  | 27.03 | 24.45 | 26.60 | 28.30 | 27.25 | 25.40 | 25. 40 | +3.6 | +7.3 |  |  |  |
|  | ${ }^{26.24}$ | 26.97 | 28.15 | 28.08 | 27.16 | 32.731 | 26.89 | $-3.3$ | +1.0 |  |  |  |
| Massachusetts..-.-.-.-.-.-.-...-rel. to 1914-- | 234.1 | 234.6 | 234.4 | 230.9 | 230.2 | 237.1 | 231.2 | -0.3 | $-0.4$ |  |  |  |
|  | 236.2 | 233.6 | 235.5 | 238.1 | 238.72 | 236.9 | 234.6 | +0.3 | +1.7 |  |  |  |
| New Jersey--..................-rel. to 1923-- | 110 | 108 | 109 | 110 | 112 | 109 | 109 | +1.8 | +2.8 |  |  |  |
| Pennsylvania----------------rel. to 1923-- | 102 | ${ }_{98}^{96}$ | 102 | 101 | 106 | 98 | 101 | +5.0 | +5.0 |  |  |  |
|  | 108.2 | ¢ 101.4 | ${ }_{1076}^{102}$ | 104.6 | 105.5 | 102.1 | 105.6 | +3.0 +0.9 | +2.0 +0.1 |  |  |  |
|  | 112.8 | 102.0 | 111.0 | 109.7 | 113.7 | 105.9 | 105.9 | +3.6 | +7.4 |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| Conference Board): <br> Grand total (both sexes) $\qquad$ dollars. | 27, 30 | 27.09 | 27.35 | 27.76 |  | 27. 32 | 27.01 |  |  |  |  |  |
|  | 30.35 | 29.95 | 30.30 | 30.93 |  | 29.70 | 29.35 |  |  |  |  |  |
| Skilled male--.-...................-dollars.- | 31.74 | 31.35 | 31.77 | 32.42 |  | 31. 18 | 30.78 |  |  |  |  |  |
| Unskilled male.-..........-.-......dollars.- | 25.17 | 24.69, | 24.78 | 25. 27 |  | 24.29 | 24. 21 |  |  |  |  |  |
| Total women--...-.-.-.-.-.-....-. - dollars.- | 17.01 | 17.07 | 17.04 | 17.33 |  | 17.32 | 17.35 |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 49.7 | 49.6 | 49.6 | 49.8 |  | 49.5 | 49.5 |  |  |  |  |  |
| Wages, road labor, by districts: |  |  |  |  |  |  |  |  |  |  |  |  |
| New England $\qquad$ cents per hour-- |  | 47 | 48 | 48 | 51 | 49 | 48 | +6. 3 | +6.3 |  |  |  |
| Middle Atlantic.............cents per hour-- | 42 | 43 | 41 | 42 | 41 | 46 | 46 | $-2.4$ | -10.9 |  |  |  |
| South Atlantic.-...-......cents per hour.- | 26 | 27 | 34 | 24 | 26 | 26 |  | +8.3 | -7.1 |  |  |  |
| East South Central -......cents per hour-- | 26 | 25 | 25 | 25 | 26 | 25 | 25 | +4.0 | +4.0 |  |  |  |
| West South Central.....-.-cents per hour.- | 30 | 27 | 29 | 26 | 30 | 33 | 32 | +15.4 | -6. 2 |  |  |  |
| East North Central.......-cents per hour-- | 37 | 38 | 39 | 38 | 40 | 40 | 40. | +5.3 | 0.0 |  |  |  |
| West North Central.....-.cents per hour-. | 36 | 36 | 38 | 39 | 39 | 38 | 38. | 0.0 | +2.6 |  |  |  |
| Mountain ---------------cents per hour-- | 45 | 44 | 50 | 52 | 49 | 46 | 48 | -5.8 | +2.1 |  |  |  |
| Pacific ------.-.-.-----cents per hour-- | 53 | 53 | 53 | 54 | $5_{4}^{4}$ | 54 | 56 | 0.0 | -3.6 |  |  |  |
| Wage rates, U. S. Steel Corp.-.cents per hour-- | 40 | ${ }_{50}^{40}$ | 42 50 | 43 50 | 420 | ${ }_{50}^{40}$ | 40 50 | -2.3 0.0 | +5.0 0.0 |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 147 | 151 | ${ }_{223}$ | 106 |  | 121 | 120 | ..... |  |  |  |  |
| Central States_-.-.-.-.-.-........-number.- | 161 | 150 | 132 | 126 |  | 136 | 145 |  |  |  |  |  |
| Southern States ..-..................number.- | 22.4 | 174 | 121 | 88 |  | 114 | 122 |  |  |  |  |  |
| Western States...................-number-- | 66 | 80 | 69 | 63 |  | 79 | 61 |  |  |  |  |  |
| Canada-------.-------..-......-number-- | 118 | 113 | 106 |  |  | 98 | 116 |  |  |  |  |  |
| Factory Labor Turnover |  |  |  |  |  |  |  |  |  |  |  |  |
| (Percentage of number on pay roll) |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Voluntary quits... per cent (annual basis) .- | 27.1 | 27.2 | 31.9 | 40.3 | 27.3 | 33.6 | 25.3 | -31.3 | +7.9 |  |  |  |
| Lay offs.........-. per cent (annual basis) .- | 7. 5 | 5. 9 | ${ }_{7}^{7} 5.1$ | 75.0 | 1.9 | 6.4 | 8.5 | -62.0 | -77.6 |  |  |  |
| Discharges........per cent (annual basis) -- | 4.9 | 4.9. | $\bigcirc 5.3$ | ${ }^{7} 5.3$ | 5.7 | 6.0 | 5.8 | +7.5 | $-1.7$ |  |  |  |
| Industrial disputes: |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| W orkers involved....-...........-number.- | 134,406 | ${ }^{7} 134,102$ | ${ }^{7} 130,853$ | 109,461 |  | 196,829 | 82,095 |  |  |  |  |  |
| Man-days lost in month .-.......-number..- | 3, 580, 7197 | 3,365,803 | 3,610,333 | 2, 651,055 |  | 4,945, 002 | 2, 724, 117 |  |  |  |  |  |
| DISTRIBUTION MOVEMENT |  |  |  |  |  |  |  |  |  |  |  |  |
| Retall Sales |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sears, Roebuck \& Co--...-thous. of dolls | 25,669 | 26, 276 | 28,986 | 30, 004 | 37,002 | 24, 609 | 29, 302 | +23.3 | +26.3 | 228,568 | 268,367 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| Total sales (4 chains) .-.--- thous. of dolls.. | 42,097 | 38,764 | 41, 050 | 42,906 | 48, 992 | 38, 744 | ${ }^{7} 46,519$ | +14.2 | +5.3 | 374, 686 | 403, 519 | +7.7 |
| Total stores operated (4 chains) -- number-- | 2,509 | 2,526 | 2, 552 | 2, 586 | 2,615 | 2,371 | 2,396 | +1.1 | +9.1 |  |  |  |
| F. W. Woolworth \& Co.... thous. of dolls... | 22,400 | 20,592 | 21, 812 | 22,637 | 26,895 | 20,744 | ${ }^{7} \mathbf{7 6 , 0 3 4}$ | +18.8 | +3.3 | 205, 124 | 217, 224 | +5.9 |
| S. S. Kresge Co.-...-......-.- thous. of dolls.. | -11,834 | 1,658 | 11,675 | 1,698 11,914 | 12,925 | 1,568 10,422 | 12,084 | +1.2 +8.5 | +8.5 +7.0 | 98, 712 | 109,485 | +10.9 |
| Stores operated........-.......number.- | 450 | 460 | ${ }_{468}$ | -474 | ${ }^{481}$ | ${ }_{413}$ | 419 | +1.5 | +14.8 |  |  |  |
| McCrory Stores Corp......thous. of dolls.-- | 3,097 | 2,950 | 3,116 | 3,344 | 3,471 | 3,022 | 3, 332 | +3.8 | +4.2 | 29,243 | 30,371 | +3.9 |
|  | -223 | 4, 224 | 4. 224 | 5 224 | 5, 224 | 4, 215 | 5, 217 | 0.0 +13 | +3.2 |  |  |  |
| S. H. Kress \& Co-...........thous. of dolls.Stores operated.-...............number. | 4,766 <br> 184 | $\begin{array}{r}4,639 \\ 184 \\ \hline\end{array}$ | 4,850 185 | 5,011 190 | 5, 701 | 4,556 | 5, ${ }^{1769}$ | +1.8 +1.8 +1.1 | +12.5 +9.7 | 41, 607 | 47,439 | +14.0 |
| Metropolitan --.............-thous. of dolls.- | 1,027 | 908 | 98. | 1, 116 | 1,232 | 977 | 1,120. | +10.4 | +10.0 | 8,833 | 9,514 | +7.7 |
| Stores operated-.............-number-- | 94 |  | 97 | 100 | 104 | 90 | 90 | +4.0 | +15.6 |  |  |  |
| F. \& W. Grand --.......-.thous. of dolls-- | 1,259, | 1,205 | 1,236 | 1,443 | 1,756 | 1,005 | 1,223 | +21.7 | +43.6 | 9,475 | 12,053 | +27.2 |
|  | 170 4,366 | 1,73 3,731 | 1,74 3,996 | 4,708 | 80 5,418 | - 3,285 | 4, ${ }^{575}$ | +5.3 +15.1 | +45.5 +26.7 | 30, 754 | 39,145 | +27. |
| Stores operated.-.-.........--number.- | +181 | ${ }^{191}$ | ${ }^{3} 191$ | 4, 199 | 5, 203 | 3, ${ }_{130}$ | ${ }_{1}{ }_{135}$ | +1.0 +2.0 | +26.4 +50.4 | 30, 54 | 39, 4 | +27. |

TREND OF BUSINESS MOVEMENTS-Continued


TREND OF BUSINESS MOVEMENTS-Continued


TREND OF BUSINESS MOVEMENTS-Continued

| The cumulatives shown are through October, except where otherwise noted. Earlier data for items shown here may be found on pages 28 to 137 of the August, 1928, "Survey" | 1928 |  |  |  |  | 1927 |  | $\begin{aligned} & \text { PER CENT IN- } \\ & \text { CREASE ( }+ \text { OR } \\ & \text { DECREASE }(-) \end{aligned}$ |  | cumulative total from jan. 1 through ост. 31 |  | Per ct. <br> in- <br> crease <br> (+) <br> or de- <br> crease <br> $(-)$ <br> cumu- <br> lative <br> 1928 <br> from <br> 1927 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | June | July | August | $\begin{gathered} \text { Septem- } \\ \text { ber } \end{gathered}$ | October | $\begin{aligned} & \text { Septem- } \\ & \text { ber } \end{aligned}$ | October | Oct., 1928, from Sept., 1928 | Oct., 1928, from Oct., 1927 | 1927 | 1928 |  |
| BANKING AND FINANCE-Continued Business Failures-Continued |  |  |  |  |  |  |  |  |  |  |  |  |
| By groups: $\dagger$ Manufacturers- |  |  |  |  |  |  |  |  |  |  |  |  |
| Metals.........................number-- | 40 | 31 | 36 | 35 | 33 | 20 | 32 | -5.7 | +3.1 | 291 | 367 | +26.1 |
| Textiles-......-...............-number.-- | ${ }_{76}$ | ${ }_{69} 6$ | ${ }_{60}$ | 73 | 94 <br> 94 | 5 | 75 | +6.8 | +33.9 | 544 |  | +17.5 |
|  | 7 | 5 | 4 | 8 | 13 | 2 | 9 | +62.5 | +44.4 | 58 | 79 | +11.0 +36.2 |
| Printing and engraving......-number-- | 18 | 16 | 22 | 6 | 18 | 20 | 22 | +200.0 | $-18.2$ | 223 | 152 | -31.8 |
| Foodstuffs...........-.........number.- | 45 | 47 | 51 | 24 | 47 | 27 | 39 | +95.8 | +20.5 | 369 | 421 | +14.1 |
| Leather, etc....................number.- | 11 | 18 | 8 | 15 | 14 | 9. | 8 | -6.7 | +75.0 | 110 | 131 | +19.1 |
| Liquors and tobacco --.......number-- | 5 |  | 10 | 4 | 6 | 17 | 6 | +50.0 | 0.0 | ${ }_{68}^{86}$ | 57 | -33.7 |
| Stone, clay, and glass..-.-.-.-number.- | 5 | 5 | 10 | ${ }^{3}$ | ${ }^{7}$ | 3 | , | +133.3 | 0.0 | 68 | 81 | +19.1 |
|  | 235 | 195 | 237 | 212 | 217 | 192 | 231 | +2.4 | 6. 1 | 2,175 | 2,222 | +2.2 |
| Traders- <br> number | 78 | 77 | 54 | 60 | 87 | 58 | 57 | +45.0 | +52.6 | 1,492 | 838 | -43.8 |
| Foods and tobacco............number.- | 426 | 387 | 423 | 376 | 503 | 335 | 384 | +33.8 | +31.0 | 3,949 | 4,300 | +8.9 |
|  | 248 | 202 | 210 | 168 | 225 | 187 | 192 | +33.9 | +17.2 | 2,482 | 2,703 | +8.9 |
| Household furniture .......... ${ }^{\text {number }- \text { - }}$ | 228 | 179 | 171 | 187 | 190 | 160 | 183 | +1.6 | +3.8 | 2, 324 | 2,392 | +2.9 |
| Chemicals and paints.......-number-- | 57 | 55 | 71 | 43 | 78 | 58 | 60 | +81. 4 | +30.0 | 649 | 676 | +4.2 |
| Books and paper .-............number- |  | 14 | 11 | 13 | 10 | 8 | 11 | $-23.1$ | -9.1 | 121 | 125 | +3.3 |
|  | 281 | 247 | 307 | 226 | 276 | 277 | 283 | +22.1 | -2.5 | 2,820 | 2,908 | +3.1 |
| Dividend and Interest Payments |  |  |  |  |  |  |  |  |  |  |  |  |
| Grand total.....................thous. of dolls.- | 467, 225 | 719, 196 | 333,400 | 408, 600 | 586, 750 | 392, 250 | ${ }^{7} 566,175$ | +43.6 | +3.6 | 4, 703, 073 | 4,923, 351 | +4.7 |
| Interest payments.................thous. of dolls.. Dividend payments: | 316, 900 | 466, 704 | 182, 000 | 262, 500 | 388, 600 | 250, 100 | 369, 850 | +49.2 | +5.1 | 2, 913, 123 | 3, 087, 604 | $+6.0$ |
|  | 150, 325 | 252,492 | 151, 400 | 146, 100 | 198, 150 | 142, 150 | $?^{7} 196,325$ | +35.6 | +0.9 | 1,779,950 | '1,835, 747 | +3.1 |
| Industrial and mise ..------thous. of dolls.-. | 118, 050 | 184, 892 | 109, 450 | 118, 450 | 156, 200 | 115, 300 | - 155,700 | +31.9 | +0.3 | 1,311, 975 | 1, 356, 242 | +3.4 |
| Steam railroads..---------thous. of dolls.- | 26, 075 | 34, 500 | 35, 200 | 20,400 | 29, 400 | 19,750 | 28,375 | +44. 1 | +3.6 | 291, 950 | 302, 555 | +3.6 |
| Street railways.....-........thous. of dolls.- | 6,200 | 13,600 | 6,750 | 7,250 | 12,550 | 7,100 | 12, 250 | +73.1 | +2.4 | 96, 525 | 102,450 | $+6.1$ |
| New Securlty Issues |  |  |  |  |  |  |  |  |  |  |  |  |
| Foreign loans in the U. S...-. - thous. of dolls | 268, 179 | 43,591 |  | 111, 513 | 73, 370 | 94, 395 | 260, 145 | -34. 2 | -71.8 | 1, 321, 035 | 1, 281,639 | -2.0 |
| Foreign governments.----.-.-.-thous. of dolls.- | 48,550 | 41,396 |  | 43, 500 | 36,750 | 31, 281 | 125, 623 | -15.5 | -70.7 | 673, 779 | 620,120 | -8.0 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Refunding* $\qquad$ thous. of dolls. | 182, 551 | 38,945 | 18, 710 | 37,028 | 55, 131 | 78, 779 | 159, 701 | +48.9 | -65.5 | 1, 450, 526 | 1, 583,571 | +9.2 |
| Type of security - <br> Stocks*--.--............. thous. of dolls. |  | 208, 212 | 73, 892 |  | 390, 610 | 109, 576 |  |  |  |  |  |  |
|  | 418, 823 | 115, 538 | 125, 534 | 256, 137 | 264, 994 | 341, 788 | 599, 513 | $+$ | -55.8 | 4, 470, 331 | 3, 558, 268 | -20.4 |
| Class of industry- |  |  |  |  |  |  |  |  |  |  |  |  |
| Railroads ----------.-thous. of dolls-- | 42,158 | 18,874 | 13,726 |  | 45, 830 | 19,493 | 32, 550 |  | +40.8 | 872,325 | 589,461 | -32.4 |
| Public utilities--....--- thous. of dolls-- | 378, 637 | 57,598 | 97, 776 | 202, 239 | 214, 466 | 200, 174 | 311, 832 | +6.0 | -31.2 | 2, 216, 609 | 2, 273, 467 | +2.6 |
| Industrials-..--......-- thous. of dolls.- | 190, 356 | 98, 810 | 32,989 | 98, 234 | 114, 233 | 82,659 | 113, 368 | +16.3 | +0.8 | 940, 008 | 1, 167,311 | +24.2 |
| Oil ------------------thous. of dolls.- | 21, 241 | 15,030. |  |  | 7,000 |  | 42,000 |  | -83.3 | 375, 138 | 109, 327 | -70.9 |
| Land and buildings..--thous. of dolls.- | 74,071 | 64, 538 | 30,256 | 57, 517 | 85, 627 | 45, 602 | 73, 729 | +48.9 | +16.1 | 568, 037 | 692,128 | +21.8 |
| Shipping and misc.-.-.thous. of dolls.- | 121, 971 | 68, 374 | 44, 678 | 70, 194 | 163,749 | 93, 437 | 160, 603 | +133.3 | +2.0 | 785, 921 | 1, 104, 032 | +40.5 |
| Bond sales (Canada): <br> Govt. and provincial........thous. of dolls.- |  |  |  | 9,733 | 18,061 |  |  | +85.6 |  |  |  |  |
|  | 2,158 | 975 | 964 | ${ }^{260}$ | 4, 834 | 9,788 | 3, 828 |  | +26.3 | 55, 609 | 22, 204 | $-60.1$ |
| Corporation------.-.---.-thous. of dolls.- | 77, 198 | 9,565 | 4,095 | 11,980 | 16,487 | 52,973 | 74, 936 | +37.6 | $-78.0$ | 272,944 | 239, 211 | -12.4 |
| States and municipalities: <br> Permanent loans $\qquad$ thous. of dolls.- | - 137, 219 | 7 75,886 | - 78,600 | ${ }^{7} 71,388$ | 92,828 | 116, 311 | 124, 759 | +30.0 | -25. 6 | 1, 255, 599 | 1, 096, 087 |  |
| Temporary loans...-...-.----thous. of dolls..- | 44, 621 | ${ }^{7} 57,014$ | ${ }^{7} 83,703$ | ${ }^{7} 73,419$ | 16, 167 | 73, 088 | 69,561 | $-78.0$ | -76.8 | - 5 54, 050 | 609, 889 | +10.1 |
| Tax-exempt securities outstand- <br> ing, end of month...............-mills. of dolls.. | 16,847 | 16,890 | ${ }^{\text {\% }} 16,911$ | 16,881 |  | 15, 952 | 16,060 |  |  |  |  |  |
| Agricultural Finances |  |  |  |  |  |  |  |  |  |  |  |  |
| Loans outstanding, end mo.: <br> Federal farm loan banks ...thous. of dolls.. ${ }^{21,268,612}$ |  |  |  | 21, 277, 359 |  | 31, 143, 130 |  | +0.7 | +11.7 |  |  |  |
| Joint-stoek land banks .....thous. of dolls.-- ${ }_{2} \mathbf{6 4 2 , 1 7 4}$ |  |  |  | ${ }_{2} 643.004$ |  | ${ }_{8} 609,535$ |  | +0.1 | +5.5 |  |  |  |
| Federal intermediate credit <br> banks_-.......................thous. of dolls. <br> War finance corporation....-thous. of dolls. | ${ }^{2} 68,978$ |  |  | ${ }^{2} 68,620$ |  | ${ }^{8} 62,879$ |  | -0.5 | +5.1 |  |  |  |
|  | 904 | 781 | 747 | 583 | 558 | 4,285 | 4,080 | $-4.3$ | -86. 3 |  |  |  |
| Stocks and Bonds |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| 25 railroads, average....-.-dolls. per share _- | 118.64 | 119.18 | 121.57 | 124.82 | 123.40 | 119.95 | 117.84 | $-1.1$ | +4.7 |  |  |  |
| 103 stocks, average .-...-. dolls. per share .- | 147.69 | 146.71 | 151. 24 | 154.87 | 154. 95 | 140.67 | 130.15 | +0.1 | +19.1 |  |  |  |
| Southern cotton mills-.--dolls. per share.- | 110.42 | 108.17 | 104.82 | 103.31 | 103. 19 | 109.85 | 111.31 | -0.1 | -7.3 |  |  |  |
| Stock, prices, average weekly closing:** |  |  |  |  |  |  |  |  |  |  |  |  |
| (393) .......................-rel. to 1926.. | 145.3 | 144.2 | 148.3 | 156.6 | 159.1 | 127.7 | 126.7 | +1.6 | +25.6 |  |  |  |
| All industrials (325) ..............rel. to 1926.. | 148,2 | 147.8 | 152.6 | 162.2 | 166.2 | 128.9 | 127.5 | +2.5 | +30.4 |  |  |  |
| Railroads (33) -............-.-.-.rel. to 1926... | 126.7 | 124.6 | 126.5 | 129.6 | 128.2 | 125.2 | 124.3 | $-1.1$ | +3.1 |  |  |  |
| All utilities (35)--.......-.-----rel. to 1926..- | 148.1 | 145.3 | 147.9 | 155.8 | 154.5 | 124.1 | 124.5 | -0.8 | +24. 1 |  |  |  |
| Automobiles (14) ------.-.-.---- rel. to 1926-- | 235.3 | 238.4 | 244.7 | 270.0 | 283.6 | 174. 2 | 173.6 | +5.0 | +63.4 |  |  |  |
| Chain stores (18) ---.-...--- rel. to 1926... | 136.8 | 135.3 | 142.9 | 150.5 | 150.9 | 128. 7 | 127.4 | +0.3 | +18.4 |  |  |  |
| Copper and brass (10) --...-rel. to 1926.-. | 147.5 | 150.0 | 155.2 | 172.0 | 185. 1 | 115.9 | 115.8 | $+7.6$ | +59.8 +27 |  |  |  |
| Food, other than meat (23) .....rel. to 1926.. <br> Machinery and machine <br> equipment (10) $\qquad$ rel to 1926 | 152.4 132.3 | 152.1 132.7 | 158.1 135.4 | 167.1 139.4 | 167.1 140.1 | 130.6 114.9 | 131.3 115.9 | 0.0 +0.5 | +27.3 +20.9 |  |  |  |

[^4]TREND OF BUSINESS MOVEMENTS-Continued
 ${ }^{7}$ Revised.

TREND OF BUSINESS MOVEMENTS-Continued

${ }^{8}$ Cumulative through Sept. 30.

## PUBLICATIONS OF THE DEPARTMENT OF COMMERCE

Recent publications of the Department of Commerce having the most direct interest to readers of the Survey or Cumannt Businessis are listed below. A complete list may be obtained by addressing the Division of Publications, Department of Commerce, at Washington. Copies of the publications may be purchased from the Superintendent of Documents, Government Printing Office, Washington, at the prices stated. If no price is mentloned, the publication is distributed free.

## OFFICE要OF THE SECRETARY

Commercial and Government Radio Stations of the United States. iv +176 pages. This publication contains list of the commercial and government land and ship radio stations, aircraft stations, commercial broadcasting stations, radiobeacons operated by the Lighthouse Service, and abbreviations used in radio transmission. Price, $15 \%$.

Radlo Service Bulletin, Oct., 1928. 21 pages. Issued monthly by the Radio Division of the Commerce Department. Contains lists of radio stations and references to current radio literature. Single copies, 5 $\phi$; qุnual subscription, $25 \phi$.

United States Department of Cornmerce, Brief Description of Activities of the Several Bureaus of Department. ii +65 pages, 11 illus. This publication describes the activities of the tarioup bureaus and offices of the Department of Commerce.

## BUREAU OF THE CENSUS

(For information concerning plan of publication and distribution of consus puble, cations, address the Director of the Census)
Stocks of Leaf Tobacco, and the American Production, Imports, Exports, and Consumption of Tobacco and Tobacco Products Bulletin 163. This report deals with the stocks of leaf, tobacco held by certain classes of manufactures of and dealers in leaf tobacco. Paper. 45 pages. Price, 104.
Financial Statistics of Cities having a Population of over $30,000,1926$.-Annual investigation of the Bureau of the Census, which shows the financial transactions of 250 cities, the assessed valuation of taxable property in those cities, and the taxes levied thereon; also their indebtedness and specified assets at the close of the year. Cloth, 505 pages. Price, $\$ 1.25$.

## BUREAU OF FOREIGN AND DOMESTIC COMMERCE

The publications of this bureau may also be purchased from the bureau or its district offees
Annual Report of Director of Bureai of Foreign and Domestic Commerce to Secretary of Commerce for Miscal Year Ended June 30, 1928. iv +54 pages, 1 chart. Price, $5 \phi$.
Commerce Yearbook, 1928: Vol. II, Foreign Conntries. vi +751 pages, 64 llus., 10 maps. Commencing with this isisue the Commerce Yearbook will be designated by the year in which it is published, and there will be no issue bearing the date 1927. This volume of the 1928 Yearbook' gives a brief review of economic conditions in 65 countries and contains many statistical tables comparing the activities of the different countries. Price, \$1.25.
Monthly Summary of Foreign Commerce of United States, Sept., 1928. Parts I and II. Part I contains statistics of exports of domestic merchandise, and imports by articles for September, 1927 and 1928, and for nine months ended September, 1927 and 1928. Part II contains summaries of export and import trade; monthly average import and export prices; statistics of trade with Alaska, Hawaii, and Porto Rico. Single copies, Part I, 10\&; Part II, 5d. Annual subscription, \$1.25.
Analyzing Retail Selling Time, Cost of Selling Commodities Over Retail Counter, by G. E. Bittner. Distribution Cost Studies No. 2; 15 pages, charts. Data regarding the salaries and wages paid in retail stores, the amount of time spent, and the cost of making sales, and thie amount and cost of nonproductive time.

Government Publications Relating to Textiles. Revised editions. ii +52 pages. This is a revision of a pamphlet issued previously showing all the publications issued by the government relating to textiles.

Practical Aids to American Exporters. viii +14 pages. This pamphlet describes the activities of the Bureau of Foreign and Domestic Commerce in promoting foreign trade through the informational service of its various divisions and district and cooperative offices, the trade opportunity information furnished, and publications iasued.
External Trade of New England, by Robert J. McFall. Domestic Commerce Series No, 22; iv +44 pages, 20 illus. Study of the movement of goods into and out of the New England States by freight, express, and mail. Price, 10 .

## BUREAU OF STANDARDS

Burean of Standarde Journal of Research, Sept., 1928. Pages Digitized 297-485 5 Bllus., plates. This jouraal contains the papera httpi/ffra ormerls isgued/as the Technologic and Scientific papers series,
which series have been discontinued. The articles in the journal are known as the Research Papers series and are issued separately after publication in the journal. Single copies, 25 ; annual subscription, $\$ 2.75$.

Same, Oct., 1928. Pages 487-684, illus., plates.
Same, Nov., 1928. Pages 685-866, illus., plates.

## BUREAU OF FISHERIES

Electric Fish Screen, by F. O. McMillan. Document No. 1042. (From Bulletin of Bureau of Fisheries, Vol. XLIV, 1928, pp. 97-128, 1 illus., 2 pages of plates, 16 charts.) Report on experiments with electric screens to be placed in streams to direct the movements of fish and prevent their destruction through entry into irrigation canals or power plant currents. Price, 15 .

## BUREAU OF MINES

Eighteenth Annual Report of Director of Burean of Mines to Secretary of Commerce for Fiscal Year Ended Jnne 30, 1928. vi +57 pages, 1 chart. Price, 10 d.

Five Hundred Tests of Various Coals in House-Heating Boilers, by $\mathbf{P}$. Nicholls, $\mathbb{S}$. B. Flagg, and C. E. Augustine. Bulletin 276; iv +74 pages, 12 illus, A bibliography of fuels and heating equipment is included. Price, $15 \phi$.

Mineral Resources of United States, 1926.-Additional reports released since the November announcement:

Coal in 1926. (Pt II, pp. 419-585, 10 Hlustrations.) Price, 30t.
Gold and Silver in 1920. (Pt. I, pp 673-709.) Price, 10t.

Mineral Resources of United States, 1927.-The following have been released since the November announcement and may be obtained at 5 deach:

$$
\begin{aligned}
& \text { Abrasive Materials in 1927. (Pt. II, pp. 91-98.) } \\
& \text { Antimony in 1927. (Pt. I, pp. 39-49.). } \\
& \text { Asphalt and Related Bitumens in 1927. (Pt. II, pp, 67-80.) } \\
& \text { Bauxite and Aluminum in 1927. (Pt. 1, pp. 7-24.) } \\
& \text { Mercury in 1927. (Pt. I, pp. } 51-74 \text {.) } \\
& \begin{array}{l}
\text { Platinum and Allied Metals in 1927. (Pt. I, pp. 25-38.) } \\
\text { Slate in } 1927 \text {. (Pt. II, }
\end{array} \\
& \text { Slate in 1927. (Pt. II, pp, 81-00.) }
\end{aligned}
$$

Analyses of West Virginia Coals-Technical Paper 405; iv +343 pages, 1 illus. Discusses the distribution of coal in West Virginia, mining methods employed and transportation facilities available, with analyses of mine samples. Price, 204.

Production of Explosives in United States During Calendar Year 1927; by William W. Adams. Technical Paper 435; $i i+49$ pages. Shows the production of explosives in the United States, and the amount used by various industries in this country and abroad. Price, 10\%.

## BUREAU OF NAVIGATION

American Documented Seagoing Merchant Vessels of 500 Gross Tons and Over, Oct., 1928. ii 47 pages. Published monthly. Single copies, $10 \phi ;$ annual subseription, $75 \phi$.

## COAST AND GEODETIC SURVEY

Tidal Bench Marks, State of New Jersey, by L. A. Cole. Special Publication No. 148; ii +18 pages, 2 pages of plates. Price, $10 \phi$.

## LIGHTHOUSE SERVICE

Light List, Ohio, Tennessee, Kanawha, Monongahela, and Allegheny Rivers, 14th Lighthouse District, 1928, correoted to Sept. 15. 130 pages. Describes all aids to navigation maintained by the Goxernment on the rivers named. Ptice, 204.

## STEAMBOAT INSPECTION SERVICE

Bays, Sounds, and Lakes Other than Great Lakes: General Rules and Regulations Prescribed by Board of Supervising Inspectors as Amended at Board Meeting of Jan., 1928.Form 801 C ; viii +204 pages, 6 illus, In addition to the regulations governing equipment of vessels, there is given a list of approved vessel instruments and machines.

Rivers General Rules and Regulations Prescribed by Board of Supervising Inspectors as Amended at Board Meeting of Jan., 1928.-Form 801D; viii +194 pages, 6 illus. Regulations for river vessels, with list of approved equipment, and rulings in connection with handling of so-called dangerous artioles.

# CHIEF FUNCTIONS OF THE DEPARTMENT OF COMMERCE 

WILLIAM F. WHITING, Sooretary of Commerce

Walter F Browno Assistant Secretary of Commerce. Eprbaim F. Mohgan, Solicitor

## AERONAUTICS BRANCH <br> Whinay P. McCracken, Jr., Absistant Secretary of Commerce for Aeronautics

Establishment of civil airways and maintenance of aids to air navigation; inspection and registration of aircraft and licensing of pilots; enforcement of air traffic rules; investigation of accidents; encouragement of municipal air ports; fostering of air commerce; scientific research in aeronautics; and diseminaBion of information relating to commaercial aeronautics. (Some of these functions are performed by special divisions of the Highthouse Service, the Bureau of Standards, and the Coast snd Geodetic Survey.)

## BUREAU OF THE CENSUS <br> Wipliam M. Stefart, Difector

Taking censuses of population, inmates of institutions, mines and quarries, forest products, and water transportation every 10 years; censuses of agriculture and electrical public utilities every 5 years; and a census of manufactures every 2 years.

Compilation of statistics of wealth, public debt and taxation, Including financial statistics of local governments, every 10 years; annual compilation of financial statistics of State and municipal governments.

Compilation of statistice of marriage, divorce, births, deaths, and penal institutions annually, and of death rates in cities and automobile accidents weekly.

Compilation quarterly or monthly of statistics on cotton, wool, tobacco, leather, and other industries; publication in the Survey of Current Business of monthly commercial and industrial statistics.

## BUREAU OF FOREIGN AND DOMESTIC COMMERCE

Julife Kliein, Director
The collection of timely information concerning world market conditions and openings for American products in foreign countries, through conmercial attachés, trade commissioners, and consular officers, an'd its distribution through weekly Commerce Reporte, bulletins, confidential circulars, the news and trade press, and district and cooperative offices in 65 cities.

The maintenance of commodity, technical, and regional divisions to afford special service to American exporters and manufacturers.

The cotmpilation and distribution of lists of possible buyere and agents for American products in all parts of the world and publication of weekly lists of specific sales opportunities abroad.

The publication of statisties on imports and exports.
The study of the processes of domestic trade and commerce.

## BUREAU OF STANDARDS <br> George K. Burambs, Director

Custody, development, and construction of standards of measurement, quality, performance, or practice; comparison of standards used by scientific or other institutions; determination of physical constants and properties of materials; researches and tests on materials and processes; and publication of scientific and technical bulletins reporting results of researches and fundamental technicai data.

Preparation of specifications for Government purchases, through the Federal Specifications Board.

Collection and dissemination of information concerning buildiag codes and the planning and construction of houses.

Establishment of simplified commercisl practices through cooperation with business organizations in order to reduce the wastes resulting from excessive variety in commodities.

## BUREAU OF MINES

## Scott Turner, Director

Technical investigations in the mining, preparation and utilization of minerals, including the study of mine hazards and safety methods and of improved methods in the production and use of minerals.

Testing of Government fuels and management of the Govornment Puel Yard at Wrabingtod.

Research on helium and operation of plants producing it.
Studies in the economics and marketing of minerals and collection of statistics on mineral resources and mine accidents,

The dissemination of results of technical and economic researches in bulletins, technical papers, mineral resources series, miners' circulars, and miscellaneous publications.

## BUREAU OF FISHERIES

Henry O'Mallet, Commissionery
The prupagation and distribution of food fish and shellish, In order to prevent the depletion of the fisheries; investigation. to promote conservation of fishery resources; the development of commercial fisheries and agriculture; study of fishery methods, improvements in merehandising and collection of fishery statistics; administration of Alaska fisheries and fur seals; and the protection of sponges off the coast of Morida.

## BUREAU OF LIGFTHOUSES <br> Georgin R. Pumnam, Commibsioner

Maintenance of lighthouses and other aids to water navigation. Establishment and maintenance of aids to navigatlon along eivil airways.

Publication of Light Lists, Buoy Lists, and Notices to Mariners, giving information regarding these aids to navigation.

## COAST AND GEODETIC SURVEY

## E. Lebter Jones, Director

Survey of the coasts of the United States and publication of charts for the navigation of the adjacent waters, including Alaska, the Philipplne Islands, Hawsii, Porto Rico, the Virgin Islands, and the Canal Zone; interior control surveys; magnetic surveys; tide and current observations; and selsmological investigations.

Publication of results through charts, coast pilote, tide tables. current tables, and special publications.

## BUREAU OF NAVIGATION

## Artaur J. Trbme, Commissioner

Superintendence of commercial marine and merchant seamen.
Supervision of registering, enrolling, licensing, numbering. etc., of vessels under the United States flag, and the annuai publication of a list of such vessels.
Enforcement of the navigation and steamboat inspection laws, including imposition of fees, fines, tonnage taxes, etc.

## STEAMBOAT INSPECTION SERVICE

## Dickerbon N. Hoover, Supervising Ingpector General

The inspection of merchant vessels, including boilers, hulls and life-saving equipment, licensing of officens of vessels, certification of able seamen and lifeboat men, and the investigation of violations of steambort inspection laws.

## UNITED STATES PATENT OFFICE <br> Thomas E. Robertson, Commissioner

The granting of patents and the registration of trade-marke, prints, and labels after technical examination and judicial proceedings.

Maintenance of library/with public search room, containing copios of foreign and United States patents and trade-marks. Recording bills of sale, assignments, etc., relating to patents and trade-marks. Furnishing copies of records pertaining to patents.

Publication of the weekly Official Gazette, showing the patents and trade-marks issued.

## RADIO DIVISION

## W. D. Tehrell, Chief

Inspection of radio stations on ships; inspection of radio stations on shore, including broadcasting stations; licensing radio operators; aseigning station call letters; enforcing the terms of the International Radiotelegraphic Convention; and examining and settling international radio accounts.


[^0]:    Subscription price of the Sukvey or Current Business is 81.50 a year; single copies (monthly), 10 cents, semiannual issues, 25 cents. Forcign subscriptions, $\$ 2.25$; single copies (monthly issues), including postage, 14 cents; semiannual issues, 36 cents. Subscription, price of Commerce Reports is $\$ 4$ a year; with the Survey; $\$ 5.50$ a year. Make remittances only to Superintendent of Documents, , Washington, D. C., by postal money order, express order, or New York'draft. Currency at sender's risk. Postage stamps or foreign money not accepted

[^1]:    1 Compiled by the $U$. S. Department of Commerce, Bureau of the Census, from reports collected in connection with the census of manufactures. Data for other industries will appear as they are completed. Statistics in greater detail may be obtained from the bureau's preliminary statements on the respective industries.
    ${ }_{3}^{2}$ A minus sign ( - ) denotes decrease.
    ${ }^{3}$ A Value of products and receipts for contract work.

[^2]:    ${ }^{1}$ Data compiled by the Electrical World and represent the utilization of electrical energy by 3,600 identical concerns depending at all times upon electrical energy for power and do not show the expansion of the market for central power with new customers. All figures are adjusted to the basis of 26 working days to the month
    ${ }^{2} 7$ months' average.
    ${ }_{3}^{2} 7$ months average. Complica by the American Machinist.

[^3]:    1 Compiled by Printer's lnk and represents magazine advertising lineage of leading magazines of the country. The data for the last 4 years cover the lineage in identical magazines. For earlier years the magazines covered are not entirely identical but represent the field with equal thoroughness.

    2 Data not available due to printers' strike.
    2 Data not a
    311 months.

[^4]:    ${ }^{2}$ Quarter ending in month indicated ${ }^{3}$ Quarter ending Sept. 30, 1927. ${ }^{7}$ Revised.

