# UNITED STATES DEPARTMENT OF COMMERCE WASHINGTON 

# SURVEY OF CURRENT BUSINESS 

## SEPTEMBER, 1928

No. 85


COMPILED BY
BUREAU OF THE CENSUS
IN COOPERATION WITH
BUREAU OF FOREIGN AND DOMESTIC COMMERCE
AND
BUREAU OF STANDARDS

## 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" on pages 139-142 of the August, 1928, semiannual issue

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## INTRODUCTION

The Survey of Current Business is designed 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 such 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 differenc 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 numbers 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 than 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 or 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 apd 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 months. 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 Business Statistics, in which data now carried in the Survey 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 Surver as they are issued.

## METHODS OF USE

Methods of using and interpreting current business statistics have been collected by the department from many business coneerns 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 issu ${ }^{\circ}$ presents practically complete data for the month of July and contains text covering the early weeks of August (page 1), for which the basic 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 operations can not be presented at an early date, but the weekly supplements give every week the latest data available.

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## PRELIMINARY SUMMARY FOR AUGUST

Commercial transactions during the greater part of August, as reflected by check payments, were greater than in the corresponding period of last year. The value of new building contracts was less than a year ago. Operations at steel plants continued higher than the corresponding period of last year during August and were also higher than in July, 1928. Factory employment in Detroit, indicating to a large extent conditions in the automobile industry, continued to increase both over the previous month and over the corresponding period of last year. Loans and discounts of member banks of the Federal reserve system showed little change during August, declining from the high point in July but being still far above a year ago. Interest rates on call money again rose to the high levels reached in the early part of July, while time money rates rose to new high marks.

The wholesale price index continued its rise from the low point in June and showed little change during
the month. Prices for wheat and cotton declined, while iron and steel and copper prices showed little change during the month.

Stock prices continued to rise from the low point in June, while bond prices fell below the level of a year ago. Brokers' loans were slightly higher than in the latter part of July and also considerably above a year ago. The Federal reserve ratio continued at about the same level as at the end of July but higher than in either of the two previous months. Business failures were more numerous than in the corresponding month of 1927.

The production of lumber fell behind last year, while bituminous coal production was close to the corresponding 1927 level. Car loadings of freight were slightly higher than a year ago, continuing the trend first noted in July of improvement over last year. Petroleum production rose slightly, but was still below a year ago.

## 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 10 -cent chains, and department stores have'been adjusted for normal seasonal variations, and that on manufacturing production for the varying number of working days in the month]


## 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.

| ITEM | MONTHLY AVERAGE |  |  |  |  | 1927 |  |  |  |  |  |  |  | 1928 |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1023 | 1924 | 1025 | 1926 | 1927 | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July |
|  | 1923-1925 monthly average $=100$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| strial productio |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Total manufacturing | 101.0 | 94.0 | 105.0 | 108.0 | 106. 0 | 111.0 | 108.0 | 106.0 | 107.0 | 105.0 | 102.0 | 98.0 | 89.0 | 107.0 | 111.0 | 110.0 | 110.0 | 110.0 | 110.0 | 111.0 |
| Total minerals. | 105.0 | 96.0 | 99.0 | 107.0 | 107.0 | 108.0 | 104.0 | 100.0 | 106.0 | 105.0 | 105.0 | 101.0 | 103.0 | 103.0 | 103.0 | 105.0 | 103.0 | 105.0 | 99.0 | 101.0 |
| Pig iron | 111.7 | 86.7 | 101.5 | 109.0 | 101.0 | 113.5 | 103.4 | 88.8 | 88.6 | 92.8 | 93.2 | 88.6 | 90.2 | 96.1 | 97.1 | 107.1 | 106. 6 | 109.9 | 103.1 | 102.8 |
| Steel ingots | 104.8 | 88.7 | 106. 4 | 113.1 | 104.6 | 117.1 | 101.1 | 82.7 | 101.2 | 94.6 | 95.9 | 80.5 | 91.8 | 115.4 | 117.0 | 130.4 | 124.5 | 121.6 | 108.3 | 102.7 |
| Automobiles | 101.5 | 90.8 | 107.7 | 108.5 | 85.7 | 122.4 | 97.5 | 81.3 | 93.5 | 78.9 | 66.5 | 40.7 | 40.4 | 70.2 | 98.1 | 125.2 | 124.2 | 129.0 | 120.2 | 118.2 |
| Cement. | 92.1 | 99.8 | 108.1 | 110.0 | 115.3 | 134.4 | 138.6 | 140.1 | 147.4 | 140.8 | 138.2 | 116.3 | 96.5 | 78.6 | 70.8 | 82.3 | 108.4 | 139.0 | 140.6 | 140.2 |
| Lumber ( 5 species) | 98.6 | 96.2 | 105.2 | 101.5 | 94.8 | 101.9 | 99.9 | 96.5 | 107.5 | 105.8 | 101.5 | 94.4 | 82.9 | 76.1 | 87.2 | 97.1 | 98.7 |  |  |  |
| Cotton (consumption) | 105.9 | 89.7 | 104.4 | 108.5 | 120.3 | 123.3 | 129.1 | 110.0 | 123.4 | 122.2 | 119.4 | 121.9 | 105.9 | 113.5 | 111.8 | 113.3 | 102.3 | 112.6 | 99.5 | 85.5 |
| Wool (consumption) | 112.8 | 94.6 | 92.8 | 80.7 | 97.0 | 83.6 | 95.0 | 84.1 | 88.1 | 101.6 | 103. 7 | 97.8 | 88.0 | 95.2 | 102.0 | 98.7 | 82.0 | 92.7 | 87.1 | 80.4 |
| Raw material output: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Animal products | 100.0 | 104.0 | 96.0 | 96.0 | 97.0 | 115.0 | 123.0 | 109.0 | 105.0 | 87.0 | 95.0 | 92.0 | 88.0 | 96.0 | 94.0 | 97.0 | 95.0 | 108.0 | 116.0 | 109.0 |
| Crops | 2.0 | 104.0 | 104.0 | 109.0 | 113.0 | 62.0 | 60.0 | 65.0 | 115.0 | 183.0 | 219.0 | 166.0 | 120.0. | 98.0 | 81.0 | 77.0 | 81.0 | 72.0 | 52.0 | 87.0 88.0 |
| Forest products. | 99.0 | 97.0 | 104.0 | 98.0 | 93.0 | 99.0 | 96.0 | 89.0 | 99.0 | 98.0 | 96.0 | 93.0 | 86.0 | 81.0 | 87.0 | 96.0 | 96.0 | 101.0 | 97.0 | 88.0 122.9 |
| Crude petroleum | 99.4 | 96.9 | 103. 7 | 104.6 | 121.4 | 124.2 | 121.4 | 127.6 | 127.1 | 122.3 | 125.6 | 120.2 | 120.7 | 117.8 | 110.9 | 122.2 | 117.5 | 122.5 | 118.1 | 122.9 83.3 |
| Bituminous coal | 108.0 | 92.5 | 99.5 | 109.7 | 99.4 | 81.2 | 84.1 | 77.2 | 95. 7 | 96.2 | 101. 0 | 93.3 | 94. 8 | 101.5 | 94.9 | 100.9 | 73.9 | 84.1 | 82.6 | 83.3 |
| Copper.- | 93.4 | 100.2 | 106. 4 | 110.2 | 104.0 | 108.6 | 105.4 | 99.4 | 102.0 | 100.0 | 108. 1 | 103.2 | 101.2 | 103.8 | 102. 2 | 106. 6 | 105. 7 | 111.8 | 111.0 | 111.3 |
| Power and construction: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Building contracts (37 States) | 80.7 | 92.7 | 117.6 | 111.0 | 106. 8 | 111.6 | 118.6 | 102.4 | 110.1 | 101.9 | 115.0 | 105.2 | 93.2 | 96.0 | 103.7 | 132.7 | 142.4 | 143.5 | 142.2 | 123.7 |
| Unfilled orders: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| General index | 121.7 | 87.0 | 91.3 | 84.6 | 74.0 | 74.3 | 72.2 | 72.1 | 71.5 | 69.9 | 67.0 | 67.1 | 71.5 | 81.2 | 81.6 | 81.4 | 76.8 | 73.9 | 75.2 | 76.4 |
| U. S. Steel Corporation | 125.8 | 83.6 | 80.6 | 82.1 | 71.1 | 63.9 | 63.0 | 6.8 | 63.9 | 65.9 | 70.0 | 72.4 | 83.2 | 89.5 | 92.1 | 90.8 | 81.1 | 71.6 | 76.2 | 74.8 |
| Stocks: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| * General index.- | 94.5 | 102.0 | 103.5 | 114.6 | 120.5 | 107.8 | 106.1 | 104. 1 | 108.2 | 119.0 | 131.7 | 134.2 | 133.4 | 129.0 | 130.0 | 127.0 | 122.0 | 116.0 | 109.0 | 104.0 |
| * Manfd. commodities (28) | 93.8 | 103.2 | 103.0 | 106.3 | 111.5 | 111.1 | 113.6 | 115.7 | 114.1 | 112.8 | 108.6 | 109.6 | 111.4 | 115.0 | 120.0 | 120.0 | 119.0 | 118.0 | 119.0 | 117.0 |
| Cotton. | 102.5 | 91.4 | 106.2 | 145. 5 | 153.2 | 124.0 | 100.3 | 85.8 | 87.6 | 135.2 | 179.8 | 200.0 | 195.8 | 178.8 | 159.1 | 135.7 | 117.8 | 96.7 | 74.6 | 58.4 |
| Copper (refined) | 106.4 | 113.9 | 73.1 | 64.8 | 85.4 | 95. 5 | 85.1 | 92.2 | 82.7 | 76.4 | 74.1 | 80.3 | 84.2 | 85.2 | 76.8 | 77.1 | 64.4 | 58.6 | 52.0 | 48.5 |
| Employment: <br> Factories | 108.6 | 96.3 | 97.2 | 98.0 | 94.3 | 95.6 | 95.0 | 93.1 | 93.2 | 93.8 | 93.4 | 91.6 | 90.7 | 89.8 | 91.2 | 91.8 | 01.4 | 91.2 | 91.3 | 90.3 |
| Prices: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Farm products, to producers | 97.8 | 97.1 | 106.5 | 98.8 | 94.8 | 91.3 | 94.2 | 94.2 | 95.7 | 101.4 | 100.7 | 99.3 | 99.3 | 99.3 | 97.8 | 99.3 | 101.4 | 107.2 | 105.1 | 105.1 |
| Wholesale, all commodities. | 99.7 | 07.2 | 102.6 | 90.1 | 95.4 | 92.0 | 83.0 | 93.3 | 04.4 | 95.6 | 06. 1 | 05.8 | 98. 9 | 95.4 | 95.5 | 95.1 | 96. | 97. | 96. | 97.4 |
| Retail food. | 97.6 | 97.6 | 104.9 | 107.6 | 103.6 | 103.6 | 106.2 | 102.9 | 101. 6 | 102.9 | 104.3 | 104.9 | 104.2 | 103.6 | 101.3 | 101.2 | 101.6 | 102.8 | 102.0 | 102.1 |
| Cost of living (including food) | 88.1 | 09.9 | 102.3 | 102.3 | 99.0 | 90.9 | 100.5 | 98.7 | 98.7 | 90.3 | 89.9 | 99.8 | 09. 2 | 99.2 | 98.4 | 98.1 | 97.9 | 98.4 | 98.0 | 98.0 |
| Distribution (values) : |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| * Bank debits, 141 cities | ${ }^{91.2}$ | 96.7 | 111.8 | 119.6 | 132.5 | 127.7 | 129.7 | 127.8 | 137.6 | 141.0 | 130. 7 | 132.1 | 136.8 | 142. 1 | 149.6 | 164.8 | 161.8 | 168.8 | 165. 4 | 140.4 |
| * Wholesale trade.-. | 101.0 | 98.0 | 101.0 | 88.0 | 95.0 | 95.0 | 93.0 | 95.0 | 100.0 | 06. 0 | 91.0 | ${ }^{95.0}$ | 93.0 | 95.1 | 97.0 | 92.8 | 89.2 | 96.2 | 89.2 | 93.8 |
| * Department stores, sales | 98.0 | 99.0 | 103.0 | 106.0 | 106. 0 | 103.0 | 104.0 | 103.0 | 111.0 | 109.0 | 105.0 | 107.0 | 111.0 | 105.0 | 105. 0 | 105.0 | 103.0 | 104.0 | 104.0 | 108.0 |
| * Mail-order houses, sales | 92.0 | 88.0 | 110.0 | 115.0 | 120.0 | 118.0 | 121.0 | 127.0 | 133.0 | 122.0 | 117.0 | 119.0 | 128.0 | 113.0 | 116.0 | 113.0 | 117.0 | 132.0 | 144.0 | 153.0 |
| * 10-cent chains, sales | 88.0 | 99.0 | 113.0 | 125.0 | 138.0 | 132.0 | 135.0 | 139.0 | 140.0 | 141.0 | 144,0 | 140.0 | 147.0 | 140.0 | 142.0 | 142.0 | 147.0 | 144.0 | 153. | 148.0 |
| Imports | 97.8 | 93.1 | 109.0 | 114.3 | 107.9 | 107.3 | 109.9 | 98.9 | 114.2 | 105. 8 | 110.1 | 108.6 | 102.5 | 104.6 | 108.7 | 117.8 | 106.9 | 109.8 | 98. | 98.2 |
| Exports.. | 01.5 | 100.8 | 107.8 | 105. 5 | 106. 8 | 103.5 | 59.0 | 90.1 | 88.7 | 112.0 | 128.7 | 121.4 | 107.4 | 108.2 | 97.8 | 110.8 | 95.9 | 111.1 | 83.0 | 100.6 |
| Transportation: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Freight, net ton-miles ....-.-.-...--- | 102.2 | 95.9 | 101.9 | 109.1 | 101.5 | 107.5 | 5103.1 | 102.9 | 112.5 | 115.1 | 122.1 | 89.8 | 92.7 | 97. 2 | 95. 7 | 105.8 | 96.1 | 105. 2 | 2100.0 |  |
| Finance: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Member bank loans and discounts. | 94.1 | 98.5 | 107.4 | 112.9 | 117.3 | 116.7 | 7117.5 | 115. 7 | 117.3 | 119.3 | 120.0 | 121.4 | 123.2 | 121.9 | 120.9 | 123.3 | 127.3 | 126.9 | 9128.4 | 126.6 |
| Interest rate (commercial paper) - . | 116.2 | 90.0 | 93.5 | 100.9 | 95.4 | 95.8 | 898.6 | 98.6 | 92.8 | 92.8 | 92.8 | 92.8 | 92.8 | 92.8 | 92.8 | 95.8 | 101.6 | 104.4 | 113.2 | 119.0 |
| Federal reserve ratio.. | 99.0 | 104.1 | 96.9 | 06.0 | 90.1 | 99. 5 | 5100.5 | 103.2 | 101.4 | 98.8 | 96.4 | 92.2 | 86. 5 | 95. 5 | 96.0 | 95.6 | 90.9 | 89.2 | 284.7 | 88.9 |
| Price, corporation bonds. | 96.4 | 90.91 | 103.6 | 108.0 | 112.5 | 5112.1 | 1111.2 | 111.4 | 112.9 | 113.4 | 114.4 | 114.9 | 115.6 | 115.9 | 115.8 | 115.7 | 116.0 | 115.0 | 0112.3 | 110.9 |
| Price, railroad stocks. | 86.0 | 06.1 | 117.9 | 133.4 | 162.7 | 7162.4 | 4165.3 | 167.3 | 167.9 | 171.5 | 168.5 | 171. 6 | 171.1 | 169.1 | 164.7 | 170.1 | 176.0 | 178.9 | 9169.5 | 170.3 |
| Price, industrial stocks. | 86.1 | 81.9 | 122.0 | 132.4 | 171.4 | 4 167.6 | 6 168.8 | 177.3 | 183.7 | 193.9 | 186.4 | 180.0 | 193.7 | 193. | 191.2 | 204. | 210.4 | 213.2 | 202.1 | 206.1 |
| Failures (liabilities) | 106.0 | 106.8 | 87.2 | 80.4 | 102.3 | 89.1 | 181.3 | 101.8 | 22.4 | 77.3 | 85.6 | 85.3 | 120.9 | 1123 | 106.3 | 129.3 | 82.5 | 85.2 | 66.0 | 69.8 |

[^1]
## BUSINESS CONDITIONS IN JULY

## PRODUCTION

Manufacturing output, after adjustment for seasonal conditions, was greater than either the previous month or a year ago, the principal gains over last year being in iron and steel, automobiles, rubber tires, and tobacco manufactures, while textiles showed the principal decline. The output of minerals and the marketings of animal and forest products were at about the same level as last year, but crop marketings were greater than in July, 1927.

## COMMODITY STOCKS

The index of commodity stocks declined seasonally during July and stood at the same figure as a year ago.

It should be noted that the revised index of stocks is not corrected for seasonal variations. The index for manufactured goods was slightly higher than a year ago, while raw materials showed a slight decline. All groups among manufactured goods showed increase over July 31, 1927, except foodstuffs, lumber, rubber, and chemicals and oils, while among the raw materials increases among foodstuffs and chemicals and oils were sufficient to offset declines in textiles and metals. All groups of manufactured goods declined from June except leather and nonferrous metals, which remained unchanged, and foodstuffs and paper, which increased slightly. principally those of iron, steel, building materials, and textiles. July, 1928, is latest month plotted]


## SALES

The general index of unfilled orders increased both over the previous month and over July, 1927. As compared with June the textile and iron and steel groups showed no change, while transportation equipment and lumber increased. Compared with a year ago textiles and transportation equipment showed declines in unfilled orders, while iron and steel and lumber mado increases.

Wholesale trade in July was larger than in June, but slightly less than a year ago. Compared with last year, women's clothing, meats, drugs, and groceries
increased, hardware showed no change, while decreases occurred in furniture, boots and shoes, drygoods, and men's clothing. Sales of mail-order houses declined seasonally from June, but were considerably larger than in July, 1927. Sales of chain stores were generally less than in June, the usual seasonal condition, with drug chains showing the only increases. As compared with a year ago all classes of chains except cigars showed considerable increases. Sales of department stores also showed a seasonal decline from June, but were larger than a year ago, while stocks of goods helds by department stores declined slightly from both periods.

## PRICES

The general index of wholesale prices remained the same as in June at a level 4 per cent higher than a year ago. Increases in food, textiles, and fuel and lighting were offset by a decline in the miscellaneous group while, as compared with a year ago, striking increases were shown in farm products, food and hides and leather products, with smaller increases in textiles and metals. The miscellaneous group showed a large decline from last year and fuels and house furnishings
declined slightly. Articles in all state of manufacture show an almost uniform increase from a year ago and only slight change from June.
The index of prices received by farmers for their produce showed no change from the previous month, as declines in grains and fruits and vegetables offset increases in other groups. Compared with a year ago, however, there was a considerable increase in this index, all classes gaining except fruits and vegetables, with cotton and meat animals showing the largest gains.

## FACTORY EMPLOYMENT, BY GROUPS

[1923 monthly average $=100$. July, 1928, is latest month plotted]


## EMPLOYMENT

The general index of factory employment showed the usual seasonal decline from June, food products and leather alone showing increases, although several groups showed no change. The principal declines occurred in tobacco products, textiles, and stone, clay, and glass products. Compared with a year ago, employment continued to show a decrease, but the margin of decline was smaller. All groups declined from a year ago except vehicles, which showed a considerable increase, and metal products other than iron and steel, which showed no change. Pay-roll payments showed declines from both the previous month and a year ago. Gains over June occurred only in leather and food products, while chemicals remained unchanged. Compared with last year, the pay-roll gains were registered in vehicles, metal products other

than iron and steel, paper and printing, and iron and steel.
Reports from State and city agencies showed, in general, the same employment trend as the national figures, the principal exceptions being considerable gains over June in Oklahoma, Wisconsin, and Detroit. The Detroit gain over a year ago was especially marked owing to the increased employment in the automobile industry. Employment in the construction industries in Ohio was seasonably larger than in June and about the same as a year ago. Employment in trade unions, after a continuous increase for several months, showed a slight decline. Employment in anthracite mines declined both from the previous month and a year ago, with pay rolls showing even greater decreases. Wages of common-rate labor were reported unchanged for the United States as a whole but higher than a year ago, although several districts showed marked changes.

## WHOLESALE PRICES FOR SPECIFIED COMMODITIES

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


## WHOLESALE PRICES FOR SPECIFIED COMMODITIES

- Note.-Prices to producer on farm products and market price of wool are from D. S. Department of Agriculture, Bureau of Agricultural Economice, nonferrous metals from the Engineering and Minina Journal-Press, except tin, which is from the American Metal Market. All other prices are from U. S. Department of Labor, Bureau of Lajor statistics. Do far as possible all quotations represent prices to producer or at mill


NEW BUILDING CONTRACTS AND AUTOMOBILE PRODUCTION


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 receipts at Boston showed little change from June but were less than a year ago, due to smaller foreign receipts. Imports declined from June but increased over July of last year. Consumption of wool by textile mills declined from June and was slightly less than a year ago. Similarly wool machinery was less active than in June. Prices of wool and woolens showed little change during the month.

Consumption of cotton in textile mills declined both from June and from a year ago, exports and stocks showing similar comparisons. For the first seven
in the previous month or a year ago. Reports of cotton finishers showed declines both from June and from a year ago in all items except new orders and unfilled orders, which increased over June.

Imports, deliveries, and stocks of silk were less than in June, while, compared with a year ago, imports and warehouse stocks declined while deliveries and manufacturers' stocks increased. Silk-machinery activity showed a decline in active looms from June while spindles were more active. Compared with a year ago, however, spindles and narrow looms showed less activity while broad looms were more active. 'The

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

months of the calendar year consumption and exports were considerably below the 1927 period. Early ginning reports showed less cotton ginned to August 16 than a year ago. Cotton prices averaged higher in July than in June and were considerably above a year ago.
The activity of cotton spindles was less than in June or a year ago and yarn production showed a falling off from June but an increase over a year ago. Yarn prices advanced over both periods. Shipments and unfilled orders of cotton textiles continued to decline while stocks rose slightly. The decline in fine cotton goods production reflects the labor situation in New Bedford. Prices of cotton goods averaged higher than
price of raw silk was unchanged from June and was lower than a year ago. Rayon imports declined both from June and from a year ago while the price remained unchanged.

Reports of dividends of cotton mills for the first six months of the year showed declines from a year ago of 8 per cent in Fall River, 13 per cent in New Bedford, but only 3 per cent in Spartanburg County, S. C. Production of ocean-pearl buttons declined from the previous month and a year ago, but the cumulative was still ahead of last year. Sales of fur by dealers increased over a year ago, but the cumulative was still far behind last year.

## METALS

Iron-ore shipments in July were larger than a year ago, but stocks in all positions were smaller. Pig-iron production showed little change from the previous month, but increased over a year ago, although merchant furnaces showed a marked decline. Fewer furnaces were in blast at the end of July than a month or a year previous, but their capacity was larger than a year ago. Pig-iron prices showed little change from June and were lower than a year ago

Steel-ingot production was slightly higher than in June and considerably in excess of July, 1927. Unfilled steel orders declined slightly from June, but
a year ago, although unfilled order were much heavier than last year. New orders for machine tools, foundry equipment, electric hoists, and electric overhead cranes were all larger than a year ago, though only cranes showed an increase over June Shipments of washing machines were slightly less than in June, but larger than a year ago, both for the month and the year to date.

Copper production showed little change from June but continued higher than a year ago. Exports declined from June but were again higher than last year. Stocks of refined copper declined from both periods, while blister copper was held in larger quantities. Copper prices showed no change from June

THE METAL INDUSTRIES
[Relative numbers, monthly average 1923-1925, taken as 100 . July, 1928, is latest month plotted. Curve covering zinc stocks is plotted from 12 months' moving monthly averages plotted on the end month]

were much higher than a year ago. Declines from both the previous month and a year ago were noted in production and new orders for steel castings. Steel sheets showed gains over last year for all items, and also over June for all items except production and shipments. Steel prices showed little change.

Structural-steel orders declined from a year ago, but shipments were greater, while for fabricated steel plate and for steel boilers increases were shown over both periods. Steel furniture showed declines in shipments and new orders of the business group over June, but an increase in unfilled orders, while all three items were much larger than a year ago. Shipments, stocks, and new orders of enameled sanitary ware were generally smaller than in either the previous month or
but were considerably higher than a year ago. Imports and deliveries of tin declined from both June and a year ago, while stocks increased over both periods. Tin prices averaged lower than in both periods.

Zinc production was about the same as in June and larger than a year ago. Stocks of zinc declined from June but increased over a year ago. The price of zinc showed little change from either period. Lead production declined from both periods and the price was also slightly less. Babbitt-metal consumption in July was slightly higher than a year ago but for the year to date was lower than in the corresponding period of 1927. The value of bookings by electric manufacturers for the first six months of the year was slightly higher than a year ago.

## FUELS

The production of bituminous coal increased both over June and a year ago, but the seven months' total was less than last year. Prices continued to decline. Anthracite coal production was considerably less than in either the previous month or a year ago and showed similar comparisons for the seven months' cumulative. The price of anthracite advanced fractionally but was slightly lower than a year ago. Production of both beehive and by-product coke declined from June, the decline in beehive over a year ago being more than offset by an increase in by-product coke. Prices of coke showed little change.

## HIDES AND LEATHER

Production of hides, as shown by number of animals slaughtered, declined from June and also from a year ago, except that sheep and calves were slaughtered in greater quantities than in July, 1927. Imports of hides and skins declined from June but were much larger than a year ago. Prices increased over both periods. Sole leather production increased both over the previous month and a year ago while exports of both sole and upper leather decined from both periods. The price of oak sole leather showed little change from June but was much higher than a year ago. The price of chrome calf increased over both periods.

THE FUEL INDUSTRIES
[Relative numbers, monthly average 1923-1925 taken as 100. July, 1928, is latest month plotted where data were available]


AUTOMOBILES
Automobile production, though slightly lower than in June, was much higher than a year ago and for the seven months' period showed an increase of about 11 per cent although truck production was less. Exports of automobiles and of accessories were larger than in either previous period, but foreign assemblies of American automobiles declined from both periods. While production of passenger cars in Canada declined from June, trucks showed a large increase and exports of both classes increased. Canadian production and exports of automobiles, both taken as a whole, more than doubled as compared with a year ago.


Production of shoes in July declined from both the previous month and a year ago. Exports were larger than in June but smaller than last year, although the seven months' cumulative showed a large increase.

## PAPER AND PRINTING

Production and shipments of newsprint paper in both the United States and Canada declined seasonally from June. Compared with a year ago, however, the United States production and shipments were less, while Canada showed an increase in both items. Imports of newsprint into the United States increased over both periods, while mill stocks increased slightly over the end of June but were much larger than a year ago.

## BUILDING CONSTRUCTION

Awards for building construction declined from June in both value and floor space, except for commercial buildings and public works and utilities, but increases occurred from a year ago for all classes except as regards value of public buildings and public works and utilities. Construction costs showed little change from June but were higher in general than a year ago, although material costs were less. Fire losses, though larger than in June, were much smaller than in 1927.
compared with a year ago, shipments and unfilled orders increased, while production and stocks declined. Terra-cotta orders declined from both periods but in value were greater than a year ago. Porcelain plumbing fixtures showed declines from June in new and unfilled orders but increases in shipments and stocks. Portland-cement production showed little change from either the previous month or a year ago, while shipments increased over both periods. Stocks declined from June but increased over a year ago. Fewer concrete-paving contracts were let in June than

## THE AUTOMOBILE AND RUBBER INDUSTRIES

[Relative numbers, monthly average_1923-1925 taken as 100. Where available, July, 1928, is latest month plotted]


## LUMBER

Lumber output was slightly less than in June or a year ago, most species except Southern pine and Northern pine showing considerable decline, while Northern pine alone increased over last year. Lumber prices advanced slightly over June but were less than a year ago. Production of flooring increased over June but shipments, stocks, new orders and unfilled orders declined except for unfilled orders of oak flooring. Compared with a year ago, oak flooring showed increases in all items, while maple flooring showed declines in all items but new orders and unfilled orders.

## STONE AND CLAY PRODUCTS

Face-brick production, shipments, and stocks declined from June but unfilled orders increased, while
in the previous month but more than a year ago. Construction of Federal-aid highways was considerable less than in either period. The production of plate glass declined from June but exceeded the corresponding month of last year.

## CHEMICALS

Sulphur production for the first six months of the year was less than a year ago and exports of sulphuric acid were also less. Imports of nitrate of soda declined in July from both the previous month and a year ago, but the seven months' total was far ahead of last year. Imports of potash salts increased considerably in July and were slightly higher than a year ago, while fertilizer exports and consumption declined from both periods. Prices of drugs and chemicals were slightly lower than in June but higher than a year ago.

## FOODSTUFFS

The visible supply of wheat as well as receipts and shipments at the principal markets increased considerably over a year ago, while exports, both for July and for the seven months' period, were much smaller. Prices of wheat and wheat flour declined from June and were generally lower than a year ago, except for red winter wheat. The visible supply of corn was less than a year ago, but receipts and shipments were greater. The price of corn averaged higher than in June but prices of oats, barley, and rye declined.
receipts increased over a year ago, while storage holdings of case eggs declined and frozen eggs showed a slight increase.

Sugar imports were less in July than a year ago, as were meltings, but stocks of raw sugar at refineries were much larger. Prices declined both from June and a year ago. The Cuban movement of raw sugar showed a decline in receipts and exports, but a slight increase in stocks, as compared with last year.
Imports of coffee and also the visible supply were larger than a year ago but receipts and clearances from Brazil were less. The price of coffee increased both

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





Total grain exports were less than in either the previous month or a year ago.
Movement and slaughter of cattle and sheep increased over a year ago, while hog receipts and slaughter declined, while shipments increased. Cold-storage holdings of beef declined from last year, pork showed little change while mutton increased. Prices of livestock and meats were generally considerably higher than in June and also higher than a year ago, except for pork products. Exports of beef declined from a year ago, while pork products showed an increase.

Receipts and cold-storage holdings of butter declined from last year but the price increased. Receipts of cheese also declined from a year ago, but storage holdings were greater, as was the price. For eggs,
from June and from July, 1927. Imports of tea show a considerable increase over both the previous month and a year ago, with the seven months' cumulative showing a slight gain over last year. Stocks of tea in England continued to decline but were much larger than a year ago. The price of tea showed no change from June and a decline from last year.

Although receipts, shipments, and stocks of rice declined from a year ago, exports were much larger. Car-lot shipments of apples were almost twice as large as a year ago, potatoes showed a small increase in car-lot shipments, and onions and citrus fruits made declines. The seven months' cumulative, however, shows increases for potatoes and onions and declines for apples and citrus fruits.

## TRANSPORTATION

Traffic through inland waterway canals was considerably larger than in July of last year, as was Mississippi River traffic, but on the Ohio and Allegheny Rivers traffic declined slightly and the Monongahela showed only a slight increase. Ocean traffic in foreign trade increased over both the previous month and a year ago. Carloadings on the railroads were slightly higher than a year ago, although only the grain and miscellaneous classes increased. Orders for locomotives increased over both periods but shipments and unfilled orders
deposits of Federal reserve-banks all declined during the month, while with the total reserve increasing the reserve ratio was higher. Member banks showed declines in deposits, loans and discounts, and investments. Brokers' loans declined slightly during the month but were still higher than a year ago.

Interest rates were, in general, higher in July than in June, time loans showing a particularly large rise. Business failures were fewer than in June but had larger liabilities. Compared with a year ago, both failing firms and their liabilities were smaller. Interest

## WHOLESALE TRADE

[Relative numbers, monthly average 1923-1925 taken as 100 . July, 1928, is latest month plotted. Curves are adjusted for seasonal variation]

declined. Hotel-room occupancy declined both from the previous month and a year ago.

## DISTRIBUTION

Mail-order and chain-store sales declined from the previous month but increased over a year ago. Postal receipts also declined from June but were slightly larger than last year. A similar comparison is shown for magazine advertising.

## BANKING AND FINANCE

The amount of new life insurance written for all classes except industrial was seasonally less than in June but larger than a year ago, while all classes showed an increase in number of policies. Check payments declined seasonally from June but increased over a year ago. Discounts, note circulation, investments, and
payments were higher than a year ago but dividend payments slightly smaller, due to a decline in industrial payments.

## GOLD, SILVER, FOREIGN EXCHANGE, AND TRADE

Gold receipts were much less than a year ago and production and stocks of silver also declined. Exports of gold continued in large volume, while for silver there was a slight excess of imports during the month as compared with an export surplus a year ago.

Foreign exchange quotations on the principal countries showed no change except for declines on Italy, Belgium, England, Japan, India, and South American countries. Imports of merchandise showed little change from either the previous month or a year ago. Domestic exports declined slightly from June but were higher than a year ago, and for the year to date showed an increase of 3 per cent in value.

## 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.

*Fluctuations between maximum and minimum due largely to seasonal conditions: Minerals and Manufacturing are adjusted for seasonal variations except where noted.

INDEXES OF BUSINESS-Continued

| Relative to 1923-1925 monthly average as 100 | $\begin{aligned} & \text { Maxi- } \\ & \text { murn } \\ & \text { since } \\ & \text { Jan. } 1, \end{aligned}$ | $\begin{aligned} & \text { Mini- } \\ & \text { mum } \\ & \text { since } \\ & \text { Jan. } 1, \\ & 1923 \end{aligned}$ | 1927 |  |  | 1928 |  |  | fer cent increase ( + ) or decrease ( - ) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | May | June | July | May | June | July | July, 1928, from June, 1928 | July, 1928, from July, 1927 |
| PRODUCTION--Continued NEW ORDERS |  |  |  |  |  |  |  |  |  |  |
| Total | 139 | 25 | 102 | 93 | 86 | 106 | 98 |  |  |  |
| Textiles | 153 | 30 | 99 | 103 | 84 | 94 | 85 |  |  |  |
| Iron and steel | 144 | 24 | 95 | 97 | 111 | 115 | 117 |  |  |  |
| Lumber | 141 | 22 | 111 | 89 | 83 | 117 | 104 |  |  |  |
| Paper and printing | 128 | 14 | 99 | 106 | 99 | 104 | 104 |  |  |  |
| Stone and clay product | 129 | 19 | 87 | 95 | 93 | 94 | 104 |  |  |  |
| STOCKS |  |  |  |  |  |  |  |  |  |  |
| Grand total | 134 | 82 | 108 | 106 | 104 | 116 | 109 | 104 | -4.6 | 0.0 |
| Total manufactured goods | 120 | 88 | 111 | 114 | 116 | 118 | 119 | 117 | -1.7 | +0.9 |
| Foodstuffs....----. | 129 | 79 | 92 | 113 | 128 | 103 | 117 | 124 | +6. 0 | -3.1 |
| Textiles. - | 138 | 78 | 101 | 105 | 111 | 137 | 134 | 133 | $-0.7$ | $+19.8$ |
| Iron and steel | 152 | 78 | 127 | 120 | 117 | 147 | 140 | 133 | $-5.0$ | +13. 7 |
| Nonferrous metals | 125 | 74 | 119 | 125 | 118 | 122 | 124. | 124 | 0.0 | $+5.1$ |
| Lumber | 125 | 78 | 106 | 111 | 117 | 100 | 99 | 97 | $-2.0$ | $-17.8$ |
| Stone, clay, | 178 | 64 | 147 | 137 | 132 | 155 | 153 | 149 | $-2.4$ | $+12.9$ |
| Leather | 123 | 66 | 70 | 68 | 68 | 69 | 75 | 75 | 0. 0 | $+10.3$ |
| Rubber | 185 | 77 | 170 | 166 | 150 | 170 | 162 | 146 | -9.9 | $-2.7$ |
| Paper | 155 | 46 | 93 | 102 | 106 | 142 | 153 | 155 | $+1.3$ | +46.2 |
| Chemicals and oils | 125 | 84 | 113 | 101 | 97 | 102 | 95 | 93 | $-2.1$ | $-4.1$ |
| 'Total raw materials | 150 | 69 | 105 | 101 | 95 | 114 | 102 | 94 | -7.8 | -1. 1 |
| Foodstuffs. | 159 | 68 | 111 | 112 | 108 | 141 | 126 | 120 | -4. 8 | +11.1 |
| Textiles. | 202 | 43 | 117 | 99 | 88 | 99 | 81 | 67 | $-17.3$ | -23.9 |
| Metals | 136 | 54 | 69 | 79 | 89 | 82 | 74 | 77 | +4. 1 | $-13.5$ |
| Chemicals and oils. | 153 | 73 | 87 | 87 | 85 | 95 | 94 | 91 | $-3.2$ | $+7.1$ |
| UNFILLED ORDERS |  |  |  |  |  |  |  |  |  |  |
| Total | 157 | 67 | 74 | 72 | 72 | 74 | 75 | 76 | +1.3 | +5. 6 |
| Textiles | 154 | 62 | 88 | 86 | 85 | 72 | 67 | 67 | 0.0 | $-21.2$ |
| Iron and steel | 157 | 66 | 64 | 63 | 65 | 72 | 75 | 75 | 0. 0 | +15.4 |
| 'Transportation equipment | 204 | 53 | 73 | 69 | 72 | 73 | 69 | 68 | $-1.4$ | $-5.4$ |
| Lumber--.-.-.-.----- | 142 | 56 | 86 | 81 | 74 | 79 | 84 | 91 | +8.3 | +23.0 |
| WHOLESALE TRADE |  |  |  |  |  |  |  |  |  |  |
| Grand total, all classes. | 124 | 82 | 88 | 87 | 88 | 89 | 84 | 87 | +3.6 | -1.1 |
| Groceries | 119 | 86 | 95 | 101 | 92 | 96 | 97 | 93 | $-4.1$ | +1.1 |
| Meats. | 125 | 87 | 109 | 106 | 104 | 110 | 114 | 113 | $-0.9$ | +8. 7 |
| Dry goods | 128 | 71 | 76 | 78 | 81 | 75 | 71 | 74 | +4.2 | -8. 6 |
| Men's clothing- | 167 | 43 | 52 | 46 | 78 | 57 | 39 | 68 | +74.4 +733. | -12.8 |
| Women's clothing | 188 | 26 | 39 | 28 | 43 | 35 | 21 | 49 | +133.3 +173 | +14. 0 |
| Boots and shoes | 128 118 | 68 82 | 111 | 85 96 | 107 90 | 114 97 | 77 | 98 90 | 127.3 +5.3 | -8.4 0.0 |
| Hardware | 118 | 82 88 | 93 98 | 96 99 | 90 100 | 97 109 | 95 102 | 90 102 | -5.3 | 0.0 +2.0 |
| Furniture. | 129 | 72 | 93 | 90 | - 84 | 87 | 83 | + 77 | -7.2 | +8.0 -8.3 |
| RETAIL TRADE |  |  |  |  |  |  |  |  |  |  |
| Mail-Onder Houses (4 houses) | 156 | 64 | 99 | 107 | 93 | 116 | 127 | 119 | -6. 3 | +28.0 |
| Chain Stores: |  |  |  |  |  |  |  |  |  |  |
| Ten-cent | 250 | 62 | 123 | 123 | 1.21 | 139 | 139 | 129 | $-7.2$ | +6.6 |
| Grocery | 224 | 77 | 171 | 178 | 167 | 213 | 208 | 198 | -4.8 | $+18.6$ |
| Wearing apparel | 350 | 47 | 171 | 172 | 157 | 221 | 216 | 180 | $-16.7$ | +14.6 |
| Drug | 169 | 82 | 134 | 136 | 141 | 164 | 162 | 164 | +1.2 | +16.3 |
| Cigar | 160 | 79 | 113 | 109 | 111 | 110 | 108 | 100 | -7.4 | $-9.9$ |
| Candy | 161 | 70 | 115 | 114 | 112 | 127 | 122 | 117 | -4.1 | +4. 5 |
| Shoe..-.- | 163 | 55 | 109 | 118 | 109 | 130 | 147 | 116 | $-21.1$ | +6.4 |
| Department Stores: |  | 71 |  |  | 75 | 107 |  | 78 |  |  |
| Stocks---------- | 117 | 83 | 103 | 107 | 94 | 101 | 103 95 | 92 | -24.3 -3.2 | +4.0 -2.1 |

INDEXES OF BUSINESS-Continued

| Relative to 1923-1925 monthly average as 100 | $\begin{gathered} \text { Maxi- } \\ \text { mume } \\ \text { since } \\ \text { Jan. } 1, \\ \text { 1923 } \end{gathered}$ | Mini-MincesinceJan.1923 | 1927 |  |  | 1928 |  |  | PER CENT INCREASE ( + ) <br> OR DECREASE (-) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | May | June | July | May | June | July | $\begin{gathered} \begin{array}{c} \text { July, } 1928, \\ \text { from, } \\ \text { June, } 1928 \end{array} \end{gathered}$ | $\begin{aligned} & \text { July, 1928, } \\ & \text { from } \end{aligned}$ $\begin{aligned} & \text { from } \\ & \text { fuly, } 1927 \end{aligned}$ |
| EMPLOYMENT |  |  |  |  |  |  |  |  |  |  |
| Number employed, by industries: <br> Total, all classes | 109 | 90 | 96 | 95 | 93 | 91 | 91 | 90 | -1.1 | -3.2 |
| Food products ------------- | 112 | 90 | 91 | 95 | 94 | 90 | 91 | 92 | +1.1 | $-2.1$ |
| Textiles.-. | 114 | 85 | 94 | 93 | 91 | 88 | 88 | 85 | $-3.4$ | -6. 6 |
| Iron and stee | 114 | 87 | 97 | 95 | 93 | 92 | 93 | 92 | $-1.1$ | $-1.1$ |
| Lumber. | 107 | 80 | 87 | 88 | 87 | 83 | 84 | 83 | $-1.2$ | $-4.6$ |
| Leather- | 112 | 86 | 91 | 90 | 94 | 86 | 86 | 89 | +3.5 | $-5.3$ |
| Paper and printing | 106 | 97 | 103 | 102 | 102 | 101 | 101 | 101 | 0.0 | -1. 0 |
| Chemicals------ | 111 | 88 | 99 | 95 | 94 | 92 | 90 | 90 | 0. 0 | -4. 3 |
| Stone, clay, and glass. | 107 | 85 | 101 | 101 | 96 | 94 | 95 | 92 | $-3.2$ | -4. 2 |
| Metal products other than iron and steel_ | 110 | 87 | 97 | 94 | 93 | 94 | 93 | 93 | 0.0 | 0.0 |
|  | 108 | 82 | 86 | 89 | 89 | 85 | 86 | 81 | -5.8 | -9.0 |
| Vehicles--- | 110 | 82 | 93 | 91 | 88 | 96 | 96 | 95. | $-1.0$ | +8.0 |
| Miscellaneous | 115 | 86 | 108 | 106 | 101 | 93 | 94 | $93 \cdot$ | -1.1 | -7.9 |
| Amount of pay roll, by industries: Total, all classes. | 111 | 85 | 101 | 99 | 94 | 95 | 95 | 92 | -3.2 | -2.1 |
| Food products ------------ | 108 | 90 | 96 | 99 | 98 | 94 | 96 | 97 | +1. 0 | $-1.0$ |
| Textiles.- | 115 | 78 | 95 | 94 | 91 | 86 | 86 | 82 | -4.7 | $-9.9$ |
| Iron and steel | 117 | 79 | 101 | 100 | 92 | 99 | 98 | 94 | -4. 1 | +2.2 |
| Lumber. | 107 | 84 | 94 | 94 | 91 | 89 | 89 | 87 | -2.2 | $-4.4$ |
| Leather | 117 | 77 | 88 | 89 | 94 | 77 | 81 | 87 | +7.4 | $-7.4$ |
| Paper and printing | 114 | 94 | 110 | 108 | 106 | 110 | 110 | 108 | $-1.8$ | +1.9 |
| Chemicals------ | 114 | 89 | 104 | 104 | 99 | 99 | 97 | 97 | 0. 0 | -2.0 |
| Stone, clay, and glass | 111 | 84 | 106 | 104 | 96 | 97 | 97 | 92 | -5.2 | -4.2 |
| Metal products other than iron and steel | 114 | 81 | 99 | 95 | 90 | 97 | 96 | 82 | -4. 2 | +2.2 +8.9 |
| Tobacco products | 111 | 81 | r88 | 91 92 | 90 87 | 81 101 | 87 99 | 82 95 | -5.7 | -8.9 |
| Miscellaneous | 119 | 86 | 115 | 110 | 105 | 96 | 99 | 96 | -3.0 | -8.6 |
| PRICE INDEX NUMBERS farm prices <br> (Relative to 1909-1914 average as 100) |  |  |  |  |  |  |  |  |  |  |
| All groups | 152 | 125 | 126 | 130 | 130 | 148 | 145 | 145 | 0.0 | +11. 5 |
| Grains | 178 | 108 | 127 | 140 | 139 | 160 | 152 | 142 | -6. 6 | +2.2 |
| Fruits and vegetables | 253 | 108 | 158 | 201 | 195 | 181 | 168 | 156 | -7. 1 | $-20.0$ |
| Meat animals. | 154 | 98 | 137 | 129 | 131 | 151 | 150 | 157 | +4.7 | +19.8 |
| Dairy and poultry | 166 | 122 | 130 | 124 | 125 | 134 | 132 | 134 | +1.5 | +7.2 |
| Cotton and cottonseed | 252 | 81 | 113 | 119 | 125 | 166 | 162 | 170 88 |  | +36.0 +8.6 |
| Unclassified.- | 108 | 79 | 79 | 82 | 81 | 86 | 87 | 88 | +1. 1 | +8.6 |
| WHOLESALE PRICES <br> Department of Labor Indexes <br> (Relative to 1926 monthly average as 100) |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| All commodities | 105 | 94 | 94 | 94 | 94 | 99 | 98 | 98 | 0.0 | +4.3 |
| Farm products | 114 | 94 | 96 | 97 | 98 | 110 | 107 | 107 | 0. 0 | +9.2 |
| Food, etc .-.. | 106 | 85 | 94 | 94 | 94 | 101 | 100 | 102 | +2.0 | +8.5 |
| Hides and leather products | 127 | 98 | 104 | 107 | 112 | 126 | 124 | ${ }^{124}$ | 0.0 +10 | +10.7 |
| Textile products.- | 114 | 94 | 94 | 94 | 94 | 97 | 96 | 97 <br> 83 <br> 8 | +1.0 +10 | +3.2 |
| Fuel and lighting | 112 | 81 | 84 | 84 | 84 | 82 | 82 | 83 | +1.2 | -1.2 |
| Metals and metal product | 113 | 97 | 99 | 98 | 98 | 99 | 99 | 99 | 0.0 | +1.0 |
| Building materials.--- | 116 | 90 | 95 | 95 | 94 | 94 | 94 | 94 | 0.0 | 0. 0 |
| Chemicals | 104 | 95 | 95 |  | 95 | 95 | 95 | 95 | 0.0 | 0.0 -10 |
| House-furnishing goods | 111 | 98 | 98 | 98 | 98 | 98 | 97 | $\stackrel{97}{81}$ | 0.0 | -1.0 |
| Miscellaneous-- | 127 | 85 | 91 | 90 | 89 | 85 | 82 | 81 | $-1.2$ | -9.0 |
| Classified by state of manufacture: |  |  |  |  |  |  |  |  |  |  |
| Semimanufactured articles. | 128 | 96 | 96 | 96 | 96 | 99 | 98 | 98 | 0.0 | +2.1 |
| Finished products | 103 | 93 | 94 | 93 | 94 | 97 | 97 | 98 | +1.0 | $+4.3$ |
| Raw materials | 109 | 93 | 94 | 94 | 95 | 101 | 99 | 100 | +1.0 | +5.3 |
| Nonagricultural commodities | 106 | 93 | 93 | 93 | 93 | 96 | 95 | 96 | +1. 1 | $+3.2$ |
| Commercial Indexes <br> (Relative to 1926 monthly average as 100 ) |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| Dun's_ | 106 | 85 | 99 | 98 | 99 | 104 | 104 |  |  |  |
| Bradstreet's | 112 | 95 | 96 | 96 | 97 | 102 | 102 | 102 | 0.0 | +5. 2 |

INDEXES OF BUSINESS-Continued

| Relative to 1923-1925 monthly average as 100 | $\begin{aligned} & \text { Maxi- } \\ & \text { mum } \\ & \text { since } \\ & \text { Jan. } 1, \\ & 1923 \end{aligned}$ | $\begin{aligned} & \text { Mini- } \\ & \text { mum } \\ & \text { since } \\ & \text { Jan. } 1, \\ & 1923 \end{aligned}$ | 1927 |  |  | 1928 |  |  | Per cent increase ( + ) or decrease ( - ) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | May | June | July | May | June | July | $\begin{aligned} & \text { July, } 1928 \text {, } \\ & \text { from } \\ & \text { June, } 1928 \end{aligned}$ | $\begin{gathered} \text { July, 1928, } \\ \text { from } \\ \text { July, } 1927 \end{gathered}$ |
| PRICE INDEX NUMBERS-Contd. Cost of LIVING <br> National Industrial Conference Board Indexes (Relative to July, 1914) |  |  |  |  |  |  |  |  |  |  |
| All items weighted. | 172 | 158 | 164 | 165 | 162 | 162 | 161 | 161 | 0.0 | -0. 6 |
| Food (Department of Labor) | 167 | 141 | 155 | 159 | 153 | 154 | 153 | 153 | 0. 0 | 0. 0 |
| Shelter----------------- | 186 | 163 | 170 | 169 | 168 | 163 | 162 | 161 | $-0.6$ | -4. 2 |
| Clothing | 177 | 160 | 171 | 169 | 169 | 171 | 171 | 174 | +1.8 | +3.0 |
| Fuel and light (combined) | 179 | 156 | 160 | 160 | 160 | 158 | 158 | 158 | 0. 0 | -1.2 |
| Fuel-------- | 208 | 174 | 179 | 180 | 180 | 176 | 176 | 177 | $+0.6$ | $-1.7$ |
| Light- | 123 | 118 | 122 | 122 | 122 | 122 | 122 | 121 | -0.8 | -0. 8 |
| Sundries.-. | 176 | 171 | 173 | 172 | 173 | 171 | 171 | 171 | 0.0 | $-1.2$ |

FRESH FISH LANDED AT PRINCIPAL PORTS ${ }^{1}$

| Monte | Thousands of pounds |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $1913{ }^{2}$ | $1914{ }^{8}$ | 19152 | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 | 1926 | 1927 | 1928 |
| January | 9,385 | 8,316 | 9, 723 | 9,699 | 10,483 | 6,324 | 9,771 | 9, 688 | 12, 246 | 7,309 | 7,885 | 10,258 | 11,028 | 13, 644 | 18, 140 | 14, 300 |
| February | 7,159 | 15,898 | 8,516 | 10,859 | 10, 313 | 10, 102 | 11, 288 | 10,570 | 15,434 | 11,853 | 12, 495 | 16, 772 | 18, 181 | 14,756 | 19,349 | 18, 860 |
| March. | 8,828 | 12, 535 | 10,806 | 9,892 | 12,686 | 14, 678 | 21,310 | 17, 747 | 14, 740 | 18, 960 | 15, 518 | 17, 555 | 23,708 | 23,751 | 28, 610 | 28,316 |
| April | 12,887 | 11, 270 | 11,812 | 15, 922 | 11, 121 | 20,416 | 19, 422 | 16, 716 | 11, 037 | 12, 160 | 15, 120 | 16, 535 | 18, 143 | 18,539 | 20,556 | 24,387 |
| May.. | 11, 249 | 9,889 | 10,116 | 22, 413 | 16,740 | 27, 731 | 25, 188 | 19,987 | 13,424 | 15, 168 | 17,081 | 15,446 | 17,767 | 22,900 | 25, 171 | 27,650 |
| June. | 12, 338 | 14, 575 | 14, 734 | 21, 101 | 21, 760 | 24, 277 | 27, 528 | 22, 223 | 17, 495 | 15,757 | 17,367 | 18,333 | 25, 262 | 27,929 | 27,072 | 29, 809 |
| July.. | 13,507 | 16, 483 | 13,542 | 17,826 | 16,961 | 24,747 | 12,755 | 17, 220 | 15, 633 | 18,738 | 20,991 | 22, 592 | 24, 539 | 29,564 | 27,322 | 27,324 |
| Angust | 13,164 | 14, 748 | 16,949 | 20, 741 | 23,917 | 20, 100 | 7, 572 | 23,201 | 18,703 | 20, 167 | 21, 408 | 20, 018 | 26, 839 | 32, 043 | 33, 284 |  |
| September | 12,663 | 15,647 | 16,692 | 21,089 | 18,339 | 18,907 | 22,152 | 15,796 | 15,005 | 17,671 | 20, 259 | 19,937 | 28, 184 | 24,414 | 26,633 |  |
| October | 11, 267 | 13,031 | 14,794 | 17,911 | 20,359 | 20,963 | 27, 324 | 16,653 | 17,000 | 17, 602 | 19,954 | 20,215 | 21, 185 | 23, 762 | 27,390 |  |
| Novembe | 12,583 | 10,961 | 10,831 | 14, 242 | 13,792 | 18,838 | 16, 330 | 13, 212 | 10,693 | 13, 715 | 15, 624 | 14, 040 | 15, 174 | 19, 924 | 21, 096 |  |
| December | 8,940 | 8, 222 | 8,560 | 11, 175 | 9,687 | 13,638 | 11, 364 | 11,323 | 8, 844 | 9,505 | 12, 119 | 12,353 | 9,401 | 13, 439 | 14, 051 |  |
| Total | 133, 970 | 141, 575 | 147, 075 | 192, 870 | 186, 158 | 220, 721 | 212,004 | 194, 336 | 170, 354 | 178, 605 | 195, 821 | 204, 054 | 239, 411 | 264, 665 | 288, 674 |  |
| Monthly averag | 11, 164 | 11, 798 | 12, 256 | 16,073 | 15,513 | 18,393 | 17, 667 | 16, 195 | 14, 196 | 14,884 | 16, 318 | 17,005 | 19,951 | 22, 055 | 24, 056 |  |

[^2]
## INDEX OF NEW ORDERS

To supply an indicator of the current demand for goods from manufacturers, the Department of Commerce has compiled an index of new orders received by manufacturers. As no figures of new orders are available on a number of important commodities for which we have monthly production figures, this index is not as representative as the manufacturing production index. Also, it is less balanced, since the figures for orders are largely concentrated in the lumber, steel, and textile industries. On the other hand, many of the industries for which no figures are available, such as the entire foodstuffs group, do not in general have advance orders; in these instances new orders would be almost simultaneous with production. It is believed, therefore, that the index is quite representative of orders given in advance of production.

The commodities making up this index and the weighting factors used, which are based on the value added in manufacturing for the years 1923 and 1925, according to the census of manufactures of those years, are shown in the table.

The description of the various items used in making up the index follows:

Cotton finishing.-Compiled by National Association of Finishers of Cotton Fabrics and represent the finishing of cotton goods done outside of regular cotton mills.

Hosiery.-Compiled by Census Bureau from reports of a large proportion of the industry. Figures are not available prior to 1924, but estimates have been made for 1923, based on production figures, in order to secure a proper base.

Knit underwear.-Compiled by the Census Bureau from about two-thirds of the industry.

Steel sheets.-These data cover practically all independent manufacturers of sheets and are supplied by National Association of Flat Rolled Steel Products.

Malleable castings.-These figures, which begin with June, 1923 (estimates being made for January through May to secure the basis) are compiled by Census Bureau from most of the industry.

Steel castings.--Compiled by Census Bureau and cover about 80 per cent of the output of commercial steel castings.

Fabricated structural steel.-Compiled by Census Bureau from about 90 per cent of the capacity of this industry.

Fabricated steel plates.-Compiled by Census Bureau from most of the industry. These data are not available prior to 1923.

Enameled sanitary ware.-Compiled by Census Bureau from entire industry and represent a total of all pieces, including baths, lavatories, sinks and miscellaneous items.

Furniture.-These figures represent new orders of furniture factories in the Grand Rapids district as compiled by Seidman \& Seidman. They are not available prior to June, 1923, estimates being made for first five months of that year.
Lumber.-These figures represent a total of the prorated reports of Northern pine, Southern pine, Douglas Fir, California redwood and walnut, as supplied, respectively, by Northern Pine Manufacturers' Association, Southern Pine Association, West Coast Lumbermen's Association, California Redwood Association and American Walnut Manufacturers' Association. Figures on walnut output are estimated for first six months of 1923.
Flooring.-These figures represent total of oak flooring and maple, birch, and beech flooring as supplied, respectively, by Oak Flooring Manufacturers' Association and Maple Flooring Manufacturers' Association.
Boxboard.-Compiled by Census Bureau from practically the entire industry. Figures are not available prior to November, 1923, and estimates based on production figures have been made for the earlier months of that year.

Labels.-Supplied by Label Manufacturers' National Association.
Book paper.-These data represent the total of coated and uncoated book paper as reported by American Paper and Pulp Association.

Terra cotta.-Compiled by Census Bureau from entire industry.

Illuminating glassware.-Compiled by Illuminating Glassware Guild and represent percentage of new orders to capacity. They are not available prior to 1923 .

Locomotives.-Compiled by Census Bureau from reports of principal manufacturers of railroad locomotives.

Railroad cars.-These figures represent combined totals of orders for passenger and freight cars as supplied by Interstate Commerce Commission.


## INDEX OF NEW ORDERS

## (1923-1925 average $=100$ )



## INDEX OF NEW ORDERS

［1923－1925 average $=100$ ］

| Month | $\begin{aligned} & \text { ⿹ㅔㅇ } \\ & 0 \end{aligned}$ |  |  | $\begin{aligned} & \text { 总 } \\ & \text { E } \\ & \vec{E} \end{aligned}$ | 昆 | $\begin{aligned} & \text { d } \\ & \text { 采 } \\ & \text { E } \\ & \text { } \\ & \text { d } \\ & 0 \\ & 0 \end{aligned}$ |  | $\begin{aligned} & \text { ⿹ㅠㅇ } \\ & \text { B } \end{aligned}$ |  |  | 迺 |  |  |  | $\begin{aligned} & \text { Ẅ゙ } \\ & \text { 会 } \end{aligned}$ | 咢 |  |  | 昆 |  | 总 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1920 |  |  |  |  |  |  | 1923 |  |  |  |  |  |  | 1926 |  |  |  |  |  |  |
| January | 58.2 |  | 96.3 | 45.2 |  | 49.0 | 32.7 | 136． 6 | 129.3 | 123.7 | 141． 1 | 101.0 | 116.7 | 192.7 | 112.5 | 107.0 | 105． 7 | 119.1 | 108.3 | 95.7 | 106． 5 |
| February | 59.9 |  | 90.0 | 31.8 |  | 72.0 | 143.1 | 112.7 | 104． 1 | 117.2 | 100.1 | 96.4 | 129.3 | 216.3 | 96.8 | 96.5 | 93.2 | 97.8 | 109.0 | 95.7 | 93．2 |
| March | 57.2 |  | 96.3 | 32.0 |  | 58.0 | 100.3 | 139.0 | 122.2 | 144.3 | 105．8 | 105． 0 | 126． 0 | 428． 3 | 111.6 | 111.0 | 117.0 | 109．6 | 114.3 | 108． 0 | 110.0 |
| April．： | 74.8 |  | 70.3 | 35.3 |  | 121.0 | 316．0 | 98.8 | 106． 7 | 107． 2 | 88.5 | 99.1 | 122.3 | 123．1 | 98.8 | 91.5 | 106． 1 | 95.7 | 103.9 | 112.7 | 106.5 |
| May | 51.9 |  | 73.7 | 29.4 |  | 35.0 | 128.1 | 86．1 | 96．5 | 98.7 | 83.4 | 102.3 | 103.3 | 26.1 | 96.0 | 82.6 | 103.6 | 106.5 | 107.0 | 100.0 | 15.7 |
| June | 43.6 |  | 78． 1 | 25．9 |  | 38.0 | 55． 2 | 83.3 | 86． 5 | 88.1 |  |  | 95.7 |  | 102.8 | 91.1 | 109.0 | 106.0 | 114． 0 | 99．0 | 79.4 |
| July | 47.1 | 48.1 | 63.7 | 33.6 |  | 38.0 | 81． 5 | 73.4 | 79.1 | 71.7 | 79.2 | 89.1 | 77.3 | 11．6 | 102． 1 | 76.7 | 115.9 | 115． 1 | 110.0 | 100.0 | 13.8 |
| August． | 41.5 | 42.6 | 59.9 | 28.9 |  | 26.0 | 65.9 | 81.9 | 99.4 | 75.4 | 88.1 | 88.7 | 85.0 | 13．8 |  | 92.1 | 112.2 | 108.5 | 106．0 | 96． 7 | 21.6 |
| September． | 37.9 | 39.1 | 56.5 | 24.0 |  | 28.0 | 69.7 | 97.1 | 132.7 | 84.2 | 104.2 | 84.6 | 90.3 | 18.2 | 100.6 | 103.7 | 119.4 | 106.9 | 104．0 | 85.0 | 28.6 |
| October | 34.1 | 36． 2 | 39.9 | 21.7 |  | 21.0 | 90． 2 | 91.8 | 110.9 | 82.9 | 98.5 | 101.4 | 100.0 | 20．7 | 96.4 | 102.9 | 95.1 | 102.2 | 108.6 | 113.0 | 30.2 |
| November | 31.0 | 30.4 | 32.9 | 27.3 |  | 39.0 | 37.3 | 85.4 | 102．0 | 77.0 | 91.1 | 92.4 | 104.3 | 23．5 | 94.5 | 101.0 | 90.8 | 96.2 | 101． 7 | 97.3 | 74.3 |
| December | 24.8 | 32.2 | 29.9 | 22.8 |  | 19.0 | 14.0 | 98.3 | 99.5 | 110.1 | 88.9 | 93.3 | 99.7 | 129.8 | 82.3 | 89.4 | 98.7 | 74.8 | 93.0 | 86.7 | 59.1 |
| Monthly average． | 46．8 |  | 65.6 | 29.8 |  | 45.3 | 94.5 | 98.7 | 105． 7 | 98.4 | 96.0 | 95.9 | 104． 2 | 104．6 | 99.8 | 95.5 | 105．6 | 103.2 | 106.7 | 99.2 | 61.6 |
|  | 1921 |  |  |  |  |  |  | 1924 |  |  |  |  |  |  | 1927 |  |  |  |  |  |  |
| January | 32.1 | 79.8 | 27.4 | 29.5 | 14.0 | 34.0 | 0.1 | 113.2 | 98.4 | 102.1 | 126.7 | 114.9 | 105.0 | 83．6 | 107.1 | 107.1 | 100.4 | 106． 6 | 103.1 | 78.0 | 143.4 |
| February | 34． 0 | 78.2 | 24． 0 | 29.7 | 34．0 | 31.0 | 29．6． | ${ }^{96.1}$ | 89．3 | 100.4 | 84.2 | 100.4 | 104.0 | 178． 4 | 100.8 | 106.9 | 106.1 | 104． 1 | 103．0 | 64． 3 | 55.3 |
| March <br> April． | 42.2 48 | 100.0 | 33.9 37.6 | 45.3 | 53.0 28.0 | 39.0 65.0 | －0．7 | 113.3 89.4 | 83.0 90.6 | 111.7 88.4 | 87.1 83.5 | 117.9 103.9 | 101.3 98.3 | 376.1 121.1 | 105.2 96.5 | 119.0 102.0 | 1117.6 | 101.5 95.3 | 111.9 | 117．7 | 59.7 32.9 |
| May | 42.7 | 95.0 | 32.3 | 42.5 | 54.0 | 34.0 | 3.5 | 75.8 | 78.9 | 72.3 | 80.0 | 95． 1 | 84.7 | 33.2 | 102.4 | 99.2 | 94.7 | 110.8 | 99.1 | 86.7 | 79.2 |
| June． | 42.8 | 107.3 | 34． 1 | 37.9 | 61．0 | 59.0 | 7.9 | 76.6 | 69.7 | 70.0 | 89.9 | 89.4 | 86.7 | 3.8 | 926 | 103.1 | 96.9 | 89.4 | 105． 7 | 94.7 | 68.9 |
| July | 38.0 | 89.7 | 34.1 | 33.5 | 77.0 | 55.0 | 2.1 | 88.6 | 73.8 | 72.9 | 107.6 | 97.1 | 87.7 | 28.0 | 85.7 | 83.5 | 110.8 | 83.0 | 98.6 | 93.0 | 18.3 |
| August | 50.4 | 117.7 | 40．1 | 48.6 | 67.0 | 48.0 | 0.6 | 93.1 | 87.7 | 80.9 | 106．0 | 107．6 | 79.7 | 43.4 | 93.8 | 107.8 | 96.0 | 98.6 | 102.1 | 97.7 | 13.4 |
| September | 61.0 | 152.8 | 54.7 | 52.9 | 74.0 | 62.0 | 5.1 | 105． 9 | 101.1 | 90.2 | 100.6 | 94.9 | 102.0 | 214.2 | 96.3 | 118.4 | 98.5 | 100.5 | 106.7 | 99.3 | 1.9 |
| October－ | 69.7 | 123． 6 | 60．4 | 63．9 | 92.0 | 53.0 | 41.9 | 109． 7 | 118.7 | 92.7 | 112.3 | 101.6 | 92.3 | 136.4 | 90.2 | 103.4 | 98.9 | 92.2 | 107.3 | 96.0 | 4.7 |
| November | 61.2 | 96.8 | 53.1 | 52.3 | 42.0 | 51．0 | ${ }^{91.6}$ | 116．9 | 115． 4 | 129.7 | 112.3 | 98.0 | 91.3 | 134． 6 | 89．8 | 94． 2 | 100.0 | ${ }^{95.8}$ | 89.7 | 88.7 | 4． 3 |
| Decem | 42.5 | 84.0 | 39．2 | 36.7 | 42.0 | 43.0 | 31.2 | 1044 | 112.7 | 125.8 | 90.7 | 96.9 | 87.7 | 127.7 | 109.3 | 179.2 | 132.9 | 75.5 | 94.1 | 74.7 | 147.8 |
| Monthly average | 47.1 | 102.3 | 39.2 | 42.7 | 53.2 | 47.8 | 20.1 | 98.6 | 93.3 | 94.8 | 98.4 | 101.5 | 93.4 | 121.7 | 97.5 | 110.3 | 105.4 | 96.1 | 102.0 | 90.9 | 52.5 |
|  | 1922 |  |  |  |  |  |  | 1925 |  |  |  |  |  |  | 1928 |  |  |  |  |  |  |
| January | 664 | 118．5 | 48.1 | 61.7 | 97.0 | 62.0 | 73． 2 | 111． 6 | 120.7 | 101.8 | 117.1 | 111.4 | ${ }_{101.3}^{91}$ | 88.3 | 102.2 | ${ }_{91} 936$ | 103.6 | 115.8 | 103.3 | 86.7 | 21.7 |
| February | 71.8 | 92． 2 | 53.0 | 65.9 | 74.0 | 45.0 | 132.8 | 91.4 | 104． 9 | 92.5 | 89.8 | 108.3 | 103.3 | 54.7 | 96． 4 | 91.1 | 109.8 | 97.5 | 109.7 | 83.0 | 53.9 |
| March | 122． 6 | 96．8 | 111.3 | ${ }_{98 .} 7$ | 102.0 | 106．0 | 344.9 | 97.0 | 103． 4 | （ $\begin{array}{r}\text { 98．} \\ 9\end{array}$ | ${ }_{97.9} 9$ | 100.4 | 110.7 | 64.3 | 100.8 | 87.4 | 117.7 | 103． 6 | 108.3 | 94.3 | 35.5 53.6 |
| May | 121.1 | 122.4 | 103.0 | 118． 7 | 94.0 | 80.0 | 189.4 | 94.9 | 93.6 | 93.1 | 97.9 | 93.0 | 93.7 | 82.4 | 106.1 | 94.1 | 115.4 | 116.5 | 103.5 | 93.7 | 32.3 |
| June． | 101.9 | 119.0 | 112.9 | 91.9 | 128.0 | 128.0 | 103.5 | 99.5 | 94.3 | 110.7 | 107.9 | 99.3 | 112.0 | 10.3 | 98.4 | 84.8 | ＊117． 1 | 104.4 | 103.7 | 104.0 | 20.0 |
| July． | 98.8 | 108.6 | ${ }^{83.3}$ | 81.1 | 107． 0 | 192.0 | 232.5 | 103.1 | 88.0 | 108.3 | 117.6 | 105． 0 | 80.7 | 19．0 |  |  |  | 100．6 |  |  | 33.2 |
| August． | 91.3 | 102.8 | 85． 5 | 95.3 | 113.0 | 109.0 | 63．9 | 103．9 | 87.9 | 104.9 | 118.2 | 108.1 | 102.7 | 28.4 |  |  |  |  |  |  |  |
| September | 99.8 | 117.8 | 93.2 | 78.4 | 81.0 | 85.0 | 223.7 | 106． 1 | 106.0 | 107.5 | 111.5 | 92.9 | 116.3 | 69.0 |  |  |  |  |  |  |  |
| October－ | 98．6 | 151． 1 | 88.4 | 79．0 | 107.0 | 55．0 | 177.1 | 113.8 | 118． 2 | 130.3 | 109.2 | 106.1 | 107.0 | 92.7 |  |  |  |  |  |  |  |
| November | 96.1 | 139．4 | 79.1 | 90.5 | 72.0 | 86.0 | 121． 6 | 111.4 | 94.1 | 116.7 | 112.9 | 98.3 | 106.3 | 131.5 |  |  |  |  |  |  |  |
| December． | 119.8 | 133． 5 | 118.1 | 87.7 | 100.0 | 56.0 | 304.7 | 105.4 | 92.7 | 116.3 | 97.3 | 101.1 | 93.0 | 164.4 |  |  |  |  |  |  |  |
| Monthly average | 98.0 | 115.8 | 89.4 | 86.0 | 98.8 | 84.8 | 169.7 | 103.0 | 101.0 | 106．9 | 106.0 | 102.8 | 102.6 | 72.4 |  |  |  |  |  |  | －．．－－ |

## 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


TREND OF BUSINESS MOVEMENTS-Continued


TREND OF BUSINESS MOVEMENTS-Continued


[^3]${ }^{5}$ Percentage change from quarter ending June $30,1927$.
8 Cumulative through June 30.
${ }^{10}$ Revised.

## 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 July, except where otherwise noted. Earlier data for items shown here may be found on pages 28 to 137 of the August, 1928, "Survev" | 1928 |  |  |  |  | 1927 |  | $\begin{aligned} & \text { PER CENT IN- } \\ & \text { CREASE }(+) \text { OR } \\ & \text { DECREASE }(-) \end{aligned}$ |  | cumulative total. FROM JAN. 1 THROUGH JULY 31 |  | Per ct. <br> in- <br> crease <br> ( + ) <br> or de- <br> crease <br> $(-)$ <br> cumu- <br> lative <br> 1928 <br> from <br> 1927 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | March | April | May | June | July | June | July | $\begin{aligned} & \text { July, } \\ & \text { 1923, } \\ & \text { frome } \\ & \text { June, } \\ & 1928 \end{aligned}$ | July, 1928, from July, 1927 | 1927 | 1928 |  |
| HIDES AND LEATHER-Continued Hides-Continued |  |  |  |  |  |  |  |  |  |  |  |  |
| Inspected slaughter of livestock: |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 665 407 | 623 438 | 723 473 | 706 398 | 662 362 | 799 430 | $\begin{array}{r}743 \\ 355 \\ \hline\end{array}$ | -6.2 -9.0 | -10.9 +2.0 | 5,316 2,932 | 4,756 2,835 | $\begin{array}{r}-10.5 \\ -3.3 \\ \hline\end{array}$ |
| Swine--.-.------------thous of animals.- | 5,140 | 3,446 | 3,804 | 4,078 | 2,984 | 4,253 | 3,431 | -26.8 | $-13.0$ | 26,526 | 30,711 | +15.8 |
| Sheep..................thous. of animals..- | 1,016 | ${ }_{918}$ | 1,015 | 1,109 | 1,076 | 1,058 | 1,014 | $-3.0$ | +6.1 | 7,172 | 7, 333 | +2.2 |
| Canada- <br> Cattle and calves thous of animals | 81 | 96 | 123 | 99 | 100 | 98 | 89 | +1.0 | +12.4 | 613 | 626 | +2.2 |
| Swine-.-.-.-.-.-----thous. of animals.- | 247 | 222 | 219 | 205 | 164 | 215 | 148 | $-20.0$ | $+10.8$ | 1,495 | 1,576 | +5.4 |
| Sheep-------------------thous. of animals.-- | 17 | 16 | 17 | 25 | 45 | 21 | 33 | +80.0 | +36.4 | 1, 156 | 164 | +5.1 |
| Leather |  |  |  |  |  |  |  |  |  |  |  |  |
| Sole and belting leather: |  |  |  |  |  |  |  |  |  |  |  |  |
| Produle Sonly_thous. of backs, bends, sides..- | 1,363 | 1,358 | 1,407 | 101,399 | 1,434 | 1,352 | 1,356 | +2.5 | +5.8 | 9 9, 285 | -9,426 | +1.5 |
| Sole and belting -...-...-thous. of lbs.. | 25, 245 | 24,761 | 25, 140 | 24,971 |  | 25,034 | 25,576 |  |  | 150,771 | 146, 621 | $-2.8$ |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| In process of tanning.-... thous. of lbs.. | 87, 299 | 89, 181 | 90,734 | 91,781 |  | 91,441 | 88, 489 |  |  |  |  |  |
| Finished...-.-.-.---...- thous. of lbs.- | 54, 302 | 57,335 | 59,614 | 63, 921 |  | 66, 315 | 65,746 |  |  |  |  |  |
| Exports-...-.-.-.-.-.-.-.-.- thous. of libs-- | 971 | 753 | 650 | 538 | 531 | 819 | 820 | -1.3 | -35.2 | 5,907 | 4,784 | -19.0 |
| Price oak, scoured backs.....dolls. per lb.- Upper leather: | . 65 | . 66 | . 67 | . 68 | . 67 | . 49 | . 51 | -1.5 | +31.4 |  |  |  |
| Upper leather: <br> Production thous. of sq. ft_- | 73,045 | 63,730 | 62,074 | 66,047 |  | 69,866 | 60, 224 |  |  | - 399,043 | ${ }^{\bullet} 406,820$ | +1.9 |
| Stocks, end of month- <br> In process of tanning thous. of sq. ft |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 141,386 249,023 | $\begin{aligned} & 140,713 \\ & 253,557 \end{aligned}$ | 141,068 $\mathbf{2 5 5 , 3 9 7}$ | $\begin{aligned} & 143,099 \\ & 327,821 \end{aligned}$ |  | 142,181 251,871 | $\begin{aligned} & 150,216 \\ & 248,819 \end{aligned}$ |  |  |  |  |  |
| Exports....-----------------thous. of sq. ft.- | 14, 297 | 10,846 | 11,400 | 8,949 | 8, 403 | 11,081 | 11, 755 | -6.1 | -28.5 | 83,967 | 84, 996 | +1.2 |
| Price, chrome calf B grade dolls. per sq. ft.- | . 60 | - 60 | - 60 | . 53 | . 57 | . 48 | . 51 | +7.5 | +11.8 |  |  |  |
| Shee. Leather Products |  |  |  |  |  |  |  |  |  |  |  |  |
| Shoes: ${ }_{\text {Production }}$.................thous. of pairs.- | 32,013 | 26,332 | 1026,187 | 26, 679 |  | 27,497 | 27,775 |  |  | 9 165, 074 | 166, 398 | -0.8 |
| Exports.------...........thous. of pairs.- | 471 | 394 | 409 | 318 | 344 | 591 | 456 | +8.2 | -24.6 | - 3,675 | 2, 627 | -28.5 |
|  | 6.75 | 6.75 | 6.75 | 6.75 | 6.75 | 6. 40 | 6.40 | . 0 | +5.5 |  |  |  |
|  |  | 6.6 | 6.75 | 6.75 | 6.75 | 6.40 | 6.40 |  | $+5.5$ |  |  |  |
|  | 5.00 | 5.00 | 5.00 | 5. 00 | 5.00 | 4.90 | 5.00 | . 0 | . 0 |  |  |  |
| omen's black kid, dress welt, lace, oxford ..... dolls. per pair.- <br>  |  |  |  |  | 4.15 |  |  | . 0 | +3.8 |  |  |  |
|  | $223,271$ | 210, 420 | 224,636 | 228,039 |  | 223, 177 | 213,773 |  |  | 91,270, 777 | 1,259,124 | $-1.4$ |
| PAPER AND PRINTING |  |  |  |  |  |  |  |  |  |  |  |  |
| Mechanical Wood Pulp |  |  |  |  |  |  |  |  |  |  |  |  |
| Mechanical: <br> Production short tons | 143, 678 | 149, 652 | 156,258 | 133, 854 | 111,795 | 130, 158 | 108. 322 | -16.5 | +3.2 | 1, 002,580 | 970, 014 | -3.2 |
| Consumption and shipments.--sbort tons.- | 144,771 | 133, 702 | 143, 015 | 135, 917 | 125,962 | 135,689 | 127, 623 | -7.3 | $-1.3$ | 1, 984, 504 | 919, 170 | -6. 6 |
| Stocks, end month .-............short tons.- | 155, 274 | 173, 134 | 186,377 | 184, 314 | 170, 148 | 238, 231 | 218, 795 | -7.7 | $-22.2$ |  |  |  |
| Imports.-........-.-.-.-.-.......-short tons.- | 21, 124 | 18,549 | 24,624 | 20,528 | 14,553 | 20,275 | 13,344 | -29.1 | +9.1 | 125, 455 | 141, 011 | +12.4 |
| Chemical: | 228, 692 | 210,780 | 222, 924 | 217, 456 | 200, 360 | 214,816 | 198,988 | -7.7 | +0.8 | 1,519, 282 |  | -1.3 |
| Consumption and shipments..-.-short tons-- | 230, 484 | 211, 400 | 225, 710 | 214,068 | 204, 832 | 215, 020 | 198,068 | +50.7 | +3.4 | 1, 515,900 | 1,504,436 | $-0.8$ |
| Stocks, end of month............short tons.- | 45, 854 | 43, 872 | 42,120 | 45, 870 | 42,336 | 39, 086 | 40, 278 | -7.7 | +5. 1 |  |  |  |
| Imports $^{\text {Price }}$---.-.-.-.-.-.-.-.-short tons-- | 83, 352 | 80, 592 | 90, 736 | 122, 474 | 129,910 | 109, 700 | 117,734 | +6. 1 | +10.3 | 767, 191 | 793, 380 | +3.4 |
| Price sulphite.............dolls. per 100 lbs.- | 2.53 | 2.52 | 2.53 | 2, 53 | 2. 53 | 2.60 | 2. 60 | . 0 | -2. 7 |  |  |  |
| Production: Newsprint Paper |  |  |  |  |  |  |  |  |  |  |  |  |
| United States, total...........-short tons.- | 119, 032 | 117, 553 | 126,010 | 119,673 | 110,313 | 129, 201 | 118,929 | -7.8 | -7.2 | 893, 972 | 825, 308 | -7.7 |
| Ratio to capacity ---...-.-.- per cent-- |  |  |  |  |  |  |  |  |  |  |  |  |
| Canada--.....-.-.....-- -hhort tons- | 197, 976 | 192,645 | 203, 811 | 192, 391 | 184, 199 | 171, 819 | 162,449 | -14.3 | +13.4 | 1,160,118 | 1,347, 565 | +16.2 |
| Consumption by p | 186, 232 | 181, 112 | 186, 641 | 170, 892 |  | 169,536 | 157, 325 |  |  | 19,043, 160 | 1,060,402 | +1.7 |
|  | 113, 752 | 118,453 | 122,540 | 116,901 | 109,611 | 126, 289 | 119,686 | $-6.2$ | -8.4 | 879,161 | 805, 134 | -8.4 |
|  | 190, 305 | 193,443 | 203, 836 | 190, 936 | 181, 834 | 168,951 | 159,843 | -4.8 | +13.8 | 1, 142, 265 | 1,335, 346 | $+16.9$ |
|  | 172, 896 | 163, 179 | 181,913 | 163,807 | 174, 667 | 161, 472 | 159,687 | +6.6 | +9.4 | 1, 106, 182 | 1,206,905 | +9.1 |
| Exports: Canada | 216, 160 | 140,011 | 194, 298 | 174, 031 | 167, 456 | 159, 405 | 140, 543 | -3.8 | +19.1 | 1, 041, 441 | 1, 232,836 | +18.4 |
| Stocks, end of month: At mills- | 210, 180 | 10, | 10, | 174,031 | 16, 480 | 150, 405 | 140, 543 |  |  | 1,01, 4 | 1,232,836 |  |
| At mills- ${ }_{\text {United }}$ States | 34, 648 | 33, 734 | 37,207 | 39,979 | 40,386 | 26, 549 | 27, 764 | +1.0 | +45. 5 |  |  |  |
|  | 47,657 | 46,641 | 46, 290 | 47,937 | 48, 270 | 28, 851 | 32, 282 | +. 7 | +49.5 |  |  |  |
| At publishers---..........--short tons-- | 206, 392 | 188, 384 | 184, 580 | 186, 307 |  | 196, 860 | 205, 967 |  |  |  |  |  |
| In transit to publishers..------short tons.- | 41, 613 | 43, 363 | 46, 627 | 42,767 |  | 40,784 | 40,476 |  |  |  |  |  |
| Price, roll, f. o. b. mill....-------dolls. per ton.- | 3.25 | 3.25 | 3. 25 | 3. 25 | 3. 25 | 3.25 | 3.25 | . 0 | . 0 |  |  |  |
| Printing |  |  |  |  |  |  |  |  |  |  |  |  |
| Book publication: |  |  |  |  |  |  |  |  |  |  |  |  |
| American manufacture.......-- no. of titles.-. | 853 151 | ${ }_{123}^{697}$ | 599 119 | 745 113 |  | 588 93 | 723 105 |  |  | 9 <br> 9,181 <br> 9884 | $\begin{array}{r}9 \\ \hline 8,055 \\ \hline 777\end{array}$ | -3.0 +13.4 |
| Sales books: Imported.................-n. ${ }^{\text {no. of titles.- }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| New orders.---.--.-.-.-.--thous. of books.. | 13, 190 | 11,796 | 12, 162 | 12, 711 | 12,098 | 11,790 | 12,231 | -4.8 -23.8 | +12.1 | 83,935 78,421 | 86,618 82,087 | +3.2 +4.7 |
| Printing activity-----weighted index number-.- | 11, 112 | ${ }_{11} 111$ | 11,641 |  |  | 12, 99 | 90 |  |  |  |  |  |
| Cash checks, shipments.....-thous. of checks.. | 78,629 | 71,715 | 80,116 | 94, 668 | 70,710 | 72,659 | 77, 741 | -25.3 | $-9.0$ | 537,497 | 536, 847 | --1 |
| Blank forms, new orders.........thous. of sets... | 40,221 | 40,880 | 48,024 | 53, 774 |  | 34, 302 | 31, 237 |  |  | 195,998 | 263, 244 | +34.3 |

${ }^{10}$ 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


[^4][^5]TREND OF BUSINESS MOVEMENTS-Continued

| The cumulatives shown are through July, 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 TRROUGH JULY 31 |  | Per ct. <br> in- <br> crease <br> $(++)$ <br> or de- <br> crease <br> $(-)$ <br> cumu- <br> lative <br> 1928 <br> from <br> 1927 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | March | April | May | June | July | June | July | July, 1928, <br> from June, 1928 | July, 1928, from July, 1927 | 1927 | 1928 |  |
| CHEMICALS AND OILS-Continued Ethyl Alcohol |  |  |  |  |  |  |  |  |  |  |  |  |
| Production --........-.-.-...-thous. of gals | 11,050 | 11,784 | 11,043 | 13,036 |  | 13, 831 | 15, 170 |  |  |  |  |  |
| Withdrawn for denaturization.-.thous. of gals..- | 8,686 $\mathbf{1 0 , 9 4 5}$ | 9,334 11,267 | 10,468 10,904 | 16,336 6,646 |  | 13,761 7,496 | 14,651 9,700 |  |  | $967,246$ | $\begin{array}{r} 9 \\ 9 \\ 63,983 \end{array}$ | -4.9 |
| Explosives |  |  |  |  |  |  |  |  |  |  |  |  |
| (Black powder, permissible, and other high ex- |  |  |  |  |  |  |  |  |  |  |  |  |
| Production--.-.---------------thous. of lbs-- | 30,001 | 32, 153 | 32,850 | 32,625 |  | 34, 120 | 30, 954 |  |  | ${ }^{9} 201,669$ | ${ }^{8} 189,131$ | -6. 2 |
| Shipments | 30,801 | 32,095 | ${ }^{33,511}$ | 32, 816 |  | 33, 783 | 31, 136 |  |  | 9201, 464 | 9 191,590 | -4.9 |
|  | 29,660 | 30,701 | 32,163 | 31, 305 |  | 32, 354 | 30,335 |  |  | 9 193, 965 | ${ }^{9} 182,910$ | $-5.7$ |
| Naval Stores |  |  |  |  |  |  |  |  |  |  |  |  |
| Turpentine (gum) : |  |  |  |  |  |  |  |  |  |  |  |  |
| Net receipts, southern ports. $\qquad$ barrels Stocks at ports, end of month-..--barrelsPrice, southern, New York $\qquad$ | 5,624 40,338 | 20,765 | 39, 764 | 48, 111 61,336 | 46, 637 | 57, 730 | 50, 466 | -3. 1 | -7.6 | 209, 866 | 173, 233 | -17.5 |
|  | 40, 338 .60 | 45,458 .58 | 46,741 | 61,336 $\quad .57$ | 69,245 .55 | $\begin{array}{r}52,340 \\ .57 \\ \hline\end{array}$ | 58,390 .56 | +12.8 +3.5 | +18.6 -1.8 |  |  |  |
| Rosin (gum): |  |  |  |  |  |  |  |  |  |  |  |  |
| Net receipts, southern ports.-....-barrels.- | 25,544 | -67,762 | 118,460 | 148, 041 | 148, 250 | 184,971 | 169,439 | $+1$ | -12.5 | 704, 507 | 579, 766 | -17.7 |
| Stocks at 3 ports, end of month.-- barrels-- | 123,074 | 140,805 | 128,789 | 165,604 | 178, 225 | 165, 991 | 179,734 | +7.6 | -. 8 |  |  |  |
| Rosin (wood): |  |  |  |  | 9.71 | 9.93 | 9.74 | +6.7 |  |  |  |  |
| Production......--................- barrels.- | 35, 148 | 34,831 | 36, 036 | 36, 054 | 37,016 | 35, 197 | 36,038 | +2.7 | +2.7 | 244, 865 | 241, 077 | -1.5 |
| Turpentine (wood): |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Pine oil: |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Stocks, end of month...-.-.........gallons.- | 693, 522 | 727,416 | 768, 195 | 829, 507 | 824, 671 | 428, 796 | 458, 923 | -. 6 | +79.7 |  |  |  |
| Roofing, felt: Roofing |  |  |  |  |  |  |  |  |  |  |  |  |
| Production, dry felt.-....-.-........tons.- | 25,492 | 27, 534 | 27, 521 | 28,476 |  | 26,517 | 23,605 |  |  | -145, 318 | ${ }^{\text {P 1 149, } 864}$ | +3.1 |
| Stocks, end of month, dry felt.........tons.- repared roofing: | 2,775 | 2,844 | 2,366 | 2,153 |  | 3, 181 | 3,272 |  |  |  |  |  |
| Shipments.-.-......thous. of roof squares... | 3,248 | 3,016 | 3,008 | 3,236 | 2,398 | 3,003 | 2,637 | -25.9 | -9.1 | 17,830 | 17,813 | -. 1 |
| Fats and Oils |  |  |  |  |  |  |  |  |  |  |  |  |
| Total vegetable oils and copra: |  |  |  |  |  |  |  |  |  |  |  |  |
| Exports-..--.-------------thous. of libs-- | 8,406 | 4,618 | 1,996 | 1,652 | 1,145 | 5, 892 | 3,775 | -30.7 | -69.7 -20 | 46, 588 | 37, 161 | -20.2 |
|  | 56,179 15,200 | 65,152 11,334 | 57,049 21,383 | 59,951 20,488 | 53, 379 24,407 | 62,498 14,162 | 66,828 15,215 | -11.0 +19.1 | -20.1 +60.4 | 414,302 115,850 | 401, 391 124,862 | -3.1 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| Imports......-.------------thous. of lbs.. | 20,889 | 23, 112 | 15,076 | 12,671 | 19,629 | 21, 273 | 16,997 | +54.9 | +15.5 | 163, 828 | 146,399 | -10.6 |
| Consumption in oleomargarine $\qquad$ thous. of lbs. | 13,381 | 12, 284 | 11,613 | 11,791 | 10,642 | 8, 144 | 7,248 | -9.7 | +46.8 | 65,091 | 86,011 | +33.5 |
| Oleomargarine: |  |  |  |  |  |  |  |  |  |  |  |  |
| Production----------------thous. of lbs.- | 27, 288 | 24, 291 | ${ }^{23}, 744$ | ${ }^{23,738}$ | 21, 444 | 20,645 | 17, 214 | -9.7 | +24.6 | 152,922 | 174, 274 |  |
| Consumption-.-------------thous. of libs-- | 27, 427 | 22, 800 | 23, 381 | 23,926 | 20,490 | 21, 171 | 16,727 | -14.4 | +22.5 | 151,413 | ${ }^{172,090}$ | +13.7 |
| Animal glues, shipments..--.----thous. of lbs.- | 6, 524 | 6,587 | 6,489 | 5,887 |  | 5,797 | 5,902 |  |  | ${ }^{9} 37,813$ | ${ }^{1} 38,973$ | +3.1 |
| Cottonseed. Cottonseed |  |  |  |  |  |  |  |  |  |  |  |  |
| Cottonseed: <br> Receipts at mills $\qquad$ short tons | 95,296 | 15,947 | 5,660 | 16,798 | 23,923 | 55,562 | 54,038 | +42.4 | -55.7 | 1,683, 635 | 674,065 | -60.0 |
| Consumption (crush) --.------short tons.- | 323, 307 | 164, 872 | 66,040 | 39,041 | 32, 336 | 123,977 | 67,661 | -17.2 | $-52.2$ | 2,892, 721 | 1, 646, 631 | -43.1 |
| Stocks atim,Cottonseed oil, crude: |  |  |  |  |  |  |  |  |  |  |  |  |
| Production---...--------- thous. of lbs.- | 108, 387 | 56,945 | 24,437 | 13,445 | 11,285 | 36, 106 | 22,567 | -16.1 | $-50.0$ | 870,093 | 540, 179 | -37.9 |
| Stocks, end of month..-....- thous of lbs.. | 124, 730 | 83, 371 | 47,409 | 33, 509 | 19,457 | 33,985 | 16,297 | -41.9 | +19.4 |  |  |  |
| Cottonseed oil, refined: |  |  |  |  | 26,404 | 70,257 | 31,789 |  |  |  |  | -31.8 |
| Stocks, end of month --....-.thous. of lbs.- | 541, 640 | 516, 232 | 480, 431 | 415, 428 | 335,406 | 460,163 | 378,613 | -19.3 | -11.4 |  |  |  |
| Price, yellow, prime, N. Y..-dolls. per lb.- | . 096 | . 099 | . 106 | - 102 | - 101 | . 092 | . 095 | -1.0 | +6.3 |  |  |  |
| Consumption in oleomarg...-thous. of lbs.- | 2,214 | 2,015 | 2,135 | 2,106 | 1,867 | 1,909 | 1,559 | -1i.3 | +19.8 | 14,121 | 14,613 | +3.5 |
| Cottonseed cake and meal: |  |  |  |  |  |  |  |  |  |  |  |  |
| Stocks, end of month......-.-.-. - short tons.-- | 111,819 | 84, 870 | 59,745 | 45, 387 | 32,601 | 101, 748 | 63, 632 | $-28.2$ | $-48.8$ | 1,31, 81 | 78, 38 |  |
| Exports-...........................-short tons.. | 12,514 | 8,230 | 4,906 | 143 | 71 | 18,105 | 23, 169 | $-50.3$ | $-99.7$ | 238, 171 | 106,794 | -55.2 |
| Flaxseed |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| Minneapolis and Duluth: <br> Receipts. thous. of bushs | 595 | 474 | 650 | 681 | 320 | 488 | 429 | -53.0 | -25.4 | 3,658 | 4,305 |  |
|  | 612 | 584 | 675 | 392 | 272 | 214 | 606 | $-30.6$ | -55.1 | 2, 844 | 3,568 | +25.5 |
| Stocks, end of month . . . . thous. of bushs.- | 2,087 | 1,627 | 856 | 764 | 411 | 1,444 | 908 | -46.2 | $-54.7$ |  |  |  |
| Imports. $\qquad$ thous. of bushs. | 1,671 | 1,718 | 2,156 | 1,664 | 1,484 | 2, 925 | 1,381 | -10.8 | +7.5 | 14,703 | 11, 138 | -24.2 |
| Shipments from Minneapolis_thous. of lbs.Price, New York...............dolls, per lb.- | $\begin{array}{r} 15,722 \\ .099 \end{array}$ | $\begin{array}{r} 15,079 \\ .098 \end{array}$ | 17,245 .103 | 17,196 .103 | 12,229 .100 | 12,502 .112 | 9,379 .106 | -28.9 -2.9 | $\begin{array}{r} +30.4 \\ -5.7 \end{array}$ | 72, 245 | 103, 411 | +43.1 |
| Linseed cake and meal :-........d |  |  |  |  |  |  |  |  |  |  |  |  |
| Shipments from Minneapolis_thous. of lbs.Exports. $\qquad$ thous. of lbs--- | $\begin{aligned} & 29,547 \\ & 53,686 \end{aligned}$ | 21,607 38,582 | 16,621 45,331 | 11,421 45,135 | $\begin{aligned} & 10,057 \\ & 47,258 \end{aligned}$ | $\begin{array}{r} 6,600 \\ 51,036 \end{array}$ | $\begin{array}{r} 7,281 \\ 52,596 \end{array}$ | -11.9 +4.7 | ${ }_{-10.1}^{38.1}$ | $\begin{array}{r} 84,762 \\ 390,222 \end{array}$ | $\begin{aligned} & 144,849 \\ & 327,891 \end{aligned}$ | +70.9 +16.0 |

[^6]
## TREND OF BUSINESS MOVEMENTS-Continued



TREND OF BUSINESS MOVEMENTS--Continued


TREND OF BUSINESS MOVEMENTS-Continued


- Cumulative through June 30.

TREND OF BUSINESSIMOVEMENTS-Continued


TREND OF BUSINESS MOVEMENTS-Continued

| The cumulatives shown are through July, 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 FROM JAN. 1 through july 31 |  | Per ct. <br> in- <br> crease; <br> ( + ) <br> orde- <br> crease <br> $(-)$ <br> cumu- <br> lative <br> 1928 <br> from <br> 1927 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | March | April | May | June | July | June | July | July, 1928, <br> from <br> June, <br> 1928 | July, <br> 1928, <br> from <br> July, <br> 1927 | 1927 | 1928 |  |
| TRANSPORTATION-Continued Railway Equipment |  |  |  |  |  |  |  |  |  |  |  |  |
| Locomotive (Am. Ry, Assn.): |  |  |  |  |  |  |  |  |  |  |  |  |
| Quantity | 60,471 | 60, 373 | 60, 284 | ${ }^{10} 60,094$ | 59, 975 | 61, 931 | 61,765 | -0.5 | -2.9 |  |  |  |
| Tractive power.-.----.....mills. of lbs.- <br> In bad order, end of month- | 2,596 | 2, 595 | 2,595 | 2,591 | 2, 590 | 2, 611 | 2,609 | -. | -. 7 |  |  |  |
| Quantity .-.---..-......--...number-- | 8,287 | 8,563 | 8,421 | 8,006 | 8,310 | 8,759 | 8,535 | $+3.8$ | -2.6 |  |  |  |
| Per cent of total in use........per cent.- | 13.7 | 14.3 | 14.1 | 13.4 | 14.0 | 14.3 | 14.0 | +4.5 |  |  |  |  |
| Installed...........................-number.- | 140 | 96 | 139 | 95 | 116 | 258 | 155 | +22.1 | -25.2 | 1,195 | 881 | $-26.3$ |
|  | 267 | 194 | 228 | 284 | 235 | 500 | 331 | -17.3 | $-29.0$ | 1, 892 | , 689 | $-10.7$ |
|  | 15 | 33 | 52 | 7 | 32 | 38 | 26 | +357.1 | +23.1 | 456 | 171 | $-62.5$ |
| Shipments, manufacturers' (Census) Total .............................. | 70 | 46 | 41 | 51 | 46 | 89 | 60 | -9.8 | -23.3 | 630 | 360 | -42.9 |
| Steam, domestic....-.-.........- | 44 | 38 | 29 | 39 | 19 | 63 | 35 | $-51.3$ | $-45.7$ | 416 | 234 | $-43.8$ |
| Electric, domestic---.-.......... | 15 | 6 | 10 | 11 | 5 | 18 | 18 | -54.5 | -72.2 | 103 | 81 | -21.4 |
| Unfiled orders (railroads), end of mo.-- |  |  |  |  |  |  |  |  |  |  |  |  |
| From manufacturers ......--- - number-- | 117 | 112 | 83 | 90 | 56 | 200 37 | 173 36 | -37.8 | -67.7 |  |  |  |
| In railroad shops | 20 | 25 | 30 | 30 | 17 | 37 | 36 | -43.3 | -52.8 |  |  |  |
| Total | 178 | 188 | 220 | 201 | 198 | 400 | 399 | -1.5 | -50.4 |  |  |  |
| Steam, domestic.-.-...........- number $_{\text {r }}$ | 123 | 129 | 138 | 109 | 98 | 333 | 299 | -10.1 | $-67.2$ |  |  |  |
| Electric, domestic-.-.-...-.-.- ${ }^{\text {number }}$ - | 37 | 41 | 39 | 37 | 59 | 31 | 57 | +59.5 | +3.5 |  |  |  |
|  |  |  |  |  |  |  | 16 | +103.3 | +100.0 | 160 | 113 | $-29.4$ |
| Freight cars (Am. Ry. Assn.). <br> Owned, end of month- |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 2, 303,688 | 2, 301, 602 | 2,300, 241 | 102,300,669 | 2, 300, 079 | 2, 332, 728 | 2, 330, 042 | 0 | -1.3 |  |  |  |
| Capacity -........---.--mills. of lbs.- | 210, 312 | 210, 234 | 210, 240 | 10 210, 386 | 210, 444 | 212, 001 | 211, 917 | +. 1 | $-.7$ |  |  |  |
| In bad order, end of month- ${ }_{\text {Quantity }}$-..............cars | 139,698 | 149,869 | 151,359 | 145, 210 | 151,867 | 141, 433 | 145, 590 | +4.6 | +4.3 |  |  |  |
| Per cent of total in use...-.......er cent | - 6.2 | 149,869 | $10,6.7$ 6. | 145, 6.5 | ${ }_{6} 18.8$ | ${ }^{141,} 6.2$ | 14, 6.3 | +3.1 | +6.4 |  |  |  |
| New orders .............................cars.- | 4, 029 | 5,683 | 2,354 | 2,286 | 307 | 7,566 | 1,459 | -86.6 | -79.0 | 43,399 | 22,633 | -47.8 |
| Shipments- |  |  |  |  | 4,963 |  |  | -3.6 |  |  |  |  |
|  | 3,281 | 4,324 | 5,854 | 5,115 | 4,908 | 5,584 | 5,528 | $-4.0$ | $-11.2$ | 33,470 | 24, 502 | -26.8 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| Total-......................-----cars.. | 22, 233 | 19,325 | 17,847 | 12,446 | 13,531 | 21, 956 | 18,303 | +8.7 | -26. 1 |  |  |  |
| From manufactuters..............cars-. | 20,648 | 17,589 | 14, 168 | 9,316 | 10,371 | 14, 678 | 12,385 | +11.3 | -16.3 |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  <br> Shipments- | 45 | 142 | 153 | 57 | 19 | 61 | 69 | $-66.7$ | -72.5 | 960 | 1,113 | +16.0 |
|  | 80 | 51 | 23 | 95 | 123 | 147 | 119 | +29.5 | +3.4 | 608 | 524 | -13.8 |
|  | 50 | 34 | 18 | 95 | 123 | 147 | 119 | +29.5 | +3.4 | 574 |  | -19.9 |
| In railroad hands (quarterly)........-.cars-- | ${ }^{2} 53,409$ |  |  | 3 3 3 3 |  | 3 3 3 3 |  | : -7 |  | ${ }^{107,994}$ | $\begin{array}{r}106,467 \\ \hline 2,069\end{array}$ | -1.4 +.2 |
| Passenger Travel |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Automobiles entered...-------.--number--- Arrivals from abroad: | 3,194 | 12,426 | 23,341 | 60,324 | 117,642 | 54, 821 | 113, 626 | +95.0 | +3.5 | 222, 865 | 230, 264 | +3.3 |
| Arrivals from abroad: |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 34, 217 | 32, 586 | 28,407 | 27, 201 |  | 25, 736 | 29,935 |  |  | ${ }^{9} 155,791$ | -174, 261 | +11.9 |
| Departures abroad: |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| United States citizens.-----------number-- | 20,422 | ${ }^{29,506}$ | 34,993 | 53, 028 |  | 51, 379 | 65,686 |  |  | ${ }^{9} 185,299$ | ${ }^{9}$ 208, 885 | $+12.7$ |
| Passports issued_..-.....-......-.....-number-. | 17,334 | 27,098 | 37,648 | 29,674 | 15,776 | 27,813 | 14,831 | -46.8 | +6.4 | 138, 641 | 145, 397 | +4.9 |
| Pullman company operations: |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 2,625 | 2,713 | 2,614 | 3,095 |  | 3,096 | 3,234 |  |  | ${ }^{9} 16,960$ | ${ }^{9} 16,496$ | +2.7 |
| Hotel room occupancy..........per ct. of total.- | ${ }^{2} 68$ | ${ }^{2} 73$ | ${ }^{2} 69$ | 64 | 60 | 65 | 62 | -6.2 | -3.2 |  |  |  |
| Warehouses |  |  |  |  |  |  |  |  |  |  |  |  |
| Public merchandise warehouses, space occupied. per ct. of total.- | 69.9 | 69.8 | 68.6 | 66.4 |  |  |  |  |  |  |  |  |
| PUBLIC UTILITLES |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Operating revenue-.-.-.---thous. of dolls.- | 13,573 | 13, 205 | 14, 162 | 14,036 |  | 13,416 | 12,656 |  |  | 077,808 | $\bigcirc$ | +2.4 |
| Operating income---...---thous. of dolls.- | 2,009 | 1,805 | 2,258 | 1,906 |  | 1,928 | 1,417 |  |  | ${ }^{9} 10,719$ | ${ }^{8} 10,343$ | -3.5 |
| Gas and electric companies: |  |  |  |  |  |  |  |  |  |  |  |  |
| Net earnings --------------thous. of dolls.-- | 1072,811 | 1068,971 | ${ }^{10} 67,675$ | 176,000 |  | ${ }^{10} 59,167$ | 161,688 53,980 |  |  | 9391, 338 | ${ }_{8}{ }^{1} 28,767$ | +9.6 |
| Electric railways (212 companies):Passen |  |  |  |  |  |  |  |  |  |  |  |  |
| Passengers carried......--thous. of persons.- | 820,733 | ${ }_{10}^{771,816}$ | 797,279 108,057 | $760,509$ | 728,849 8,097 | 768,968 7 | 733, 470 | -4.2 | -0.6 | 5,527,089 | 5,463,332 | -1.2 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| By water power-.-.-.- mills. of kw. hours.- | ${ }^{10} 2,860$ | 10, 2, 949 | 103,185 | 3,085 |  | 2,531 | 102, 428 |  |  | 9 15, 205 | -17,403 | +14.5 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| By water power-------mills. of kw, hours-- | 1,315 | 1,246 | 1,255 | 1,220 |  | 1,095 | 101,090 |  |  | ${ }^{9} 6,590$ | -7,590 | +15.1 +15.2 |
| Exported..............-mills. of kw. hours.- | 136 |  | 135 | 127 |  | 139 | ${ }^{10} 138$ |  |  | 9781 | ${ }^{\circ} 767$ | -1.8 |
| Electric power, gross revenue.--thous. of doils | 10 157,300 | ${ }^{10} 153,800$ | 10 149, 400 | 148, 700 |  | 10137,400 | 134, 300 |  |  | - 878, 900 | ${ }^{\bullet} 943,200$ | +7.3 |

[^7][^8]
## TREND OF BUSINESS MOVEMENTS-Continued


${ }^{10}$ Revised.

TREND OF BUSINESS MOVEMENTS-Continued

${ }^{9}$ Cumulative through June 30.
${ }^{10}$ Revised.

TREND OF BUSINESS MOVEMENTS-Continued


[^9][^10]TREND OF BUSINESS MOVEMENTS-Continued

| The cumulatives shown are through July, 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 from Jan. 1 through July 31 |  | Per ct. <br> in- <br> crease <br> ( + de <br> or de- <br> crease <br> (- <br> cumu. <br> lative <br> 1928 <br> from <br> 1927 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | March | April | May | June | July | June | July | $\begin{aligned} & \text { July, } \\ & \text { 1928, } \\ & \text { frome } \\ & \text { June, } \end{aligned}$ | $\begin{aligned} & \text { July, } \\ & \text { 1928, } \\ & \text { from } \\ & \text { July, } \\ & \text { 1927 } \end{aligned}$ | 1927 | 1928 |  |
| BANKING AND FINANCE-Continued Eusiness Failures |  |  |  |  |  |  |  |  |  |  |  |  |
| Liabilities (United States): <br> Total commercial ............thous. of dolls.Manufacturing | 54, 814 | 34, 985 | 36,117 | 27, 978 | 29,587 | 34, 465 | 43,150 | +5.8 | -31.4 | 324, 678 | 276, 186 | -14.9 |
| establishments. $\qquad$ thous. of dolls.Trade establishments . .thous. of dolls. | 20,412 | 13,236 16,049 | 14,230 18,900 | 12,723 13,781 | 12,932 12,899 | 13,587 17 | 16,743 <br> 16,832 | ${ }_{+6.4}^{+1.6}$ | -22.8 -23.4 | 122,292 <br> 153,101 | 101,155 139,213 | -17.3 -9.1 |
| Agents and brokers....thous. of dolls.- | 26,186 8,216 | 16,049 5,700 | 18,900 2,987 | 13,781 | 12,889 3,755 | 17,850 | 16,732 <br> $\mathbf{9 , 5 7 5}$ | -6.4 +13.0 | -23.4 <br> -60.8 | 153,121 <br> 49,285 | 139,213 37,677 | -9.1 -23.6 |
| Banks (quarterly).......-.- thous. of dolls.- | ${ }^{2} 36,802$ |  |  | ${ }^{3} 28,953$ |  | 3 25,428 |  | -21.3 | ${ }^{5}+13.9$ | ${ }^{92} \mathbf{9 2}, 047$ | ${ }^{6} 65,755$ | -28.6 |
| Liabilities (Canada) --..........thous. of dolls.. | 6,829 | 1,556 | 3,707 | 1,681 | 1,406 | ${ }^{10} 2,049$ | ${ }^{10} 1,827$ | -16.4 | -23.0 | 15,445 | 22, 440 | +45.3 |
| Firms (United States): <br> Total commercial..-.-.......................... | 2, 236 | 1,818 | 2,008 | 1,950 | 1,723 | 1,833 | 1,756 | $-11.6$ | -1.9 | 14,052 | 14, 554 | +3.6 |
| Manufacturing <br> establishments number | 546 | 432 | 470 | 513 | 450 | 427 | 448 | -12.3 |  | 3, 292 |  |  |
| Trade establishments.........-number.- | 1,566 | 1, 276 | 1,407 | 1,325 | 1, 161 | 1,310 | 1, 187 | -12.4 | +2. 2 | 9,949 | 10,262 | $+3.1$ |
| Agents and brokers ............number.- | 124 | 110 | 131 | 109 | 112 | 96 | 121 | +2.8 | -7.4 | 811 | 857 | +5.7 |
| Banks (quarterly) .-...-.-......-.-number-- | ${ }^{2} 109$ |  |  | 392 |  | ${ }^{8} 81$ |  | - 15.6 | ${ }^{5}+13.6$ | $\bigcirc 255$ | 8201 | -21.2 |
| Firms (Canada)....-......-.-...-.....number-- | 150 | 125 | 127 | 127 | 124 | 156 | 144 | -2.4 | -13.9 | 1,207 | 1,073 | -11.1 |
| Dividend and Interest Paymen |  |  |  |  |  |  |  |  |  |  |  |  |
| (For the following month) |  |  |  |  |  |  |  |  |  |  |  |  |
| Grand total .-----....-----.--- thous. of dolls.- | 561,230 | 334, 850 | 467, 225 | 719, 196 | 333, 400 | 10 651, 853 | ${ }^{16} 313,475$ | -53.6 | +6.4 | 113, 744, 648 | 113, 928,001 | +4.9 |
| Interest payments .-.---.-.....-thous. of dolls.- | 372, 050 | 203,500 | 316,900 | 466,704 | 182,000 | 423, 703 | 161, 100 | -61.0 | +13.0 | 112, 293, 173 | 112, 436, 504 | +6.3 |
| Total $\qquad$ thous. of dolls.- | 189, 180 | 131, 350 | 150, 325 | 252,492 | ${ }^{10} 151,400$ | 10228,150 | ${ }^{19} 152,375$ | -40.0 | -. 6 | 111, 441, 475 | 1, 491, 497 |  |
| Industrial and misc.-..----- thous. of dolls.. | 149,500 | 96, 550 | 118,050 | 184,892 | 109, 450 | 10163,500 | 10 111, 200 | -40.8 | $-1.6$ | $111,040,975$ | 11, 081, 592 | +3.9 |
| Steam railroads .-......---- thous. of dolls-- | 28, 380 | 27, 100 | 26, 75 | 34, 500 | 35, 200 | 33, 450 | 34, 675 | +2.0 | +1.5 | ${ }^{11} 243,825$ | ${ }^{11} 252,755$ | +3.7 |
| Street railways----------thous. of dolls.- | 11,300 | 7,700 | 6, 200 | 13,600 | 6,750 | 13, 200 | 6,500 | -50.4 | +3.8 | 1177,175 | 1182, 650 | +7.1 |
| Aver. payments on industrial stocks (qtly.)..................-dolls. per share.- | 28.41 |  |  | ${ }^{3} 8.24$ |  | : 8.83 |  | $4-2.0$ | s-6.7 |  |  |  |
| New Security Issues |  |  |  |  |  |  |  |  |  |  |  |  |
| Foreign loans in the U. S......-thous. of dolls.- | 118, 437 | 10 141,840 | ${ }^{10} 233,755$ | 268, 179 | 45,000 | ${ }^{10} 160,596$ | 1067,072 | -83. 2 | -32.9 | 861,350 | 1, 098, 165 | $+27.5$ |
| Foreign governments....-......thous. of dolls-- | 85, 750 | 87,130 | 79, 885 | 48, 550 | 41,396 | 54,400 | ${ }^{27,596}$ | - -6.7 | +61.7 | 435, 875 | 439, 870 | +23.9 |
| Total corporation......-......- thous. of dolls.- | 741, 950 | 833, 206 | 757,834 | 828, 434 | 323, 748 | 707,548 | 371,095 | -60.9 | $-12.8$ | 4, 202, 076 | 4, 671,441 | +11.2 |
|  | 380, 707 | 484, 090 | 583, 357 | 645, 883 | 284, 803 | 538, 295 | 341,658 | -55. 9 | -16.6 | 3,156,476 | 3, 198, 737 | +1.3 |
| Refunding ------------thous. of dolls-- | 361, 243 | 349, 116 | 174,477 | 182, 551 | 38,945 | 169, 253 | 29,437 | -78.7 | +-32.3 | 1,045,600 | 1, 472, 704 | +40.8 |
| Kinds of issue- <br> Stocks. $\qquad$ thous. of dolls |  | 310, 263 |  | 409, 611 |  |  |  | -49.2 | +163.4 |  |  |  |
| Bonds and notes .-.------thous. of dolls.- | 496, 854 | 522,943 | 436, 577 | 418, 823 | 115, 536 | 551,681 | 292,043 | $-72.4$ | -60.4 | 3, 238, 639 | 2, 1111,601 | -9.9 |
| Class of industry- |  |  |  |  |  |  |  |  |  |  |  |  |
| Railroads Public utilities.-.-.-.-.-- thous. of dous. of dolls--- | 192, 781 | 95, 053 | 28,601 242,497 | 42,158 | 18,874 | 204, 223 | 14,306 115,360 | -55.2 -84.8 | +31.9 +50.1 | $\begin{array}{r}636,518 \\ 1,594 \\ \hline\end{array}$ | 529,905 | -16.7 |
|  | -226, 731 | 380,541 138,172 | 242,497 150,783 | 378,637 190,350 | 57,598 $\mathbf{9 8 , 8 1 0}$ | 155, 006 | 115,360 69,127 | -84.8 | -50.1 +42.9 | $1,594,782$ 678,589 | 1, 7528,985 | +10.3 +35.8 |
| Oil | 12,952 | 7,300 | -22,929 | 21, 241 | 15,030 | 30, 000 | 20, 750 | -29.2 | $-27.6$ | 308, 138 | 102, 327 | $-66.8$ |
| Land and buildings...-thous. of dolls.- | 73,935 | 97, 152 | 82, 253 | 74, 071 | 64, 538 | 74, 720 | 48,936 | $-12.9$ | +31.9 | 410, 414 | 518, 728 | +26.4 |
| Shipping and misc.....thous. of dolls.- | 102, 803 | 114,988 | 230, 272 | 121,971 | 68, 374 | 83, 833 | 102, 616 | -43.9 | -33.4 | 509,872 | 825,411 | +61.9 |
| Bond issues (Canada): |  |  |  |  |  |  |  |  |  |  |  |  |
| Govt. and provincial.-...-.-.thous. of dolls.- Municipal...................... |  | 36 2,312 | 30,000 4,347 | 10,734 2 2 |  | + ${ }_{2}^{271}$ |  |  |  | 54,966 41,089 | 49,770 16,146 | -9.5 |
| Municipal.....................thous. of dolls.- | 4,379 7,490 | 2,312 41,845 | 4,347 57,970 | $\begin{array}{r}2,158 \\ 77 \\ \hline 7 \\ \hline\end{array}$ | 9,565 | 2,226 10,374 | 4, 31,599 | $\begin{aligned} & -54.8 \\ & -87.6 \end{aligned}$ | $\begin{aligned} & -79.7 \\ & -69.7 \end{aligned}$ | 41,089 138,410 | 16,146 206,649 | -60.7 +49.3 |
| States and municipalities: |  |  |  |  |  |  |  |  |  |  |  |  |
| Permanent loans...-.-.-..-.thous. of dolls.- | ${ }^{10} 132,288$ | ${ }^{10} 130,211$ | ${ }^{10} 147,420$ | 10 136, 244 | 69,890 | ${ }^{10} 164,299$ | 1086,268 | -48.7 | -19.0 | 925,651 | 851,977 | 8.0 |
| Temporary loans...........-thous. of dolls..- | 75, 359 | 78,001 | 10 14, 896 | ${ }^{10} 44,621$ | 10,064 | 26, 625 | 19,288 | -77.4 | -47.8 | 351, 019 | 409, 650 | +16.7 |
| Tax-exempt securities outstanding, end of month.................mills. of dolls.- | 16,557 | 10 16, 659 | ${ }^{10} 16,724$ | 16,797 |  | 10 15,770 | 15,783 |  |  |  |  |  |
| Agricultural Finances |  |  |  |  |  |  |  |  |  |  |  |  |
| Loans outstanding, end mo.: Federal farm loan banks ..-thous, of dolls |  |  |  |  |  |  |  |  |  |  |  |  |
| Federal farm loan banks..-thous. of dolls | 1, 256, 111 | $1,261,834$ 610,921 | 1, 2646,386 | $1,268,612$ 642,174 |  | 1, 130,648 | 1, 134, 6076 |  |  |  |  |  |
| Fed.intermed.credit banks_thous. of dolls.- | 74, 119 | 72, 351 | 70, 599 | 68,978 |  | 65, 051 | 64, 252 |  |  |  |  |  |
| War Finance Corporation..thous. of dolls.- | 1,037 |  | 926 | 904 | 781 | 4, 846 | 4, 731 | -13.6 | -83. 5 |  |  |  |
| Stocks and Bonds |  |  |  |  |  |  |  |  |  |  |  |  |
| Stock prices, average daily closing: 25 industrials, average .....dolls. per share | 255.36 | 263.34 | 267.38 | 252.94 | 257.98 | 211. 25 | 221.90 | +2.0 | +16.3 |  |  |  |
| 25 railroads, average-.---.-. dolls. per share.- | 119.00 | 123.09 | 125.39 | 118.64 | 119.18 | 115. 63 | 117.00 | +. 5 | +1.9 |  |  |  |
| 103 stocks, average .........dolls. per share.- | 147.91 | 159.16 | 162.58 | 147.69 |  | 125.45 | 135.83 |  |  |  |  |  |
| Southern cotton mills-7.-dolls. per share.- | 111.33 | 110.97 | 110.58 | 110.42 | 108. 17 | 112.34 | 112.48 | -2.0 | -3.8 |  |  |  |
| Stock prices, average weekly closing: |  |  |  |  |  |  |  |  |  |  |  |  |
| Railroads (31) ...............-rel. to 1917-21.- | 159.0 | 164.8 | 168.1 | 159.7 | 157.1 | 151.9 | 153.9 | -1.6 | +2.1 |  |  |  |
| Industrials (198) .-............rel. to 1917-21.. | 220.9 | 236.2 | 243.9 | 231.5 | 232.0 | 175.4 | 178.9 | +.2 | +29.7 |  |  |  |
| Automobile (10)-.-.-.-.-.....rel. to 1917-21.-- | 453.3 | 508.4 | 528.2 | 498.3 | 505.9 | 281.9 | 290.3 | +1.5 | +74.3 |  |  |  |
| Chain stores (11) .-.-......-rel. to 1917-21-- | 579.7 | 597.2 | 605.0 | 589.5 | 586.6 | 462.1 | 477.7 | -. 5 | +22.8 |  |  |  |
| Copper (11)-...-.-.-......--rel. to 1917-21 | 148.0 | 158.1 | 165. 8 | 162.3 | 164.7 | 113.4 | 114.6 | +1.5 | +43.7 |  |  |  |
| Food (9)...-...---.-.......-rel. to 1917-21.. | 433.9 | 443.8 | 444.8 | 423.1 | 421.7 | 361.1 | 363.4 | -. 3 | +16.0 |  |  |  |
| Machinery mfg. (5) .-.......rel. to 1917-21.. | 128.2 | 133.2 | 136.4 | 126.8 | 128.3 | 107.2 | 107.8 | +1.2 | +19.0 |  |  |  |
| Petroleum (17)....-.-...-rerel to 1917-21.- | 106.2 | 116.6 | 122.3 | 114.6 | 115.0 | 101.7 | 100.9 | +.3 | +14.0 |  |  |  |
| Railroad equipment (10) ---rel rel to 1917-21-- | 227.5 | 228.2 | 224.6 | 208.6 | 203.8 | 201.2 | 203.6 | -2.3 | +.1 +8.3 |  |  |  |
|  | 157.6 49.6 | 160.0 52.6 | 160.8 52.5 | 150.5 | 149.8 43.9 | 135.4 40.3 | 138.3 42.1 | -5. 2 | +8.3 +4.3 |  |  |  |
|  | 188.8 | 199.8 | 207.0 | 199.0 | 195.4 | 170.8 | 162.7 | -1.8 | +20.1 |  |  |  |
| Tire and rubber (7)........-rel. to 1917-21.- | 55.1 | 55.7 | 56.2 | 47.7 | 45.3 | 44.4 | 45.7 | -5.0 | -. 9 |  |  |  |
| Tobacco (7)...--.-..-------rel. to 1917-21-- | 212.4 | 215.7 | 201.3 | 190.3 | 189.8 | 190.3 | 196.0 | -. 3 | -3.2 |  |  |  |
| Traction, gas and power (16).rel. to 1917-21.. | 315.7 | 339.7 | 360.4 | 338.0 | 333.1 | 241.8 | 242.6 | -1.4 | +37.3 |  |  |  |

${ }^{2}$ Quarter ending Mar. 31, 1928.
${ }^{3}$ Quarter ending in month indicated. Percentage change from quarter ending Mar. 31, 1928.
: Percentage change from quarter ending Mar. 31, 1928.
S Percentage change from quarter ending June 30, 1927.

[^11]TREND OF BUSINESS MOVEMENTS-Continued

: Percentage change from quarter ending June 30, 1927.
${ }^{-10}$ Cumulative through June 30
${ }^{10}$ Revised.

## TREND OF BUSINESS MOVEMENTS-Continued

| The cumulatives shown are through July, 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 |  | $\begin{array}{\|} \text { PER CENT IN- } \\ \text { CREASE }(+) \text { OR } \\ \text { DECREASE }(-) \end{array}$ |  | cumulative total FROM JAN. 1 THROUGH JULY 31 |  | Per ct. <br> in- <br> crease <br> ( + de <br> or de. <br> crease <br> (-) <br> cumu <br> lative <br> 1928 <br> from <br> 1927 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | March | April | May | June | July | June | July | July, <br> 1928, <br> from <br> June, 1928 | July, 1928, from July, 1927 | 1927 | 1928 |  |
| U. S. FOREIGN TRADE-Continued <br> Imports-Continued <br> By grand divisions-Continued. <br> Asia and Oceania- |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | $\begin{array}{r}10 \\ 10 \\ 10 \\ 30,066 \\ \hline\end{array}$ | 10109,772 <br> 10 <br> 29 <br> 1005 | 10109,724 1038,536 | 87, 252 22,306 |  | 115,380 36,035 8 | 100,261 30,025 0,5 |  |  | - 793,473 | ¢ 643,633 $\bullet 186,689$ | -18.9 -17.2 |
|  | 1030,748 107,872 | - $\begin{array}{r}109,391 \\ 109\end{array}$ | 1038,56 6,617 | 22, 9 9 $\mathbf{4 7 2}$ |  | 16,035 8,474 | 30,025 6,925 |  |  | ${ }^{-226,414}$ | $\begin{array}{r}\text { - } 186,689 \\ \hline \text { 48,893 }\end{array}$ | -17.2 |
| By classes and commodities: <br> Crude materials..............thous. of dolls.- | ${ }^{10} 145,546$ | ${ }^{10} 127,034$ | ${ }^{10} 137,802$ | 109,694 | 106, 030 | 137, 511 | 121, 185 | -3.3 | -12.5 | 966, 635 | 890, 383 | -7.9 |
| Foodstuffs, crude, and |  |  |  |  |  |  |  |  |  |  |  |  |
| food animals --.-.-. thous. of dolls | 53,452 | 10 46,049 | 47,955 | 48,334 | 43, 174 | 39,619 | 34, 269 | $-10.7$ | +26.0 -20 | 283, 881 | 334,810 <br> 246 | +17.9 +108 |
| Manutactured foodstufts. .-thous. of dolls.- | 41,007 | ${ }_{10}^{10} 43,276$ | 34,232 10 | 30, 006 | 33, 314 | 42,172 | 35, 076 | +11.0 | -5.0 | 276,411 432,877 | 246,598 | -10.8 -1.1 |
| Semimanufactures........... <br> Semimanuractures...........thous. of dolls.- | 64,944 75,488 | ${ }^{10} 60,672$ ${ }^{0} 68,163$ | $\begin{array}{r}10 \\ 10 \\ 10 \\ 74,081 \\ \hline\end{array}$ | 57, 71,597 | 60,045 75,242 | 60,384 75,207 | 61,523 67,244 | +4.1 +5.1 | -2.4 +11.9 | 432,877 482,669 | 428,004 503,876 | -1.1 +4.4 |
| Exports <br> Grand total, including reexports. $\qquad$ thous. of dolls. |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 10420,617 | ${ }^{10} 364,065$ | 10422,069 | 10 388, 636 | 382,000 | 356, 966 | 341, 809 | -1.7 | +11.8 | 2, 708, 105 | 2,759,611 | +1.9 |
| By grand division: <br> Europe- |  |  |  |  |  |  |  |  |  |  |  |  |
| Tratal..----...........- thous. of dolls.-- | 10 194,424 | 10 161,772 | 188, 172 | 161,420 |  | 155,328 | 143, 189 |  |  | -1,087, 829 | 8 1,097, 667 | +0.9 +20 |
| France | 18,693 <br> 35,058 | 10 13,131 29,435 | 18,538 <br> 32,838 <br> 18 | 15, 712 |  | 14,907 29,941 | 11, 4111 |  |  | ? 101,140 8210,311 | -103, 132 | ${ }_{-2.0}^{+2.0}$ |
| Italy.-.-..................thous. of dolls.-. | 11, 317 | 11,014 | 15, 149 | 11, 254 |  | 9, 496 | 7,940 |  |  | ${ }^{9} 60,883$ | ${ }^{9} 76,912$ | $+26.3$ |
| United Kingdom.--....-thous. of dolls.-- | 70, 505 | ${ }^{10} 56,957$ | 61,449 | 52, 160 |  | 56, 103 | 52,789 |  |  | ${ }^{9} 415,483$ | ${ }^{9} 384,387$ | -7.5 |
| North America- <br> Total. $\qquad$ thous. of dolls.- | 10110,709 | 10 101, 902 | 123,475 | 114,005 |  | 108, 072 | 98, 724 |  |  | ${ }^{9} 615,046$ |  |  |
|  | 73,035 | 10 70, 471 | 128,978 | 181,888 |  | 74,312 | 64, 772 |  |  | ${ }^{8} 403,396$ | ${ }^{9} 429,336$ | +2.2 +6.4 |
| South America- |  |  |  |  |  |  |  |  |  |  |  |  |
| Total ---.---.-....-.--thous of dolls.- | ${ }^{10} 40,222$ | ${ }^{10} 33,848$ | 38,425 | 39, 139 |  | 31, 468 | 36, 034 |  |  | ${ }^{9} 220,032$ | - 217, 907 | -1.0 |
| Argentina-------------thous. of dolls-- | 14, 884 | 11,776 | 14, 082 | 15,692 |  | 11,389 | 15, 239 |  |  | ${ }^{\bullet} 75,547$ | ${ }^{9} 80,175$ | +6.1 |
| Asia and Oceania- <br> Total <br> thous. of dolls |  | 1059,131 |  |  |  |  |  |  |  |  |  | -3.4 |
| Japan---------------------thous. of dolls.-- | -20, 113 | 16,985 | 22,998 | ${ }_{21,628}^{63,}$ |  | 13,698 | -54, 190 |  |  | ${ }^{0} 127,527$ | ${ }^{9} \mathrm{P} 122,913$ | ${ }_{-3.6}$ |
|  | 9, 680 | 7,413 | 8,983 | 10,552 |  | 7,764 | 9,545 |  |  | 8.51, 412 | $\bigcirc$ | +6.9 |
| Total domestic exports only....thous. of dolls-- | 409, 961 | 356, 054 | 413, 119 | 380, 204 | 371, 256 | 348, 546 | 332, 994 | -2.4 | $+11.5$ | 2, 643, 206 | 2,695, 121 | +2.0 |
| By classes of commodities: <br> Crude materials $\qquad$ thous. of dolls.- | 91, 619 | 74,394 | 89,814 | 74,920 | 60, 295 | 63,349 | 55, 023 | -19.5 | $+9.6$ | 611,759 | 598, 387 | -2.2 |
| Foodstuffs, crude and |  |  |  |  |  |  |  | - | -35 | 172,457 | 110,490 | -35.9 |
| Manufactured foodstufts.--thous. of dolls-- | 42, 4121 | 13,203 32,866 | 19,738 33,123 | 31,249 | 30,396 | 36,355 | 31, 278 | -2.7 | -2.8 | 260, 484 | 253, 214 | -2.8 |
| Semimanufactures........-thous. of dolls-- | 62,993 | 56, 320 | 67,118 | 62,966 | 61, 346 | 62, 485 | 59,354 | $-2.6$ | +3.4 | 414, 507 | 430,349 | +3.8 |
| Finished manufactures .-.-.thous. of dolls.. | 197, 718 | 179, 271 | 203, 326 | 193, 938 | 205, 004 | 161, 150 | 165, 429 | +5.7 | +-23.9 | 1,184,000 | 1,302, 679 | +10.0 |
| Agricultural exports (quantities): <br> All commodities..............index number. | 100 | 82 | 92 | 76 |  | 89 | 75 |  |  |  |  |  |
| All commodities except cotton. index number- | 117 | 99 | 103 | 91 |  | 118 | 102 |  |  |  |  |  |
| CANADIAN FOREIGN TRADE |  |  |  |  |  |  |  |  |  |  |  |  |
| Total trade: |  |  |  |  |  |  |  |  |  |  |  |  |
|  | $\begin{aligned} & 120,418 \\ & 109,147 \end{aligned}$ | 78,490 60,455 | 113,582 120,154 | 110,694 109,139 | 103,404 127,369 | 101,029 107,201 | 91,369 80,787 | -6.6 +16.7 | +13.2 +57.7 | 625,202 649,977 | 692,026 701,079 | +10.7 +7.9 |

${ }^{-}$Cumulative through June 30.
${ }^{10}$ Revised.

Preliminary Returns Census of Manufactures $1927^{1}$

| INDUSTRY | Value or products |  |  | PERSONS EMPLOYED |  |  | INDUSTRY | value of products |  |  | PERSONS EMPLOYED |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1927 | 1925 | $\begin{gathered} \text { Per } \\ \text { cent } \\ \text { in- } \\ \text { crease } \end{gathered}$ | 1827 | 1925 | $\begin{aligned} & \text { Per } \\ & \text { cent } \\ & \text { in- } \\ & \text { crease } 2 \end{aligned}$ |  | 1927 | 1925 | Per | 1927 | 1925 | Per |
|  | Thousands of dollars |  |  | Number |  |  |  | Thousands of dollars |  | $\begin{gathered} \text { in- } \\ \text { crease? } \end{gathered}$ | Number |  | in- |
| Aircraft. | 20,784 | 12,525 | 69.9 | 4,316 | 2,701 | 59.8 | Motor vehicles | 2, 846, 213 | 3, 198, 123 | -11.0 | 187, 835 | 197, 728 | $-5.0$ |
| Bluing.....---.-.-.-.-.-.-.- | 1,674 | 2, 167 | $-22.7$ | 155 | 176 | -11.9 | Motor cycles and bicycles . | 21,454 | 24, 258 | $-11.6$ | 3,897 | 4,193 | -7.1 |
| Baking powders, yeast, etc. | 85, 100 | 74,593 | 14.1 | 3,028 | 2,931 | 3.3 | Porcelain electrical sup- |  |  |  |  |  |  |
| Cane-sugar refining..---.-- | 597,446 | 606, 633 | $-1.5$ | 13,996 | 14,502 | $-3.5$ | plies. | 22,872 | 21,370 | 7.0 | 6,808 | 6,462 | 5.4 |
| Chewing gum .....-.-...--- | 61,722 | 47, 838 | 29.0 | 2,504 | 2,180 | 14.9 | Rayon and allied products. | 109,888 | 88,061 | 24.8 | 26, 341 | 19, 128 | 37.7 |
| Cork products..-.-...-.-.- | 17,338 | 16, 020 | 8.2 | 3,176 | 3,297 | -3.7 | Sand-lime brick .-.-.----. | 3,601 | 3,760 | $-4.2$ | 782 | 801 | -2.4 |
| Corn sirup, corn oll, and starch. | 134, 410 | 132,898 | 1.1 | 6,911 | 6, 492 | 6.5 | Tin oxide.-.-.- | 2, 600 2,684 | 2,905 2,451 | -10.5 9.5 | 525 | 537 | -2.2 |
| Engravers' materials. | 2, 141 | -2, 014 | 6.3 | 171 | 177 | $-3.4$ | Vitreous china plumbing |  |  |  | 52 | 5 | -2. 2 |
| Graphite.. | 2,932 | - 2,569 | 14.1 | 289 | 228 | 26.8 | fixtures. | 25,458 | 27, 240 | -6.5 | 6, 201 |  |  |
| Hotel china | 9, 782 | 9,996 | -2.1 | 4,385 | 3,723 | 17.8 | Wool carpets and rugs, |  |  |  |  |  |  |
| Linseed oil, cake, and meal. | 111, 234 | 140, 514 | $-20.8$ | 2, 710 | 2, 692 | 0.7 | other than rag | 164, 709 | 188, 903 | $-12.8$ | 32, 290 | 33, 886 | $-4.7$ |
| Malt | 20, 252 | 24, 069 | $-15.9$ | 499 | 568 | $-12.1$ | Wool-felt hats | 10,575 | 8,949 | 18.2 | 2,369 | 1,854 | 27.8 |
| Matches....-.--------------- | 24,786 | 23,741 | 4.4 | 3,885 | 4,627 | -16.0 | Wool scouring ...-....-....-. | 6,662 | 5,831 | 14.2 | 1,386 | 1, 112 | 24.6 |

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.
${ }_{2}$ A minus sign ( - ) denotes decrease.
CALIFORNIA WHITE AND SUGAR PINE ${ }^{1}$


[^12]
## BLICATIONS OF THE DEPARTMENT OF COMMERCE

the Department of Commerce having the most direct interest to readers of the Sunver of Curaent A complete list may be obtained by addressing the Division of Publications, Department of Commerce, of the publications may be purchased from the Superintendent of Documents, Government Printing prices stated. If no price is mentioned, the publication is distributed free.

## THE SECRETARY

ct from Air Commerce Regulations. Is (formerly Information Bulletin bitions.
pohautics Bulletin No, 19; 6 pages. methods and facilities for obtaining
Aiplane Pilots. 11 pages. Rules qutics Branch of the Department of 17 expmination of applicants for air-
i. Jnne, 1928. 28 pages. Issued Whom of the Department of Commerce. tions and references to current radio 5 thannual subscription, 25 . Hes.
fation and Abstract of State Laws. 18 (formerly Information Bulletin Hide a draft of aireraft legislation sugpedifferent States to insure uniformity dintry.

## OF THE CENSUS

Wpubtication and distribution of consus publi-

- He pirector of the Census)

Les, 1926. Denominational reports and organization with general staHips value, amount of church prop4.
th pages, price 10 .
Taper, 7 pages, price 54.
Waper, 8 pages, price 5c.
AND DOMESTIC COMMERCE
mats also be purchased from the bureanyor its ditrict offices)
oreign Commerce of United States, 1. Part I contains statistics of ex4dise, and imports by artieles for Cor: six months ended June, 1827 and summaries of export and import port and export prices; statistics of 11, and Porto Rico. Single copies, Annual subscription, \$1.25.
Egnipment in Germany. Trade 565; ii +28 pages. Price, 10 d.
11 Implements and Machinery in Hualy, American trade commissioner. h No. 566; ii +46 pages. Price, $10 \phi$. South America. Trade Information Gages Price, 10 d .
Ba, States in Calendar Year 1927 ${ }^{1} 1$ Statistical Classification. Trade 5e8, ii +9 pages. Price, 10 d.
r Canada, by Walter J, Donnelly, dyer, and Charles R . Gruny. Trade ; vi +46 pages. Discussion of the the organization of companies, the of of partnerships, agency and dealer torney, conditional sales, negotiable tid insolvenoy, patents, trade-marks, frumse Price, $10 \phi$.

## OF STANDARDS

Journal of Research, July, 1928. pages of plates. This is the first epublished monthly containing the the Technologle and Scientific Papers Wha be discontinued. Single copies, \$2.75.

## Simplified Practice Recommendations:

R30-28. Roofing Ternes. $v i+12$ pages, 1 illus. Price, 5d.
R35-28. Steel Lockers (Single, Double, and Multiple Tier). Supersedes R35. iv +12 pages, 1 illus. Price, 5d.
R58-28. Classification of Iron and Steel Scrap. viii+26 pages, 1 illus. Price, 10\$.
R71-28. Turnbuekles. vi+10 pages, 1 illus. Price, ge.
R79-28. Malleable Foundry Refractories. $71+16$ pages, 6 illus. Price, 10 .
Technical News Bulletin, July, 1928. Pages 93-108. Monthly. Contains items describing the laboratory activities of the bureau and a list of pamphlets issued and magazine articles published during the preceding month Annual subscription, $25 \%$.

United States Government Master Specifications. These specifications for the purchase of materials for the use of Government departments are issued as circulars of the Bureau of Standards. Those listed below by circular number may be obtained at $5 \phi$ each.

No. 361. Oil, Linseed, Raw. 8 pages.
No. 362. Oil, Linsead, Boiled. 8 pages.
No. 365. Cheesecloth, Bleached. 3 pages.
No. 366. Percale. 3 pages.

## BUREAU OF MINES

Mineral Resources of United States in 1927 (Preliminary Summary). ii + al20 pages. This is a statistical summary of mineral production in the United States during 1927. Price, 20 .

Mineral Resources of United States, 1927. The reports on mineral resources are first issued in the form of bulletins of which the following have been released and may be obtained at $5 \phi$ each:

```
Carbon Black Produced from Nataral Gas in 1927. (Pt. II, pp. 27-31.) Flourspar and Cryolite in 1927. (Pt. II, pp. 2425.)
Fuel Briquets in 1927.' (Pt. II, pp. 1-8.)
Fuel Briquets in 1927. (Pt. II, pp. 1-8
Graphite in 1927. (Pt. II; pp. \(33-38\).)
```

Production of High-Alumina Slags in the Blast Furnace, by T. L. Joseph, S. P. Kinney; and C. E. Wood. Technical Paper 245 ; ii +32 pages, 1 illus., 5 pages of plates. Report on experiments in extracting alumina from slags made in a blast furnace. Price, 15 d.

Sulphur Problem in Burning Coal, by J. F. Barkley. Technical Paper 436; ii +7 pages, 1 illus. Discusses the forms of sulphur found in coal and the effect of this element on clinkering in furnaces, on the furnaces themselves, and on their equipment. Price, $5 \phi$.

## BUREAU OF NAVIGATION

American Documented Seagoing Merchant Vessels of 500 Gross Tons and Over, July, 1928, ii +72 pages. Monthly: Single copies, $10 \%$; annual subscriptions, 754.

## COAST AND GEODETIC SURVEY

Current Tables, Pacific Coast, North America and Philippine Islands, for Year 1929. Serial No. $410 ; 111$ pages; 3 illus., 5 diagrams. Price, 10 d.
Elements of Map Projection with Applications to Map and Chart Construction, by Charles H. Deetz and Oscar S. Adams. Special Publication No. 68; 167 pages, 74 illus., 11 maps. Price, 50\&.

Tide Tables, Pacific Coast, North America, Eastern Asia, and Island Groups, for Year 1929, 470 pages. Contains predictions for every day in the year for 88 tide stations and differences in tide for 3,500 subordinate stations. Also tables showing the time of sunrise and sunset for every fifth day of the year for different latitudes, and tables, showing the time for rising and setting of the moon and the time of solar equinoxes and solstices. Price, 154.

## STEAMBOAT INSPECTION SERVICE

Pilot Rules for Certain Inland Waters of Atlantic and Pacific Coasts and of Coast of Gulf of Mexico. Form 804; ii + 34 pages, illustrations.

# CHIEF FUNCTIONS OF THE DEPARTMENT OF COMMERCE 

WILLIAM F. WHITING, Secretary of Commerce

Walten F. Brown, Assistant Secretary of Commerce. Ephraim F. Morqan, Solicitor

## AERONAUTICS BRANCH

Wilisam P. McCeacken, Jr., Assistant Secretary of Commerce for Aeronautics
I. 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 disaemination of information relating to commercial aeronautics. (Some of these functions are performed by special divisions of the Lighthouse Service, the Bureau of Standards, and the Coast and Geodetic Survey.)

## BUREAU OF THE CENSUS <br> William M. Steuart, Director

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 statistics 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 <br> Jolide Klein, Director

The collection of timely information concerning world market conditions and openings for American products in foreign countries, through eommercial attachés, trade commissioners, and consular officers, and its distribution through weekly Commerce Reports, 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 compilation and distribution of lists of possible buyers and agents for American products in all parts of the world and publication of weekly lists of specific sales opportunities abroad.

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

## BUREAU OF STANDARDS Georgem K. Burgebs, 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 techmical bulletins reporting results of researches and fundamental technical data.

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

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

Establishment of simplified commercial 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 Fuel Yard at Washington.

Research on belium and operation of plants Studies in the economics and marketing of lection of statistics on mineral resources and
The dissemination of results of technit researches in bulletins, technical papers, series, miners' circulars, and miscellaneous p

## BUREAU OF FISHERIE <br> Hentr O'Mallet, Commissfond

The propagation and distribution of food \& in order to prevent the depletion of the fisherief to promote conservation of fishery resoufces ment of commercial fisheries and agriculture: methods, improvements in merchandising fishery statistics; administration of Alaskz seals; and the protection of aponges off the

## BUREAU OF LIGHTHOU

George R. Putnam, Commisto
Maintenance of lighthouses and other aids tion. Establishment and maintenance of along civil airways.

Publication of Light Lists, Buoy Lists, and ners, giving information regarding these aids to

## COAST AND GEODETIC <br> E. Leeter Jones, Directod

Survey of the coasts of the United Statei a charts for the navigation of the adjacent Alaska, the Philippine Ielands, Hawaii, Potto Islands, and the Canal Zone; interior contr netic surveys; tide and current observations. investigations.

Publication of results through charts, coas current tables, and special publications.

## BUREAU OF NAVIGATIC <br> Arthut J. Tyrer, Commiselof

Superintendence of commercial marine and
Supervision of registering, enrolling, liod a etc., of vessels under the United States fif 8 publication of a list of such vessels.

Enforcement of the navigation and ston laws, including imposition of fees, fines, tonna

## STEAMBOAT INSPECTION

Dickerson N. Hoover, Supervising In
The inspection of merchant vessels, inclu and life-saving equipment; licensing of officirt fication of able seamen and lifeboat men, and of violations of stesmboat inspection laws.

## UNITED STATES PATENT

## Thome E Ronertson Com

The granting of patents and the registratio prints, and labels after technical examination ceedings.

Maintenance of library with public search copies of foreign and United States patent Recording bills of sale, assignments, etc., f and trade-marks. Furnishing copies of red patents.

Publication of the weekly Official Gazetto ents and trade-marks issued.

## RADIO DIVISION <br> W. D. Terrala, Chief

Inspection of radio stations on ships; insped 4 o $\%$ radio stations on shore, including broadcasting station 1 thec diag radio operators; assigning station call letters; enforthe the terme of the International Radiotelegraphic Convention of poxamining and settling international radio accounts.


[^0]:    Subscription price of the Survey or Curremt Business is $\$ 1.50$ a year; single copies (monthly), 10 cents, semianmual issues, 25 cents. Foreign 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 Surver; $\$ 5.50$ 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]:    - Seasonal adjustments.

[^2]:    ${ }^{1}$ Compiled by the U. S. Department of Commerce, Bureau of Fisheries, and representing landings of fresh fish from vessels at Boston and Gloucester, Mass., Portland, Me., and Seattle, Wash. Detalls by ports are given in monthly statements. These data revise previous figures,
    ${ }_{2}$ Figures for 1913 to 1915, inclusive, do not include Portland and Seattle.

[^3]:    Quarter ending Mar. 31, 1928.
    ${ }^{4}$ Percentage change from quarter ending Mar. 31, 1928.

[^4]:    ${ }^{2}$ Quarter ending Mar. 31, 1928.
    ${ }^{3}$ Quarter ending in month indicated

    - Percentage charge from quarter ending Mar. 31, 1928.

[^5]:    ${ }^{5}$ Percentage change from quarter ending June 30, 1927.
    ${ }^{\circ}$ Cumulative through June 30.
    ${ }^{10}$ Revised.

[^6]:    7 Final estimate for 127 .

[^7]:    ${ }_{2}$ Quarter ending Mar. 31, 1928.
    ${ }^{3}$ Quarter ending in month indicated.
    4 Percentage change from quarter ending Mar. 31, 1928.

[^8]:    5 Percentage change from quarter ending June 30, 1927.
    Cumulative through June 30.
    ${ }^{10}$ Revised.

[^9]:    Cumulative through Jane 30.

[^10]:    ${ }^{10}$ Revised.

[^11]:    - Cumulative through June 30.
    ${ }_{11}^{10}$ Revised.

[^12]:    ${ }^{1}$ Compiled by the California White and Sugar Pine Association from reports of 18 identical mills.

