

UNITED STATES  
DEPARTMENT OF COMMERCE  
WASHINGTON

# SURVEY OF CURRENT BUSINESS

JULY, 1930

No. 107



ISSUED BY  
BUREAU OF FOREIGN AND DOMESTIC COMMERCE

## 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 reader, the authority and responsibility for which are noted in the "Sources of Data" on pages 139-142 of the February, 1930, semiannual issue.*



## 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 February, 1930 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 SURVEY, and the supplements also contain charts and tables of weekly data.

### RELATIVE AND INDEX NUMBERS

To facilitate comparison between different important items and to chart series expressed in different units, relative numbers (often called "index numbers," a term referring more particularly to a special kind of number described below) have been calculated. The monthly average for 1923-1925 has usually been used as a base equal to 100.

The relative 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 SURVEY OF CURRENT BUSINESS are of the type termed "Ratio Charts" (logarithmic scale), notably the Business Indicator charts on page 2. These charts show the percentage increase and allow direct comparisons between the slope of one curve and that of any other curve regardless of its location on the diagram; that is, a 10 per cent increase in an item is given the same vertical movement whether its curve is near the bottom or near the top of the chart. The difference between this and the ordinary arithmetic form of chart can be made clear by an example. If a certain item having a relative number of 400 in one month increases 10 per cent in the following month, its relative number will be 440, and on an ordinary chart would be plotted 40 equidistant scale points higher than the preceding 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 RECORD BOOK. The sections covering textiles, metals, and fuels, automobiles, and rubber have already been issued and may be obtained for 10 cents per copy from the Superintendent of Documents, Government Printing Office, Washington, D. C. (Do not send stamps.) Notices of other sections will be given in the SURVEY as they are issued.

### METHODS OF USE

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

*This issue presents practically complete data for the month of May and contains text covering the early weeks of June (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.*



# SURVEY OF CURRENT BUSINESS



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UNITED STATES DEPARTMENT OF COMMERCE

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## PRELIMINARY SUMMARY FOR JUNE

Business in June, as measured by the volume of checks presented for payment, was lower than the corresponding period in 1929. Carloadings indicative of the distribution of commodities through primary channels receded but slightly from the preceding month and were lower than in June, 1929.

The activity in steel plants was on a lower plane than the month of May or a year ago. Building, as indicated by the number of contracts awarded for the early weeks of June registered greater activity than during the corresponding period last month. The production of bituminous coal declined seasonally from May and was lower than the month of June, last year. The output of crude petroleum, declined from both comparative periods.

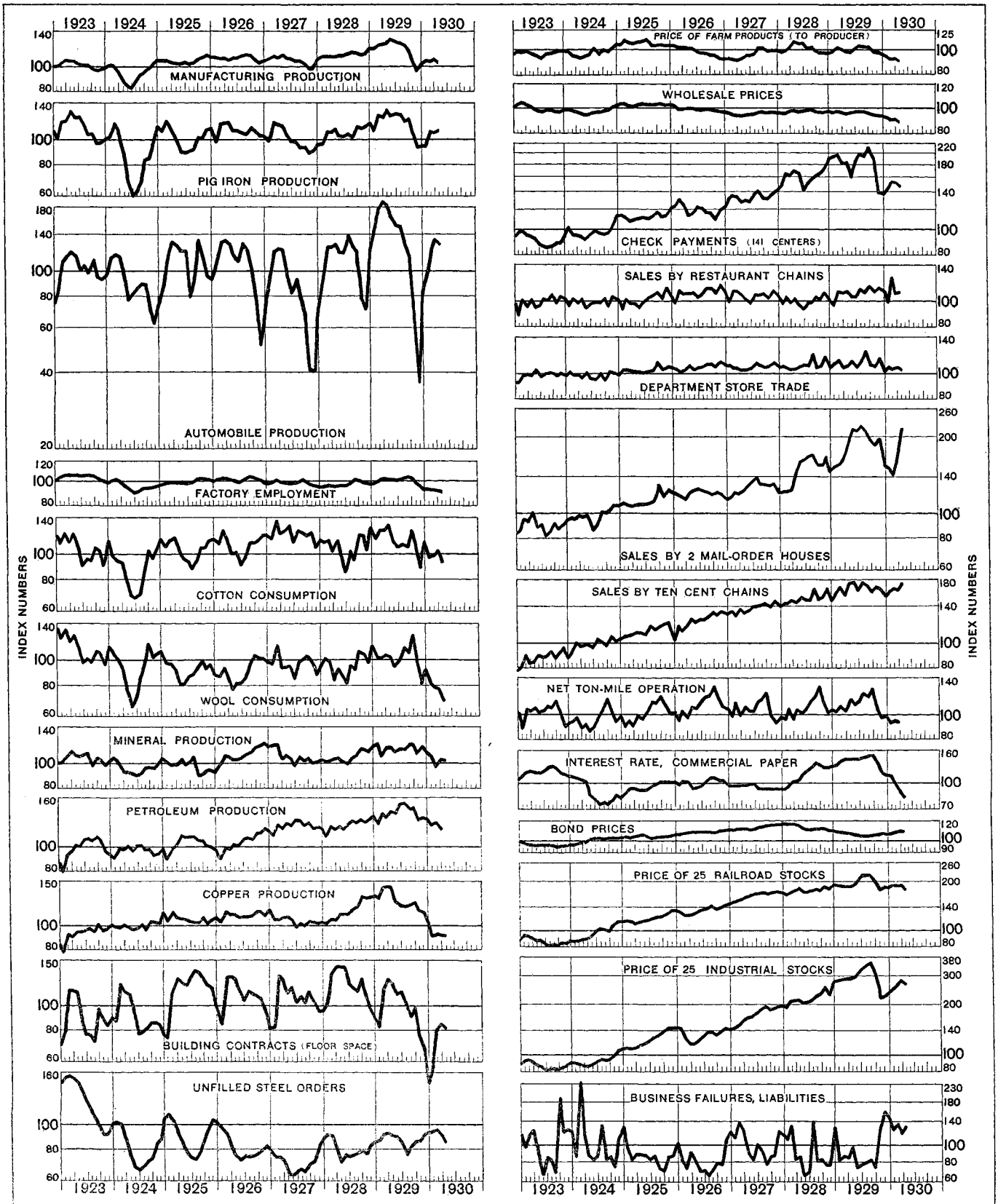
The general index of wholesale prices in June was lower than in either the preceding month or in June,

1929. Prices for wheat declined from the month of May and were materially lower than a year ago. Cotton prices showed similar comparisons with prior periods. The prices for iron and steel receded slightly from the preceding month and were lower than in June, last year.

Bank loans and discounts registered gains over both comparative periods. Interest rates, both for call and time money, were lower than during the previous month and the corresponding period a year ago. Brokers loans at the end of June were less than at the end of the preceding month and June, 1929. Prices for representative bonds were lower than either period. Business failures as reported by R. G. Dun & Co., while fewer than in May were more numerous than a year ago. Liabilities of failing firms were larger than the preceding month and a year ago.

## MONTHLY BUSINESS INDICATORS, 1923-1930

[Ratio charts—see explanations on inside front cover. The curves on check payments, wholesale trade, 10-cent chains, and department stores have been adjusted for normal seasonal variations, and manufacturing production for the varying number of working days in the month as well. 1923-1925 monthly average=100]





## 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							1929					1930							
	1923	1924	1925	1926	1927	1928	1929	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May
	1923-1925 monthly average=100																			
<b>Industrial production:</b>																				
* Total manufacturing.....	101.0	94.0	105.0	108.0	106.0	111.0	119.0	124.0	128.0	125.0	124.0	122.0	117.0	105.0	96.0	102.0	106.0	105.0	107.0	104.0
* Total minerals.....	105.0	96.0	99.0	107.0	107.0	106.0	115.0	116.0	112.0	114.0	115.0	118.0	118.0	110.0	116.0	112.0	108.0	96.0	104.0	103.0
Pig iron.....	111.7	86.7	101.5	109.0	101.0	105.5	117.9	130.5	124.4	126.7	125.7	117.1	120.1	106.5	94.9	94.0	95.0	108.6	106.5	108.2
Steel ingots.....	104.8	88.7	106.4	113.1	104.6	120.2	130.6	152.9	141.9	140.3	142.9	131.0	131.2	101.9	84.0	109.8	118.0	124.4	120.2	116.4
Automobiles.....	101.7	90.8	107.5	108.4	85.7	109.9	135.1	182.9	165.1	151.5	150.8	125.8	114.9	65.8	36.3	83.3	104.9	121.4	133.9	126.2
Cement.....	92.1	99.8	108.1	110.0	115.3	118.0	114.1	129.9	135.2	139.3	149.5	138.6	134.6	113.1	90.2	68.4	65.7	90.3	108.8	139.0
Cotton (consumption).....	105.9	89.7	104.4	108.5	120.2	106.7	114.6	130.3	111.1	106.6	108.7	106.3	124.9	106.0	88.4	112.5	96.5	99.1	103.7	92.3
Wool (consumption).....	112.8	94.6	92.6	89.7	97.0	94.7	103.1	102.9	93.0	99.8	111.1	105.0	125.3	98.5	79.8	92.1	80.9	78.5	77.7	68.9
<b>Raw material output:</b>																				
Animal products.....	100.0	104.0	96.0	96.0	97.0	99.0	99.2	108.9	111.8	116.0	100.0	98.7	102.6	95.2	93.0	94.7	83.8	97.6	100.5	110.5
Crops.....	91.9	104.0	104.0	109.0	113.3	117.0	114.2	51.1	56.3	91.1	134.5	177.1	246.3	154.6	139.2	78.7	62.6	55.6	53.2	56.0
Forest products.....	99.0	97.0	104.0	98.0	93.0	88.2	85.4	98.6	89.9	88.3	91.8	80.3	89.2	82.0	69.6	63.3	66.5	73.6	79.2	84.9
Crude petroleum.....	99.4	96.9	103.7	104.6	122.3	122.4	136.5	137.5	135.9	148.8	150.3	142.2	143.5	127.3	130.9	129.4	121.2	126.1	125.7	130.6
Bituminous coal.....	108.0	92.5	99.5	109.7	99.0	95.8	100.5	92.2	87.4	93.4	100.7	102.2	117.6	104.9	107.5	114.3	90.8	82.1	82.3	82.5
Copper.....	93.4	100.2	105.4	110.2	104.9	114.9	127.1	141.6	124.9	120.1	119.6	120.4	125.2	115.1	113.4	102.9	89.8	92.8	91.7	91.4
<b>Power and construction:</b>																				
Electric power.....	92.5	98.1	109.5	122.6	133.3	146.0	161.7	161.2	154.9	159.8	166.6	160.7	173.6	164.4	169.8	172.5	151.9	162.9	158.7	-----
Building contracts (37 States).....	89.7	92.7	117.6	111.0	106.8	121.4	99.6	122.4	109.7	113.7	100.5	90.2	98.9	76.9	66.3	49.6	57.6	81.1	53.3	81.0
<b>Unfilled orders:</b>																				
General index.....	121.7	87.0	91.2	84.6	74.0	76.2	80.8	88.4	83.4	82.1	76.0	76.8	76.8	73.7	77.7	80.2	79.4	82.0	77.9	75.0
U. S. Steel Corporation.....	125.8	83.6	90.6	82.1	71.1	80.7	87.1	90.1	89.2	85.6	76.6	81.7	85.6	86.4	92.5	93.6	93.8	95.7	91.2	85.0
<b>Stocks:</b>																				
General index.....	94.5	102.0	103.5	114.6	120.8	123.0	136.8	122.8	120.2	121.8	127.2	139.2	154.8	156.5	158.0	150.8	147.3	141.8	134.6	127.7
Manuf. commodities (28).....	93.8	103.2	103.0	106.3	112.5	117.4	120.1	120.4	121.1	120.3	115.7	113.8	113.9	115.6	118.9	121.5	124.9	127.4	124.1	117.7
Cotton.....	102.5	91.4	106.2	145.5	183.1	123.6	126.8	88.4	70.9	54.2	53.2	106.8	177.5	199.8	206.4	192.5	177.4	158.3	141.1	129.5
Copper (refined).....	106.4	113.9	73.1	64.8	85.4	68.4	78.4	62.2	73.4	86.3	92.2	83.7	78.1	111.7	151.3	179.7	205.9	226.2	266.2	272.6
<b>Employment:</b>																				
Factories.....	104.2	96.2	99.7	101.4	98.8	97.2	100.4	101.6	101.2	100.7	102.0	103.4	102.1	98.2	94.8	92.9	92.9	92.7	92.1	90.4
<b>Prices:</b>																				
Farm products, to producers.....	97.8	97.1	106.5	98.6	94.9	100.7	100.0	98.6	97.8	101.4	103.6	102.2	101.4	98.6	97.8	97.1	94.9	91.3	92.0	89.9
Wholesale, all commodities.....	99.9	97.4	102.8	99.3	94.7	97.0	95.8	95.1	95.7	97.3	97.0	96.8	95.6	93.7	93.5	92.8	91.5	90.2	90.1	88.5
Retail food.....	97.6	97.6	104.9	107.6	103.6	102.9	104.6	102.4	103.4	105.9	107.0	107.4	107.2	106.7	105.6	103.8	102.2	100.3	102.9	100.3
Cost of living (including food).....	98.2	99.4	102.4	102.4	100.0	98.7	98.4	97.0	97.6	98.8	99.4	99.4	99.4	99.3	98.7	97.4	96.8	95.6	96.2	95.0
<b>Distribution (values):</b>																				
* Bank debts, 141 cities.....	91.2	96.7	111.9	119.6	132.5	158.2	184.5	180.5	159.0	184.8	198.2	192.8	211.1	190.0	139.8	136.7	144.4	153.4	152.1	145.8
* Department stores, sales.....	98.0	99.0	103.0	106.0	107.0	108.0	110.0	107.0	112.0	106.0	112.0	123.0	109.0	107.0	115.0	102.0	106.0	104.0	106.0	104.0
* Mail-order sales, 2 houses.....	89.3	97.2	111.9	120.6	126.2	147.7	188.6	194.8	215.1	211.2	223.3	212.1	194.7	186.0	199.9	154.7	149.6	140.7	164.0	218.6
* 10-cent chains, sales.....	88.0	99.0	113.0	125.0	138.0	150.0	164.0	172.0	174.0	162.0	174.0	168.0	159.0	166.0	165.0	152.0	162.0	164.0	161.0	174.0
Postal receipts.....	93.6	98.5	107.9	114.5	117.3	117.7	121.1	121.0	109.3	109.1	110.0	114.5	133.5	122.0	153.3	120.9	111.3	121.8	122.3	117.3
Imports.....	97.8	93.1	109.0	114.3	108.0	105.5	113.5	123.9	109.4	109.6	114.3	108.8	121.1	104.8	96.1	96.3	87.2	93.0	95.3	88.2
Exports.....	91.5	100.8	107.8	105.5	106.8	112.6	115.2	101.4	103.6	106.2	100.4	115.3	139.6	116.5	112.4	108.3	91.9	97.4	88.0	84.8
<b>Transportation:</b>																				
Freight, net ton-miles.....	102.2	95.9	101.9	109.1	106.0	106.5	109.9	112.6	109.1	112.5	120.4	118.5	128.1	103.8	96.6	98.3	92.0	94.6	93.5	-----
<b>Finance:</b>																				
Member bank loans and discounts.....	94.1	98.5	107.4	112.9	117.3	126.8	135.9	129.3	135.1	136.2	135.3	139.1	151.1	141.3	140.9	133.1	131.1	135.0	135.4	134.4
Interest rate (commercial paper).....	116.2	90.0	93.5	100.9	95.4	112.8	135.7	139.2	139.2	139.2	142.2	145.0	145.0	133.4	116.0	113.2	110.2	98.6	90.0	87.0
Federal reserve ratio.....	99.0	104.1	96.9	96.0	99.1	89.1	93.4	96.5	94.4	96.4	97.7	94.2	89.9	93.0	90.2	101.4	102.1	103.4	106.9	108.7
Price, corporation bonds.....	96.4	99.9	103.6	108.0	112.5	113.0	106.5	106.7	105.4	104.9	104.1	103.9	105.2	105.0	107.1	106.8	107.0	109.3	109.2	109.2
Price, railroad stocks.....	86.0	96.1	117.9	133.4	162.7	174.5	194.3	184.4	192.1	213.4	216.3	217.7	203.5	176.2	181.4	180.6	188.6	188.1	187.6	176.7
Price, industrial stocks.....	86.1	91.9	122.0	132.4	171.4	214.8	292.6	290.3	297.8	330.8	344.5	358.5	316.3	219.4	229.3	235.5	251.9	262.2	279.2	261.3
Failures (liabilities).....	106.0	106.8	87.2	80.4	102.2	96.2	95.0	97.2	74.0	76.5	79.6	80.5	73.9	122.8	159.1	144.3	121.1	134.1	115.7	131.0

\* Seasonal adjustments.

## BUSINESS CONDITIONS IN MAY

### PRODUCTION

Manufacturing output in May, according to the weighted index of the Federal Reserve Board, using adjustments for seasonal variations, was 5 per cent below the level of the month of April and 17 per cent lower than the corresponding month in 1929. Gains in production of food products and cement were insufficient to offset declines in iron and steel, textiles, automobiles, leather and shoes, nonferrous metals, and tobacco manufactures. As compared with the month of May, 1929, all groups except the production of cement showed declines. Mineral production, after adjustments for seasonal variations, was 1 per cent

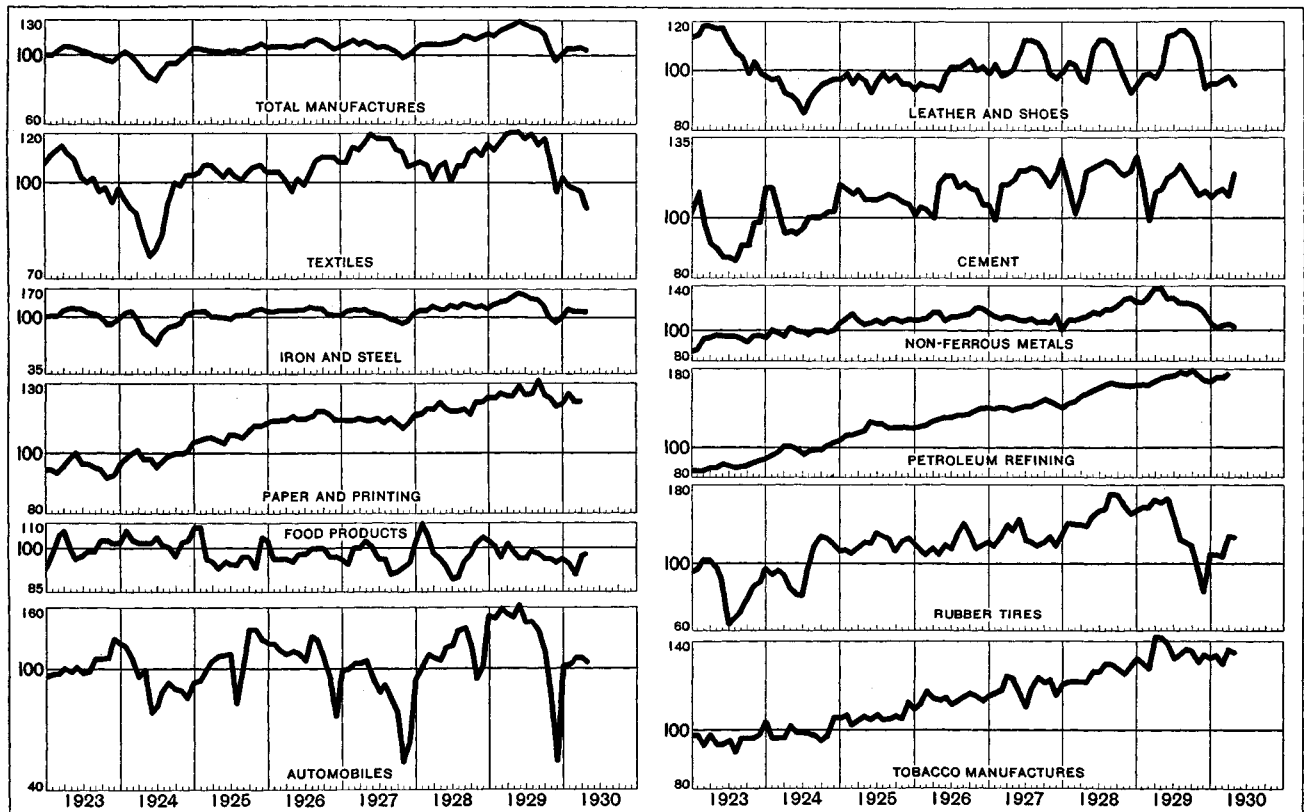
occurred in unfilled orders for textiles, iron and steel, and transportation equipment.

### WHOLESALE TRADE

Wholesale trade in May was generally lower than during April, declines occurring in the sales of groceries, dry goods, hardware, and drugs. For the period of January 1 to May 31, sales of dry goods, hardware, and drugs showed declines of more than 5 per cent from the corresponding period a year ago. The sales of groceries during this period, due to constant demand, showed only a small loss from the first five months of last year. Retail trade in May, as measured by department-store trade in 269 cities, after

### MANUFACTURING PRODUCTION BY MAJOR GROUPS

[Relative numbers, monthly average 1923-1925 taken as 100, adjusted for seasonal variations]



higher than the preceding month and 11 per cent lower than the corresponding period of 1929.

### COMMODITY STOCKS

Total stocks of commodities held at the end of May, although showing a decline from April, were 4 per cent above the level of a year ago. Stocks of finished goods in the hands of manufacturers declined from both the preceding month and the month of May, 1929.

### SALES

The general index of unfilled orders in May was lower than the preceding month and May a year ago. As compared with the preceding period, declines

adjustments for seasonal variations, was 2 per cent lower than both the preceding month and May, 1929. The sales of mail-order houses and representative 10-cent chains registered increases over both prior periods.

### IMPORTS AND EXPORTS

Total imports of merchandise during May were lower than during the preceding month and May, 1929. Increased imports over April of manufactured foodstuffs were insufficient to offset declines in imports of crude materials, crude foodstuffs and food animals, and semimanufactures and finished products. Exports declined from April and a year ago, due mainly to the smaller cotton shipments.

## PRICES

The general index of wholesale prices in May showed a decline of 2 per cent from the month of April, and was 7 per cent lower than May, 1929. All groups included in the index showed declines when compared with a year ago. In comparison with the month of April, the following groups registered declines, farm products, food, textile products, metals and metal products, building materials, and miscellaneous items, while the prices of hide and leather products, fuels and lighting, chemicals and drugs, and house-furnishing goods showed no change.

Classified by State of manufacture, prices for all groups showed lower averages than in either the

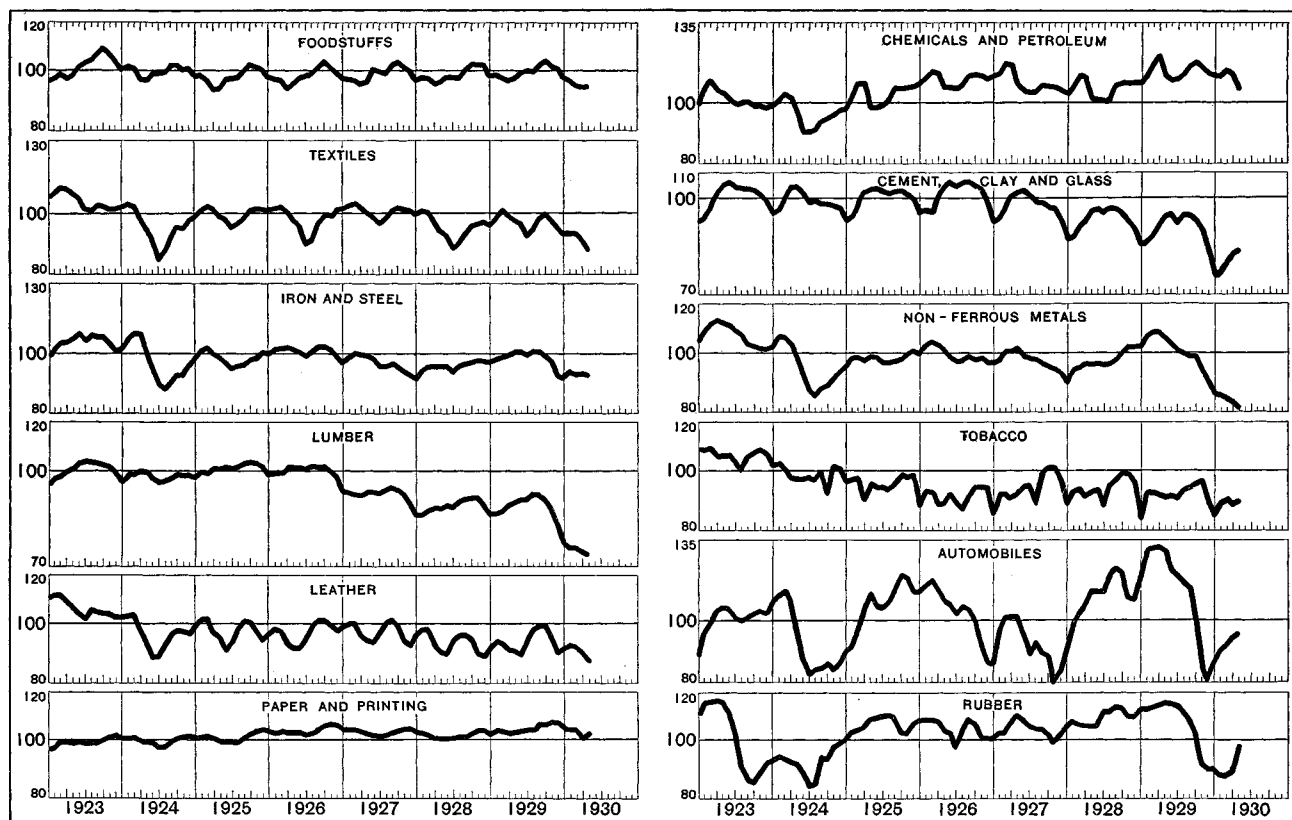
7 per cent for grains, 13 per cent for meat animals, 12 per cent for dairy and poultry products, and 20 per cent for cotton and cottonseed were registered.

## EMPLOYMENT

Factory employment in May, as measured by the Index of Employment compiled by the Federal Reserve Board, was 2 per cent less than the previous month and 12 per cent lower than in May, 1929. As compared with the preceding month increased employment was registered in factories producing food, automobiles, cement, clay and glass, and tobacco. Declines in employment occurred in factories producing machinery, textiles, lumber, leather, and chemicals, the decrease being more than 2 per cent in each line. As compared

## FACTORY EMPLOYMENT, BY GROUPS

[1926 monthly average=100. May, 1930, is latest month plotted]



preceding month or the corresponding period a year ago, the principal declines from last year occurring in the prices for raw materials, semimanufactured articles, finished products, and nonagricultural commodities where the decrease was more than 6 per cent in each case.

The index representing prices received by farmers for their products was 2 per cent lower than in April and 9 per cent lower than a year ago. As compared with the preceding month, an increase in the price of fruits and vegetables was insufficient to offset declines in prices for grains, meat animals, dairy and poultry products, and cotton and cottonseed. Compared with a year ago the prices received for fruits and vegetables showed an increase of 62 per cent, while decreases of

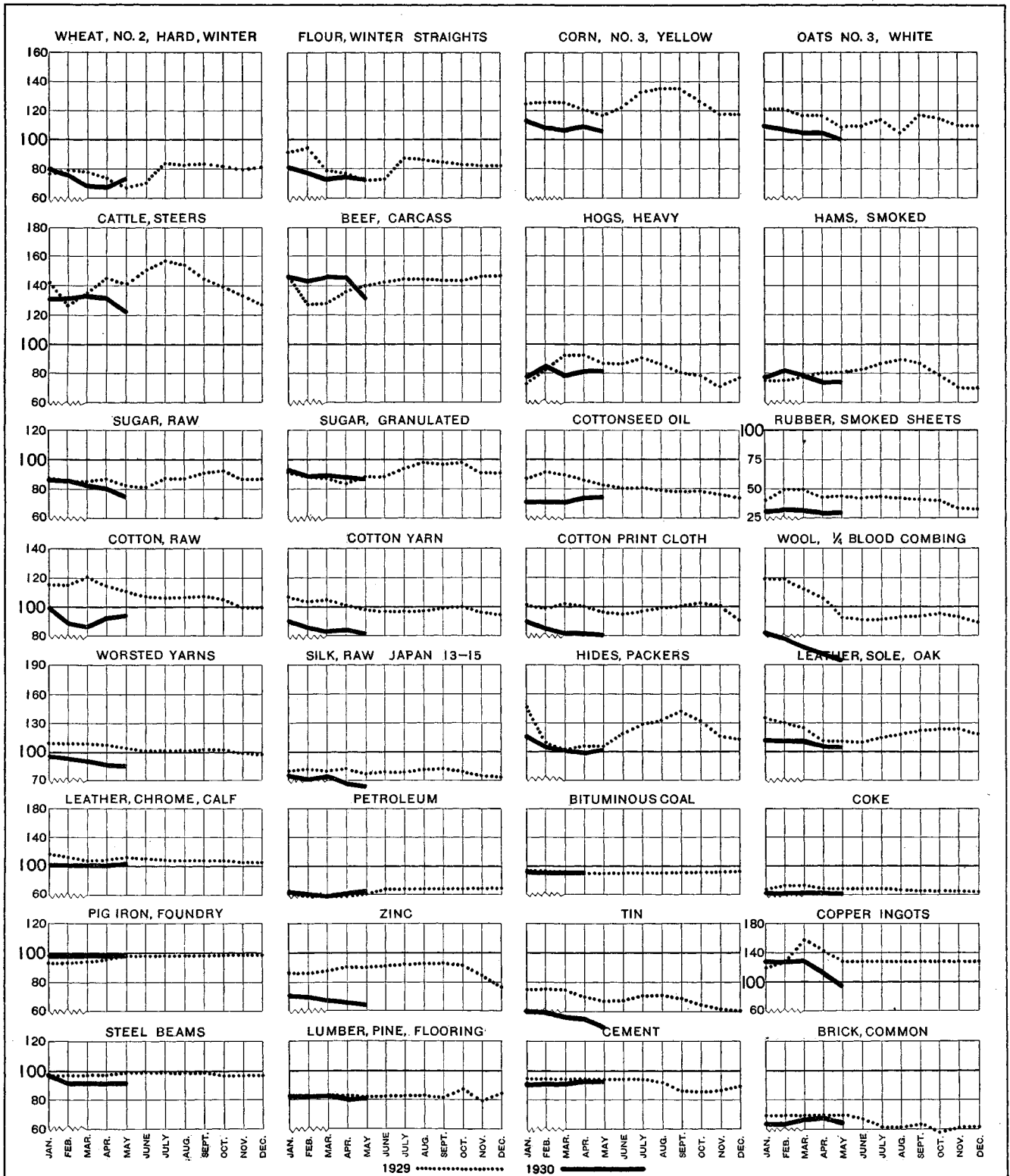
with a year ago all industrial groups showed smaller employment; the principal decrease occurring in automobile and machinery establishments where the declines were 27 and 13 per cent, respectively.

Factory pay rolls in May were 3 per cent lower than in April and 15 per cent lower than in May a year ago. As compared with the month of April increased wage payments in factories producing foods, automobiles, rubber, and tobacco products were insufficient to offset declines in wages paid by factories producing iron and steel, machinery, textile, leather, nonferrous metals, and chemicals. Compared with a year ago all groups registered declines except the petroleum group which showed increased pay rolls of 2 per cent.



## WHOLESALE PRICES FOR SPECIFIED COMMODITIES

[Relative numbers, 1926 monthly average taken as 100. May, 1930, is latest month plotted. Data from which these charts are drawn are given on the opposite page]



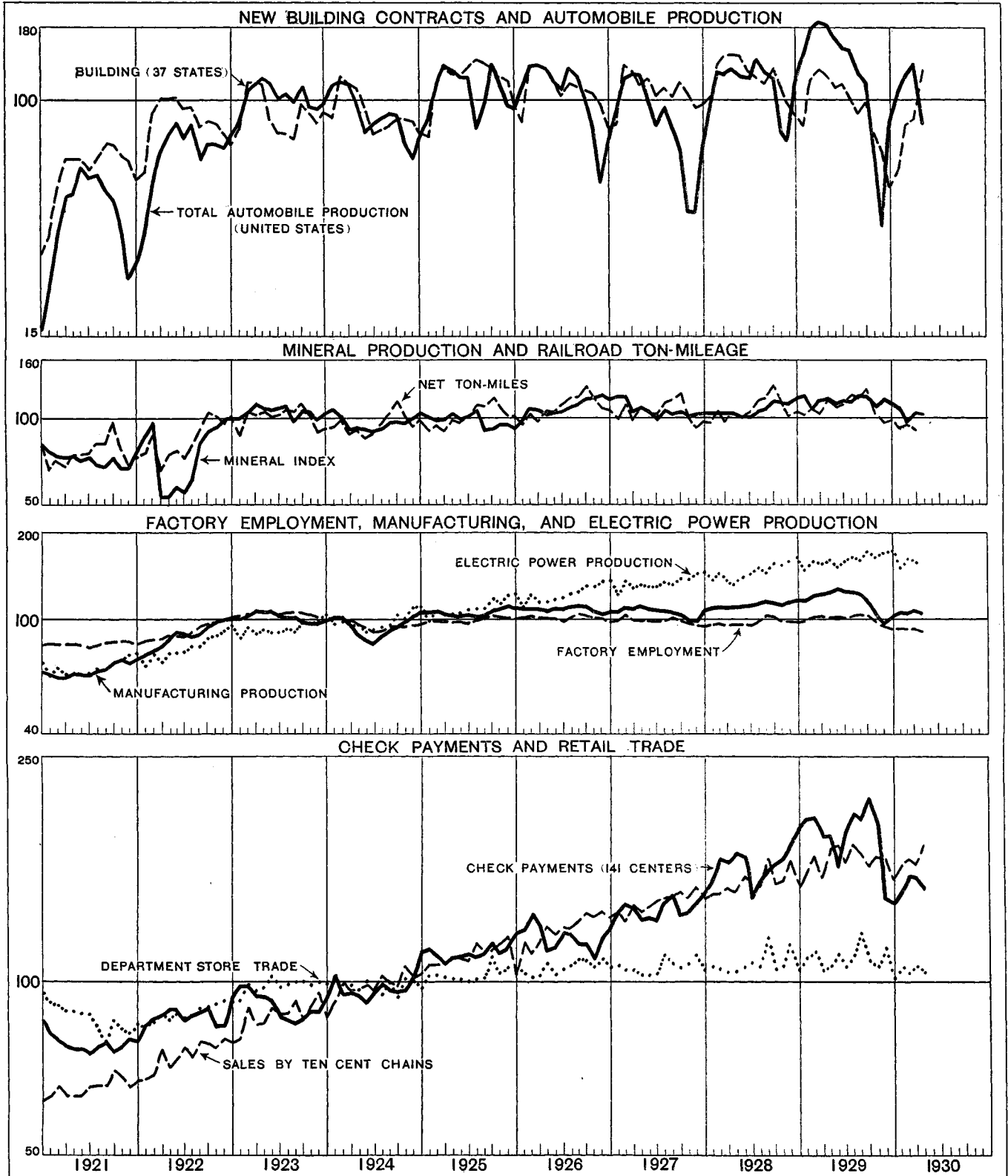
## WHOLESALE PRICES FOR SPECIFIED COMMODITIES

NOTE.—Prices to producer on farm products and market price of wool and grain prices are from U. S. Department of Agriculture, Bureau of Agriculture Economics, nonferrous metals from the *Engineering and Mining Journal-Press*, except tin, which is from the *American Metal Market*. All other prices are from U. S. Department of Labor, Bureau of Labor Statistics. So far as possible all quotations represent prices to producer or at mill.

COMMODITIES	Unit	ACTUAL PRICE (dollars)			RELATIVE PRICE					
		April, 1930	May, 1930	May, 1929	1926 average=100					
					March, 1930	April, 1930	May, 1930	April, 1929	May, 1929	
<b>FARM PRODUCTS—AVERAGE PRICE TO PRODUCER</b>										
Wheat.....	Bushel.....	0.934	0.875	0.901	68	69	65	74	67	
Corn.....	Bushel.....	.783	.777	.862	107	112	111	125	123	
Potatoes.....	Bushel.....	1.461	1.502	.593	74	79	81	30	32	
Cotton.....	Pound.....	.147	.145	.180	91	97	96	123	119	
Cottonseed.....	Ton.....	29.74	30.61	37.78	105	109	113	143	139	
Cattle, beef.....	Pound.....	.0865	.0836	.0972	136	134	129	148	151	
Hogs.....	Pound.....	.0917	.0899	.0980	81	78	76	86	84	
Lambs.....	Pound.....	.0902	.0892	.1231	83	78	77	116	111	
<b>FARM PRODUCTS—MARKET PRICE</b>										
Wheat, No. 1, northern spring (Minneapolis).....	Bushel.....	1.11	1.07	1.11	71	70	68	76	70	
Wheat, No. 2, red, winter (St. Louis).....	Bushel.....	1.17	1.14	1.17	76	76	74	81	76	
Wheat, No. 2, hard, winter (Kansas City).....	Bushel.....	1.01	.99	1.01	69	68	66	74	68	
Corn, No. 3, yellow (Chicago).....	Bushel.....	.82	.79	.87	107	109	105	120	116	
Oats, No. 3, white (Chicago).....	Bushel.....	.43	.41	.45	105	105	100	117	110	
Barley, No. 2 (Minneapolis).....	Bushel.....	.56	.55	.60	86	88	86	102	94	
Rye, No. 2 (Minneapolis).....	Bushel.....	.68	.65	.85	72	74	71	97	92	
Cotton, middling upland (New York).....	Pound.....	.163	.164	.195	86	93	94	115	111	
Wool, 1/4 blood combing, Ohio and Pennsylvania fleeces (Boston).....	Pound.....	.31	.29	.43	72	67	63	107	94	
Cattle, steers, good to choice, corn fed (Chicago).....	Cwt.....	12.563	11.563	13.438	134	132	121	146	141	
Hogs, heavy (Chicago).....	Cwt.....	9.975	10.019	10.750	80	81	81	93	87	
Sheep, ewes (Chicago).....	Cwt.....	5.125	4.781	5.906	78	78	73	139	90	
Sheep, lambs (Chicago).....	Cwt.....	8.938	0.044	12.781	71	65	66	120	93	
<b>FOOD</b>										
Flour, standard patents (Minneapolis).....	Barrel.....	6.090	5.969	6.119	74	72	71	76	73	
Flour, winter straights (Kansas City).....	Barrel.....	5.400	5.270	5.213	73	70	73	77	72	
Sugar, 96° centrifugal (New York).....	Pound.....	.035	.032	.036	82	80	74	84	82	
Sugar, granulated, in barrels (New York).....	Pound.....	.048	.048	.049	89	88	87	88	89	
Cottonseed oil, prime yellow (New York).....	Pound.....	.087	.088	.097	71	74	74	86	82	
Beef, fresh, carcass, good native steers (Chicago).....	Pound.....	.239	.215	.236	146	145	131	136	140	
Beef, fresh, carcass, steers (New York).....	Pound.....	.220	.220	.231	126	129	129	132	135	
Pork, smoked hams (Chicago).....	Pound.....	.229	.228	.249	79	74	74	81	81	
Butter, creamery, 92 score (New York).....	Pound.....	.39	.35	.44	82	87	78	100	98	
Oleomargarine, standard, uncolored (Chicago).....	Pound.....	.235	.235	.235	103	103	103	103	103	
<b>TEXTILES</b>										
Cotton yarns, carded, white, northern, mule spun, 22-1-cones (Boston).....	Pound.....	.302	.290	.353	83	84	81	101	99	
Cotton-print cloth 64 x 60-38 1/2"-5.35"-yards to pound.....	Yard.....	.061	.061	.073	82	81	80	100	97	
Cotton sheeting, brown 4/4 Trion (New York).....	Yard.....	.076	.078	1.507	84	82	84	96	94	
Worsted yarns, 2/32's cross-bred stock, white, in skein (Boston).....	Pound.....	1.250	1.225	1.500	91	87	85	108	105	
Women's dress goods, French, 39 inches, at mills, serge.....	Yard.....	.900	.900	.975	90	87	87	94	94	
Suitings, unfinished worsted—13-ounce, mill.....	Yard.....	1.756	1.756	2.008	88	88	88	100	100	
Suitings, serge, 11-ounce, 56-58 inch.....	Yard.....	1.843	1.843	1.959	85	85	85	90	90	
Silk, Japan, 13-15.....	Pound.....	4.186	3.940	4.777	73	68	64	83	77	
Hosiery, women's pure silk, mill.....	Dozen pair.....	8.500	8.500	9.500	73	73	73	82	82	
<b>LEATHER</b>										
Hides, green salted, packers' heavy native steers (Chicago).....	Pound.....	.140	.143	.149	101	100	102	107	106	
Hides, calfskins, No. 1, country, 8 to 15 pounds (Chicago).....	Pound.....	.159	.169	.179	90	91	97	108	103	
Leather, sole, oak, scoured backs, heavy (Boston).....	Pound.....	.470	.460	.490	112	107	105	112	112	
Boots and shoes, men's black calf, blucher (Massachusetts).....	Fair.....	6.750	6.750	6.750	106	106	106	106	106	
Boots and shoes, men's dress welt tan calf oxford (St. Louis).....	Fair.....	4.850	4.850	4.850	100	100	100	100	100	
<b>FUEL</b>										
Coal, bituminous, mine-run (composite price).....	Net ton.....	3.901	3.902	3.908	91	90	90	91	91	
Coal, bituminous, prepared sizes (composite price).....	Net ton.....	4.083	4.071	4.124	90	85	85	86	86	
Coal, anthracite, chestnut (composite price).....	Long ton.....	12.887	12.474	12.539	95	94	91	92	91	
Coke, Connellsville (range of prompt and future), furnace—at ovens.....	Short ton.....	2.600	2.525	2.800	63	63	62	68	68	
Petroleum, crude, Kansas-Oklahoma—at wells.....	Barrel.....	1.163	1.178	1.158	59	62	63	59	61	
<b>METALS</b>										
Pig iron, foundry No. 2, northern (Pittsburgh).....	Long ton.....	20.260	20.260	20.260	98	98	98	96	98	
Pig iron, basic, valley furnace.....	Long ton.....	18.500	18.500	18.375	100	100	100	97	99	
Steel billets, Bessemer (Pittsburgh).....	Long ton.....	33.000	32.500	36.000	94	94	93	99	103	
Copper ingots, electrolytic, early delivery (New York).....	Pound.....	.1562	.1276	.1778	129	113	93	141	129	
Brass, sheets, mill.....	Pound.....	.218	.198	.233	122	115	104	128	122	
Lead, pig, desilverized, for early delivery (New York).....	Pound.....	.0543	.0552	.0700	67	65	66	85	83	
Tin, straits (New York).....	Pound.....	.3607	.3213	.4392	56	55	49	70	67	
Zinc, slab, western (St. Louis).....	Pound.....	.0484	.0464	.0662	67	66	63	91	90	
<b>BUILDING MATERIAL AND MISCELLANEOUS</b>										
Lumber, pine, southern, yellow flooring, mill.....	M feet.....	36.390	36.530	37.000	83	81	81	83	82	
Brick, common red, domestic building (New York).....	Thousand.....	11.250	10.500	11.500	67	68	64	70	70	
Cement, Portland, net without bags to trade, f. o. b. plant (Chicago district).....	Barrel.....	1.617	1.617	1.650	93	93	93	95	95	
Steel beams, mill (Pittsburgh).....	Cwt.....	1.800	1.800	1.950	92	92	92	97	100	
Rubber, smoked sheets (New York).....	Pound.....	.150	.142	.214	32	31	29	44	44	
Sulphuric acid, 66° (New York).....	Ton.....	15.500	15.500	15.500	107	107	107	107	107	
Newsprint, rolls, contract, mill.....	Cwt.....	3.250	3.250	3.250	94	94	94	94	94	

## MEASURES OF INDUSTRIAL AND COMMERCIAL ACTIVITY

[Relative numbers, monthly average 1923-1925, taken as 100]





## REVIEW OF PRINCIPAL BRANCHES OF INDUSTRY AND COMMERCE

### TEXTILES

Receipts of foreign and domestic wool at Boston during May showed seasonal increases over the month of April and May, 1929. Consumption of wool by textile mills registered declines when compared with the preceding month and a year ago. Machinery activity, in woolen mills was generally higher than during the preceding month but lower than during May, 1929. Imports of wool into the United States decreased from both comparative periods. Prices for raw wool at Boston showed but slight changes from the month of April, while the price for worsted yarns declined slightly.

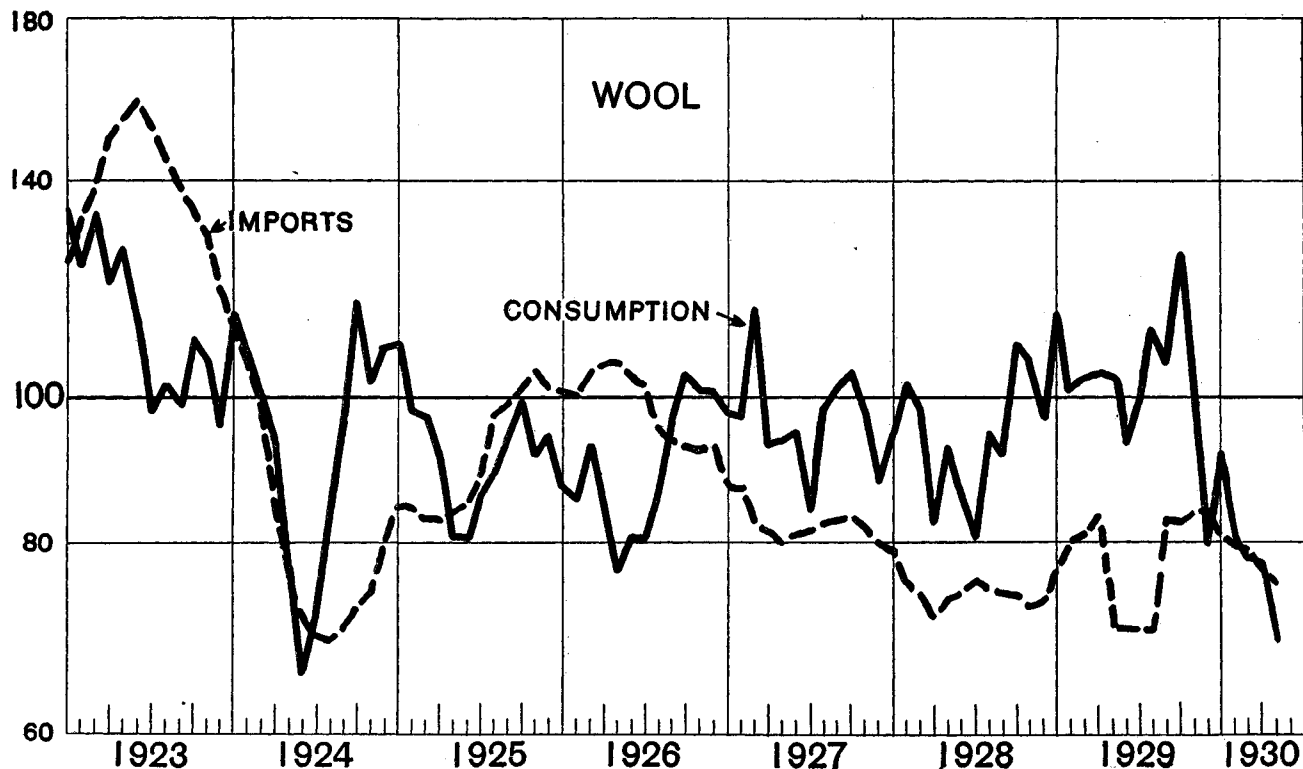
The consumption of cotton by domestic mills showed declines from the preceding month and a year ago; exports receded seasonally from the month of April

Imports of raw silk from foreign producing center during May showed marked declines from the preceding month and the corresponding period a year ago. Deliveries of silk to consuming mills were likewise smaller than during either comparative period. Stocks at warehouses and manufacturing plants, reflecting smaller imports, were less than at the end of the preceding month, or May, 1929. The activity of silk spindles and broad and narrow looms declined seasonally from the month of April and was considerably below the activity of a year ago.

Rayon imports were less in May than in April and were 69 per cent lower than a year ago. Wholesale prices at New York, while showing no change from the previous month, were lower than a year ago. Shipments of

### WOOL CONSUMPTION AND IMPORTS

[Relative numbers, monthly average 1923-1925 taken as 100. Curve covering imports of wool is plotted from 12 months' moving monthly average plotted on the end month]



and were 33 per cent lower than a year ago. Stocks of cotton at mills and warehouses at the end of May, while less than at the end of April, were substantially greater than a year ago.

Cotton machinery activity showed a slight decline when compared with the month of April, and was 8 per cent less than the month of May, 1929. The production of cotton textiles during the month of May was 7 per cent greater than the preceding month, but lower than the same period in 1929. Stocks of cotton goods held at the end of May were 1 per cent larger than the preceding month and 23 per cent more than a year ago.

pyroxylin-coated textiles registered declines from April and May, 1929. Shipments of elastic webbing, while showing but slight change from the preceding period, were considerably lower than a year ago. The imports of unmanufactured fibers and burlaps from foreign countries were lower than both comparative periods.

The production of fresh-water pearl buttons during May, while showing but slight change from last month, was considerably lower than the month of May, 1929. Stocks of buttons held at the end of May were smaller than those held at the end of the previous month and also showed a decline from a year ago.

## METALS

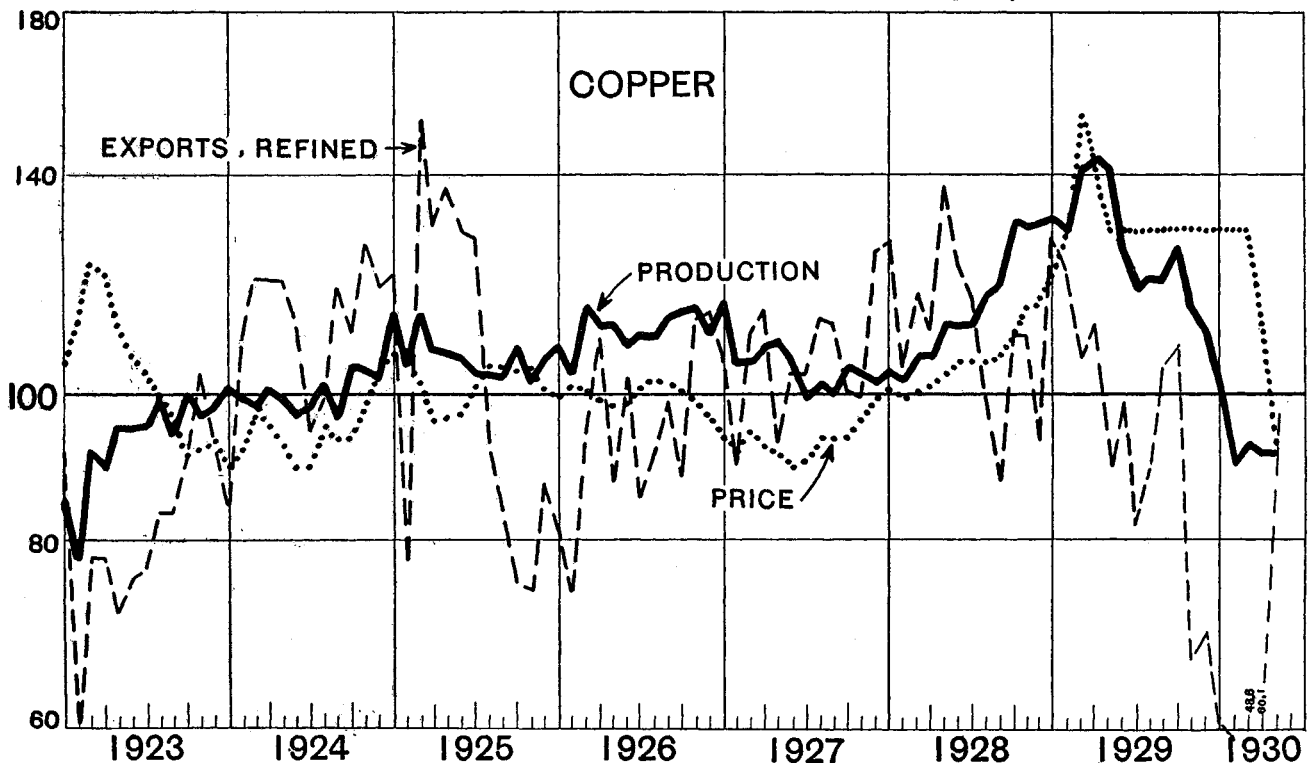
The production of pig iron in May was nearly 2 per cent greater than the preceding month and was 17 per cent below the level of May, 1929. Fewer furnaces were in blast at the end of May than at the end of April, 1930, and May last year. The daily capacity of these furnaces likewise declined from both comparative periods.

Steel-ingot production in the United States during May showed a decline of 3 per cent from the preceding month and 24 per cent from a year ago. Canadian production of steel during May also showed similar declines. Unfilled orders of the United States Steel

from both prior periods. New orders for steel and malleable castings were lower than during the previous month and May, 1929. New orders for fabricated steel plate for use in oil storage tanks showed an increase of 23 per cent over orders placed during April, but were 9 per cent lower than a year ago. The output of steel barrels, although registering losses when compared with the preceding month and May last year, showed a gain of 5 per cent for the first five months of 1930 over the corresponding period of 1929. New orders for steel boilers recorded gains of 26 per cent in number of units and 24 per cent in area over April but declined from last year. New orders for wood-

## COPPER PRODUCTION, EXPORTS, AND STOCKS

[Relative numbers, monthly average 1923-1925=100. May, 1930, is latest month plotted]



Corporation registered declines of 7 per cent from April and 6 per cent from May, 1929.

The output of steel sheets fell off 11 per cent from April and was materially below the production of May, 1929. The ratio of capacity to production also showed a decline. Total stocks of sheets held at the end of May declined slightly from those held at the end of April, but were 22 per cent greater than a year ago. Unsold stocks on the other hand registered marked gains over both comparative periods. New and unfilled orders for steel sheets registered losses when compared with the preceding period and May, 1929. Wholesale prices for steel and steel products declined but slightly from April, and were in each case more than 7 per cent below the prices of a year ago.

The production of steel castings recorded decrease of 7 per cent from April and 19 per cent from last May. The output of malleable castings also showed declines

working machinery were 9 per cent greater than in April but were below those of May, 1929. Exports of electrical trucks and tractors were much greater than both comparative periods. The shipments of oil burners in May, representing gains in this new type of heating appliance, were greater than during April and a year ago. The gain in shipments for the first five months of 1930 as compared with a similar period of 1929 was 5 per cent.

The production of mine and smelter copper in May, although but slightly less than in April, was well below the level of a year ago. The output of refined copper in North and South America registered an increase of 6 per cent over the preceding month and was 18 per cent lower than the same period in 1929. Exports of copper recorded gains of 62 per cent over April and 9 per cent over May, last year. Deliveries of tin showed declines from both comparative periods. May production of both lead and zinc was greater than a month ago.

### FUELS

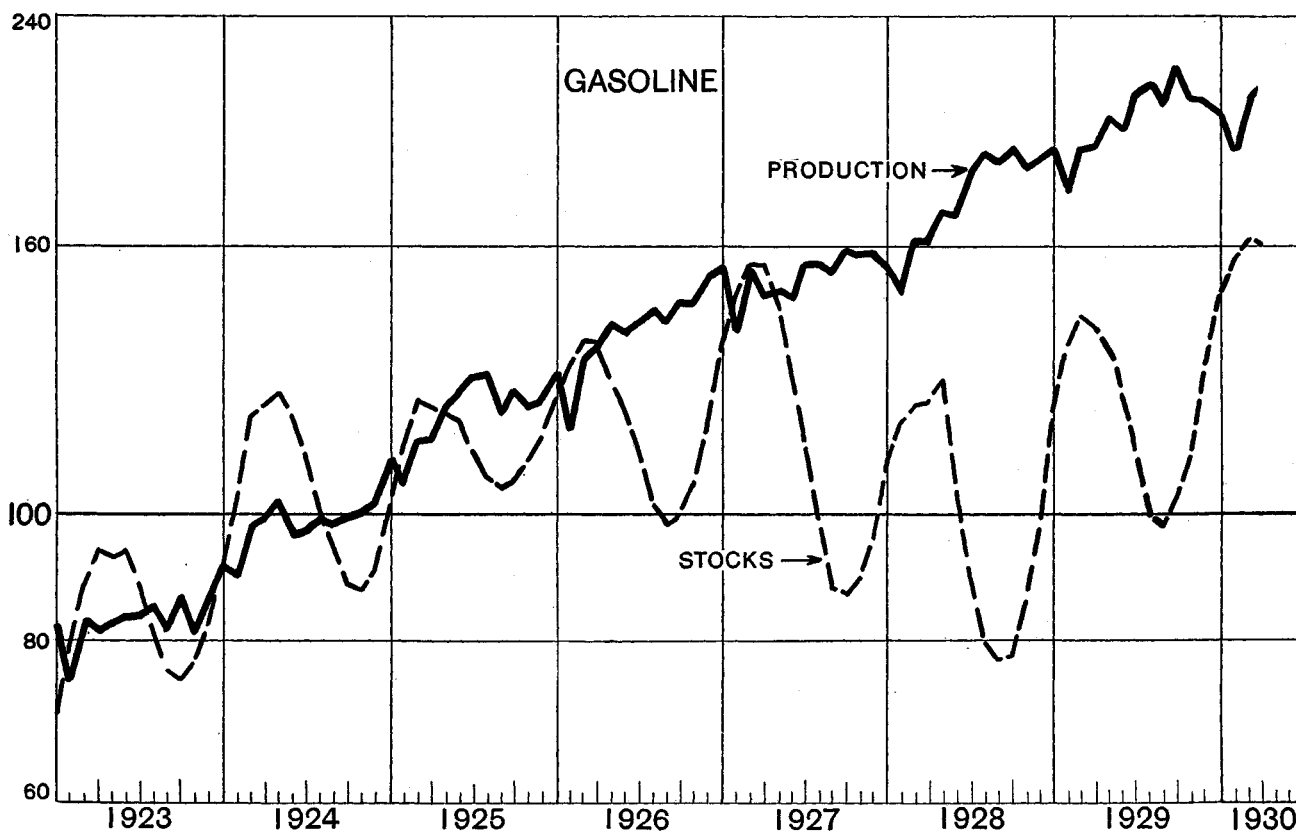
The production of bituminous coal in May showed a slight gain over the month of April and was 12 per cent lower than a year ago. Anthracite production, however, although registering an increase of 21 per cent over the preceding month, was 6 per cent lower than the month of May, 1929. Average prices of coal showed but slight change from last month and a year ago. The production of beehive coke in May registered declines from both prior periods. By-product coke output on the other hand, while showing a slight increase over April, was well below the level

### HIDES AND LEATHER

Imports of hides and skins during May showed an increase of 8 per cent over the preceding month and were well above the level of last year. The production of sole and belting leather was also greater than either prior period. Exports of finished leather registered a gain over the preceding month but was materially lower than a year ago. Prices of leather during May were generally lower than both corresponding periods. Production of shoes declined seasonally from April and was lower than the corresponding period in 1929. Exports increased 10 per cent

### PRODUCTION AND STOCKS OF GASOLINE

[Relative numbers, monthly average 1923-1925 taken as 100. April, 1930, is latest month plotted]



of a year ago. The wholesale price of coke at Connellsville, Pa., registered a decline in May of 3 per cent from the preceding month and 10 per cent from a year ago.

### AUTOMOBILES AND RUBBER

The output of automobiles, including passenger cars, trucks, and taxicabs, declined seasonally from the preceding month and was 31 per cent lower than a year ago. The Canadian output in contrast with that of the United States showed an increase in total production of 2 per cent over the month of April and a decrease of 22 per cent from May, 1929. The production of tires and tubes showed but slight change when compared with a month ago but was considerably below that of May, 1929.

over April and were 9 per cent less than last year. The wholesale prices for shoes remained unchanged from the level of last month and May, a year ago.

### PAPER AND PRINTING

Imports of wood pulp in most instances were smaller than during the previous month and a year ago. The domestic production of newsprint, although showing an increase of 7 per cent over the month of April, was 4 per cent lower than May, 1929. Canadian production although greater than the preceding period was lower than a year ago. Stocks of newsprint, at the end of May, were greater than at the end of both corresponding periods. Canadian stocks at the end of May, although 3 per cent less than the preceding month, were considerably greater than a year ago. Stocks held by publishers exceeded those held at the end of April and a year ago.



## BUILDING AND CONSTRUCTION

New building construction during May, as measured by the number of contracts awarded, was greater than the preceding month but less than during May, 1929. Building costs were generally the same as during April and a year ago.

## LUMBER AND BUILDING EQUIPMENT

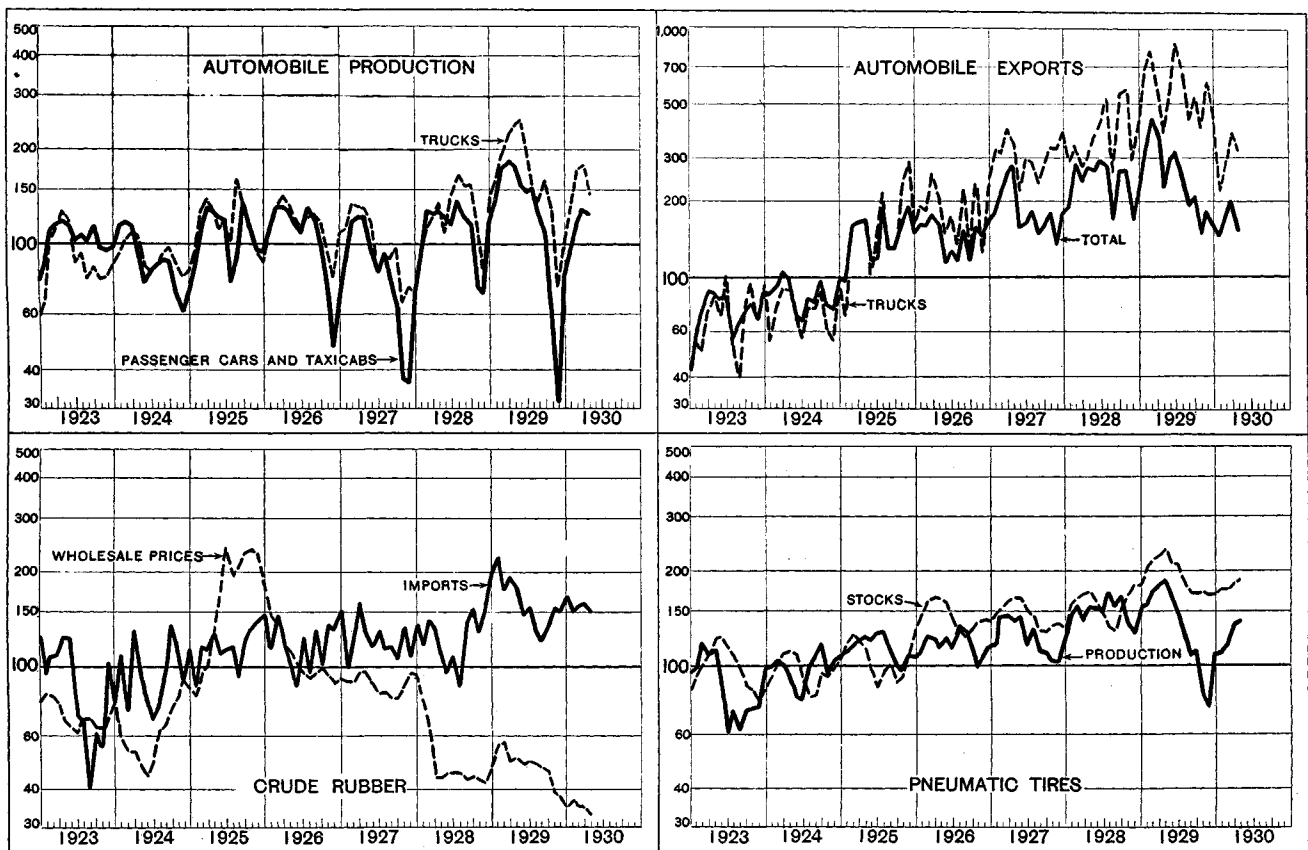
The production of lumber declined seasonally from the month of April and was less than the corresponding period of 1929. The output of northern pine, although slightly above last month's level, fell off from a year ago.

preceding period and 3 per cent above the level of a year ago. Stocks at mills at the end of May, while showing but slight change from a month ago, were 4 per cent greater than last year. Wholesale prices of cement in barrels, although remaining unchanged from the preceding period, were lower than during May, 1929.

Shipments of common brick were substantially lower than during the previous month and a year ago. Stocks and unfilled orders were less than at the end of either prior period. New orders and shipments of sanitary ware were generally lower than during either the preceding period or May, 1929. Unfilled orders, fol-

## THE AUTOMOBILE AND RUBBER INDUSTRIES

[Relative numbers, monthly average 1923-1925 taken as 100. Where available, May, 1930, is latest month plotted]



Exports of southern pine lumber showed a slight increase over the preceding month while the exports of timber fell off. The production, stocks, and shipments of walnut lumber during May all receded from the levels of the preceding month and were materially below last year. Unfilled orders still maintained their levels of a month ago. Prices for representative types of flooring and boards showed declines from both comparative periods.

## STONE, CLAY, AND GLASS PRODUCTS

Cement production during May, reflecting increased building and road construction, registered an increase of 28 per cent over April and 7 per cent over May, 1929. Movement of cement into consumption as shown by shipments was 29 per cent greater than the

lowing the trends of shipments and new orders, declined from both prior periods.

New orders for vitreous chinaware were 5 per cent more than the preceding month and were considerably less than May, 1929. Shipments and unfilled orders showed declines from both comparative periods. Stocks, on the other hand, although showing a recession from the preceding month, were 15 per cent greater than the corresponding period a year ago.

New orders for terra cotta were considerably smaller, both in tonnage and valuation, than during either the previous month or the corresponding month of 1929. The production of plate glass registered an increase of 10 per cent over April but was 2 per cent lower than last year.

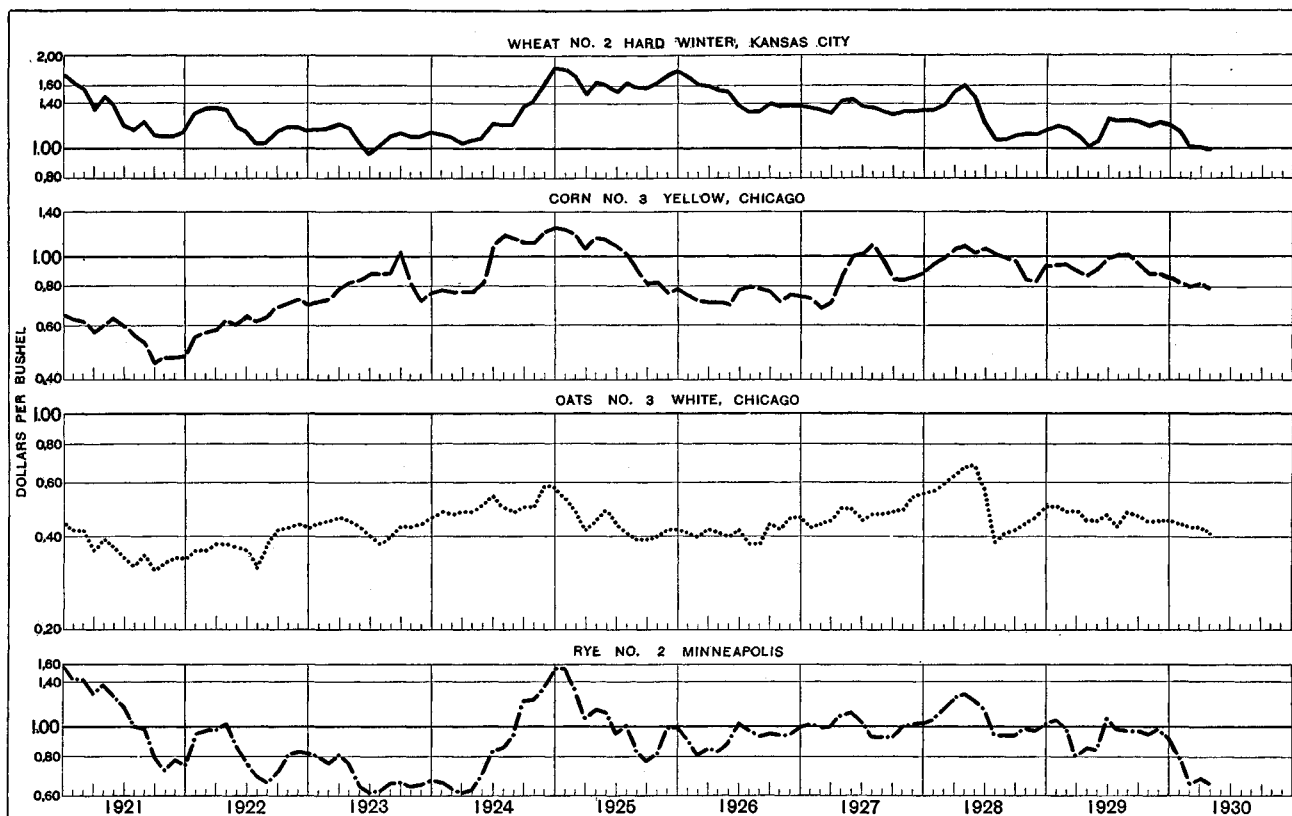
## FOODSTUFFS AND TOBACCO

The visible supply of wheat, both in the United States and Canada, declined seasonally from the month of April but was considerably greater than May, 1929. Receipts at principal markets during May were 23 per cent greater than the preceding month and 11 per cent lower than the corresponding period a year ago. Shipments to consuming centers showed a marked gain over April and were 2 per cent larger than in 1929. Exports of wheat and flour from the United States were substantially larger than during April, but were lower than last year. Wheat prices at various

The production of creamery butter during May showed a gain of 39 per cent over April and 8 per cent over May, 1929. Cold-storage holdings also showed upward trends. Wholesale prices of butter at New York declined from both comparative periods. Receipts of all types of cheese at important markets, although greater than the preceding month, were lower than the corresponding period a year ago. Cold storage holdings at the end of May were substantially larger than at the end of either comparative period. Holdings of eggs at storage plants were larger than at the end of April of last year. Imports of sugar were

## MOVEMENT OF GRAIN PRICES

[Weighted price per bushel. May, 1930, is latest month plotted]



centers were generally lower than the preceding month and May, 1929.

The visible supply of corn registered declines from April and a year ago. Receipts and shipments at various centers showed marked gains over the month of May last year. The receipts of barley and rye increased seasonally over both prior periods.

The movement of cattle and calves at primary markets declined from the month of May, last year. Hog shipments were less than the preceding month, and a year ago. Cold-storage holdings of pork products were 25 per cent lower than May, 1929. The receipts of sheep and lambs at principal centers during May, showing an upward seasonal trend, were greater than during April, 1930, and May, 1929. Shipments also showed similar trends. The prices for meat animals were generally lower than last month and a year ago.

seasonally larger than April and May a year ago. Meltings at eight ports also were larger than either prior period. For the first five months of the year shipments of raw sugar from Hawaii and Porto Rico were 24 per cent larger than a year ago. Stocks of sugar at the end of May, reflecting increased imports, were greater than the preceding month.

Imports of coffee, although less than the preceding month, were 6 per cent greater than a year ago. The imports of tea declined from both prior periods. Prices for tea and coffee showed losses from a year ago.

The consumption of cigarettes during May showed an increase of 8 per cent over April; large cigars and manufactured snuff also showed gains. As compared with a year ago the consumption of all lines of tobacco products was less. Exports of unmanufactured tobacco and small cigarettes during May were lower than during May, 1929.

### TRANSPORTATION

Freight car loadings during May showed a decline of 11 per cent from May, 1929. For the first five months of 1930, total carloadings recorded a decline of 9 per cent from the same period of a year ago. Clearances of vessels engaged in foreign trade showed increases over the preceding month and May, 1929. Commerce on the Ohio and Monongahela Rivers, although showing increases over April, was less than last year. As a whole, traffic on rivers was less than last year. Orders for locomotives were greater than the preceding month and a year ago. Orders for new freight cars declined from both prior periods.

### DISTRIBUTION

Sales by mail-order houses showed substantial increases over both the preceding month and May last year.

The volume of business transacted by the leading 10-cent chains was 2 per cent greater than the month of April. Business by these establishments for the first five months of 1930 was slightly higher than the corresponding period of 1929. Magazine advertising as measured by the lineage of leading magazines showed a decline of 4 per cent from the previous month and 3 per cent from May, 1929. Newspaper advertising also registered declines from prior periods. Postal receipts in principal selected and industrial cities showed slight declines from the month of April and last year.

### BANKING AND FINANCE

Bank loans and discounts of the Federal reserve member banks at the end of May, although declining from April, were 4 per cent larger than a year ago. The Federal reserve ratio registered gains over both comparative periods. Interest rates during May were generally lower than during April and the corresponding period a year ago.

Dividend and interest payments during May declined from the amount during April, but were 16 per cent greater than a year ago. Prices for representative industrial stocks were lower than both prior periods. Bond prices on the other hand, although showing no change from the preceding month, were 2 per cent higher than a year ago.

New sales of ordinary life insurance showed a seasonal decline from April and were 5 per cent lower than May, 1929.

### GOLD, SILVER, AND FOREIGN EXCHANGE

Receipts of domestic gold at the mint during May were 14 per cent less than during April and 9 per cent greater than a year ago. The total receipts for the year to date showed a gain of 22 per cent over the corresponding period of 1929. The Rand production of gold during May showed an increase over the preceding month and May, 1929. Gold imports of bullion and coin recorded declines from both comparative periods.

Silver production in the United States registered declines from a month ago and May, 1929. Imports of silver showed losses from April and a year ago. Exports, on the other hand, although registering an increase of 7 per cent over last month, declined from last year. The price of silver at New York declined from both prior periods.

Rates for foreign exchange in May were generally the same as in the preceding month and the corresponding period of 1929, the only exception being the rates with Brazil, which showed a slight increase. As compared with May a year ago rates with England, Belgium, Sweden, Switzerland, Japan, Canada, and Chile showed increases while rates with Argentina, India, and Brazil declined. Rates of exchange with France, Italy, and the Netherlands showed no change from the preceding month and May, 1929.



## INDEXES OF BUSINESS

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

Relative to 1923-1925 monthly average as 100	Minimum since Jan. 1, 1923	Maximum since Jan. 1, 1923	1928		1929		1930		PER CENT INCREASE (+) OR DECREASE (-) OF MAY, 1930, FROM—		
			April	May	April	May	April	May	April, 1930	May, 1929	May, 1928
<b>PRODUCTION</b>											
<b>TOTAL INDUSTRIAL</b>											
Unadjusted, except for working days.....	125	81	110	110	123	125	107	105	-1.9	-16.0	-4.5
Adjusted for seasonal variations.....	124	83	109	109	122	124	106	104	-1.9	-16.1	-4.6
<b>MANUFACTURING</b>											
Total (adjusted for working days only)....	127	79	113	111	127	127	110	105	-4.5	-17.3	-5.4
Total (adjusted for seasonal variations)....	128	82	110	109	123	125	107	104	-2.8	-16.8	-4.6
Iron and steel.....	155	59	122	116	135	145	114	111	-2.6	-23.4	-4.3
Textiles.....	121	77	101	107	120	121	96	91	-5.2	-24.8	-----
Food products.....	110	90	98	96	102	97	97	98	+1.0	+1.0	-----
Paper and printing.....	128	91	115	117	124	127	121	-----	-----	-----	-----
Lumber.....	110	78	95	93	86	83	-----	-----	-----	-----	-----
Automobiles.....	166	47	105	104	153	148	109	104	-4.6	-29.7	0.0
Leather and shoes.....	134	86	97	96	97	101	98	94	-4.1	-6.9	-2.1
Cement.....	99	126	108	119	110	111	108	119	+10.2	+7.2	0.0
Nonferrous metals.....	137	87	111	111	137	137	105	101	-3.8	-26.3	-9.0
Petroleum refining.....	178	84	147	149	165	168	174	-----	-----	-----	-----
Rubber tires.....	169	66	133	133	161	158	122	-----	-----	-----	-----
Tobacco manufactures.....	143	93	120	120	142	142	136	134	-1.5	-5.6	+11.7
<b>MINERALS</b>											
Total (adjusted for working days only)....	128	84	94	104	104	116	93	102	+9.7	-12.1	-1.9
Total (adjusted for seasonal variations)....	120	90	105	105	115	116	104	103	-1.0	-11.2	-1.9
Bituminous coal.....	125	77	92	94	100	104	97	92	-5.2	-11.5	-2.1
Anthracite coal.....	133	1	105	110	95	86	73	81	+11.0	-5.8	-26.4
Crude petroleum.....	147	88	119	119	132	134	128	128	0.0	-4.5	+7.6
Iron-ore shipments.....	143	0	-----	80	-----	143	-----	104	-----	-27.3	+30.0
Copper.....	139	82	104	110	141	139	90	90	0.0	-35.3	-18.2
Zinc.....	127	91	113	113	116	120	91	93	+2.2	-22.5	-17.7
Lead.....	125	75	109	101	122	122	105	-----	-----	-----	-----
Silver.....	123	81	89	85	103	93	88	81	-8.0	-21.4	-4.7
<b>ANIMAL PRODUCTS (Marketings)</b>											
Total.....	124	79	95	108	100	109	101	110	+8.9	+0.9	+1.9
Wool.....	421	14	61	195	49	121	64	143	+123.4	+18.2	-26.7
Livestock.....	131	76	83	90	87	84	83	81	-2.4	-6.6	-10.0
Poultry and eggs.....	148	67	130	139	141	131	144	138	-4.2	+5.3	-.7
Dairy products.....	160	64	101	115	103	134	107	135	+26.2	+7.7	+17.4
Fish.....	283	44	137	156	164	161	207	192	-7.2	+19.3	+23.1
<b>CROPS (Marketings)</b>											
Total.....	252	45	59	72	57	51	51	56	+9.8	+9.8	-22.2
Grains *.....	218	38	66	84	59	53	59	62	+5.1	+17.0	-26.2
Vegetables *.....	199	60	91	136	104	118	95	137	+44.2	+16.1	+7.7
Fruits *.....	266	43	47	94	86	111	56	72	+28.6	-35.3	-23.4
Cotton products *.....	373	11	59	57	46	27	39	29	-25.6	+7.4	-49.1
Miscellaneous crops *.....	344	18	25	24	33	23	44	52	+18.2	+126.1	+116.7

\* 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	Maximum since Jan. 1, 1923	Maximum since Jan. 1, 1923	1928		1929		1930		PER CENT INCREASE (+) OR DECREASE (-) OF MAY, 1930, FROM—		
			April	May	April	May	April	May	April, 1930	May, 1929	May, 1928
<b>PRODUCTION—Continued</b>											
<b>FOREST PRODUCTS</b>											
Total.....	112	62	96	101	92	99	79	80	+1.3	-19.2	-20.8
Lumber.....	112	59	95	98	87	94	72	72	0.0	-23.4	-26.5
Pulpwood.....	151	54	111	120	127	132	136	138	+1.5	+4.5	+15.0
Gum (rosin and turpentine)*.....	204	18	77	140	115	158	101	175	+73.3	+10.8	+25.0
Distilled wood.....	148	65	91	85	106	110	88	77	-12.5	-30.0	-9.4
<b>NEW ORDERS</b>											
Total.....	138	72	99	104	102	106	67	72	+7.5	-32.1	-30.8
Textiles.....	179	70	87	94	107	103	75	75	0.0	-27.2	-20.2
Iron and steel.....	143	71	118	116	147	127	104	97	-6.7	-23.6	-16.4
Lumber.....	141	50	100	113	84	100	50	53	+6.0	-47.0	-53.1
Paper and printing.....	118	85	108	104	117	112	109	105	-3.7	-6.3	+1.0
Stone and clay products.....	129	73	94	94	101	106	80	85	+6.2	-19.8	-10.6
<b>STOCKS</b>											
Grand total.....	158	82	123	117	130	123	135	128	-5.2	+4.1	+9.4
Total manufactured goods.....	125	88	119	121	122	121	124	118	-4.8	-2.5	-2.5
Foodstuffs.....	136	79	103	103	109	110	101	104	+3.0	-5.5	+1.0
Textiles.....	138	78	138	137	120	116	136	123	-9.6	+6.0	-10.2
Iron and steel.....	158	78	147	147	147	142	152	153	+0.7	+7.7	+4.1
Nonferrous metals.....	194	74	116	118	114	115	189	194	+2.6	+68.7	+64.4
Lumber.....	125	78	104	109	102	101	111	84	-24.3	-16.8	-22.9
Stone, clay, etc.....	192	64	167	155	182	181	188	188	0.0	+3.9	+21.3
Leather.....	123	66	67	69	72	71	75	75	0.0	+5.6	+8.7
Rubber.....	199	77	162	170	191	199	155	158	+1.9	-20.6	-7.1
Paper.....	156	46	129	142	104	99	94	107	+13.8	+8.1	-24.6
Chemicals and oils.....	137	84	118	111	129	123	135	131	-3.0	+6.5	+18.0
Total raw materials.....	186	69	125	114	136	124	142	135	-4.9	+8.9	+18.4
Foodstuffs.....	230	68	154	141	187	171	175	171	-2.3	0.0	+21.3
Textiles.....	204	43	114	98	108	92	139	123	-11.5	+33.7	+25.5
Metals.....	136	54	75	82	68	80	92	102	+10.9	+27.5	+24.4
Chemicals and oils.....	153	73	101	95	99	96	100	97	-3.0	+1.0	+2.1
<b>UNFILLED ORDERS</b>											
Total.....	167	67	77	74	93	89	78	75	-3.8	-15.7	+1.4
Textiles.....	154	42	71	72	84	78	44	42	-4.5	-46.2	-41.7
Iron and steel.....	157	66	82	72	92	87	87	80	-8.4	-8.4	+11.1
Transportation equipment.....	204	49	73	73	104	96	112	108	-3.6	+10.2	+47.9
Lumber.....	142	56	70	79	102	104	74	75	+1.4	-27.9	-5.1
<b>RETAIL TRADE</b>											
Mail-order houses (2 houses).....	275	68	123	123	170	168	173	182	+5.2	+8.3	+48.0
<b>CHAIN STORES:</b>											
Ten-cent.....	308	62	135	139	142	166	159	162	+1.9	-2.4	+16.5
Restaurant.....	116	87	99	101	107	109	108	108	0.0	-0.9	+6.9
<b>DEPARTMENT STORES:</b>											
Sales.....	189	71	102	108	104	110	112	108	-3.6	-1.8	0.0
Stocks.....	117	83	106	102	103	101	101	98	-3.0	-3.0	-3.9
<b>COST OF LIVING</b>											
<b>National Industrial Conference Board Indexes</b>											
(Relative to July, 1914)											
All items weighted.....	172	156	161	162	159	159	158	156	-1.3	-1.9	-3.7
Food (Department of Labor).....	167	141	152	154	152	153	151	150	-0.7	-2.0	-2.6
Shelter.....	186	157	163	163	160	160	157	157	0.0	-1.9	-3.7
Clothing.....	177	158	171	171	168	167	162	158	-2.5	-5.4	-7.6
Fuel and light (combined).....	179	156	160	158	160	157	161	157	-2.5	0.0	-0.6
Fuel.....	208	174	179	176	180	175	182	175	-3.8	0.0	-0.6
Light.....	123	118	122	122	120	120	121	121	0.0	+0.8	-0.8
Sundries.....	176	167	171	171	170	168	167	167	0.0	-0.6	-2.3

\*Fluctuations between maximum and minimum due largely to seasonal conditions.

## INDEXES OF BUSINESS—Continued

Relative to monthly average indicated	Maximum since Jan. 1, 1923	Minimum since Jan. 1, 1923	1928		1929		1930		PER CENT INCREASE (+) OR DECREASE (-) OF MAY, 1930, FROM—		
			April	May	April	May	April	May	April, 1930	May, 1929	May, 1928
<b>EMPLOYMENT</b>											
(Relative to 1923-1925 monthly average as 100)											
Number employed, by industries:											
Total, all classes.....	106	90	96	96	102	102	92	90	-2.2	-11.8	-6.2
Iron and steel.....	108	88	95	96	100	101	93	93	0.0	-7.9	-3.1
Machinery.....	122	88	96	97	117	119	107	104	-2.8	-12.6	+7.2
Textiles.....	111	84	97	93	99	97	90	87	-3.3	-10.3	-6.5
Food products.....	109	93	96	96	96	97	94	95	+1.1	-2.1	-1.0
Paper and printing.....	107	96	100	101	103	103	103	102	-1.0	-1.0	+1.0
Lumber and products.....	104	73	88	87	88	89	74	73	-1.4	-18.0	-16.1
Transportation equipment—											
Group.....	110	81	90	92	102	102	84	84	0.0	-17.6	-8.7
Automobiles.....	131	79	105	111	131	130	94	95	+1.1	-26.9	-14.4
Leather and products.....	112	87	92	90	91	90	90	87	-3.3	-3.3	-3.3
Cement, clay, and glass.....	107	75	92	95	91	93	81	82	+1.2	-11.8	-13.7
Nonferrous metals.....	113	81	96	96	108	105	83	81	-2.4	-22.9	-15.6
Chemicals—											
Group.....	119	90	110	102	119	110	112	105	-6.3	-4.5	+2.9
Petroleum refining.....	125	95	99	99	112	114	116	114	-1.7	0.0	+15.2
Rubber products.....	117	84	106	105	114	115	89	88	-1.1	-23.5	-16.2
Tobacco products.....	109	84	91	92	91	90	88	89	+1.1	-1.1	-2.2
Amount of pay roll by industries:											
Total, all classes.....	112	85	100	101	111	111	97	94	-3.1	-15.3	-6.9
Iron and steel.....	114	77	100	102	111	112	98	96	-2.0	-14.3	-5.9
Machinery.....	132	83	102	104	130	114	113	108	-4.4	-18.2	+3.8
Textiles.....	111	77	95	92	103	99	89	83	-6.7	-16.2	-9.8
Food products.....	109	94	98	100	100	103	100	101	+1.0	-1.9	+1.0
Paper and printing.....	118	92	109	109	113	114	114	113	-0.9	-0.9	+3.7
Lumber and products.....	107	73	90	91	91	93	74	73	-1.4	-21.5	-19.8
Transportation equipment—											
Group.....	117	80	99	101	117	116	92	91	-1.1	-21.6	-9.9
Automobiles.....	152	66	119	124	152	147	101	102	+1.0	-30.6	-17.3
Leather and products.....	116	80	86	83	88	88	82	76	-7.3	-13.6	-8.4
Cement, clay, and glass.....	108	67	91	94	89	92	77	77	0.0	-16.3	-18.1
Nonferrous metals.....	128	81	102	105	127	123	88	84	-4.5	-31.7	-20.0
Chemicals—											
Group.....	118	90	109	103	118	113	111	107	-3.6	-5.3	+3.9
Petroleum refining.....	129	90	104	101	117	119	122	121	-0.8	+1.7	+18.6
Rubber products.....	150	82	113	109	124	126	95	95	0.0	-24.6	-12.8
Tobacco products.....	111	76	80	84	86	86	77	82	+6.5	-4.7	-2.4
<b>WHOLESALE PRICES</b>											
<b>Department of Labor Indexes</b>											
(Relative to 1926 monthly average as 100)											
All commodities.....	105	89	97	99	97	96	91	89	-2.2	-7.3	-10.1
Farm products.....	114	93	108	110	105	102	96	93	-3.1	-8.8	-15.5
Food, etc.....	107	85	100	101	98	98	95	92	-3.2	-6.1	-8.9
Hides and leather products.....	127	98	127	126	108	107	103	103	0.0	-3.7	-18.3
Textile products.....	114	85	97	97	96	94	86	85	-1.2	-9.6	-12.4
Fuel and lighting.....	112	77	81	82	81	81	78	78	0.0	-3.7	-4.9
Metals and metal products.....	113	97	98	99	106	105	99	97	-2.0	-7.6	-2.0
Building materials.....	116	90	93	94	98	97	95	93	-2.1	-4.1	-1.1
Chemicals.....	104	91	96	95	95	94	91	90	-1.1	-4.3	-5.3
House-furnishing goods.....	111	96	98	98	97	97	96	96	0.0	-1.0	-2.0
Miscellaneous.....	127	78	85	85	79	80	79	78	-1.3	-2.5	-8.2
Classified by condition of manufacture:											
Semimanufactured articles.....	128	84	98	99	97	95	88	84	-4.5	-11.6	-15.2
Finished products.....	103	91	96	97	97	96	92	91	-1.1	-5.2	-6.2
Raw materials.....	109	88	100	101	97	95	90	88	-2.2	-7.4	-12.9
Nonagricultural commodities.....	106	88	95	96	95	94	89	88	-1.1	-6.4	-8.3
<b>Commercial Indexes</b>											
(Relative to 1926 monthly average as 100)											
Dun's.....	106	85	106	104	100	99	94	93	-1.1	-6.1	-10.6
Bradstreet's.....	112	83	104	102	98	96	85	83	-2.4	-13.5	-18.6

## INDEXES OF BUSINESS—Continued

Relative to monthly average indicated	Maximum since Jan. 1, 1923	Minimum since Jan. 1, 1923	1928		1929		1930		PER CENT INCREASE (+) OR DECREASE (-) OF MAY, 1930, FROM—		
			April	May	April	May	April	May	April, 1930	May, 1929	May, 1928
<b>PRICE INDEX NUMBERS</b>											
<b>FARM PRICES</b>											
(Relative to 1909-1914 average as 100)											
All groups.....	152	124	140	148	138	136	127	124	-2.4	-8.8	-16.2
Grains.....	178	105	144	160	120	113	110	105	-4.5	-7.1	-34.4
Fruits and vegetables.....	253	108	179	181	110	119	187	193	+3.2	+62.2	+6.6
Meat animals.....	167	98	142	151	164	164	146	142	-2.7	-13.4	-6.0
Dairy and poultry.....	166	120	134	134	138	137	124	120	-3.2	-12.4	-10.4
Cotton and cottonseed.....	252	81	154	166	152	148	120	119	-0.8	-19.6	-28.3
Unclassified.....	108	78	85	86	88	86	78	78	0.0	-9.3	-9.3

SALES OF THE GREAT ATLANTIC & PACIFIC TEA CO.<sup>1</sup>

YEAR AND MONTH	SALES (Thousands of dollars)			TONNAGE SALES		YEAR AND MONTH	SALES (Thousands of dollars)			TONNAGE SALES	
	Total	Number of weeks	Weekly average	Total	Weekly average		Total	Number of weeks	Weekly average	Total	Weekly average
<b>1928</b>											
September.....	\$69,336	4	\$17,334	309,451	77,363	September.....	\$75,246	4	\$18,811	336,309	84,077
October.....	93,429	5	18,686	419,079	83,816	October.....	105,995	5	21,199	472,644	94,529
November.....	73,844	4	18,461	338,704	84,676	November.....	83,714	4	20,928	381,106	95,276
December.....	74,911	4	18,728	345,595	86,399	December.....	87,260	4	21,815	407,339	101,835
<b>1929</b>											
January.....	91,983	5	18,397	425,590	85,118	January.....	104,271	5	20,854	492,425	98,485
February.....	85,846	4	21,462	396,225	99,056	February.....	86,122	4	21,530	400,565	100,146
March.....	77,712	4	19,425	363,786	90,947	March.....	83,976	4	20,994	395,331	98,834
April.....	77,324	4	19,331	359,129	89,782	April.....	86,138	4	21,534	404,319	101,080
May.....	97,319	5	19,464	451,680	90,336	May.....	104,671	5	20,934	503,976	100,795

<sup>1</sup> Compiled by the Atlantic & Pacific Tea Co., and represent the sales of identical stores for the periods shown.

AUTOMOBILE FINANCING<sup>1</sup>

YEAR	WHOLE-SALE FINANCING	TOTAL		NEW CARS FINANCED		USED CARS FINANCED		UNCLASSIFIED	
		Volume in dollars	Number of cars	Volume in dollars	Number of cars	Volume in dollars	Number of cars	Volume in dollars	Number of cars
<b>1929</b>									
January.....	35,889,941	155,630	73,166,768	78,288	48,677,337	68,859	20,734,372	8,483	3,755,059
February.....	47,919,535	189,183	90,489,411	103,079	61,736,873	76,480	24,595,774	9,624	4,156,764
March.....	61,097,083	302,672	141,076,601	165,898	96,639,213	121,194	37,815,473	15,580	6,621,915
April.....	74,714,226	378,790	171,931,720	204,949	116,811,926	154,843	47,248,843	18,998	7,870,951
May.....	398,561	133,560,808	212,239	125,096,943	167,567	50,330,658	18,755	7,653,207	
June.....	384,520	178,983,835	203,632	121,842,467	164,023	50,205,848	16,865	6,935,520	
July.....	388,747	180,205,492	211,296	125,005,223	162,451	49,077,845	15,000	6,122,424	
August.....	347,144	162,894,966	183,921	111,664,809	149,413	45,652,348	13,810	5,177,809	
September.....	298,286	138,717,971	158,021	94,240,101	127,429	39,310,095	12,836	5,167,775	
October.....	276,292	126,247,679	132,187	80,745,596	135,158	41,783,894	8,947	3,718,189	
November.....	211,805	94,932,292	97,734	58,596,676	103,950	32,340,123	10,121	3,995,493	
December.....	170,399	80,088,696	74,095	48,846,672	89,969	28,574,295	6,335	2,667,729	
Total.....		3,502,029	1,622,316,239	1,825,339	1,089,903,836	1,521,336	468,169,568	155,354	64,242,835
<b>1930</b>									
January.....	52,351,898	162,954	72,284,335	78,199	44,968,686	80,100	25,285,626	4,655	2,030,023
February.....	61,153,196	196,929	84,532,144	95,200	52,802,981	95,034	28,972,240	6,695	2,756,923
March.....	76,467,749	284,919	120,677,635	137,682	76,527,059	141,971	41,557,428	5,266	2,593,148
April.....	84,064,369	340,555	144,287,879	169,172	92,852,073	161,604	46,914,235	9,776	4,521,571

<sup>1</sup> Compiled by the U. S. Department of Commerce, Bureau of the Census, from reports of 455 automobile-financing organizations. Some of the smaller firms found it impossible to segregate their operations, their totals being shown in the unclassified group. This summary is subject to revision in subsequent issues as reports are received from additional firms.





CONSTRUCTION CONTRACTS, 1925-1930-37 STATES <sup>1</sup>

Number of Projects

MONTH	1925 1926 1927 1928 1929 1930						1925 1926 1927 1928 1929 1930					
	TOTAL CONSTRUCTION-ALL TYPES						Commercial Buildings					
January	9,495	9,829	9,276	11,799	10,190	7,587	1,313	1,348	1,327	1,676	1,615	1,670
February	10,068	10,049	11,045	13,368	9,749	8,560	1,272	1,306	1,552	1,859	1,606	1,797
March	15,353	15,642	17,355	18,925	15,044	12,421	1,631	1,993	2,085	2,279	2,253	2,262
April	16,728	17,321	18,067	20,136	19,948	14,686	1,616	1,914	2,045	2,239	2,394	2,331
May	16,771	17,243	17,291	20,509	19,422	-----	1,715	1,941	1,971	2,146	2,399	-----
June	15,899	17,478	17,849	20,061	17,142	-----	1,631	1,854	1,965	2,091	2,103	-----
July	16,339	14,941	15,698	17,653	16,601	-----	1,736	1,672	1,780	1,991	2,173	-----
August	16,212	14,645	17,406	17,947	16,053	-----	1,731	1,659	2,019	2,035	2,187	-----
September	14,948	14,702	16,234	15,653	14,262	-----	1,619	1,818	1,798	1,788	2,067	-----
October	16,250	15,025	16,642	17,929	15,097	-----	1,773	1,845	1,912	2,113	2,226	-----
November	13,624	13,209	15,436	14,330	10,483	-----	1,547	1,551	1,706	1,843	1,805	-----
December	12,033	10,639	12,275	11,945	7,281	-----	1,499	1,348	1,456	1,523	1,309	-----
Total	173,720	170,723	184,604	200,255	172,172	-----	19,083	20,249	21,616	23,583	24,137	-----
Industrial Buildings							Educational Buildings					
January	344	406	366	419	461	379	131	136	147	147	140	182
February	310	419	409	505	491	439	193	180	175	179	169	204
March	433	599	533	517	668	506	293	282	353	348	274	337
April	442	555	529	540	612	543	341	328	370	409	350	401
May	459	492	468	518	623	-----	405	423	464	548	497	-----
June	370	463	467	511	542	-----	596	558	686	703	639	-----
July	436	430	412	438	549	-----	626	587	627	686	728	-----
August	432	476	470	506	579	-----	479	470	592	611	603	-----
September	459	498	483	514	543	-----	336	349	313	396	376	-----
October	589	550	539	626	679	-----	270	228	312	289	346	-----
November	547	489	527	540	516	-----	175	246	251	263	216	-----
December	495	401	434	433	417	-----	179	206	207	180	193	-----
Total	5,316	5,778	5,637	6,067	6,680	-----	4,024	3,993	4,497	4,769	4,531	-----
Hospital and Institutional Buildings							Public Buildings					
January	42	47	47	53	71	63	51	73	60	83	69	69
February	56	49	66	62	58	60	48	43	53	78	56	91
March	71	76	98	94	81	101	72	73	83	119	108	124
April	64	83	97	96	83	115	65	71	101	113	119	138
May	76	80	106	114	120	-----	76	75	132	115	133	-----
June	94	93	119	106	120	-----	77	73	150	148	176	-----
July	105	101	116	100	133	-----	79	100	142	121	133	-----
August	101	106	149	117	117	-----	93	80	140	143	152	-----
September	102	82	119	112	106	-----	97	104	100	132	124	-----
October	85	90	108	102	147	-----	75	113	116	123	110	-----
November	60	96	100	94	85	-----	69	85	120	106	59	-----
December	73	82	71	91	69	-----	54	105	106	102	63	-----
Total	929	985	1,194	1,141	1,190	-----	856	995	1,303	1,383	1,303	-----
Religious and Memorial Buildings							Social and Recreational Buildings					
January	114	122	155	132	121	103	130	126	132	164	138	153
February	122	111	157	137	116	118	113	135	166	167	155	148
March	187	191	242	207	141	185	174	233	290	272	185	215
April	219	212	247	242	231	204	208	267	300	277	295	279
May	271	247	267	277	242	-----	277	277	325	304	285	-----
June	254	249	333	291	276	-----	258	247	340	282	254	-----
July	321	254	277	272	263	-----	263	235	218	240	248	-----
August	258	237	266	256	225	-----	273	239	276	236	254	-----
September	204	214	216	209	179	-----	232	246	232	185	190	-----
October	207	232	232	203	208	-----	182	228	235	220	207	-----
November	143	188	213	170	155	-----	141	187	210	177	145	-----
December	126	149	146	124	120	-----	151	163	166	133	128	-----
Total	2,426	2,406	2,751	2,520	2,277	-----	2,402	2,583	2,890	2,657	2,484	-----
Residential Buildings-All Types <sup>2</sup>							Public Works and Utilities					
January	6,907	7,115	6,489	8,521	6,905	4,168	463	456	553	604	670	800
February	7,521	7,248	7,766	9,577	6,414	4,874	433	558	701	804	684	829
March	11,716	11,304	12,486	13,672	11,047	7,208	776	891	1,215	1,417	1,186	1,483
April	12,639	12,785	12,776	14,447	13,971	8,566	1,134	1,106	1,602	1,773	1,893	2,109
May	12,207	12,350	11,855	14,351	12,865	-----	1,285	1,358	1,703	2,136	2,258	-----
June	11,434	12,381	12,098	13,602	10,910	-----	1,185	1,560	1,693	2,327	2,122	-----
July	11,551	9,995	10,327	11,569	10,051	-----	1,222	1,567	1,799	2,236	2,323	-----
August	11,543	9,758	11,652	11,868	9,727	-----	1,302	1,620	1,842	2,175	2,209	-----
September	10,839	9,973	11,185	10,489	8,687	-----	1,060	1,418	1,788	1,828	1,900	-----
October	12,076	10,544	11,796	12,461	9,300	-----	993	1,195	1,394	1,792	1,874	-----
November	10,316	9,629	11,307	10,101	6,441	-----	626	738	1,002	1,036	1,061	-----
December	8,929	7,391	8,701	8,475	4,180	-----	527	794	988	884	802	-----
Total	127,678	120,473	128,436	139,133	110,498	-----	11,006	13,261	16,280	19,012	19,072	-----

See footnotes at end of table on p. 22.





## 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 (February, 1930) in which monthly figures for 1929 and 1930 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.

	1930					1929		PER CENT INCREASE (+) OR DECREASE (-)		CUMULATIVE TOTAL FROM JANUARY 1 THROUGH MAY 31		Perct. increase (+) or decrease (-) cumulative 1930 from 1929
	January	February	March	April	May	April	May	May, 1930, from April, 1930	May, 1930, from May, 1929	1929	1930	
<b>TEXTILES</b>												
<b>Wool</b>												
Receipts at Boston:												
Total.....thous. of lbs..	15,828	12,166	14,986	17,163	28,649	15,390	24,215	+66.9	+18.3	99,669	88,792	-10.9
Domestic.....thous. of lbs..	6,500	5,012	5,628	8,501	18,937	6,442	16,108	+122.8	+17.6	34,656	44,578	+28.6
Foreign.....thous. of lbs..	9,328	7,154	9,358	8,662	9,712	8,948	8,107	+12.1	-19.8	65,013	44,214	-32.0
Imports:												
In condition imported.....thous. of lbs..	26,464	18,498	20,049	17,816	15,484	28,165	19,786	-13.1	-21.7	150,615	98,311	-34.7
Grease equivalent.....thous. of lbs..	29,423	20,221	21,463	19,384	16,810	30,941	22,372	-13.3	-24.9	167,216	107,301	-35.8
Consumption by textile mills, grease equivalent.....thous. of lbs..	43,627	38,330	37,195	36,794	32,641	49,205	48,765	-11.3	-33.1	247,949	188,587	-23.9
Machinery activity, hourly:												
Looms—												
Wide.....per ct. of hours active..	53	52	46	45	51	70	67	+13.3	-23.9			
Narrow.....per ct. of hours active..	50	41	39	41	39	64	61	-4.9	-36.1			
Carpet and rug.....per ct. of hours active..	51	51	49	49	44	70	72	-10.2	-38.9			
Sets of cards.....per ct. of hours active..	63	65	61	61	60	87	86	-1.6	-30.2			
Combs.....per ct. of hours active..	79	86	64	60	68	81	84	+13.3	-19.0			
Spinning spindles—												
Woolen.....per ct. of hours active..	62	61	58	58	60	84	82	+3.4	-26.8			
Worsted.....per ct. of hours active..	55	59	50	43	52	70	66	+20.9	-21.2			
Prices:												
Raw, territory, fine, scoured.....dolls. per lb..	.81	.79	.77	.76	.77	1.04	1.00	+1.3	-23.0			
Raw, Ohio and Pa. fleeces, 1/2 blood, combing, grease.....dolls. per lb..	.38	.36	.33	.31	.29	.49	.43	-6.5	-32.6			
Worsted yarn.....dolls. per lb..	1.38	1.35	1.30	1.25	1.29	1.55	1.50	-1.6	-18.0			
Women's dress goods, French serge, 39 in.....dolls. per yd..	.98	.98	.93	.90	.90	.98	.98	0.0	-8.2			
Suiting, 13-oz.....dolls. per yd..	1.838	1.800	1.756	1.756	1.756	2.008	2.008	0.0	-12.5			
<b>Cotton</b>												
Receipts into sight.....thous. of bales..	840	417	466	457	343	559	332	-24.9	+3.3	3,398	2,523	-25.8
Imports, unmanufactured.....bales..	51,474	23,643	28,279	67,897	53,328	84,621	42,486	-20.9	+25.5	258,795	224,121	-13.4
Exports, unmanufactured (excl. linters).....bales..	728,737	402,074	477,678	349,762	208,796	447,838	313,003	-40.3	-33.3	2,718,516	2,167,047	-20.3
Consumption by textile mills.....bales..	577,235	495,204	508,576	532,382	473,917	631,802	668,650	-11.0	-29.1	3,195,127	2,587,314	-19.0
Stocks, domestic, end of month:												
Totals, mills and w'houses.....thous. of bales..	7,237	6,670	5,952	5,304	4,869	4,131	3,322	-8.2	+46.6			
Mills.....thous. of bales..	1,850	1,812	1,763	1,668	1,531	1,606	1,476	-8.2	+3.7			
Warehouses.....thous. of bales..	5,407	4,858	4,189	3,636	3,337	2,525	1,846	-8.2	+80.8			
Stocks, world visible, end of month:												
Total.....thous. of bales..	8,059	7,854	7,339	6,659	6,335	6,053	5,268	-4.9	+20.3			
American.....thous. of bales..	5,576	5,150	4,612	3,975	3,688	3,680	3,000	-7.2	+22.9			
Machinery activity of spindles:												
Active spindles.....thousands..	29,198	28,927	28,898	28,860	28,374	30,911	30,937	-1.7	-8.3			
Total activity.....millions of hours..	8,173	7,091	7,350	7,503	6,729	8,861	9,164	-10.3	-26.6			
Activity per spindle.....hours..	236	205	214	219	197	251	261	-10.0	-24.5			
Ratio to capacity.....per cent..	100.3	97.7	92.8	96.3	83.6	110.3	110.9	-13.2	-24.6			
Prices:												
To producer.....dolls. per lb..	.158	.148	.138	.147	.145	.185	.180	-1.4	-19.4			
In New York, middling.....dolls. per lb..	.173	.157	.151	.163	.164	.201	.195	+0.6	-15.9			
<b>Cotton Yarn</b>												
Carded sales yarn:												
Production.....thous. of lbs..	17,571	13,086	13,707	15,485	11,678	18,269	17,941	-24.6	-34.9	96,612	71,527	-26.0
Stocks, end of month.....thous. of lbs..	10,773	11,775	12,487	13,116	13,439	8,446	8,760	+2.5	+53.4			
Unfilled orders, end of month.....thous. of lbs..	35,056	36,165	39,072	34,457	30,186	40,345	37,609	-12.4	-19.7			
Prices:												
22/1 cones, Boston.....dolls. per lb..	.323	.310	.297	.302	.290	.363	.353	-4.0	-17.8			
40/1s, southern spinning.....dolls. per lb..	.500	.486	.477	.480	.473	.510	.499	-1.5	-5.2			
<b>Cotton Goods</b>												
Cotton textiles:												
Production.....thous. of yds..	323,287	266,849	261,403	257,243	275,801	283,878	341,370	+7.3	-19.2	1,558,921	1,384,583	-11.2
New orders.....thous. of yds..	292,034	243,861	292,249	223,225	184,473	202,520	278,335	-17.4	-33.7	1,496,975	1,235,842	-17.4
Shipments.....thous. of yds..	331,481	274,543	265,675	253,360	270,056	277,098	326,121	+6.6	-17.2	1,583,324	1,395,115	-11.9
Stocks, end of month.....thous. of yds..	452,819	445,125	440,853	444,736	450,481	352,091	367,340	+1.3	+22.6			
Unfilled orders, end of mo.....thous. of yds..	391,571	360,889	387,463	357,328	271,745	430,298	382,512	-24.0	-29.0			
Fine cotton goods, production.....pieces	420,190	356,334	402,322	351,580		425,925	526,971			1,704,136	1,530,426	-10.2
Cotton cloth:												
Imports.....thous. of sq. yds..	4,455	3,505	3,781	5,076	4,299	5,334	6,527	-15.3	-34.1	27,692	21,116	-23.7
Exports.....thous. of sq. yds..	39,153	32,045	36,171	36,821	38,523	49,233	46,261	+4.6	-16.7	260,646	182,713	-29.9
Fabric for tire manufacture:												
Consumption.....thous. of lbs..	14,559	13,767	14,656	17,244	17,437	23,620	23,302	+1.0	-25.2	108,266	77,683	-28.2
Elastic webbing, shipments.....thous. of dolls..	1,444	1,421	1,496	1,347	1,300	1,766	1,725	-3.5	-24.6	8,344	7,008	-16.0
Prices:												
Print cloth, 64 x 60.....dolls. per yd..	.068	.065	.062	.061	.061	.076	.073	0.0	-16.4			
Sheeting, brown.....dolls. per yd..	.083	.079	.078	.076	.078	.089	.087	+2.6	-10.3			
Cotton goods (Fairchild), rel. to 1911-1913.....	152	150	140	138	137	164	162	-0.7	-15.4			

\* Cumulative through Apr. 30.

## TREND OF BUSINESS MOVEMENTS—Continued

The cumulatives shown are through May, except where otherwise noted. Earlier data for items shown here may be found on pages 24 to 138 of the February, 1930, "Survey"	1930					1929		PER CENT INCREASE (+) OR DECREASE (-)		CUMULATIVE TOTAL FROM JANUARY 1 THROUGH MAY 31		Per ct. increase (+) or decrease (-) cumulative 1930 from 1929
	January	February	March	April	May	April	May	May, 1930, from April, 1930	May, 1930, from May, 1929	1929	1930	
	<b>TEXTILES—Continued</b>											
<b>Cotton Finishing</b>												
White, dyed and printed (outside mills):												
Billings, finished goods.....thous. of yds.	63,457	64,271	66,246	65,364	59,384	96,707	88,707	-9.1	-33.1	447,003	318,722	-28.7
New orders, gray yardage.....thous. of yds.	71,723	57,834	60,526	56,641	48,699	90,469	79,228	-14.0	-38.5	439,331	295,423	-32.8
Shipments, finished goods.....cases	41,793	37,014	39,459	34,308	39,307	57,030	54,247	+14.6	-27.5	283,976	191,881	-32.4
Stocks, finished goods, end mo.....cases	35,428	32,967	32,528	40,741	34,571	34,920	35,618	-15.1	-2.9			
Operating activity.....per ct. of capacity	57	62	59	56	47	74	71	-16.1	-33.8			
Unfilled orders, end of month.....days	4.3	4.2	4.2	2.9	2.6	6.4	5.2	-10.3	-50.0			
Printed only (mills and outside):												
Production.....thous. of yds.	60,091	60,939	72,634	72,721	58,588	88,635	85,894	-19.4	-31.8	427,639	324,973	-24.0
Stocks, end of month.....thous. of yds.	73,239	72,642	77,763	84,808	85,381	82,106	78,184	+0.7	+9.2			
<b>Silk</b>												
Imports, raw.....thous. of lbs.	7,346	6,644	6,103	6,047	3,622	6,220	8,599	-40.1	-57.9	37,492	29,762	-20.6
Deliveries (consumption).....bales	57,683	49,852	50,863	41,584	40,823	53,855	49,121	-1.8	-16.9	256,431	240,805	-6.1
Stocks, end of month:												
At warehouses.....bales	76,264	68,646	57,773	53,704	35,477	39,125	39,898	-33.9	-11.1			
At manufacturing plants.....bales	29,100	24,591	24,728	25,280	23,200	23,108	24,623	-8.2	-5.8			
Silk machinery activity:												
Broad looms.....per cent of normal	105.6	109.7	111.1	101.3	87.9	101.1	101.0	-13.2	-13.0			
Narrow looms.....per cent of normal	59.6	56.2	57.7	57.2	52.8	68.8	74.2	-7.7	-28.8			
Spinning spindles.....per cent of normal	67.0	69.3	69.2	68.8	59.1	66.9	65.3	-14.1	-9.5			
Prices:												
Raw, Japanese, 13-15, N. Y. ....dolls. per lb.	4.630	4.433	4.531	4.186	3.940	5.145	4.777	-5.9	-17.5			
Silk goods, composite.....dolls. per yd.	1.17	1.17	1.16	1.14		1.18	1.18					
<b>Rayon</b>												
Imports.....thous. of lbs.	1,159	954	928	901	487	1,683	1,589	-45.9	-69.4	8,147	4,429	-45.6
Stocks, bonded, end of month.....thous. of lbs.	3,087	3,061	3,093	3,111	2,956	2,736	2,423	-5.0	+22.0			
Price, 150 denier, A grade, N. Y. ....dolls. per lb.	1.15	1.15	1.15	1.15	1.15	1.30	1.30	0.0	-11.5			
<b>Clothing</b>												
Men's and boys' garments cut:												
Suits.....thous. of garments	2,522	2,336	2,294	1,981		2,304	2,303			2,104	2,133	-17.3
Separate trousers.....thous. of garments	2,293	2,179	2,363	2,247		2,670	2,813			3,031	3,082	-11.9
Overcoats.....thous. of garments	307	335	352	216		296	394			1,669	1,210	-27.5
Overalls:												
Cut.....thous. of dozen garments	319	321	326	285		361	234			1,411	1,251	-11.3
Net shipments.....thous. of dozen garments	289	304	297	273		315	217			1,254	1,163	-7.3
Unfilled orders, end of mo.....thous. of dozen garments	147	117	116	112		189	158					
Hosiery:												
Production.....thous. of dozen pairs	3,474	3,189	2,046	2,935		3,651	3,835			14,221	12,644	-11.1
Net shipments.....thous. of dozen pairs	2,742	2,711	2,886	2,865		3,507	3,672			13,546	11,204	-17.3
Stocks, end of month.....thous. of dozen pairs	8,308	8,814	8,993	8,724		8,022	8,430					
New orders.....thous. of dozen pairs	2,662	2,598	2,747	2,920		3,991	4,116			14,053	10,927	-22.2
Unfilled orders, end of month.....thous. of dozen pairs	3,035	2,852	2,642	2,470		4,680	5,089					
Knit underwear:												
Production.....thous. of dozen garments	1,109	1,128	1,192	1,148	1,029	1,274	1,316	-10.4	-21.8	5,967	5,606	-6.0
Net shipments.....thous. of dozen garments	944	981	1,044	998	994	1,112	1,168	-0.4	-14.9	5,389	4,961	-7.9
Stocks, end of month.....thous. of dozen garments	1,436	1,530	1,590	1,731	1,751	1,523	1,679	+1.2	+4.3			
New orders.....thous. of dozen garments	1,199	1,041	1,036	896	1,066	1,071	1,088	+19.0	-2.0	6,292	5,238	-16.8
Unfilled orders, end of month.....thous. of dozen garments	1,632	1,677	1,658	1,549	1,611	2,444	2,349	+4.0	-31.4			
<b>Burlaps and Fibers</b>												
Imports:												
Burlaps.....thous. of lbs.	73,098	71,053	52,854	54,863	47,699	69,787	71,649	-13.1	-33.4	312,830	299,567	-4.2
Fibers (unmanufactured).....long tons	30,262	23,640	33,312	23,126	19,322	30,389	26,300	-16.4	-26.5	160,977	129,662	-19.5
<b>Pyroxylin-Coated Textiles</b>												
Pyroxylin spread.....thous. of lbs.	3,098	3,093	3,474	4,033	3,693	5,554	5,245	-8.4	-29.6	28,890	17,391	-39.8
Shipments billed.....thous. of linear yards	2,786	2,708	3,111	3,261	3,227	4,822	4,563	-1.0	-29.3	23,929	15,093	-36.9
Unfilled orders, end of month.....thous. of linear yards	2,373	2,404	2,332	2,421	2,370	4,061	3,531	-2.1	-32.9			
<b>Fur</b>												
Sales by dealers.....thous. of dollars	2,968	7,667	8,327			12,994	12,522					
<b>Buttons</b>												
Fresh-water pearl buttons:												
Production.....ratio to capacity	42.3	49.3	48.3	47.1	42.4	52.6	51.1	-10.0	-17.0			
Stocks, end of month.....thous. of gross	9,700	9,698	9,838	9,878	9,790	11,114	11,244	-0.9	-12.9			
Imports:												
Buttons—												
Product of Philippines.....thous. of gross	64	71	63	59	44	66	53	-25.4	-17.0	265	301	+13.6
All other.....thous. of gross	261	5	5	6	16	14	18	+166.7	-11.1	232	293	+26.3
Shells—												
Mother of pearl.....thous. of pounds	866	443	531	171	570	649	381	+233.3	+49.6	2,578	2,581	+0.1
All other.....thous. of pounds	32	516	69	104	925	40	45	+789.4		643	1,646	+156.0
Tagua nuts.....thous. of pounds	1,149	477	1,186	1,607	1,317	2,390	1,899	-18.0	-30.6	11,677	5,736	-50.9
<b>IRON AND STEEL</b>												
<b>Iron</b>												
Manganese ore, imports.....thous. of long tons	38	22	30	26	30	31	29	+15.4	+3.4	114	146	+28.1
Iron ore:												
Imports.....thous. of long tons	293	203	301	313	291	284	276	-7.0	+5.4	1,225	1,401	+14.4
Shipments from mines.....thous. of long tons	None.	None.	None.	108	6,979	2,516	9,549		-26.9	12,065	7,087	-41.3
Receipts—												
Lake Erie ports and furnaces.....thous. of long tons	None.	None.	None.	10	3,987	1,191	6,753		-41.0	7,944	3,997	-49.7
Other ports.....thous. of long tons	None.	None.	None.	None.	2,100	387	2,527		-16.9	2,913	2,100	-27.9

2 Revised.

3 Cumulative through Apr. 30.









TREND OF BUSINESS MOVEMENTS—Continued

Table with columns for 1930 (January-May), 1929 (April-May), Per cent increase/decrease, and Cumulative Total from January 1 through May 31. Rows are categorized by AUTOMOBILES, FUELS, Coal and Coke, Petroleum, and Gasoline, with detailed sub-items and their respective values.

2 Revised.

3 Cumulative through April 30.









TREND OF BUSINESS MOVEMENTS—Continued

Table with columns for years 1930 (Jan-May) and 1929 (Apr-May), and rows for Building Construction and Housing, Building Materials, and Lumber. Includes sub-sections like 'Contracts and Fire Losses' and 'Softwood Lumber'. Final column shows percentage change from 1929.

2 Revised.



## TREND OF BUSINESS MOVEMENTS—Continued

	1930					1929		PER CENT INCREASE (+) OR DECREASE (-)		CUMULATIVE TOTAL FROM JANUARY 1 THROUGH MAY 31		Per ct. in-crease (+) or de-crease (-) cumu-lative 1930 from 1929
	January	February	March	April	May	April	May	May, 1930, from April, 1930	May, 1930, from May, 1929	1929	1930	
<i>The cumulatives shown are through May, except where otherwise noted. Earlier data for items shown here may be found on pages 24 to 138 of the February, 1930, "Survey"</i>												
<b>BUILDING MATERIALS—Continued</b>												
<b>Enameled Ware—Continued</b>												
Porcelain plumbing fixtures:												
Net new orders.....pieces..	10,330	6,721	9,044	6,469	7,879	13,417	8,970	+21.8	-12.2	61,812	40,443	-34.6
Shipments.....pieces..	5,327	4,240	5,378	6,502	7,101	12,193	10,059	+9.2	-29.4	52,530	28,548	-45.7
Unfilled orders, end of month.....pieces..	30,374	32,781	35,961	35,017	35,078	37,184	35,045	+0.2	+0.1			
Stocks, end of month.....pieces..	37,815	39,352	39,198	38,240	36,920	47,315	48,228	-3.5	-23.5			
Plumbing fixtures, 6 pieces.....dollars..	100.55	103.69	104.51	105.47	105.99	97.90	98.16	+0.5	+8.0			
<b>Illuminating Glassware</b>												
Production:												
Total.....number of turns..	2,847	2,636	2,667	2,532		3,285	3,884			13,465	10,682	-20.7
Ratio to capacity.....per ct. of capacity..	35.4	38.1	34.4	37.8		42.9	46.8					
New orders.....per ct. of capacity..	35.6	35.6	38.6	41.5		45.3	48.1					
Shipments.....per ct. of capacity..	34.8	36.4	37.1	38.8		44.9	42.2					
Unfilled orders, end of month.....number of weeks' supply..	1.1	1.1	1.0	1.0		1.1	1.4					
Stocks, end of mo.....number of weeks' supply..	5.4	5.5	6.0	5.8		5.3	5.8					
<b>Furniture</b>												
Household furniture and case goods:												
Southeastern district—												
Shipments.....dolls., av. per firm..	46,398	56,664	54,203	47,092	41,015	57,081	57,605	-12.9	-28.8	287,544	245,372	-14.7
Unfilled orders.....dolls., av. per firm..	46,593	39,067	30,837	22,976	22,028	32,776	38,713	-4.1	-43.1			
Grand Rapids district—												
Unfilled orders, end of month.....No. days' production..	29	27	24	18	26	34	60	+44.4	-56.7			
New orders.....No. days' production..	21	16	15	13	23	18	49	+76.9	-53.1	141	88	-37.6
Shipments.....No. days' production..	21	18	16	16	12	19	23	-25.0	-47.8	113	83	-26.6
Outstanding accounts, end of month.....No. days' sales..	48	31	42	39	37	42	43	-5.1	-14.0	280	197	-29.7
Cancellations.....per ct. new orders..	17.0	11.0	13.0	22.0	13.0	14.0	4.0	-40.9	+225.0			
Plant operations.....per ct. full time..	79.0	72.0	70.0	69.0	61.0	94.0	89.0	-11.6	-31.5			
Steel furniture:												
Business group—												
Shipments.....thous. of dolls..	2,891	2,550	2,727	2,427	2,350	2,895	2,824	-3.2	-16.8	15,643	12,945	-17.3
New orders.....thous. of dolls..	2,886	2,370	2,627	2,524	2,313	2,933	2,937	-8.4	-21.2	15,855	12,720	-19.8
Unfilled orders, end mo.thous. of dolls..	1,862	1,683	1,590	1,680	1,645	2,389	2,406	-2.1	-31.6			
Shelving—												
Shipments.....thous. of dolls..	675	683	812	815	752	1,131	989	-7.7	-24.0	5,106	3,737	-26.8
New orders.....thous. of dolls..	725	759	839	796	725	1,095	1,121	-8.9	-35.3	5,481	3,844	-29.9
Unfilled orders, end mo.thous. of dolls..	706	782	808	782	754	766	897	-3.6	-15.9			
<b>PLYWOOD AND VENEER</b>												
Rotary-cut veneer:												
Receipts.....number of carloads..	149	209	203	181	93	307	220	-48.6	-57.7	985	835	-15.2
Purchases.....number of carloads..	207	211	120	122	73	256	157	-40.2	-53.5	1,291	733	-43.2
Bushel baskets:												
Production.....dozens..	121,580	152,751	249,069	226,929	209,063	224,835	244,782	-7.9	-14.6	927,169	959,392	+3.5
Shipments.....dozens..	84,212	101,721	241,595	164,795	141,710	149,055	152,274	-14.6	-6.9	636,791	734,033	+15.3
Stocks, end of month.....dozens..	395,866	446,004	455,811	524,771	592,124	565,598	662,636	+12.8	-10.7			
<b>GLASS CONTAINERS</b>												
Actual production:												
Quantity.....gross..	2,336	2,074	2,527	2,419	2,633	2,519	2,683	+8.8	-1.9	12,404	11,989	-3.4
Relation to capacity.....per cent..	70.1	67.3	75.8	71.9	75.4	79.1	79.1	+4.9	-4.7			
New orders.....gross..	4,056	2,363	2,165	2,550	2,236	2,408	2,584	-12.3	-13.5	13,440	13,370	-3.2
Shipments.....gross..	2,110	2,011	2,437	2,564	2,788	2,546	2,657	+8.7	+4.9	12,307	11,910	-3.2
Unfilled orders, end of month.....gross..	13,011	12,636	12,111	11,922	10,924	10,214	9,859	-8.4	+10.8			
Stock, end of month.....gross..	6,858	6,868	6,962	6,809	6,662	6,588	6,601	-2.2	+1.0			
<b>CHEMICALS AND OILS</b>												
<b>Chemicals</b>												
Sulphuric acid:												
Exports.....thous. of lbs..	882,315	344,127	335,773	327,918	507,011	634,959	287,306	+54.6	+76.5	2,683,047	2,397,144	-10.7
Price, wholesale.....dolls. per 100 lbs..	.78	.78	.78	.78	.78	.78	.78	0.0	0.0			
Nitrate of soda:												
Imports.....long tons..	89,421	85,837	106,521	69,788	42,308	119,620	127,645	-39.4	-66.9	578,564	393,875	-31.9
Production in Chile.....metric tons..	280,000	233,900	244,000	205,200	215,400	272,200	276,600	+5.0	-22.1	1,357,900	1,178,600	-13.2
Potash salts:												
Imports (commercial).....long tons..	44,077	40,811	39,947	21,036	12,568	21,299	24,696	-40.3	-49.1	121,324	158,439	+30.6
Sales in Germany (K <sub>2</sub> O content).....metric tons..												
Production in France (K <sub>2</sub> O content).....metric tons..	186,000	202,711	180,000			112,535	77,326					
Superphosphate (acid phosphate):												
Production.....short tons..	445,128	355,815	<sup>1</sup> 324,632	320,282		<sup>2</sup> 274,491	276,462			<sup>3</sup> 1,204,181	<sup>3</sup> 1,445,857	+20.1
Stocks, end of month.....short tons..	2,224,138	2,260,145	<sup>1</sup> 1,614,863	866,022		<sup>2</sup> 793,384	822,659					
Shipments.....short tons..	116,789	189,022	<sup>2</sup> 403,435	456,586		<sup>2</sup> 439,793	116,580			<sup>3</sup> 1,138,771	<sup>3</sup> 1,165,802	+2.4
Fertilizer:												
Exports.....long tons..	104,221	163,776	153,539	188,044	143,347	136,937	114,655	-23.8	+25.0	617,402	752,927	+22.0
Consumption, Southern States.....short tons..	504,440	1,071,004	1,877,961	1,279,874	216,458	1,258,114	<sup>2</sup> 161,474	-83.1	+34.1	4,807,415	4,949,737	+3.0
Crude arsenic:												
Production.....short tons..	1,079	1,933	1,692	1,350	1,652	1,382	1,888	+22.4	-12.5	6,975	7,706	+10.5
Stocks, end of month.....short tons..	3,677	4,576	4,514	4,159	3,935	2,451	2,073	-5.4	+89.8			
Refined arsenic:												
Production.....short tons..	742	808	864	1,084	963	836	779	-11.2	+23.6	4,373	4,461	+2.0
Stocks, end of month.....short tons..	3,879	3,157	3,131	2,889	2,726	3,316	3,236	-5.6	-15.8			
Dyes and dyestuffs, exports:												
Vegetable.....thous. of lbs..	151	182	119	218	232	160	202	+6.4	+14.9	799	902	+12.9
Coal tar.....thous. of lbs..	2,052	2,320	3,347	3,349	2,334	26	27	-30.3		2,445	13,402	+448.1

<sup>1</sup> Revised.<sup>2</sup> Cumulative through Apr. 30.

## TREND OF BUSINESS MOVEMENTS—Continued

The cumulatives shown are through May, except where otherwise noted. Earlier data for items shown here may be found on pages 24 to 138 of the February, 1930, "Survey"	1930					1929		PER CENT INCREASE (+) OR DECREASE (-)		CUMULATIVE TOTAL FROM JANUARY 1 THROUGH MAY 31		Per cent. increase (+) or decrease (-) cumulative 1930 from 1929
	January	February	March	April	May	April	May	May, 1930, from April, 1930	May, 1930, from May, 1929	1929	1930	
<b>CHEMICALS AND OILS—Continued</b>												
<b>Chemicals—Continued</b>												
Price index numbers:												
Crude drugs.....rel. to Aug., 1914..	170	169	167	166	161	187	187	-3.0	-13.9			
Essential oils.....rel. to Aug., 1914..	133	123	118	115	113	205	193	-1.7	-41.5			
Drugs and pharmaceuticals.....rel. to Aug., 1914..	177	176	176	176	176	164	163	0.0	+8.0			
Chemicals.....rel. to 1927..	99	98	98	97	97	100	100	0.0	-3.0			
Oils and fats.....rel. to 1927..	94	95	92	94	92	98	93	-2.1	-1.1			
<b>Wood Chemicals</b>												
Acetate of lime:												
Production—												
United States.....thous. of lbs..	11,798	9,683	11,162	<sup>2</sup> 9,771	8,241	12,071	12,703	-15.7	-35.1	60,566	50,655	-16.4
Canada.....thous. of lbs..	1,645	1,164	1,077	1,104	791	1,032	751	-28.4	+5.3	5,286	5,682	+7.5
Shipments—												
United States.....thous. of lbs..	3,921	4,616	8,087	<sup>2</sup> 6,734	6,914	12,227	12,588	+2.7	-45.1	59,678	30,271	-49.3
Canada.....thous. of lbs..	178	593	413	668	476	1,066	723	-28.7	-34.2	5,243	2,329	-55.6
Stocks, end of month—												
United States.....thous. of lbs..	15,536	20,814	24,098	<sup>2</sup> 27,146	28,392	1,636	1,867	+4.2				
Canada.....thous. of lbs..	2,498	3,140	3,705	3,845	3,772	96	109	-1.9				
Exports.....thous. of lbs..							13			88		
Price, wholesale.....dolls. per cwt..	4.50	4.50	4.50	4.50	4.50	4.50	4.50	0.0	0.0			
Methanol, crude:												
Production—												
United States.....gallons..	715,886	615,006	651,438	<sup>2</sup> 616,350	523,833	746,007	743,632	-15.0	-29.6	3,601,481	3,122,513	-13.3
Canada.....gallons..	65,090	53,587	46,844	50,498	34,266	42,183	32,614	-32.1	+5.1	225,092	250,285	+11.2
Stocks at crude plants, end of month—												
United States.....gallons..	389,876	507,818	646,181	<sup>2</sup> 709,763	724,037	186,036	234,660	+2.0	+208.5			
Canada.....gallons..	38,408	27,033	30,261	14,681	9,075	16,697	14,322	-38.2	-36.6			
Stocks at refineries and in transit—												
United States.....gallons..	903,304	838,421	864,600	807,754	766,004	172,755	262,082	-5.2	+192.3			
Canada.....gallons..	9,038	16,400	17,299	10,763	45,449	66,218	65,965	+322.3	-31.1			
Exports.....gallons..	47,571	15,691	56,113	101,033	77,028	57,134	44,602	-23.8	+72.7	211,342	297,436	+40.7
Wood at chemical plants:												
Consumption—												
United States.....cords..	73,326	60,559	68,045	<sup>2</sup> 62,036	54,607	74,936	77,832	-12.0	-29.8	370,340	318,573	-14.0
Canada.....cords..	7,625	5,880	5,308	5,426	3,700	5,244	3,831	-31.8	-3.4	27,818	27,939	+0.4
Stocks, end of month—												
United States.....cords..	601,972	490,157	477,011	<sup>2</sup> 514,851	531,244	488,969	525,185	+3.2	+1.2			
Canada.....cords..	71,022	80,717	79,267	70,767	70,750	73,496	73,095		-3.2			
Daily capacity—												
Total.....cords..	3,246	3,246	3,246	3,258	3,172	3,336	3,336	-2.6	-4.9			
Shutdown.....cords..	222	416	535	612	756	383	337	+23.5	+124.3			
Methanol, refined:												
Production—												
United States.....gallons..	248,723	394,647	398,476	424,295	373,780	502,010	423,244	-11.9	-11.7	2,363,990	1,839,921	-22.2
Canada.....gallons..	41,500	47,100	44,200	55,600		35,300	49,700			240,000	188,400	-21.5
Stocks, end of month—												
United States.....gallons..	695,155	705,258	632,705	670,764	699,803	695,180	716,762	+4.3	-2.4			
Canada.....gallons..	28,405	37,630	40,905	57,414	40,280	48,226	43,474	-29.8	-7.3			
Shipments—												
United States.....gallons..	425,071	451,173	522,153	530,584	407,940	568,118	472,360	-23.1	-13.6	2,532,629	2,336,921	-7.7
Canada.....gallons..	41,274	30,484	33,638	26,760	23,153	14,576	45,274	-13.5	-48.9	184,987	155,359	-16.0
Price, wholesale, N. Y.....dolls. pre gal..	.47	.46	.43	.40	.40	.58	.58	0.0	-31.0			
<b>Ethyl Alcohol</b>												
Production.....thous. of gals..	11,601	10,943	10,151	12,221	13,245	14,709	15,216	+8.4	-13.0	73,895	58,161	-21.3
Withdrawn for denaturation.....thous. of gals..	11,174	9,801	8,881	10,585	11,319	12,003	13,812	+6.9	-18.0	64,629	51,760	-19.9
Warehouse stocks, end of month.....thous. of gals..	7,298	7,496	7,616	8,074	9,143	11,723	12,341	+13.2	-25.9			
<b>Explosives</b>												
(Black powder, permissible, and other high explosives)												
Production.....thous. of lbs..	31,986	33,244	30,221	30,967	36,147	36,077	37,235	+16.7	-2.9	176,785	162,565	-8.0
Shipments.....thous. of lbs..	31,709	31,574	30,534	34,071	33,404	36,458	39,474	-2.0	-15.4	178,998	161,292	-9.9
New orders.....thous. of lbs..	30,823	30,584	30,059	33,204	33,340	34,786	37,199	+0.4	-10.4	172,216	158,015	-8.2
Stocks, end of month.....thous. of lbs..	18,636	20,522	20,295	18,566	17,699	20,119	17,989	-4.7	-1.6			
<b>Naval Stores</b>												
Turpentine (gum):												
Net receipts, southern ports.....barrels..	10,237	5,075	9,779	27,999	48,803	31,610	43,722	+74.3	+11.6	96,705	101,893	+5.4
Stocks at port, end of month.....barrels..	58,485	45,338	40,078	35,053	47,130	52,687	53,536	+34.5	-12.0			
Price, southern, New York.....dolls. per gal..	.55	.55	.56	.54	.49	.54	.54	-9.3	-9.3			
Rosin (gum):												
Net receipts, southern ports.....barrels..	50,791	30,605	40,401	86,873	150,386	100,454	137,384	+73.1	+9.5	350,058	359,056	+2.6
Stocks at 3 ports, end of month.....barrels..	221,568	184,451	149,232	135,958	143,684	108,335	120,665	+5.7	+19.1			
Price B. New York.....dolls. per bbl..	8.05	7.59	7.26	6.78	6.34	7.41	7.58	-6.5	-16.4			
Rosin (wood):												
Production.....barrels..	40,954	39,615	44,964	43,919	40,933	36,150	37,708	-6.8	+8.6	182,136	210,385	+15.5
Stocks, end of month.....barrels..	90,258	88,385	91,498	97,163	99,359	124,192	115,870	+2.3	-14.2			
Turpentine (wood):												
Production.....barrels..	7,510	7,478	8,129	8,303	7,454	6,917	6,855	-10.2	-8.7	34,614	38,874	+12.3
Stocks, end of month.....barrels..	10,581	12,190	14,126	15,854	13,715	5,356	4,503	-12.5	+204.6			
Pine oil:												
Production.....gallons..	254,894	238,944	280,560	253,049	234,281	212,720	219,304	-7.4	+6.8	1,110,872	1,261,728	+13.6
Stocks, end of month.....gallons..	1,005,571	1,096,756	1,211,827	1,278,382	1,277,099	895,099	878,784	-0.1	+45.3			

\* Revised.



## TREND OF BUSINESS MOVEMENTS—Continued

	1930					1929		PER CENT INCREASE (+) OR DECREASE (-)		CUMULATIVE TOTAL FROM JANUARY 1 THROUGH MAY 31		Per ct. increase (+) or decrease (-) cumulative 1930 from 1929	
	January	February	March	April	May	April	May	May, 1930, from April, 1930	May, 1930, from May, 1929	1929	1930		
<b>CHEMICALS AND OILS—Continued</b>													
<b>Fats and Oils</b>													
Total vegetable oils and copra:													
Exports.....	thous. of lbs.	4,666	3,814	4,618	3,753	970	1,575	1,816	-74.2	-46.6	12,520	17,821	+42.3
Imports.....	thous. of lbs.	84,194	67,603	84,600	67,133	85,173	106,331	129,285	+26.9	-34.1	475,330	388,703	-18.2
Copra, imports.....	short tons.	18,488	26,376	29,748	16,649	21,089	29,868	34,728	+26.7	-39.3	141,866	112,350	-20.8
Copra or coconut oil:													
Imports.....	thous. of lbs.	37,699	19,213	32,771	21,943	34,868	30,319	49,260	+58.9	-29.2	180,849	146,494	-19.0
Consump. in oleomargarine.....	thous. of lbs.	18,490	14,356	14,164	15,579	13,236	14,932	14,603	-13.9	-9.4	75,798	75,625	-0.2
Oleomargarine:													
Production.....	thous. of lbs.	32,540	28,402	26,023	28,627	24,812	28,704	28,357	-13.3	-12.5	145,196	140,404	-3.3
Consumption.....	thous. of lbs.	30,309	30,793	23,890	29,654	22,526	27,067	29,008	-24.0	-22.3	144,895	137,172	-5.3
Animal glues:													
Shipments.....	thous. of lbs.	6,613	5,214	5,165			7,259	7,225					
<b>Cottonseed</b>													
Cottonseed:													
Receipts at mills.....	short tons.	321,230	287,464	203,048	95,981	60,340	39,172	23,471	-37.1	+157.1	746,159	968,063	+29.7
Consumption (crub).....	short tons.	665,552	520,030	400,478	227,517	141,958	236,096	114,070	-37.6	+24.4	1,976,737	1,955,535	-1.1
Stocks at mills, end of month.....	short tons.	760,745	528,006	330,560	198,598	116,980	191,155	100,556	-41.1	+16.3			
Cottonseed oil:													
Crude—													
Production.....	thous. of lbs.	207,046	163,759	129,753	76,628	47,137	80,497	240,193	-38.5	+17.3	643,292	624,323	-2.9
Stocks, end of month.....	thous. of lbs.	126,525	109,070	101,922	62,184	39,372	80,494	50,928	-36.7	-22.7			
Refined—													
Production.....	thous. of lbs.	172,089	160,524	116,965	107,970	57,041	101,603	260,656	-47.2	-6.0	660,954	614,589	-7.0
Stocks, end of month.....	thous. of lbs.	465,226	512,572	535,891	516,700	463,864	570,717	511,660	-10.2	-9.3			
Price, yellow, prime, New York.....	dolls. per lb.	.084	.084	.084	.087	.088	.102	.097	+1.1	-9.3			
Consumption in oleomargarine.....	thous. of lbs.	2,629	2,351	2,567	2,483	2,115	2,362	2,518	-14.8	-16.0	11,864	12,145	-2.4
Cottonseed cake and meal:													
Production.....	short tons.	297,234	227,931	179,864	103,894	61,526	106,253	51,705	-40.8	+19.0	898,533	870,449	-3.1
Stocks, end of month.....	short tons.	206,062	205,909	170,184	120,258	99,580	226,210	190,884	-17.2	-47.8			
Exports.....	short tons.	25,063	4,918	4,852	320	230	6,675	6,151	-28.1	-96.3	97,762	35,383	-63.8
<b>Flaxseed</b>													
Minneapolis and Duluth:													
Receipts.....	thous. of bush.	251	119	172	146	712	270	313	+387.7	+127.5	1,667	1,400	-16.0
Shipments.....	thous. of bush.	163	162	133	171	457	219	101	+167.3	+352.5	1,353	1,086	-19.7
Stocks, end of month.....	thous. of bush.	877	745	705	624	523	478	578	-16.2	-9.5			
Imports.....	thous. of bush.	1,074	2,279	3,233	2,527	1,454	3,911	2,518	-42.5	-42.3	13,106	10,567	-19.4
Mill receipts at Duluth—													
Superior.....	thous. of bush.		2,938				7						
Price, No. 1, Minneapolis.....	dolls. per bush.	3.08	3.05	2.92	2.92	2.68	2.45	2.45	-8.2	+9.4			
Linseed oil:													
Shipments from Minneapolis.....	thous. of lbs.	5,198	5,493		9,141	9,685	14,237	18,005	+6.0	-46.2			
Price, New York.....	dolls. per lb.	.140	.141	.140	.143	.140	.101	.102	-2.1	+37.3			
Linseed cake and meal:													
Shipments from Minneapolis.....	thous. of lbs.	20,859	13,600		8,604	7,485	16,917	12,067	-13.0	-38.0			
Exports.....	thous. of lbs.	52,833	33,970	52,082	48,716	41,409	72,056	65,003	-15.0	-36.3	304,738	229,010	-24.9
<b>FOODSTUFFS</b>													
<b>Wheat</b>													
Visible supply, end of month:													
United States.....	thous. of bush.	168,925	160,375	153,290	136,358	119,682	117,079	97,962	-12.2	+22.2			
Canada.....	thous. of bush.	210,643	202,282	192,754	177,424	147,801	167,837	142,168	-16.7	+4.0			
Receipts, principal markets.....	thous. of bush.	17,530	19,920	16,683	13,441	16,535	17,472	18,637	+23.0	-11.3	114,564	84,109	-26.6
Shipments, principal markets.....	thous. of bush.	14,170	11,234	12,160	13,291	24,091	15,697	23,560	+81.3	+2.3	88,137	74,946	-15.0
Production, crop estimate:													
Winter wheat.....	thous. of bush.					532,469		578,336					
Exports:													
United States—													
Wheat only.....	thous. of bush.	8,245	5,185	2,414	3,050	5,433	3,942	11,741	+78.1	-53.7	25,783	24,327	-5.6
Including wheat flour.....	thous. of bush.	13,825	9,350	7,113	7,252	10,064	8,930	15,941	+38.8	-36.9	52,287	47,604	-9.0
Canada—													
Including wheat flour.....	thous. of bush.	7,258	8,898	14,657	5,458	16,046	10,554	31,155	+194.0	-48.5	114,016	52,317	-54.1
Prices:													
No. 1, Northern Spring, Minneapolis.....													
	dolls. per bush.	1.27	1.25	1.12	1.11	1.07	1.20	1.11	-3.6	-3.6			
No. 2, Red Winter, St. Louis.....													
	dolls. per bush.	1.34	1.23	1.18	1.17	1.14	1.25	1.17	-2.6	-2.6			
No. 2, Hard Winter, Kansas City.....													
	dolls. per bush.	1.19	1.13	1.02	1.01	.99	1.10	1.01	-2.0	-2.0			
<b>Wheat Flour</b>													
Grindings of wheat:													
United States.....	thous. of bush.	43,812	40,506	43,083	41,854	41,308	39,475	42,738	-1.3	-3.3	211,276	210,563	-0.3
Canada.....	thous. of bush.	5,201	4,702	5,475	5,429	6,258	7,339	7,998	+15.3	-21.8	37,872	27,065	-28.5
Production:													
United States, actual.....	thous. of bbls.	9,510	8,783	9,347	9,071	8,983	8,636	9,334	-1.0	-3.8	46,217	45,694	-1.1
United States, prorated.....	thous. of bbls.	9,948	9,323	10,207	9,749		9,938	10,680			41,132	39,227	-4.6
Canada.....	thous. of bbls.	1,168	1,051	1,219	1,215	1,394	1,606	1,749	+14.7	-20.3	8,284	6,047	-27.0
Grain offal, production.....	thous. of lbs.	772,726	717,926	763,376	742,542	732,027	683,046	742,133	-1.4	-1.4	3,600,506	3,728,597	+1.9
Capacity operated, flour mills.....	per cent.	56	58	55	53	53	51	55	0.0	-3.6			
Consumption (computed).....	thous. of bbls.	9,808	8,098	9,163	8,615		8,530	9,847			35,846	35,684	-0.5
Stocks, all positions, end of month (computed):													
United States.....	thous. of bbls.	8,000	8,800	8,800	9,000		7,700	7,600					
Canada.....	thous. of bbls.	1,240	925	1,044	934	1,029	1,108	933	+10.2	+10.3	5,889	5,172	-12.2
Wholesale prices:													
Standard patents, Minn.:													
Winter straights, Kansas City.....	dolls. per bbl.	6.75	6.39	6.23	6.09	5.97	6.41	6.12	-2.0	-2.5			
	dolls. per bbl.	5.84	5.63	5.26	5.40	5.27	5.58	5.21	-2.4	+1.2			

<sup>2</sup> Revised.<sup>3</sup> Cumulative through Apr. 30.<sup>4</sup> As of June 1.<sup>5</sup> Final estimate for 1929.

## TREND OF BUSINESS MOVEMENTS—Continued

	1930					1929		PER CENT INCREASE (+) OR DECREASE (-)		CUMULATIVE TOTAL FROM JANUARY 1 THROUGH MAY 31		Per ct. in-crease (+) or de-crease (-) cumu-lative 1930 from 1929
	January	February	March	April	May	April	May	May, 1930, from April, 1930	May, 1930, from May, 1929	1929	1930	
<i>The cumulatives shown are through May, except where otherwise noted. Earlier data for items shown here may be found on pages 24 to 138 of the February, 1930, "Survey"</i>												
<b>FOODSTUFFS—Continued</b>												
<b>Corn</b>												
Exports, including meal.....	819	916	1,122	1,030	824	2,560	1,050	-20.0	-21.5	29,075	4,711	-83.8
Visible supply, end of month.....	16,286	24,270	25,129	21,452	11,819	30,991	15,871	-44.9	-24.1			-1.2
Receipts, principal markets.....	31,344	29,564	20,679	22,114	16,213	16,433	11,420	-26.7	+42.0	118,520	119,914	+0.1
Shipments, prin. markets.....	16,438	13,785	14,133	18,043	18,687	17,677	16,276	+3.6	+14.8	81,203	81,086	-8.4
Grindings (starch, glucose).....	7,622	6,568	6,065	6,615	6,623	6,044	6,338	+0.1	+4.5	36,550	33,493	-8.4
Prices:												
No. 3, Yellow, Chicago.....	.85	.82	.80	.82	.79	.90	.87	-3.7	-9.2			
No. 3 Yellow, Kansas City.....	.82	.78	.76	.80	.78	.85	.85	-2.5	-8.2			
No. 3, White, Chicago.....	.86	.84	.81	.84	.80	.91	.89	-4.8	-10.1			
<b>Oats</b>												
Receipts, principal markets.....	6,741	7,336	8,736	9,544	10,690	9,494	10,432	+12.0	+2.5	47,942	43,047	-10.2
Visible supply, end of month.....	25,220	22,527	18,929	16,765	13,102	12,204	10,063	-21.8	+30.2			-64.8
Exports, including meal.....	377	389	224	259	266	662	774	+2.7	-65.6	4,308	1,515	-16.0
Price, No. 3, White, Chicago.....	.45	.44	.43	.43	.41	.48	.45	-4.7	-8.9			
Grindings, Canada.....	661	838	798	706	651	776	900	-7.8	-27.7	4,350	3,654	-19.1
Production, oatmeal and rolled oats, Canada.....	7,318	10,263	9,650	8,106	7,951	8,987	10,728	-1.9	-25.9	53,514	43,288	-27.5
<b>Barley</b>												
Receipts, principal markets.....	2,826	3,080	3,153	2,742		3,450	3,264	-16.5	-9.7	316,271	311,801	-58.1
Visible supply, end of month.....	4,894	8,545	7,837	6,511	5,436	6,849	6,022	+87.3	+14.9	10,800	4,555	-35.1
Exports.....	734	1,017	569	778	1,457	1,862	1,268	-1.8	-8.3			-77.0
Price, No. 2, Minneapolis.....	.58	.57	.55	.56	.55	.65	.60					
<b>Rye</b>												
Receipts, principal markets.....	1,250	505	598	337		1,064	1,464			14,142	32,690	-77.0
Visible supply, end of month.....	9,184	9,389	11,175	13,427	14	6,632	6,325	-70.2	-6.2	820	189	-39.8
Exports, including flour.....	28	36	64	47		32	368	-4.4	-23.5			
Price, No. 2, Minneapolis.....	.91	.78	.66	.68	.65	.89	.85					
Production, crop estimate.....					46,723		40,629					
<b>Total Grains</b>												
Total grains exports, incl. flour.....	15,783	11,707	9,093	9,367	12,626	14,046	19,401	+34.8	-34.9	97,350	58,576	-39.8
<b>Rice</b>												
Southern paddy, receipts at mills.....	869,702	961,209	283,753			429,389	231,893					
Shipments:												
Total from mills.....	1,073,165	1,005,421	793,008			745,097	714,677					
New Orleans.....	88,638	81,050	80,506	63,189	107,430	131,246	125,528	+70.0	-14.4	642,119	420,813	-45.1
Stocks, end of month.....	2,317,594	2,360,083	1,899,421			1,763,837	1,311,568			2,023,888	1,111,295	-31.6
Exports.....	323,281	221,954	209,915	152,572	203,573	378,971	343,168	-49.4	-34.5	161,104	110,251	-8.6
Imports.....	34,334	20,273	25,889	19,755	10,000	21,356	15,267					
<b>Fruits and Vegetables</b>												
Apples:												
Cold-storage holdings, end of month.....	6,034	4,259	2,596	1,299	463	1,257	392	-64.4	+18.1			
Car-lot shipments.....	6,095	6,314	5,166	3,607	1,966	2,918	1,668	-45.5	+17.9	25,318	23,148	+2.3
Potatoes, car-lot shipments.....	19,857	19,593	21,681	19,350	22,588	19,341	19,683	+16.7	+14.8	100,705	103,069	+14.3
Onions, car-lot shipments.....	3,277	2,743	2,260	2,874	3,975	4,141	3,366	+18.1	+18.1	13,231	15,129	-43.7
Citrus fruits, car-lot shipments.....	10,091	10,187	10,705	9,653	2,104	16,713	15,524	-78.2	-86.4	75,945	42,740	
<b>Hay</b>												
Receipts.....	6,107	6,708		4,708		4,733	4,542					
<b>Cattle and Beef</b>												
Cattle movements, primary markets:												
Receipts.....	1,639	1,326	1,547	1,644	1,517	1,752	1,660	-7.7	-8.6	7,696	7,673	+5.0
Shipments, total.....	623	508	592	639	569	647	682	-11.0	-16.6	2,792	2,931	+5.0
Shipments, stocker and feeder.....	233	201	207	255	199	292	294	-22.0	-32.3	1,043	1,095	-3.4
Local slaughter.....	995	806	919	1,016	947	1,084	985	-6.8	-3.9	4,848	4,683	-1.9
Beef products:												
Production, inspected.....	408,525	327,527	358,129	373,810	401,989	392,785	392,816	+7.5	+2.3	1,906,076	1,869,980	-2.7
Apparent consumption.....	415,507	333,556	371,113	393,451	424,096	415,181	417,481	+18.4	+1.6	1,992,503	1,937,723	+7.1
Exports.....	1,292	1,133	1,431	1,360	1,610	1,073	1,293	-11.5	+24.6	6,372	6,826	
Cold-storage holdings, end of month.....	99,020	95,598	88,743	80,620	71,387	70,714	57,315					
Prices:												
Cattle, corn-fed, Chicago.....	12.47	12.53	12.80	12.56	11.56	13.88	13.44	-8.0	-14.0			
Steer rounds, No. 2.....	.240	.236	.240	.239	.215	.224	.230	-10.0	-6.5			
Western dressed steers, N. Y.....	.235	.223	.215	.220	.220	.225	.231	0.0	-4.8			
<b>Hogs and Pork</b>												
Hog movements, primary markets:												
Receipts.....	4,720	3,791	3,294	3,255	3,293	3,582	3,431	+1.2	-4.0	19,582	18,353	-6.3
Shipments, total.....	1,797	1,491	1,451	1,280	1,216	1,277	1,306	-5.0	-6.9	7,314	7,235	-1.1
Shipments, stocker and feeder.....	38	56	58	57	47	73	57	-17.5	-17.5	256	256	-14.1
Local slaughter.....	2,905	2,297	1,853	1,980	2,084	2,291	2,133	+5.3	-2.3	12,247	11,119	-9.2
Pork products, total:												
Production, inspected.....	874,334	705,032	589,963	603,184	665,124	655,418	665,985	+10.3	-0.1	3,701,350	3,437,642	-7.1
Apparent consumption.....	692,820	439,976	531,873	567,651	597,858	559,351	622,878	+5.3	-4.0	2,899,690	2,880,178	-0.7
Exports.....	105,817	97,263	97,898	77,466	93,589	89,813	98,091	+20.8	-4.6	506,634	472,033	-6.8
Cold-storage holdings, end of month:												
Total.....	779,277	897,478	858,063	816,605	790,601	1,108,306	1,054,275	-3.2	-25.0			
Fresh and cured.....	687,106	785,564	752,996	711,700	675,274	923,558	870,785	-5.1	-22.5			

2 Revised.

3 Cumulative through Apr. 30.

4 As of June 1.

5 Final estimate for 1929.



## TREND OF BUSINESS MOVEMENTS—Continued

The cumulatives shown are through May, except where otherwise noted. Earlier data for items shown here may be found on pages 24 to 138 of the February, 1930, "Survey"	1930					1929		PER CENT INCREASE (+) OR DECREASE (-)		CUMULATIVE TOTAL FROM JANUARY 1 THROUGH MAY 31		Per ct. increase (+) or decrease (-) cumulative 1930 from 1929
	January	February	March	April	May	April	May	May, 1930, from April, 1930	May, 1930, from May, 1929	1929	1930	
	<b>FOODSTUFFS—Continued</b>											
<b>Milk—Continued</b>												
Fluid milk:												
Receipts—												
Boston (includ. cream).....thous. of qts..	19, 192	17, 149	19, 351			18, 002	19, 381					
Greater New York.....thous. of qts..	114, 235	104, 586	117, 880			113, 019	120, 087					
Production—												
Minneapolis, St. Paul.....thous. of lbs..	32, 554					30, 960	35, 435					
Consumption in manufacture of oleomargarine.....thous. of lbs..	9, 035	7, 714	7, 103	7, 903	6, 935	7, 847	7, 514	-12.5	-7.7	39, 365	38, 690	-1.7
Raw:												
<b>Sugar</b>												
Imports—												
From Hawaii, Porto Rico.....long tons..	77, 132	140, 019	185, 704	188, 571	119, 073	143, 628	134, 891	-36.9	-11.7	573, 282	710, 499	+23.9
From foreign countries.....long tons..	192, 123	166, 971	204, 318	272, 064	558, 190	605, 003	458, 183	+105.2	+21.8	2, 364, 838	1, 393, 666	-41.1
Meltings, 8 ports.....long tons..	326, 416	328, 181	410, 063	432, 111	469, 484	502, 980	409, 503	+8.6	+14.6	2, 131, 540	1, 966, 255	-7.8
Stocks at refineries, end month.....long tons..	616, 247	570, 970	529, 067	574, 224	744, 247	779, 091	911, 055	+2.96	-18.3			
Refined:												
Shipments, 2 ports.....long tons..	60, 224	42, 906	68, 838	72, 114	80, 822	87, 466	73, 898	+12.1	+9.4	348, 399	324, 904	-6.7
Stocks, 2 ports.....long tons..	32, 994	32, 746	42, 405	63, 357	61, 571	46, 341	47, 158	-2.8	+30.6			
Exports, including maple.....long tons..	5, 637	4, 280	4, 487	4, 830	7, 074	9, 265	8, 538	+46.5	-17.1	46, 149	26, 308	-43.0
Prices:												
Wholesale, 96° centrif., N. Y. ....dolls. per lb..	.037	.037	.036	.035	.032	.037	.036	-8.6	-11.1			
Wholesale, granulated, N. Y. ....dolls. per lb..	.051	.049	.049	.048	.048	.048	.049	0.0	-2.0			
Retail, granulated, N. Y. ....dolls. per lb..	.059	.059	.055	.055	.057	.056	.056	+3.6	-1.8			
Retail average, 51 cities.....relative to 1913..	120	118	116	115	115	116	116	0.0	0.9			
Cuban movement (raw):												
Receipts at Cuban ports.....long tons..	192, 153	659, 637	793, 762	669, 252	401, 856	809, 807	440, 821	-40.0	-8.8	3, 910, 414	2, 716, 660	-30.5
Exports.....long tons..	145, 189	179, 432	153, 083	335, 529	446, 188	583, 906	510, 217	+33.0	-12.5	2, 459, 589	1, 259, 421	-48.8
Stocks, end of month.....long tons..	312, 187	815, 389	1, 411, 983	1, 754, 746	1, 701, 274	1, 509, 795	1, 439, 050	-3.0	+18.2			
<b>Candy</b>												
Sales by manufacturers.....thous. of dolls..	24, 538	24, 893	27, 312	25, 660	22, 264	25, 917	27, 047	-13.2	-17.7	136, 766	124, 667	-8.8
<b>Coffee</b>												
Imports.....thous. of bags..	1, 036	1, 229	1, 134	1, 065	915	988	860	-14.1	+6.4	4, 968	5, 379	+8.3
Visible supply:												
World.....thous. of bags..	5, 119	5, 322	5, 264	5, 264	5, 449	5, 207	5, 335	+3.5	+2.1			
United States.....thous. of bags..	671	852	875	851	790	788	683	-7.2	+15.7			
Receipts, total, Brazil.....thous. of bags..	1, 455	1, 469	1, 264	1, 182	1, 247	1, 141	1, 079	+8.2	+15.6	5, 660	6, 587	+16.4
Clearances:												
Total, Brazil, for world.....thous. of bags..	1, 470	1, 427	1, 169	1, 152	1, 027	1, 119	971	-10.9	+5.8	5, 472	6, 245	+14.1
Total, Brazil, for U. S. ....thous. of bags..	881	722	590	548	530	511	503	-3.3	+5.4	2, 877	3, 271	+13.7
Price, Rio No. 7, Brazil grades.....dolls. per lb..	.103	.105	.103	.099	.092	.176	.171	-7.1	-46.2			
<b>Tea</b>												
Imports.....thous. of lbs..	6, 537	5, 602	6, 355	5, 796	4, 712	5, 418	4, 769	-18.7	-1.2	32, 532	29, 002	-10.9
Price, Formosa fine, New York....dolls. per lb..	.300	.300	.300	.300	.300	.330	.330	0.0	-9.1			
<b>Cocoa</b>												
Shipments from the Gold and Nigerian Coasts, Africa.....long tons..												
Imports.....long tons..	43, 838	29, 551	25, 543	13, 951	16, 124	17, 670	12, 464	+15.6	+29.4	165, 350	129, 007	-22.0
Spot price, Accra, New York.....dolls..	25, 176	15, 082	11, 595	12, 164	10, 721	29, 182	15, 394	-11.9	-30.4	113, 606	74, 738	-34.2
	.0938	.0925	.0875	.0869	.0850	.1044	.1031	-2.2	-17.6			
<b>TOBACCO</b>												
Consumption (tax-paid withdrawals):												
Large cigars.....thousands..	418, 900	426, 522	454, 766	469, 969	523, 775	550, 912	572, 413	+11.4	-8.5	2, 479, 822	2, 293, 932	-7.5
Small cigarettes.....thousands..	10, 208, 232	8, 465, 005	9, 165, 175	9, 535, 460	10, 300, 768	9, 608, 221	11, 168, 407	+8.0	-7.8	47, 688, 900	47, 674, 640	-.0
Manufac. tobacco and snuff.....thous. of lbs..	33, 014	30, 308	31, 458	31, 261	32, 579	31, 950	33, 360	+4.2	-2.3	159, 216	158, 260	-0.4
Exports:												
Unmanufactured tobacco.....thous. of lbs..	46, 885	57, 037	54, 887	43, 364	28, 823	39, 634	32, 753	-33.5	-12.0	197, 567	230, 996	+16.9
Cigarettes.....thousands..	465, 464	430, 886	497, 814	366, 674	446, 231	805, 777	703, 045	+21.7	-36.5	4, 245, 422	2, 207, 069	-48.0
<b>TRANSPORTATION</b>												
<b>River and Canal Cargo Traffic</b>												
Panama Canal:												
Total cargo traffic.....thous. of long tons..	2, 612	2, 378	2, 558	2, 457	2, 262	2, 720	2, 537	-7.9	-10.8	13, 410	12, 267	-8.5
In American vessels.....thous. of long tons..	1, 198	1, 058	1, 272	1, 120	1, 116	1, 194	1, 206	-0.4	-7.5	5, 985	5, 764	-3.7
In British vessels.....thous. of long tons..	589	727	611	685	511	735	667	-25.4	-23.4	3, 779	3, 123	-17.4
Sault Ste. Marie canals.....thous. of short tons..				410	11, 320	4, 406	13, 930		-18.7	18, 336	11, 730	-36.0
Cape Cod Canal.....short tons..	186, 172	152, 509	151, 515	184, 002	214, 302	166, 205	201, 444	+16.5	+6.4	793, 262	898, 500	+13.3
Suez Canal.....thous. of metric tons..	2, 744	2, 474	2, 634	2, 475		3, 103	3, 093			<sup>1</sup> 11, 932	<sup>2</sup> 10, 327	-13.5
Welland Canal.....short tons..				141, 679	805, 262	299, 200	775, 786	+468.4	+3.8	1, 074, 806	946, 941	-11.9
St. Lawrence Canal.....short tons..				110, 804	841, 348	215, 402	910, 180		-7.6	1, 125, 582	952, 152	-15.4
Mississippi River Govt. barges.....short tons..	75, 739	75, 157	71, 087	101, 122	124, 924	134, 747	123, 851	+23.5	+0.9	604, 434	448, 029	-25.9
Ohio River, Pittsburgh, Pa., to Wheeling, W. Va. ....short tons..	578, 224	709, 242	838, 991	879, 401	1, 002, 040	976, 992	1, 070, 125	+13.9	-6.4	3, 891, 686	4, 007, 898	+3.0
Allegheny River.....short tons..	93, 825	61, 420	174, 445	335, 262	310, 711	232, 204	328, 289	-7.3	-5.4	917, 516	975, 663	+6.3
Monongahela River.....short tons..	2, 134, 161	2, 179, 305	2, 363, 728	2, 112, 586	2, 265, 032	2, 438, 939	2, 450, 876	+7.2	-7.6	11, 520, 447	11, 054, 812	-4.0
<b>Ocean Traffic</b>												
Clearances, vessels in foreign trade:												
Total.....thous. of net tons..	5, 693	5, 368	5, 834	6, 703	7, 525	6, 661	7, 277	+12.3	+3.4	30, 663	31, 123	+1.5
American.....thous. of net tons..	2, 023	1, 977	2, 116	2, 966	3, 112	2, 738	2, 851	+4.9	+9.2	11, 593	12, 194	+5.2
Foreign.....thous. of net tons..	3, 670	3, 391	3, 718	3, 738	4, 412	3, 924	4, 425	+18.0	-0.3	19, 070	18, 929	-0.7
<b>Shipbuilding</b>												
Completed during month:												
Total.....gross tons..	23, 779	14, 241	23, 840	16, 930	45, 570	20, 668	9, 775	+169.2	+366.2	52, 307	124, 360	+137.8
Steel seagoing.....gross tons..	21, 493	12, 217	13, 088	4, 166	26, 248	9, 468	3, 804			21, 918	77, 212	+252.3
Building or under contract, end of month:												
Merchant vessels.....thous. of gross tons..	376	341	327	366	488	290	268	+33.3	+82.1	1, 030	1, 898	+82.7

2 Revised.

2 Cumulative through Apr. 30.

## TREND OF BUSINESS MOVEMENTS—Continued

The cumulatives shown are through May, except where otherwise noted. Earlier data for items shown here may be found on pages 24 to 138 of the February, 1930, "Survey"	1930					1929		PER CENT INCREASE (+) OR DECREASE (-)		CUMULATIVE TOTAL FROM JANUARY 1 THROUGH MAY 31		Per ct. Increase (+) or decrease (-) cumulative 1930 from 1929
	January	February	March	April	May	April	May	May, 1930, from April, 1930	May, 1930, from May, 1929	1929	1930	
	<b>TRANSPORTATION—Continued</b>											
<b>Freight Cars</b>												
Surplus (daily av. last week of month):												
Total.....cars	392,552	440,275	465,920	427,925	441,503	220,821	222,626	+3.2	+98.3			
Box.....cars	217,024	206,531	203,590	203,192	233,664	89,952	109,924	+15.0	+112.6			
Coal.....cars	123,469	180,089	206,066	168,930	148,873	87,367	64,156	-11.9	+132.0			
Shortage (daily av. last week of month):												
Total.....cars	9					19	18					
Box.....cars												
Coal.....cars												
Car loadings:												
Total.....cars	3,349,424	3,505,962	4,414,625	3,610,293	4,598,555	3,989,142	25,182,402	+27.1	-11.3	21,325,072	19,487,859	-8.6
Grain and grain products.....cars	156,665	174,980	201,047	156,454	188,117	143,913	2,189,867	+20.2	-0.9	917,745	877,263	-4.4
Livestock.....cars	108,036	102,960	118,071	96,373	117,224	106,879	2,128,361	+21.6	-8.7	579,965	542,664	-6.4
Coal and coke.....cars	828,272	797,867	735,508	571,469	739,739	632,491	2,836,072	+29.4	-11.4	4,070,820	3,672,855	-9.8
Forest products.....cars	181,810	217,239	294,071	229,747	264,693	278,384	2,343,179	+15.2	-22.9	1,414,481	1,187,560	-16.0
Ore.....cars	33,637	33,474	45,119	50,805	258,680	110,678	2,357,269	+409.2	-27.6	597,675	421,735	-29.4
Merchandise and l. c. l.....cars	890,152	938,429	1,251,013	1,004,425	1,210,252	1,062,048	2,285,836	+20.5	-5.9	5,540,160	5,294,271	-4.4
Miscellaneous.....cars	1,150,832	1,241,013	1,769,796	1,610,020	1,819,850	1,654,749	2,041,818	+20.5	-10.9	8,204,226	7,491,511	-8.7
<b>Railroad Operations</b>												
Operating revenue:												
Freight.....thous. of dolls.	337,993	327,061	345,204	345,813		2 393,710	412,018					
Passenger.....thous. of dolls.	70,452	61,254	61,788	59,586		2 67,521	68,896					
Total operating.....thous. of dolls.	451,190	427,941	452,717	451,203		2 514,700	537,748					
Operating expenses.....thous. of dolls.	356,469	330,579	351,279	348,214		2 377,045	390,977					
Net operating income.....thous. of dolls.	55,474	59,452	61,074	62,272		2 94,168	103,616					
Freight carried.....mills. ton-miles	36,664	34,341	35,310	34,894		2 38,346	43,027					
<b>Railway Equipment</b>												
Locomotives (Am. Ry. Assn.):												
Owned, end of month—												
Quantity.....number	56,753	56,654	56,486	2 56,456	56,407	58,144	58,052	-0.1	-2.8			
Tractive power.....mills. of lbs.	2,530	2,530	2,528	2,531	2,533	2,550	2,549	+0.1	-0.6			
In bad order, end of month—												
Quantity.....number	7,937	8,342	8,274	8,222	7,798	8,057	7,803	-5.2	-0.1			
Per cent of total in use.....per cent.	14.1	14.8	14.8	14.7	14.0	14.0	13.4	-4.8	+4.5			
Installed.....number	160	115	142	149	177	130	177	+18.8	0.0	653	743	+13.8
Retired.....number	227	218	310	166	226	308	299	+36.1	-16.0	1,334	1,147	-14.0
New orders.....number	163	16	43	29	18	58	44	-37.9	-59.1	340	269	-20.9
Shipments, manufacturers' (Census)—												
Total.....number	48	67	68	97	58	61	99	-40.2	-41.4	241	338	+40.2
Steam, domestic.....number	48	60	64	94	56	57	92	-40.4	-39.1	206	322	+56.3
Electric, domestic.....number		4	2			2	2			15	6	-60.0
Unfilled orders (railroads), end of mo.—												
From manufacturers.....number	334	343	310	239	354	308	265	+48.1	+33.6			
In railroad shops.....number	107	107	132	123	77	38	59	-37.4	+30.5			
Unfilled orders, manufacturers' (Census)—												
Total.....number	587	533	535	464	419	495	444	-9.7	-5.6			
Steam, domestic.....number	527	479	485	417	367	419	362	-12.0	+1.4			
Electric, domestic.....number	50	46	44	44	43	24	22	-2.3	+95.5			
Exports, steam.....number	2	8	10	4	9	10	14	+125.0	-35.7	77	33	-57.1
Freight cars (Am. Ry. Assn.):												
Owned, end of month—												
Quantity.....thous. of cars	2,265	2,267	2,268	2,270	2,270	2,267	2,267	0.0	+0.1			
Capacity.....mills. of lbs.	209,842	210,135	210,315	2 210,726	210,862	208,569	208,850	+0.1	+1.0			
In bad order, end of month—												
Quantity.....cars	124,260	122,327	129,895	129,865	137,386	142,543	144,634	+5.8	-5.0			
Per cent of total in use.....per cent.	5.6	5.5	5.9	5.9	6.2	6.5	6.5	+5.1	-4.6			
New orders.....cars	6,632	15,931	4,464	1,543	1,079	6,983	8,364	-30.1	-87.1	53,260	29,649	-44.3
Shipments—												
Total.....cars	8,095	9,600	6,144	9,087	6,785	5,510	8,459	-25.3	-19.8	20,534	39,711	+93.4
Domestic.....cars	7,426	9,366	6,066	8,874	6,785	5,300	8,350	-23.5	-18.7	18,651	38,517	+106.5
Unfilled orders (railroads)—												
Total.....cars	33,457	30,800	35,181	31,846	28,696	43,486	39,843	-9.9	-28.0			
From manufacturers.....cars	28,057	25,722	29,058	26,518	25,054	36,674	33,588	-5.5	-25.4			
In railroad shops.....cars	5,400	5,078	6,123	5,328	3,646	6,812	6,255	-31.6	-41.7			
Passenger cars:												
New orders.....cars												
Total.....cars	58	134	169	70	72	250	111	+2.9	-35.1	663	503	-24.1
Domestic.....cars	95	78	61	77	72	86	48	-6.5	+50.0	422	383	-9.2
Exports.....cars	80	78	51	65	69	78	44	+6.2	+56.8	408	343	-15.9
<b>Highways</b>												
Concrete pavements, new contracts:												
Total.....thous. of sq. yds.	6,595	6,887	13,700	18,570	18,914	16,654	23,704	+1.9	-20.2	57,060	64,666	+13.3
Road.....thous. of sq. yds.	5,244	5,357	11,294	14,338	14,899	12,315	17,518	+3.9	-15.0	40,437	51,132	+26.4
Federal-aid highways:												
Completed—												
Cost.....thous. of dolls.	7,680	9,266	6,185	6,031	9,317	7,410	10,309	+54.5	-9.6	51,534	38,479	-25.3
Distance.....miles	273	358	227	302	445	211	335	+47.4	+32.8	1,627	1,605	-1.4
Under construction, end of month.....miles	7,054	6,843	6,824	7,230	7,674	7,707	7,900	+6.1	-2.9	38,786	35,625	-8.1
<b>Passenger Travel</b>												
National parks:												
Visitors.....number												
Automobiles entered.....number	47,296	48,342	67,306	75,515	121,194	64,807	102,207	+60.5	+18.6	329,138	359,653	+9.3
Arrivals from abroad:	19,335	9,926	12,841	14,322	35,819	10,466	21,190	+150.1	+69.0	58,456	92,243	+57.8
Immigrants.....number	14,767	13,585	19,759	22,261		28,565	25,711			2 83,770	2 70,372	-16.0
United States citizens.....number	23,985	34,234	40,727	32,115		32,288	27,169			2 126,329	2 131,061	+3.7
Departures abroad:												
Emigrants.....number	3,947	3,180	2,900	3,947		3,387	4,985			2 14,660	2 13,974	-4.7
United States citizens.....number	31,991	33,796	37,930	26,707		25,277	31,505			2 114,404	2 130,321	+14.0
Passports issued.....number	8,485	9,899	18,802	33,148	43,227	29,995	38,715	+30.4	+11.7	104,187	113,561	+9.0

2 Revised.

3 Cumulative through Apr. 30.

## TREND OF BUSINESS MOVEMENTS—Continued

The cumulatives shown are through May, except where otherwise noted. Earlier data for items shown here may be found on pages 24 to 138 of the February, 1930, "Survey"	1930					1929		PER CENT INCREASE (+) OR DECREASE (-)		CUMULATIVE TOTAL FROM JANUARY 1 THROUGH MAY 31		Per cent. increase (+) or decrease (-) cumulative 1930 from 1929
	January	February	March	April	May	April	May	May, 1930, from April, 1930	May, 1930, from May, 1929	1929	1930	
	<b>TRANSPORTATION—Continued</b>											
<b>Passenger Travel—Continued</b>												
Pullman company operations:												
Revenue.....thous. of dolls...	7,143	6,331	6,316	6,247	6,404	6,471				\$ 26,481	\$ 26,037	-1.7
Passengers carried.....thousands...	2,760	2,379	2,457	2,420	2,582	2,590				\$ 10,699	\$ 10,016	-6.4
Trend of business in hotels:												
Room occupancy.....per ct. of capacity..	73	70	67	68	71	71	0.0	-4.2				
Average sale per occupied room.....dollars..	4.04	4.05	3.90	4.05	3.76	4.09	3.88	-7.2	-3.1			
<b>Warehouses</b>												
Public merchandise warehouses, space occupied.....per ct. of total..	74.6	71.7	70.0	69.4		71.8	71.0					
<b>PUBLIC UTILITIES</b>												
Telephone companies:												
Operating revenues.....thous. of dolls...	77,845	75,398	79,200	79,850	74,830	76,158				\$ 295,551	\$ 312,293	+5.7
Operating income.....thous. of dolls...	18,012	17,287	17,984	18,877	17,776	18,355				\$ 73,138	\$ 72,160	-1.3
Telegraph companies:												
Commercial telegraph tolls.....thous. of dolls...	10,518	9,844	10,790	11,002	11,328	11,853				\$ 44,637	\$ 42,154	-5.6
Operating revenues.....thous. of dolls...	13,454	12,652	13,865	13,964	14,344	15,016				\$ 56,448	\$ 53,935	-4.5
Operating income.....thous. of dolls...	435	532	1,442	1,673	1,700	1,749				\$ 6,705	\$ 4,082	-39.1
Gas and electric companies:												
Gross earnings.....thous. of dolls...	211,000	199,500	199,000	198,000	190,000	189,750				\$ 782,000	\$ 807,500	+3.3
Net earnings.....thous. of dolls...	92,000	90,000	88,000	89,500	83,000	82,500				\$ 346,000	\$ 359,500	+3.9
Electric railways (212 companies):												
Passengers carried.....thous. of persons...	781,927	705,454	760,269	728,820	736,202	774,517	792,894	+1.0	-7.2	3,928,682	3,712,672	-5.5
Average fare.....cents.....	8.288					8.202	8.221					
<b>ELECTRIC POWER</b>												
Electric power production:												
Total.....mills. of kw. hours...	8,652	7,618	8,170	7,960	7,881	8,084				\$ 31,540	\$ 32,400	+2.7
By water power.....mills. of kw. hours...	2,935	2,705	2,264	3,272	3,285	3,483				\$ 11,572	\$ 12,176	+5.2
By fuels.....mills. of kw. hours...	5,717	4,913	4,906	4,688	4,596	4,601				\$ 19,968	\$ 20,224	+1.3
In street railways, manfg. plants, etc.....mills. of kw. hours...	2,497	441	2,501	518	375	378				\$ 1,577	\$ 1,957	+24.1
In central stations.....mills. of kw. hours...	8,155	7,177	7,669	7,442	7,506	7,706				\$ 29,963	\$ 30,443	+1.6
Electric power production (Canada):												
Total.....mills. of kw. hours...	1,546	1,391	1,508	1,493	1,409	1,457				\$ 5,734	\$ 5,938	+3.6
By water power.....mills. of kw. hours...	1,505	1,364	1,484	1,472	1,379	1,432				\$ 5,614	\$ 5,825	+3.8
Exported.....mills. of kw. hours...	113	117	127	118	111	112				\$ 463	\$ 475	+2.6
Electric power, gross revenue.....thous. of dolls...	198,300	185,800	177,100	175,900	170,900	165,600				\$ 705,200	\$ 737,100	+4.5
Consumption of electrical energy:												
By geographic divisions—												
United States.....rel. to 1923-25..	121.8	123.5	120.2	120.3	119.0	136.4	136.9	-1.1	-13.1			
New England.....rel. to 1923-25..	120.5	113.3	105.0	102.9	106.3	125.4	123.3	+3.3	-13.8			
North Central.....rel. to 1923-25..	128.0	136.8	128.4	125.7	125.8	146.5	148.9	+0.1	-15.5			
Middle Atlantic.....rel. to 1923-25..	125.8	126.0	122.2	117.2	112.3	128.0	130.4	-4.2	-13.9			
Southern.....rel. to 1923-25..	110.0	118.3	121.7	117.3	122.3	126.3	128.1	+4.3	-4.5			
Western.....rel. to 1923-25..	115.2	127.5	117.4	127.6	130.5	137.0	144.7	+2.3	-9.8			
By industry—												
All industry.....rel. to 1923-25..	121.8	123.5	120.2	120.3	119.0	136.4	136.9	-1.1	-13.1			
Chemical and allied products.....rel. to 1923-25..	136.7	139.6	140.0	137.2	146.6	131.7	129.2	+6.9	+13.5			
Food and kindred products.....rel. to 1923-25..	132.3	129.2	129.8	119.4	138.2	121.2	122.6	+15.7	+12.7			
Rolling mills and steel plants.....rel. to 1923-25..	143.1	143.0	136.8	138.3	135.1	153.3	172.2	-2.3	-21.5			
Metal working plants.....rel. to 1923-25..	126.7	130.5	132.0	125.5	116.3	148.3	144.2	-7.3	-19.3			
Metal groups.....rel. to 1923-24..	132.9	135.0	133.7	130.2	123.2	149.9	154.8	-5.4	-20.4			
Leather and its products.....rel. to 1923-25..	92.3	86.5	80.8	91.2	66.3	82.0	95.2	-27.3	-30.4			
Lumber and its products.....rel. to 1923-25..	87.5	94.7	93.7	102.8	102.4	108.0	111.1	-0.4	-7.8			
Paper and pulp.....rel. to 1923-25..	120.8	138.0	135.0	126.7	132.2	136.0	129.9	+4.3	+1.8			
Rubber and its products.....rel. to 1923-25..	144.4	185.4	130.3	138.5	135.3	155.7	157.6	-2.3	-14.1			
Shipbuilding.....rel. to 1923-25..	124.4	125.4	117.7	130.1	113.2	116.1	135.2	-13.0	-16.3			
Stone, clay, and glass.....rel. to 1923-25..	124.2	116.7	117.9	129.9	121.2	145.0	143.5	-6.7	-15.5			
Textiles.....rel. to 1923-25..	112.4	103.3	99.6	102.3	96.0	128.1	129.9	-6.2	-26.1			
Automobiles, including repair parts.....rel. to 1923-25..	99.8	116.6	108.9	112.9	105.8	170.6	161.8	-6.3	-34.6			
<b>EMPLOYMENT AND WAGES</b>												
Employment in factories:												
New York State.....rel. to 1923..	82.3	81.9	81.8	80.3	79.0	88.3	87.5	-1.6	-9.7			
Maryland.....rel. to 1924..	86.2	87.2	87.5	88.6	87.4	91.8	91.6	-1.4	-4.6			
Iowa.....rel. to 1923..	122.9	125.2	123.0	124.3	126.1	127.4	127.6	+1.4	-1.2			
Illinois.....rel. to 1925-27..	97.8	98.0	96.9	95.0	93.4	103.0	103.7	-1.7	-9.9			
Wisconsin.....rel. to 1923..	90.0	90.7	90.6			99.2	99.1					
Ohio.....rel. to 1923..	101					115	115					
Cleveland.....rel. to Jan., 1921..	109.1	107.4	106.7			123.1	124.0					
Detroit.....rel. to 1923-25..	106.5	108.0	108.5	110.5	109.2	136.0	131.0	-1.2	-16.6			
New York State.....number..	455,480	453,284	452,472	444,133	436,926	488,390	484,464	-1.6	-9.8			
Oklahoma.....number..	33,081	32,938				34,809	34,686					
Total pay roll:												
New York State (weekly).....thous. of dolls...	13,524	13,304	13,481	13,030	12,667	14,687	14,549	-2.8	-12.9			
Oklahoma (weekly).....thous. of dolls...	900	916				908	1,039					
Wisconsin.....rel. to 1923..	87.7	93.0	96.9			111.5	110.1					
New York State.....rel. to 1923..	89.7	88.3	89.4	86.4	84.0	97.4	96.5	-2.8	-13.0			
Illinois.....rel. to 1925-27..	91.2	94.0	90.1	89.1	86.5	105.2	105.7	-2.9	-18.2			
Employment:												
Canada.....rel. to cal. year 1926..	111.2	111.6	110.2	107.8	111.4	110.4	116.2	+3.3	-4.1			

\* Revised.

\* Cumulative through Apr. 30.











## TREND OF BUSINESS MOVEMENTS—Continued

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	January	February	March	April	May	April	May	May, 1930, from April, 1930	May, 1930, from May, 1929	1929	1930	
	<b>BANKING AND FINANCE—Continued</b>											
<b>Stocks and Bonds—Continued</b>												
<b>Stock yields:</b>												
Total common (90).....per cent..	4.38	4.14	3.99	3.78	4.02	3.35	3.37	+6.3	+19.3			
Industrials (50).....per cent..	4.75	4.53	4.36	4.13	4.42	3.32	3.37	+7.0	+31.2			
Public utilities (20).....per cent..	2.91	2.64	2.55	2.34	2.50	2.65	2.48	+6.8	+0.8			
Railroads (20).....per cent..	5.03	4.80	4.78	4.84	5.03	4.68	4.79	+3.9	+5.0			
Preferred high grade industrial (20).....per cent..	5.53	5.52	5.48	5.46	5.48	5.45	5.45	+0.4	+0.6			
Stock sales, N. Y. Stock Exch., thous. of shares..	62,308	68,723	96,552	126,910	78,040	82,600	91,283	-38.5	-14.5	468,318	432,533	-7.6
<b>Bond sales:</b>												
Miscellaneous.....thous. of dolls..	201,400	195,046	335,934	264,898	220,131	205,649	225,716	-16.9	-2.5	1,042,805	1,217,409	+16.7
Liberty-Treasury.....thous. of dolls..	7,975	8,136	15,222	9,731	7,064	9,970	8,851	-27.4	-20.2	54,246	48,128	-11.3
Total.....thous. of dolls..	209,375	203,182	351,156	274,629	227,195	215,619	234,567	-17.3	-3.1	1,097,051	1,265,537	+15.4
<b>Bond prices:</b>												
Highest-grade rails p. ct. of par. 4% bond..	89.52	88.81	90.52	89.81	90.42	88.05	87.81	+0.7	+3.0			
Second-grade rails p. ct. of par. 4% bond..	82.39	82.66	84.73	84.32	84.49	79.27	79.13	+0.2	+6.8			
Public utility p. ct. of par. 4% bond..	73.45	74.10	75.63	75.76	75.36	76.19	75.03	-0.5	+0.4			
Industrial p. ct. of par. 4% bond..	74.49	74.59	76.06	76.64	76.35	77.47	76.51	-0.4	-0.2			
Comb. price index p. ct. of par. 4% bond..	79.44	79.58	81.27	81.23	81.20	80.00	79.33	0.0	+2.4			
<b>Bond prices, 1st of following month:</b>												
5 Liberty bonds p. ct. of par..	103.08	103.87	104.53	104.16	104.92	101.75	100.24	+0.7	+4.7			
50 Domestic bonds p. ct. of par..	97.90	98.16	99.20	98.87	99.23	98.25	96.79	+0.4	+2.5			
40 Representative issues p. ct. of par..	89.74	90.88	93.88	91.97	92.01							
<b>Bond yields:</b>												
Total, 60 high grade.....per cent..	4.64	4.65	4.55	4.54	4.54	4.69	4.69	0.0	-3.2			
Railroads (15).....per cent..	4.51	4.53	4.43	4.47	4.45	4.59	4.58	-0.4	-2.8			
Industrials (15).....per cent..	5.04	5.02	4.95	4.91	4.92	5.02	5.06	+0.2	-2.8			
Utilities (15).....per cent..	4.79	4.79	4.71	4.69	4.68	4.85	4.85	-0.2	-3.5			
Municipal (15).....per cent..	4.23	4.24	4.12	4.11	4.11	4.29	4.23	0.0	-2.8			
Municipal bond yield (20).....per cent..	4.29	4.27	4.15	4.17	4.18	4.25	4.30	+0.2	-2.8			
U. S. Treasury notes and certificates, 3-6 months.....per cent..	3.39	3.36	2.95	3.00	2.41	4.80	5.09	-19.7	-52.7			
Liberty and Treasury bonds.....per cent..	3.51	3.50	3.40	3.46	3.41	3.67	3.67	-1.4	-7.1			
<b>Long-term and real-estate bonds issued:</b>												
Grand total.....thous. of dolls..	23,363	15,290	11,350	27,435	3,813	21,711	22,868	-86.1	-83.3	208,124	81,251	-61.0
<b>Purpose of issue:</b>												
Finance construction.....thous. of dolls..	17,500	3,050	4,740	8,295	88	12,962	8,720	-98.9	-99.0	67,487	33,673	-50.1
Real-estate mortgage.....thous. of dolls..	2,075	3,205	1,360	180	2,025	4,529	4,148		-51.2	59,409	8,845	-85.1
Acquisitions and improvements.....thous. of dolls..	750	200	850	5,000	100	2,000	2,275	-98.0	-95.6	42,625	6,900	-83.8
<b>Kind of structure:</b>												
Office and commercial.....thous. of dolls..	17,225	8,800	5,130	7,685	1,943	5,390	4,760	-74.7	-59.2	51,725	40,783	-21.2
Hotels.....thous. of dolls..	690			110	500	7,810	2,900	+354.5	-82.8	13,360	1,300	-90.3
Apartments.....thous. of dolls..	235		385	5,000		1,722	1,855			10,067	5,620	-44.2
Interest rates.....per cent..	6.10	6.01	6.00	6.13	5.93	5.90	6.11	-3.3	-2.9			
<b>FOREIGN EXCHANGE RATES</b>												
<b>Europe:</b>												
England.....dolls. per £ sterling..	4.87	4.86	4.86	4.86	4.86	4.85	4.85	0.0	+0.2			
France.....dolls. per franc..	.039	.039	.039	.039	.039	.039	.039	0.0	0.0			
Italy.....dolls. per lira..	.052	.052	.052	.052	.052	.052	.052	0.0	0.0			
Belgium.....dolls. per franc..	.139	.139	.139	.140	.140	.139	.139	0.0	+0.7			
Netherlands.....dolls. per guilder..	.402	.401	.401	.402	.402	.401	.402	0.0	0.0			
Sweden.....dolls. per krone..	.269	.268	.269	.269	.268	.267	.267	-0.4	+0.4			
Switzerland.....dolls. per franc..	.194	.193	.194	.194	.194	.193	.193	0.0	+0.5			
<b>Asia:</b>												
Japan.....dolls. per yen..	.491	.491	.493	.494	.494	.446	.447	0.0	+10.5			
India.....dolls. per rupee..	.363	.362	.361	.361	.361	.363	.362	0.0	-0.3			
<b>America:</b>												
Canada.....dolls. per Canadian doll..	.989	.992	.998	1.000	.998	.992	.993	-0.2	+0.5			
Argentina.....dolls. per gold peso..	.913	.865	.856	.856	.872	.956	.955	-1.6	-8.7			
Brazil.....dolls. per milreis..	.111	.112	.115	.117	.118	.118	.119	+0.9	-0.8			
Chile.....dolls. per paper peso..	.121	.120	.121	.121	.121	.121	.120	0.0	+0.8			
<b>U. S. FOREIGN TRADE</b>												
<b>Imports</b>												
Grand total.....thous. of dolls..	310,968	281,707	300,460	307,824	284,644	410,666	400,149	-7.5	-28.9	1,932,972	1,485,603	-23.1
<b>By grand divisions:</b>												
<b>Europe—</b>												
Total.....thous. of dolls..	88,783	84,616	87,726	93,004		113,942	113,791			343,237	354,129	-18.6
France.....thous. of dolls..	10,831	10,442	9,852	10,194		11,432	13,954			53,444	41,319	-20.7
Germany.....thous. of dolls..	17,667	16,029	18,663	17,300		24,426	20,627			86,066	69,659	-19.1
Italy.....thous. of dolls..	7,770	6,685	6,821	8,698		9,819	10,375			35,631	29,974	-15.9
United Kingdom.....thous. of dolls..	18,163	20,014	21,194	24,513		29,978	29,762			114,464	83,884	-26.7
<b>North America—</b>												
Total.....thous. of dolls..	68,784	61,494	70,636	72,088		93,639	92,363			348,099	273,002	-21.6
Canada.....thous. of dolls..	37,394	33,289	38,431	36,339		40,395	44,330			159,367	145,453	-8.7
<b>South America—</b>												
Total.....thous. of dolls..	44,035	46,488	48,669	47,591		61,284	53,628			240,060	186,783	-22.2
Argentina.....thous. of dolls..	6,572	9,453	12,175	12,226		13,063	9,172			45,765	40,426	-11.7
<b>Asia and Oceania—</b>												
Total.....thous. of dolls..	97,712	83,471	87,154	87,260		124,500	130,059			463,605	355,597	-23.3
Japan.....thous. of dolls..	31,106	28,110	23,205	24,433		28,819	33,828			135,421	106,854	-21.1
Africa, total.....thous. of dolls..	11,653	5,721	6,280	7,385		17,300	10,308			45,821	31,039	-32.3
<b>By economic classes:</b>												
Crude materials.....thous. of dolls..	109,026	98,581	101,685	105,568	86,743	146,932	141,739	-17.8	-38.8	707,359	501,594	-29.1
<b>Foodstuffs, crude and food animals.....thous. of dolls..</b>												
Total.....thous. of dolls..	39,375	39,394	40,136	38,597	34,744	52,172	46,561	-10.0	-25.4	245,541	192,246	-21.7
Manufactured foodstuffs.....thous. of dolls..	23,930	20,414	26,933	21,078	41,571	45,919	42,890	+33.8	-1.8	198,075	143,930	-27.3
Semimanufactures.....thous. of dolls..	68,022	59,034	62,692	61,789	53,154	82,264	85,875	-14.0	-38.1	379,125	304,691	-19.6
Finished manufactures.....thous. of dolls..	70,613	64,284	69,014	70,791	68,431	83,379	83,684	-3.3	-18.2	402,871	343,142	-14.8

<sup>2</sup> Revised.<sup>3</sup> Cumulative through Apr. 30.

## TREND OF BUSINESS MOVEMENTS—Continued

The cumulatives shown are through May, except where otherwise noted. Earlier data for items shown here may be found on pages 24 to 133 of the February, 1930, "Survey"	1930					1929		PER CENT INCREASE (+) OR DECREASE (-)		CUMULATIVE TOTAL FROM JANUARY 1 THROUGH MAY 31		Per ct. increase (+) or decrease (-) cumulative 1930 from 1929
	January	February	March	April	May	April	May	May, 1930, from April, 1930	May, 1930, from May, 1929	1929	1930	
	<b>U. S. FOREIGN TRADE—Continued</b>											
<b>Exports</b>												
Grand total, including reexports.....thous. of dolls..	411,314	348,962	369,624	331,843	322,000	425,264	384,855	-3.0	-16.3	2,220,742	1,783,743	-20.0
By grand division:												
Europe.....												
Total.....thous. of dolls..	207,209	169,282	174,764	142,159	-----	172,188	146,025	-----	-----	<sup>3</sup> 819,857	<sup>3</sup> 693,414	-15.4
France.....thous. of dolls..	25,216	20,877	21,396	16,855	-----	19,444	13,248	-----	-----	<sup>3</sup> 94,741	<sup>3</sup> 84,344	-11.0
Germany.....thous. of dolls..	31,391	21,997	27,129	18,960	-----	26,537	23,927	-----	-----	<sup>3</sup> 135,019	<sup>3</sup> 99,477	-26.3
Italy.....thous. of dolls..	11,390	11,116	10,518	8,915	-----	13,065	9,771	-----	-----	<sup>3</sup> 56,829	<sup>3</sup> 41,939	-26.2
United Kingdom.....thous. of dolls..	79,351	59,442	58,076	46,713	-----	59,289	54,431	-----	-----	<sup>3</sup> 294,947	<sup>3</sup> 243,582	-17.4
North America.....												
Total.....thous. of dolls..	88,911	90,507	100,359	98,486	-----	128,038	132,897	-----	-----	<sup>3</sup> 476,318	<sup>3</sup> 378,263	-20.6
Canada.....thous. of dolls..	54,162	57,696	66,565	63,997	-----	91,928	97,905	-----	-----	<sup>3</sup> 324,251	<sup>3</sup> 242,420	-25.2
South America.....												
Total.....thous. of dolls..	37,481	28,236	31,292	30,608	-----	44,384	35,852	-----	-----	<sup>3</sup> 202,462	<sup>3</sup> 127,617	-37.0
Argentina.....thous. of dolls..	13,919	10,638	11,637	12,012	-----	15,874	13,886	-----	-----	<sup>3</sup> 73,760	<sup>3</sup> 48,206	-34.6
Asia and Oceania.....												
Total.....thous. of dolls..	67,357	51,995	53,730	52,780	-----	69,498	61,540	-----	-----	<sup>3</sup> 299,891	<sup>3</sup> 225,862	-24.7
Japan.....thous. of dolls..	23,997	15,018	15,637	18,325	-----	20,579	17,380	-----	-----	<sup>3</sup> 92,251	<sup>3</sup> 72,977	-20.9
Africa, total.....thous. of dolls..	10,357	8,943	9,479	7,820	-----	11,156	8,541	-----	-----	<sup>3</sup> 46,358	<sup>3</sup> 36,599	-21.0
By economic classes:												
Total domestic exports only.....thous. of dolls..	404,377	342,964	<sup>2</sup> 363,162	<sup>2</sup> 326,544	312,021	418,051	377,083	-4.4	-17.3	2,191,757	1,749,068	-20.2
Crude materials.....thous. of dolls..	103,907	67,711	70,429	<sup>2</sup> 52,416	40,781	71,255	57,412	-22.2	-29.0	428,067	335,244	-21.7
Foodstuffs, crude and food animals.....thous. of dolls..	17,711	<sup>2</sup> 13,254	9,325	<sup>2</sup> 9,356	12,448	15,810	21,212	+33.0	-41.3	112,402	62,093	-44.8
Manufactured foodstuffs.....thous. of dolls..	39,839	33,520	34,373	27,719	30,363	37,447	35,922	+9.5	-15.5	203,548	165,814	-18.5
Semimanufactures.....thous. of dolls..	50,784	45,304	<sup>2</sup> 49,094	<sup>2</sup> 47,783	49,949	65,413	59,820	+4.5	-16.5	320,788	242,914	-24.3
Finished manufactures.....thous. of dolls..	192,136	183,176	<sup>2</sup> 199,942	<sup>2</sup> 189,269	178,481	228,126	202,717	-5.7	-12.0	1,126,954	943,003	-16.3
Agricultural exports (quantities):												
All commodities.....rel. to 1910-1914.....	113	79	82	65	56	86	79	-13.8	-29.1	-----	-----	-----
All commodities except cotton.....rel. to 1910-1914.....	123	105	98	83	90	112	122	+8.4	-26.2	-----	-----	-----
<b>CANADIAN FOREIGN TRADE</b>												
Total trade:												
Imports.....thous. of dolls..	84,910	80,922	112,991	71,402	101,545	97,517	125,615	+47.8	-19.2	552,420	451,770	-18.2
Exports.....thous. of dolls..	75,369	<sup>2</sup> 68,150	91,692	52,508	79,464	67,154	109,436	+51.3	-27.4	475,218	367,183	-22.7

<sup>1</sup> Revised.<sup>3</sup> Cumulative through Apr. 30.





## PUBLICATIONS OF THE DEPARTMENT OF COMMERCE

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

**Aviation.—Air Commerce Bulletin.**—Issued semimonthly by the Aeronautics Branch of the Department of Commerce and contains short articles on aviation developments and a list of air transport routes.

**Airports in Latin America.** ii+60 pages. (Bureau of Foreign and Domestic Commerce. Trade Information Bulletin No. 696.) This bulletin deals with the developments in aviation in the various Latin American countries, showing their physical peculiarities and the location of airports. Price, 10¢.

**Bureau of Standards Journal of Research.**—Published monthly and contains the papers formerly issued as Scientific and Technologic Papers series, which have been discontinued. The articles in the journal are known as the Research Papers series and are issued separately after publication in the journal. Single copies, 40¢; annual subscription, \$2.75.

**Calorimetry of a Fluid.** by Nathan S. Osborne. (Bureau of Standards. Research Paper No. 168.) Reprint from Bureau of Standards Journal of Research, vol. 4, May, 1930, pp. 609-629. Description of equipment used and experiments performed to determine the thermal behavior of fluids. Price, 5¢.

**Chemicals and drugs.—Arc Spectrum of Bromine and its Structure.** by C. C. Kiess and T. L. deBruin. (Bureau of Standards. Research Paper No. 172.) Reprint from Bureau of Standards Journal of Research, vol. 4, May, 1930, pp. 667-692, 1 illustration, 3 pages of plates. Price, 10¢.

**Coal.—Coal in 1928.** by F. G. Tryon, O. E. Kiessing, and L. Mann. (Bureau of Mines. Mineral Resources of United States, 1928, Pt. II, pp. 423-606, 6 illus., 16 charts.) Report on the activities of the coal industry during 1928. Price, 30¢.

**Commercial standards. Men's Pajamas (Made from Woven Fabrics).** iv+12 pages, 2 illustrations. (Bureau of Standards. Commercial Standard CS15-29.) Price, 5¢.

**Confectionery Distribution in United States.** by Rupert L. Purdon. iv+34 pages. (Bureau of Foreign and Domestic Commerce. Domestic Commerce Series No. 31.) Study of trends in confectionery sales, methods of distribution, consumption, sales expense factors, and foreign trade of the United States in this product. Price, 10¢.

**Credit.—Credit Extension and Causes of Failure Among Philadelphia Grocers.** ii+12 pages. (Bureau of Foreign and Domestic Commerce. Trade Information Bulletin No. 700.) Study of credit conditions and causes of failure among grocery retailers in Philadelphia. Price, 10¢.

**National Retail Credit Survey: Part II.** iv+48 pages. (Bureau of Foreign and Domestic Commerce. Domestic Commerce Series No. 34.) Study of credit extension by different classes of business, showing credit losses, credit terms, use of credit bureaus, and collection percentages. Price, 10¢.

**National Retail Credit Survey: Part III. Including Summary Tables.** iv+66 pages. (Bureau of Foreign and Domestic Commerce. Domestic Commerce Series No. 36.) Study of kinds and extent of credit business of different classes of stores, showing losses, returns and allowances, terms granted on installment sales, and collection percentages. Price, 10¢.

**Finances.—Balance of International Payments of United States in 1929.** by Ray Hall, with foreword by R. P. Lamont, Secretary of Commerce. viii+74 pages. (Bureau of Foreign and Domestic Commerce. Trade Information Bulletin No. 698.) A brief review is given of the trade of the United States for 1929. There is a discussion of freight payments and receipts, tourist expenditures abroad, immigrant remittances, American investments abroad, yield of foreign investments in the United States, war debt payments by foreign countries to the United States, and gold and silver exports and imports. A statement is made regarding the purpose and methods of balances of payments. Price, 10¢.

**Gas Analysis Pipette for Difficult Absorptions.** by Martin Shepherd. (Bureau of Standards. Research Paper No. 177.) Reprint from Bureau of Standards Journal of Research, vol. 4, June, 1930, pp. 747-752, 2 illus. Price, 5¢.

**Gases.—Apparatus and Method for Determining Compressibility of Gas and Correction for Supercompressibility.** by Howard S. Bean. (Bureau of Standards. Research Paper No. 170.) Reprint from Bureau of Standards Journal of Research, vol. 4, May, 1930, pp. 645-661, 3 illus., 2 charts. Price, 5¢.

**Iron and Steel.—Endurance Properties of Some Special Rail Steels.** by John F. Freeman and R. D. France. (Bureau of Standards. Research Paper No. 182.) Reprint from Bureau of Standards Journal of Research, vol. 4, June, 1930, pp. 851-874, 2 illus., 12 charts. Report on experiments to determine the endurance properties of different kinds of rail steels. Price, 10¢.

**Light.—Light Scattering in Liquids.** by R. M. Langer and William F. Meggers. (Bureau of Standards. Research Paper No. 175.) Reprint from Bureau of Standards Journal of Research, vol. 4, May, 1930, pp. 711-736, 1 illustration, 5 pages of plates. Price, 15¢.

**Machinery.—Knitted Outerwear Machinery in Philadelphia.** vi+55 pages. (Bureau of Foreign and Domestic Commerce. Domestic Commerce Series No. 35.) Study of the equipment in 32 factories producing sweaters, bathing suits, golf hose and other knit apparel. An appendix contains summary and detail tables. Price, 10¢.

**Marine standards.—Sleeve Couplings for Ship Propeller Shafts, Solid and Split Types.** compiled and promulgated by American Marine Standards Committee. 11 pages, illustrations. (Bureau of Standards. American Marine Standards E No. 28-1929 and E No. 29-1929.) Price, 5¢.

**Marriage and Divorce, 1928: Statistics of Marriages, Divorces, and Annulments of Marriage, Seventh Annual Report.** iv+90 pages. (Bureau of the Census.) Price, 15¢.

**Metals and minerals.—Cement in 1928.** by B. W. Bagley. (Bureau of Mines. Mineral Resources of United States, 1928, Pt. II, pp. 337-372.) This publication shows the production, consumption, and stocks of, and trade in cement during 1928. Price, 10¢.

**Chemistry of Leaching Chalcocite.** by John D. Sullivan. ii+24 pages, 2 pages of plates, 2 charts. (Bureau of Mines. Technical Paper 473.) Data on experiments in the dissolution of chalcocite. Price, 10¢.

**Fluorspar and Cryolite in 1929.** by Hubert W. Davis. (Bureau of Mines. Mineral Resources of United States, 1929, Pt. II, pp. 1-21.) Data on fluorspar production, consumption, and trade of the United States, world production of this mineral, and source of cryolite. Price, 5¢.

**Gold, Silver, Copper, Lead, and Zinc in Montana in 1928.** by C. N. Gerry. (Bureau of Mines. Mineral Resources of United States, 1928, Pt. I, pp. 663-606.) Price, 10¢.

**Gold, Silver, Copper, Lead, and Zinc in New Mexico and Texas in 1928.** by Charles W. Henderson. (Bureau of Mines. Mineral Resources of United States, 1928, Pt. I, pp. 529-561.) Price, 10¢.

**Innovations in Copper Leaching Employing Ferric Sulphate-Sulphuric Acid.** by Harmon E. Keyes. iv+67 pages, 4 illustrations, 9 pages of plates, 10 charts. (Bureau of Mines. Bulletin 321.) Discussion of results of experiments to develop a cheap and efficient solvent for leaching copper. A bibliography is included. Price, 20¢.

**On Modified Method for Decomposing Aluminous Silicates for Chemical Analysis.** by A. N. Finn and J. F. Klekotka. (Bureau of Standards. Research Paper No. 180.) Reprint from Bureau of Standards Journal of Research, vol. 4, June, 1930, pp. 809-813. Price, 5¢.



# CHIEF FUNCTIONS OF THE DEPARTMENT OF COMMERCE

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## BUREAU OF STANDARDS

GRONAN K. BUNSON, Director

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

Testing of Government fuels and management of the Government Fuel Yard at Washington.

Research on helium and operation of plants producing it.

Studies in the economics and marketing of minerals and collection of statistics on mineral resources and mine accidents.

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

## BUREAU OF FISHERIES

HENRY O'MALLEY, Commissioner

The propagation and distribution of food fish and shellfish, in order to prevent the depletion of the fisheries; investigations to promote conservation of fishery resources; the development of commercial fisheries and agriculture; study of fishery methods, improvements in merchandising and collection of fishery statistics; administration of Alaska fisheries and fur seals; and the protection of sponges off the coast of Florida.

## BUREAU OF LIGHTHOUSES

GEORGE R. PUTNAM, Commissioner

Maintenance of lighthouses and other aids to seafaring navigation. Establishment and maintenance of aids to navigation along civil airways.

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

## COAST AND GEODETIC SURVEY

RAYMOND S. PATTON, Director

Survey of the coasts of the United States and publications of charts for the navigation of the adjacent waters, including Alaska, the Philippine Islands, Hawaii, Porto Rico, the Virgin Islands, and the Canal Zone; interior control surveys; magnetic surveys; tide and current observations; and seismological investigations.

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

## BUREAU OF NAVIGATION

ARTHUR J. TREE, Commissioner

Superintendence of commercial marine and merchant seamen. Supervision of registering, enrolling, licensing, numbering, etc., of vessels under the United States flag, and the annual publication of a list of such vessels.

Enforcement of the navigation and steamboat inspection laws, including imposition of fees, fines, tonnage taxes, etc.

## STEAMBOAT INSPECTION SERVICE

DICKINSON N. HOOVER, Supervising Inspector General

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

## UNITED STATES PATENT OFFICE

THOMAS E. ROBERTSON, Commissioner

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

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

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

## RADIO DIVISION

W. D. TERRELL, Chief

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