

UNITED STATES  
DEPARTMENT OF COMMERCE  
WASHINGTON

SURVEY OF  
CURRENT BUSINESS

MARCH, 1930

No. 103



ISSUED BY  
BUREAU OF THE CENSUS

**IMPORTANT NOTICE**

*In addition to figures given from Government sources, there are also incorporated for completeness of service figures from other sources generally accepted by the trades. The authority and responsibility for which are noted in the "Sources of Data" on pages 139-142 of the February, 1930, periodical 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 those 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 semi-annual intervals detailed tables are published giving for each item monthly figures for the past two years and yearly comparisons where available back to 1917. The blank lines sufficient for six months have been left at the bottom of each table, enabling those who wish 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 publish supplements every week to subscribers in the form of charts. The supplements are quickly 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 put series expressed in different units, relative numbers (often called "index numbers," a term frequently used particularly for 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 quantity averaged for the base year or period to equal 100. If the quantity 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 obtained by a process of weighings, the resulting series is designated 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 month. 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 irons, 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 January and contains text covering the early weeks of February (page 1), for which the basic figures in table and chart form are presented regularly in the weekly supplements. Current 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 you week the latest data available.*



# SURVEY OF CURRENT BUSINESS



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No. 103

WASHINGTON

March, 1930

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## PRELIMINARY SUMMARY FOR FEBRUARY

The volume of commercial transactions during February, as based upon weekly check payments, was lower than in February, 1929. Activity in steel plants was greater than in the previous month but was lower than in February, 1929.

Factory employment in Detroit was substantially lower than a year ago. The output of crude petroleum was on about the same level as in February, 1929.

Movement of goods through primary channels, as reflected by data on car loadings, was larger than in January but smaller than a year ago. The volume of new-building contracts awarded during the month was lower than in either the previous month or February of the preceding year.

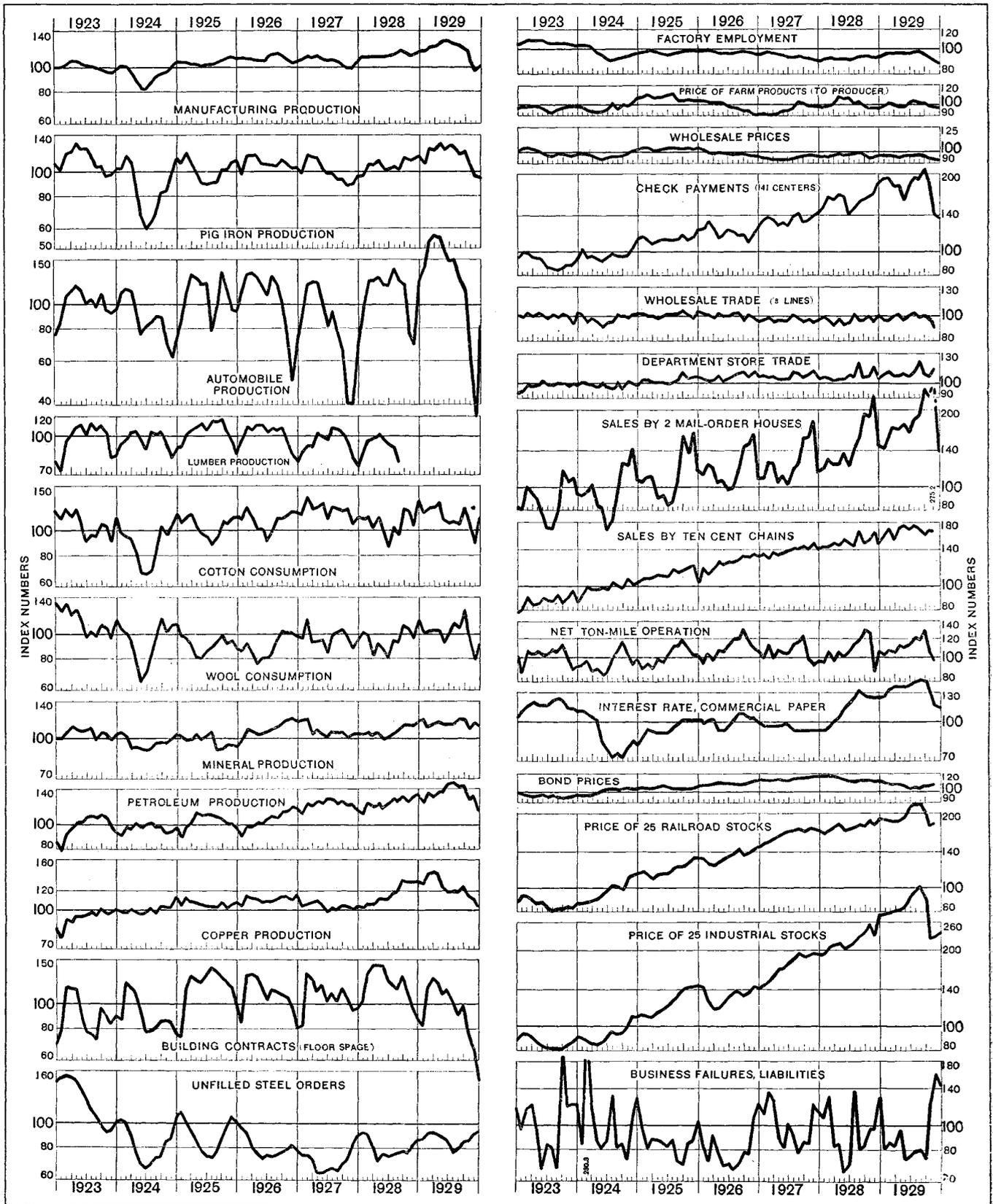
The general index of wholesale prices was lower

than in the previous month, registering a decline also from a year ago. Prices for wheat averaged lower than in either period, while cotton prices and iron and steel prices also showed declines from both periods.

Bank loans and discounts were lower than in the preceding month but were higher than a year ago. Interest rates were generally lower than in February, 1929. Brokers' loans showed practically no change at the end of February from the preceding month but were substantially lower than a year ago. Prices for stocks averaged higher than in January but were lower than last year. Bond prices showed only slight change from the previous month but were lower than a year ago. Business failures were larger in number than in February, 1929.

## 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	Jan	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	
	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	117.0	117.0	120.0	123.0	124.0	128.0	125.0	124.0	122.0	117.0	105.0	96.0	102.0	
• Total minerals.....	105.0	96.0	99.0	107.0	107.0	106.0	115.0	117.0	120.0	107.0	115.0	116.0	112.0	114.0	115.0	118.0	118.0	110.0	116.0	112.0	
Pig iron.....	111.7	86.7	101.5	109.0	101.0	105.5	117.9	115.2	107.3	124.3	122.6	130.5	124.4	126.7	125.7	117.1	120.1	106.5	94.9	94.6	
Steel ingots.....	104.8	88.7	106.4	113.1	104.6	120.2	130.6	129.9	125.1	146.3	142.8	152.5	141.2	139.9	142.5	130.5	130.5	101.6	83.8	109.5	
Automobiles.....	101.7	90.8	107.5	108.4	85.7	109.9	135.1	121.3	141.1	177.1	188.1	182.9	165.1	151.5	150.8	125.8	114.9	65.8	36.3	82.6	
Cement.....	92.1	99.8	108.1	110.0	115.3	118.0	114.1	79.5	68.6	80.2	110.6	129.9	135.2	139.3	149.5	138.6	134.6	113.1	90.2	68.4	
Cotton (consumption).....	105.9	89.7	104.4	108.5	120.2	106.7	114.6	130.2	115.9	123.1	123.1	130.3	111.1	106.6	108.7	106.3	124.9	106.0	88.4	112.5	
Wool (consumption).....	112.8	94.6	92.6	85.7	97.0	94.7	103.1	114.0	101.3	102.7	103.8	102.9	93.0	99.8	111.1	105.0	125.3	98.5	79.8	92.1	
<b>Raw material output:</b>																					
Animal products.....	100.0	104.0	96.0	96.0	97.0	99.0	99.2	96.0	80.0	88.0	99.7	108.9	111.8	116.0	100.0	98.7	102.6	95.2	93.0	93.5	
Crops.....	91.9	104.0	104.0	109.0	113.3	117.0	114.2	112.5	81.9	72.5	57.4	51.1	56.3	91.1	134.5	177.1	246.3	154.6	139.2	96.4	
Forest products.....	99.0	97.0	104.0	98.0	93.0	88.2	85.4	82.0	74.0	86.0	90.2	98.6	89.9	88.3	91.8	80.3	89.2	82.0	69.6	67.1	
Crude petroleum.....	99.4	96.9	103.7	104.6	122.3	122.4	136.5	133.5	123.3	134.4	130.5	137.5	135.9	148.8	150.3	142.2	143.5	127.3	130.9	-----	
Bituminous coal.....	108.0	92.5	99.5	109.7	99.0	95.8	100.5	118.1	108.5	90.3	84.7	92.2	87.4	93.3	100.7	102.2	117.6	104.9	106.1	114.2	
Copper.....	93.4	100.2	106.4	110.2	104.9	114.9	127.1	130.9	128.5	142.1	143.9	141.6	124.9	120.1	119.6	120.4	125.2	115.1	113.4	102.5	
<b>Power and construction:</b>																					
Electric power.....	92.5	98.1	109.5	122.6	133.3	146.0	161.7	164.3	148.1	159.3	157.1	161.2	154.9	159.8	166.6	160.7	173.6	164.4	169.7	172.4	
Building contracts (37 States)....	89.7	92.7	117.6	111.0	106.8	121.4	99.6	88.6	81.9	117.1	128.0	122.4	109.7	113.7	100.5	90.2	98.9	76.9	66.3	49.6	
<b>Unfilled orders:</b>																					
General index.....	121.7	87.0	91.3	84.6	74.0	76.2	80.8	76.8	79.5	85.5	93.1	88.4	83.4	82.1	76.0	76.8	76.8	73.7	77.7	79.9	
U. S. Steel Corporation.....	125.8	83.6	90.6	82.1	71.1	80.7	87.1	86.1	86.8	92.4	92.7	90.1	89.2	85.6	76.0	81.7	85.6	86.4	92.5	93.6	
<b>Stocks:</b>																					
General index.....	94.5	102.0	103.5	114.6	120.8	123.0	136.8	139.1	137.7	134.0	129.9	122.8	120.2	121.8	127.2	139.2	154.8	156.5	158.0	144.1	
Manfd. commodities (28).....	93.8	103.2	103.0	106.3	112.5	117.4	120.1	127.0	127.3	124.2	121.5	120.4	121.1	120.3	115.7	113.8	113.9	115.6	118.9	122.0	
Cotton.....	102.5	91.4	106.2	145.5	153.1	123.6	126.8	169.8	149.5	130.5	109.9	88.4	70.9	54.2	58.2	106.8	177.5	159.8	206.4	192.5	
Copper (refined).....	106.4	113.9	73.1	64.8	85.4	58.4	78.4	55.4	48.8	46.8	50.8	62.2	73.4	86.3	92.2	83.7	78.1	111.7	151.3	179.7	
<b>Employment:</b>																					
Factories.....	104.2	96.2	99.7	101.4	98.8	97.2	100.4	97.4	99.7	101.3	101.8	101.6	101.2	100.7	102.0	103.4	102.1	98.2	94.8	93.1	
<b>Prices:</b>																					
Farm products, to producers.....	97.8	97.1	106.5	98.6	94.9	100.7	100.0	96.4	98.6	101.4	100.0	98.6	97.8	101.4	103.6	102.2	101.4	98.6	97.8	97.1	
Wholesale, all commodities.....	99.9	97.4	102.8	99.3	94.7	97.0	95.8	96.5	96.0	96.8	96.1	95.1	95.7	97.3	97.0	96.8	95.6	83.7	93.5	92.8	
Retail food.....	97.6	97.6	104.9	107.6	103.6	102.9	104.6	103.3	103.2	102.2	101.3	102.4	103.4	105.9	107.0	107.4	107.2	106.7	105.6	103.8	
Cost of living (including food)....	98.2	99.4	102.4	102.4	100.0	98.7	98.4	98.2	98.2	97.6	97.0	97.0	97.6	98.8	99.4	99.4	99.4	99.3	98.7	97.4	
<b>Distribution (values):</b>																					
• Bank debits, 141 cities.....	91.2	96.7	111.9	119.6	132.5	158.2	184.5	187.2	194.3	195.1	180.6	180.5	159.0	184.8	198.2	192.8	211.1	190.0	139.8	136.7	
• Wholesale trade.....	101.0	98.0	102.0	101.0	97.0	96.0	98.0	101.1	96.3	97.0	100.0	102.0	97.0	101.0	103.0	99.0	100.0	96.0	89.0	-----	
• Department stores, sales.....	98.0	99.0	103.0	106.0	107.0	108.0	110.0	105.0	110.0	113.0	105.0	107.0	112.0	106.0	112.0	123.0	109.0	107.0	115.0	101.0	
Mail-order sales, 2 houses.....	89.2	98.1	112.7	120.2	126.2	147.6	187.2	144.9	141.8	163.3	170.0	168.2	176.4	163.0	183.7	192.8	242.3	225.3	275.2	138.0	
• 10-cent chains, sales.....	88.0	99.0	113.0	125.0	138.0	150.0	164.0	145.8	156.9	167.4	153.0	172.0	174.0	162.0	174.0	168.0	159.0	166.0	165.0	152.0	
Imports.....	97.8	93.1	109.0	114.3	108.0	105.5	113.5	114.2	114.4	118.8	127.1	123.9	109.4	109.6	114.3	108.8	121.1	104.8	96.1	96.6	
Exports.....	91.5	100.8	107.8	105.5	106.8	112.6	115.2	128.5	116.4	129.0	112.2	101.4	103.6	106.2	100.4	115.3	139.6	116.5	112.4	109.8	
<b>Transportation:</b>																					
Freight, net ton miles.....	102.2	95.9	101.9	109.1	106.0	106.5	109.9	104.8	102.2	107.8	102.7	112.6	109.1	112.5	120.4	118.5	128.1	103.8	96.6	-----	
<b>Finance:</b>																					
Member bank loans and discounts	94.1	98.5	107.4	112.9	117.3	126.8	135.9	128.7	130.6	132.4	131.3	129.3	135.1	136.2	135.3	139.1	151.1	141.3	140.9	133.1	
Interest rate (commercial paper)...	116.2	90.0	93.5	100.9	95.4	112.8	135.7	124.8	127.6	136.4	139.2	139.2	139.2	139.2	142.2	145.0	145.0	133.4	116.0	113.2	
Federal reserve ratio.....	99.0	104.1	96.9	96.0	99.1	89.1	93.4	89.9	90.5	92.6	94.9	96.5	94.4	96.4	97.7	94.2	89.9	93.0	90.2	101.4	
Price, corporation bonds.....	96.4	99.9	103.6	108.0	112.5	113.0	106.5	110.8	109.6	108.0	107.6	106.7	105.4	104.9	104.1	103.9	105.2	105.0	107.1	106.8	
Price, railroad stocks.....	86.0	96.1	117.9	133.4	162.7	174.5	194.3	189.3	188.3	184.9	183.7	184.4	192.1	213.4	216.3	217.7	203.5	176.2	181.4	180.6	
Price, industrial stocks.....	86.1	91.9	122.0	132.4	171.4	214.8	292.6	275.0	280.3	283.7	285.8	290.3	297.8	330.8	344.5	358.5	316.3	219.4	229.3	235.5	
Failures (liabilities).....	106.0	106.8	87.2	80.4	102.2	96.2	95.0	127.1	80.3	85.7	83.2	97.2	74.0	76.5	79.6	80.5	73.9	122.8	159.1	144.3	

\* Seasonal adjustments.

## BUSINESS CONDITIONS IN JANUARY

### PRODUCTION

Manufacturing output in January, after adjustments for the usual seasonal changes, was on a higher level than in the previous month but showed a decline from a year ago. All major groups showed decrease activities from a year ago except leather and shoes which was greater. All manufacturing groups showed gains over the preceding month except nonferrous metals and tobacco manufactures, which declined, and food products which showed no change. Mineral production, after adjustments for seasonal variations, was lower in January than in either the preceding month or January, 1929. All products of the mines

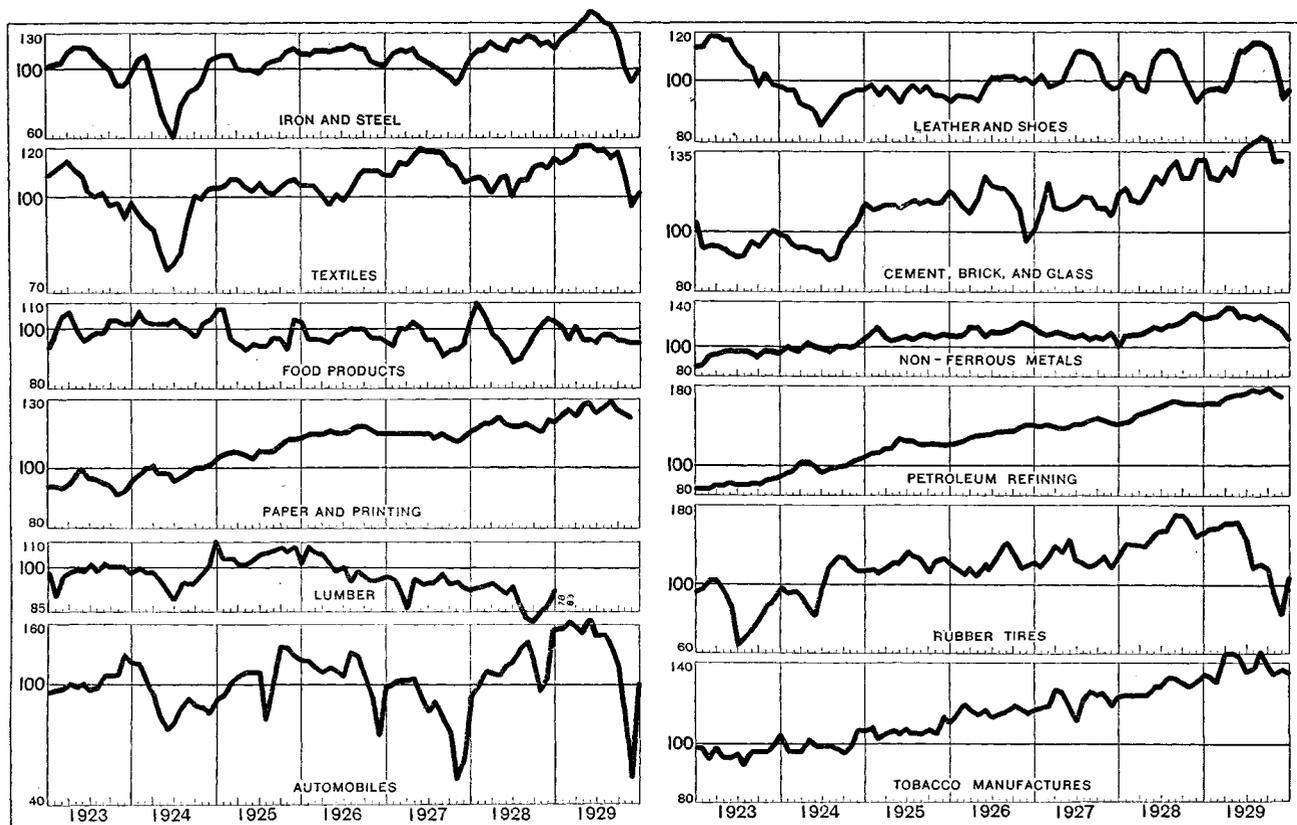
ber, and chemicals and oils being more than offset by declines in iron and steel, leather, rubber, and paper.

### SALES

The general index of unfilled orders for manufactured goods at the end of January showed a gain of more than 10 per cent over both the preceding month and corresponding month of 1929. As compared with the preceding month all groups included within the general index showed gains in January. Declines from a year ago in unfilled orders for textiles and lumber were more than offset by gains in iron and steel and transportation equipment, principally railroad.

### MANUFACTURING PRODUCTION BY MAJOR GROUPS

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



showed smaller output than in either prior period, except petroleum and silver, which showed gains over the preceding month, and zinc which showed increases over both the previous month and January of last year. The largest decline from a year ago was recorded in the output of copper, where the decrease amounted to 22 per cent.

### COMMODITY STOCKS

The weighted index of commodity stocks showed a decline from the previous month, but was higher than a year ago, the increase over last year being entirely due to larger stocks of raw materials. Manufactured goods in the hands of manufacturers at the end of January, though showing a gain over the previous month, were lower than a year ago, gains over last year in the stocks of textiles, nonferrous metals, lum-

Wholesale trade showed a smaller sales volume than in January, 1929. Retail trade, as reflected by the volume of sales reported by the two principal mail-order houses, was lower than in either the preceding month or January, 1929. Department-store sales, after adjustments for seasonal consideration, also showed lower volume as compared with both prior periods. Ten-cent store business was greater than a year ago. Sales by grocery chains were likewise larger than in January of the previous year.

Imports of merchandise into the United States during January were fractionally higher than in December but showed a decline of almost 20 per cent in value from a year ago. Merchandise exports were not only smaller than in December but showed a considerable contraction also from January of the previous year.

### PRICES

The general index of wholesale prices was lower in January than in either the preceding month or the corresponding month of last year. All groups included within the index showed declines from both periods, except house-furnishing goods, which showed an increase over a year ago, and building materials, which were unchanged from either period. The principal declines from a year ago was registered in the prices for hides and leather, textiles, and farm products, where decreases ranged for the group totals from 4 to 8 per cent. Classified by the condition of manufacture the general index, with a decline of 4 per cent from a year ago, showed a decrease of 5 per cent in raw materials, prices for manufactures and semimanu-

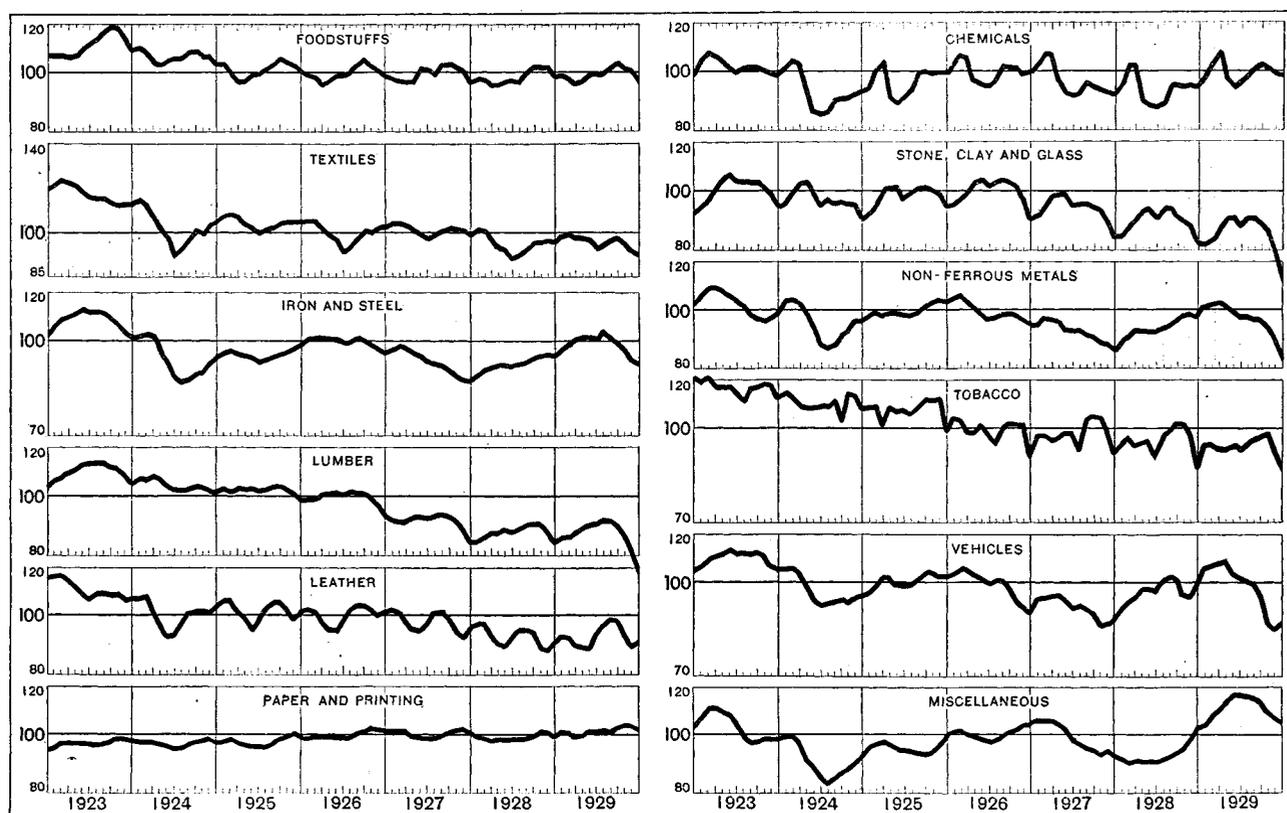
prices for grains, poultry and dairy products, and cotton and cottonseed.

### EMPLOYMENT

Factory employment in January, as measured by the general index, showed a decline of 2 per cent from the preceding month and 4 per cent from a year ago. As compared with the previous month, employment in factories producing automobiles, leather and leather products and rubber products was greater in January, while all other groups declined, except iron and steel and petroleum refining, which showed no change. Contrasted with a year ago, industrial employment gains in factories producing machinery, paper and printing, chemicals, and refined petroleum products were insufficient to offset losses in iron and steel, tex-

### FACTORY EMPLOYMENT, BY GROUPS

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



factures showing approximately the same percentage of decline as was registered in the general index. Commercial indexes also showed declines from both the preceding month and January of the previous year.

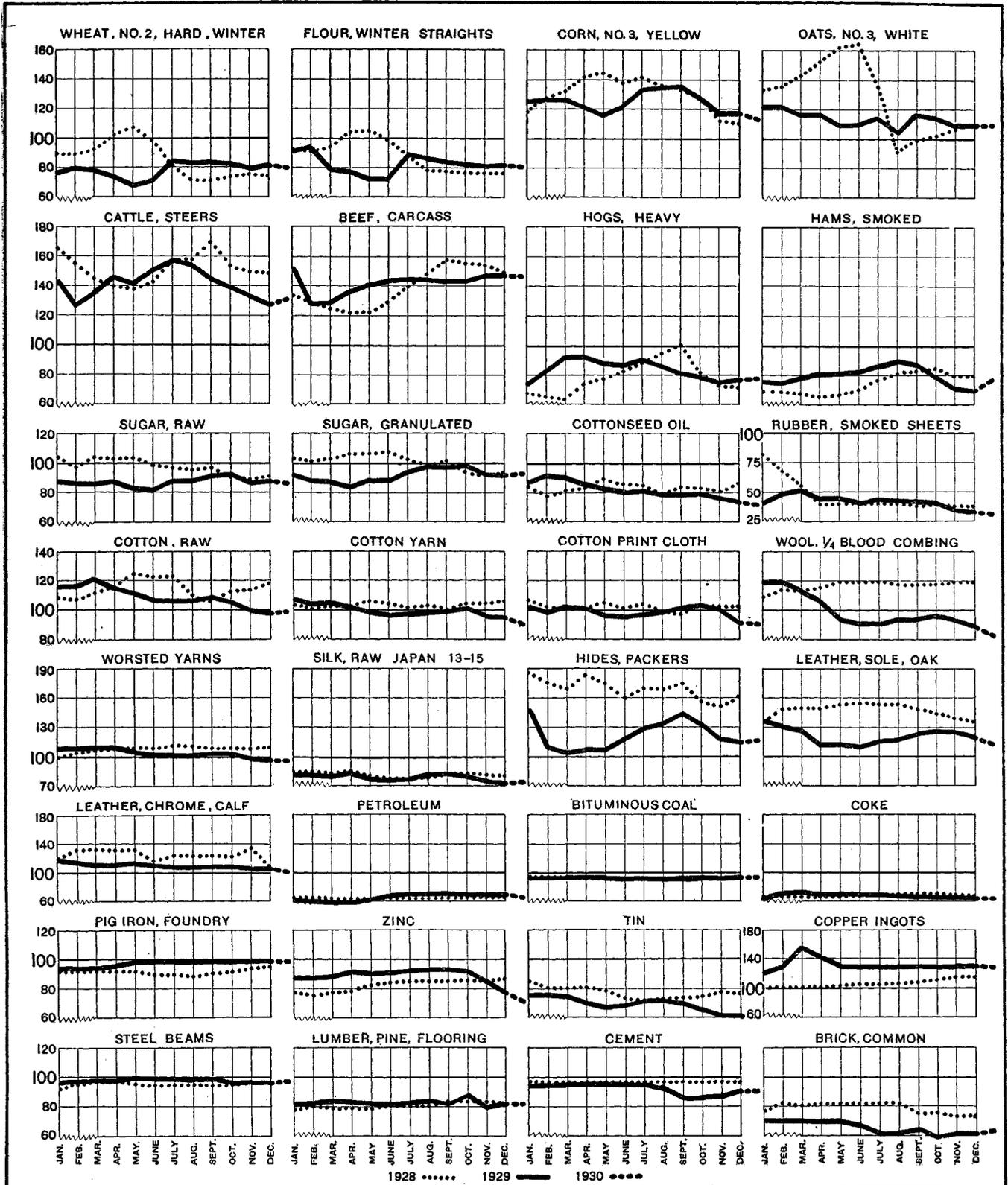
Prices paid to farmers for their products, as reflected in the general index, were lower than in December but showed a gain approximating 1 per cent over January, 1929. Compared with a year ago, gains in the prices for grains and fruits and vegetables more than offset declines in the prices for cotton and cottonseed and poultry and dairy products. As compared with the preceding month, gains in the prices for fruits and vegetables and meat animals were insufficient to offset lower

prices for grains, poultry and dairy products, and cotton and cottonseed. The largest declines in employment from a year ago were registered in rubber, automobile, and nonferrous metals, cement, clay and glass, and lumber factories, where declines were more than 10 per cent.

Factory pay-roll payments in January were 5 per cent lower than in December and 7 per cent lower than in January, 1929. All industrial groups showed smaller pay-roll payments than in the preceding month, except automobiles, leather, and rubber products which showed gains. Gains in pay-roll payments over a year ago in factories were not sufficient to balance declines.

## WHOLESALE PRICES FOR SPECIFIED COMMODITIES

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



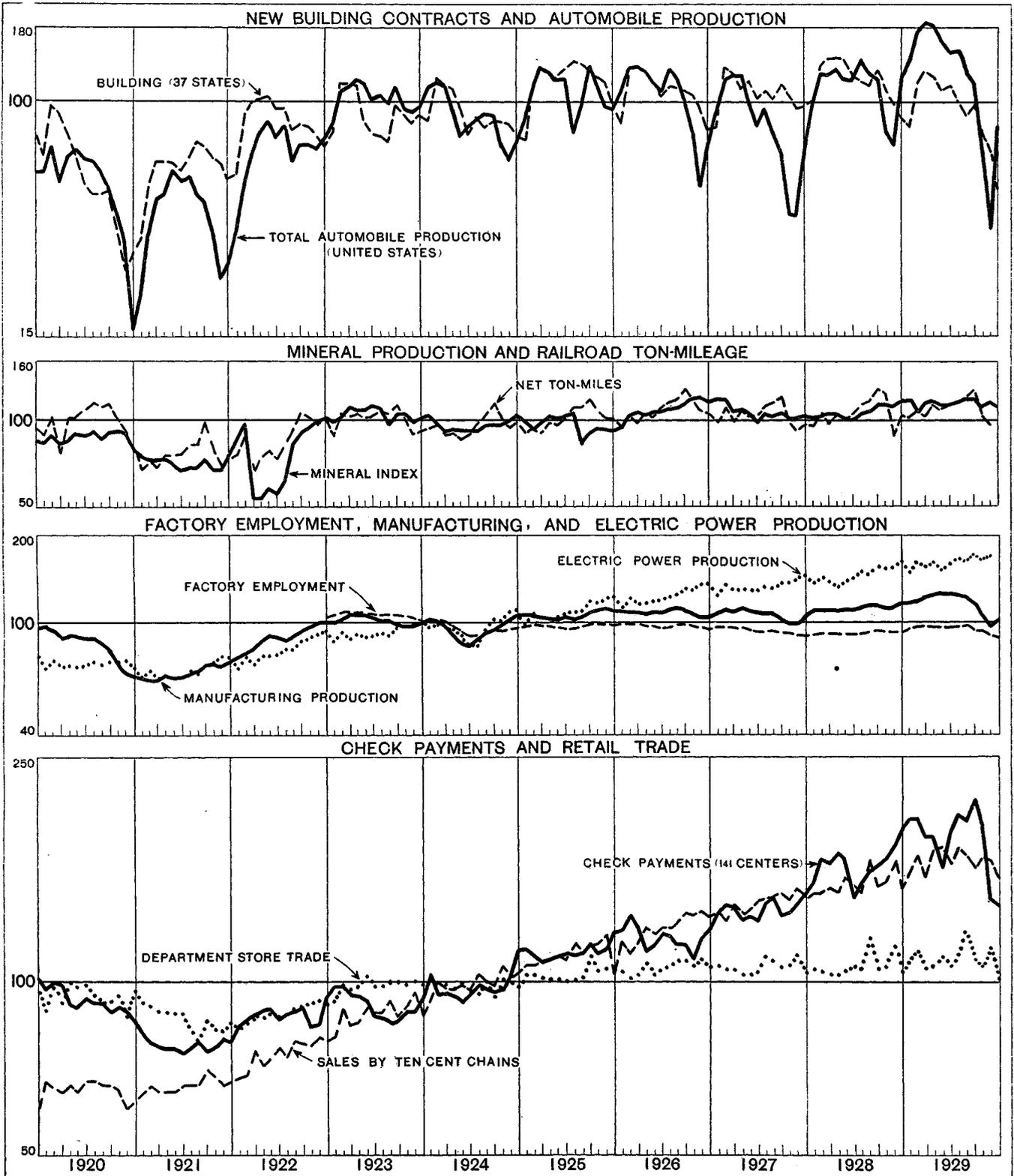
## WHOLESALE PRICES FOR SPECIFIED COMMODITIES

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				
		1926 average=100							
		December, 1929	January, 1930	January, 1929	November, 1929	December, 1929	January, 1930	December, 1928	January, 1929
<b>FARM PRODUCTS—AVERAGE PRICE TO PRODUCER</b>									
Wheat.....	Bushel.....	1.081	1.075	0.985	77	80	80	73	73
Corn.....	Bushel.....	.780	.773	.802	116	112	111	109	115
Potatoes.....	Bushel.....	1.353	1.378	.589	73	73	74	31	32
Cotton.....	Pound.....	.160	.158	.179	107	106	105	119	119
Cottonseed.....	Ton.....	30.31	28.95	38.05	113	111	106	139	140
Cattle, beef.....	Pound.....	.0848	.0869	.0897	134	131	135	138	140
Hogs.....	Pound.....	.0853	.0880	.0818	72	72	75	67	69
Lambs.....	Pound.....	1.076	.1110	.1223	93	93	96	99	106
<b>FARM PRODUCTS—MARKET PRICE</b>									
Wheat, No. 1, northern spring (Minneapolis).....	Bushel.....	1.31	1.27	1.21	81	83	80	73	77
Wheat, No. 2, red, winter (St. Louis).....	Bushel.....	1.35	1.34	1.42	83	87	86	90	92
Wheat, No. 2, hard, winter (Kansas City).....	Bushel.....	1.21	1.19	1.14	80	81	80	75	77
Corn, No. 3, yellow (Chicago).....	Bushel.....	.88	.85	.93	117	117	113	111	124
Oats, No. 3, white (Chicago).....	Bushel.....	.45	.45	.50	110	110	110	112	122
Barley, No. 2, (Minneapolis).....	Bushel.....	.59	.58	.66	94	92	91	97	103
Rye, No. 2, (Minneapolis).....	Bushel.....	.98	.91	1.01	103	107	99	105	110
Cotton, middling upland (New York).....	Pound.....	.173	.173	.202	100	99	99	117	115
Wool, 3/4 blood combing, Ohio and Pennsylvania fleeces (Boston).....	Pound.....	.41	.38	.55	94	89	83	120	120
Cattle, steers, good to choice, corn fed (Chicago).....	Cwt.....	12.125	12.469	13.531	133	127	131	149	142
Hogs, heavy (Chicago).....	Cwt.....	9.465	9.613	9.100	75	77	78	71	74
Sheep, ewes (Chicago).....	Cwt.....	4.935	6.263	8.388	76	75	95	95	127
Sheep, lambs (Chicago).....	Cwt.....	12.000	12.675	15.594	87	88	93	101	114
<b>FOOD</b>									
Flour, standard patents (Minneapolis).....	Barrel.....	6.880	6.750	6.340	79	82	80	73	75
Flour, winter straights (Kansas City).....	Barrel.....	5.950	5.844	5.519	82	82	81	76	76
Sugar, 96° centrifugal (New York).....	Pound.....	.038	.037	.038	87	87	86	91	88
Sugar, granulated, in barrels (New York).....	Pound.....	.050	.051	.050	92	91	93	94	92
Cottonseed oil, prime yellow (New York).....	Pound.....	.087	.084	.103	76	74	71	87	87
Beef, fresh, carcass, good native steers (Chicago).....	Pound.....	.240	.240	.240	146	146	146	149	146
Beef, fresh, carcass, steers (New York).....	Pound.....	.235	.235	.245	138	138	138	144	144
Pork smoked hams (Chicago).....	Pound.....	.215	.239	.232	71	70	78	79	76
Butter, creamery, 92 score (New York).....	Pound.....	.41	.37	.48	96	91	82	113	107
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.....	.340	.323	.382	96	95	90	106	107
Cotton-print cloth 64 x 60-33 1/2"-5.35-yards to pound.....	Yard.....	.069	.068	.076	100	92	90	103	101
Cotton sheeting, brown 4/4 Trion (New York).....	Yard.....	.084	.083	.090	94	91	89	97	97
Worsted yarns, 2/32's cross-bred stock, white, in skein (Boston).....	Pound.....	1.400	1.375	1.575	99	98	96	110	110
Women's dress goods, French, 39 inches, at mills, serge.....	Yard.....	.975	.975	.975	94	94	94	94	94
Suitings, unfinished worsted—13-ounce, mill.....	Yard.....	1.901	1.838	2.008	95	95	91	100	100
Suitings, serge, 11-ounce, 56-58 inch.....	Yard.....	1.959	1.959	1.983	90	90	90	92	92
Silk, Japan, 13-15.....	Pound.....	4.580	4.630	4.998	76	74	75	81	81
Hosiery, women's pure silk, mill.....	Dozen pair.....	9.000	9.000	9.500	78	78	78	82	82
<b>LEATHER</b>									
Hides, green salted, packers' heavy native steers (Chicago).....	Pound.....	.160	.163	.205	117	114	116	161	146
Hides, calfskins, No. 1, country, 8 to 15 pounds (Chicago).....	Pound.....	.174	.176	.219	103	101	102	144	126
Leather, chrome calf, dull or bright "B" grades (Boston).....	Square foot.....	.480	.460	.530	106	106	102	110	117
Leather, sole, oak, scoured backs, heavy (Boston).....	Pound.....	.520	.495	.590	124	119	113	135	135
Boots and shoes, men's black calf, blucher (Massachusetts).....	Pair.....	6.750	6.750	6.750	106	106	106	106	106
Boots and shoes, men's dress welt tan calf oxford (St. Louis).....	Pair.....	4.850	4.850	4.850	100	100	100	100	100
<b>FUEL</b>									
Coal, bituminous, mine-run (composite price).....	Net ton.....	3.980	3.982	4.035	93	92	92	93	94
Coal, bituminous, prepared sizes (composite price).....	Net ton.....	4.520	4.492	4.576	94	94	94	95	95
Coal, anthracite, chestnut (composite price).....	Long ton.....	12.999	13.033	13.107	94	94	95	95	95
Coke, Connellsville (range of prompt and future), furnace—at ovens.....	Short ton.....	2.640	2.588	2.750	65	64	63	67	67
Petroleum, crude, Kansas-Oklahoma—at wells.....	Barrel.....	1.300	1.229	1.185	69	69	65	64	63
<b>METALS</b>									
Pig iron, foundry No. 2, northern (Pittsburgh).....	Long ton.....	20.260	20.260	19.260	98	98	98	95	93
Pig iron, basic, valley furnace.....	Long ton.....	18.500	18.500	17.500	100	100	100	94	94
Steel billets, Bessemer (Pittsburgh).....	Long ton.....	34.600	34.000	33.000	100	99	97	94	94
Copper ingots, electrolytic, early delivery (New York).....	Pound.....	.1778	.1778	.1660	129	129	129	115	120
Brass, sheets, mill.....	Pound.....	.233	.233	.213	122	122	122	108	112
Lead, pig, desilverized, for early delivery (New York).....	Pound.....	.0625	.0625	.0665	75	74	74	77	79
Tin, straits (New York).....	Pound.....	.3979	.3891	.4916	62	61	60	77	75
Zinc, slab, western (St. Louis).....	Pound.....	.0567	.0523	.0635	85	77	71	87	87
<b>BUILDING MATERIAL AND MISCELLANEOUS</b>									
Lumber, pine, southern, yellow flooring, mill.....	M feet.....	38.000	37.220	36.550	80	84	83	82	81
Brick, common red, domestic building (New York).....	Thousand.....	10.000	10.500	11.500	61	61	64	73	70
Cement, Portland, net without bags to trade, f. o. b. plant (Chicago district).....	Barrel.....	1.555	1.576	1.650	87	89	89	95	90
Steel beams, mill (Pittsburgh).....	Cwt.....	1.900	1.900	1.900	97	97	97	97	97
Rubber, smoked sheets (New York).....	Pound.....	.160	.150	.201	34	33	31	37	41
Sulphuric acid, 66° (New York).....	Ton.....	15.500	15.500	15.500	107	107	107	107	107
Wood pulp, sulphite, domestic, unbleached, news grade (New York).....	Cwt.....	2.600	2.600	2.450	91	91	91	87	86
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

Imports of wool in January were greater than in December and smaller than a year ago. Wool consumption was greater than in December but showed a decline from January, 1929. Prices for wool and yarns averaged lower than in either the previous months or the same month of last year.

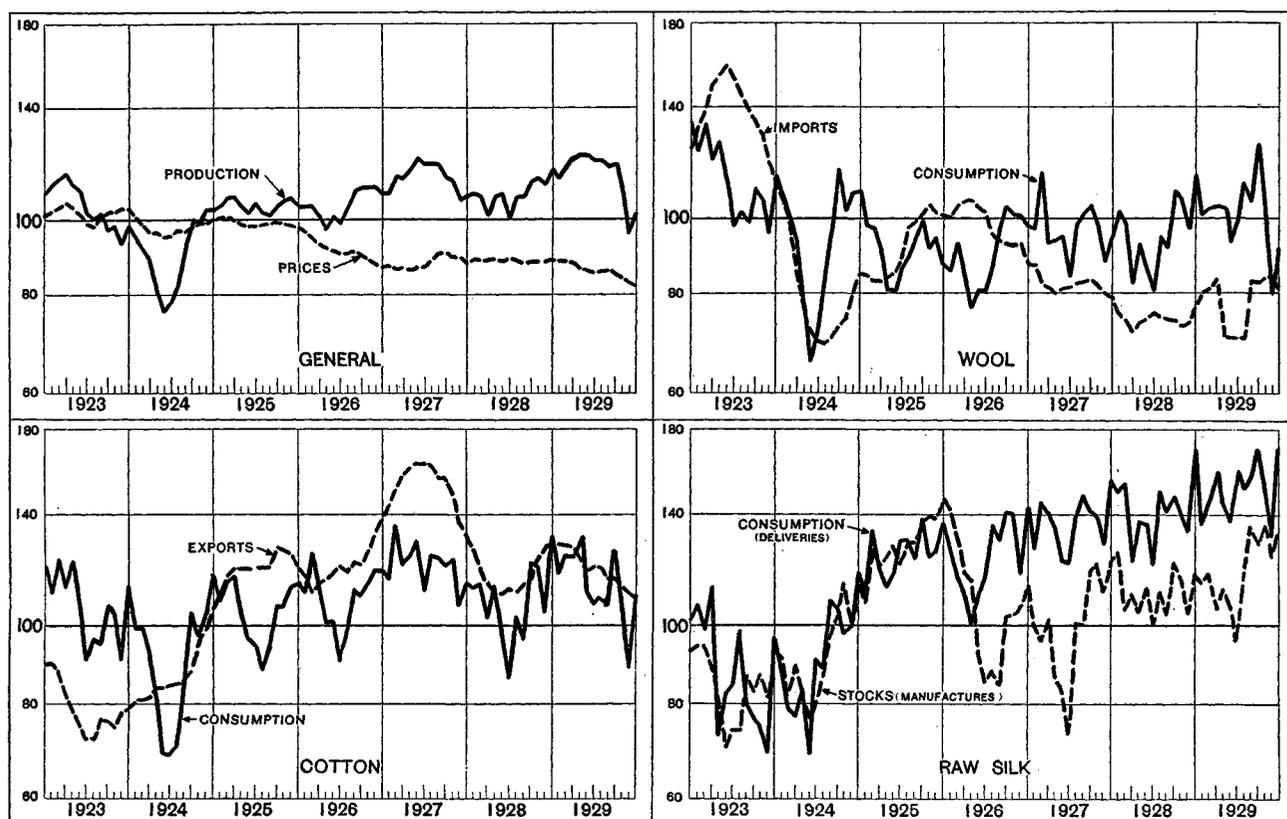
Exports of cotton during January showed declines from both the previous month and January a year ago. Consumption of cotton by domestic mills was greater than in the preceding month but showed a decline

Cotton finishers reported larger billings and orders than in December and declines from a year ago. Stocks of finished goods in the hands of finishers at the end of January were lower than a year ago. Unfilled orders at the end of the month were greater than at the end of the preceding month but showed a decline from last year.

The imports of silk were smaller in January than in either the previous month or January a year ago. Silk deliveries to consuming establishments were greater than in either period. Stocks of silk at manu-

### THE TEXTILE INDUSTRIES

[Relative numbers, monthly average 1923-1925, taken as 100. January, 1930, is latest month plotted. Curves covering imports of wool and exports of cotton are plotted from 12 months' moving monthly averages plotted on the end month]



from a year ago. Stocks of cotton held at the end of January at mills and in public storage were substantially greater than a year ago. Cotton prices were generally lower in January than in either the previous month or the same period of 1929.

Cotton machinery was more active in January than in the previous month but, as in the case of cotton consumption, showed a decline from a year ago. The production and shipments of cotton textiles were greater than in the previous month but were lower than a year ago. Stocks of cotton textiles at the end of January were considerable larger than a year ago.

acturing plants at the end of January were greater than at the end of either the preceding month or January, 1929. Warehouse stocks were smaller than in December but showed a substantial gain over a year ago. Silk looms and spindles were more active in January than in either the preceding month or the same period of 1929. Prices for raw silk were higher than in December but showed a decline from a year ago.

Rayon imports were lower than in either period. Rayon prices showed no change of the preceding month but were lower than a year ago.

### METALS

The production of pig iron in January was lower than in either the previous month or January, 1929. More furnaces were in blast at the end of the month than at the end of December, but a decline was registered from a year ago.

The production of steel ingots was greater than in the previous month but declined from a year ago. Unfilled steel orders at the end of January were larger than at the end of either the previous month or January of last year.

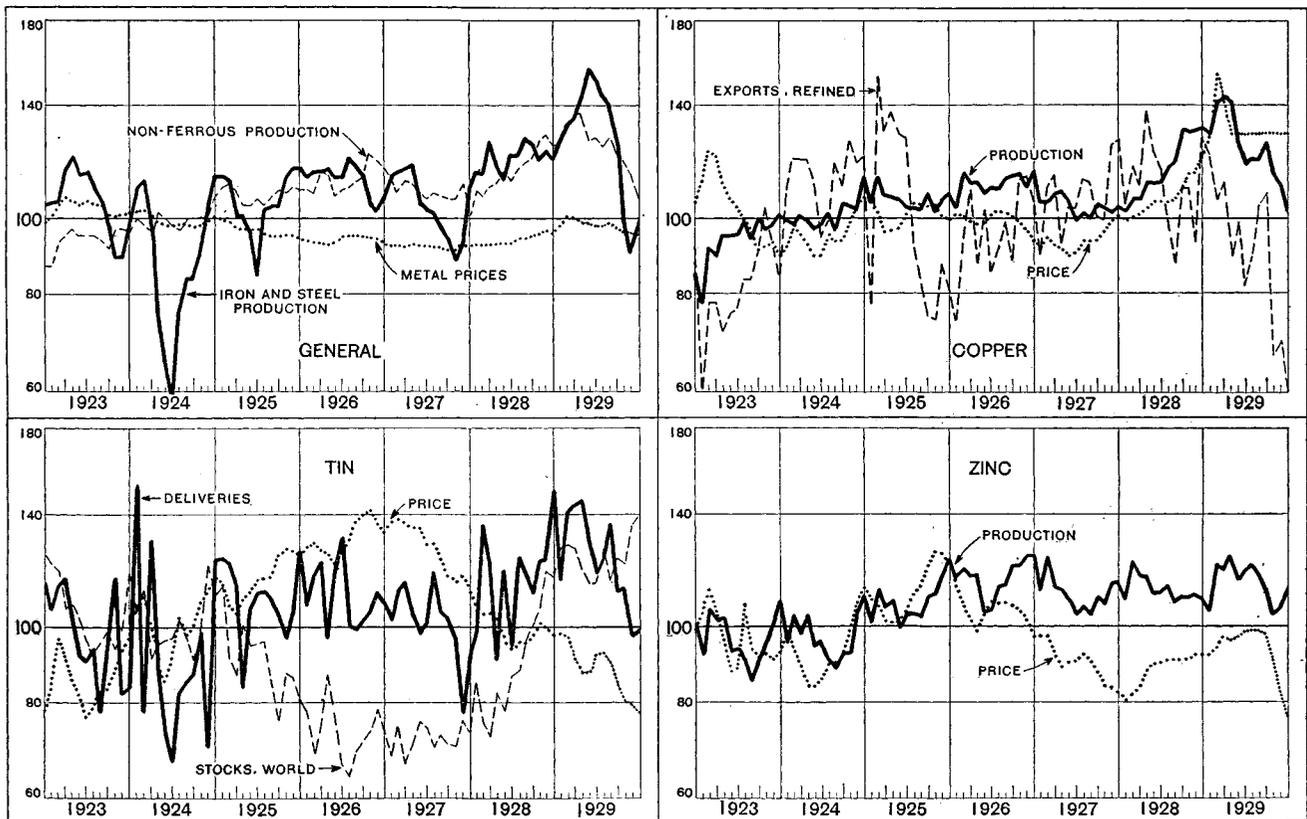
The output of steel sheets by independent mills was greater than in December but showed a decline from a

boilers, measured by the area of heating surface, showed a gain over the previous month but declined from a year ago. Shipments of cold-finished steel bars were larger than in December but showed a decline from a year ago. Iron and steel exports were larger than in December but were smaller than in January, 1929.

Shipments of enameled sanitary ware by manufacturers were smaller than in either the preceding month or January a year ago. New orders likewise showed declines from both periods. Stocks were somewhat higher at the end of January than at the end of the preceding month but were lower than a year ago.

### THE METAL INDUSTRIES

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



year ago. Stocks of sheets in the hands of manufacturers at the end of the month were lower than a year ago. Unfilled orders for sheets also declined from last year. Wholesale prices for steel averaged lower in January than in either the previous month.

The production of steel castings was lower than in December but showed a gain over a year ago. New orders were greater than in December but declined from last year.

New orders and shipments of fabricated structural steel were smaller than in either the previous month or January, 1929. New orders for fabricated steel plate showed gains over both periods. New orders for steel

New orders for foundry equipment were lower than in either period, but unfilled orders at the end of the month, though declining from the previous month, were greater than a year ago. Shipments were larger than in either the previous month of January of last year. New sales of mechanical stokers were lower than in either period. New orders for machine tools were greater than in December but declined from a year ago. Unfilled orders at the end of the month were fractionally larger than in December but showed a loss from last year.

The production of copper was lower in January than in either the previous month or the corresponding

period of 1929. Stocks of refined copper in North and South America at the end of January showed a substantial gain over a year ago.

#### FUELS

The production of bituminous coal was smaller than in January of last year. Exports showed a decline from the preceding month but were greater than a year ago. Prices averaged slightly higher than in December.

The production of anthracite coal was smaller than a year ago. Stocks of anthracite at the end of December in dealers' yards were lower than a year ago. Prices both at wholesale and retail were also lower than last year.

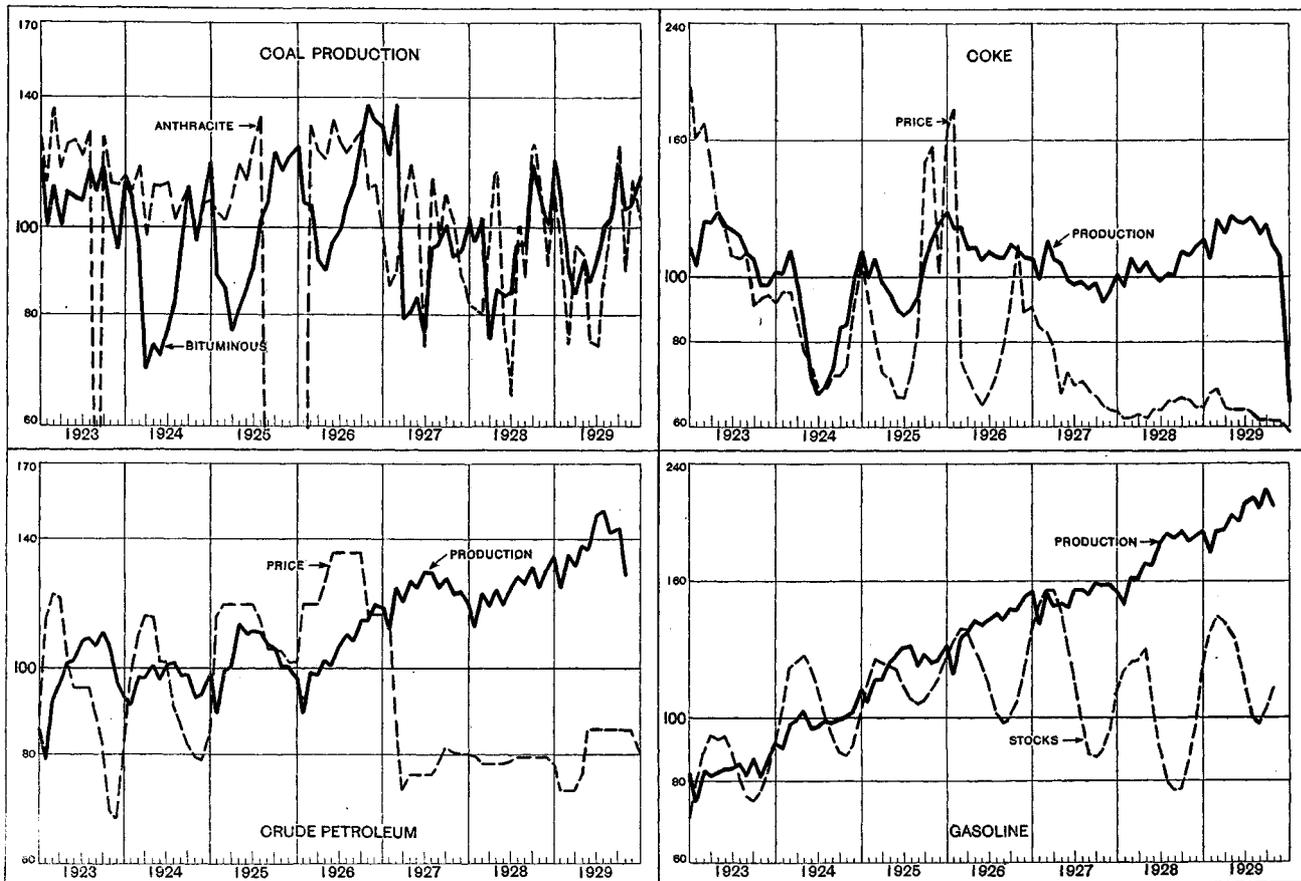
Imports of rubber were greater than in December but showed a decline from a year ago. The production and shipments of pneumatic tires were larger than in the preceding month but showed decline from January, 1929.

#### HIDES AND LEATHER

Imports of hides and skins were smaller than in December but showed a gain over a year ago. The production of sole leather was greater in January than in either the previous month or January, 1929. Stocks of sole and belting leather at the end of December were smaller than a year ago. Exports showed a gain over the previous month and a decline from a year ago. Prices were generally lower than in either the previous

### THE FUEL INDUSTRIES

[Relative numbers, monthly average 1923-1925 taken as 100. January, 1930, is latest month plotted where data were available]



The production of coke, both types, was greater than in December but showed a decline from a year ago. Exports of coke were lower than in either period. Coke prices also averaged lower. Petroleum production was greater than in January, 1929.

#### AUTOMOBILE AND RUBBER

Automobile production in January was greater than in December but showed a decline from a year ago. The Canadian output of automobiles showed similar comparisons with both periods. Domestic exports were lower than in either the previous month or January, 1929. Canadian exports also showed declines in January from both periods.

Imports of rubber were greater than in December but showed a decline from a year ago. The production of shoes in January was greater than in December but showed a decline from last year. Exports were lower than in either period. Shoe prices were unchanged from either the previous month or January, 1929.

#### PAPER AND PRINT

Imports of wood pulp were greater in January than in either the previous month or January, 1929. Stocks at the end of the month were considerably lower than a year ago. The domestic production of newsprint paper was greater than in either the previous month or January a year ago. The Canadian output showed declines from both periods. The consumption of news-

print by domestic publishers was smaller in January than in either period. Stocks of newsprint at the end of January held by domestic mills were considerably smaller than a year ago but the holdings at Canadian mills were substantially larger. Publishers' stocks were larger than a year ago. The production of books was lower in January than in either the preceding month or January of last year.

#### BUILDING AND CONSTRUCTION

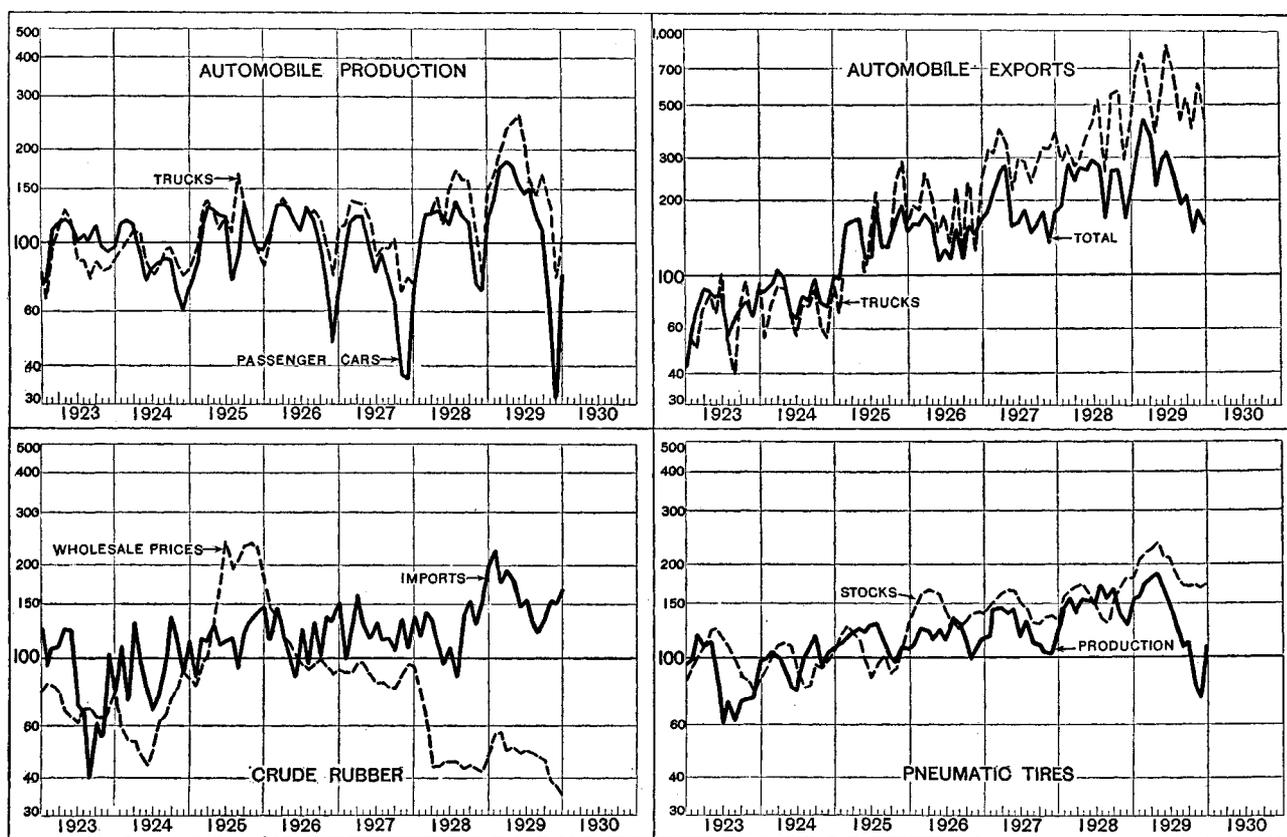
The value of new building contracts awarded in January was lower than in the same month of the pre-

The production and shipments of northern pine lumber and northern hemlock were greater than in December but were smaller than a year ago. Production of North Carolina pine was larger than in December but declined from last year, while shipments showed declines from both periods.

The production of oak and maple flooring was larger than in December but showed a decline from a year ago. Shipments of oak flooring were smaller and maple flooring were larger than in December, each showing declines from last year. New orders for flooring, both types, were greater than in December.

#### THE AUTOMOBILE AND RUBBER INDUSTRIES

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



ceding year. Building costs showed only slight change from either the preceding month or January, 1929. Fire losses in the United States and Canada were greater than in December but showed a decline from a year ago.

#### LUMBER

The production and shipments of Douglas fir lumber were lower than in either the previous month or January of last year. Exports also declined from both periods, while prices were likewise generally lower.

The production and shipments of California redwood were greater than in December, with production showing a gain also over a year ago. Unfilled orders for redwood at the end of the month were substantially lower than a year ago.

#### STONE, CLAY, AND GLASS PRODUCTS

Shipments of common brick were smaller than in January, 1929. Stocks of burned brick at the kilns at the end of the month were smaller than a year ago. Unfilled orders were lower than last year. Prices were higher than in December but lower than in January, 1929.

New orders of porcelain plumbing fixtures, as well as shipments, were greater than in December but each registered declines from January a year ago. Unfilled orders at the end of the month were greater than at the end of the previous month but declined from last year. Stocks were lower than a year ago.

New orders for vitreous-china plumbing fixtures were smaller than in either the previous month or

January a year ago. Shipments were larger than in December but declined from last year. Unfilled orders were greater than a year ago while stocks also showed a gain over January, 1929.

New orders for terra cotta were smaller in January than in either the previous month or January of last year. The production and shipments of sand-lime brick were smaller than in either period. Stocks at the end of the month likewise showed declines from both periods, while unfilled orders at the end of the month were lower than a year ago.

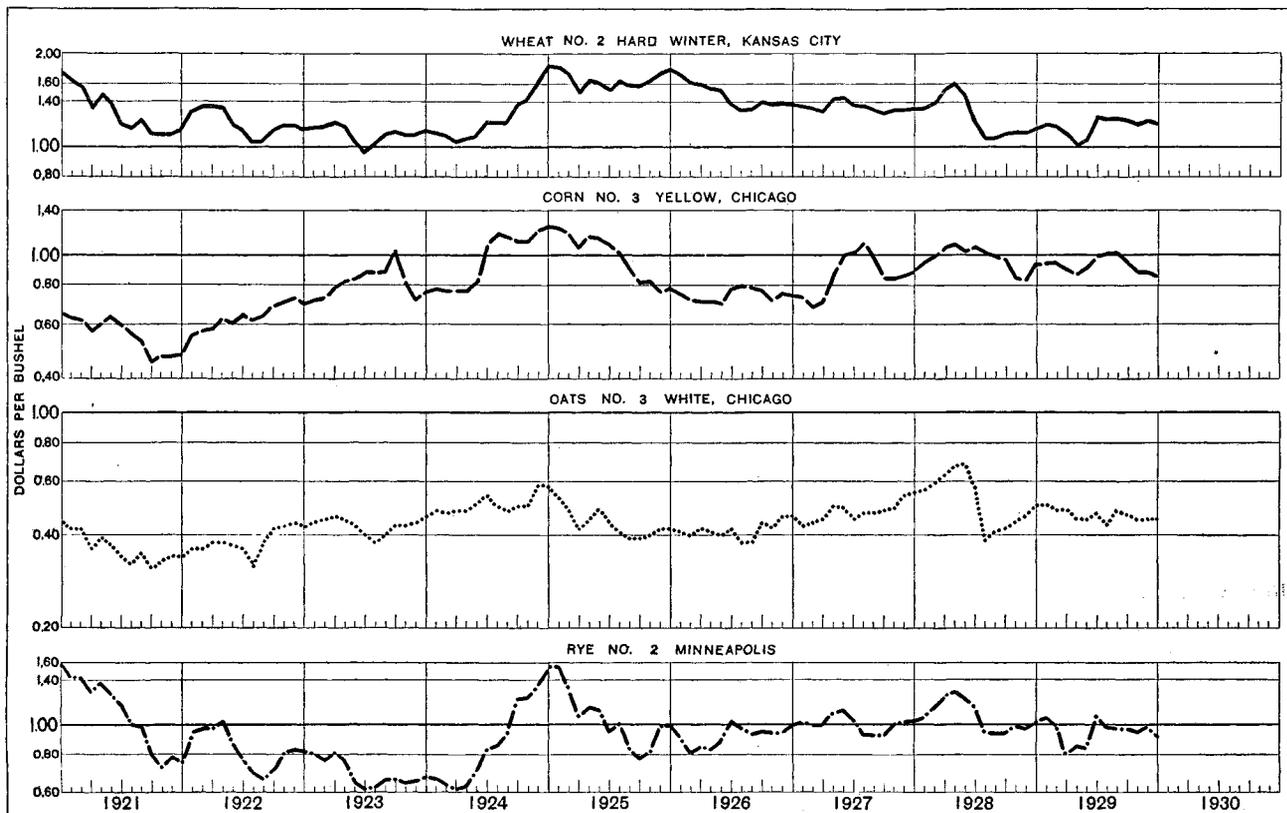
The production and shipments of Portland cement were smaller in January than in either the previous

The visible supply of corn was much smaller than a year ago, while receipts and shipments of corn at the principal markets were also smaller than last year. Prices were lower than during either the previous month or January, 1929. The visible supply of barley was smaller and that of oats considerably larger than at the end of January, 1929. Receipts of oats at the principal markets, on the other hand, were smaller than a year ago.

Receipts of cattle at the principal markets were fractionally greater than a year ago. The output of beef under Federal inspection, on the other hand, was smaller than for the corresponding period of last year.

### MOVEMENT OF GRAIN PRICES

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



month or the corresponding period of a year ago. Stocks of cement at the end of the month were slightly larger than a year ago. Wholesale prices were lower than a year ago.

### FOODSTUFFS

The visible supply of wheat in the United States and Canada at the end of January was substantially greater than a year ago. Wheat receipts and shipments at principal markets were considerably smaller than during the corresponding period of 1929, while exports of wheat from the United States showed a marked gain both from the previous month and the corresponding month of last year. Prices were slightly lower than in December but were higher than a year ago.

Cold-storage holdings at the end of January were 5 per cent greater than a year ago. Prices for beef were generally lower than at this time last year.

Receipts of hogs at the primary markets were smaller than a year ago; the output of pork products under Federal inspection were also less than a year ago. Cold-storage holdings of pork were 20 per cent lower than at the end of January, 1929, while prices generally showed a substantial advance from last year's level.

Receipts of sheep were slightly greater and production of lamb and mutton substantially larger than during the corresponding period of 1929. Prices for sheep and lambs, on the other hand, were at a considerably lower level than a year ago. Receipts of poultry at the principal markets were slightly larger

than a year ago and cold-storage holdings exceeded those at this time last year by almost 40 per cent. The receipts of butter were only slightly less than at the end of January, 1929, while cold-storage holdings were more than double those of a year ago.

As an apparent result of the large holdings, butter prices continued to decline, being 23 per cent lower than in January of last year.

Cheese receipts were larger than during the previous month but lower than a year ago, while cold-storage holdings were substantially smaller than at the end of either prior period. Prices for cheese also declined. Receipts of eggs were practically the same as during January of last year. Cold-storage holdings, on the other hand, were much smaller than a year ago.

Sugar imports from foreign countries were 25 per cent smaller than during January, 1929. Sugar melt-ings were slightly less than a year ago, while stocks at refineries were nearly three times as great as a year ago. Imports of coffee were larger than during the previous month and practically the same as for the corresponding month of last year, while imports of tea were smaller than for either prior period. Prices both for coffee and tea were lower than a year ago.

#### TRANSPORTATION

Freight-car loadings were only slightly larger than during December and were substantially smaller than a year ago. The decline in loadings as compared with the corresponding period of 1929 prevailed throughout every class of products for which a separate listing was reported. Clearances of vessels engaged in foreign trade showed a slight increase, both from the previous month and the corresponding month of last year.

Unfilled orders for railway locomotives were larger than at the end either of the previous month or of January, 1929.

#### DISTRIBUTION MOVEMENT

Sales by mail-order houses were slightly smaller and those by 10-cent chain stores larger than for the corresponding month of last year. Magazine and newspaper advertising, on the other hand, was slightly smaller than in January, 1929.

#### BANKING AND FINANCE

Check payments, both inside and outside New York City, were smaller than during either the previous month or the corresponding month of 1929. Loans and discounts of Federal reserve member banks were also less than in December but were greater than a year ago. Brokers' loans showed only a fractional decline from the previous month but were much smaller than in January, 1929. Interest rates were almost uniformly lower than for either prior period.

#### GOLD, SILVER, AND FOREIGN EXCHANGE

Receipts of domestic gold at the mint were less than during the previous month but substantially greater than a year ago. The Rand output was greater than for either prior period. Gold imports were substantially greater in December but were only about one-fourth as great as a year ago.

Silver production in the United States exceeded that of the previous month but was slightly less than in January, 1929. The Canadian production of silver, on the other hand, was greater than for either prior period. Silver prices were at a lower level than during either the previous month or the corresponding period of last year.

Rates for foreign exchange were generally lower than during the previous month, the only increase being in the Japanese yen. As compared with a year ago, on the other hand, rates with England, Netherlands, Sweden, Switzerland, and Japan showed increases, while rates with India, Canada, Argentina, and Brazil declined.

## 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	Maximum since Jan. 1, 1923	Minimum since Jan. 1, 1923	1928		1929			1930	PER CENT INCREASE (+) OR DECREASE (-)	
			November	December	January	November	December	January	January, 1930 from December, 1929	January, 1930 from January, 1929
<b>PRODUCTION</b>										
<b>TOTAL INDUSTRIAL</b>										
Unadjusted, except for working days.....	125	81	113	109	116	108	95	103	+8.4	-11.2
Adjusted for seasonal variations.....	123	83	112	113	117	106	99	103	+4.0	-12.0
<b>MANUFACTURING</b>										
Total (adjusted for working days only).....	127	79	113	109	116	107	92	102	+10.9	-12.1
Total (adjusted for seasonal variations).....	128	82	112	114	117	105	96	102	+6.3	-12.8
Iron and steel.....	155	59	120	123	117	100	90	99	+10.0	-15.4
Textiles.....	121	77	113	111	116	108	96	102	+6.3	-12.1
Food products.....	110	90	102	104	103	96	95	95	0.0	-7.8
Paper and printing.....	128	91	121	121	123	123	120			
Lumber.....	110	78	85	87	89					
Automobiles.....	166	47	92	101	150	81	49	102	+108.2	-32.0
Leather and shoes.....	134	86	97	92	95	105	93	97	+4.3	+2.1
Cement, brick, and glass.....	143	92	122	130	134	130	113	116	+2.7	-13.4
Nonferrous metals.....	137	87	126	126	124	119	114	106	-7.0	-14.5
Petroleum refining.....	178	84	159	159	159	171	166			
Rubber tires.....	169	66	154	144	148	93	80	106	+32.5	-28.4
Tobacco manufactures.....	143	93	124	127	131	130	133	131	-1.5	0.0
<b>MINERALS</b>										
Total (adjusted for working days only).....	128	84	117	112	113	113	110	108	-1.8	-4.4
Total (adjusted for seasonal variations).....	120	90	113	112	117	109	116	112	-3.4	-4.3
Bituminous coal.....	125	77	99	97	103	96	102	99	-2.9	-3.9
Anthracite coal.....	133	1	111	97	110	92	121	104	-14.0	-3.6
Crude petroleum.....	147	88	127	131	137	131	132	135	+2.3	-1.4
Iron-ore shipments.....	143	0	106			98				
Copper.....	139	82	131	133	129	118	116	101	-12.9	-21.7
Zinc.....	127	93	111	106	100	105	102	103	+1.0	+3.0
Lead.....	125	75	111	112	111	114	105			
Silver.....	123	85	87	103	94	114	87	91	+4.6	-3.2
<b>ANIMAL PRODUCTS (Marketings)</b>										
Total.....	124	79	93	92	96	95	93	94	+1.0	-2.1
Wool.....	421	14	70	55	34	63	70	49	-30.0	+44.1
Livestock.....	131	76	98	95	102	96	90	98	+9.9	-3.9
Poultry and eggs.....	148	67	110	126	85	128	108	89	-17.6	+4.7
Dairy products.....	160	64	77	78	95	81	84	92	+9.5	-3.2
Fish.....	283	44	131	119	87	154	102	81	-20.6	-6.9
<b>CROPS (Marketings)</b>										
Total.....	252	45	180	152	113	155	139	96	-30.9	-15.0
Grains *.....	218	38	122	124	100	69	90	83	-7.8	-17.0
Vegetables *.....	199	60	94	69	94	91	77	89	+15.6	-5.3
Fruits *.....	266	43	119	70	72	93	53	53	0.0	-26.4
Cotton products *.....	373	11	258	206	100	234	183	94	-48.6	-6.0
Miscellaneous crops *.....	344	18	209	196	243	296	332	342	+3.0	+40.7

\* 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	Minimum since Jan. 1, 1923	1928		1929			1930	PER CENT INCREASE (+) OR DECREASE (-)	
			November	December	January	November	December	January	January, 1930, from December, 1929	January, 1930, from January, 1929
<b>PRODUCTION—Continued</b>										
<b>FOREST PRODUCTS</b>										
Total.....	112	67	84	76	82	81	70	67	-4.3	-18.3
Lumber.....	112	59	79	71	78	77	65	59	-1.5	-17.9
Pulpwood.....	151	54	116	111	123	113	100	100	0.0	-18.7
Gum (rosin and turpentine)*.....	204	18	119	122	41	142	127	48	-62.2	+17.1
Distilled wood.....	148	65	104	104	101	101	100	105	+5.0	+4.0
<b>NEW ORDERS</b>										
Total.....	138	72	102	80	99	73	72			
Textiles.....	179	70	113	88	105	89	73			
Iron and steel.....	143	71	114	111	135	81	101			
Lumber.....	141	52	99	67	80	63	52			
Paper and printing.....	118	85	114	99	111	104	92			
Stone and clay products.....	129	73	101	82	87	84	73			
<b>STOCKS</b>										
Grand total.....	156	82	137	142	139	157	158	144	-8.9	+3.6
Total manufactured goods.....	125	88	114	121	127	116	119	122	+2.5	-3.9
Foodstuffs.....	136	79	87	97	107	104	110	108	-1.8	+0.9
Textiles.....	138	78	118	129	127	121	131	128	-2.3	+0.8
Iron and steel.....	157	78	143	147	152	134	135	147	+8.9	-3.3
Nonferrous metals.....	179	74	125	125	124	148	169	179	+5.9	+44.5
Lumber.....	125	78	107	113	116	113	116	118	+1.7	+1.7
Stone, clay, etc.....	192	64	136	154	180	139	161	180	+11.8	0.0
Leather.....	123	66	75	77	76	74	75	74	-1.3	-2.6
Rubber.....	199	77	156	164	160	146	144	146	+1.4	-8.7
Paper.....	156	46	133	132	145	90	73	72	-1.4	-50.3
Chemicals and oils.....	131	84	112	117	126	124	126	131	+4.0	+4.0
Total raw materials.....	186	69	154	156	148	186	186	160	-14.0	+8.1
Foodstuffs.....	230	68	155	163	158	219	213	168	-21.1	+6.3
Textiles.....	204	43	170	173	161	195	204	189	-7.4	+17.4
Metals.....	136	54	126	97	89	122	115	100	-13.0	+12.4
Chemicals and oils.....	153	73	136	136	125	129	130	120	-7.7	-4.0
<b>UNFILED ORDERS</b>										
Total.....	167	67	74	71	77	80	78	80	+2.6	+3.9
Textiles.....	154	52	72	72	75	55	52	55	+5.8	-26.7
Iron and steel.....	157	66	76	83	86	81	87	90	+3.4	+4.7
Transportation equipment.....	204	49	49	35	53	113	116	118	+1.7	+122.6
Lumber.....	142	56	84	62	74	58	66	69	+4.5	-6.8
<b>WHOLESALE TRADE</b>										
Grand total, all classes.....	124	82	99			96				
Groceries.....	119	83	100			99				
Meats.....	130	87	117			112				
Dry goods.....	128	70	90			83				
Men's clothing.....	167	43	66			60				
Boots and shoes.....	130	68	105			91				
Hardware.....	118	76	98			95				
Drugs.....	141	88	114			118				
Furniture.....	140	72	106			106				
<b>RETAIL TRADE</b>										
Mail order houses (2 houses).....	275	68	188	227	145	225	275	138	-49.8	-4.8
<b>CHAIN STORES:</b>										
Ten-cent.....	308	62	158	305	112	174	308	117	-62.0	+4.5
Grocery.....	257	77	219	221	224	241	257			
Drug.....	260	82	169	224	179	215	260			
<b>DEPARTMENT STORES:</b>										
Sales.....	189	71	122	189	91	123	185	89	-51.9	+2.2
Stocks.....	117	83	115	94	89	115	94	88	-6.4	-1.1

\* 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 (-)	
			November	December	January	November	December	January	January, 1930 from December, 1929	January, 1930 from January, 1929
<b>EMPLOYMENT *</b>										
(Relative to 1923-25 monthly average as 100)										
Number employed, by industries:										
Total, all classes.....	106	91	99	98	97	98	95	93	-2.1	-4.1
Iron and steel.....	108	88	98	97	97	97	92	92	0.0	-5.2
Machinery.....	122	88	104	105	107	115	112	100	-1.8	+2.8
Textiles.....	111	84	96	97	96	97	94	93	-1.1	-3.1
Food products.....	109	93	102	102	99	102	101	97	-4.0	-2.0
Paper and printing.....	107	96	104	104	103	107	107	105	-1.9	+1.9
Lumber and products.....	104	85	91	88	86	88	82	77	-6.1	-10.5
Transportation equipment—										
Group.....	110	81	90	90	94	83	81	83	+2.5	-11.7
Automobiles.....	131	79	109	108	118	84	80	86	+7.5	-27.1
Leather and products.....	112	88	89	89	92	94	90	91	+1.1	-1.1
Cement, clay and glass.....	107	84	92	90	84	89	82	75	-8.5	-10.7
Nonferrous metals.....	113	85	102	102	102	94	90	86	-4.4	-15.7
Chemicals—										
Group.....	119	90	107	108	108	114	112	111	-0.9	+2.8
Petroleum refining.....	125	95	104	105	104	124	121	121	0.0	+16.3
Rubber products.....	117	84	110	110	112	91	89	90	+1.1	-29.6
Tobacco products.....	109	84	99	96	84	96	89	84	-5.6	0.0
Amount of pay roll by industries:										
Total, all classes.....	112	85	104	104	101	102	99	94	-5.1	-6.9
Iron and steel.....	114	77	105	103	101	100	94	91	-3.2	-9.9
Machinery.....	132	83	110	114	112	122	120	114	-5.0	+1.8
Textiles.....	111	77	97	100	97	96	94	92	-2.1	-5.2
Food products.....	109	94	105	106	102	106	106	103	-2.8	+1.0
Paper and printing.....	118	92	112	114	111	117	118	115	-2.5	+3.6
Lumber and products.....	107	83	94	90	83	89	83	73	-12.0	-12.0
Transportation equipment—										
Group.....	117	80	96	96	94	89	86	81	-5.8	-13.8
Automobiles.....	152	66	115	112	115	84	73	74	+1.4	-35.7
Leather and products.....	116	80	80	86	90	84	84	85	+1.2	-5.6
Cement, clay and glass.....	108	79	91	88	79	86	80	67	-16.2	-15.2
Nonferrous metals.....	128	81	119	121	117	100	96	92	-4.2	-21.4
Chemicals—										
Group.....	118	90	108	108	106	116	114	109	-4.4	+2.8
Petroleum refining.....	129	90	107	107	105	126	125	121	-3.2	+15.2
Rubber products.....	150	82	112	114	119	86	85	89	+4.7	-24.2
Tobacco products.....	111	76	94	94	76	94	89	77	-13.5	+1.3
<b>WHOLESALE PRICES</b>										
<b>Department of Labor Indexes</b>										
(Relative to 1926 monthly average as 100)										
All commodities.....	105	94	97	97	97	94	94	93	-1.1	-4.1
Farm products.....	114	94	102	104	106	101	102	101	-1.0	-4.7
Food, etc.....	107	85	100	98	99	99	99	97	-2.0	-2.0
Hides and leather products.....	127	98	116	116	114	108	107	105	-1.9	-7.9
Textile products.....	114	93	96	96	96	92	90	89	-1.1	-7.3
Fuel and lighting.....	112	81	84	84	83	82	81	80	-1.2	-3.6
Metals and metal products.....	113	97	102	103	104	102	102	101	-1.0	-2.9
Building materials.....	116	90	96	97	97	96	96	96	0.0	-1.0
Chemicals.....	104	93	96	96	96	94	94	93	-1.1	-3.1
House-furnishing goods.....	111	97	96	96	97	97	97	97	0.0	0.0
Miscellaneous.....	127	79	80	80	81	80	80	79	-1.2	-2.5
Classified by condition of manufacture:										
Semimanufactured articles.....	128	94	97	97	97	96	94	93	-1.1	-4.1
Finished products.....	103	93	97	96	97	94	94	93	-1.1	-4.1
Raw materials.....	109	93	96	97	99	95	95	94	-1.1	-6.0
Nonagricultural commodities.....	106	93	95	95	95	93	92	91	-1.1	-4.2
<b>Commercial Indexes</b>										
(Relative to 1926 monthly average as 100)										
Dun's.....	106	85	103	102	103	100	99	98	-1.0	-4.9
Bradstreet's.....	112	95	102	100	101	95	90	89	-1.1	-11.9

\* See tables on pp. 19 and 21 of the December, 1929, issue for earlier data.

## 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 (-)	
			November	December	January	November	December	January	January, 1930 from December, 1929	January, 1930 from January, 1929
<b>PRICE INDEX NUMBERS</b>										
<b>FARM PRICES</b>										
(Relative to 1909-1914 average as 100)										
All groups.....	152	125	134	134	133	136	135	134	-0.7	+0.8
Grains.....	178	108	110	112	115	118	119	118	-0.8	+2.6
Fruits and vegetables.....	253	108	109	108	109	159	163	167	+2.5	+53.2
Meat animals.....	167	98	150	143	146	144	143	146	+2.1	0.0
Dairy and poultry.....	166	122	155	159	149	157	157	146	-7.0	-2.0
Cotton and cottonseed.....	252	81	146	148	148	132	130	128	-1.5	-13.5
Unclassified.....	108	79	86	90	92	90	87	87	0.0	-5.4
<b>COST OF LIVING</b>										
<b>National Industrial Conference Board Indexes</b>										
(Relative to July, 1914)										
All items weighted.....	172	158	163	162	161	163	162	160	-1.2	-0.6
Food (Department of Labor).....	167	141	157	156	155	160	158	155	-1.9	0.0
Shelter.....	186	159	160	160	159	159	159	159	0.0	0.0
Clothing.....	177	160	172	171	169	168	169	166	-1.8	-1.8
Fuel and light (combined).....	179	156	162	163	163	162	162	163	+0.6	0.0
Fuel.....	208	174	183	184	184	183	183	184	+0.5	0.0
Light.....	123	118	121	121	121	120	120	121	+0.8	0.0
Sundries.....	176	168	171	171	170	170	169	168	-0.6	-1.2

NATIONAL ADVERTISING IN NEWSPAPERS<sup>1</sup>

YEAR AND MONTH	Total	Passenger cars	Tires, trucks, and accessories	Financial	Building materials	Electrical appliances and supplies	Food and beverages	Heating and plumbing equipment	Medical	Radio	Tobacco	Toilet requisites	Transportation	All other
Thousands of lines														
<b>1928</b>														
January.....	44,266	10,398	2,267	8,477	272	444	3,581	249	6,359	1,585	2,510	1,915	2,188	4,021
February.....	12,401	1,628	562	2,269	73	173	1,335	105	1,563	436	1,133	678	468	1,978
March.....	48,664	7,542	3,315	7,206	642	736	6,535	352	5,893	1,210	5,081	3,345	1,936	4,872
April.....	49,965	8,193	4,712	6,843	944	1,301	7,108	580	3,828	637	3,826	3,323	2,578	6,092
May.....	49,810	6,770	5,443	7,130	964	1,236	7,851	600	3,392	599	2,580	2,968	3,630	6,646
June.....	42,916	6,168	6,488	5,863	549	1,127	7,449	492	2,347	583	2,117	2,294	3,361	4,081
July.....	41,339	7,193	5,536	6,648	342	822	6,640	352	2,232	634	2,520	2,250	2,946	3,224
August.....	39,167	7,064	5,881	4,796	400	887	5,802	476	2,214	1,009	2,709	1,949	2,467	3,715
September.....	43,402	6,720	4,696	5,821	811	895	5,678	979	2,920	3,759	2,006	2,139	1,734	5,245
October.....	52,955	6,523	5,022	7,193	821	893	6,628	879	5,224	3,924	2,653	3,831	1,996	7,366
November.....	51,380	7,063	4,511	6,856	426	848	6,062	595	6,097	3,863	2,335	2,605	2,396	7,721
December.....	40,586	6,341	3,806	7,518	237	1,144	3,281	404	3,952	3,038	1,602	1,388	2,351	5,524
Total.....	516,851	81,603	52,039	76,620	6,481	10,506	67,950	6,063	46,021	21,277	31,072	28,685	28,051	60,485
<b>1929</b>														
January.....	52,270	11,010	3,927	9,625	246	470	3,955	402	8,117	2,148	2,703	2,742	2,324	4,601
February.....	13,731	1,689	733	2,357	83	220	1,454	135	1,581	701	1,178	914	526	2,160
March.....	56,133	9,228	3,781	8,011	600	1,466	7,185	579	6,557	2,176	3,885	3,574	2,307	6,783
April.....	55,868	9,779	5,288	7,653	1,261	1,495	7,556	649	4,266	1,390	3,161	3,333	2,960	7,078
May.....	61,548	8,757	7,397	8,176	1,148	1,553	8,837	650	3,810	2,148	5,171	2,936	4,263	6,704
June.....	56,118	6,603	7,926	7,485	632	1,763	8,230	381	2,830	1,885	4,264	3,123	4,667	6,291
July.....	48,023	6,219	7,565	8,672	275	1,093	6,676	319	2,285	2,515	2,484	2,592	3,756	3,572
August.....	44,095	7,088	6,745	6,304	274	888	5,895	422	2,190	3,017	2,107	2,372	3,121	2,672
September.....	52,869	6,884	5,502	7,457	775	1,560	6,440	782	3,019	6,205	3,217	3,020	2,321	5,686
October.....	64,037	7,396	5,719	8,812	769	1,354	7,713	817	5,595	7,109	4,617	3,807	2,530	7,800
November.....	52,879	4,098	5,996	6,578	338	1,062	6,848	513	5,967	5,734	4,112	2,267	2,802	6,565
December.....	36,724	2,664	4,279	6,943	109	935	3,452	344	3,072	4,021	1,515	1,177	2,747	5,466
Total.....	594,295	81,415	64,858	88,073	6,510	13,859	74,241	5,993	49,289	39,049	38,414	31,857	34,324	65,378

<sup>1</sup> Compiled by the *Media Records Incorporated, New York City*. These data are derived by actual measurement of space and represent the amount of national advertising appearing in all newspapers, both daily and Sunday, of the following 50 identical cities: Akron, Albany, Atlanta, Baltimore, Birmingham, Boston, Buffalo, Chicago, Cleveland, Cincinnati, Columbus, Dallas, Dayton, Denver, Des Moines, Detroit, Hartford, Indianapolis, Kansas City, Mo., Knoxville, Los Angeles, Louisville, Memphis, Milwaukee, Minneapolis, Nashville, Newark, New Orleans, New York, including Brooklyn, Norfolk, Oakland, Oklahoma City, Omaha, Philadelphia, Pittsburgh, Portland, Ore., Providence, Reading, Rochester, San Francisco, Seattle, Springfield, Mass., Spokane, St. Louis, St. Paul, Syracuse, Toledo, Tulsa, Washington, and Worcester, Mass. National advertising is the advertising of products on general sale, as distinguished from the advertising of retail stores, not including any automotive or financial advertising. The application of this definition is uniform in all cities measured by *Media Records (Inc.)*.

AUTOMOBILE PRODUCTION IN THE UNITED STATES<sup>1</sup>

[Number of vehicles]

MONTH	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929
	<b>TOTAL PASSENGER CARS, TAXICABS, AND TRUCKS</b>																
January	35,662	45,644	31,253	107,402	122,002	92,208	93,779	187,937	53,237	89,374	245,889	318,589	240,579	308,998	238,908	231,728	401,037
February	35,663	48,482	49,309	124,546	144,674	106,962	114,598	188,030	70,599	117,871	278,091	370,599	283,638	363,652	304,735	323,796	466,418
March	45,273	60,211	94,311	162,074	165,622	132,142	146,091	224,212	112,453	171,487	359,476	383,424	374,406	433,467	394,513	413,314	585,457
April	60,335	70,367	101,910	152,529	172,045	153,673	165,229	173,308	152,201	219,394	379,138	375,868	433,792	439,336	406,382	410,104	621,910
May	57,199	56,354	88,390	155,950	185,721	143,003	176,484	210,019	156,805	255,622	395,555	315,177	419,056	425,167	405,648	425,783	604,691
June	53,581	44,975	91,059	139,794	172,656	118,859	166,575	225,677	190,520	278,876	380,110	251,900	398,524	385,269	323,817	396,796	545,932
July	34,808	30,987	65,004	120,755	164,764	118,060	164,831	209,652	176,870	245,755	331,844	269,812	398,947	359,610	299,396	392,086	500,839
August	31,416	48,373	82,082	106,623	146,454	89,542	165,414	205,205	181,279	290,838	348,216	284,693	260,236	426,851	309,994	461,298	498,628
September	29,860	53,523	98,861	140,281	162,883	59,555	180,786	188,514	158,760	203,927	327,720	296,352	325,728	398,958	260,310	415,314	415,912
October	28,537	44,264	89,127	134,393	165,333	50,311	237,222	165,298	148,009	232,824	366,461	294,553	441,981	334,421	219,682	397,284	380,017
November	32,276	32,698	84,769	140,255	156,716	43,244	190,321	134,975	116,644	232,923	314,504	234,611	372,271	256,301	134,370	257,140	217,570
December	40,390	33,176	93,255	133,106	115,079	63,127	162,265	199,432	79,455	225,285	307,068	207,062	316,672	167,924	133,571	234,116	119,950
Total	485,000	569,054	969,930	1,617,708	1,873,949	1,170,686	1,933,595	2,227,349	1,596,823	2,544,176	4,034,012	3,602,540	4,265,830	4,300,934	3,401,326	4,358,759	5,358,361
Mo. av.	40,417	47,421	80,828	134,809	156,162	97,557	161,133	185,612	133,069	212,015	336,168	300,212	355,486	358,411	283,444	363,230	446,530
<b>PASSENGER CARS</b>																	
January	34,483	44,364	28,304	100,806	116,815	81,611	76,422	157,115	45,397	80,194	224,549	287,198	210,980	278,228	199,201	205,142	347,382
February	34,423	46,609	44,919	117,460	138,759	95,232	97,126	158,921	60,326	104,936	254,808	337,045	248,854	325,975	263,642	290,689	405,708
March	43,887	57,972	88,583	153,175	157,882	112,279	124,559	193,641	98,941	152,311	324,314	347,164	328,589	388,215	345,549	371,150	513,344
April	57,584	67,990	95,537	143,371	163,618	130,361	145,359	149,457	137,640	197,903	340,283	337,288	384,780	389,453	358,261	364,265	537,225
May	54,871	53,521	81,054	147,840	175,583	118,638	144,792	182,027	144,097	232,499	350,279	277,284	374,025	378,455	358,409	375,556	516,055
June	51,512	42,991	83,813	133,363	162,926	97,194	144,805	192,826	177,086	252,734	338,424	220,794	359,103	343,150	280,313	356,214	452,598
July	33,165	29,236	59,111	112,810	154,638	93,909	142,135	181,051	165,616	223,823	390,896	242,177	356,314	320,074	237,541	338,383	426,137
August	29,227	46,793	76,246	99,330	132,234	67,058	140,479	176,234	167,756	246,867	317,141	254,610	221,830	382,671	275,377	400,124	441,912
September	27,035	52,095	91,797	132,115	148,572	39,591	154,119	160,520	144,670	184,485	309,647	262,695	296,037	354,068	226,198	358,615	364,786
October	25,902	41,588	80,539	125,889	152,088	30,119	177,270	138,021	134,774	211,164	335,836	230,244	395,801	292,029	182,456	339,487	320,327
November	30,639	30,538	78,193	131,841	140,837	29,941	161,600	118,944	106,081	210,955	286,006	204,323	332,666	221,653	108,984	216,754	169,282
December	38,781	29,982	87,834	127,873	101,840	47,533	138,986	96,793	70,727	205,142	277,947	179,283	282,594	139,101	105,309	204,957	91,234
Total	461,509	543,679	895,930	1,525,578	1,745,792	943,436	1,657,652	1,905,560	1,453,111	2,302,923	3,651,130	3,210,005	3,761,573	3,813,102	2,941,240	3,821,136	4,586,020
Mo. av.	38,459	45,307	74,661	127,132	145,483	78,620	138,138	158,797	121,093	191,910	304,261	267,500	313,464	317,759	245,103	318,428	382,168
<b>TAXICABS</b>																	
January														785	767	449	504
February														543	497	529	462
March														526	488	482	671
April														278	501	421	612
May														264	341	316	507
June														492	238	307	408
July														374	337	270	409
August														484	556	208	469
September														469	287	245	276
October														789	533	586	659
November														1,076	766	774	700
December														1,340	813	774	1,036
Total														7,420	6,124	5,361	6,713
Mo. av.														618	510	447	559
<b>TRUCKS</b>																	
January	1,179	1,280	2,949	6,596	5,187	10,597	17,357	30,822	7,840	9,180	28,340	31,391	28,814	30,003	39,258	26,082	51,591
February	1,240	1,873	4,300	7,066	5,915	11,760	17,472	29,109	10,273	12,935	23,283	33,524	34,241	37,180	40,564	32,645	58,602
March	1,386	2,239	5,728	8,899	7,740	19,863	21,532	35,571	13,512	19,176	35,162	36,260	45,291	44,764	48,482	41,493	70,034
April	2,751	2,377	6,373	9,158	8,427	23,312	19,870	23,941	14,561	21,491	38,855	38,630	48,734	49,382	47,700	45,227	82,999
May	2,328	2,833	7,336	8,110	10,138	24,365	21,692	27,992	12,708	23,183	45,276	37,893	44,767	46,341	46,923	49,290	87,318
June	2,069	1,984	7,246	6,431	9,730	21,665	21,770	32,851	13,434	26,172	41,686	31,006	38,929	42,881	43,197	40,174	91,956
July	1,643	1,751	6,493	7,945	10,126	24,151	22,696	28,601	11,254	21,932	30,948	27,635	42,259	39,199	31,585	53,294	73,648
August	2,189	1,580	5,836	7,293	14,220	22,484	24,935	28,971	13,514	23,971	31,675	30,083	37,922	43,624	34,409	60,705	55,646
September	2,825	1,428	7,064	8,166	14,311	19,964	26,667	27,994	14,090	19,442	27,073	33,687	59,222	44,583	33,867	56,423	50,261
October	2,635	2,076	8,588	8,504	13,245	20,192	29,952	27,267	13,235	21,660	30,625	34,309	45,391	41,859	36,640	57,138	58,822
November	1,646	2,160	6,576	8,414	15,879	13,303	28,721	16,031	10,563	21,968	28,498	30,288	38,529	33,882	24,612	39,685	46,442
December	1,609	3,194	5,421	5,528	13,239	15,594	23,279	12,639	8,728	20,143	29,061	27,829	32,738	28,010	27,488	28,123	27,233
Total	23,500	25,375	74,000	92,130	128,157	227,250	275,943	321,789	143,712	241,253	382,882	392,535	496,837	481,708	454,725	530,910	754,752
Mo. av.	1,958	2,115	6,167	7,678	10,680	18,938	22,995	26,816	11,976	20,104	31,907	32,711	41,403	40,142	37,894	44,243	62,896

<sup>1</sup> Data through June, 1921, compiled by the National Automobile Chamber of Commerce from actual monthly reports from the principal producers, covering close to 90 per cent of the industry, from quarterly reports of other member companies, prorated to monthly figures according to the relative output of the larger companies, and from annual figures of small nonmember companies, covering the balance of the industry, prorated to monthly figures according to the relative output of the companies reporting on a monthly or quarterly basis. Beginning with July, 1921, figures are actual reports from practically the entire industry compiled by the U. S. Department of Commerce, Bureau of the Census, including data from the National Automobile Chamber of Commerce. Figures for passenger cars include taxicabs prior to 1925 and those for trucks include ambulances, funeral cars, fire apparatus, street sweepers, and busses. All these figures, revising data previously published, represent production or factory sales and cover the United States only.

SALES OF THE GREAT ATLANTIC AND 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>						<b>1929</b>					
September	\$69,336	4	\$17,334	309,451	77,363	September	\$75,246	4	\$18,811	336,309	84,077
October	93										

RELATIVE DEBITS TO INDIVIDUAL ACCOUNTS AT CLEARING-HOUSE CENTERS<sup>1</sup>

GROUPED BY FEDERAL RESERVE DISTRICTS

[Table continued on p. 21]

YEAR AND MONTH	U. S. TOTAL 141 CEN- TERS	BOSTON DISTRICT					NEW YORK DISTRICT					PHILADELPHIA DISTRICT				
		Total, 11 centers	Boston	Hart- ford	Provi- dence	New Haven	Total, 7 centers	Albany	Buffalo	Roches- ter	New York	Total, 10 centers	Phila- delphia	Scran- ton	Tren- ton	
1919 av., mills. dolls....	37,446	1,769	1,245	92	144	72	20,917	87	263	120	20,354	1,625	1,373	53	43	
1919 monthly average...	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1920 monthly average...	106.0	109.2	105.9	117.4	118.7	118.1	99.4	111.5	114.8	119.2	98.8	113.3	112.4	124.5	125.6	
1921 monthly average...	88.7	102.4	106.7	98.9	93.0	98.6	85.2	119.5	92.8	103.3	84.8	95.8	93.8	122.7	111.6	
1922 monthly average...	97.8	105.5	109.3	103.3	95.1	104.2	98.4	119.5	99.6	110.0	98.2	102.5	101.7	109.4	118.6	
1923 monthly average...	103.2	117.1	120.2	119.6	105.5	122.2	98.2	118.3	114.8	124.2	97.6	114.3	111.9	130.6	137.2	
1924 monthly average...	109.5	120.9	125.6	131.3	104.4	125.8	108.3	134.8	115.0	129.0	107.9	116.8	114.3	142.3	146.5	
1925 monthly average...	126.8	136.7	143.9	141.7	114.9	134.6	128.7	147.7	133.3	144.3	128.3	129.5	128.1	138.9	150.6	
1926 monthly average...	135.3	141.6	157.0	152.3	113.4	139.6	139.0	154.0	136.9	146.3	138.8	134.6	133.1	144.2	168.5	
1927 monthly average...	150.0	158.1	168.9	202.5	113.2	148.6	160.1	168.3	140.6	152.2	160.3	140.0	138.6	145.5	175.0	
1928 monthly average...	179.5	161.3	169.1	232.7	115.5	162.4	203.7	179.0	166.0	157.8	204.8	156.2	155.8	146.6	187.4	
<b>1928</b>																
May.....	191.3	170.0	177.0	272.8	129.1	175.0	221.4	265.4	167.7	160.8	222.4	163.5	164.0	154.7	186.1	
June.....	193.6	163.5	168.6	245.7	134.0	175.0	222.4	202.2	173.0	196.7	223.3	173.8	177.8	151.0	202.4	
July.....	157.5	149.1	157.4	200.0	111.1	161.1	172.1	152.8	160.4	153.3	172.4	145.8	142.9	130.2	172.1	
August.....	156.3	143.4	152.2	188.1	106.9	147.2	172.0	142.5	162.0	139.2	172.5	132.8	131.1	126.4	172.1	
September.....	168.7	142.4	148.8	210.9	110.4	152.8	189.4	139.0	102.7	148.3	190.3	146.6	146.1	134.0	172.1	
October.....	194.7	172.2	180.4	231.5	142.3	176.4	220.9	156.3	190.5	165.0	222.0	169.7	169.4	145.3	195.4	
November.....	190.6	166.8	176.5	217.4	124.3	159.7	220.0	157.4	180.2	155.0	223.4	163.6	164.7	137.8	188.4	
December.....	220.1	178.5	187.5	259.8	137.5	172.2	257.2	198.8	196.6	180.0	259.0	189.3	191.2	154.7	230.3	
<b>1929</b>																
January.....	221.3	181.3	187.9	295.7	143.7	195.8	266.7	186.1	191.2	175.0	268.8	179.1	178.9	151.0	200.0	
February.....	189.1	151.2	159.5	220.7	117.3	144.5	225.4	157.4	149.8	141.7	227.4	156.1	155.9	137.8	216.3	
March.....	223.2	171.4	178.4	267.4	134.0	172.2	270.0	233.2	180.2	165.8	272.3	175.1	177.7	143.4	181.4	
April.....	199.7	166.0	168.8	301.1	131.9	172.2	234.4	241.3	181.4	153.3	235.7	178.4	179.9	141.5	193.1	
May.....	204.5	167.4	173.7	254.4	133.3	166.7	244.4	282.7	176.0	149.2	245.0	166.7	167.1	141.5	183.8	
June.....	186.1	162.5	166.5	250.0	137.5	170.8	211.9	212.6	188.2	164.2	212.6	177.1	178.7	139.6	193.1	
July.....	207.4	182.1	189.8	300.0	140.2	180.6	240.8	204.5	217.1	176.7	241.8	175.5	175.3	139.6	227.9	
August.....	206.7	186.7	200.7	287.0	128.4	168.1	239.9	196.5	226.2	159.2	240.9	154.2	153.2	135.9	186.1	
September.....	207.4	174.5	179.5	341.3	127.1	173.6	246.2	178.1	232.3	182.5	247.3	154.0	152.5	135.9	190.7	
October.....	2 5 3	217.5	231.9	322.8	166.6	201.4	308.9	209.1	256.3	193.3	311.1	186.2	185.6	171.7	211.7	
November.....	219.4	186.3	195.1	273.9	152.1	179.2	261.5	191.9	213.3	158.3	263.4	180.1	181.8	152.8	204.7	
December.....	178.4	171.4	180.2	238.1	136.8	161.1	195.3	202.2	176.4	155.8	195.8	175.5	171.1	147.2	230.3	
<b>1930</b>																
January.....	161.5	172.4	181.4	254.4	131.9	176.4	170.5	176.9	160.4	151.7	170.6	160.6	159.6	143.4	211.7	
February.....																
March.....																
April.....																
YEAR AND MONTH	ATLANTA DISTRICT							CHICAGO DISTRICT								
	Total, 15 centers	Atlanta	Bir- ming- ham	New Or- leans	Jack- son- ville	Nash- ville	Au- gusta	Total, 21 centers	Chi- cago	Detroit	Indian- apolis	Mil- wau- kee	Des Moines	Grand Rapids	Sioux City	
1919 av., mills. dolls....	928	123	59	304	48	93	37	4,242	2,800	525	136	237	83	75	63	
1919 monthly average...	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
1920 monthly average...	115.1	108.9	128.8	115.4	125.0	120.4	110.8	116.0	113.0	125.2	123.5	124.0	114.5	128.0	109.5	
1921 monthly average...	84.2	85.4	103.4	82.2	91.7	105.4	64.9	92.0	91.7	91.2	100.0	97.5	84.4	109.3	63.5	
1922 monthly average...	86.0	90.2	133.9	89.5	97.9	71.0	70.3	96.8	96.2	101.3	104.4	101.7	83.1	81.3	101.6	
1923 monthly average...	100.0	108.9	183.1	97.4	112.5	78.5	83.8	108.8	105.0	125.7	115.4	115.6	97.6	89.3	119.0	
1924 monthly average...	105.3	113.1	199.3	106.4	126.5	79.2	74.6	110.8	106.3	130.6	110.9	110.5	103.2	89.2	123.4	
1925 monthly average...	125.0	129.2	226.7	118.2	206.2	87.6	78.2	124.9	120.4	158.3	115.4	119.4	89.8	114.1	136.9	
1926 monthly average...	128.1	132.7	243.8	113.7	232.6	89.7	72.6	132.0	127.5	166.4	135.2	127.3	98.1	115.5	129.1	
1927 monthly average...	123.9	127.8	253.5	114.8	181.6	97.6	74.8	137.9	136.8	162.8	136.2	130.1	98.9	110.3	114.7	
1928 monthly average...	123.1	137.7	255.4	112.6	156.4	108.5	75.0	155.3	152.3	213.2	139.6	131.5	100.2	118.0	92.5	
<b>1928</b>																
May.....	122.0	132.5	271.2	106.2	160.4	109.7	73.0	162.0	162.6	206.1	141.9	134.6	108.5	121.3	95.2	
June.....	118.6	126.8	250.9	105.2	158.3	110.7	64.9	162.1	159.2	217.4	137.5	42.6	108.5	124.0	100.0	
July.....	114.7	121.1	245.8	107.2	147.9	96.8	64.9	145.4	139.3	205.5	135.3	131.2	94.0	114.6	95.2	
August.....	112.9	117.1	235.6	102.3	143.7	121.5	62.2	146.6	139.7	216.6	133.8	129.5	97.6	114.6	95.2	
September.....	114.4	122.8	242.4	107.6	133.3	100.0	64.9	151.7	144.1	237.2	127.9	121.5	95.2	116.0	92.2	
October.....	134.0	145.5	294.9	120.7	152.1	120.4	89.2	165.8	160.5	233.8	146.3	138.4	106.0	126.6	101.6	
November.....	129.9	167.5	261.0	119.4	143.7	120.4	73.0	155.9	153.1	216.2	143.4	127.0	100.0	124.0	74.6	
December.....	145.5	204.9	279.7	134.2	172.9	111.8	86.5	184.6	176.9	301.4	156.6	131.2	100.0	130.6	90.5	
<b>1929</b>																
January.....	143.6	186.2	281.4	129.6	168.7	146.2	75.7	173.7	170.1	255.3	155.1	128.3	101.2	133.3	98.4	
February.....	120.2	169.9	215.3	105.6	158.3	119.3	64.9	153.3	154.9	201.4	140.4	115.2	86.8	104.0	88.9	
March.....	134.3	195.9	252.6	117.4	175.0	129.0	75.7	180.3	185.7	220.2	150.7	130.8	100.0	126.6	101.6	
April.....	132.3	188.6	255.9	112.2	183.3	119.3	75.7	163.4	158.9	234.9	143.4	122.8	101.2	118.6	106.3	
May.....	126.3	187.0	252.6	104.3	162.5	109.7	70.3	166.5	160.0	252.4	151.5	117.3	106.0	128.0	104.7	
June.....	120.5	165.9	232.2	95.7	152.1	145.1	62.2	163.7	158.7	233.0	156.6	128.3	103.6	122.6	96.8	
July.....	126.7	180.5	244.1	107.9	162.5	111.8	62.2	178.4	176.6	242.3	165.4	142.6	103.6	126.6	106.3	
August.....	121.4	179.7	239.0	101.6	141.6	112.9	64.9	187.8	192.8	234.5	159.6	143.9	104.8	130.6	101.6	
September.....	117.5	143.9	244.1	102.0	131.2	106.4	78.4	179.9	177.2	260.8	147.8	140.1	103.6	132.0	95.2	
October.....	142.0	171.5	296.6	131.2	158.3	118.3	100.0	206.4	214.6	253.0	164.0	151.9	118.1	134.6	104.7	
November.....	123.8	152.0	254.3	114.5	143.7	101.1	75.7	179.7	185.3	215.1	157.4	147.7	103.6	113.3	90.5	
December.....	129.4	154.5	257.6	125.0	156.2	106.4	83.8	162.5	162.8	208.8						

RELATIVE DEBITS TO INDIVIDUAL ACCOUNTS AT CLEARING-HOUSE CENTERS—Continued

GROUPED BY FEDERAL RESERVE DISTRICTS—Continued

[Table continued on p. 22]

YEAR AND MONTH	CLEVELAND DISTRICT									RICHMOND DISTRICT					
	Total, 13 centers	Akron	Cincinnati	Cleveland	Pittsburgh	Yngstown	Toledo	Columbus	Dayton	Total, 7 centers	Baltimore	Norfolk	Richmond	Green-ville	
1919 average millions of dollars...	1,963	90	247	653	746	60	116	116	50	718	404	84	16	37	
1919 monthly average.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
1920 monthly average.....	16.4	115.6	113.0	115.9	118.5	110.0	117.2	111.2	104.0	111.8	115.6	102.3	108.7	102.7	
1921 monthly average.....	89.6	63.3	107.7	81.9	94.9	78.3	100.0	102.6	110.0	95.5	104.9	71.4	98.3	67.6	
1922 monthly average.....	94.6	63.3	117.4	84.1	97.2	83.3	123.8	112.1	112.0	89.6	89.1	78.5	100.9	67.6	
1923 monthly average.....	110.9	80.0	133.6	99.2	112.7	103.4	153.5	128.5	138.0	98.6	93.3	88.1	112.9	78.4	
1924 monthly average.....	109.4	81.4	128.0	96.8	113.2	101.6	155.7	116.0	136.0	96.3	93.4	82.2	109.1	69.4	
1925 monthly average.....	122.0	100.0	142.7	106.6	126.4	117.0	179.2	126.9	156.0	106.7	104.6	85.8	122.9	73.0	
1926 monthly average.....	127.4	104.5	150.3	115.9	126.7	118.0	189.5	138.3	176.5	108.4	107.4	94.2	121.5	76.2	
1927 monthly average.....	136.6	112.9	167.2	124.9	137.1	118.5	205.2	144.8	188.8	107.1	104.2	89.0	120.2	75.0	
1928 monthly average.....	141.4	124.5	181.2	130.0	136.1	124.1	241.0	148.3	194.5	105.4	102.0	85.4	123.6	64.2	
<b>1928</b>															
May.....	137.8	118.9	174.1	122.0	134.8	123.4	244.8	146.6	190.0	105.0	103.7	90.4	111.2	67.6	
June.....	151.8	132.2	198.8	136.4	150.5	135.0	260.4	151.7	206.0	114.2	119.0	84.5	119.0	58.8	
July.....	137.5	132.2	171.7	126.2	130.1	126.7	238.8	137.9	202.0	101.4	102.7	80.9	112.1	54.1	
August.....	130.0	117.8	158.3	119.4	125.2	121.7	210.4	136.2	186.0	96.5	93.3	82.1	117.2	48.7	
September.....	135.3	125.5	159.1	124.3	129.6	123.4	230.2	138.8	182.0	93.6	96.4	72.6	128.5	51.4	
October.....	156.1	141.1	188.3	150.0	147.1	136.7	271.6	151.7	202.0	112.7	104.0	94.0	146.6	70.3	
November.....	140.5	116.7	169.7	123.4	142.3	118.4	240.5	146.6	168.0	102.8	95.8	83.3	130.2	64.9	
December.....	169.9	141.1	214.2	162.1	159.6	151.7	277.6	186.2	228.0	120.1	112.6	107.1	144.8	67.6	
<b>1929</b>															
January.....	154.2	136.7	202.5	138.9	147.1	138.4	244.0	174.1	242.0	113.3	106.2	94.0	133.6	73.0	
February.....	139.6	125.5	176.5	134.1	139.9	115.0	170.7	150.0	190.0	96.4	93.3	73.8	114.7	62.2	
March.....	150.0	133.3	184.2	140.4	148.7	135.0	199.1	158.6	232.0	108.4	104.4	85.7	125.0	64.9	
April.....	158.5	140.0	201.2	153.1	154.0	138.4	219.0	173.3	216.0	110.3	109.1	80.9	121.6	59.5	
May.....	145.7	134.4	172.5	135.8	147.7	120.0	185.4	159.5	198.0	104.9	101.2	82.1	115.5	59.5	
June.....	148.1	136.7	179.0	141.3	143.6	143.4	190.5	163.8	214.0	105.0	106.9	80.1	117.2	56.8	
July.....	165.4	148.9	184.6	151.1	167.9	151.7	219.8	175.0	248.0	109.1	111.6	83.3	123.3	56.8	
August.....	152.3	127.8	165.2	149.6	148.7	143.4	191.4	164.7	210.0	113.9	120.3	80.1	134.5	54.1	
September.....	145.7	130.0	166.0	145.6	138.6	135.0	175.0	156.0	214.0	101.5	103.0	73.8	120.7	51.4	
October.....	170.4	140.0	206.5	165.5	170.2	155.0	218.1	187.1	220.0	120.5	117.8	89.3	146.6	73.0	
November.....	152.1	124.4	189.5	140.9	161.6	125.0	179.3	160.4	198.0	112.1	110.1	88.1	141.4	64.9	
December.....	153.1	126.7	189.5	154.9	143.0	148.4	194.8	176.7	212.0	110.9	107.2	90.4	134.5	59.5	
<b>1930</b>															
January.....	144.0	125.5	183.4	141.8	131.6	135.0	184.5	167.2	228.0	108.7	107.7	80.9	126.7	73.0	
February.....															
March.....															
April.....															
YEAR AND MONTH	DALLAS DISTRICT				ST. LOUIS DISTRICT					MINNEAPOLIS DISTRICT					
	Total, 11 centers	Dallas	Hous-ton	Fort Worth	Sum-mary for 5 centers	Louis-ville	St. Louis	Mem-phs	Little Rock	Total, 9 centers	Duluth	Minne-apolis	St. Paul	Helena	Billings
1919 av., mill. doll. ....	521	161	138	92	965	156	617	136	36	659	90	354	162	11	9
1919 monthly average.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1920 monthly average.....	117.4	114.3	115.2	119.6	105.4	92.3	106.5	107.4	125.0	108.5	120.0	109.6	98.2	100.0	111.1
1921 monthly average.....	94.2	90.7	86.2	109.8	89.0	82.0	91.9	73.5	116.7	82.7	84.4	84.2	75.3	100.0	88.9
1922 monthly average.....	97.9	96.9	81.2	119.6	94.5	87.8	94.2	87.5	127.8	88.0	82.2	85.0	97.5	90.9	77.8
1923 monthly average.....	101.3	107.5	89.0	93.5	110.4	101.9	108.4	106.6	169.5	94.8	85.5	91.5	106.8	81.8	88.9
1924 monthly average.....	101.5	112.7	91.2	78.0	110.6	106.7	108.2	101.1	186.1	104.2	117.7	103.8	101.6	85.6	78.7
1925 monthly average.....	112.4	130.8	103.6	82.4	124.2	120.8	120.8	111.7	204.9	114.3	118.2	119.4	104.7	85.6	84.3
1926 monthly average.....	119.1	131.5	126.0	92.1	127.3	128.7	122.7	111.5	226.4	104.9	88.3	110.3	102.2	82.6	88.0
1927 monthly average.....	124.5	135.6	131.9	103.2	127.4	123.6	120.9	119.6	220.8	110.0	103.0	113.9	106.7	83.3	92.6
1928 monthly average.....	134.6	148.5	140.1	115.8	133.8	131.3	129.0	117.0	230.4	117.5	101.3	124.6	110.6	87.9	110.2
<b>1928</b>															
May.....	123.8	132.9	124.6	112.0	138.2	135.3	137.6	102.9	222.2	115.3	107.8	125.1	100.6	72.7	100.0
June.....	128.6	131.7	141.3	113.0	144.1	145.5	145.6	102.9	202.8	119.8	110.0	127.1	111.1	81.8	100.0
July.....	120.7	126.1	129.7	114.1	125.0	123.8	97.1	194.5	112.3	112.3	77.8	122.9	106.8	81.8	100.0
August.....	123.0	131.1	129.7	108.7	119.9	119.2	117.8	91.9	194.5	112.3	77.8	119.8	101.2	100.0	100.0
September.....	141.8	163.3	147.8	116.3	122.9	128.2	114.4	110.3	233.4	131.8	142.2	139.3	109.9	90.9	122.2
October.....	163.5	188.8	176.8	127.2	147.1	134.6	136.5	155.1	300.0	155.0	181.1	159.3	125.9	127.3	166.7
November.....	145.5	169.6	147.1	119.6	134.3	128.2	122.7	146.3	261.1	127.3	130.0	131.9	113.6	100.0	133.3
December.....	167.0	185.1	173.9	153.3	157.8	148.7	150.4	155.9	277.8	127.3	101.1	134.2	125.3	109.0	111.1
<b>1929</b>															
January.....	154.7	178.3	149.3	132.6	146.8	150.6	137.5	144.9	236.1	113.0	74.4	122.3	113.0	90.9	100.0
February.....	131.8	146.0	136.2	104.4	125.6	133.3	117.2	120.6	200.0	100.0	66.7	107.4	103.1	72.7	77.8
March.....	147.6	168.3	152.9	117.4	140.7	136.5	133.2	136.0	238.9	113.0	75.5	120.9	117.3	81.8	100.0
April.....	142.2	154.0	145.6	120.7	134.6	127.6	131.5	121.3	225.0	112.0	77.8	119.8	111.1	100.0	100.0
May.....	140.3	145.3	157.2	115.2	132.1	136.5	128.2	114.7	216.7	116.1	91.1	126.8	105.6	81.8	111.1
June.....	129.3	134.8	136.9	115.2	141.2	135.3	145.7	108.1	191.7	120.0	97.8	130.0	111.7	81.8	100.0
July.....	139.9	139.1	152.9	142.4	136.9	138.5	138.3	102.9	211.1	138.7	122.2	154.8	117.3	100.0	111.1
August.....	138.7	147.8	147.8	122.8	126.5	123.1	125.3	110.3	211.1	160.2	132.2	171.8	120.4	100.0	111.1
September.....	150.3	165.8	160.9	118.5	134.0	128.8	125.6	141.2	258.4	147.8	127.8	169.8	116.1	100.0	122.2
October.....	179.4	208.1	188.4	142.4	163.7	153.2	147.5	202.2	338.9	154.0	125.5	172.3	130.3	109.1	166.7
November.....	155.8	175.8	161.6	131.5	142.5	136.5	131.5	165.4	263.9	138.4	116.7	151.7	124.7	109.1	122.2
December.....	154.9	182.6	148.5	133.7	137.9	117.9	133.9	147.8	250.0	135.0	105.5	150.0	124.7	100.0	111.1
<b>1930</b>															
January.....	142.2	155.3	149.3	110.9	132.7	127.6	129.0	130.1	225.0	113.9	71.1	128.0	111.1	81.8	88.9
February.....															
March.....															
April.....															

## RELATIVE DEBITS TO INDIVIDUAL ACCOUNTS AT CLEARING-HOUSE CENTERS—Continued

## GROUPED BY FEDERAL RESERVE DISTRICTS—Continued

YEAR AND MONTH	KANSAS CITY DISTRICT							SAN FRANCISCO DISTRICT					
	Total, 14 centers	Denver	Kansas City, Mo.	Omaha	St. Joseph, Mo.	Oklahoma City	Tulsa	Total, 18 centers	Los Angeles	Portland, Oreg.	San Francisco	Seattle	Oakland, Calif.
1919 average, millions of dolls.	1,231	146	413	264	85	68	94	1,909	314	181	760	206	63
1919 monthly average	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1920 monthly average	109.8	139.7	94.9	95.5	97.6	153.0	131.9	123.2	139.2	108.8	124.6	96.1	160.3
1921 monthly average	82.0	98.6	74.6	67.4	81.1	129.4	88.3	104.4	143.0	82.3	101.9	67.0	128.5
1922 monthly average	84.2	102.7	74.3	73.1	69.4	119.2	105.3	107.2	165.0	76.2	94.8	73.3	144.4
1923 monthly average	90.6	111.6	84.3	77.7	72.9	114.7	104.3	126.3	223.6	86.2	104.0	83.0	192.0
1924 monthly average	85.7	112.9	81.4	69.7	71.6	112.1	89.5	128.9	236.7	89.4	107.1	87.7	196.3
1925 monthly average	95.5	121.5	90.1	76.9	72.7	127.4	112.6	142.9	251.1	92.0	126.1	98.0	227.3
1926 monthly average	100.4	123.2	93.4	75.4	73.4	139.1	136.0	155.7	278.1	101.0	138.2	103.2	273.0
1927 monthly average	102.3	120.4	93.8	76.0	66.9	154.6	139.2	172.3	297.2	94.2	165.0	105.8	356.7
1928 monthly average	108.9	125.4	102.4	82.1	70.0	167.1	147.0	198.7	342.7	101.4	201.6	119.7	399.1
<b>1928</b>													
May	103.1	123.3	94.2	80.7	69.4	157.4	135.1	218.8	371.1	111.1	235.8	126.7	401.5
June	107.1	126.0	96.8	81.4	68.2	161.8	145.8	224.1	367.2	109.9	249.9	125.7	406.3
July	112.7	120.5	113.1	83.7	65.9	157.4	133.0	177.9	300.7	102.2	171.7	113.1	369.8
August	112.8	122.6	112.1	90.9	69.4	151.5	147.9	178.5	306.4	102.2	170.8	118.4	355.5
September	110.7	129.4	105.1	89.4	70.6	163.3	151.1	192.7	325.8	102.8	194.1	116.5	369.8
October	122.7	145.2	117.7	88.6	72.9	203.0	168.1	206.1	369.5	114.9	192.7	134.9	409.4
November	107.0	128.1	99.5	75.8	65.9	167.7	155.3	190.6	357.4	116.0	194.2	108.7	349.1
December	120.9	131.5	113.1	77.7	74.1	207.4	207.5	222.5	372.6	111.1	221.1	130.1	533.2
<b>1929</b>													
January	117.1	136.3	107.3	84.1	74.1	185.3	184.1	209.4	404.2	101.1	189.1	133.0	407.9
February	102.3	118.5	94.4	75.8	61.2	175.0	147.9	187.4	371.4	97.2	172.3	112.1	349.1
March	117.9	148.6	111.6	89.4	69.4	176.5	159.6	223.3	435.1	110.5	210.6	140.3	417.4
April	116.0	145.2	104.8	86.0	68.2	185.3	172.4	191.5	383.8	98.3	164.0	128.6	336.6
May	112.7	135.6	105.3	83.0	65.9	186.8	161.7	197.7	394.9	111.6	174.0	125.7	372.9
June	115.3	133.6	110.4	83.7	65.9	183.9	169.2	190.3	365.0	105.0	167.4	125.7	385.6
July	140.4	137.7	145.3	96.6	78.8	216.2	202.2	196.7	365.0	108.8	175.9	138.3	385.6
August	128.1	149.3	127.1	98.1	76.4	182.4	170.2	208.3	393.3	115.5	191.0	141.7	382.5
September	116.7	130.1	112.6	87.5	65.9	189.8	173.4	197.3	366.3	114.9	184.2	133.0	325.3
October	135.8	166.4	129.5	98.1	71.7	216.2	197.9	241.6	433.2	121.0	244.8	159.7	388.8
November	124.5	139.7	118.1	85.2	62.3	208.9	190.5	209.8	394.0	121.6	191.2	140.3	358.7
December	119.8							191.2					
<b>1930</b>													
January	114.5	121.9	103.9	84.9	68.2	208.9	174.5	186.9	352.9	96.7	170.3	122.3	319.0
February													
March													
April													
<b>DISTRICT TOTALS—SEASONAL VARIATIONS ELIMINATED</b>													
YEAR AND MONTH	U. S. total	Boston	New York	Philadelphia	Cleveland	Richmond	Atlanta	Chicago	St. Louis	Minneapolis	Kansas City	Dallas	San Francisco
1919 monthly average	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1920 monthly average	106.0	109.5	99.3	105.1	116.4	112.1	115.1	116.1	105.5	108.5	109.8	118.0	123.4
1921 monthly average	88.7	101.9	85.1	95.9	89.3	97.6	84.4	92.0	89.1	82.9	82.1	94.3	105.4
1922 monthly average	97.8	105.4	98.5	102.5	94.5	98.5	85.9	96.8	94.2	87.9	84.1	97.9	107.1
1923 monthly average	103.3	117.1	98.0	114.4	111.1	98.8	99.9	109.0	110.3	95.0	89.7	101.1	126.4
1924 monthly average	109.5	121.1	108.3	116.8	109.5	96.5	105.3	110.8	110.5	103.1	87.0	101.2	129.4
1925 monthly average	126.7	136.6	128.6	129.4	122.0	106.8	124.8	123.8	124.1	114.4	95.4	119.4	142.9
1926 monthly average	135.4	146.0	139.0	132.1	127.4	108.5	128.4	132.1	127.3	105.3	100.3	119.4	156.2
1927 monthly average	150.0	158.1	160.2	140.0	136.7	107.3	124.1	137.9	127.3	109.5	102.1	124.5	172.4
1928 monthly average	179.1	161.3	203.1	155.9	141.3	105.6	123.2	155.1	133.3	117.3	108.5	134.5	199.7
<b>1928</b>													
May	191.1	170.9	217.1	165.0	142.2	108.8	126.3	163.3	141.0	120.5	104.5	133.1	226.5
June	187.2	157.2	213.0	167.1	145.8	111.3	122.6	158.5	142.8	122.1	107.3	137.2	225.9
July	158.9	147.5	174.7	142.9	133.2	100.8	121.0	143.5	128.6	118.0	112.4	134.7	180.0
August	169.7	162.8	191.5	140.1	136.6	99.6	125.2	150.4	131.5	114.3	110.5	136.8	183.8
September	177.6	156.7	204.5	151.6	138.9	98.0	118.7	153.5	129.4	119.3	109.3	137.0	190.8
October	182.3	158.0	208.2	159.9	152.3	103.7	120.8	157.0	134.3	130.9	115.8	138.9	189.3
November	186.9	158.1	216.8	165.8	144.1	98.7	122.2	158.4	131.8	118.2	107.4	131.6	190.6
December	195.1	157.7	226.4	167.5	147.9	104.3	126.6	170.0	140.0	114.7	116.6	141.0	194.8
<b>1929</b>													
January	212.0	170.7	252.8	175.2	148.1	109.3	132.4	170.6	136.8	112.3	113.2	144.4	211.3
February	219.9	175.8	263.6	181.9	160.8	112.5	135.4	175.6	139.1	125.9	116.5	149.6	223.6
March	220.8	171.9	265.5	174.6	152.7	112.2	133.2	176.4	140.1	120.5	115.5	151.1	218.3
April	204.4	171.1	237.2	183.0	159.8	117.3	139.1	168.3	140.1	119.3	121.1	157.0	200.5
May	204.3	168.2	229.6	168.2	150.4	108.7	130.7	167.8	134.8	121.3	114.2	150.9	204.7
June	180.0	156.2	203.0	168.3	142.3	102.3	124.6	160.0	139.9	122.3	115.5	138.0	191.8
July	209.3	180.1	244.5	174.5	160.3	108.4	133.6	176.1	140.8	145.7	140.0	156.1	199.1
August	224.4	211.9	267.1	162.7	160.0	117.5	134.6	192.6	138.7	156.9	125.5	154.3	214.5
September	213.3	192.0	265.9	158.3	158.1	106.3	121.9	182.1	141.1	133.8	115.2	145.2	195.3
October	230.0	199.5	291.1	175.5	168.2	110.9	128.0	195.5	149.5	130.1	128.1	152.4	221.9
November	215.1	176.6	255.4	182.5	156.0	107.6	116.5	182.6	139.8	128.5	125.0	140.9	201.9
December	158.2	151.4	171.9	155.3	133.2	96.4	112.6	149.6	122.7	121.6	115.5	130.8	167.4
<b>1930</b>													
January	154.7	162.3	161.6	157.1	138.3	104.8	120.3	152.0	123.7	113.2	110.7	132.8	188.6
February													
March													
April													

<sup>1</sup> Compiled from data collected by the Federal Reserve Board, this table supplements similar data published in Nos. 26, 35, 56, 62, 67, 75, and 87 of this publication. The district total table represents the data of 141 identical centers.

<sup>2</sup> Greenville, S. C., substituted for Charleston, S. C., since May, 1928.

## 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 1928 and 1929 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 or relative numbers, including base periods, see introduction on inside front cover.

The cumulatives shown are through December except where otherwise noted. Earlier data for items shown here may be found on pages 27 to 138 of the February, 1930, "Survey"	1929					1930	1929	PER CENT INCREASE (+) OR DECREASE (-)		CUMULATIVE TOTAL FROM JAN. 1 THROUGH DEC. 31		Per ct. increase (+) or decrease (-) cumulative 1929 from 1928
	August	September	October	November	December	January	January	Jan., 1930, from Dec., 1929	Jan., 1930, from Jan., 1929	1928	1929	
	<b>TEXTILES</b>											
<b>Wool</b>												
Receipts at Boston:												
Total.....thous. of lbs.	40,476	19,444	12,148	12,714	15,272	15,828	19,673	+3.6	-19.5	300,892	304,499	+1.2
Domestic.....thous. of lbs.	35,594	16,975	6,931	8,299	9,344	6,500	4,532	-30.4	+43.4	210,521	206,047	-2.1
Foreign.....thous. of lbs.	4,882	2,469	5,217	4,415	5,928	9,328	15,141	+67.4	-38.4	90,371	98,452	+8.9
Imports:												
In condition imported.....thous. of lbs.	17,068	18,158	19,463	19,510	20,246	26,404	36,523	+30.7	-27.5	244,472	280,467	+14.7
Grease equivalent.....thous. of lbs.	19,015	21,450	23,066	23,021	24,565	29,423	38,835	+19.8	-24.2	277,268	318,167	+14.8
Consumption by textile mills, grease equivalent.....thous. of lbs.	52,644	49,755	59,352	46,694	37,802	43,627	54,031	+15.4	-19.3	538,354	586,260	+8.9
Stocks, grease equivalent, end of quarter:												
Total.....thous. of lbs.		<sup>2</sup> 369,642			<sup>2</sup> 317,978		<sup>3</sup> 309,566	-14.0	+2.7			
Held by manufacturers.....thous. of lbs.		<sup>2</sup> 163,651			<sup>2</sup> 147,434		<sup>3</sup> 152,394	-9.9	-3.3			
Held by dealers.....thous. of lbs.		<sup>2</sup> 205,991			<sup>2</sup> 170,545		<sup>3</sup> 157,171	-17.2	+8.5			
Machinery activity, hourly:												
Looms—												
Wide.....per ct. of hours active	60	64	65	59	54	53	69	-1.9	-23.2			
Narrow.....per ct. of hours active	62	63	66	65	53	50	63	-5.7	-20.6			
Carpet and rug.....per ct. of hours active	66	66	71	65	55	51	65	-7.3	-21.5			
Sets of cards.....per ct. of hours active	80	83	85	74	63	63	84	0.0	-25.0			
Combs.....per ct. of hours active	93	94	91	82	72	79	83	+9.7	-4.8			
Spinning spindles—												
Woolen.....per ct. of hours active	77	77	78	69	61	62	82	+1.6	-24.4			
Worsted.....per ct. of hours active	69	70	72	65	57	55	69	-3.5	-20.3			
Prices:												
Raw, territory, fine, scoured.....dolls. per lb.	.93	.92	.90	.88	.84	.81	1.12	-3.6	-27.7			
Raw, Ohio and Pa. fleeces.....dolls. per lb.	.43	.43	.43	.43	.41	.38	.55	-7.3	-30.9			
Worsted yarn.....dolls. per lb.	1.45	1.48	1.48	1.43	1.40	1.38	1.58	-1.4	-12.7			
Women's dress goods, French serge, 39 in.....dolls. per yd.	.98	.98	.98	.98	.98	.98	.98	0.0	0.0			
Suiting, 13-oz.....dolls. per yd.	1.901	1.901	1.901	1.901	1.901	1.838	2.008	-3.3	-8.5			
<b>Cotton</b>												
Receipts into sight.....thous. of bales	823	2,431	4,184	2,682	2,105	840	1,126	-60.1	-25.4	15,536	15,970	+2.8
Imports, unmanufactured.....bales	24,793	23,974	19,815	35,502	36,190	51,474	54,939	+42.2	-6.3	344,074	446,551	+29.8
Exports, unmanufactured (excluding hinters).....bales	226,018	725,876	1,251,900	1,048,760	910,321	728,737	788,595	-19.9	-7.6	8,543,955	7,417,734	-13.2
Consumption by textile mills.....bales	558,113	545,649	640,798	544,150	453,892	577,235	668,286	+27.2	-13.6	6,572,070	7,054,308	+7.3
Stocks, domestic, end of month:												
Total, mills and w'houses.....thous. of bales	2,189	4,017	6,672	7,514	7,759	7,237	6,383	-6.7	+13.4			
Mills.....thous. of bales	802	792	1,360	1,672	1,844	1,830	1,768	-0.8	+3.5			
Warehouses.....thous. of bales	1,387	3,225	5,312	5,842	5,915	5,407	4,615	-8.6	+17.2			
Stocks, world visible, end of month:												
Total.....thous. of bales	3,458	4,381	6,677	7,453	8,098	8,059	7,607	-0.5	+5.9			
American.....thous. of bales	1,629	2,652	4,982	5,644	5,960	5,576	5,510	-6.4	+1.2			
Prices:												
To producer.....dolls. per lb.	.180	.182	.175	.162	.160	.158	.179	-1.2	-11.7			
In New York, middling.....dolls. per lb.	.187	.189	.186	.175	.173	.173	.202	0.0	-14.4			
<b>Cotton Yarn</b>												
Machinery activity of spindles:												
Active spindles.....thousands	30,237	30,038	30,135	29,649	29,070	29,198	30,753	+0.4	-5.1			
Total activity.....millions of hours	8,130	7,881	9,004	7,812	6,770	8,173	9,227	+20.7	-11.4			
Activity per spindle.....hours	234	226	258	226	196	236	261	+20.4	-9.6			
Ratio to capacity.....per cent.	97.7	104.0	108.7	100.9	88.2	100.3	111.0	+13.7	-9.6			
Carded sales yarn:												
Production.....thous. of lbs.	19,639	17,122	18,199	22,013	13,364	14,052	18,311	+5.1	-23.3	214,544	220,432	+2.7
Stocks, end of month.....thous. of lbs.	8,185	7,423	7,173	7,842	9,865	10,584	8,836	+7.3	+19.8			
Unfilled orders, end of month.....thous. of lbs.	32,175	35,833	40,749	37,785	35,776	34,600	43,246	-3.3	-20.0			
Prices:												
22/1 cones, Boston.....dolls. per lb.	.349	.357	.359	.346	.340	.323	.382	-5.0	-15.4			
40/1s, southern spinning.....dolls. per lb.	.510	.510	.503	.491	.494	.500	.510	+1.2	-2.0			
<b>Cotton Goods</b>												
Cotton textiles:												
Production.....thous. of yds.	307,538	268,611	283,064	345,146	243,735	323,287	342,806	+32.6	-5.7	3,563,096	3,527,382	+1.0
New orders.....thous. of yds.	312,635	371,485	222,196	222,911	302,934	292,034	317,078	-3.6	-7.9	3,589,989	3,420,259	-4.7
Shipments.....thous. of yds.	326,398	287,628	265,450	276,377	214,148	331,481	345,354	+54.8	-4.0	3,507,854	3,458,112	-1.4
Stocks, end of month.....thous. of yds.	364,060	345,043	362,657	431,426	461,013	452,819	389,195	-1.8	+16.3			
Unfilled orders, end of month.....thous. of yds.	355,095	438,952	395,698	342,232	431,018	391,571	440,585	-9.2	-11.1			
Fine cotton goods, production.....pieces	485,437	381,760	454,524	390,501	367,706	420,190	403,300	+14.3	+4.2	3,135,814	5,155,352	+65.4
Cotton cloth:												
Imports.....thous. of sq. yds.	3,927	3,972	5,636	5,080	4,508	4,455	6,069	-1.2	-26.6	61,294	61,170	-0.2
Exports.....thous. of sq. yds.	42,359	42,274	43,709	35,720	34,657	39,153	55,186	+13.0	-29.1	538,377	554,507	+3.0
Fabric for tire manufacture consumption.....thous. of lbs.	15,803	13,469	13,707	10,269	8,677		19,779			222,245	208,676	-6.1

<sup>2</sup> Quarter ending in month indicated.

<sup>3</sup> Quarter ending Dec. 31, 1928.

## TREND OF BUSINESS MOVEMENTS—Continued

The cumulatives shown are through December except where otherwise noted. Earlier data for items shown here may be found on pages 27 to 138 of the February, 1930, "Survey"	1929					1930	1929	PER CENT INCREASE (+) OR DECREASE (-)		CUMULATIVE TOTAL FROM JAN. 1 THROUGH DEC. 31		Per ct. increase (+) or decrease (-) cumulative 1929 from 1928
	August	September	October	November	December	January	January	Jan., 1930, from Dec., 1929	Jan., 1930, from Jan., 1929	1928	1929	
<b>TEXTILES—Continued</b>												
<b>Cotton Goods—Continued</b>												
Elastic webbing, shipments.....thous. of dolls..	1,399	1,419	1,600	1,413	1,140	1,444	1,412	+25.7	+2.3	16,725	18,154	+8.5
Prices:												
Print cloth, 64 x 60.....dolls. per yd..	.075	.076	.078	.076	.069	.068	.076	-1.4	-10.5			
Sheeting, brown.....dolls. per yd..	.086	.086	.087	.087	.084	.083	.090	-1.2	-7.8			
Cotton goods (Fairchild) rel. to 1911-1913..	160	160	160	159	154	152	165	-1.3	-7.9			
<b>Cotton Finishing</b>												
White, dyed and printed (outside mills):												
Billings, finished goods.....thous. of yds..	75,845	73,116	81,549	63,663	61,816	63,457	81,676	+2.7	-22.3	901,194	957,538	+6.3
New orders, gray yardage.....thous. of yds..	69,168	67,991	78,806	57,971	54,172	71,723	86,302	+32.4	-16.9	891,586	902,376	+1.2
Shipments, finished goods.....cases..	45,238	43,586	46,173	38,616	36,521	41,793	53,196	+14.4	-21.4	558,750	584,593	+4.6
Stocks, finished goods, end of month.....cases..	36,320	35,062	37,635	37,634	38,220	35,428	36,374	-7.3	-2.6			
Operating activity.....per ct. of capacity..	60	61	65	55	50	57	65	+14.0	-12.3			
Unfilled orders, end of month.....days..	4.9	4.6	3.9	3.8	3.6	4.3	5.6	+19.4	-23.2			
Printed only (mills and outside):												
Production.....thous. of yds..	69,315	66,766	82,724	64,727	57,548	60,091	82,259	+4.4	-26.9	794,192	902,429	+13.6
Stocks, end of month.....thous. of yds..	87,918	88,864	87,446	84,924	80,825	73,239	80,212	-9.4	-8.7			
<b>Silk</b>												
Imports, raw.....thous. of lbs..	9,620	8,811	9,396	8,227	9,164	7,346	9,105	-19.8	-19.3	88,273	98,16	+11.2
Deliveries (consumption).....bales..	59,704	53,274	57,489	50,562	44,159	57,683	57,349	+30.6	+0.6	571,010	619,747	+8.5
Stocks, end of month:												
At warehouses.....bales..	48,408	55,104	64,129	76,452	90,772	76,264	49,943	-16.0	+52.7			
At manufacturing plants.....bales..	25,854	29,594	28,200	29,726	27,017	29,100	25,778	+7.7	+12.9			
Silk machinery activity:												
Broad looms.....per cent of normal..	101.9	100.7	102.6	101.2	98.3	105.6	94.7	+7.4	+11.5			
Narrow looms.....per cent of normal..	65.5	63.1	58.1	57.4	54.1	59.6	48.0	+10.2	+24.2			
Spinning spindles.....per cent of normal..	65.2	66.8	66.9	66.2	64.5	67.0	61.0	+3.9	+9.8			
Prices:												
Raw, Japanese, 13-15, N. Y.....dolls. per lb..	5.073	5.122	4.925	4.679	4.580	4.630	4.998	+1.1	-7.4			
Silk goods, composite.....dolls. per yd..	1.18	1.18	1.18	1.18	1.18	1.17	1.16	-0.8	+0.9			
<b>Rayon</b>												
Imports.....thous. of lbs..	990	1,044	1,540	1,083	1,162	1,159	1,707	-0.3	-32.1	12,734	16,406	+28.8
Stocks, bonded, end of month.....thous. of lbs..	2,747	2,451	2,538	2,536	3,082	3,087	3,036	+0.2	+1.7			
Price, 150 denier, A grade, N. Y.....dolls. per lb..	1.15	1.15	1.15	1.15	1.15	1.15	1.50	0.0	-23.3			
<b>Clothing</b>												
Men's and boys' garments cut:												
Suits.....thous. of garments..	2,132	1,797	1,670	1,598	1,807	2,094	2,440	+15.9	-14.2	25,087	24,561	-2.1
Separate frockers.....thous. of garments..	2,353	2,156	2,253	1,818	1,576	1,999	2,134	+26.8	-6.3	24,852	25,917	+4.3
Overcoats.....thous. of garments..	763	763	716	443	242	256	350	+5.8	-26.9	5,587	5,845	+4.6
Overalls:												
Cut.....thous. of dozen garments..	416	419	471	394	429	362	374	+24.4	-3.2	4,324	4,640	+7.3
Net shipments.....thous. of dozen garments..	408	403	391	312	425	326	311	+18.5	+4.8	3,794	4,181	+10.2
Unfilled orders, end of month.....thous. of dozen garments..	144	172	170	157	168	207	261	+23.2	-20.7			
<b>Hosiery</b>												
Production.....thous. of dozen pairs..	3,552	3,586	4,255	3,770	4,054	3,398	3,611	+11.3	-5.9	41,230	43,066	+4.5
Net shipments.....thous. of dozen pairs..	3,673	4,046	4,427	4,047	3,063	2,703	3,241	-11.8	-16.6	42,160	43,279	+2.7
Stocks, end of month.....thous. of dozen pairs..	8,356	7,902	7,736	7,628	7,648	7,940	7,564	+3.8	+5.0			
New orders.....thous. of dozen pairs..	3,586	4,038	4,521	3,747	4,248	2,607	3,345	-8.5	-22.1	42,616	43,399	+1.8
Unfilled orders, end of month.....thous. of dozen pairs..	4,299	4,160	4,139	3,736	4,327	3,020	4,237	-9.2	-28.7			
<b>Knit Underwear</b>												
Production.....thous. of dozen garments..	1,152	1,098	1,414	1,227	1,020	1,067	1,049	+4.6	+1.7	13,171	14,156	+7.5
Net shipments.....thous. of dozen garments..	1,382	1,532	1,564	1,219	1,991	904	948	-8.8	-4.6	13,318	14,267	+7.1
Stocks, end of month.....thous. of dozen garments..	1,689	1,416	1,295	1,258	1,345	1,408	1,271	+4.7	+10.8			
New orders.....thous. of dozen garments..	1,149	1,459	1,405	1,150	1,893	1,164	1,447	+30.3	-19.6	13,144	14,369	+9.5
Unfilled orders, end of month.....thous. of dozen garments..	1,870	1,783	1,620	1,513	1,383	1,604	2,009	+16.0	-20.2			
<b>Burlaps and Fibers</b>												
Imports:												
Burlaps.....thous. of lbs..	74,698	33,568	42,067	41,952	45,738	73,098	57,109	+59.8	+28.0	619,988	643,595	+3.8
Fibers (unmanufactured).....long tons..	25,048	22,210	26,613	30,554	24,950	30,262	34,109	+21.3	-11.3	312,853	332,003	+6.1
<b>Pyroxylin-Coated Textiles</b>												
Pyroxylin spread.....thous. of lbs..	4,294	3,812	3,875	2,783	2,460	3,098	5,389	+25.9	-42.5	61,134	55,060	-9.9
Shipments filled.....thous. of linear yards..	3,540	3,315	3,529	2,516	2,050	2,786	4,303	+35.9	-35.3	47,995	46,395	-3.3
Unfilled orders, end of month.....thous. of linear yards..	2,468	2,599	2,403	2,045	1,747	2,373	4,286	+35.8	-44.6			
<b>Cotton Mill Dividends (Quarterly)</b>												
Fall River mills.....thous. of dollars..		\$ 226			\$ 198		\$ 225	-12.4	-12.0	929	884	-4.8
New Bedford mills.....thous. of dollars..		\$ 234			\$ 258		\$ 259	+10.3	-0.4	1,431	1,021	-28.7
<b>Fur</b>												
Sales by dealers.....thous. of dollars..	11,335	11,434	8,187	4,163	2,262	2,968	10,188	+31.2	-70.9	134,088	125,151	-6.7

\* Quarter ending in month indicated.

\* Quarter ending Dec. 31, 1928.

\* Revised.

## TREND OF BUSINESS MOVEMENTS—Continued

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	August	September	October	November	December	January	January	Jan., 1930, from Dec., 1929	Jan., 1930, from Jan., 1929	1928	1929	
	<b>TEXTILES—Continued</b>											
<b>Buttons</b>												
Fresh-water pearl buttons:												
Production.....ratio to capacity...	45.5	46.6	48.1	48.4	48.7	42.3	46.4	-13.1	-8.8			
Stocks, end of month.....thous. of gross...	10,951	10,836	10,686	10,635	10,694	9,700	11,306	-9.3	-14.2			
Imports:												
Buttons—												
Product of Philippines.....thous. of gross...	52	64	66	59	64	64	30	0.0	+113.3	922	671	-27.2
All other.....thous. of gross...	9	26	6	6	17	261	36		+625.0	127	325	+155.9
Shells—												
Mother of pearl.....thous. of pounds...	632	1,073	828	1,355	1,225	866	331	-29.3	+161.6	6,517	8,913	+36.8
All other.....thous. of pounds...	212	116	52	7,042	124	32	283	-74.2	-88.7	2,386	8,781	+268.0
Taqua nuts.....thous. of pounds...	3,053	2,264	3,015	2,013	1,667	1,149	3,084	-31.1	-62.7	23,325	26,633	+14.2
<b>IRON AND STEEL</b>												
<b>Iron</b>												
Manganese ore, imports.....thous. of long tons...	33	13	25	24	15	38	15	+153.3	+153.3	208	323	+55.3
Iron ore:												
Imports.....thous. of long tons...	298	247	270	269	286	293	180	+2.4	+62.8	2,453	3,140	+28.0
Shipments from mines.....thous. of long tons...	10,807	9,547	7,989	3,951	9	None.	None.	0.0	0.0	53,981	65,213	+20.8
Receipts:												
Lake Erie ports and furnaces.....thous. of long tons...	7,518	6,619	6,052	3,119	14	None.	None.	0.0	0.0	36,942	45,760	+23.9
Other ports.....thous. of long tons...	3,284	2,710	2,267	1,661	None	None.	None.	0.0	0.0	16,455	18,768	+14.1
Consumption.....thous. of long tons...	5,779	5,362	5,366	4,701	4,076	4,101	5,195	+0.6	-21.1	56,823	63,645	+12.0
Stocks, end of month:												
Total.....thous. of long tons...	33,831	38,125	41,135	41,500	37,646	33,528	30,189	-10.9	+11.1			
At furnaces.....thous. of long tons...	28,720	32,360	34,770	35,010	31,503	27,674	24,878	-12.2	+11.2			
On Lake Erie docks.....thous. of long tons...	5,111	5,765	6,365	6,490	6,143	5,854	5,311	-4.7	+10.2			
Pig-iron production:												
Total, United States.....thous. of long tons...	3,756	3,498	3,588	3,181	2,837	2,827	3,443	-0.4	-17.9	37,838	42,286	+11.8
Merchant furnaces.....thous. of long tons...	690	635	685	683	724	613	791	-15.3	-22.5	7,626	8,763	+14.9
Canada.....thous. of long tons...	113	99	91	87	83	87	88	+4.8	-1.1	1,037	1,091	+5.2
Furnaces in blast, end of month:												
Furnaces.....number...	210	205	208	177	157	173	202	+10.2	-14.4			
Capacity.....long tons per day...	119,130	116,405	113,600	98,450	88,250	96,755	111,985	+9.6	-13.6			
Ohio gray-iron foundries:												
Meltings—												
Actual.....long tons...	18,670	20,081	23,855	17,196	13,782	15,419	19,710	+11.9	-21.8	194,040	245,006	+26.3
Normal.....long tons...	17,104	19,595	20,627	19,105	18,726	18,693	18,917	-0.2	-1.2	197,329	234,563	+18.9
Ratio to normal.....per cent. of normal...	109.1	102.5	115.6	90.0	73.5	82.4	104.2	+12.1	-20.9			
Stocks, end of month.....per cent. of normal...	120	130	117	109	114	129	126	+9.3	+2.4			
Receipts.....per cent. of normal...	113	100	112	84	73	88	105	+20.5	-16.2			
Malleable castings:												
Production.....short tons...	68,651	59,589	65,305	46,606	44,820	44,080	73,125	-8.6	-39.7	779,477	827,094	+6.1
Operating activity.....per ct. of capacity...	70.0	62.0	67.9	47.6	46.3	56.2	77.7	+21.4	-27.7			
Shipments.....short tons...	69,240	63,049	58,749	46,701	45,013	44,218	77,231	-11.6	-42.7	752,733	820,715	+9.0
New orders.....short tons...	61,982	52,957	60,954	40,316	44,589	43,180	76,787	-3.2	-43.8	758,890	786,688	+3.7
Wholesale prices:												
Foundry, No. 2, northern.....dolls. per long ton...	20.26	20.26	20.26	20.26	20.26	20.26	19.26	0.0	+5.2			+26.3
Basic (valley furnace).....dolls. per long ton...	18.50	18.50	18.50	18.50	18.50	18.50	17.50	0.0	+5.7			+18.9
Composite pig iron.....dolls. per long ton...	19.18	19.00	19.03	19.10	19.10	19.08	19.05	-0.1	+0.2			
<b>Cast-Iron Boilers and Radiators</b>												
Round boilers:												
Production.....thous. of lbs...	12,189	11,602	15,407	11,430	8,972	10,356	11,248	+15.4	-7.9	158,048	136,555	-13.6
Shipments.....thous. of lbs...	15,092	18,263	23,487	12,162	10,453	7,304	9,605	-30.1	-24.0	162,562	145,955	-10.2
New orders.....thous. of lbs...	13,916	16,936	19,583	10,652	9,184	6,366	8,224	-30.7	-22.6	157,694	132,329	-16.1
Stocks, end of month.....thous. of lbs...	81,162	74,254	66,509	66,476	65,855	67,836	77,015	+3.0	-11.9			
Square boilers:												
Production.....thous. of lbs...	19,014	20,766	32,819	23,521	17,398	20,033	32,938	+15.1	+39.2	339,781	273,657	-19.5
Shipments.....thous. of lbs...	28,757	34,671	43,185	24,382	20,010	13,836	17,888	-30.9	-22.7	335,734	262,233	-21.9
New orders.....thous. of lbs...	27,242	36,481	35,715	23,109	17,972	13,345	15,866	-25.7	-15.9	337,876	254,450	-24.7
Stocks, end of month.....thous. of lbs...	159,661	145,716	135,030	134,117	126,800	132,837	136,986	+4.8	-3.0			
Radiators:												
Production.....thous. sq. ft. heating surface...	10,365	9,545	12,299	8,634	6,821	9,253	14,512	+35.7	-36.2	160,341	127,126	-20.7
Shipments.....thous. sq. ft. heating surface...	13,665	14,980	18,214	12,501	9,905	6,047	9,407	-39.0	-35.7	161,489	127,402	-21.1
New orders.....thous. sq. ft. heating surface...	14,267	15,680	16,148	12,648	8,661	6,276	8,998	-27.7	-30.3	168,068	129,439	-23.0
Stocks, end of month.....thous. sq. ft. heating surface...	65,792	59,794	53,715	49,600	46,371	49,717	52,599	+7.2	-5.5			
Gas-fired boilers:												
Shipments.....dollars...	486,659	549,424	522,400	273,092	188,063	118,418	115,100	-37.0	+2.9	2,663,937	3,558,711	+33.6
Shipments.....thous. B. t. u...	365,280	459,124	427,629	241,285	164,635	100,030	88,463	-39.2	+13.1	2,153,535	2,838,901	+31.8
Production.....thous. B. t. u...	235,877	306,158	317,234	187,095	87,949	215,939	202,075	+145.5	+6.9	1,943,973	2,870,059	+47.6
Stocks, end of month.....thous. B. t. u...	951,598	885,625	808,222	764,098	702,144	845,210	704,041	+20.4	+20.1			
<b>Crude Steel</b>												
Steel ingots, production:												
United States, total.....thous. of long tons...	4,927	4,511	4,512	3,513	2,896	3,786	4,490	+30.7	-15.7	49,865	54,164	+8.6
Ratio to capacity.....per cent...	93	92	85	69	59	72	85	+22.0	-15.3			
Canada.....thous. of long tons...	120	99	116	94	82	115	116	+40.2	-0.9	1,241	1,379	+11.1
U. S. Steel Corporation:												
Unfilled orders, end of month.....thous. of long tons...	3,658	3,903	4,087	4,125	4,417	4,469	4,109	+1.2	+8.8			
Earnings.....thous. of dolls...	24,687	21,184	22,066	18,367	15,952		18,759			193,202	258,660	+33.9

\* Revised.

## TREND OF BUSINESS MOVEMENTS—Continued

The cumulatives shown are through December except where otherwise noted. Earlier data for items shown here may be found on pages 27 to 138 of the February, 1930, "Survey"	1929					1930	1929	PER CENT INCREASE (+) OR DECREASE (-)		CUMULATIVE TOTAL FROM JAN. 1 THROUGH DEC. 31		Per ct. increase (+) or decrease (-) cumulative 1929 from 1928
	August	September	October	November	December	January	January	Jan., 1930, from Dec., 1929	Jan., 1930, from Jan., 1929	1928	1929	
	<b>IRON AND STEEL—Continued</b>											
<b>Crude Steel—Continued</b>												
<b>Steel castings:</b>												
<b>Production—</b>												
Total.....short tons..	118,458	106,268	119,569	109,321	106,927	102,133	93,413	-4.5	+9.3	1,021,872	1,350,138	+32.1
Ratio to capacity.....per cent..	81	73	82	75	73	70	64	-4.1	+9.4			
Railroad specialties.....short tons..	50,548	44,609	50,011	49,915	37,154	41,465	35,689	+11.6	+16.2	371,564	576,007	+55.0
Miscellaneous.....short tons..	67,910	61,659	69,558	59,406	69,773	60,668	57,724	-13.0	+5.1	650,308	774,131	+19.0
<b>New orders—</b>												
Total.....short tons..	98,697	85,859	134,313	97,065	94,653	97,223	124,313	+2.7	-21.8	1,000,228	1,337,877	+33.8
Ratio to capacity.....per cent..	69	59	92	67	65	67	85	+3.1	-21.2			
Railroad specialties.....short tons..	35,906	33,463	72,421	41,550	41,179	39,281	64,809	-4.6	-39.4	389,863	601,996	+54.4
Miscellaneous.....short tons..	62,791	52,396	61,892	55,715	53,474	57,947	59,504	+8.4	-2.6	610,365	735,881	+20.6
<b>Sheets, black, blue, galvanized, and full finished:</b>												
<b>Production—</b>												
Total.....net tons..	366,734	302,490	319,660	204,071	181,916	291,529	391,404	+60.3	-25.5	3,947,953	3,887,377	-1.5
Ratio to capacity.....per cent..	109.7	97.7	95.3	65.8	60.0	77.6	109.9	+29.3	-29.4			
<b>Stocks, end of month—</b>												
Total.....net tons..	143,323	154,928	169,390	178,736	173,619	191,532	198,874	+10.3	-3.7			
Unsold.....net tons..	34,436	43,886	63,174	71,680	72,611	73,948	63,739	+1.8	+16.0			
Shipments.....net tons..	365,649	301,330	291,135	207,200	178,575	241,677	362,229	+35.3	-33.3	3,780,096	3,857,889	+2.1
New orders.....net tons..	282,107	274,568	258,810	134,391	134,391	234,599	382,122	+62.9	-12.8	3,794,626	3,799,780	+0.1
Unfilled orders, end of month.....net tons..	570,613	522,803	478,038	395,696	443,127	558,412	652,602	+26.0	-14.4			
<b>Steel barrels:</b>												
<b>Production—</b>												
Total.....barrels..	806,574	663,531	629,976	572,621	624,365	582,407	558,492	-6.7	+4.3	7,397,785	8,338,266	+12.7
Ratio to capacity.....per cent..	65.2	55.4	52.5	50.8	54.7	48.7	48.4	-11.0	+0.6			
Shipments.....barrels..	809,860	653,890	638,681	567,257	618,003	574,763	548,581	-7.0	+4.8	7,408,726	8,315,369	+12.3
Stocks, end of month.....barrels..	56,700	64,917	56,212	61,576	67,938	75,582	56,876	+11.3	+34.1			
Unfilled orders, end of month.....barrels..	1,205,659	1,071,150	901,621	993,601	1,338,933	1,408,511	1,661,710	+5.2	-15.2			
Track work, production.....short tons..	14,818	12,962	12,902	11,326	10,286	11,830	10,344	+9.3	+14.4	139,645	162,115	+16.1
<b>Iron, steel, and heavy hardware</b>												
sales.....rel. to Jan., 1921.....	240	229	243	207	---	---	192	---	---	---	---	---
Lock washers, shipments.....thous. of dolls..	320	298	263	159	175	287	290	+64.6	+74.8	3,128	3,706	+18.5
<b>Wholesale prices:</b>												
<b>Steel billets, Bessemer.....dolls. per long ton..</b>												
	35.00	35.00	35.00	35.00	34.60	34.00	33.00	-1.7	+3.0			
<b>Iron and steel comp.....dolls. per long ton..</b>												
	36.57	36.50	36.27	36.04	35.95	35.64	36.24	-0.9	-1.7			
<b>Structural steel beams.....dolls. per 100 lbs..</b>												
	1.95	1.95	1.90	1.90	1.90	1.90	1.90	0.0	0.0			
<b>Composite finished steel.....dolls. per 100 lbs..</b>												
	2.55	2.54	2.51	2.50	2.50	2.46	2.55	-1.6	-3.5			
<b>Fabricated Steel Products</b>												
<b>Structural steel, fabricated:</b>												
<b>New orders (prorated).....short tons..</b>												
	365,750	315,700	342,650	227,150	319,550	261,800	273,350	-18.1	-4.2	3,287,900	3,842,300	+16.9
Ratio to capacity.....per cent..	95	82	89	59	83	68	71	-18.1	-4.2			
<b>Shipments (prorated).....short tons..</b>												
	311,850	315,700	350,350	284,900	277,200	257,950	281,050	-6.9	-8.2	3,126,200	3,531,850	+13.0
Ratio to capacity.....per cent..	81	82	91	74	72	67	73	-6.9	-8.2			
<b>Steel plate, fabricated, new orders:</b>												
Total.....short tons..	39,702	41,653	32,099	42,295	22,535	49,648	32,805	+120.3	+51.3	532,810	512,065	-3.9
Ratio to capacity.....per cent..	51	53	39	53	30	63	41	+110.0	+53.7			
<b>Oil-storage tanks.....short tons..</b>												
	11,150	15,189	8,786	9,033	3,669	7,432	11,055	+102.6	-32.8	242,763	138,850	-42.8
<b>Steel bars, cold finished, shipments.....short tons..</b>												
	46,747	40,889	39,296	27,648	23,705	35,845	50,276	+51.2	-28.7	504,908	564,019	+11.7
<b>Steel boilers, new orders:</b>												
Quantity.....number	1,859	1,910	1,712	1,239	1,029	942	1,075	-8.5	-12.4	19,672	18,526	-5.8
Area.....thous. of sq. ft..	1,782	1,957	1,871	1,260	880	1,082	1,252	+23.0	-13.6	17,685	19,468	+10.1
<b>Steel furniture:</b>												
<b>Business group—</b>												
<b>Shipments.....thous. of dolls..</b>												
	2,482	2,314	2,984	2,631	2,782	---	3,661	---	---	35,043	34,039	-2.9
<b>New orders.....thous. of dolls..</b>												
	2,418	2,294	2,843	2,901	2,583	---	3,945	---	---	35,974	34,037	-5.4
<b>Unfilled orders, end mo.....thous. of dolls..</b>												
	2,172	2,054	2,060	2,345	2,166	---	2,593	---	---			
<b>Shelving.....thous. of dolls..</b>												
	890	843	979	860	856	---	902	---	---	9,297	11,322	+21.8
<b>New orders.....thous. of dolls..</b>												
	931	880	928	801	735	---	1,100	---	---	9,601	11,554	+20.3
<b>Unfilled orders, end mo.....thous. of dolls..</b>												
	1,041	1,079	1,015	950	824	---	819	---	---			
<b>Iron and steel:</b>												
<b>Exports.....long tons..</b>												
	242,856	222,408	247,646	241,829	215,242	225,000	274,296	+4.6	-17.9	2,862,997	3,032,352	+5.9
<b>Imports.....long tons..</b>												
	61,547	46,346	49,502	44,045	39,022	34,710	45,573	-11.1	-23.8	589,552	567,308	-3.8
<b>Enameled Ware</b>												
<b>Baths:</b>												
<b>Shipments.....pieces..</b>												
	101,050	77,374	65,530	50,417	46,715	40,967	69,415	-12.3	-41.0	1,116,352	937,058	-16.1
<b>Stocks, end of month.....pieces..</b>												
	152,349	152,107	162,465	166,397	163,728	173,523	188,738	+6.0	-8.1			
<b>New orders.....pieces..</b>												
	116,532	58,574	56,855	46,374	52,592	32,558	66,991	-38.1	-51.4	1,220,800	961,987	-21.2
<b>Unfilled orders, end of month.....pieces..</b>												
	74,973	55,984	47,525	41,776	40,568	29,774	35,073	-26.6	-15.1			
<b>Lavatories:</b>												
<b>Shipments.....pieces..</b>												
	125,920	96,210	85,889	66,951	66,310	53,082	81,701	-19.9	-35.0	1,265,220	1,116,369	-11.8
<b>Stocks, end of month.....pieces..</b>												
	192,213	172,442	176,319	173,570	155,191	163,338	230,527	+5.2	-29.1			
<b>New orders.....pieces..</b>												
	146,983	72,088	71,967	50,899	60,563	40,835	80,614	-32.6	-49.3	1,369,278	1,135,487	-17.1
<b>Sinks:</b>												
<b>Shipments.....pieces..</b>												
	120,018	103,097	93,446	68,675	66,050	58,512	93,321	-11.4	-37.3	1,317,163	1,155,787	-12.3
<b>Stocks, end of month.....pieces..</b>												
	254,210	233,532	243,409	248,685	234,572	251,749	276,037	+7.3	-8.8			
<b>New orders.....pieces..</b>												
	142,536	83,672	78,600	63,073	55,675	50,158	86,866	-9.9	-42.3	1,426,336	1,178,915	-17.3
<b>Miscellaneous sanitary ware:</b>												
<b>Shipments.....pieces..</b>												
	48,554	37,205	38,630	28,557	28,662	24,688	41,197	-13.9	-40.1	558,671	455,914	-18.4
<b>Stocks, end of month.....pieces..</b>												
	126,626	119,359	123,220	123,138	123,347	116,519	137,588	+5.5	-15.3			
<b>New orders.....pieces..</b>												
	53,402	28,924	34,254	27,606	28,287	24,482	42,036	-13.5	-41.8	562,623	467,012	-17.0
<b>Small ware (all except baths):</b>												
<b>Unfilled orders, end of month.....pieces..</b>												
	259,787	207,826	174,176	152,527	120,843	86,503	111,258	-28.4	-22.3			
<b>Enameled sheet-metal ware:</b>												
<b>Shipments.....dozen pieces..</b>												
	385,162	338,169	371,292	305,714	391,523	332,082	427,871	-15.2	-22.4	4,191,761	4,504,102	+7.5

\* Revised.

## TREND OF BUSINESS MOVEMENTS—Continued

The cumulatives shown are through December except where otherwise noted. Earlier data for items shown here may be found on pages 27 to 138 of the February, 1930, "Survey"	1929					1930	1929	PER CENT INCREASE (+) OR DECREASE (-)		CUMULATIVE TOTAL FROM JAN. 1 THROUGH DEC. 31		Per ct. increase (+) or decrease (-) cumulative 1929 from 1928
	August	September	October	November	December	January	January	Jan., 1930, from Dec., 1929	Jan., 1930, from Jan., 1929	1928	1929	
<b>IRON AND STEEL—Continued</b>												
<b>Machinery</b>												
Water softeners.....units..	1,581	1,484	1,450	1,068	831	1,240	1,080	+49.2	+14.8	16,189	15,963	-1.4
Water systems, shipments.....units..	14,200	12,600	12,254	8,758	7,237	8,296	7,935	+14.6	+4.5	117,891	127,433	+8.1
Pumps:												
Domestic shipments—												
Pitcher, hands, etc.....units..	52,451	48,039	41,566	35,062	37,849	40,389	50,723	+6.7	-20.4	551,248	527,227	-4.4
Power, horizontal type.....units..	2,902	2,262	2,532	1,786	1,601	1,449	2,265	-9.5	-36.0	26,490	28,547	+7.8
Steam, power, and centrifugal—												
New orders.....thous. of dolls..	1,819	1,628	1,868	1,533	1,580	1,543	1,695	-2.3	-9.0	17,998	21,172	+17.6
Shipments.....thous. of dolls..	1,978	1,774	1,934	1,535	1,763	1,394	1,481	-20.9	-5.9	17,364	20,841	+20.0
Unfilled orders, end mo.....thous. of dolls..	4,115	4,053	3,981	3,975	3,787	3,842	3,800	+1.5	+1.1			
Agricultural machinery and equipment:												
Shipments—												
Total.....rel. to 1923-25..	229.3	172.8	167.4	135.2	168.2	203.7	156.3	+21.1	+30.3			
Domestic.....rel. to 1923-25..	218.4	152.8	134.8	90.0	117.6	159.8	135.5	+35.9	+17.9			
Foreign.....rel. to 1923-25..	285.7	275.9	334.6	367.1	427.9	428.8	263.4	+0.2	+62.8			
Production.....rel. to 1923-25..	156.4	155.1	157.1	163.3	171.3	177.8	168.1	+3.8	+5.8			
Foundry equipment:												
New orders.....rel. to 1922-24..	229.5	216.3	245.3	128.6	208.0	160.1	180.5	-23.0	-11.3			
Shipments.....rel. to 1922-24..	150.8	176.8	214.1	152.2	201.9	223.6	177.3	+10.7	+26.1			
Unfilled orders, end of mo.....rel. to 1922-24..	441.1	480.8	492.5	445.4	473.2	395.6	336.1	-16.4	+17.7			
Stokers, mechanical, sales:												
Quantity.....number..	199	155	178	107	79	54	97	-31.6	-44.3	1,490	1,716	+15.2
Power.....horsepower..	54,929	45,685	56,108	39,469	44,976	13,607	42,392	-69.7	-67.9	508,688	599,585	+17.9
Machine tools:												
New orders.....rel. to 1922-24..	298	241	322	179	166	182	292	+9.6	-37.7			
Shipments.....rel. to 1922-24..	277	257	315	251	243	183	255	-24.7	-28.2			
Unfilled orders, end of mo.....rel. to 1922-24..	693	709	697	629	561	565	676	+0.7	-16.4			
Electric hoists:												
New orders—												
Quantity.....number..	437	423	461	412	392	363	533	-5.9	-30.8	5,245	6,156	+17.4
Value.....dollars..	264,888	230,513	231,372	214,661	227,807	194,832	253,194	-14.5	-23.1	2,417,970	3,102,163	+26.7
Shipments.....dollars..	339,881	281,439	233,215	224,647	198,500	220,678	213,663	+11.2	+3.3	2,263,935	2,995,340	+32.3
Electric overhead cranes:												
Shipments.....thous. of dolls..	1,060	1,048	1,322	1,162	1,380	977	852	-29.2	+14.7	7,126	12,290	+72.5
New orders.....thous. of dolls..	1,165	701	1,142	1,405	734	406	1,383	-44.7	-70.6	7,598	14,619	+92.4
Unfilled orders, end of mo.....thous. of dolls..	5,193	4,879	4,699	4,933	4,429	3,765	2,547	-15.0	+47.8			
Woodworking machinery:												
New orders.....thous. of dolls..	1,748	1,297	1,251	1,009	1,013	1,111	1,949	+9.7	-43.0	16,961	18,717	+10.4
Cancellations.....thous. of dolls..	25	15	47	35	20	12	50	-40.0	-76.0	424	393	-7.3
Unfilled orders, end of mo.....thous. of dolls..	2,130	1,829	1,461	1,257	1,208	1,347	2,367	+11.5	-43.1			
Shipments.....thous. of dolls..	1,974	1,555	1,563	1,186	1,074	967	1,420	-10.0	-31.9	16,216	19,122	+17.9
Shipments.....number of machines..	1,386	1,129	1,246	852	754	759	998	+0.7	-23.9	12,022	13,486	+12.2
Electric industrial trucks and tractors:												
Shipments, domestic—												
Total.....number of vehicles..	144	151	134	110	124	123	133	-0.8	-7.5	1,321	1,859	+40.7
Exports.....number of vehicles..	10	7	33	8	27	16	19	-40.7	-15.8	145	160	+10.3
Fire-extinguishing equipment, shipments:												
Motor vehicles.....number..	116	122	118	134	130	91	90	-30.0	+1.1	1,315	1,370	+4.2
Hand types.....number..	63,806	51,197	47,840	36,078	34,330	43,939	45,608	+28.0	-3.7	557,317	608,349	+9.2
Oil burners:												
Shipments, total.....number of burners..	10,663	13,723	15,037	7,213	4,780	3,594	3,037	-24.8	+18.3		81,746	
Stocks, end of mo.....number of burners..	8,403	7,900	7,480	6,486	5,938	5,445	4,494	-8.3	+21.2			
New orders.....number of burners..	11,081	12,633	13,346	6,661	3,933	3,429	3,508	-12.8	-2.3		81,814	
Unfilled orders, end of mo.....number of burners..	5,099	4,009	4,318	1,766	919	806	1,322	-12.3	-39.0			
Patents issued:												
Total, all classes.....number..	3,533	3,081	4,162	3,519	4,634	3,163	3,835	-31.7	-17.5	42,375	45,321	+7.0
Agricultural implements.....number..	51	51	63	43	49	40	47	-18.4	-14.9	496	615	+24.0
Internal-combustion engines.....number..	55	14	86	40	62	42	51	-32.3	-17.6	640	671	+4.8
<b>NONFERROUS METALS</b>												
<b>Copper</b>												
Production:												
Mines.....short tons..	78,885	79,402	82,575	75,934	74,772	67,602	86,325	-9.6	-21.7	909,051	1,006,203	+10.7
Smelter.....short tons..	91,735	92,538	97,405	94,861	89,789	83,945	101,151	-6.5	-17.0	1,060,094	1,179,269	+11.2
Refined (N. and S. America).....short tons..	148,648	134,343	152,840	145,376	138,203	132,374	154,472	-4.2	-14.3	1,627,849	1,811,857	+11.3
World production, blister.....short tons..	173,430	174,135	175,360	170,585	165,344	153,746	178,783	-7.0	-14.0	1,916,471	2,136,021	+11.5
Domestic shipments, refined.....short tons..	96,970	98,043	105,729	98,979	98,150	69,932	100,135	+20.3	-30.2	983,460	1,119,409	+13.8
Exports.....short tons..	36,811	42,978	44,502	27,524	28,807	24,808	52,523	-13.9	-52.8	550,746	484,305	-12.1
Stocks (North and South America), end mo:												
Refined.....short tons..	101,372	94,751	88,401	126,919	171,320	203,404	62,749	+18.7	+224.2			
Blister.....short tons..	241,678	253,619	254,788	258,192	268,406	269,815	245,210	+0.5	+10.0			
Wholesale price, electrolytic.....dolls. per lb..	.1778	.1778	.1778	.1778	.1778	.1778	.1660	0.0	+7.1			
<b>Wire Cloth</b>												
Production.....thous. of sq. ft..	498	373	422	441	437	486	461	+11.2	+5.4	5,226	5,455	+4.4
Shipments.....thous. of sq. ft..	434	394	417	307	377	437	412	+15.9	+6.1	4,909	4,969	+1.2
Stocks, end of month.....thous. of sq. ft..	978	928	933	973	1,021	1,051	1,064	+2.9	-1.2			
New orders.....thous. of sq. ft..	302	333	454	504	336	435	376	+29.5	+15.7	4,719	4,985	+5.5
Unfilled orders, end of mo.....thous. of sq. ft..	211	242	257	302	402	240	302	-38.8	-18.5			
Make and hold orders, end of month.....thous. of sq. ft..	480	435	499	570	546	485	486	-11.2	-0.2			
<b>Tin</b>												
Deliveries (consumption).....long tons..	7,185	8,120	6,515	6,595	5,740	5,815	8,795	+1.3	-33.9	78,865	89,110	+13.0
Stocks, end of month:												
World visible supply.....long tons..	26,400	24,556	25,580	25,171	28,140	29,032	24,237	+3.2	+19.8			
United States.....long tons..	2,858	2,479	2,720	2,050	2,820	3,081	2,611	+9.3	+18.0			
Imports.....long tons..	9,737	7,712	6,201	5,818	5,253	7,079	9,498	+34.8	-25.5	77,970	89,390	+14.6
Wholesale price pig tin.....dolls. per lb..	.4665	.4538	.4235	.4022	.3979	.3891	.4916	-2.2	-20.9			

\* Revised.

## TREND OF BUSINESS MOVEMENTS—Continued

The cumulatives shown are through December except where otherwise noted. Earlier data for items shown here may be found on pages 27 to 138 of the February, 1930, "Survey"	1929					1930	1929	PER CENT INCREASE (+) OR DECREASE (-)		CUMULATIVE TOTAL FROM JAN. 1 THROUGH DEC. 31		Per ct. increase (+) or decrease (-) cumulative 1929 from 1928
	August	September	October	November	December	January	January	Jan., 1930, from Dec., 1929	Jan., 1930, from Jan., 1929	1928	1929	
	<b>NONFERROS METALS—Continued</b>											
<b>Zinc</b>												
Retorts in operation, end of month..... number	58,800	68,828	66,996	58,083	57,375	58,849	63,314	+2.6	-7.1			
Per cent of total..... per cent	49.2	57.4	55.9	49.1	47.1	52.8	54.5	+12.1	-3.1			
Production..... short tons	55,290	53,285	50,938	47,620	48,590	51,133	49,709	+5.2	+2.9	619,595	628,062	+1.4
Stocks, end of month..... short tons	47,833	53,362	57,116	63,061	77,262	87,933	45,418	+13.8	+93.6			
Ore, Joplin district:												
Shipments..... short tons	63,127	45,084	48,810	42,418	39,641	44,725	48,777	+12.8	-8.3	597,382	612,807	+2.6
Stocks, mines end of month..... short tons	42,876	43,832	44,622	57,943	47,637	29,313	27,309	-38.5	+7.3			
Price, slab, prime western..... dolls. per lb.	.0680	.0680	.0674	.0624	.0567	.0523	.0635	-7.8	-17.6			
<b>Lead</b>												
Production..... short tons	53,316	56,807	61,813	59,760	45,025	48,373	58,607	-12.1	-17.5	651,130	691,978	+6.3
Ore shipments:												
Joplin district..... short tons	7,808	7,461	7,588	8,850	6,434	3,414	6,097	-46.9	-44.0	98,683	100,399	+1.7
Utah..... short tons	92,668	75,927	77,693	89,545	76,421	87,569	71,412	+14.6	+22.6	853,817	971,420	+13.8
Receipts in U. S. ore..... short tons	54,365	54,623	58,364	51,674	53,286	47,862	53,881	-10.2	-11.2	638,337	658,340	+3.1
Stocks, U. S. and Mexico, end mo..... short tons	175,641	168,707	167,192	161,671	151,586	149,403	156,182	-1.4	-4.3			
Price, pig, desilverized, N. Y..... dolls. per lb.	.0675	.0689	.0687	.0629	.0625	.0625	.0665	0.0	-6.0			
<b>Other Metal Products</b>												
Babbitt metal, consumption:												
Total apparent..... thous. of lbs.	5,433	5,225	5,519	4,522	3,343	4,438	6,093	+32.8	-27.2	59,677	65,135	+9.1
Direct by producers..... thous. of lbs.	1,435	1,337	1,512	1,316	949	889	1,217	-6.3	-27.0	12,338	14,976	+21.4
Sale to consumers..... thous. of lbs.	3,997	3,888	4,007	3,206	2,394	3,549	4,876	+48.2	-27.2	47,339	50,159	+6.0
Pails and tubs, galvanized:												
Production..... dozens	107,004	113,698	129,282	102,400	112,962	145,588	151,106	+28.9	-3.7	1,795,625	1,624,811	-9.5
Shipments..... dozens	108,461	120,297	135,197	90,684	107,733	154,731	165,745	+43.6	-6.6	1,763,401	1,647,272	-6.6
Other galvanized ware:												
Production..... dozens	53,250	46,594	45,117	32,951	33,114	33,982	40,649	+2.6	-16.4	515,428	541,212	+5.0
Shipments..... dozens	54,860	52,970	49,511	30,123	25,441	29,165	36,896	+14.6	-21.0	481,421	516,359	+7.3
<b>Electrical Equipment</b>												
Electrical mfrs., new orders (quarterly)..... thous. of dolls.		338,170			288,736		282,226	-14.6	+2.3	1,029,722	1,200,194	+25.3
Electrical porcelain, shipments:												
Standard..... dollars	97,631	135,487	123,222	109,258	58,354		141,065			1,091,391	1,333,417	+22.2
Special..... dollars	165,385	171,668	176,323	144,652	121,308		128,299			1,553,294	1,886,403	+21.4
Laminated phenolic products, shipments..... dollars	1,915,381	1,514,902	1,644,570	772,482	617,565		1,247,653			12,282,199	16,460,148	+34.0
Motors (direct current):												
New orders..... dollars	1,082,845	916,794	1,214,044	921,543	999,790		735,875			9,941,997	11,848,102	+19.2
Billings (shipments)..... dollars	853,961	806,813	1,089,590	860,552	907,048		724,498			9,278,885	10,425,205	+12.4
Power switching equipment, new orders:												
Indoor..... dollars	169,384	181,078	175,077	130,408	146,189	159,869	155,569	+9.4	+2.8	1,626,662	2,036,738	+25.2
Outdoor..... dollars	605,273	400,343	503,226	371,592	364,769	464,609	390,866	+27.2	+18.7	4,411,129	5,442,658	+23.4
Outlet boxes and covers, shipments..... pieces	2,719,688	2,542,931	2,850,984	2,036,381	1,465,610	2,448,375	3,273,963	+67.1	-25.2	32,795,023	30,385,601	-7.3
Vulcanized fiber:												
Shipments, total..... thous. of dolls.	1,029	883	942	718	599		767			7,450	9,856	+32.3
Consumption..... thous. of lbs.	3,803	3,411	4,013	2,999	2,576		3,531			32,875	40,109	+22.0
Industrial reflectors, sales..... units	157,473	131,720	179,068	137,942	132,476	130,369	149,046	-1.6	-12.5	1,539,606	1,695,310	+10.1
Power cables, shipments..... thous. of ft.	2,411	2,676	3,288	2,297	2,087		1,995			24,041	27,203	+13.2
Flexible cords:												
Shipments..... thous. of ft.	50,538	45,422	51,840	43,897	33,916		49,909			527,251	552,674	+4.8
Stocks, end of month..... thous. of ft.	57,202	55,980	52,459	48,305	58,239		41,757					
Welding sets, new orders:												
Single operator..... units	296	341	302	248	247	256	281	+3.6	-8.9	2,830	3,822	+35.1
Multiple operator..... units	7	9	7	7	9	1	11	-88.9	-91.0	297	90	-69.7
Panel boards and cabinets, shipments (quarterly)..... thous. of dolls.		1,650			1,735		1,564	+5.2	+10.9	5,043	5,865	+16.3
Nonmetallic conduits, shipments..... thous. of ft.	6,364	6,954	8,015	6,180	4,727		7,475			89,343	80,235	-10.2
Electric furnaces, new orders..... kilowatts	5,114	4,105	7,208	3,218	2,991	8,630	10,769	+188.5	-19.9	64,132	86,988	+35.6
Manufactured mica:												
Shipments..... thous. of dolls.	274	263	274	179	149	227	285	+52.3	-20.4		3,149	
Unfilled orders, end of mo..... thous. of dolls.	275	235	206	167	224	219	305	-2.2	-28.2			
Delinquent accounts, electrical trade:												
Amount..... dollars	174,438	128,059	167,129	172,495	184,652	240,428	124,671	+30.2	+92.8			
Delinquent firms..... number	1,176	1,117	1,392	1,152	1,170	1,486	1,037	+27.0	+43.3			
<b>AUTOMOBILES</b>												
Production:												
United States—												
Total..... number of cars	498,628	415,912	380,017	217,570	120,004	273,089	401,087	+127.6	-31.9	4,358,759	5,358,414	+22.9
Passenger cars..... number of cars	441,942	364,786	320,327	169,282	91,235	234,527	347,382	+157.1	-32.5	3,821,136	4,586,021	+20.0
Taxis..... number of cars	1,040	865	868	1,646	1,483	2,064	572	-61.4	-72.3	6,713	17,589	+162.0
Trucks..... number of cars	55,646	50,261	58,822	46,642	27,286	37,990	51,591	+39.2	-26.4	530,910	754,804	+42.2
Canada—												
Total..... number of cars	14,214	13,817	14,523	9,424	5,495	10,388	21,501	+89.0	-51.7	242,382	263,295	+8.6
Passenger cars..... number of cars	11,037	10,710	8,975	7,137	4,426	8,856	17,164	+100.1	-48.4	196,741	207,498	+5.5
Trucks..... number of cars	3,177	3,107	5,548	2,287	1,069	1,532	4,337	+43.3	-64.7	45,641	55,797	+22.3
Exports (assembled):												
From United States—												
Total..... number of cars	42,829	33,919	32,443	25,815	32,115	28,169	37,665	-12.3	-25.2	507,945	547,097	+7.7
Passenger cars..... number of cars	22,123	20,934	20,931	13,929	13,830	15,293	24,631	+10.6	-37.9	369,073	342,472	-7.2
Trucks..... number of cars	20,706	12,985	11,512	11,886	18,285	12,876	13,034	-29.6	-1.2	138,872	204,625	+47.3
From Canada—												
Total..... number of cars	7,629	6,641	9,637	5,905	4,866	2,953	8,971	-39.3	-67.1	79,748	101,711	+27.5
Passenger cars..... number of cars	4,901	4,293	5,635	3,522	3,015	1,317	5,640	-56.3	-76.6	55,972	64,863	+15.9
Trucks..... number of cars	2,728	2,348	4,002	2,383	1,851	1,636	3,331	-11.6	-60.9	23,776	36,848	+55.0

<sup>2</sup> Quarter ending in month indicated.<sup>3</sup> Quarter ending Dec. 31, 1928.<sup>4</sup> Revised.

## TREND OF BUSINESS MOVEMENTS—Continued

The cumulatives shown are through December except where otherwise noted. Earlier data for items shown here may be found on pages 27 to 138 of the February, 1930, "Survey"	1929					1930	1929	PER CENT INCREASE (+) OR DECREASE (-)		CUMULATIVE TOTAL FROM JAN. 1 THROUGH DEC. 31		Per ct. increase (+) or decrease (-) cumulative 1929 from 1928
	August	September	October	November	December	January	January	Jan., 1930, from Dec., 1929	Jan., 1930, from Jan., 1929	1928	1929	
	<b>AUTOMOBILES—Continued</b>											
Shipments (General Motors Co.):												
To dealers.....number of cars..	168,185	146,483	122,104	60,977	40,222	127,580				1,810,806	1,899,267	+4.9
To users.....number of cars..	173,884	145,171	136,319	90,871	48,253	104,488				1,842,443	1,860,402	+1.0
Accessories and parts, shipments:												
Original equipment.....rel. to Jan., 1925..	193	186	160	78	34	135	212	+297.1	-36.3			
Replacement parts.....rel. to Jan., 1925..	169	173	166	139	132	137	141	+3.8	-2.8			
Accessories.....rel. to Jan., 1925..	88	84	91	83	90	79	77	-12.2	+2.6			
Service parts.....rel. to Jan., 1925..	170	147	147	115	119	135	173	+13.4	-22.0			
Rim production.....thous. of rims..	1,570	2,110	1,647	597	879	1,601	1,335	+82.1	-12.8	24,244	22,901	-5.5
New passenger-car registration:												
Total.....number of cars..	376,882	304,359	288,782	183,616	138,732	219,694				3,133,296	3,880,181	+23.8
Highest price group.....number of cars..	12,326	11,463	11,561	7,150	5,188	7,096				128,136	126,303	-1.4
Second highest group.....number of cars..	67,177	52,325	47,066	26,768	21,252	35,473				649,305	609,103	-6.2
Third highest group.....number of cars..	66,834	52,424	47,795	33,292	28,165	48,714				878,535	801,988	-8.7
Lowest price group.....number of cars..	230,023	187,846	181,451	116,252	84,007	127,800				1,464,438	2,337,454	+59.6
Miscellaneous.....number of cars..	522	301	370	154	120	611				12,882	5,333	-58.6
<b>FUELS</b>												
<b>Coal and Coke</b>												
Bituminous:												
Production—												
United States.....thous. of short tons..	43,889	44,515	51,235	45,677	46,200	49,778	51,456	+7.7	-3.3	500,745	525,358	+4.9
Canada.....thous. of short tons..	1,344	1,379	1,560	1,519	1,488	1,638	1,537	+9.5	+6.1	17,550	17,227	-1.8
Exports.....thous. of long tons..	1,441	1,631	1,596	1,486	1,084	953	917	-12.1	+3.9	14,431	15,741	+9.1
Consumption—												
By vessels.....thous. of long tons..	339	347	343	333	268	283	284	+5.6	-0.4	3,834	3,829	-0.1
By electric-power plants.....thous. of short tons..	3,929	3,903	4,061	4,778	4,025	4,046	4,146	+0.5	-2.4	41,350	44,922	+8.6
By railroads.....thous. of short tons..	7,500	7,580	8,444	7,836	8,011	8,631	8,631			92,898	93,672	+0.8
By coke plants—												
United States.....thous. of short tons..	7,571	7,153	7,389	6,884	6,575	6,599	7,028	+0.4	-6.1	76,137	86,516	+13.6
Canada.....thous. of short tons..	315	310	324	303	317	312	300	-1.6	+4.0	3,213	3,712	+15.5
Stocks, end of month, held by consumers.....thous. of short tons..		37,500	39,800		40,300							
Prices—												
Mine aver. (spot).....dolls. per short ton..	1.77	1.83	1.90	1.88	1.88	1.89	1.85	+0.5	+2.2			
Wholesale, comp.....dolls. per short ton..	3.913	3.930	3.961	3.959	3.980	3.982	4.035	+0.1	-1.3			
Retail, composite.....dolls. per short ton..	8.69	8.87	8.98	9.00	9.05	9.11	9.09	+0.7	+0.2			
Anthracite:												
Production.....thous. of short tons..	5,954	6,792	8,332	6,042	7,658	7,038	7,337	-8.1	-4.1	75,348	76,640	+1.7
Exports.....thous. of long tons..	222	323	396	267	313	271	298	-13.4	-9.1	2,978	3,042	+2.1
Stocks, end of mo. in yds. of dealers.....no. of days' supply..		55	48		44		46					
Prices—												
Wholesale, comp.....dolls. per long ton..	12.848	12.924	12.999	12.999	12.999	13.033	13.107	+0.3	-0.6			
Retail, composite.....dolls. per short ton..	14.67	14.87	14.98	14.98	15.00	15.00	15.06	0.0	-0.4			
Coke:												
Production, U. S.—												
Beehive.....thous. of short tons..	562	504	470	413	345	309	479	-10.4	-35.5	4,493	6,014	+33.9
By-product.....thous. of short tons..	4,643	4,413	4,610	4,321	4,181	4,203	4,360	+0.5	-3.6	48,313	53,476	+10.7
Production, Canada.....thous. of short tons..	227	220	233	224	222	225	221	+1.4	+1.8	2,308	2,674	+15.9
Exports.....thous. of long tons..	86	98	126	98	111	101	104	-9.0	-2.9	981	1,105	+12.6
Price, furnace, Connellsville.....dolls. per short ton..	2.76	2.70	2.70	2.69	2.64	2.59	2.75	-1.9	-5.8			
<b>Petroleum</b>												
Crude petroleum:												
Production.....thous. of bbls..	92,288	87,269	88,099	78,161	80,339	81,979				901,464	1,005,608	+11.6
Stocks at end of month—												
Total (comparable).....thous. of bbls..	386,677	386,662	384,502	380,393	381,391	372,913						
Tank farms and pipe lines.....thous. of bbls..	339,679	341,557	339,639	336,158	336,196	330,395						
Refineries.....thous. of bbls..	46,998	45,105	44,863	44,235	46,195	42,518						
California—												
Light.....thous. of bbls..	37,685	40,433	42,041	41,571	40,429	19,196						
Heavy.....thous. of bbls..	108,362	110,010	111,076	110,718	111,660	98,682						
Imports.....thous. of bbls..	5,800	6,953	5,766	4,535	5,887	8,075				79,767	78,915	-1.0
Consumption (run to stills).....thous. of bbls..	86,733	84,099	88,390	81,061	80,663	78,825				913,295	987,708	+8.1
Refinery operations.....per ct. of capacity..	81	80	79	75	72	76						
Price, Kansas-Oklahoma.....dolls. per bbl..	1.300	1.300	1.300	1.300	1.300	1.229	1.185	-5.5	+3.7			
Oil wells completed.....number..	1,671	1,440	1,535	1,404	1,060	1,205				12,526	15,609	+24.6
Mexico—												
Production.....thous. of bbls..	4,091	3,986	3,085	3,400		3,515						
Exports.....thous. of bbls..	2,511	2,586	2,395	1,923		1,895						
Venezuela—												
Production.....thous. of bbls..	11,394	11,338	11,591	11,252	12,182	11,521				108,099	136,581	+26.3
Exports.....thous. of bbls..	10,897	10,146	10,718	11,235	11,929	9,982				100,617	124,608	+23.8
Gasoline:												
Production—												
Raw (at refineries).....thous. of bbls..	38,510	37,152	39,663	37,350	37,133	34,335				376,945	434,241	+15.2
Natural gas (at plants).....thous. of bbls..	4,507	4,574	4,912	4,505	4,457	3,983				42,526	52,272	+22.9
Exports.....thous. of bbls..	5,509	4,244	5,896	3,938	5,890	5,291	4,506	-10.2	+17.4	52,596	59,880	+13.8
Consumption.....thous. of bbls..	37,759	34,193	32,816	31,502	26,550	22,602				328,489	371,852	+13.2
Stocks, end of month—												
Raw (at refineries).....thous. of bbls..	33,788	33,222	35,042	37,780	43,115	40,648						
Natural gas (at plants).....thous. of bbls..	893	661	490	514	604	741						
Prices—												
Wholesale, New York.....dolls. per gal..	.188	.166	.165	.165	.165	.165	.178	0.0	-7.3			
Retail, wagon, 50 cities.....dolls. per gal..	.157	.160	.158	.165	.165	.151						
Retail distribution, 41 States.....thous. of gals..	1,024,183	995,195	997,007	895,124	834,862	684,445				9,791,128	10,602,827	+8.3

\* Revised.

## TREND OF BUSINESS MOVEMENTS—Continued

	1929					1930	1929	PER CENT INCREASE (+) OR DECREASE (-)		CUMULATIVE TOTAL FROM JAN. 1 THROUGH DEC. 31		Per ct in-crease (+) or de-crease (-) cumu-lative 1929 from 1928
	August	Septem-ber	October	Novem-ber	Decem-ber	January	January	Jan., 1930, from Dec., 1929	Jan., 1930, from Jan., 1929	1928	1929	
<b>FUELS—Continued</b>												
<b>Petroleum—Continued</b>												
Kerosene:												
Production.....thous. of bbls.	5,111	4,667	5,379	4,829	4,848	4,700	4,700			59,353	57,154	-3.7
Exports.....thous. of bbls.	2,034	1,101	2,237	1,302	1,676	1,938	1,896	+15.6	+2.2	21,852	19,816	-9.3
Consumption.....thous. of bbls.	3,189	3,387	3,136	3,040	3,513	2,956	2,956			36,235	37,303	+2.9
Stocks at refineries, end mo.....thous. of bbls.	8,689	8,864	8,865	9,366	9,039	8,865	8,865					
Price, 150° water white.....dolls. per gal.	.068	.070	.072	.073	.067	.064	.077	-4.5	-16.9			
Gas and fuel oils:												
Production.....thous. of bbls.	39,011	37,468	38,974	36,134	36,261	36,838	36,838			427,237	447,894	+4.8
Consumption—												
By vessels.....thous. of bbls.	4,734	4,424	4,540	4,110	4,100	3,915	3,915			51,226	52,278	+2.1
By electric pow. plants.....thous. of bbls.	820	1,079	1,083	1,173	1,112	939	939	-12.2	+3.9	7,160	10,466	+46.0
By railroads.....thous. of bbls.	4,326	4,375	4,961	4,564	4,413	4,499	4,499			50,307		
Price, Okla. 24-26, refineries.....dolls. per bbl.	.744	.775	.838	.863	.863	.625	.625					
Stocks at refineries, end mo.....thous. of bbls.	7,478	7,589	8,021	8,117	8,269	8,649	8,649					
Lubricating oil:												
Production.....thous. of bbls.	3,143	2,852	2,885	2,555	2,765	2,945	2,945			34,659	34,359	-0.9
Consumption.....thous. of bbls.	2,268	2,054	1,378	1,858	1,716	1,521	1,521			23,168	23,504	+1.5
Stocks at refineries, end mo.....thous. of bbls.	7,478	7,589	8,021	8,117	8,269	8,649	8,649					
Price, cylinder oil.....dolls. per gal.	.238	.369	.365	.335	.362	.351	.299	-3.0	+17.4			
Asphalt:												
Production.....thous. of short tons.	379	365	356	247	155	188	188			3,298	3,437	+4.2
Stocks, end of month.....thous. of short tons.	247	231	227	234	240	229	229					
Imports.....thous. of short tons.	20	13	17	7	10	5	13	-50.0	-61.5	120	119	-0.8
Coke:												
Production.....thous. of short tons.	169	161	172	155	171	138	138			2,425	1,807	-25.5
Stocks, end of month.....thous. of short tons.	608	649	672	688	693	404	404					
Wax:												
Production.....thous. of lbs.	53,377	44,513	56,377	50,775	49,104	58,885	58,885			630,144	630,074	0.0
Stocks, end of mo.....thous. of lbs.	190,878	183,714	189,094	185,559	187,990	123,521	123,521					
<b>RUBBER</b>												
<b>Crude Rubber</b>												
World shipments, plantation.....long tons.	70,532	77,997	73,853	68,303	74,748	79,177	79,177			652,671	863,409	+32.3
Imports (including latex).....long tons.	37,851	34,814	38,454	43,901	43,232	47,904	57,586	+10.8	-16.8	436,656	563,816	+29.1
Consumption by tire mfrs.....thous. of lbs.	45,459	39,981	41,775	31,186	26,728	54,161	54,161			600,423	598,995	-0.2
Consumption (quarterly):												
Total.....long tons.												
For tires.....long tons.												
World stocks, end of month:												
World total.....long tons.	259,804	270,784	279,515	287,547	307,670	230,935	230,935					
United States.....long tons.	90,769	84,362	88,483	92,219	105,138	76,342	76,342					
Europe.....long tons.	45,016	54,417	63,929	72,259	75,432	30,255	30,255					
Producing countries.....long tons.	36,802	37,753	37,905	34,200	36,260	33,038	33,038					
Afloat.....long tons.	87,217	94,252	89,200	88,869	90,840	101,300	101,300					
Wholesale price, smoked sheets, New York.....dolls. per pound.	.206	.202	.196	.166	.160	.150	.201	-6.2	-25.4			
<b>Tires and Tubes</b>												
Pneumatic tires:												
Production.....thousands.	4,354	3,568	3,689	2,703	2,446	3,611	5,042	+47.6	-28.4	58,539	54,981	-6.1
Stocks, end of month.....thousands.	10,669	9,656	9,633	9,701	9,470	9,718	10,284	+2.6	-5.5			
Shipments—												
Domestic.....thousands.	5,667	4,330	3,520	2,500	2,448	3,356	4,721	+37.1	-28.9	53,781	53,178	-1.1
Export.....thousands.	217	163	199	168	142	180	248	+26.8	-27.4	2,022	2,335	+15.5
Inner tubes:												
Production.....thousands.	4,385	4,152	4,000	2,835	2,787	3,682	4,888	+32.1	-24.7	60,175	55,063	-8.5
Stocks, end of month.....thousands.	10,618	10,068	10,242	10,276	10,245	10,294	11,539	+0.5	-10.8			
Shipments—												
Domestic.....thousands.	6,028	4,562	3,629	2,679	2,620	3,755	5,271	+43.3	-28.8	56,574	54,967	-2.8
Export.....thousands.	109	125	122	105	103	114	160	+10.7	-28.7	1,315	1,506	+14.5
Solid and cushion:												
Production.....thousands.	32	28	22	19	19	25	32	+31.6	-22.9	515	376	-27.0
Stocks, end of month.....thousands.	118	111	91	94	98	126	151	+28.6	-26.6			
Shipments—												
Domestic.....thousands.	40	34	23	15	12	20	31	+66.7	-35.5	478	380	-20.5
Exports.....thousands.	3	2	2	1	2	2	2	0.0	0.0	43	27	-37.2
Rubber-proofed fabrics, production:												
Total.....thous. of yds.	5,085	5,507	6,116	4,395	2,291	2,828	2,828			41,469	50,773	+22.3
Auto fabrics.....thous. of yds.	1,349	1,120	778	540	488	686	686			9,091	10,873	+19.6
All other.....thous. of yds.	1,317	1,324	1,720	1,308	882	1,153	1,153			10,746	15,365	+43.0
Raincoat fabrics.....thous. of yds.	2,419	3,063	3,618	2,547	921	989	989			21,632	24,493	+13.2
Rubber heels:												
Production.....thous. of pairs.	23,095	21,702	22,386	17,863	14,781	19,975	19,975			235,170	232,126	-1.3
Shipments—												
To shoe manufacturers.....thous. of pairs.	14,942	13,645	13,746	11,653	8,639	12,867	12,867			117,028	144,113	+23.1
To repair trade.....thous. of pairs.	8,025	7,859	7,994	6,571	4,148	6,809	6,809			94,131	84,771	-9.9
For export.....thous. of pairs.	1,098	1,054	920	801	956	1,001	1,001			11,404	12,385	+8.6
Stocks, end of month.....thous. of pairs.	43,960	42,958	42,109	41,286	41,544	50,649	50,649					
Rubber soles:												
Production.....thous. of pairs.	2,948	2,841	3,502	3,400	3,003	3,876	3,876			37,645	34,499	-8.4
Shipments—												
To shoe manufacturers.....thous. of pairs.	2,548	2,185	2,691	2,676	2,372	2,934	2,934			22,478	27,270	+21.3
To repair trade.....thous. of pairs.	517	618	647	576	449	861	861			10,990	7,071	-35.7
For export.....thous. of pairs.	78	47	90	109	88	156	156			2,452	768	-68.7
Stocks, end of month.....thous. of pairs.	3,319	3,316	3,443	3,421	3,545	4,274	4,274					
Mechanical rubber goods; shipments:												
Total.....thous. of dolls.	6,792	5,906	5,887	4,932	4,751	6,033	6,033			69,104	74,770	+8.2
Belting.....thous. of dolls.	1,940	1,490	1,477	1,203	1,086	1,305	1,305			16,878	18,184	+7.7
Hose.....thous. of dolls.	2,196	1,964	2,135	1,830	1,895	2,378	2,378			25,574	27,788	+8.7
All other.....thous. of dolls.	2,656	2,452	2,274	1,899	1,770	2,350	2,350			24,455	28,798	+17.6

\*Revised.

## TREND OF BUSINESS MOVEMENTS—Continued

	1929					1930	1929	PER CENT INCREASE (+) OR DECREASE (-)		CUMULATIVE TOTAL FROM JAN. 1 THROUGH DEC. 31		Per ct. increase (+) or decrease (-) cumulative 1929 from 1928
	August	September	October	November	December	January	January	Jan., 1930, from Dec., 1929	Jan., 1930, from Jan., 1929	1928	1929	
<b>RUBBER—Continued</b>												
<b>Tires and Tubes—Continued</b>												
Rubber bands, shipments.....thous. of lbs.	196	189	216	170	189		219			2,324	2,522	+8.5
Rubber flooring, shipments.....thous. of sq. ft.	598	630	543	517	618	459	418	+25.7	9.8	7,008	6,779	-3.3
Calendered rubber clothing:												
Production.....no. coats and sundries	96,281	93,444	99,588	75,392	49,093		58,130			1,187,438	978,793	-17.6
Net orders.....no. coats and sundries	37,906	49,940	76,194	95,423	16,095		31,437			753,765	711,075	-5.7
<b>HIDES AND LEATHER</b>												
<b>Hides</b>												
Imports:												
Total hides and skins.....thous. of lbs.	47,956	51,903	48,489	50,958	41,932	39,094	38,679	-6.8	+1.1	505,750	515,466	+1.3
Calfskins.....thous. of lbs.	4,900	3,178	4,886	3,542	2,624	2,953	2,608	+12.5	+13.2	45,394	45,521	+0.9
Cattle hides.....thous. of lbs.	28,137	29,132	28,264	28,227	26,060	19,145	21,456	-26.5	-10.8	275,481	265,636	-3.6
Goatskins.....thous. of lbs.	7,692	8,893	6,434	9,838	6,293	6,728	5,911	+6.9	+13.8	90,765	100,091	+10.3
Sheepskins.....thous. of lbs.	4,405	7,336	5,091	5,032	3,350	5,473	5,060	+63.4	+8.2	63,265	65,331	+3.3
Stocks, end of month:												
Total hides and skins.....thous. of lbs.	253,415	253,680	259,050	270,188	269,892		262,326					
Cattle hides.....thous. of lbs.	202,564	203,304	208,910	220,779	220,509		219,274					
Calf and kid skins.....thous. of lbs.	28,141	27,071	27,596	27,573	26,584		23,636					
Sheep and lamb skins.....thous. of lbs.	22,710	23,305	22,544	21,836	22,799		19,416					
Prices:												
Green salted, packers' heavy native steers.....dolls. per lb.	.188	.196	.186	.164	.160	.163	.205	+1.9	-20.5			
Calfskins, country, No. 1.....dolls. per lb.	.198	.204	.197	.179	.174	.176	.219	+1.1	-19.6			
Inspected slaughter of livestock:												
United States—												
Cattle.....thous. of animals	726	753	839	731	658	713	736	+8.4	-3.1	8,467	8,324	-1.7
Calves.....thous. of animals	388	365	398	358	346	374	369	+8.1	+1.4	4,650	4,538	-3.0
Swine.....thous. of animals	3,130	3,104	3,857	4,499	5,083	5,001	5,738	-1.6	-12.8	49,714	48,446	-2.6
Sheep.....thous. of animals	1,298	1,317	1,365	1,159	1,091	1,225	1,150	+12.3	+6.5	13,487	14,023	+4.0
Canada—												
Cattle and calves.....thous. of animals	99	98	120	114	71	68	71	-4.2	-4.2	1,116	1,157	+3.7
Swine.....thous. of animals	160	142	207	234	221	207	249	-6.3	-16.9	2,548	2,351	-7.7
Sheep.....thous. of animals	77	93	178	135	50	31	35	-38.0	-11.4	639	726	+13.6
<b>Leather</b>												
<b>Sole and belting leather:</b>												
Production—												
Sole only.....thous. of backs, bends, sides	1,300	1,178	1,302	1,226	1,235	1,359	1,284	+10.0	+5.8	16,136	14,516	-10.0
Sole and belting.....thous. of lbs.	25,501	23,460	25,665	23,901	23,894		23,891			292,074	284,754	-2.5
Stocks, end of month—												
In process of tanning.....thous. of lbs.	80,587	81,574	82,679	83,922	84,197		77,989					
Finished.....thous. of lbs.	66,276	61,974	60,044	63,451	64,084		81,518					
Exports.....thous. of sq. ft.	782	539	583	600	500	757	1,054	+51.4	-28.2	10,184	9,942	-2.4
Price oak, scoured backs.....dolls. per lb.	.52	.54	.55	.55	.52	.50	.59	-3.8	-15.3			
Upper leather:												
Production.....thous. of sq. ft.	82,954	70,054	80,473	69,750	72,672		66,424			810,329	837,966	+3.4
Stocks, end of month—												
In process of tanning.....thous. of sq. ft.	147,678	147,478	147,328	170,067	143,576		138,500					
Finished.....thous. of sq. ft.	216,406	209,520	217,384	233,599	244,428		249,468					
Exports.....thous. of lbs.	7,736	8,264	9,007	8,378	7,776		10,998			135,559	112,298	-17.2
Chrome calf, "B" grades.....dolls. per sq. ft.	.49	.49	.49	.48	.48	.46	.53	-4.2	-13.2			
<b>Leather Products</b>												
Shoes:												
Production.....thous. of pairs	36,445	34,831	37,191	27,723	22,475		27,246			344,352	361,402	+5.0
Exports.....thous. of pairs	291	321	426	342	294	290	423	-1.4	-31.4	4,331	4,281	-1.2
Wholesale prices:												
Men's black calf blucher, Boston.....dolls. per pair	6.75	6.75	6.75	6.75	6.75	6.75	6.75	0.0	0.0			
Men's dress welt, tan calf oxford, St. Louis.....dolls. per pair	4.85	4.85	4.85	4.85	4.85	4.85	4.85	0.0	0.0			
Women's black kid, dress welt, lace oxford.....dolls. per pair	4.25	4.25	4.25	4.25	4.25	4.25	4.25	0.0	0.0			
Gloves, cut.....dozen pairs	292,545	285,094	318,041	284,929	213,861	265,407	214,826	+24.1	+23.5	2,551,900	3,136,751	+22.9
<b>PAPER AND PRINTING</b>												
<b>Wood Pulp</b>												
Mechanical:												
Production.....short tons	111,878	102,202	122,923	122,166	126,523		149,772			1,605,019	1,603,553	-0.1
Consumption and shipments.....short tons	145,432	133,514	146,600	140,240	129,623		144,205			1,637,233	1,666,627	+1.8
Stocks, end of month.....short tons	137,982	106,669	88,762	70,688	67,588		130,209					
Imports.....short tons	24,731	20,666	27,020	21,223	36,186	28,423	25,832	-21.5	+10.0	250,879	273,463	+9.0
Chemical:												
Production.....short tons	237,762	218,980	245,072	227,996	214,104		236,636			2,583,126	2,748,392	+6.4
Consumption and shipments.....short tons	235,310	219,842	244,992	225,444	213,388		235,170			2,589,922	2,742,838	+5.9
Stocks, end of month.....short tons	37,354	35,796	35,916	37,554	37,963		41,366					
Imports.....short tons	142,502	134,533	145,878	144,178	133,250	171,463	151,240	+28.7	+13.4	1,493,621	1,615,788	+8.2
Price, sulphite.....dolls. per 100 lbs.	2.60	2.60	2.60	2.60	2.60	2.60	2.45	0.0	+6.1			
<b>Newsprint Paper</b>												
Production:												
United States, total.....short tons	120,868	108,155	122,009	113,729	112,583	124,851	123,822	+10.9	+0.8	1,408,712	1,386,564	-1.6
Ratio to capacity.....per cent.	77	80	81	81	81	85	85					
Canada.....short tons	225,873	227,665	251,914	252,046	230,008	206,305	212,191	-10.3	-2.8	2,381,982	2,726,572	+14.5
Consumption by publishers.....short tons	172,239	193,045	207,218	205,814	194,907	176,162	185,502	-9.6	-4.0	2,126,896	2,282,922	+7.3
Shipments:												
United States.....short tons	118,789	107,495	122,040	116,725	117,131	124,262	120,363	+6.1	+3.2	1,391,153	1,404,383	+1.0
Canada.....short tons	224,254	226,623	252,591	253,219	234,100	202,008	209,020	-13.7	-3.4	2,399,910	2,635,082	+9.8

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## TREND OF BUSINESS MOVEMENTS—Continued

	1929					1930	1929	PER CENT INCREASE (+) OR DECREASE (-)		CUMULATIVE TOTAL FROM JAN. 1 THROUGH DEC. 31		Per ct. increase (+) or decrease (-) cumulative 1929 from 1928
	August	September	October	November	December	January	January	Jan., 1930, from Dec., 1929	Jan., 1930, from Jan., 1929	1928	1929	
	<i>The cumulatives shown are through December except where otherwise noted. Earlier data for items shown here may be found on pages 27 to 138 of the February, 1930, "Survey"</i>											
<b>PAPER AND PRINTING—Continued</b>												
<b>Newsprint Paper—Continued</b>												
Imports.....short tons..	209,901	196,123	221,010	221,078	230,579	198,620	196,882	-13.9	+0.9	2,154,930	2,420,905	+12.3
Exports, Canada.....short tons..	217,638	201,250	232,441	229,142	220,171	199,773	195,047	-9.3	+2.4	2,206,587	2,510,635	+13.8
Stocks, end of month:												
At mills—												
United States.....short tons..	25,656	26,490	26,573	23,549	19,023	18,778	38,003	-1.3	-50.6			
Canada.....short tons..	29,785	30,742	30,064	28,891	24,946	29,154	21,406	+16.9	+36.2			
At publishers.....short tons..	205,532	190,331	188,570	198,550	220,024	231,879	197,480	+5.4	+17.4			
In transit to publishers.....short tons..	44,676	52,535	51,864	61,525	58,524	48,925	45,982	-16.4	+6.4			
Price, roll, f. o. b. mill.....dolls. per 100 lbs..	3.25	3.25	3.25	3.25	3.25	3.25	3.25	0.0	0.0			
<b>Printing</b>												
Book publication:												
American manufacture.....no. of titles..	819	739	807	873	537	449	508	-16.4	-11.6	8,491	8,393	-1.2
Imported.....no. of titles..	177	57	134	235	228	156	150	-31.6	+4.0	1,863	1,794	-3.7
Printing activity.....weighted index number..	103	107	108	102	103		117					
Sales books:												
New orders.....thous. of books..	12,839	12,977	13,834	12,105	9,832	13,028	12,861	+32.5	+1.3	148,804	147,804	-0.7
Shipments.....thous. of books..	13,631	12,226	14,147	12,785	11,819	11,993	12,167	+1.5	-1.4	147,948	151,685	+2.5
Blank forms, new orders.....thous. of sets..	54,054	56,428	75,622	66,464	57,063		54,165			611,429	728,830	+19.2
<b>Box Board</b>												
Operation:												
Thousands of inch-hours.....	9,601	8,553	9,496	8,479	7,673	8,467	9,297	+10.3	-8.9	101,537	107,973	+6.3
Per cent of capacity.....	81.0	81.2	80.1	77.2	69.9	74.2	81.4	+8.1	-8.8			
Production.....short tons..	262,307	235,962	264,631	237,496	186,683	226,910	248,290	+21.5	-8.6	2,682,640	2,912,903	+8.6
New orders.....short tons..	257,318	247,329	264,338	212,186	174,717	226,824	241,086	+29.8	-5.9	2,697,947	2,854,072	+5.8
Shipments.....short tons..	263,140	240,340	268,494	236,575	182,204	228,988	247,498	+25.7	-7.5	2,669,907	2,903,845	+8.8
Stocks, end of month.....short tons..	61,853	58,709	59,244	61,703	65,178	62,685	56,804	-3.8	+10.4			
Stocks of waste paper, end of month:												
On hand.....short tons..	171,360	174,884	185,169	193,428	198,199	175,792	137,251	-11.3	+28.1			
In transit and unshipped purchases.....tons..	61,571	89,510	73,135	52,851	50,380	55,961	49,104	+11.1	+14.0			
Unfilled orders, end of month.....short tons..	82,969	87,304	85,600	67,174	59,721	63,349	87,974	+6.1	-28.0			
Consumption of waste paper.....short tons..	256,815	230,636	254,166	229,706	175,905	219,597	238,652	+24.8	-8.0	2,512,059	2,774,953	+10.5
<b>Other Paper</b>												
Binder's board, production.....short tons..	3,443	2,903	2,682	1,882	1,661		3,172			35,664	33,646	-5.7
Book paper:												
Production.....short tons..	138,614	135,842	154,860	144,020	133,939		131,999			1,506,934	1,634,505	+8.5
Ratio to capacity.....per cent..	93	103	104	105	98		95					
Shipments.....short tons..	136,951	135,434	138,290	139,123	133,939		132,791			1,499,184	1,618,882	+8.0
Stocks, end of month.....short tons..	77,248	78,020	79,580	85,946	85,946		79,099					
New orders—												
Coated.....p. ct. of normal production..	85	87	89	82	83		81	+4.8	+7.4			
Uncoated.....p. ct. of normal production..	77	86	92	84	75		87	+16.0	+6.1			
Unfilled orders, end of month—												
Coated.....p. ct. of normal production..	9	10	11	8	8		11	+37.5	+10.0			
Uncoated.....p. ct. of normal production..	8	8	8	7	6		8	+16.7	-12.5			
Wrapping paper:												
Production.....short tons..	91,849	83,356	89,021	86,196	78,872		101,604			1,123,177	1,066,598	-5.0
Ratio to capacity.....per cent..	83	84	80	84	77		81					
Shipments.....short tons..	90,655	83,939	93,650	86,196	77,295		100,690			1,111,259	1,071,208	-3.6
Stocks, end of month.....short tons..	87,104	86,518	82,491	82,458	84,025		95,288					
Fine paper:												
Production.....short tons..	38,943	36,166	41,830	38,746	35,281		38,228			458,763	467,947	+2.0
Ratio to capacity.....per cent..	84	88	91	91	83		92					
Shipments.....short tons..	39,644	34,936	40,868	36,809	32,176		40,522			453,299	465,065	+2.6
Stocks, end of month.....short tons..	46,840	48,058	48,830	50,749	53,848		50,934					
All other grades:												
Production.....short tons..	105,055	97,715	113,290	99,192	88,177		106,157			1,228,547	1,231,336	+0.2
Shipments.....short tons..	104,638	97,209	114,395	97,863	85,280		104,445			1,223,549	1,220,449	-0.3
Stocks, end of month.....short tons..	58,009	58,515	56,189	57,500	60,395		62,902					
Total paper (inc. newsprint and box board):												
Production.....short tons..	757,636	719,196	785,611	719,379	635,535		750,100			8,408,773	8,699,853	+3.5
Ratio to capacity.....per cent..	83	85	89	88	78		71					
Shipments.....short tons..	753,817	699,353	777,737	713,291	628,025		746,209			8,348,351	8,683,832	+4.0
Stocks, end of month.....short tons..	556,710	556,310	532,907	561,905	568,415		583,030					
<b>Paper-board Shipping Boxes</b>												
Production:												
Total.....thous. of sq. ft..	550,170	544,276	574,171	485,306	367,533	468,548	451,172	+27.5	+3.9	5,229,062	5,948,394	+13.8
Corrugated.....thous. of sq. ft..	448,920	434,351	457,425	387,935	296,457	369,950	352,021	+24.8	+5.1	4,047,919	4,724,707	+16.7
Solid fiber.....thous. of sq. ft..	101,250	109,925	116,746	97,371	71,076	98,598	99,151	-38.7	-0.6	1,181,143	1,223,687	+3.6
Operating activity:												
Total.....per cent of normal..	89	89	91	79	63		78	+17.5	-5.1			
Corrugated.....per cent of normal..	91	91	93	81	66		75	+13.6	-3.8			
Solid fiber.....per cent of normal..	82	82	86	72	55		77	+30.9	-6.5			
Abrasive paper and cloth:												
Domestic sales.....reams..	100,924	99,221	91,782	69,103	50,771		96,056			1,090,302	1,068,268	-2.0
Foreign sales.....reams..	20,564	17,819	24,238	24,134	20,628		17,753			222,960	247,515	+11.0
Rope paper sacks, shipments.....rel. to 1921-22..	101	95	115	102	86		103					

<sup>4</sup> Revised.

## TREND OF BUSINESS MOVEMENTS—Continued

The cumulatives shown are through December except where otherwise noted. Earlier data for items shown here may be found on pages 27 to 138 of the February, 1930, "Survey"	1929					1930	1929	PER CENT INCREASE (+) OR DECREASE (-)		CUMULATIVE TOTAL FROM JAN. 1 THROUGH DEC. 31		Per ct. increase (+) or decrease (-) cumulative 1929 from 1928
	August	September	October	November	December	January	January	Jan., 1930, from Dec., 1929	Jan., 1930, from Jan., 1929	1928	1929	
	<b>BUILDING CONSTRUCTION AND HOUSING</b>											
<b>Building Costs</b>												
Building materials:												
Frame house, 6-rm. 1st of mo. rel. to 1913.	177	176	178	178	177	178	177	+0.6	+0.6			
Brick house, 6-rm. 1st of mo. rel. to 1913.	182	182	183	182	181	183	183	+1.1	0.0			
Bldg. costs, 1st of mo. rel. to 1913.	205.9	207.6	206.3	208.5	209.5	209.0	209.4	-0.2	0.2			
Bldg. costs (A. G. C.), 1st of mo. rel. to 1913.	203	201	202	201	202	203	203	+0.5	0.0			
Plumbing fixtures, 6 pieces. dollars.	98.84	98.97	99.20	100.58	100.58	100.55	100.30	0.0	+0.2			
Construction costs (Am. Appraisal):												
Frame. rel. to 1913.	204	205	205	206	204	204	204	0.0	0.0			
Brick, wood frame. rel. to 1913.	214	214	215	215	214	214	214	0.0	+0.9			
Brick, steel frame. rel. to 1913.	197	197	198	198	197	197	197	0.0	0.0			
Reinforced concrete. rel. to 1913.	201	201	202	202	201	202	201	+0.5	0.5			
<b>Contracts and Fire Losses</b>												
Contracts awarded (36 States):												
Commercial buildings. thous. of sq. ft.	13,481	12,612	12,611	13,180	4,746		15,250			150,394	151,682	+0.9
Industrial buildings. thous. of sq. ft.	10,148	7,585	9,041	6,913	13,340		7,085			91,538	106,419	+16.3
Residential buildings. thous. of sq. ft.	28,339	24,354	27,478	20,670	17,182		27,898			548,329	372,465	-32.1
Educational buildings. thous. of sq. ft.	5,190	4,914	5,461	3,796	3,008		2,631			60,626	58,192	-4.0
Other public and semi-public buildings. thous. of sq. ft.	5,896	6,958	7,255	4,455	3,191		2,863			70,022	60,528	-13.6
Grand total. thous. of sq. ft.	63,875	57,152	62,590	49,268	41,946		56,331			927,721	757,319	-18.4
Contracts awarded, value (36 States):												
Commercial buildings. thous. of dolls.	68,365	71,590	63,682	99,072	30,368		98,644			847,556	889,681	+5.0
Industrial buildings. thous. of dolls.	71,820	52,090	59,507	38,085	66,888		60,439			602,603	739,797	+22.8
Residential buildings. thous. of dolls.	142,049	114,184	131,809	110,848	111,480		132,862			2,715,111	1,872,773	-31.0
Educational buildings. thous. of dolls.	31,149	29,034	35,970	24,914	18,703		17,171			386,490	369,526	-4.4
Other public and semi-public buildings. thous. of dolls.	42,762	49,307	54,988	36,344	27,988		23,142			564,460	497,064	-11.9
Public works and utilities. thous. of dolls.	114,766	114,146	80,206	68,811	48,870		61,811			1,288,559	1,183,616	-8.2
Grand total. thous. of dolls.	470,910	430,351	426,171	378,074	304,297		394,069			6,404,779	5,553,751	-13.3
Contracts awarded, Canada. thous. of dolls.	58,622	46,959	57,084	45,376	32,549		41,963			472,033	576,653	+22.2
Building volume (A. G. C.) rel. to 1913.	239	259	233	225	169		148	-22.5	-11.5			
Fire losses:												
United States and Canada, (Journal of Commerce) thous. of dolls.	27,504	21,422	29,072	28,256	30,870	31,393	36,225	+1.7	-13.3	301,268	332,426	+10.3
Canada (Monetary Times) thous. of dolls.	3,776	2,040	3,777	3,864	4,081	5,100	2,664	+25.0	+91.4	22,633	38,362	+69.5
<b>LUMBER PRODUCTS</b>												
<b>Softwood Lumber</b>												
Southern pine:												
Production (computed) M ft. b. m.	400,274	359,757	384,227	342,631	317,741		425,009			4,994,053	4,583,020	-8.2
Operation. per cent of full time.	83	83	82	75	68		87					
Shipments (computed) M ft. b. m.	384,203	347,704	375,228	313,137	290,725		398,047			5,228,488	4,466,442	-14.6
New orders (computed) M ft. b. m.	378,878	344,703	368,296	290,667	304,487		417,700			5,211,206	4,950,754	-14.6
Stocks, end of mo. (computed) M ft. b. m.	1,017,970	1,030,023	1,039,022	1,068,516	1,095,532		1,005,916					
Unfilled orders, end of month M ft. b. m.	289,468	286,467	279,535	257,065	270,827		306,168					
Exports, lumber. M ft. b. m.	52,630	43,087	51,811	48,363	62,487	52,752	61,693	-15.6	-14.5	708,883	679,213	-4.2
Exports, timber. M ft. b. m.	9,300	14,874	11,315	7,283	13,734	9,484	11,507	-30.9	-17.6	163,567	127,616	-22.0
Price, flooring. dolls. per M ft. b. m.	37.43	36.76	39.50	36.00	38.00	37.22	36.55	-2.1	+1.8			
Douglas fir:												
Production (computed) M ft. b. m.	353,642	315,592	312,011	309,772	260,979	199,651	316,039	-23.5	-36.8	4,934,872	3,864,098	-21.7
Shipments (computed) M ft. b. m.	333,498	293,209	300,372	266,351	228,300	220,690	296,343	-3.3	-25.5	5,081,313	3,832,315	-24.6
New orders (computed) M ft. b. m.	327,678	293,209	303,953	253,369	240,835	242,178	349,165	+0.6	-30.6	5,249,119	3,886,479	-26.0
Unfilled orders, end of month M ft. b. m.	245,311	209,924	295,895	215,319	273,055	293,657	403,331	+7.5	-27.2			
Exports, lumber. M ft. b. m.	72,811	64,085	80,888	53,261	74,967	74,487	84,299	-0.6	-11.6	767,745	908,133	+18.3
Exports, timber. M ft. b. m.	48,303	38,493	50,558	33,508	33,309	36,064	59,984	+8.3	-39.9	556,224	527,411	-5.2
Price, No. 1 common. dolls. per M ft. b. m.	18.57	18.36	17.82	17.42	16.84	16.85	17.77	0.0	-5.2			
Price, flooring, 1 x 4, "B" and better, V. G. dolls. per M ft. b. m.	42.96	42.79	42.42	42.13	41.94	41.63	44.44	-0.7	-6.3			
California redwood:												
Production (computed) M ft. b. m.	44,923	35,291	36,745	48,438	30,634	41,084	29,560	+34.1	+39.0	459,181	455,853	-0.7
Shipments (computed) M ft. b. m.	48,648	37,368	36,064	39,170	25,253	30,893	30,944	+22.3	-0.2	444,542	445,985	+0.3
New orders (computed) M ft. b. m.	44,930	34,086	33,080	40,579	23,230	35,633	34,801	+53.4	+2.4	451,973	458,499	+1.4
Unfilled orders, end of month (computed) M ft. b. m.	44,590	41,837	37,097	38,364	36,626	27,079	35,756	-26.1	-24.3			
California white pine:												
Production M ft. b. m.	126,934	94,983	131,790	100,037	60,651	29,185	69,930	-51.9	-58.3	1,227,464	1,150,408	-6.3
Shipments M ft. b. m.	102,334	93,900	88,363	62,585	56,767	64,837	100,633	+14.2	-35.6	1,203,379	1,116,859	-7.2
Stocks, end of month M ft. b. m.	516,220	523,772	567,326	607,775	623,554	568,607	535,998	-8.8	+6.1			
New orders M ft. b. m.	95,986	80,250	71,398	60,174	54,835	65,322	95,905	+19.1	-31.9	1,064,312	1,040,310	-2.3
Unfilled orders, end of month M ft. b. m.	162,494	153,701	172,154	172,309	189,732	151,560	176,506	-20.1	-14.1			
Northern pine:												
Lumber—												
Production M ft. b. m.	49,846	41,882	38,422	8,548	11,682	14,935	23,818	+27.8	-37.3	497,414	418,570	-15.9
Shipments M ft. b. m.	43,764	37,054	43,737	32,726	19,496	23,200	33,167	+19.0	-30.1	494,809	463,011	-6.4
New orders M ft. b. m.	42,485	30,291	35,578	20,167	14,459	22,670	35,363	+56.8	-35.9	450,981	406,484	-9.9
Lath—												
Production thousands.	8,442	6,268	5,739	1,310	653	527	4,692	-19.3	-88.8	105,379	66,391	-37.0
Shipments thousands.	9,258	6,509	6,892	5,008	2,783	3,251	6,952	+16.8	-53.2	97,244	87,877	-9.6
North Carolina pine:												
Production (computed) M ft. b. m.	48,993	48,132	45,878	43,995	40,138	41,097	45,143	+2.4	-9.0	587,412	636,580	+8.4
Shipments (computed) M ft. b. m.	48,230	45,605	47,264	47,096	38,038	36,946	38,976	-2.9	-5.2	604,708	626,108	+3.5
Northern hemlock:												
Production M ft. b. m.	14,908	17,079	11,943	9,230	10,839	11,153	18,877	+2.9	-40.9	197,243	169,040	-14.1
Shipments M ft. b. m.	16,020	12,859	12,378	9,328	4,932	7,860	9,855	+59.4	-20.2	200,737	149,954	-25.1

## TREND OF BUSINESS MOVEMENTS—Continued

The cumulatives shown are through December except where otherwise noted. Earlier data for items shown here may be found on pages 27 to 138 of the February, 1930, "Survey"	1929					1930	1929	PER CENT INCREASE (+) OR DECREASE (-)		CUMULATIVE TOTAL FROM JAN. 1 THROUGH DEC. 31		Per cent. increase (+) or decrease (-) cumulative 1929 from 1928
	August	September	October	November	December	January	January	Jan., 1930, from Dec., 1929	Jan., 1930, from Jan., 1929	1928	1929	
	<b>LUMBER PRODUCTS—Continued</b>											
<b>Hardwood Lumber</b>												
Walnut lumber:												
Production.....M ft. b. m.	4,608	4,649	5,284	3,807	3,745	2,363	2,974	-36.9	-20.5	34,517	47,443	+37.4
Shipments.....M ft. b. m.	3,607	3,289	4,107	3,069	2,301	2,070	3,163	-10.0	-34.6	36,060	41,900	+16.2
Stocks, end of month.....M ft. b. m.	14,303	15,347	15,817	17,130	18,601	18,727	12,305	+0.7	+52.2	-----	-----	-----
New orders.....M ft. b. m.	3,266	3,398	3,313	2,513	1,607	2,071	3,307	+28.9	-37.4	36,852	39,620	+7.5
Unfilled orders, end of month.....M ft. b. m.	6,892	7,000	6,562	6,475	5,590	4,418	5,664	-21.0	-22.0	-----	-----	-----
Walnut logs:												
Purchased.....M ft. log measure.	3,667	3,367	4,158	3,144	2,404	1,701	2,285	-29.2	-25.6	29,327	36,555	+24.6
Made into lumber and veneer.....M ft. log measure.	3,358	3,724	3,996	2,975	2,288	2,021	2,538	-11.7	-20.4	30,686	35,806	+16.7
Stocks, end of month.....M ft. log measure.	2,441	2,148	2,268	3,299	2,790	2,510	1,557	-10.0	+61.2	-----	-----	-----
Northern hardwoods:												
Production.....M ft. b. m.	22,459	17,195	14,643	15,895	21,303	29,484	37,916	+38.4	-22.2	357,356	333,595	-6.6
Shipments.....M ft. b. m.	27,469	24,275	22,604	18,220	12,969	17,119	29,093	+32.0	-41.2	330,423	297,180	-10.1
Lower Michigan hardwoods:												
Production.....M ft. b. m.	2,595	2,929	3,613	1,940	3,542	-----	5,456	-----	-----	83,169	55,954	-32.7
Shipments.....M ft. b. m.	4,094	6,851	4,189	2,707	3,716	-----	4,950	-----	-----	82,454	60,796	-26.3
Stocks, end of month.....M ft. b. m.	17,880	24,606	20,582	16,210	26,639	-----	27,126	-----	-----	-----	-----	-----
Gum:												
Stocks, total, end of month.....mill. ft. b. m.	469	482	482	517	512	534	516	+4.3	+3.5	-----	-----	-----
Stocks, unsold, end of month.....mill. ft. b. m.	325	328	339	397	387	404	369	+4.4	+9.5	-----	-----	-----
Unfilled orders, end of month.....mill. ft. b. m.	144	154	143	134	125	130	147	+4.0	-11.6	-----	-----	-----
Oak:												
Stocks, total, end of month.....mill. ft. b. m.	982	1,004	1,022	1,033	1,049	1,040	919	-0.9	+13.2	-----	-----	-----
Stocks, unsold, end of month.....mill. ft. b. m.	802	808	823	852	869	877	751	+0.9	+16.8	-----	-----	-----
Unfilled orders, end of month.....mill. ft. b. m.	181	195	199	181	181	174	167	-3.9	+4.2	-----	-----	-----
All hardwoods:												
Production.....mill. ft. b. m.	334	334	296	259	210	251	308	+19.5	-18.5	3,216	3,601	+12.0
Shipments.....mill. ft. b. m.	296	311	278	221	169	206	293	+21.9	-29.7	3,306	3,414	+3.3
New orders.....mill. ft. b. m.	300	323	281	184	165	199	319	+20.6	-37.6	3,415	3,429	+0.4
Stocks, total, end of month.....mill. ft. b. m.	2,772	2,848	2,887	2,979	2,997	3,061	2,717	+2.1	+12.7	-----	-----	-----
Stocks, unsold, end of month.....mill. ft. b. m.	2,122	2,239	2,227	2,356	2,383	2,440	2,102	+2.4	+16.1	-----	-----	-----
Unfilled orders, end of month.....mill. ft. b. m.	645	678	660	622	614	614	615	0.0	-0.2	-----	-----	-----
Exports, planks, joists, etc.....M ft. b. m.	181,897	163,427	194,065	153,069	200,816	151,906	240,384	-24.4	-36.8	2,323,681	2,377,609	+2.3
<b>Flooring</b>												
Maple flooring:												
Production.....M ft. b. m.	6,918	7,334	7,813	5,574	6,107	6,589	7,771	+7.9	-15.2	94,399	78,585	-16.8
Shipments.....M ft. b. m.	8,435	7,239	6,869	4,379	3,060	4,625	5,114	+51.1	-9.6	93,124	76,051	-18.3
Stocks, end of month.....M ft. b. m.	20,480	20,827	22,421	23,659	26,523	28,314	24,733	+6.8	+14.5	-----	-----	-----
New orders.....M ft. b. m.	6,927	4,750	4,297	3,227	3,053	4,245	5,999	+39.0	-29.2	89,760	68,107	-24.1
Unfilled orders, end of month.....M ft. b. m.	8,881	7,641	7,095	5,717	5,579	5,227	8,019	+4.4	-27.3	-----	-----	-----
Oak flooring:												
Production.....M ft. b. m.	36,382	33,055	35,813	25,111	22,667	28,617	41,204	+26.2	-30.5	531,429	399,885	-24.8
Shipments.....M ft. b. m.	37,631	31,464	29,704	21,202	47,506	26,317	31,999	-44.6	-17.8	531,008	429,335	-19.1
Stocks, end of month.....M ft. b. m.	70,198	72,141	76,342	82,103	83,233	87,391	97,000	+5.0	-9.9	-----	-----	-----
New orders.....M ft. b. m.	30,972	37,388	19,743	16,420	21,775	35,286	29,736	+62.0	+18.7	533,563	374,970	-29.7
Unfilled orders, end of month.....M ft. b. m.	35,937	40,417	30,887	25,810	45,272	51,026	44,626	+12.7	+14.3	-----	-----	-----
<b>Wooden Furniture</b>												
Household furniture and case goods:												
Shipments.....dolls., average per firm	70,422	75,319	82,440	61,523	35,891	46,398	51,553	+29.3	-10.0	626,782	714,778	+14.0
Unfilled orders.....dolls., average per firm	77,568	84,138	62,355	42,811	30,135	46,593	58,756	+54.6	-20.7	-----	-----	-----
Grand Rapids district:												
Unfilled orders, end of month.....No. of days' production	64	58	45	42	32	29	40	+9.4	-27.5	-----	-----	-----
New orders.....No. of days' production	30	37	29	28	11	21	24	+90.9	-12.5	-----	-----	-----
Shipments.....No. of days' production	30	32	35	27	18	21	24	+16.7	-12.5	-----	-----	-----
Outstanding accounts, end of month.....No. of days' sales	53	58	61	57	50	48	56	-4.0	-14.3	-----	-----	-----
Cancellations.....per cent of new orders	5.0	6.0	23.0	13.0	31.0	17.0	10.0	-45.2	+70.0	-----	-----	-----
Plant operation.....per cent of full time	97.0	101.0	104.0	94.0	89.0	79.0	97.0	-11.2	-18.5	-----	-----	-----
<b>Plywood and Veneer</b>												
Plywood:												
New orders.....thous. of sq. ft. of surface	5,103	7,198	8,167	4,318	-----	-----	3,426	-----	-----	-----	-----	-----
Shipments.....thous. of sq. ft. of surface	5,608	5,309	6,070	5,039	3,574	-----	3,746	-----	-----	36,583	54,780	+49.7
Unfilled orders, end of month.....thous. of sq. ft. of surface	13,123	14,691	10,748	10,104	-----	-----	5,791	-----	-----	-----	-----	-----
Rotary-cut veneer:												
Receipts.....number of carloads	174	223	251	184	214	149	175	-30.4	-14.9	2,219	2,472	+11.4
Purchases.....number of carloads	122	287	306	141	161	207	241	+28.0	-14.1	2,474	2,749	+11.1
Bushel baskets:												
Production.....dozens	264,212	190,939	225,014	191,120	194,958	121,580	135,090	-37.0	-10.0	2,171,713	2,428,398	+11.8
Shipments.....dozens	360,050	314,904	257,942	94,347	170,138	84,212	126,622	-50.5	-33.5	2,234,611	2,267,150	+1.5
Stocks, end of month.....dozens	584,410	461,717	428,789	525,562	558,489	395,866	331,992	-29.1	+19.2	-----	-----	-----
<b>STONE, CLAY, AND GLASS PRODUCTS</b>												
Common brick:												
Stocks, end of month—												
Burned.....thousands	290,265	217,451	395,919	497,099	475,735	-----	517,120	-----	-----	-----	-----	-----
Unburned.....thousands	110,904	224,530	284,402	291,237	247,723	-----	241,887	-----	-----	-----	-----	-----
Shipments.....thousands	130,982	93,677	151,723	131,919	107,241	-----	115,924	-----	-----	2,230,660	1,561,656	+94.0
Unfilled orders, end of month.....thousands	109,564	110,215	133,083	154,766	141,143	-----	136,014	-----	-----	-----	-----	-----
Plants closed down.....number	56	26	58	115	132	-----	79	-----	-----	-----	-----	-----
Price, red, New York.....dolls. per thous.	10.13	10.50	9.50	10.00	10.00	10.50	11.50	+5.0	-8.7	-----	-----	-----
Porcelain plumbing fixtures:												
Net new orders.....pieces	12,168	9,524	8,548	6,228	6,452	12,481	12,565	+93.4	-0.7	256,428	127,554	-50.3
Shipments.....pieces	13,873	9,569	8,269	6,541	4,257	5,127	11,576	+20.4	-55.7	189,813	117,691	-38.0
Unfilled orders, end of month.....pieces	26,911	26,115	25,376	23,832	25,778	32,725	34,864	+26.9	-6.1	-----	-----	-----
Stocks, end of month.....pieces	40,343	39,708	40,682	39,798	38,226	37,815	44,688	-1.1	-15.4	-----	-----	-----

## TREND OF BUSINESS MOVEMENTS—Continued

The cumulatives shown are through December except where otherwise noted. Earlier data for items shown here may be found on pages 27 to 138 of the February, 1930, "Survey"	1929					1930	1929	PER CENT INCREASE (+) OR DECREASE (-)		CUMULATIVE TOTAL FROM JAN. 1 THROUGH DEC. 31		Per ct. increase (+) or decrease (-) cumulative 1929 from 1928
	August	September	October	November	December	January	January	Jan., 1930, from Dec., 1929	Jan., 1930, from Jan., 1929	1928	1929	
	<b>STONE, CLAY, AND GLASS PRODUCTS—Continued</b>											
Vitreous china plumbing fixtures:												
New orders.....pieces	242,596	195,931	240,606	215,092	201,858	200,253	277,050	-0.8	-27.7	3,079,675	2,913,376	-5.4
Shipments.....pieces	268,619	237,788	215,033	174,149	170,381	205,673	261,102	+20.7	-21.2	3,012,173	2,860,734	-5.0
Unfilled orders, end of month.....pieces	385,632	343,775	369,348	410,291	441,768	436,348	405,574	-1.2	+7.6			
Stocks, end of month.....pieces	559,418	566,776	601,832	624,472	640,171	632,740	570,749	-1.2	+10.9			
Floor and wall tile:												
Production.....thous. of sq. ft.	6,376	+ 5,572	+ 5,380	+ 4,385	3,654		5,712			71,641	68,195	-4.8
Shipments, quantity.....thous. of sq. ft.	6,797	+ 5,421	+ 5,088	+ 4,060	3,123		4,299			69,379	63,826	-8.0
Shipments, value.....thous. of dolls.	2,683	+ 2,149	+ 2,097	+ 1,648	1,314		1,701			26,430	25,035	-5.3
Stocks, end of month.....thous. of sq. ft.	17,919	18,281	18,557	+ 19,029	17,590		16,010					
Terra cotta, new orders:												
Quantity.....net tons	8,606	7,784	6,566	7,452	8,307	8,048	10,056	-3.1	-20.0	148,755	118,818	-20.1
Value.....thous. of dolls.	940	817	716	790	870	839	1,090	-3.6	-23.0	14,172	12,911	-8.9
Small-lime brick:												
Production.....thousands	16,838	14,121	17,563	14,011	+ 9,215	4,021	10,548	-56.4	-61.9	203,858	163,924	-19.6
Shipments by rail.....thousands	4,684	3,960	5,150	4,956	+ 2,658	1,731	1,674	-34.9	+3.4	61,913	49,674	-19.8
Shipments by truck.....thousands	11,615	10,951	10,863	9,938	+ 5,246	2,636	6,206	-49.8	-57.5	139,639	122,969	-11.9
Stocks, end of month.....thousands	9,714	9,326	12,957	10,854	+ 13,859	9,716	16,082	-29.9	-39.6			
Unfilled orders, end of month.....thousands	9,925	13,286	12,943	9,708	+ 7,008	5,404	7,253	-22.9	-25.5			
<b>Portland Cement</b>												
Production.....thous. of bbls.	18,585	17,223	16,731	14,053	11,215	8,498	9,881	-24.2	-14.0	175,968	170,198	-3.3
Operation.....per ct. of capacity	86.1	81.8	77.0	66.6	51.5	38.8	46.5	-24.7	-16.6			
Shipments.....thous. of bbls.	23,052	19,950	18,695	11,222	+ 5,951	4,955	5,707	-16.7	-13.2	175,455	169,437	-3.4
Stocks, end of month.....thous. of bbls.	20,056	17,325	15,381	18,213	+ 23,550	27,094	26,797	+15.0	+1.1			
Stocks, clinker, end of month.....thous. of bbls.	8,995	7,009	5,934	6,134	+ 7,526	9,646	9,642	+28.2	0.0			
Wholesale prices, composite.....dolls. per bbl.	1.604	1.500	1.493	1.510	1.555	1.576	1.650	+1.4	-4.5			
<b>Highways</b>												
Concrete pavements, new contracts:												
Total.....thous. of sq. yds.	11,969	10,220	13,151	5,358	7,462	6,595	7,461	-11.6	-11.6	148,078	139,663	-5.7
Road.....thous. of sq. yds.	7,010	5,945	9,157	3,207	5,043	5,244	6,089	+4.0	-13.9	93,532	92,553	-1.0
Federal-aid highways:												
Completed—												
Cost.....thous. of dolls.	9,729	22,469	27,504	25,131	28,326	7,680	16,057	-72.9	-52.2	193,913	196,690	+1.4
Distance.....miles	442	830	996	779	813	273	557	-66.4	-51.0	7,628	6,700	-12.2
Under construction, end of month.....miles	8,724	8,584	8,322	7,805	7,256	7,054	7,835	-2.8	-10.0			
<b>Plate Glass</b>												
Production, polished.....thous. of sq. ft.	14,722	14,011	14,621	12,131	8,482	10,018	11,426	+18.1	-12.3	130,648	150,498	+15.2
<b>Glass Containers</b>												
Actual production:												
Quantity.....gross	2,715	2,246	2,572	2,274	1,963	2,336	2,367	+19.0	-1.3	28,447	29,131	+2.4
Relation to capacity.....per cent.	77.5	74.5	75.6	69.0	62.0	70.1	73.6	+13.1	-4.8			
New orders.....gross	1,922	2,942	2,996	2,501	4,171	4,056	3,089	-2.9	+31.3	29,326	32,219	+9.9
Shipments.....gross	2,656	2,700	2,445	2,005	1,705	2,110	2,435	+23.8	-13.3	28,012	29,004	+3.5
Stock, end of month.....gross	6,447	5,994	6,121	6,387	6,648	6,858	6,460	+3.2	+6.2			
Unfilled orders, end of month.....gross	8,079	8,072	8,320	8,571	11,434	13,011	9,306	+13.8	+39.8			
<b>Illuminating Glassware</b>												
Production:												
Total.....number of turns	2,819	3,225	4,265	3,995	3,471	2,847	3,950	-18.0	-27.9	39,044	40,181	+2.9
Ratio to capacity.....per ct. of capacity	36.4	45.3	50.2	53.2	47.0	35.4	49.0	-24.7	-27.8			
New orders.....per ct. of capacity	42.9	46.8	52.9	44.4	35.1	35.6	41.2	+1.4	-13.6			
Shipments.....per ct. of capacity	43.8	49.6	51.1	49.0	40.0	34.8	39.9	-13.0	-12.8			
Unfilled orders, end of month.....number of weeks' supply	1.4	1.4	1.5	1.3	1.0	1.1	1.3	+10.0	-15.4			
Stocks, end of mo.....number of weeks' supply	4.7	4.6	4.6	4.8	5.2	5.4	5.3	+3.8	+1.9			
<b>CHEMICALS AND OILS</b>												
<b>Chemicals</b>												
Sulphuric acid:												
Exports.....thous. of lbs.	641,492	516,264	544,462	460,174	914,769	882,315	429,264	-3.5	+105.5	7,001,959	6,959,993	-0.6
Price, wholesale.....dolls. per 100 lbs.	.78	.78	.78	.78	.78	.78	.78	0.0	0.0			
Nitrate of soda:												
Imports.....long tons	51,684	31,539	54,821	43,047	65,569	89,421	83,698	+36.4	+6.8	1,027,909	930,458	-9.5
Production in Chile.....metric tons	270,300	253,200	207,800	261,000	285,500	280,000	274,500	-1.9	+2.0	3,163,500	3,160,600	-0.1
Potash salts:												
Imports (commercial).....long tons	45,505	40,088	51,757	23,603	23,237	44,077	24,724	+89.7	+78.3	357,703	352,535	-1.4
Production in France (K <sub>2</sub> O content).....metric tons	42,500	39,900	44,500				42,393			410,316		
Sales in Germany (K <sub>2</sub> O content).....metric tons	95,372	123,465	79,159	84,670	99,594	186,000	164,736	+86.8	+12.9	1,421,216	1,401,446	-1.4
Superphosphate (acid phosphate):												
Production.....short tons	344,460	250,289	348,793	+ 346,785	359,998		370,231			3,803,652	3,781,961	-0.6
Stocks, end of month.....short tons	1,393,654	1,292,970	1,512,044	1,750,442	2,001,913		2,253,708					
Shipments.....short tons	86,251	162,587	154,012	77,647	77,269		122,439			1,925,726	1,976,666	+2.6
Fertilizer:												
Exports.....long tons	112,346	155,103	129,849	101,823	147,483	104,221	99,751	-29.3	+4.5	1,210,426	1,527,611	+26.2
Consumption, Southern States.....short tons	45,517	174,347	101,295	60,692	94,958	504,140	+ 452,499	+431.2	+11.5	5,572,721	5,447,032	-2.3
Dyes and dyestuffs, exports:												
Vegetable.....thous. of lbs.	191	422	247	321	193	151	92	-21.8	+64.1	3,158	2,563	-18.8
Coal tar.....thous. of lbs.	13	39	18	20	24	2,052	58			32,271	5,760	-82.2

\* Revised.

## TREND OF BUSINESS MOVEMENTS—Continued

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	August	September	October	November	December	January	January	Jan., 1930, from Dec., 1929	Jan., 1930, from Jan., 1929	1928	1929	
<b>CHEMICALS AND OILS—Continued</b>												
<b>Arsenic</b>												
Crude:												
Production..... short tons..	887	1,027	3,113	1,203	2,049	1,079	1,136	-47.3	-5.0	16,485	19,150	+16.2
Stocks, end of month..... short tons..	1,876	1,777	3,309	3,112	3,774	3,677	3,019	-2.6	+21.8			
Refined:												
Production..... short tons..	857	868	1,036	1,197	1,063	742	913	-30.2	-18.7	9,294	11,123	+19.7
Stocks, end of month..... short tons..	3,414	3,180	3,672	3,993	4,131	3,879	3,571	-6.1	+8.6			
Price index numbers:												
Crude drugs..... rel. to Aug., 1914..	179	180	180	176	172	170	195	-1.2	-12.8			
Essential oils..... rel. to Aug., 1914..	188	168	161	155	146	133	191	-8.9	-30.4			
Drugs and pharmaceuticals..... rel. to Aug., 1914..	177	177	177	177	177	177	164	0.0	+7.9			
Chemicals..... rel. to 1927..	100	100	100	100	100	99	100	-1.0	-1.0			
Oils and fats..... rel. to 1927..	96	100	105	99	98	94	99	-4.1	-5.1			
<b>Wood Chemicals</b>												
Acetate of lime:												
Production—												
United States..... thous. of lbs..	11,025	10,154	12,532	11,982	11,666	11,798	11,996	+1.1	-1.7	132,098	140,517	+6.4
Canada..... thous. of lbs..	715	421	367	1,027	1,246	1,545	1,263	+24.0	+22.3	10,133	10,459	+3.2
Shipments—												
United States..... thous. of lbs..	10,862	10,162	12,172	10,661	6,729	3,921	11,525	-41.7	-66.0	146,354	133,107	-9.1
Canada..... thous. of lbs..	821	349	301	943	248	178	1,214	-28.2	-85.3	11,891	9,297	-21.8
Stocks, end of month—												
United States..... thous. of lbs..	1,259	1,241	1,687	2,826	7,761	15,553	1,544	+100.4				
Canada..... thous. of lbs..	73	147	201	172	1,111	2,498	174	+124.8				
Exports..... thous. of lbs..			13			42				11,173	221	-98.0
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..	656,414	598,548	719,064	705,320	830,331	715,886	700,613	-13.8	+2.2	7,540,536	8,421,082	+11.7
Canada..... gallons..	25,950	17,581	16,904	45,242	57,587	65,090	52,925	+13.0	+23.0	416,836	445,335	+6.8
Stocks at crude plants, end of month—												
United States..... gallons..	244,185	253,356	255,204	273,097	247,360	389,876	235,052	+57.6	+65.9			
Canada..... gallons..	20,092	17,061	12,924	11,469	26,580	38,408	28,103	+44.5	+36.7			
Stocks at refineries and in transit—												
United States..... gallons..	526,172	514,572	530,710	615,852	728,473	903,304	145,093	+24.0				
Canada..... gallons..	63,702	65,505	47,479	30,510	11,518	9,038	48,495	-21.5	-81.4			
Exports..... gallons..	33,849	49,948	12,329	83,654	11,791	47,571	43,915	+303.5	+8.3	567,755	515,281	-9.2
Wood at chemical plants:												
Consumption—												
United States..... cords..	70,454	63,460	75,508	71,209	70,279	73,326	73,308	+4.3	0.0	760,736	861,895	+13.3
Canada..... cords..	3,228	2,041	1,954	5,435	6,720	7,625	6,630	+13.5	+15.0	51,081	54,292	+6.3
Stocks, end of month—												
United States..... cords..	565,119	552,338	527,210	500,387	486,236	601,972	497,965	+23.8	+20.9			
Canada..... cords..	72,026	72,040	71,530	71,015	70,756	71,022	72,933	+0.4	-2.6			
Daily capacity—												
Total..... cords..	3,264	3,264	3,246	3,246	3,246	3,246	3,336	0.0	-2.7			
Shutdown..... cords..	475	525	289	329	302	229	292	-26.5	-24.0			
Methanol, refined:												
Production—												
United States..... gallons..	454,160	432,094	445,183	488,212	432,978	248,723	494,501	-42.6	-49.7	5,982,579	5,209,546	-11.4
Canada..... gallons..	43,700	27,800	56,300	58,150	72,200	41,500	59,800	-42.5	-30.6	432,450	545,450	+26.1
Stocks, end of month—												
United States..... gallons..	783,674	729,932	725,620	755,326	795,868	695,155	503,054	-12.7	+38.2			
Canada..... gallons..	37,761	21,888	14,238	44,164	32,175	28,405	35,534	-11.7	-21.1			
Shipments—												
United States..... gallons..	487,153	598,551	558,179	412,683	478,056	425,071	506,624	-11.1	-16.1	6,044,639	5,881,934	-2.7
Canada..... gallons..	22,188	31,902	48,532	46,335	34,803	41,274	47,629	+18.6	-13.3	316,444	401,806	+27.0
Price, wholesale, N. Y..... dolls. per gal..	.58	.58	.58	.52	.51	.47	.58	-7.8	-19.0			
<b>Ethyl Alcohol</b>												
Production..... thous. of gals..	20,026	20,739	25,426	20,898	16,262	11,601	15,282	-28.7	-24.1	184,981	206,662	+11.7
Withdrawn for denaturation..... thous. of gals..	18,688	19,199	24,203	20,999	18,861	11,174	13,911	-40.8	-19.7	168,555	195,470	+16.0
Warehouse stocks, end of month..... thous. of gals..	11,489	11,617	11,932	11,462	8,199	7,298	8,701	-11.0	-16.1			
<b>Explosives</b>												
(Black powder, permissible, and other high explosives)												
Production..... thous. of lbs..	40,584	42,019	42,108	36,134	31,015	31,986	33,596	+3.1	-4.8	397,419	438,784	+10.4
Shipments..... thous. of lbs..	39,163	42,299	40,246	37,068	29,236	31,709	35,576	+8.5	-10.9	396,462	438,853	+10.7
New orders..... thous. of lbs..	39,580	40,141	40,295	35,554	29,784	30,828	35,733	+3.5	-13.7	374,920	427,271	+14.0
Stocks, end of month..... thous. of lbs..	17,529	16,895	17,811	16,734	18,311	18,636	18,071	+1.8	+3.1			
<b>Naval Stores</b>												
Turpentine (gum):												
Net receipts, southern ports..... barrels..	49,436	42,127	33,356	33,813	28,921	10,237	8,175	-64.6	+25.2	339,713	387,888	+14.2
Stocks at port, end of month..... barrels..	63,151	65,770	67,038	68,546	68,432	58,485	79,837	-14.5	-26.7			
Price, southern, New York..... dolls. per gal..	.52	.55	.56	.53	.54	.55	.61	+1.9	-9.8			
Rosin (gum):												
Net receipts, southern ports..... barrels..	172,670	140,212	120,886	139,264	128,057	50,791	45,203	-60.3	+12.4	1,199,269	1,386,748	+15.6
Stocks at 3 ports, end of month..... barrels..	205,955	233,215	244,767	256,895	257,595	221,568	227,409	-14.0	-2.6			
Price, B, New York..... dolls. per bbl..	8.51	9.01	9.27	8.79	8.26	8.05	8.87	-2.5	-9.2			
Rosin (wood):												
Production..... barrels..	38,315	36,905	40,903	40,678	36,628	40,954	37,765	+11.8	+8.4	420,516	449,532	+6.9
Stocks, end of month..... barrels..	98,777	90,036	84,111	88,038	88,909	90,258	120,956	+1.5	-25.4			
Turpentine (wood):												
Production..... barrels..	6,721	6,695	7,640	7,498	7,068	7,510	7,347	+6.3	+2.2	75,118	83,459	+11.1
Stocks, end of month..... barrels..	4,713	4,344	5,569	7,289	8,889	10,581	7,869	+19.0	+34.5			

\* Revised.

## TREND OF BUSINESS MOVEMENTS—Continued

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	August	September	October	November	December	January	January	Jan., 1930, from Dec., 1929	Jan., 1930, from Jan., 1929	1928	1929	
	<b>CHEMICALS AND OILS—Continued</b>											
<b>Naval Stores—Continued</b>												
Pine oil:												
Production.....gallons	229,388	222,112	259,017	249,603	216,330	254,894	238,703	+17.8	+6.8	2,693,949	2,738,367	+1.6
Stocks, end of month.....gallons	894,993	888,328	875,424	946,258	980,202	1,005,571	938,737	+2.6	+7.1			
<b>Roofing</b>												
Roofing, felt:												
Production, dry felt.....tons	26,665	23,997	25,502	19,249	16,191	21,042	19,833	+30.0	+6.1	281,420	303,609	+7.9
Stocks, end of month, dry felt.....tons	3,974	4,465	4,790	5,009	4,970	6,382	4,630	+28.4	+37.8			
Prepared roofing shipments:												
Total.....thous. of sqs.	2,903	3,011	3,312	2,326	2,039	2,387	2,420	+17.1	-1.4	36,540	39,869	+9.1
<b>Fats and Oils</b>												
Total vegetable oils and copra:												
Exports.....thous. of lbs.	1,285	2,632	3,061	3,362	3,828	4,666	2,884	+21.9	+61.8	54,006	28,657	-46.9
Imports.....thous. of lbs.	109,091	82,942	88,409	67,961	80,124	84,194	74,261	+5.1	+13.4	762,773	1,068,389	+40.1
Copra, imports.....short tons	26,622	18,007	17,208	19,722	15,022	18,488	23,474	+23.1	-21.2	250,489	283,968	+13.4
Copra or coconut oil:												
Imports.....thous. of lbs.	36,623	36,952	36,770	24,728	39,775	37,699	35,164	-5.2	+7.2	290,638	411,937	+41.7
Consumption in oleomargarine.....thous. of lbs.	14,715	16,075	19,511	16,803	17,917	18,490	15,455	+3.2	+19.6	159,852	185,506	+16.0
Oleomargarine:												
Production.....thous. of lbs.	28,400	30,562	36,624	33,432	32,883	32,540	29,474	-1.0	+10.4	316,489	356,246	+12.6
Consumption.....thous. of lbs.	25,788	31,423	34,591	35,281	32,145	30,309	27,847	-5.7	+8.8	317,465	352,474	+11.0
Animal glues, shipments.....thous. of lbs.	7,231	6,749	8,071	6,146	5,757		6,109			79,441	80,430	+1.2
<b>Cottonseed</b>												
Cottonseed:												
Receipts at mills.....short tons	239,538	920,318	1,487,577	763,046	566,192	321,230	414,705	-43.3	-22.5	4,935,770	4,779,057	-3.2
Consumption (crush).....short tons	121,769	488,946	896,904	785,271	618,821	665,552	747,740	+7.6	-11.0	4,613,650	5,003,622	+8.5
Stocks at mills, end of month.....short tons	159,109	590,747	1,181,420	1,159,195	1,106,566	760,745	999,198	-31.3	-23.9			
Cottonseed oil, crude:												
Production.....thous. of lbs.	35,453	149,388	276,280	245,396	192,001	207,046	236,916	+7.8	-12.6	1,460,469	1,582,127	+8.3
Stocks, end of month.....thous. of lbs.	29,232	77,339	121,341	124,002	116,150	126,525	141,243	+8.9	-10.4			
Cottonseed oil, refined:												
Production.....thous. of lbs.	24,376	82,859	206,597	218,269	187,050	172,089	203,358	-8.0	-15.4	1,330,765	1,448,468	+8.8
Stocks, end of month.....thous. of lbs.	234,922	175,023	232,699	326,843	422,335	465,226	511,338	+10.2	-9.0			
Price, yellow, prime, New York.....dolls. per lb.	.094	.093	.093	.090	.087	.084	.103	-3.4	-18.4			
Consumption in oleomargarine.....thous. of lbs.	2,387	2,362	3,022	2,852	3,511	2,629	2,283	-25.1	+15.2	26,931	30,173	+12.0
Cottonseed cake and meal:												
Production.....short tons	56,311	215,663	398,987	349,335	272,531	297,234	338,282	+9.1	-12.1	2,085,442	2,246,076	+7.7
Stocks, end of month.....short tons	51,727	83,778	162,074	199,181	203,554	206,062	238,778	+1.2	-13.7			
Exports.....short tons	12,837	21,608	33,434	23,714	30,894	25,063	34,135	-18.9	-26.6	290,510	236,995	-18.4
<b>Flaxseed</b>												
Minneapolis and Duluth:												
Receipts.....thous. of bush.	1,479	4,111	3,189	1,313	575	251	369	-56.3	-32.0	18,104	13,207	-27.0
Shipments.....thous. of bush.	567	1,655	1,697	1,445	592	163	283	-72.5	-42.4	10,624	7,920	-25.5
Stocks, end of month.....thous. of bush.	23	909	1,179	594	882	877	1,063	-0.6	-17.5			
Imports.....thous. of bush.	1,020	842	2,582	1,686	1,290	1,074	1,411	-16.7	-23.9	17,599	24,185	+37.4
Mill receipts at Duluth—												
Superior.....thous. of bush.	42	572	935	96	4,919		69			2,240	6,804	+203.8
Price, No. 1, Minneapolis.....dolls. per bush.	2.79	3.23	3.32	3.24	3.22	3.08	2.45	-4.3	+25.7			
Linseed oil:												
Shipments from Minneapolis.....thous. of lbs.	10,787	14,789	13,707	8,467	5,043	5,198	12,782	+3.1	-59.3	170,859	155,219	-9.2
Price, New York.....dolls. per lb.	.129	.155	.159	.150	.147	.140	.100	-4.8	+40.0			
Linseed cake and meal:												
Shipments from Minneapolis.....thous. of lbs.	15,683	27,415	30,466	17,442	18,977	20,859	24,411	+9.9	-14.6	274,837	226,131	-17.7
Exports.....thous. of lbs.	474,874	59,539	52,423	53,104	48,745	52,833	45,718	+8.4	+15.6	561,650	734,429	+30.8
<b>FOODSTUFFS</b>												
<b>Wheat</b>												
Visible supply, end of month:												
United States.....thous. of bush.	190,911	198,982	202,781	191,833	185,113	168,925	130,063	-8.7	+29.9			
Canada.....thous. of bush.	96,224	156,620	213,381	217,102	217,903	210,643	188,742	-3.3	+11.6			
Stocks, millers' end of quarter.....thous. of bush.		174,776			150,048		153,866	-14.1	-2.4			
Receipts, principal markets.....thous. of bush.	101,669	47,046	36,256	20,625	22,887	17,530	22,537	-23.4	-22.2	522,787	462,899	-11.5
Shipments, principal markets.....thous. of bush.	60,983	32,134	27,116	24,121	16,402	14,170	16,762	-13.6	-15.5	305,522	310,114	+1.5
Exports:												
United States—												
Wheat only.....thous. of bush.	12,094	13,104	8,767	9,977	7,067	8,245	3,399	+16.7	+142.6	96,270	90,047	-6.5
Including wheat flour.....thous. of bush.	16,935	18,335	14,664	15,181	12,121	13,825	9,559	+14.1	+44.6	150,036	151,912	+1.3
Canada—												
Including wheat flour.....thous. of bush.	13,050	9,624	23,215	24,866	18,684	7,258	25,030	-61.2	-71.0	413,747	253,789	-38.7
Prices:												
No. 1, Northern Spring, Minneapolis.....dolls. per bush.	1.35	1.35	1.31	1.28	1.31	1.27	1.21	-3.1	+5.0			
No. 2 Red Winter, St. Louis.....dolls. per bush.	1.32	1.35	1.32	1.29	1.35	1.34	1.42	-0.7	-5.6			
No. 2 Hard Winter, Kansas City.....dolls. per bush.	1.23	1.24	1.22	1.19	1.21	1.19	1.14	-1.7	+4.4			
<b>Wheat Flour</b>												
Grindings of wheat:												
United States.....thous. of bush.	50,725	47,583	50,445	43,913	41,062	43,821	45,767	+6.7	-4.3	521,449	528,731	+1.4
Canada.....thous. of bush.	7,178	5,745	6,814	7,261	4,837	5,201	7,794	+7.5	-33.3	90,380	83,983	-7.1
Production:												
United States, actual.....thous. of bbls.	11,058	10,372	10,968	9,538	8,905	9,506	10,014	+6.7	-5.1	113,129	115,308	+1.9
United States, prorated.....thous. of bbls.	12,561	11,870	12,153	10,740	9,770	10,808	10,808			126,731	129,188	+1.9
Canada.....thous. of bbls.	1,607	1,283	1,528	1,629	1,073	1,168	1,698	+8.9	-31.2	19,791	18,555	-6.2

<sup>2</sup> Quarter ending in month indicated.

<sup>3</sup> Quarter ending Dec. 31, 1928.

<sup>4</sup> Revised.

## TREND OF BUSINESS MOVEMENTS—Continued

	1929					1930	1929	PER CENT INCREASE (+) OR DECREASE (-)		CUMULATIVE TOTAL FROM JAN. 1 THROUGH DEC. 31		Per cent. increase (+) or decrease (-) cumulative 1929 from 1928
	August	September	October	November	December	January	January	Jan., 1930, from Dec., 1929	Jan., 1930, from Jan., 1929	1928	1929	
<b>FOODSTUFFS—Continued</b>												
<b>Wheat Flour—Continued</b>												
Grain offal, production.....thous. of lbs.	882,931	831,523	886,004	776,745	728,157	773,732	792,580	+6.3	-2.4	9,105,982	9,223,850	+1.3
Capacity operated, flour mills.....per cent.	62	66	62	58	54	56	58	+3.7	-3.4			
Consumption (computed).....thous. of bbls.	11,686	10,006	11,642	9,884	8,043		9,229			113,516	113,813	+0.3
Stocks, all positions, end of month (computed).....thous. of bbls.	8,800	9,500	8,700	8,400	9,100		7,580					
Stocks, millers', end of quarter.....thous. of bbls.		2 4,479			2 4,724		4 4,597	+5.5	+2.8			
Exports:												
United States.....thous. of bbls.	1,076	1,163	1,311	1,156	1,123	1,240	1,369	+10.4	-9.4	11,949	13,747	+15.0
Canada.....thous. of bbls.	643	492	554	538	605	503	933	-16.9	-46.1	10,737	9,520	-11.3
Wholesale prices:												
Standard patents, Minn.....dolls. per bbl.	7.31	7.17	6.91	6.69	6.88	6.75	6.34	-1.9	+6.5			
Winter, straights,												
Kansas City.....dolls. per bbl.	6.24	6.10	6.01	5.92	5.95	5.84	5.52	-1.8	+5.8			
<b>Corn</b>												
Exports, including meal.....thous. of bush.	895	693	732	752	870	819	12,357	-5.9	-33.7	26,900	34,848	+29.5
Visible supply, end of month.....thous. of bush.	5,765	4,638	3,924	3,646	8,469	16,286	28,012	+92.3	-41.9			
Receipts, principal markets.....thous. of bush.	19,023	19,532	18,303	18,526	31,221	31,344	39,876	+0.4	-21.4	331,047	266,974	-19.4
Shipments, prin. markets.....thous. of bush.	13,643	11,082	11,075	9,287	15,493	16,438	19,838	+6.1	-17.1	212,465	172,587	-18.8
Grindings (starch, glucose).....thous. of bush.	7,672	7,913	8,721	6,453	6,053	7,622	8,364	+25.9	-8.9	86,924	86,617	-0.4
Prices:												
No. 3, Yellow, Chicago.....dolls. per bush.	1.01	1.01	.95	.88	.88	.85	.93	-3.4	-8.6			
No. 3, Yellow,												
Kansas City.....dolls. per bush.	.99	.99	.92	.87	.84	.82	.87	-2.4	-5.7			
No. 3, White, Chicago.....dolls. per bush.	1.01	1.02	.96	.87	.88	.86	.95	-2.3	-9.5			
<b>Barley</b>												
Receipts, principal markets.....thous. of bush.	18,666	7,807	5,554	3,808	3,848		3,970			102,498	67,405	-34.2
Visible supply, end of month.....thous. of bush.	9,805	9,519	9,877	9,886	9,927	4 8,894	8,932	-60.7	-45.2			
Exports.....thous. of bush.	4,624	6,209	1,795	1,038	1,213	734	2,277	-39.5	-67.8	57,597	32,642	-43.3
Price, No. 2, Minneapolis.....dolls. per bush.	.61	.60	.59	.60	.59	.58	.66	-1.7	-12.1			
<b>Oats</b>												
Receipts, principal markets.....thous. of bush.	36,320	13,833	15,336	7,098	7,084	6,741	9,919	-4.8	-32.0	154,281	146,222	-5.2
Visible supply, end of month.....thous. of bush.	25,897	28,809	32,069	29,720	29,314	25,220	16,212	-14.0	+55.6			
Exports, including meal.....thous. of bush.	1,182	1,640	1,320	955	443	377	1,273	-14.9	-70.4	14,801	10,823	-26.9
Price, No. 3, White, Chicago.....dolls. per bush.	.43	.48	.47	.45	.45	.45	.50	0.0	-10.0			
Grindings, Canada.....thous. of bush.	1,101	975	1,156	908	793	661	824	-16.6	-19.8	11,403	11,032	-3.3
Production, oatmeal and rolled oats, Canada.....thous. of lbs.	14,228	12,263	14,632	10,457	8,891	7,318	9,956	-17.7	-26.5	149,620	137,489	-8.1
<b>Rye</b>												
Receipts, principal markets.....thous. of bush.	5,766	3,720	3,405	1,496	5,946		1,045			27,925	27,689	-0.8
Visible supply, end of month.....thous. of bush.	8,015	8,889	9,903	10,588	8,656		5,973					
Exports, including flour.....thous. of bush.	470	1,220	562	22	26	28	197	+7.7	-85.8	14,671	3,521	-76.0
Price, No. 2, Minneapolis.....dolls. per bush.	.98	.97	.97	.95	.98	.91	1.01	-7.1	-9.9			
<b>Total Grains</b>												
Total grains exports, incl. flour.....thous. of bush.	4 24,106	4 28,097	4 19,073	4 17,948	4 14,673	15,783	4 25,663	+7.6	-38.5	4 264,005	4 233,746	-11.5
<b>Rice</b>												
Southern paddy, receipts at mills.....bbls.	583,944	1,387,795	2,330,286	1,415,999	797,381	869,702	621,096	+9.1	+40.0	10,252,010	9,146,581	-10.8
Shipments:												
Total from mills.....pockets (100 lbs.)	506,895	841,027	1,376,400	1,133,769	1,023,346	1,073,165	973,256	+4.9	+10.3	10,247,434	10,062,958	-1.8
New Orleans.....pockets (100 lbs.)	126,470	156,232	249,474	178,168	132,592	88,638	146,342	-33.1	-39.4	2,016,420	1,729,393	-14.2
Stocks, end of month.....pockets (100 lbs.)	506,953	1,099,055	2,173,838	2,551,417	2,439,182	2,317,594	2,515,008	-5.0	-7.8			
Exports.....pockets (100 lbs.)	221,314	131,509	229,686	340,753	420,212	323,281	504,921	-23.1	-36.0	3,793,709	3,860,140	+1.8
Imports.....pockets (100 lbs.)	5,549	6,292	6,662	12,494	53,488	34,334	76,593	-35.8	-55.2	335,984	255,129	-24.1
<b>Other Crops</b>												
Apples:												
Cold-storage holdings, end of month.....thous. of bbls.	79	1,633	7,997	9,380	7,967	6,036	6,875	-24.2	-12.2			
Car-lot shipments.....carloads	3,532	13,114	36,366	14,046	5,729	6,095	7,656	+6.4	-20.4	116,102	101,009	-13.0
Potatoes, car-lot shipments.....carloads	16,871	23,978	31,253	15,299	14,826	19,479	19,479	+33.9	+1.9	250,626	246,612	-1.6
Onions, car-lot shipments.....carloads	2,545	5,040	5,484	2,815	2,232	3,277	2,436	+46.8	+34.5	33,759	35,398	+4.9
Citrus fruits, car-lot shipments.....carloads	7,348	5,684	8,652	8,936	10,927	10,091	15,226	-7.7	-33.7	94,176	137,464	+46.0
<b>Cattle and Beef</b>												
Cattle movements, primary markets:												
Receipts.....thousands	1,616	2,099	2,401	1,939	1,551	1,639	1,635	+5.7	+0.2	21,477	20,380	-5.1
Shipments, total.....thousands	685	885	1,267	1,009	626	623	561	-0.5	+11.1	9,008	8,379	-7.0
Shipments, stocker and feeder.....thousands	267	423	757	556	255	233	178	-8.6	+30.9	3,966	3,651	-7.9
Local slaughter.....thousands	938	1,116	1,188	957	921	995	1,057	+8.0	-5.9	12,309	11,868	-3.6
Beef products:												
Production, inspected.....thous. of lbs.	406,700	419,281	458,440	399,272	370,843	408,525	419,676	+10.2	-2.7	4,727,007	4,727,582	-----
Apparent consumption.....thous. of lbs.	419,494	423,701	453,543	386,168	436,142	415,582	430,985	+14.1	-3.6	4,813,354	4,848,105	+4.7
Exports.....thous. of lbs.	1,457	1,259	1,223	1,100	1,175	1,292	1,119	+10.0	+15.5	13,314	16,349	+22.8
Cold-storage holdings, end of month.....thous. of lbs.	48,014	56,434	72,059	93,444	103,883	98,997	93,990	-4.7	+5.3			
Prices:												
Cattle, corn-fed, Chicago.....dolls. per 100 lbs.	14.69	13.80	13.31	12.69	12.13	12.47	13.53	+2.8	-7.8			
Steer rounds, No. 2.....dolls. per lb.	.238	.236	.236	.240	.240	.240	.240	0.0	0.0			
Western dressed steers, N. Y.....dolls. per lb.	.251	.250	.238	.236	.235	.235	.245	0.0	-4.1			

2 Quarter ending in month indicated.

3 Quarter ending Dec. 31, 1928.

4 Revised.

## TREND OF BUSINESS MOVEMENTS—Continued

The cumulatives shown are through December except where otherwise noted. Earlier data for items shown here may be found on pages 27 to 138 of the February, 1930, "Survey"	1929					1930	1929	PER CENT INCREASE (+) OR DECREASE (-)		CUMULATIVE TOTAL FROM JAN. 1 THROUGH DEC. 31		Per ct. in-crease (+) or decrease (-) cumulative 1929 from 1928
	August	September	October	November	December	January	January	Jan., 1930, from Dec., 1929	Jan., 1930, from Jan., 1929	1928	1929	
	<b>FOODSTUFFS—Continued</b>											
<b>Hogs and Pork</b>												
Hog movements, primary markets:												
Receipts..... thousands..	2,930	3,062	3,674	3,910	4,221	4,720	5,061	+11.8	-6.7	46,527	43,564	-6.4
Shipments, total..... thousands..	1,124	1,123	1,377	1,394	1,437	1,797	1,864	+24.2	-3.6	17,190	16,115	-6.3
Shipments, stocker and feeder..... thousands..	38	40	50	52	53	38	47	-28.3	-19.1	735	623	-15.2
Local slaughter..... thousands..	1,810	1,923	2,310	2,521	2,767	2,905	3,194	+5.0	-9.0	29,284	27,426	-6.3
Pork products, total:												
Production, inspected..... thous. of lbs..	586,150	552,490	651,681	738,485	851,300	874,334	974,060	+2.7	-10.2	8,579,289	8,430,319	-1.7
Apparent consumption..... thous. of lbs..	617,432	614,108	717,951	657,403	602,470	691,172	622,505	+14.7	+10.0	7,330,460	7,299,454	-0.4
Exports..... thous. of lbs..	87,277	84,650	97,196	114,707	104,377	105,817	122,577	+1.4	-13.7	1,084,785	1,191,563	+9.8
Cold-storage holdings, end of month:												
Total..... thous. of lbs..	899,485	754,188	591,247	558,146	703,084	780,925	978,806	+11.1	-20.2			
Fresh and cured..... thous. of lbs..	719,400	600,498	491,402	489,629	620,986	688,249	838,280	+10.8	-17.9			
Lard (included in pork products):												
Production..... thous. of lbs..	121,894	114,179	128,951	144,987	176,607		213,780			1,749,749	1,763,143	+0.8
Exports..... thous. of lbs..	55,487	58,329	70,698	83,257	80,053	73,291	89,932	-8.4	-18.5	759,686	829,114	+9.1
Cold-storage holdings, end of month..... thous. of lbs..												
	180,085	153,690	99,845	68,517	82,098	92,676	140,528	+12.9	-34.1			
Prices:												
Hogs, heavy, Chicago.....dolls. per 100 lbs..	10.66	9.96	9.65	9.27	9.47	9.61	9.10	+1.5	+5.6			
Ham, smoked, Chicago.....dolls. per lb..	.275	.267	.242	.218	.215	.239	.232	+11.2	+3.0			
Lard, prime contract, N. Y.....dolls. per lb..	.124	.122	.114	.109	.108	.109	.121	+0.9	-9.9			
<b>Sheep and Lambs</b>												
Sheep movement, primary market:												
Receipts..... thousands..	2,537	3,353	4,091	2,167	1,701	1,903	1,876	+11.9	+1.4	25,597	26,834	+4.8
Shipments, total..... thousands..	1,384	1,969	2,818	1,207	732	786	837	+7.4	-6.1	13,323	13,973	+4.9
Shipments, stocker and feeder..... thousands..	639	1,027	1,831	575	183	126	188	-31.1	-33.0	5,009	5,565	+11.1
Local slaughter..... thousands..	1,155	1,301	1,326	994	966	1,111	1,040	+15.0	+6.8	12,252	12,841	+4.8
Lamb and mutton:												
Production, inspected..... thous. of lbs..	49,096	50,158	52,677	45,233	43,742	50,289	45,485	+15.0	+10.6	522,551	545,492	+4.4
Apparent consumption..... thous. of lbs..	48,743	49,551	51,963	44,976	43,605	50,913	47,139	+16.8	+8.0	523,560	549,603	+5.0
Cold-storage holdings, end of month..... thous. of lbs..												
	3,159	4,113	4,992	5,194	5,317	4,664	4,009	-13.3	+16.3			
Prices:												
Sheep, ewes, Chicago.....dolls. per 100 lbs..	5.16	4.68	4.63	4.98	4.94	6.26	8.39	+26.7	-25.4			
Sheep, lambs, Chicago.....dolls. per 100 lbs..	12.88	12.55	12.09	11.97	12.00	12.68	15.59	+5.7	-18.7			
<b>Miscellaneous Meats</b>												
Cold-storage holdings, end of mo. thous. of lbs..												
	76,539	71,511	63,914	72,744	89,742	88,975	88,678	-0.9	+0.3			
<b>Total Meats</b>												
Production, inspected..... thous. of lbs..	1,041,946	1,021,929	1,162,798	1,182,990	1,265,885	1,333,148	1,439,221	+5.3	-7.4	13,828,845	13,703,393	-0.9
Cold-storage holdings, end of mo. thous. of lbs..	1,027,197	886,246	732,212	729,528	902,026	973,561	1,165,483	+7.9	-16.5			
Apparent consumption..... thous. of lbs..	1,085,667	1,087,369	1,223,571	1,088,547	1,010,217	1,157,668	1,106,629	+14.6	+4.6	12,667,374	12,693,989	+0.2
<b>Poultry</b>												
Receipts at 5 markets..... thous. of lbs..												
	26,150	28,477	37,725	73,662	77,325	33,386	30,969	-56.8	+7.8	355,904	389,517	+9.4
Cold-storage holdings, end of mo. thous. of lbs..												
	49,010	61,976	86,873	115,876	140,723	141,461	102,380	+0.5	+38.2			
<b>Fish</b>												
Total catch, prin. ports..... thous. of bbls..												
	43,903	50,270	33,243	27,332	18,074		15,496			296,614	373,227	+25.8
Cold-storage holdings, 15th of mo. thous. of lbs..												
	64,723	72,198	75,323	78,968	75,847	62,428	62,375	-17.7	+0.1			
Canned salmon:												
Shipments, United States.....cases..	830,404	937,041	584,590	378,695	553,078	505,831	523,761	-8.5	-3.4	5,689,943	5,481,897	-3.7
Exports, Canada.....cases..	53,100	118,250	162,831	177,252	159,488	71,285	205,066	-55.3	-65.2	1,340,415	1,260,527	-6.0
<b>Butter</b>												
Production (factory)..... thous. of lbs..												
	144,436	117,431	109,733	90,631	94,350	103,949	95,234	+10.2	+9.2	1,487,049	1,488,527	+0.1
Receipts, 5 markets..... thous. of lbs..												
	54,885	44,500	42,963	38,228	39,843	43,507	44,925	+9.2	-3.2	578,773	602,668	+4.1
Cold-storage holdings, creamery, end of month..... thous. of lbs..												
	168,952	158,541	138,405	111,650	81,935	60,229	24,747	-26.5	+143.4			
Apparent consumption..... thous. of lbs..												
	185,708	174,193	172,923	153,125	160,464	160,417	157,457	+1.9	-22.9	2,080,316	2,112,530	+1.5
Wholesale price, New York.....dolls. per lb..												
	.43	.46	.46	.43	.41	.37	.48	-9.8				
<b>Cheese</b>												
Total, all varieties:												
Production (factory)..... thous. of lbs..	37,751	30,373	27,665	22,554	22,542	23,807	29,219	+5.6	-18.5	525,044	436,869	-16.8
Receipts, 5 markets..... thous. of lbs..	18,605	15,289	14,344	11,828	10,880	12,525	13,781	+15.1	-9.1	198,614	178,900	-9.0
Apparent consumption..... thous. of lbs..	39,453	38,414	42,329	37,112	35,695	40,424	40,192	+13.2	+0.6	493,657	460,014	-6.8
Cold-storage holdings, end mo. thous. of lbs..												
	106,009	102,849	94,879	86,949	80,623	69,185	74,016	-14.2	-6.5			
Imports..... thous. of lbs..												
	5,268	4,929	6,911	6,902	7,015	5,361	7,291	-23.6	-26.5	81,402	76,423	-6.1
Exports, United States..... thous. of lbs..												
	138	284	195	130	241	181	244	-24.9	-25.8	2,601	2,644	+1.7
Exports, Canada..... thous. of lbs..												
	11,047	16,954	17,144	13,925	4,963	1,552	1,500	-68.7	+3.5	114,152	92,946	-18.6
American whole milk:												
Cold-storage holdings, end of month..... thous. of lbs..												
	86,558	84,815	78,058	71,065	63,478	53,675	57,764	-15.4	-7.1			
Wholesale price, New York.....dolls. per lb..												
	.23	.24	.24	.24	.23	.21	.25	-8.7	-16.0			
<b>Eggs</b>												
Receipts, 5 markets..... thous. of cases..												
	1,151	944	735	532	633	917	918	+44.9	-0.1	16,138	15,710	-2.7
Cold-storage holdings, end of month:												
Case..... thous. of cases..	8,547	7,195	4,930	2,631	704	139	248	-80.3	-44.0			
Frozen..... thous. of lbs..	86,693	81,541	70,331	61,772	53,644	44,083	48,055	-17.8	-8.3			

Revised.

## TREND OF BUSINESS MOVEMENTS—Continued

The cumulatives shown are through December except where otherwise noted. Earlier data for items shown here may be found on pages 27 to 138 of the February, 1930, "Survey"	1929					1930	1929	PER CENT INCREASE (+) OR DECREASE (-)		CUMULATIVE TOTAL FROM JAN. 1 THROUGH DEC. 31		Per ct. increase (+) or decrease (-) cumulative 1929 from 1928
	August	September	October	November	December	January	January	Jan., 1930, from Dec., 1929	Jan., 1930, from Jan., 1929	1928	1929	
	<b>FOODSTUFFS—Continued</b>											
<b>Milk</b>												
<b>Condensed milk:</b>												
Total stocks, mfrs., end mo.—												
Case goods.....thous. of lbs.	32,142	29,893	29,182	27,126	25,462	21,740	10,393	-14.6	+109.2			
Bulk goods.....thous.	29,217	30,038	27,559	24,514	23,606	22,884	6,271	-3.1	+264.9			
Unsold stocks, mfrs., end mo.—												
Case goods.....thous. of lbs.	26,950	24,237	23,614	21,732	20,341	16,502	5,339	-18.9	+209.1			
Bulk goods.....thous.	8,751	8,019	7,735	6,855	7,600	6,289	2,925	-17.2	+114.7			
Exports.....thous. of lbs.	3,366	3,116	4,019	2,771	3,100	2,623	3,432	-15.4	-2.6	38,624	41,277	+6.9
Wholesale price, New York,dolls. per case..	6.13	6.13	6.13	6.13	6.13	6.13	6.18	0.0	-0.8			
<b>Evaporated milk:</b>												
Manufacturers' stocks, end of mo.—												
Total, case goods.....thous. of lbs.	272,427	249,936	244,035	231,970	211,954	175,974	137,163	-17.0	+28.3			
Unsold, case goods.....thous. of lbs.	186,717	192,761	192,084	185,455	169,345	143,769	112,430	-15.1	+27.9			
Exports.....thous. of lbs.	4,609	3,703	5,179	4,767	5,339	5,839	6,021	+9.4	-3.0	76,790	68,922	-10.2
Wholesale price, New York,dolls. per case..	4.30	4.21	3.95	3.95	3.95	3.95	4.58	0.0	-13.8			
<b>Production, condensed and evaporated milk.....thous. of lbs.</b>												
	180,084	136,738	124,434	107,119	117,095	125,073	129,982	+6.8	-3.8	1,918,427	2,126,582	+10.9
<b>Powdered milk:</b>												
Manufrs.' stocks, end mo.....thous. of lbs.												
	33,491	30,775	29,118	29,616	31,061	27,870	13,450	-10.3	+107.2			
Exports.....thous. of lbs.	250	329	678	446	561	944	372	+68.3	+153.8	4,018	5,342	+33.0
Net new orders.....thous. of lbs.	8,069	7,780	6,879	6,927	6,845		5,496			71,558	82,420	+15.2
<b>Fluid milk:</b>												
<b>Receipts—</b>												
Boston (includ. cream).....thous. of qts.												
	19,115	18,273	18,699	18,990	18,224		16,631			214,375	221,352	+3.3
Greater New York.....thous. of qts.												
	114,768	116,205	116,449	111,999			111,129			1,360,171		
<b>Production—</b>												
Minneapolis, St. Paul.....thous. of lbs.												
	25,737	21,974					28,388			315,102		
Consumption in manufacture of oleomargarine.....thous. of lbs.												
	8,144	8,824	10,321	9,486	9,169	9,035	8,036	-1.4	+12.4	93,495	98,841	+5.7
<b>Sugar</b>												
<b>Raw:</b>												
<b>Imports—</b>												
From Hawaii, Porto Rico.....long tons.												
	90,922	120,481	92,684	31,962	14,232	77,132	68,900	+442.0	+11.9	1,360,682	1,192,742	-12.3
From foreign countries.....long tons.												
	410,479	292,699	256,953	182,891	156,031	192,123	255,768	+23.1	-24.9	3,443,615	4,362,189	+26.7
Meltings, 8 ports.....long tons.												
	504,207	322,716	380,758	305,946	235,605	326,416	332,872	+38.5	-1.9	4,726,175	4,776,711	+1.1
Stocks at refineries, end month.....long tons.												
	830,508	873,286	798,870	728,484	682,429	616,247	221,334	-9.7	+178.4			
<b>Refined:</b>												
Shipments, 2 ports.....long tons.												
	89,294	47,447	60,610	37,394	45,152	60,224	50,026	+33.4	+20.4	713,862	806,057	+12.5
Stocks, 2 ports.....long tons.												
	47,419	49,631	39,375	43,783	46,243	32,994	28,042	-28.7	+17.7			
Exports, including maple.....long tons.												
	8,579	5,705	5,674	4,454	3,363	5,637	8,243	+67.6	-31.6	111,895	91,896	-17.9
<b>Prices:</b>												
Wholesale, 96° centrif., N. Y. dolls. per lb.												
	.038	.040	.040	.038	.038	.037	.038	-2.6	-2.6			
Wholesale, granulated, N. Y. dolls. per lb.												
	.054	.053	.054	.050	.050	.051	.050	+2.0	+2.0			
Retail, granulated, N. Y. dolls. per lb.												
	.060	.061	.061	.061	.059	.059	.061	0.0	-3.3			
Retail average, 51 cities.....relative to 1913.												
	120	122	122	122	120	120	122	0.0	-1.6			
<b>Cuban movement (raw):</b>												
Receipts at Cuban ports.....long tons.												
	211,090	120,530	94,130	88,875	116,101	192,153	638,996	+65.5	-69.9	3,970,201	4,892,060	+23.2
Exports.....long tons.												
	464,310	349,972	241,256	174,904	192,160	145,189	237,350	-24.4	-38.8	3,976,268	4,666,873	+17.4
Stocks, end of month.....long tons.												
	739,068	503,592	326,927	254,694	181,460	312,187	457,157	+72.0	-31.7			
<b>Candy</b>												
Sales by manufacturers.....thous. of dolls.												
	26,164	34,779	38,484	37,884	33,657	24,538	24,114	-27.1	+1.8		344,177	
<b>Coffee</b>												
Imports.....thous. of bags.												
	875	925	1,004	822	955	1,036	1,033	+8.5	+0.3	12,022	11,230	-6.6
<b>Visible supply:</b>												
World.....thous. of bags.												
	5,269	5,227	5,043	4,979	5,079	5,119	5,038	+0.8	+1.6			
United States.....thous. of bags.												
	685	689	686	598	693	671	732	-3.2	-8.3			
Receipts, total, Brazil.....thous. of bags.												
	1,191	1,266	1,365	1,446	1,553	1,455	1,139	-6.3	+27.7	14,119	14,606	+3.4
<b>Clearances:</b>												
Total, Brazil, for world.....thous. of bags.												
	1,242	1,234	1,324	1,214	1,199	1,470	1,176	+22.6	+25.0	13,660	13,972	+2.3
Total, Brazil, for U. S.....thous. of bags.												
	655	642	682	573	587	881	678	+50.1	+29.9	7,299	7,138	-2.2
Price, Rio No. 7, Brazil grades.....dolls. per lb.												
	.161	.158	.139	.116	.099	.103	.183	+4.0	-43.7			
<b>Tea</b>												
Imports.....thous. of lbs.												
	7,019	8,737	10,555	9,087	8,680	6,537	10,073	-24.7	-35.1	89,983	89,373	-0.7
Price, Formosa fine, New York.....dolls. per lb.												
	.310	.310	.310	.310	.304	.300	.322	-1.3	-6.8			
<b>Cocoa</b>												
Shipments from the Gold and Nigerian Coasts, Africa.....long tons.												
	5,238	4,459	18,491	40,483	36,748	43,838	59,863	+19.3	-26.8	269,974	287,918	+6.6
Imports.....long tons.												
	15,922	10,481	16,147	14,270	22,824	25,176	15,753	+10.3	+59.8	169,298	226,598	+33.8
Spot price, Accra, New York.....dolls.												
	.1081	.1100	.1063	.0920	.0931	.0938	.1038	+0.8	-9.6			
<b>TOBACCO</b>												
<b>Consumption (tax-paid withdrawals):</b>												
Large cigars.....thousands.												
	598,583	591,738	701,711	622,938	410,863	418,900	427,716	+2.0	-2.1	6,453,669	6,551,683	+1.5
Small cigarettes.....thousands.												
	10,930,629	10,350,544	11,202,294	9,041,043	8,261,357	10,208,232	10,160,263	+23.6	+0.5	105,915,965	119,038,843	+12.4
Manufac. tobacco and snuff.....thous. of lbs.												
	34,470	32,260	33,738	28,342	24,682	33,014	33,160	+33.8	-0.4	384,112	377,755	-1.7
<b>Exports:</b>												
Unmanufactured.....thous. of lbs.												
	41,343	55,965	79,150	72,609	66,504	46,885	45,804	-29.5	+2.4	583,843	567,992	-2.7
Cigarettes.....thousands.												
	659,187	558,249	586,767	433,294	683,757	465,464	1,010,368	-31.9	-53.9	11,706,110	8,455,401	-27.8
Sales of loose-leaf warehouses.....thous. of lbs.												
	76,238	133,771	166,456	151,945			174,751			817,969		
<b>Stocks, end of quarter:</b>												
Chewing, smoking, snuff, and export.....thous. of lbs.												
		2,124,166			2,130,499		3,373,637	+9.6	-3.1			
Cigar tobacco.....thous. of lbs.												
		2,313,147			2,265,430		3,278,845	-15.2	-4.8			
Total, including imported.....thous. of lbs.												
		2,161,938			2,168,290		3,175,408	+4.2	-4.3			

<sup>1</sup> Quarter ending in month indicated.

<sup>2</sup> Quarter ending Dec. 31, 1928.

<sup>3</sup> Revised.

## TREND OF BUSINESS MOVEMENTS—Continued

The cumulatives shown are through December except where otherwise noted. Earlier data for items shown here may be found on pages 27 to 138 of the February, 1930, "Survey"	1929					1930	1929	PER CENT INCREASE (+) OR DECREASE (-)	CUMULATIVE TOTAL FROM JAN. 1 THROUGH DEC. 31		Perct. increase (+) or decrease (-) cumulative 1929 from 1928	
	August	September	October	November	December	January	January		Jan., 1930, from Dec., 1929	Jan., 1930, from Jan., 1929		1928
	<b>TRANSPORTATION</b>											
<b>River and Canal Cargo Traffic</b>												
Panama Canal:												
Total cargo traffic.....thous. of long tons	2,681	2,433	2,846	2,535	2,525		2,859			29,394	31,452	+7.0
In American vessels.....thous. of long tons	1,311	1,194	1,344	1,271	1,219		1,213			13,560	14,845	+9.5
In British vessels.....thous. of long tons	639	600	774	579	718		806			8,195	8,265	+0.8
Sault Ste. Marie canals.....thous. of short tons	14,085	13,358	11,213	6,952	482					86,993	92,622	+6.5
New York State canals.....thous. of short tons	380	389	491	333						3,139		
Cape Cod Canal.....short tons	206,188	199,955	243,698	196,259	189,811	186,172	141,496	-1.9	+31.6	1,405,782	2,165,465	+54.0
Suez Canal.....thous. of metr. tons	2,762	2,772	2,997	2,726	2,919		2,990			32,622	34,536	+5.9
Welland Canal.....short tons	612,943	574,241	623,651	448,150	47,603					7,439,617	4,769,866	-35.9
St. Lawrence Canal.....short tons	809,323	775,772	749,287	523,328	23,942					8,411,542	5,684,755	-32.4
Mississippi River Govt. barges.....short tons	85,000	90,947	137,021	103,000			131,918					
Ohio River, Pittsburgh, Pa., to Wheeling, W. Va.....short tons	1,080,996	1,144,682	1,151,819	1,034,382	757,527	578,224	478,265	-23.7	+20.9	10,175,011	11,206,799	+10.1
Allegheny River.....short tons	330,123	364,309	366,351	317,967	156,993	93,825	88,940	-40.2	+5.5	2,873,495	3,195,768	+11.2
Monongahela River.....short tons	2,500,617	2,374,949	2,464,099	2,367,506	2,173,207	2,134,161	2,287,541	-1.8	-6.7	26,097,158	28,258,462	+8.2
<b>Ocean Traffic</b>												
Clearances, vessels in foreign trade:												
Total.....thous. of net tons	8,428	7,559	7,503	6,971	5,607	5,693	5,484	+1.5	+3.8	79,732	82,494	+3.5
American.....thous. of net tons	3,219	2,833	3,041	2,982	2,078	2,023	1,950	-2.6	+3.7	31,804	31,907	+0.3
Foreign.....thous. of net tons	5,208	4,726	4,463	3,989	3,529	3,670	3,534	+4.0	+3.8	47,928	50,587	+5.5
<b>Shipbuilding</b>												
Completed during month:												
Total.....gross tons	32,298	28,325	8,620	14,347	13,692	23,779	7,413	+73.7	+220.8	163,932	208,790	+27.4
Steel seagoing.....gross tons	21,497	24,322	2,167	7,369	10,633	21,493	3,392	+102.1		98,253	117,993	+20.1
Building or under contract, end of month:												
Merchant vessels.....thous. of gross tons	215	254	400	384	372	376	126	+1.1	+198.4	2,684	2,994	+11.5
<b>Freight Cars</b>												
Surplus (daily av. last week of month):												
Total.....cars	158,112	118,523	124,194	340,740	447,141	293,552	278,213	-12.2	+41.1			
Box.....cars	87,985	72,612	80,956	181,198	246,982	217,024	136,959	-12.1	+58.5			
Coal.....cars	31,021	12,117	17,066	114,826	144,353	123,469	92,243	-14.5	+33.9			
Shortage (daily av. last week of month):												
Total.....cars	12	127	436			9	79		-88.6			
Box.....cars												
Coal.....cars		112	34				11					
Car loadings:												
Total.....cars	5,590,853	4,538,575	4,677,375	4,891,835	3,340,993	3,349,424	3,571,455	+0.3	-6.2	51,589,887	52,790,266	+2.3
Grain and grain products.....cars	315,570	199,367	185,681	191,975	159,676	156,665	182,094	-1.9	-14.0	2,612,937	2,394,585	-4.7
Livestock.....cars	121,285	123,644	149,101	156,889	101,798	108,036	117,943	+6.1	+8.4	1,520,915	1,418,894	-6.7
Coal and coke.....cars	916,215	811,081	877,576	1,001,992	181,589	828,272	857,973	+1.4	-3.5	9,327,270	9,860,401	+6.0
Forest products.....cars	343,449	251,726	254,356	275,208	181,810	181,810	216,960	0.0	-16.2	3,327,270	3,249,107	-2.3
Ore.....cars	378,560	274,599	240,164	146,073	32,877	33,657	35,640	+2.4	-5.6	1,909,766	2,281,257	+19.5
Merchandise and l. c. l.....cars	1,307,417	1,048,579	1,086,098	1,276,286	908,085	890,152	916,161	-2.0	-2.8	13,165,573	13,201,049	+0.3
Miscellaneous.....cars	2,208,357	1,829,579	1,884,399	1,843,412	1,140,158	1,150,832	1,244,684	+0.9	-7.5	19,851,223	20,384,973	+2.7
<b>Railroad Operations</b>												
Operating revenue:												
Freight.....thous. of dolls.	446,001	434,972	483,038	384,040	340,821		366,838					
Passenger.....thous. of dolls.	84,267	75,736	66,118	62,451	74,438		74,987					
Total operating.....thous. of dolls.	586,563	566,720	608,661	499,211	468,879		487,027					
Operating expenses.....thous. of dolls.	395,686	383,349	404,327	372,167	362,814		369,340					
Net operating income.....thous. of dolls.	152,232	133,898	152,987	86,669	72,227		77,262					
Freight carried.....mills. ton-miles	44,944	44,219	47,814	38,723	36,040		39,104					
<b>Railway Equipment</b>												
Locomotives (Am. Ry. Assn.):												
Owned, end of month—												
Quantity.....number	57,477	57,355	57,195	57,038	56,819	56,752	58,608	-0.1	-3.2			
Tractive power.....mills. of lbs.	2,540	2,540	2,538	2,535	2,531	2,531	2,559	0.0	-1.1			
In bad order, end of month—												
Quantity.....number	7,106	7,668	7,631	7,833	7,662	7,937	8,161	+3.6	-2.7			
Per cent of total in use.....per cent	12.4	13.5	13.4	13.8	13.6	14.1	14.0	+3.7	+0.7			
Installed.....number	153	127	166	187	158	160	111	+1.3	+44.1	1,390	1,722	+23.9
Retired.....number	306	248	327	343	377	227	236	-39.8	-3.8	3,333	3,601	+8.0
New orders.....number	31	84	125	84	167	163	28	-2.4	+482.1	353	1,048	+196.9
Shipments, manufacturers' (Census)—												
Total.....number	129	75	96	95	67	48	23	-28.4	+108.7	550	850	+54.5
Steam, domestic.....number	117	60	90	75	62	48	6	-22.6		367	707	+92.6
Electric, domestic.....number	6	7	6		1					92	39	-57.6
Unfilled orders (railroads), end of mo.—												
From manufacturers.....number	370	329	248	234	336	334	236	-0.6	+41.5			
In railroad shops.....number	25	25	46	65	95	107	42	+12.6	+154.8			
Unfilled orders, manufacturers' (Census)—												
Total.....number	436	429	423	398	490	585	278	+19.4	+110.4			
Steam, domestic.....number	392	347	347	340	435	527	251	+21.1	+110.0			
Electric, domestic.....number	13	55	49	49	48	48	21	0.0	+128.6			
Exports, steam.....number	30	20	11	21	13	2	18	-84.6	-88.9	199	218	+9.5
Freight cars (Am. Ry. Assn.):												
Owned, end of month—												
Quantity.....thous. of cars	2,268	2,266	2,265	2,264	2,263	2,265	2,275	+0.1	-0.4			
Capacity.....mills. of lbs.	208,897	209,001	209,137	209,340	209,516	209,908	209,014	+0.2	+0.4			
In bad order, end of month—												
Quantity.....cars	134,253	132,611	126,055	124,257	118,807	124,260	136,319	+4.6	-8.8			
Per cent of total in use.....per cent	6.0	6.0	5.7	5.6	5.4	5.6	6.2	+3.7	-9.7			

<sup>2</sup> Quarter ending in month indicated.

<sup>3</sup> Quarter ending Dec. 31, 1928.

<sup>4</sup> Revised.

## TREND OF BUSINESS MOVEMENTS—Continued

The cumulatives shown are through December except where otherwise noted. Earlier data for items shown here may be found on pages 27 to 138 of the February, 1930, "Survey"	1929					1930	1929	PER CENT INCREASE (+) OR DECREASE (-)	CUMULATIVE TOTAL FROM JAN. 1 THROUGH DEC. 31		Per ct. increase (+) or decrease (-) cumulative 1929 from 1928	
	August	September	October	November	December	January	January		Jan., 1930, from Dec., 1929	Jan., 1930, from Jan., 1929		1928
	<b>TRANSPORTATION—Continued</b>											
<b>Railway Equipment—Continued</b>												
<b>Freight cars (Am. Ry. Assn.)—Continued.</b>												
New orders.....cars..	2,562	4,257	17,207	5,126	9,785	6,632	12,452	-32.2	-46.7	37,039	98,308	+165.4
Shipments—												
Total.....cars..	7,811	7,614	7,818	6,956	7,856	8,095	1,814	+3.0	+346.3	39,436	72,215	+183.1
Domestic.....cars..	7,633	7,239	7,363	6,891	7,513	7,426	525	-1.2	-----	37,984	68,767	+81.0
Unfiled orders (railroads)—												
Total.....cars..	31,671	29,317	33,123	30,069	34,085	33,457	28,121	-1.8	+19.0	-----	-----	-----
From manufacturers.....cars..	27,289	25,554	29,857	25,677	29,796	28,057	24,109	-5.8	+16.4	-----	-----	-----
In railroad shops.....cars..	4,382	3,763	3,266	4,392	4,289	5,400	4,012	+25.9	+34.6	-----	-----	-----
Passengers cars:												
New orders.....cars..	149	-----	51	57	77	58	228	-24.7	-74.6	1,773	1,262	-28.8
Shipments—												
Total.....cars..	76	96	69	189	116	95	111	-18.1	-14.4	1,232	1,126	-8.6
Domestic.....cars..	64	77	69	149	116	80	109	-31.0	-26.7	131	1,018	-10.0
Owned or leased, end of quarter.....cars..	2 52,165	-----	-----	-----	2 51,877	-----	3 52,769	-0.6	-1.7	212,185	209,306	-1.4
Unfiled orders, end of quarter.....cars..	2 681	-----	-----	-----	2 410	-----	3 853	-39.8	-51.9	-----	-----	-----
<b>Passenger travel</b>												
National parks:												
Visitors.....number..	523,623	220,766	67,012	52,563	35,762	47,296	46,242	+32.3	+2.3	2,059,824	2,095,247	+1.7
Automobiles entered.....number..	112,574	49,102	12,415	8,574	5,675	19,335	7,473	+240.7	+158.7	388,002	437,719	+12.8
Arrivals from abroad:												
Immigrants.....number..	22,778	28,020	26,740	21,522	17,842	-----	17,806	-----	-----	290,297	268,941	-7.4
United States citizens.....number..	70,783	85,946	47,757	25,129	21,177	-----	23,450	-----	-----	442,599	470,045	+6.2
Departures abroad:												
Emigrants.....number..	5,571	5,150	4,907	3,053	4,880	-----	4,670	-----	-----	77,600	53,173	-31.5
United States citizens.....number..	70,551	49,429	39,767	20,413	27,404	-----	28,808	-----	-----	451,972	452,658	+0.2
Passports issued.....number..	11,295	9,135	8,485	8,895	7,323	8,485	9,513	+15.9	-10.8	189,305	196,933	+4.0
Pullman company operations:												
Revenue.....thous. of dolls..	7,927	7,483	6,800	5,722	6,507	-----	7,033	-----	-----	80,846	82,384	+1.9
Passengers carried.....thousands..	3,287	3,031	2,721	2,437	2,731	-----	2,836	-----	-----	33,924	33,435	-1.4
Trend of business in hotels:												
Room occupancy.....per ct. of capacity..	65	69	75	73	67	73	73	+9.0	0.0	-----	-----	-----
Average sale per occupied room.....dollars..	4.13	4.02	4.11	4.17	3.92	4.04	4.12	+3.1	-1.9	-----	-----	-----
<b>Warehouses</b>												
Public merchandise warehouses, space occupied.....per ct. of total..	71.9	74.3	76.4	77.1	76.2	-----	67.7	-----	-----	-----	-----	-----
<b>PUBLIC UTILITIES</b>												
Telephone companies:												
Operating revenues.....thous. of dolls..	75,898	75,606	79,653	77,664	78,675	-----	74,788	-----	-----	826,264	908,968	+10.0
Operating income.....thous. of dolls..	17,601	18,197	20,047	18,302	18,271	-----	19,821	-----	-----	199,233	218,010	+9.4
Telegraph companies:												
Commercial telegraph tolls.....thous. of dolls..	12,067	11,531	12,485	10,540	11,298	-----	11,180	-----	-----	130,648	137,486	+5.2
Operating revenues.....thous. of dolls..	15,316	14,751	15,947	13,633	14,572	-----	14,133	-----	-----	164,362	174,972	+6.5
Operating income.....thous. of dolls..	1,688	1,724	2,029	2,260	2,304	-----	1,658	-----	-----	21,404	21,503	+0.5
Gas and electric companies:												
Gross earnings.....thous. of dolls..	179,500	185,000	197,500	202,500	211,500	-----	203,000	-----	-----	2,229,553	2,308,750	+3.6
Net earnings.....thous. of dolls..	73,000	80,000	83,000	92,000	100,000	-----	92,000	-----	-----	868,703	1,006,500	+15.9
Electric railways (212 companies):												
Passengers carried.....thous. of persons..	724,812	704,818	774,466	748,624	795,643	781,927	799,843	-1.7	-2.2	9,268,039	9,143,644	-1.3
Average fare.....cents..	8.260	8.260	8.272	8.272	8.272	8.288	8.194	+0.3	+1.1	-----	-----	-----
<b>ELECTRIC POWER</b>												
Electric power production:												
Total.....mills. of kw. hours..	8,354	8,061	8,708	8,243	8,510	8,647	8,241	+1.6	+4.9	87,850	97,281	+10.7
By water power.....mills. of kw. hours..	2,835	2,471	2,730	2,664	2,748	2,900	2,698	+5.5	+7.5	34,698	34,602	-0.3
By fuels.....mills. of kw. hours..	5,519	5,590	5,978	5,560	5,762	5,747	5,543	-0.3	+3.7	53,152	62,679	+17.9
In street railways, manfg. plants, etc.....mills. of kw. hours..	390	380	389	360	402	-----	437	-----	-----	5,025	4,606	-8.3
In central stations.....mills. of kw. hours..	7,964	7,681	8,319	7,889	8,114	-----	7,804	-----	-----	82,870	92,687	+11.8
Electric power production (Canada):												
Total.....mills. of kw. hours..	1,447	1,477	1,594	1,595	1,538	-----	1,507	-----	-----	15,931	17,629	+10.7
By water power.....mills. of kw. hours..	1,428	1,455	1,559	1,559	1,499	-----	1,478	-----	-----	15,705	17,298	+10.1
Exported.....mills. of kw. hours..	133	136	126	124	102	-----	114	-----	-----	1,588	1,444	-9.1
Electric power, gross revenue.....thous. of dolls..	163,400	170,800	179,400	187,300	190,300	-----	184,200	-----	-----	1,908,499	2,073,100	+8.6
Consumption of electrical energy:												
By geographic divisions—												
United States.....rel. to 1923-25..	128.2	135.8	134.6	122.9	116.4	121.8	132.5	+4.6	-8.1	-----	-----	-----
New England.....rel. to 1923-25..	108.7	118.2	126.2	118.1	107.0	120.5	127.6	+12.6	-5.6	-----	-----	-----
North Central.....rel. to 1923-25..	135.5	140.6	136.9	122.2	109.0	128.0	138.8	+17.4	-7.8	-----	-----	-----
Middle Atlantic.....rel. to 1923-25..	127.9	138.0	133.0	124.3	120.5	125.8	126.7	+4.4	-0.7	-----	-----	-----
Southern.....rel. to 1923-25..	132.7	126.3	131.2	122.8	130.4	110.0	120.5	-15.6	-8.7	-----	-----	-----
Western.....rel. to 1923-25..	127.0	143.1	133.8	142.6	126.0	115.2	131.9	-8.6	-12.7	-----	-----	-----
By industry—												
All industry.....rel. to 1923-25..	128.2	135.8	134.6	122.9	116.4	121.8	132.5	+4.6	-8.1	-----	-----	-----
Chemical and allied products.....rel. to 1923-25..	125.0	139.9	145.0	147.3	148.0	136.7	129.2	-7.6	+5.8	-----	-----	-----
Food and kindred products.....rel. to 1923-25..	132.2	141.2	131.7	127.9	121.1	132.3	128.0	+9.2	+3.4	-----	-----	-----
Rolling mills and steel plants.....rel. to 1923-25..	150.9	152.3	144.8	123.2	120.5	143.1	153.5	+18.8	-6.8	-----	-----	-----

2 Quarter ending in month indicated.

3 Quarter ending Dec. 31, 1928.

4 Revised.

TREND OF BUSINESS MOVEMENTS—Continued

The cumulatives shown are through December except where otherwise noted. Earlier data for items shown here may be found on pages 27 to 138 of the February, 1930, "Survey"	1929					1930	1929	PER CENT INCREASE (+) OR DECREASE (-)		CUMULATIVE TOTAL FROM JAN. 1 THROUGH DEC. 31		Per cent. increase (+) or decrease (-) cumulative 1929 from 1928
	August	September	October	November	December	January	January	Jan., 1930, from Dec., 1929	Jan., 1930, from Jan., 1929	1928	1929	
	<b>ELECTRIC POWER—Continued</b>											
Consumption of electrical energy—Continued.												
By industry—Continued.												
Metal working plants...rel. to 1923-25	134.6	147.4	145.0	128.7	127.2	126.7	135.8	-0.4	-6.7			
Metal groups...rel. to 1923-24	140.7	149.2	145.1	126.7	124.9	132.9	142.6	+6.4	-6.8			
Leather and its products...rel. to 1923-25	102.2	105.4	93.0	97.6	89.0	92.3	94.3	+3.7	-2.1			
Lumber and its products...rel. to 1923-25	102.3	111.4	109.8	111.8	92.8	87.5	107.4	-5.7	-18.5			
Paper and pulp...rel. to 1923-25	123.6	127.0	141.0	133.7	132.1	120.8	126.2	-8.6	-4.3			
Rubber and its products...rel. to 1923-25	120.2	133.7	135.1	113.1	108.4	144.4	148.2	+33.2	-2.6			
Shipbuilding...rel. to 1923-25	96.3	114.9	134.4	114.0	120.4	124.4	108.2	+3.3	+15.0			
Stone, clay, and glass...rel. to 1923-25	157.7	165.7	159.2	146.2	146.2	124.2	137.4	-15.0	-9.6			
Textiles...rel. to 1923-25	110.0	115.5	129.8	115.5	109.8	112.4	129.4	+2.4	-13.1			
Automobiles, including repair parts...rel. to 1923-25	143.0	138.1	122.4	88.4	79.4	99.8	149.4	+25.7	-33.2			
<b>EMPLOYMENT AND WAGES</b>												
Employment in factories:												
Massachusetts...rel. to 1919-23	77.8	79.8	79.6	76.1	73.2		78.1					
New York State...rel. to 1923	87.7	89.3	89.7	87.6	84.2	82.3	84.8	-2.3	-2.9			
New Jersey...rel. to 1923	103	104	103	100	95	93	97	-2.1	-4.1			
Pennsylvania...rel. to 1923	87	88	87	93	91	90	81	-1.1	+11.1			
Delaware...rel. to 1923	84	85	83	84	84	81	75	-3.6	+8.0			
Maryland...rel. to 1924	93.0	94.2	93.1	90.9	89.2	86.2	85.7	-3.4	+0.6			
Iowa...rel. to 1923	133.2	133.4	133.6	130.0	126.8	122.9	121.8	-3.1	+0.9			
Illinois...rel. to 1925-27	105.1	105.8	103.8	102.7	99.3	97.8	98.2	-1.5	-0.4			
Wisconsin...rel. to 1923	99.2	97.7	98.1	94.7	90.1	90.0	94.2	-0.1	-4.5			
Ohio...rel. to 1923	116	115	113	107	102	101	108	-0.9	-6.5			
Cleveland...rel. to Jan., 1921	125.0	124.0	119.2	108.8	106.2	109.1	117.9	+2.7	-7.5			
Milwaukee...number	43,736	41,555	40,599	39,591	39,016	39,823	40,707	+2.1	-2.2			
New York State...number	485,330	494,311	496,578	485,018	465,915	455,480	469,125	+2.2	-2.9			
Oklahoma...number	38,978	38,239	38,620	37,510			32,618					
Total pay roll:												
New York State (weekly)...thous. of dolls.	14,599	15,063	14,938	14,328	13,860		13,938					
Oklahoma (weekly)...thous. of dolls.	1,074	1,015	1,054	1,032			884					
Wisconsin...rel. to 1923	105.3	99.2	106.0	100.4	89.7	87.7	96.1	-2.2	-8.7			
New York State...rel. to 1923	96.8	99.9	99.1	95.0	91.9	89.7	92.5	-2.4	-3.0			
New Jersey...rel. to 1923	115	116	118	112	107	105	108	-1.9	-2.8			
Pennsylvania...rel. to 1923	93	91	93	90	86	85	82	-1.2	+3.7			
Delaware...rel. to 1923	90	88	90	90	90	86	79	-4.4	+8.9			
Illinois...rel. to 1925-27	106.0	105.0	105.8	101.3	96.3	91.2	94.7	-5.3	-3.7			
Employment, trade-unions:												
United States...per cent of total	91.0	90.0	89.0	88.0	84.0	81.0	85.0	-3.6	-4.7			
Canada...per cent of total	96.5	96.3	94.0	90.7	88.6		93.7					
Anthracite mines:												
Employment...rel. to 1923-25	93.6	105.5	109.8	107.6	110.8	105.6	109.8	-4.7	-3.8			
Pay roll...rel. to 1923-25	68.9	83.4	116.6	87.6	110.3	92.1	112.6	-16.5	-18.2			
Federal civilian employees,												
Washington, D. C., end month...number	63,632	63,516	63,713	63,877	63,946	64,356	62,257	+0.6	+3.4			
Average weekly earnings, factories:												
Illinois...dollars	28.57	28.26	29.17	28.52	28.12	28.30	28.72	+0.6	-1.5			
New York State...dollars	30.08	30.47	30.08	29.54	29.75	29.70	29.71	-0.2	0.0			
Wisconsin...dollars	26.51	25.17	26.70	26.13	24.18	24.10	24.45	-0.3	-1.4			
Oklahoma...dollars	27.55	26.50	27.28	27.51			27.09					
New York...rel. to 1923	110.4	111.9	110.4	108.4	109.2	109.0	109.1	-0.2	-0.1			
New Jersey...rel. to 1923	113	112	115	113	113	114	112	+0.9	+1.8			
Pennsylvania...rel. to 1923	107	104	107	105	102	102	102	0.0	0.0			
Delaware...rel. to 1923	105	103	107	106	107	105	104	-1.9	+1.0			
Illinois...rel. to 1925-27	100.7	99.6	102.8	100.5	99.1	99.7	98.0	+0.6	+1.7			
Wisconsin...rel. to 1923	106.3	101.6	108.1	105.8	98.2	95.9	102.0	-2.3	-6.0			
Average weekly earnings (National Industrial Conference Board):												
Grand total (both sexes)...dollars	27.94	28.58	28.80	27.72	27.53	27.51	28.08	-0.1	-2.0			
Total male...dollars	30.69	31.56	31.60	29.37	29.83	29.53	30.51	-1.0	-3.2			
Skilled male...dollars	32.18	33.06	33.14	30.81	31.25	30.87	31.97	-1.2	-3.4			
Unskilled male...dollars	25.09	25.82	25.64	23.86	24.35	24.31	25.13	-0.2	-3.3			
Total women...dollars	17.47	17.81	17.84	17.03	17.36	17.02	17.16	-2.0	-0.8			
Average weekly hours:												
Nominal (both sexes)...hours	49.4	49.6	49.4	49.3	49.2	49.2	49.7	0.0	-1.0			
Actual (both sexes)...hours	48.4	49.0	49.4	46.9	47.4	46.4	48.5	-2.1	-4.3			
Wages, road labor, by districts:												
New England...cents per hour	51	51	51	49	51	52	52	+2.0	0.0			
Middle Atlantic...cents per hour	42	43	42	42	45	47	45	+4.4	+4.4			
South Atlantic...cents per hour	30	29	27	24	27	25	23	-7.4	+8.7			
East South Central...cents per hour	25	25	26	26	25	25	26	0.0	-3.8			
West South Central...cents per hour	30	31	30	30	31	31	31	0.0	0.0			
East North Central...cents per hour	39	39	38	39	39	40	45	+2.6	-11.1			
West North Central...cents per hour	37	37	37	37	38	40	38	+5.3	+5.3			
Mountain...cents per hour	48	48	48	48	50	46	44	-8.0	+4.5			
Pacific...cents per hour	52	54	53	52	53	53	52	0.0	+1.9			
United States, average...cents per hour	40	41	40	40	40	40	36	0.0	+11.1			
Wage rates, U. S. Steel Corp...cents per hour	50	50	50	50	50	50	50	0.0	0.0			
Wages, steel sheet workers...per cent of base	127.0	127.0	127.0	127.0	127.0	127.0	125.5	0.0	+1.2			
Applicants per 100 jobs, employment agencies:												
United States...number	124	114	127	153	166	201	156	+21.1	+28.8			
Eastern States...number	136	121	132	153	187	231	154	+23.5	+50.0			
Central States...number	135	132	148	177	181	231	164	+27.6	+40.9			
Southern States...number	178	148	164	205	222	250	283	+12.6	+11.7			
Western States...number	75	67	71	75	77	101	80	+31.2	+26.3			
Illinois...number	137	136	147	181	177	257	182	+45.2	+41.2			
Wisconsin...number	117	117	128	160	163		138					
Canada...number	119	129	143	164	154		168					

## TREND OF BUSINESS MOVEMENTS—Continued

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	August	September	October	November	December	January	January	Jan., 1930, from Dec., 1929	Jan., 1930, from Jan., 1929	1928	1929	
	<b>EMPLOYMENT AND WAGES—Contd.</b>											
<b>Factory Labor Turnover</b>												
(Percentage of number on pay roll)												
<b>Departures:</b>												
Total.....	48.5	50.6	42.6	38.4	29.5		36.2					
Voluntary quits.....	38.4	38.2	28.5	19.4	12.7		20.7					
Lay offs.....	4.8	6.3	9.4	15.3	14.3		4.2					
Discharges.....	5.3	6.1	4.7	3.7	2.5		5.3					
Accessions.....	54.3	59.7	46.0	23.7	13.5		58.6					
<b>Industrial disputes:</b>												
Disputes.....	55	62	42	42	45		34					
Workers in involved.....	8,123	8,818	8,326	10,957	7,856		39,484					
Man-days lost in month.....	380,681	259,410	290,634	312,982	234,052		949,692					
<b>DISTRIBUTION MOVEMENT</b>												
<b>Retail Sales</b>												
<b>Mail-order houses:</b>												
Total sales, 2 houses.....	60,088	63,078	79,256	73,697	90,019	45,151	47,400	-49.8	-4.7	579,328	734,983	+26.9
Sears, Roebuck & Co.....	35,133	36,950	47,075	43,846	54,220	26,829	29,271	-50.5	-8.4	347,973	443,458	+27.4
Montgomery Ward & Co.....	24,955	26,128	32,181	29,851	35,799	18,331	18,129	-48.8	+1.1	232,355	291,530	+25.5
<b>Ten-cent chain stores:</b>												
Total sales (4 chains).....	46,613	43,169	51,061	49,879	87,948	34,656	33,513	-60.6	+3.4	539,759	572,531	+6.1
Total stores operated (4 chains).....	2,787	2,816	2,834	2,856	2,870	2,880	2,659	+0.3	+8.3			
F. W. Woolworth & Co.....	24,446	22,253	27,678	26,160	44,153	18,408	17,660	-58.3	+4.2	287,308	303,022	+5.5
Stores operated.....	1,802	1,815	1,823	1,828	1,828	1,829	1,728	+0.1	+5.8			
S. S. Kresge Co.....	13,001	11,971	13,761	14,021	24,242	9,352	9,019	-61.4	+3.7	147,363	156,328	+6.1
Stores operated.....	547	560	568	584	597	604	509	+1.2	+18.7			
McCroxy Stores Corp.....	3,853	3,582	3,798	3,854	7,293	2,695	2,691	-63.0	+0.1	41,041	44,709	+8.9
Stores operated.....	240	241	243	243	242	243	229	+0.4	+6.1			
S. H. Kress & Co.....	5,317	5,363	5,824	5,844	12,260	4,202	4,143	-65.7	+1.4	65,047	68,476	+5.3
Stores operated.....	198	200	200	201	203	204	193	+0.5	+5.7			
Metropolitan.....	1,612	1,471	1,663	1,819	3,432	971	799	-71.7	+21.5	13,522	18,122	+34.0
Stores operated.....	131	134	141	151	151	150	109	-0.7	+37.6			
W. T. Grant Co.....	5,066	4,777	6,164	6,504	11,536	3,784	3,329	-67.2	+13.7	54,987	65,441	+19.0
Stores operated.....	252	258	263	273	276	279	218	+1.1	+28.0			
<b>Restaurant chains:</b>												
Total sales (3 chains).....	5,151	4,953	5,256	4,980	5,176	5,049	4,767	-2.5	+5.9	55,578	59,273	+6.6
Stores operated.....	369	367	373	376	375		375					
Childs Co., sales.....	2,478	2,348	2,412	2,299	2,407	2,307	2,184	-4.2	+5.6	26,379	27,522	+4.3
Stores operated.....	113	112	109	111	111		111					
J. R. Thompson Co., sales.....	1,331	1,282	1,367	1,284	1,320	1,300	1,224	-1.5	+6.2	14,585	15,616	+7.1
Stores operated.....	122	122	121	122	121		121					
Waldorf System (Inc.), sales.....	1,342	1,323	1,477	1,397	1,449	1,380	1,299	-4.8	+6.2	14,622	16,135	+10.3
Stores operated.....	134	133	143	143	143		138					
<b>Other chain stores:</b>												
J. C. Penny Co.....	16,491	18,243	23,302	24,406	29,585	10,611	9,016	-64.1	+17.7	176,699	207,623	+17.5
Stores operated.....	1,292	1,337	1,373	1,389	1,395	1,395	1,122	0.0	+24.3			
G. C. Murphy Co.....	1,273	1,336	1,403	1,464	2,649	939	814	-64.6	+15.4	12,119	15,729	+29.8
Stores operated.....	148	150	150	152	153		154					
Installment sales in New England dept. stores, ratio to total sales.....	12.5	7.6	8.8	8.5	5.4	16.2	10.4	+200.0	+55.8			
<b>Advertising</b>												
Magazine advertising.....	1,978	2,542	3,046	3,074	2,882	1,999	2,101	-30.6	-4.9			
Magazine advertising, total cost.....	12,433	16,548	20,319	20,070	18,420	12,411	12,689	-32.6	-2.2	191,027	209,744	+9.8
Newspaper advertising.....	85,136	105,702	118,616	112,958	100,202	88,873	97,162	-11.3	-8.5	1,185,263	1,228,843	+3.7
<b>Radio broadcast:</b>												
Cost of facilities.....	1,330	1,599	1,948	1,908	1,969	1,989	1,258	+1.0	+58.1	10,227	18,728	+83.1
<b>National advertising in newspapers:</b>												
Total.....	44,095	52,869	64,037	52,879	36,724	47,887	52,270	+3.2	-8.4	516,851	594,295	+15.0
Passenger cars.....	7,088	6,884	7,396	4,098	2,664	8,000	11,010	+200.3	-27.3	81,603	81,415	-0.2
Tires, trucks, and accessories.....	6,745	5,502	5,719	5,996	4,279	3,349	3,927	-21.7	-14.7	52,039	64,858	+24.6
Financial.....	6,304	7,457	8,812	6,578	6,943	9,128	9,625	+31.5	-5.2	76,620	88,073	+14.9
Building materials.....	274	775	769	338	109	129	246	+18.3	-47.6	6,481	6,510	+0.4
Electrical appliances, supplies.....	888	1,560	1,354	1,062	935	664	4,470	-29.0	+41.3	10,506	13,859	+31.9
Foods and beverages.....	5,895	6,440	7,713	6,848	3,452	5,355	3,955	+5.1	+35.4	67,950	74,241	+9.3
Heating and plumbing equipment.....	422	782	817	513	344	395	4,402	+14.8	-1.7	6,063	5,993	-1.2
Medical.....	2,190	3,019	5,595	5,967	3,072	6,456	8,117	+110.2	-20.5	46,021	49,289	+7.1
Radio.....	3,017	6,205	7,109	5,734	4,021	1,603	2,148	-60.1	-25.4	21,277	39,049	+83.5
Tobacco.....	2,107	3,217	4,617	4,112	1,515	3,177	2,703	+109.7	+17.5	31,072	38,414	+23.6
Toilet requisites.....	2,372	3,020	3,807	2,267	1,177	2,432	2,742	+106.6	-11.3	28,685	31,857	+11.1
Transportation.....	3,121	2,321	2,530	2,802	2,747	2,461	2,324	-10.4	+5.9	28,051	34,324	+22.4
All other.....	2,672	5,686	7,800	6,565	5,466	4,738	4,601	-13.3	+3.0	60,485	65,378	+8.1
<b>Postal Business</b>												
<b>Postal receipts:</b>												
50 selected cities.....	29,251	30,549	35,743	32,723	40,785	32,199	31,615	-21.1	+1.8	377,344	388,181	+2.9
50 industrial cities.....	3,289	3,303	3,737	3,364	4,565	3,561	3,466	-22.0	+2.7	40,569	41,630	+2.6
<b>Money orders:</b>												
<b>Domestic issued (50 cities)—</b>												
Quantity.....	3,510	3,407	3,843	3,745	4,096	3,805	3,626	-7.1	+4.9	41,103	44,366	+7.9
Value.....	37,027	35,916	39,963	39,085	40,876	38,356	36,025	-6.2	+6.5	418,831	451,870	+7.9
<b>Domestic paid (50 cities)—</b>												
Quantity.....	10,862	10,328	12,690	11,829	12,850	11,266	10,967	-12.3	+2.7	132,579	138,009	+4.1
Value.....	88,806	86,974	107,699	97,825	101,453	86,593	83,154	-14.6	+4.1	1,036,125	1,091,552	+5.3
Air mail, weight dispatched.....	701,538	658,984	705,722	624,750	618,991	505,933	488,709	-18.3	+3.5	3,542,232	7,091,149	+100.2

\* Revised.

## TREND OF BUSINESS MOVEMENTS—Continued

The cumulatives shown are through December except where otherwise noted. Earlier data for items shown here may be found on pages 27 to 138 of the February, 1930, "Survey"	1929					1930	1929	PER CENT INCREASE (+) OR DECREASE (-)		CUMULATIVE TOTAL FROM JAN. 1 THROUGH DEC. 31		Per ct. increase (+) or decrease (-) cumulative 1929 from 1928
	August	September	October	November	December	January	January	Jan., 1930, from Dec., 1929	Jan., 1930, from Jan., 1929	1928	1929	
	<b>BANKING AND FINANCE</b>											
<b>Life Insurance</b>												
<i>(Association of Life Insurance Presidents)</i>												
Policies and certificates, new (44 companies):												
Ordinary.....number of policies.....	273,484	245,042	289,055	281,360	311,303	254,432	220,823	-18.3	+15.2	2,983,681	3,280,210	+9.9
Industrial.....number of policies.....	795,451	805,623	878,483	941,358	863,763	802,585	1,051,983	-7.1	-23.7	10,402,919	10,816,882	+4.0
Group.....number of certificates.....	40,622	21,799	49,062	39,571	102,963	43,081	57,921	-58.2	-25.6	559,453	606,542	+8.4
Total policies and certificates.....number.....	1,109,557	1,072,464	1,217,600	1,262,289	1,283,029	1,100,098	1,330,727	-14.3	-17.3	13,946,053	14,708,634	+5.5
Amount of new insurance (44 companies):												
Ordinary.....thous. of dolls.....	698,196	608,869	707,478	704,316	841,215	712,855	659,843	-15.3	+8.0	8,199,375	8,801,866	+7.3
Industrial.....thous. of dolls.....	219,144	221,006	240,489	249,246	234,046	218,027	265,998	-6.8	-18.0	2,692,522	2,898,158	+7.6
Group.....thous. of dolls.....	99,773	75,151	105,393	86,165	160,514	64,313	98,637	-59.9	-34.8	1,336,328	1,185,365	-11.3
Total insurance.....thous. of dolls.....	1,017,113	905,026	1,053,360	1,039,727	1,235,775	995,195	1,024,478	-19.5	-2.9	12,228,225	12,885,389	+5.4
Premium collections (44 companies):												
Ordinary.....thous. of dolls.....	154,206	143,078	169,724	156,465	190,844	.....	160,867	.....	.....	1,873,934	1,986,525	+6.0
Industrial.....thous. of dolls.....	56,143	56,773	51,705	57,973	97,719	.....	53,806	.....	.....	662,506	703,853	+6.2
Group.....thous. of dolls.....	7,129	6,485	8,497	10,981	10,660	.....	8,938	.....	.....	87,979	111,731	+27.0
Total.....thous. of dolls.....	217,478	206,336	229,926	224,519	299,023	.....	223,611	.....	.....	2,624,419	2,802,109	+6.8
Admitted life insurance assets (40 companies):												
Grand total.....mills. of dolls.....	13,691	13,798	13,906	14,015	14,135	.....	12,982	.....	.....	.....	.....	.....
Mortgage loans—												
Total.....mills. of dolls.....	5,887	5,925	5,972	6,002	6,048	.....	5,619	.....	.....	.....	.....	.....
Farm.....mills. of dolls.....	1,600	1,600	1,599	1,598	1,591	.....	1,604	.....	.....	.....	.....	.....
All other.....mills. of dolls.....	4,287	4,325	4,373	4,404	4,457	.....	4,015	.....	.....	.....	.....	.....
Bonds and stocks (book value):												
Total.....mills. of dolls.....	5,188	5,208	5,234	5,237	5,264	.....	4,912	.....	.....	.....	.....	.....
Government.....mills. of dolls.....	1,062	1,070	1,063	1,040	1,053	.....	979	.....	.....	.....	.....	.....
Railroad.....mills. of dolls.....	2,526	2,527	2,534	2,540	2,539	.....	2,452	.....	.....	.....	.....	.....
Public utility.....mills. of dolls.....	1,274	1,281	1,295	1,311	1,319	.....	1,219	.....	.....	.....	.....	.....
All other.....mills. of dolls.....	326	330	342	346	353	.....	262	.....	.....	.....	.....	.....
Policy loans and premium notes.....mills. of dolls.....												
.....	1,688	1,707	1,738	1,807	1,842	.....	1,554	.....	.....	.....	.....	.....
<i>(Life Insurance Sales Research Bureau)</i>												
Sales of ordinary life insurance:												
United States total.....thous. of dolls.....	765,702	677,104	787,133	782,497	915,894	755,821	719,491	-17.5	+5.0	8,936,665	9,650,837	+8.0
Eastern manuf. dis.....thous. of dolls.....	300,810	261,657	309,637	320,244	350,504	325,695	311,189	-7.1	+4.7	3,648,065	3,921,777	+7.5
Western manuf. dis.....thous. of dolls.....	177,990	161,222	184,974	181,245	211,265	169,279	166,287	-19.9	-1.8	2,005,524	2,233,659	+11.4
Western agric. district.....thous. of dolls.....	116,749	104,534	121,985	115,195	143,354	108,573	100,841	-26.4	+4.7	1,345,140	1,423,160	+5.8
Southern district.....thous. of dolls.....	90,526	77,810	89,697	88,032	110,994	83,228	73,292	-25.0	+13.6	1,055,200	1,096,567	+3.9
Far western district.....thous. of dolls.....	79,627	71,881	80,840	77,781	99,777	72,046	67,882	-27.8	+6.1	882,736	975,674	+10.5
Canada total, 15 companies.....thous. of dolls.....	42,468	43,911	52,985	56,673	55,850	46,788	51,097	-15.5	-8.4	580,674	614,727	+5.9
<b>Banking</b>												
Check payments:												
New York City.....mills. of dolls.....	49,034	50,342	63,325	53,604	39,850	34,732	54,719	-12.8	-36.5	500,210	603,088	+20.6
Outside of New York City.....mills. of dolls.....	28,339	27,314	32,261	28,519	26,932	25,723	28,126	-4.5	-8.5	306,195	332,327	+8.5
Canada.....mills. of dolls.....	1,937	1,884	2,461	2,260	1,858	1,674	2,124	-9.9	-21.2	23,624	24,084	+1.9
Federal reserve banks:												
Bills discounted.....mills. of dolls.....	974	931	991	912	632	407	821	-35.6	-50.4	.....	.....	.....
Notes in circulation.....mills. of dolls.....	1,829	1,851	1,880	1,930	1,910	1,702	1,645	-10.9	+3.5	.....	.....	.....
Total investments.....mills. of dolls.....	328	484	658	602	915	747	646	-18.4	+15.6	.....	.....	.....
Total reserve.....mills. of dolls.....	3,149	3,141	3,177	3,135	3,011	3,188	2,835	+5.9	+12.5	.....	.....	.....
Total deposits.....mills. of dolls.....	2,348	2,471	2,696	2,437	2,414	2,369	2,437	-1.9	-2.8	.....	.....	.....
Reserve ratio.....per cent.....	75.4	72.7	69.4	71.8	69.6	78.3	69.4	+12.5	+12.8	.....	.....	.....
Federal reserve member banks:												
Total loans and discounts.....mills. of dolls.....	16,950	17,428	18,934	17,698	17,649	16,676	16,121	-5.5	+3.4	.....	.....	.....
Total investments.....mills. of dolls.....	5,456	5,401	5,496	5,655	5,514	5,529	6,053	+0.3	-8.7	.....	.....	.....
Net demand deposits.....mills. of dolls.....	12,985	13,295	15,110	13,890	14,118	12,949	13,395	-8.3	-3.3	.....	.....	.....
Brokers' loans, end of month:												
To N. Y. Stock Ex. members—												
Total.....mills. of dolls.....	7,882	8,549	6,109	4,017	3,990	3,985	6,735	-0.1	-40.8	.....	.....	.....
Ratio to market value.....per cent.....	8.79	9.82	8.51	6.32	6.16	5.77	9.48	-6.3	-39.1	.....	.....	.....
By New York F. R. member banks.....mills. of dolls.....	6,217	6,804	5,538	3,450	3,424	3,345	5,559	-2.3	-39.8	.....	.....	.....
Interest rates:												
Time loans, 90 days.....per cent.....	8.88	8.88	8.00	5.38	4.88	3.88	7.75	-20.5	-40.9	.....	.....	.....
Call loans, renewal.....per cent.....	8.23	8.50	6.43	5.44	4.83	4.64	7.05	-3.9	-34.2	.....	.....	.....
Prime com. paper (4-6 mos.).....per cent.....	6.13	6.25	6.25	5.75	5.00	4.88	5.38	-2.4	-9.3	.....	.....	.....
Prime bankers' acceptances.....per cent.....	5.13	5.13	5.13	4.19	3.88	3.94	4.88	+1.5	-19.3	.....	.....	.....
N. Y. Fed. Res. Bank (redis.).....per cent.....	6.00	6.00	5.00	4.50	4.50	4.00	5.00	-11.1	-20.0	.....	.....	.....
Federal land banks.....per cent.....	5.31	5.44	5.51	4.79	4.79	5.79	5.05	0.0	+14.7	.....	.....	.....
Intermediate credit banks.....per cent.....	5.67	5.67	5.68	5.70	5.57	5.34	5.33	-4.1	+0.2	.....	.....	.....
Deposits, New York State savings banks, end of month.....mills. of dolls.....												
.....	4,426	4,457	4,372	4,333	4,392	4,415	4,410	+0.5	+0.1	.....	.....	.....
<b>Public Finance</b>												
Government debt, gross, end mo. mills. of dolls.....	16,805	16,720	16,698	16,692	16,301	16,423	17,379	+0.7	-5.5	.....	.....	.....
Customs receipts.....thous. of dolls.....	56,427	52,612	57,607	44,126	39,298	41,278	45,549	+5.0	-9.4	565,500	602,698	+6.6
Total ordinary receipts.....thous. of dolls.....	174,502	670,736	175,998	143,889	742,942	151,195	163,889	-79.6	-7.7	3,920,048	4,243,151	+8.2
Expenditures chargeable to ordinary receipts.....thous. of dolls.....	210,725	399,068	364,678	218,407	443,191	347,351	371,595	-21.6	-6.5	3,755,205	3,798,233	+1.1
U. S. money in circulation:												
Daily average.....mills. of dolls.....	4,777	4,811	4,810	4,845	4,943	4,652	4,748	-5.9	-2.0	.....	.....	.....
<b>Gold and Silver</b>												
Gold:												
Domestic receipts at mint.....fine ounces.....	100,387	77,029	121,193	113,723	82,970	75,955	68,042	-8.5	+11.6	981,313	978,551	-0.3
Rand output.....fine ounces.....	889,601	849,553	888,690	861,593	851,134	882,801	876,452	+3.7	+0.7	10,358,596	10,414,066	+0.5
Monetary stock of U. S.—												
Daily average.....mills. of dolls.....	4,351	4,368	4,381	4,374	4,324	4,283	4,115	-0.9	+4.1	.....	.....	.....
Imports.....thous. of dolls.....	19,271	18,781	21,321	7,123	8,121	12,908	48,577	+58.9	-73.4	168,898	291,649	+72.7
Exports.....thous. of dolls.....	881	1,205	3,805	30,289	72,547	8,948	1,378	-87.7	+549.3	560,760	116,583	-79.2

\* Revised.

## TREND OF BUSINESS MOVEMENTS--Continued

	1929					1930	1929	PER CENT INCREASE (+) OR DECREASE (-)		CUMULATIVE TOTAL FROM JAN. 1 THROUGH DEC. 31		Per cent. in-crease (+) or de-crease (-) cumulative 1929 from 1928
	August	September	October	November	December	January	January	Jan., 1930, from Dec., 1929	Jan., 1930, from Jan., 1929	1928	1929	
<b>BANKING AND FINANCE--Continued</b>												
<b>Gold and Silver--Continued</b>												
Silver:												
Production--												
United States.....thous. of fine oz.	5,006	4,634	5,130	5,795	4,592	4,914	5,023	+7.0	-2.2	56,149	60,383	+7.5
Canada.....thous. of fine oz.	2,744	2,437	2,605	1,833	1,761	1,882	1,747	+6.9	+7.7	20,328	21,587	+6.2
Stocks, end of month--												
United States.....thous. of fine oz.	1,074	1,112	1,451	1,322	529	534	595	+0.9	-10.3			
Canada.....thous. of fine oz.	880	914	489	598	827	1,244	344	+50.4	+261.6			
Imports.....thous. of dolls.	7,345	4,111	5,403	5,144	4,479	4,756	8,260	+6.2	-45.8	68,119	63,939	-6.1
Exports.....thous. of dolls.	8,522	4,374	7,314	8,678	6,369	5,891	8,264	-7.5	-42.4	87,381	83,407	-4.5
Price at New York.....dolls. per fine oz.	.526	.510	.499	.496	.485	.450	.570	-7.2	-21.1			
<b>Business Failures</b>												
Liabilities:												
Total commercial.....thous. of dolls.	33,746	34,125	31,314	52,046	67,465	61,185	53,877	-9.3	+13.6	489,559	483,252	-1.3
Manufacturing establishments.....thous. of dolls.												
Trade establishments.....thous. of dolls.	13,857	14,914	12,071	14,180	33,266	19,506	16,690	-41.4	+16.8	182,478	186,735	+2.3
Agents and brokers.....thous. of dolls.	16,002	16,660	14,464	16,122	28,550	29,814	32,024	+4.4	-6.9	225,301	224,732	-0.3
Banks (quarterly).....thous. of dolls.	3,888	2,551	4,778	21,744	5,649	11,871	5,164	+110.1	+129.9	81,781	71,786	-12.2
Liabilities (Canada).....thous. of dolls.	1,376	2,423	2,577	3,302	52,650	6,174	43,085	+29.0	+22.2	129,650	218,797	+68.8
Firms:												
Total commercial.....number	1,762	1,568	1,822	1,796	2,037	2,759	2,535	+35.4	+8.8	23,842	22,909	-3.9
Manufacturing establishments.....number	482	427	483	481	559	680	614	+21.6	+10.7	5,924	6,007	+1.4
Trade establishments.....number	1,163	1,039	1,211	1,166	1,344	1,913	1,769	+42.3	+8.1	16,471	15,417	-6.4
Agents and brokers.....number	117	102	128	149	134	166	152	+23.9	+9.2	1,441	1,485	+3.1
Banks (quarterly).....number		81			127		116	+56.8	+9.5	372	437	+17.5
Firms (Canada).....number	132	164	178	184	259	265	214	+2.3	+23.8	1,873	2,127	+13.6
By groups:												
Manufacturers--												
Metals.....number	35	29	35	41	50	32	36	-36.0	+6.7	443	443	0.0
Textiles.....number	48	48	66	70	69	106	75	+53.6	+41.3	793	719	-9.3
Lumber.....number	102	77	94	82	112	105	92	-6.2	+14.1	970	1,135	+17.0
Chemicals.....number	11	8	3	10	11	14	11	+27.3	+27.3	98	123	+25.5
Printing and engraving.....number	11	10	10	13	11	13	25	+18.2	-48.0	172	174	+1.2
Foodstuffs.....number	34	38	36	37	28	60	47	+114.3	+27.7	496	462	-6.9
Leather, etc.....number	4	11	17	6	18	18	24	0.0	-25.0	157	148	-5.7
Liquors and tobacco.....number	6	3	4	7	6	3	9	-50.0	-66.7	75	76	+1.3
Stone, clay, and glass.....number	6	9	8	12	8	10	15	+25.0	-33.3	94	102	+8.5
All other.....number	225	194	210	203	246	319	286	+29.7	+11.5	2,626	2,622	-0.2
Traders--												
General stores.....number	72	60	78	67	102	136	116	+33.3	+17.2	1,042	1,017	-2.4
Foods and tobacco.....number	399	363	408	374	386	453	499	+17.4	-9.2	5,153	4,892	-5.1
Clothing.....number	163	168	191	198	244	437	351	+79.1	+24.5	3,153	2,653	-15.9
Household furniture.....number	179	127	167	177	209	380	374	+81.8	+1.6	2,768	2,602	-6.0
Chemicals and paints.....number	64	54	86	69	90	97	66	+7.8	+47.0	803	792	-1.4
Books and paper.....number	15	11	10	5	6	11	17	+83.3	-35.3	144	132	-8.3
All other.....number	271	256	271	276	307	399	346	+30.0	+15.3	3,405	3,329	-2.2
<b>Dividend and Interest Payments</b>												
Grand total.....thous. of dolls.	377,000	480,600	737,450	514,450	690,947	1,120,014	925,075	+62.1	+21.1	6,028,184	7,055,748	+17.0
Interest payments.....thous. of dolls.	201,000	292,000	424,650	263,650	412,447	357,014	516,375	-13.4	-30.9	3,702,674	4,109,948	+11.0
Dividend payments:												
Total.....thous. of dolls.	176,000	188,600	321,800	250,800	278,500	563,000	408,700	+102.2	+37.8	2,325,510	2,945,800	+26.7
Industrial and misc.....thous. of dolls.	132,000	152,000	241,500	186,100	215,500	419,000	289,800	+94.4	+44.6	1,702,986	2,228,900	+30.9
Steam railroads.....thous. of dolls.	37,100	29,500	43,900	40,000	38,500	54,500	43,000	+41.6	+26.7	391,480	454,000	+16.0
Street railways.....thous. of dolls.	6,900	7,100	15,900	12,200	14,500	17,500	16,900	+20.7	+9.4	122,150	126,900	+3.9
<b>New Security Issues</b>												
Foreign loans in the U. S.....thous. of dolls.	20,256	12,668	40,917	35,523	58,751	75,000	32,482	+27.7	+130.9	1,487,863	683,495	-54.1
Foreign governments.....thous. of dolls.	15,000	8,000	3,500		4,000	15,750		-74.6		648,120	68,250	-89.5
Total corporation.....thous. of dolls.	788,222	1,507,876	757,254	202,131	344,946	702,179	970,874	+103.6	-27.7	7,817,877	10,026,365	+28.2
Purpose of issue--												
New capital.....thous. of dolls.	763,177	1,212,884	724,166	186,793	261,891	629,083	828,327	+140.2	-24.1	6,079,602	8,639,440	+42.1
Refunding.....thous. of dolls.	25,045	306,592	33,088	15,338	83,055	73,096	142,547	-12.0	-48.7	1,738,275	1,386,921	-20.2
Type of security--												
Stocks.....thous. of dolls.	670,090	1,265,887	471,166	126,733	203,594	126,813	633,336	-37.7	-80.0	3,626,165	6,921,409	+90.9
Bonds and notes.....thous. of dolls.	118,132	241,989	286,088	75,398	141,352	575,366	337,538	+307.0	+70.5	4,186,461	3,094,959	-26.1
Class of industry:												
Railroads.....thous. of dolls.	660	81,520	57,220	65,784	133,183	60,483	61,613	-54.6	-1.8	727,740	817,196	+12.3
Public utilities.....thous. of dolls.	111,865	380,291	102,356	26,509	150,779	492,000	175,084	+226.3	+181.0	2,625,926	2,482,245	-5.5
Industrials.....thous. of dolls.	91,282	280,078	98,202	51,400	20,897	34,595	234,405	+65.6	-85.2	1,523,531	2,000,889	+31.3
Oil.....thous. of dolls.	2,105	51,000	109,680	5,287	4,900	2,275	24,070	-53.6	-90.5	263,112	359,882	+36.8
Land and buildings.....thous. of dolls.	35,503	6,501	23,723	19,259	12,683	28,193	69,009	+122.3	-59.1	809,365	527,162	-34.9
Shipping and misc.....thous. of dolls.	534,808	707,987	306,075	33,893	22,504	84,634	405,693	+276.1	-79.1	1,667,295	3,668,527	+119.4
States and municipalities:												
Permanent loans.....thous. of dolls.	80,415	100,257	123,346	65,974	286,517	99,812	73,351	-65.2	+36.1	1,389,819	1,453,147	+4.6
Temporary loans.....thous. of dolls.	86,164	95,978	99,505	74,187	50,624	52,779	114,675	+4.3	-54.0	716,798	920,982	+28.5
Bond sales (Canada):												
Govt. and provincial.....thous. of dolls.		8,257	2,000	14,995	33,500	3,358	6,417	-90.0	-47.7	88,618	118,961	+34.2
Municipal.....thous. of dolls.	1,449	3,760	1,080	18,766	28,139	7,773	17,022	-72.4	-54.3	27,223	115,729	+325.1
Corporation.....thous. of dolls.	693	5,147	23,775	3,944	31,830	15,000	13,205	-52.9	+13.6	261,445	219,432	-16.1
Tax-exempt securities outstanding, end of month.....thous. of dolls.												
Federal farm loan banks.....thous. of dolls.	1,203,806	1,262,490	1,200,932	1,199,174	1,197,282	1,195,787	1,195,089	-0.1	+0.1			
Joint-stock land banks.....thous. of dolls.	594,876	593,388	593,507	587,723	584,824	582,062	604,375	-0.5	-3.7			
Federal intermediate credit banks.....thous. of dolls.	68,882	72,204	75,373	76,780	76,091	77,129	79,462	+1.4	-2.9			

\* Quarter ending in month indicated.

\* Quarter ending Dec. 31, 1928.

\* Revised.

## TREND OF BUSINESS MOVEMENTS—Continued

The cumulatives shown are through December except where otherwise noted. Earlier data for items shown here may be found on pages 27 to 133 of the February, 1930, "Survey"	1929					1930	1929	PER CENT INCREASE (+) OR DECREASE (-)		CUMULATIVE TOTAL FROM JAN. 1 THROUGH DEC. 31		Per cent. increase (+) or decrease (-) cumulative 1929 from 1928
	August	September	October	November	December	January	January	Jan., 1930, from Dec., 1929	Jan., 1930, from Jan., 1929	1928	1929	
	<b>BANKING AND FINANCE—Continued</b>											
<b>Stocks and Bonds</b>												
Stock prices, average daily closing:												
25 industrials, average.....dolls. per share.....	431.20	448.78	395.95	274.63	286.95	294.78	344.17	+2.7	-14.4			
25 railroads, average.....dolls. per share.....	151.29	152.26	142.30	123.25	126.84	123.29	132.40	-0.4	-4.6			
Southern cotton mills.....dolls. per share.....	90.41	89.37	88.61	86.99	86.73	85.63	101.04	-1.3	-15.3			
103 stocks, average.....dolls. per share.....	90.35	82.47	69.91	62.40	62.48	65.46	87.48	+4.8	-25.2			
Stock prices, average weekly closing:												
Industrials, rails, and utilities, (405).....rel. to 1926.....	218.1	225.3	201.7	151.1	153.8	156.3	185.2	+1.6	-15.6			
All industrials (338).....rel. to 1926.....	210.3	216.1	194.4	144.8	146.9	148.8	192.5	+1.3	-22.7			
All railroads (33).....rel. to 1926.....	165.4	168.1	157.0	135.1	136.3	136.5	141.8	+0.1	-3.7			
All utilities.....rel. to 1923.....	304.3	321.0	276.6	194.4	200.9	208.7	192.7	+3.9	+8.3			
Automobiles and trucks (13).....rel. to 1923.....	240.8	240.9	195.6	133.7	133.6	135.0	281.4	+1.0	-52.0			
Automobile tires and rubber goods (7).....rel. to 1923.....	169.5	163.4	147.4	103.0	99.6	95.9	195.4	-3.7	-50.9			
Airplane (10).....rel. to 1923.....	1,130.0	994.4	693.9	382.2	360.2	363.3	903.6	+0.9	-59.8			
Agricultural implements (4).....rel. to 1923.....	423.9	444.8	373.2	270.1	276.0	296.0	584.8	+7.2	-23.1			
Chain stores (17).....rel. to 1923.....	148.7	154.6	138.7	104.3	106.1	102.3	158.6	-3.7	-35.5			
Copper and brass (9).....rel. to 1926.....	288.9	294.4	258.7	204.0	196.0	192.8	262.0	-1.6	-26.4			
Food, other than meat (20).....rel. to 1926.....	186.7	191.1	176.2	141.4	144.1	146.0	180.9	+1.3	-19.3			
Machinery and machine equipment (10).....rel. to 1926.....	177.2	191.4	172.3	135.3	142.5	145.6	167.7	+2.2	-13.2			
Oil producing and refining (16).....rel. to 1926.....	157.5	166.7	161.4	130.6	131.9	128.8	137.4	-2.4	-6.3			
Railroad equipment (9).....rel. to 1926.....	157.8	157.6	143.6	119.5	122.7	124.1	139.2	+0.3	-10.8			
Rayon (5).....rel. to 1926.....	126.2	119.8	111.0	102.0	96.7	91.2	171.5	-5.7	-46.8			
Steel and iron (10).....rel. to 1926.....	238.4	243.9	217.1	169.1	169.9	177.1	173.8	+4.2	+1.9			
Textiles (31).....rel. to 1926.....	118.1	114.1	103.1	77.8	76.6	78.3	143.7	+2.2	-45.5			
Theaters, motion pictures, and amusements (7).....rel. to 1926.....	142.5	145.2	131.5	96.5	88.6	96.0	150.6	+8.4	-36.3			
Tobacco and tobacco products (10).....rel. to 1926.....	141.6	141.5	146.4	128.4	135.0	139.3	153.1	+3.2	-9.0			
Traction, motor transportation, etc. (9).....rel. to 1926.....	83.1	84.7	80.4	72.8	75.2	78.4	101.7	+4.3	-22.9			
Stock yields:												
Total common (90).....per cent.....	3.01	2.92	3.33	4.54	4.48	4.38	3.36	-2.2	+30.4			
Industrials (50).....per cent.....	3.26	3.19	3.61	4.89	4.83	4.75	3.34	-1.7	+42.2			
Public utilities (20).....per cent.....	1.78	1.69	2.05	3.16	3.08	2.91	2.06	-5.5	+9.4			
Railroads (20).....per cent.....	4.04	3.96	4.26	4.95	5.01	5.03	4.56	+0.4	+10.3			
Preferred high grade industrial (20).....per cent.....	5.54	5.52	5.54	5.65	5.54	5.53	5.42	-0.2	+2.0			
Stock sales, N. Y. Stock Exch. thous. of shares.....	95,705	100,056	141,668	72,455	83,862	62,308	110,804	-25.7	-43.8	2,055	1,124,991	+22.2
Bond sales:												
Miscellaneous.....thous. of dolls.....	251,287	210,995	337,374	275,288	262,174	201,400	235,427	-23.2	-14.5	2,783,471	2,963,176	+4.3
Liberty-Treasury.....thous. of dolls.....	8,510	9,267	15,839	15,746	15,361	7,975	13,772	-48.1	-42.1	178,315	142,147	-20.3
Total.....thous. of dolls.....	259,797	220,262	353,213	291,034	277,535	209,375	249,199	-24.6	-16.0	2,961,786	3,045,323	+2.8
Bond prices:												
Highest-grade rails .p. ct. of par. 4% bond.....	85.98	85.51	86.69	87.79	89.18	89.52	90.09	+0.4	-0.6			
Second-grade rails .p. ct. of par. 4% bond.....	77.25	77.64	79.35	80.14	82.66	82.39	81.27	-0.3	+1.4			
Public utility.....p. ct. of par. 4% bond.....	73.14	73.13	73.31	72.05	73.41	73.45	80.16	+0.1	-8.4			
Industrial.....p. ct. of par. 4% bond.....	74.54	73.84	74.88	74.18	75.26	74.49	78.89	-1.0	-5.6			
Comb. price index .p. ct. of par. 4% bond.....	77.43	77.23	78.23	78.08	79.65	79.44	82.39	-0.3	-3.6			
Bond prices, 1st. of following month:												
5 Liberty bonds.....p. ct. of par.....	100.61	100.34	102.20	104.24	103.76	103.08	102.49	-0.7	+0.6			
16 foreign gov. and city.....p. ct. of par.....	103.42	103.16	102.74	103.89	104.31	104.60	104.52	+0.3	+0.1			
Comb. price index, 66 bonds .p. ct. of par.....	97.66	97.48	97.75	99.11	98.89	99.02	100.08	+0.1	-1.1			
Bond yields:												
Total, 60 high grade.....per cent.....	4.74	4.76	4.73	4.70	4.64	4.64	4.60	0.0	+0.9			
Railroads (15).....per cent.....	4.67	4.71	4.66	4.57	4.50	4.51	4.50	+0.2	+0.2			
Industrials (15).....per cent.....	5.09	5.12	5.08	5.09	5.03	5.04	4.96	+0.2	+1.0			
Utilities (15).....per cent.....	4.89	4.90	4.91	4.88	4.80	4.79	4.79	-0.3	0.0			
Municipal (15).....per cent.....	4.31	4.32	4.29	4.25	4.22	4.23	4.16	+0.2	+1.7			
Municipal bond yield (20).....per cent.....	4.41	4.49	4.37	4.29	4.23	4.29	4.19	+1.4	+2.4			
U. S. Treasury notes and certificates, 3-6 months.....per cent.....	4.70	4.58	4.37	3.47	3.03	3.39	4.66	+11.9	-27.3			
Liberty and Treasury bonds.....per cent.....	3.72	3.70	3.67	3.45	3.46	3.51	3.59	+1.4	-2.2			
Long-term and real-estate bonds issued:												
Grand total.....thous. of dolls.....	28,403	5,338	19,275	7,820	8,100	23,363	61,065	+188.4	-61.7	682,265	333,875	-51.1
Purpose of issue—												
Finance construction.....thous. of dolls.....	16,108	950	13,875	1,910	4,530	17,500	13,610	+286.3	+28.6	252,920	133,815	-47.1
Real-estate mortgage.....thous. of dolls.....	8,485	188	2,250	1,055	215	2,075	11,245	+865.1	-81.5	212,829	80,958	-62.0
Acquisitions and improvements.....thous. of dolls.....	105	200	200	4,380	300	750	26,200	+150.0	-97.1	89,567	57,685	-35.6
Kind of structure—												
Office and commercial.....thous. of dolls.....	9,875	880	2,050	115	1,530	17,225	12,535	+37.4	+37.4	200,109	101,880	-49.1
Hotels.....thous. of dolls.....	9,995	11,600	4,010	1,115	690	690	44,760			44,760	40,840	-8.8
Apartments.....thous. of dolls.....	1,588	215	225	1,040	3,090	235	2,925	-92.0	-92.0	42,202	20,007	-52.6
<b>Corporation Stockholders</b>												
<i>(Quarterly)</i>												
Pennsylvania Railroad Co.:												
Domestic.....number.....	<sup>2</sup> 184,997				<sup>2</sup> 196,119		<sup>3</sup> 154,008	+6.0	+27.3			
Foreign.....number.....	<sup>2</sup> 2,931				<sup>2</sup> 2,974		<sup>3</sup> 2,963	+1.5	+0.4			
U. S. Steel Corp. common stock:												
Domestic.....number.....	<sup>2</sup> 107,747				116,060		<sup>3</sup> 99,174	+7.7	+17.0			
Foreign.....number.....	<sup>2</sup> 2,419				1,897		<sup>3</sup> 1,612	+17.7	+17.7			
Shares held by brokers.....per ct. of total.....	<sup>2</sup> 25.25				21.21		<sup>3</sup> 24.15	-16.0	-12.2			
American Telephone & Telegraph Co.:												
Domestic.....number.....	<sup>2</sup> 450,170				<sup>2</sup> 465,165		<sup>3</sup> 449,077	+3.3	+3.6			
Foreign.....number.....	<sup>2</sup> 5,256				<sup>2</sup> 5,190		<sup>3</sup> 5,432	-1.1	-4.5			

<sup>2</sup> Quarter ending in month indicated.<sup>3</sup> Quarter ending Dec. 31, 1928.<sup>4</sup> Revised.

## TREND OF BUSINESS MOVEMENTS—Continued

The cumulatives shown are through December except where otherwise noted. Earlier data for items shown here may be found on pages 27 to 133 of the February, 1930, "Survey"	1929					1930	1929	PER CENT INCREASE (+) OR DECREASE (-)		CUMULATIVE TOTAL FROM JAN. 1 THROUGH DEC. 31		Per ct. increase (+) or decrease (-) cumulative 1929 from 1928
	August	September	October	November	December	January	January	Jan., 1930, from Dec., 1929	Jan., 1930, from Jan., 1929	1928	1929	
	<b>FOREIGN EXCHANGE RATES</b>											
Europe:												
England.....dolls. per £ sterling..	4.85	4.85	4.87	4.88	4.88	4.87	4.85	-0.3	+0.4			
France.....dolls. per franc.....	.039	.039	.039	.039	.039	.039	.039	0.0	0.0			
Italy.....dolls. per lire.....	.052	.052	.052	.052	.052	.052	.052	0.0	0.0			
Belgium.....dolls. per franc.....	.139	.139	.140	.140	.140	.139	.139	-0.3	0.0			
Netherlands.....dolls. per guilder..	.401	.401	.403	.404	.404	.402	.401	-0.5	+0.2			
Sweden.....dolls. per krone.....	.268	.268	.268	.269	.270	.269	.267	-0.4	+0.7			
Switzerland.....dolls. per franc.....	.192	.193	.193	.194	.194	.194	.192	0.0	+1.0			
Asia:												
Japan.....dolls. per yen.....	.467	.473	.478	.487	.490	.491	.455	+0.2	+7.9			
India.....dolls. per rupee.....	.360	.360	.362	.363	.364	.363	.365	-0.3	-0.5			
America:												
Canada.....dolls. per Canadian doll..	.994	.992	.988	.984	.991	.989	.998	-0.2	-0.9			
Argentina.....dolls. per gold peso.....	.954	.953	.950	.939	.930	.913	.958	-1.8	-4.7			
Brazil.....dolls. per milreis.....	.119	.119	.119	.118	.113	.111	.119	-1.8	-6.7			
Chile.....dolls. per paper peso.....	.121	.121	.121	.121	.121	.121	.121	0.0	0.0			
<b>U. S. FOREIGN TRADE</b>												
<b>Imports</b>												
Grand total.....thous. of dolls..	369,358	351,304	391,063	338,472	309,809	310,967	368,897	+0.4	-15.7	4,091,444	4,339,361	+6.1
By grand divisions:												
Europe—												
Total.....thous. of dolls..	109,759	120,056	138,934	106,816	86,562		107,106			1,246,749	1,332,688	+6.9
France.....thous. of dolls..	14,028	17,462	20,128	13,524	11,081		13,691			153,748	171,491	+8.0
Germany.....thous. of dolls..	22,731	21,800	26,232	19,917	15,164		19,374			221,132	254,673	+15.2
Italy.....thous. of dolls..	7,660	9,407	13,733	12,135	9,030		9,022			101,682	117,066	+15.1
United Kingdom.....thous. of dolls..	25,920	28,987	35,050	24,081	18,131		27,527			318,541	329,766	-5.4
North America—												
Total.....thous. of dolls..	82,242	76,942	81,684	73,254	66,393		82,284			960,702	982,268	+2.2
Canada.....thous. of dolls..	43,751	42,257	46,073	42,456	37,637		42,053			489,304	504,278	+3.1
South America—												
Total.....thous. of dolls..	51,624	45,387	56,186	46,432	49,099		57,889			569,408	639,796	+12.4
Argentina.....thous. of dolls..	7,818	6,734	11,617	11,236	9,507		9,422			99,443	117,587	+18.2
Asia and Oceania—												
Total.....thous. of dolls..	114,589	102,504	109,074	102,846	101,296		113,330			1,222,377	1,336,808	+9.4
Japan.....thous. of dolls..	40,254	39,973	43,375	39,240	39,413		38,424			384,450	452,875	+17.8
Africa, total.....thous. of dolls..	11,144	6,415	5,146	9,206	7,223		8,287			90,205	108,608	+20.4
By economic classes:												
Crude materials.....thous. of dolls..	125,817	122,062	126,532	121,448	115,631	109,076	142,251	-5.7	-23.3	1,466,606	1,558,620	+6.3
Foodstuffs, crude and food animals.....thous. of dolls..	39,357	40,700	47,210	40,590	41,249	39,377	47,681	-4.5	-17.4	549,835	538,560	-2.1
Manufactured foodstuffs.....thous. of dolls..	35,558	32,327	35,085	28,669	24,389	23,931	28,773	-1.9	-16.8	405,470	423,622	+4.5
Semimanufactures.....thous. of dolls..	479,725	470,609	482,259	466,150	457,826	467,972	470,981	+17.5	-18.5	762,649	885,051	+16.0
Finished manufactures.....thous. of dolls..	488,901	485,606	499,976	481,615	470,713	470,611	479,211	-0.1	-10.7	906,885	993,508	+9.6
<b>Exports</b>												
Grand total, including reexports.....thous. of dolls..	380,758	437,671	528,578	442,311	426,596	417,000	488,023	-2.2	-14.6	5,128,357	5,241,735	+2.2
By grand division:												
Europe—												
Total.....thous. of dolls..	160,654	201,300	263,351	222,733	211,846		235,732			2,374,913	2,340,731	-1.4
France.....thous. of dolls..	17,095	24,026	33,531	26,797	25,838		26,268			240,683	285,657	+10.4
Germany.....thous. of dolls..	26,367	38,993	57,552	41,458	41,038		41,159			467,240	410,249	-12.2
Italy.....thous. of dolls..	6,620	14,500	16,348	14,096	14,506		15,995			162,125	153,975	-5.0
United Kingdom.....thous. of dolls..	58,333	72,609	95,129	84,782	77,917		90,693			847,326	847,875	+0.1
North America—												
Total.....thous. of dolls..	111,517	117,649	127,224	103,601	98,959		110,186			1,321,368	1,395,179	+5.6
Canada.....thous. of dolls..	76,862	80,485	83,946	68,002	57,003		70,927			914,714	948,503	+3.7
South America—												
Total.....thous. of dolls..	39,430	43,550	44,049	36,437	38,618		51,949			480,813	539,377	+12.2
Argentina.....thous. of dolls..	17,352	17,993	17,133	13,515	15,681		19,370			178,900	210,287	+17.5
Asia and Oceania—												
Total.....thous. of dolls..	58,610	66,039	81,979	70,218	72,540		80,364			834,549	635,686	-23.8
Japan.....thous. of dolls..	11,507	19,117	31,362	28,097	27,442		26,114			288,158	259,128	-10.1
Africa, total.....thous. of dolls..	10,546	9,133	11,975	9,322	9,633		9,792			116,713	130,759	+12.0
By economic classes:												
Total domestic exports only.....thous. of dolls..	437,456	431,801	522,380	435,450	420,672	404,849	480,384	-3.8	-15.7	5,030,099	5,157,193	+2.5
Crude materials.....thous. of dolls..	50,891	112,260	174,271	144,771	125,995	104,086	120,619	-17.4	-13.7	1,293,257	1,142,399	-11.7
Foodstuffs, crude, and food animals.....thous. of dolls..	28,438	29,943	24,110	22,557	17,363	17,711	29,666	+2.0	-40.3	294,677	269,591	-8.5
Manufactured foodstuffs.....thous. of dolls..	37,107	40,963	47,737	43,697	41,360	39,840	47,536	-3.7	-16.2	465,811	484,271	+4.0
Italy.....thous. of dolls..	57,069	57,691	64,558	51,837	54,539	50,818	67,704	-6.8	-24.9	716,352	729,110	+1.8
Finished manufactures.....thous. of dolls..	420,030	419,945	421,702	417,589	418,415	419,395	421,859	+6.1	-10.5	2,260,002	2,531,823	+12.0
Agricultural exports (quantities):												
All commodities.....rel. to 1910-1914..	76	121	166	150	130	113	133	-13.1	-15.0			
All commodities except cotton.....rel. to 1910-1914..	132	143	147	147	129	123	155	-4.7	-20.6			
<b>CANADIAN FOREIGN TRADE</b>												
Total trade:												
Imports.....thous. of dolls..	111,631	99,380	116,261	108,733	84,365	84,910	96,959	+0.6	-12.4	1,222,196	1,298,940	+6.3
Exports.....thous. of dolls..	98,395	89,424	121,437	113,746	90,477	75,369	97,296	-16.7	-22.5	1,374,131	1,208,875	-12.0

\* Revised.

# CHIEF FUNCTIONS OF THE DEPARTMENT OF COMMERCE

R. F. LAMONT, Secretary of Commerce

Junius Kurts, Assistant Secretary of Commerce

Samuel P. Morgan, Counselor

## AERONAUTICS BRANCH

CLAUDE M. YOUNG, Assistant Secretary of Commerce for Aeronautics

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

## BUREAU OF THE CENSUS

WILLIAM M. STUART, Director

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

Compilation of statistics of wealth, purchasing power, and taxation, including financial statistics of local governments every 10 years; annual compilation of financial statistics of States and municipal governments.

Compilation of statistics of marriage, divorce, infant deaths, and penal and other institutions annually; and of deaths from fire, flood, and automobile accidents weekly.

Compilation quarterly or monthly of statistics for cotton, wool, leather, and other industries; annually of foreign products; and publication monthly of Survey of Current Business.

## BUREAU OF FOREIGN AND DOMESTIC COMMERCE

WILLIAM L. COOPER, Director

The collection of timely information concerning world market conditions and openings for American products in foreign countries, through commercial attaches, trade commissioners, and consular officers; and its distribution through weekly Commerce Reports, bulletins, confidential circulars, the news and trade press, and district and cooperative officers in all cities.

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

The compilation and distribution of lists of leading buyers and agents for American products in all parts of the world and publication of weekly lists of specific sales opportunities abroad.

The publication of statistics on imports and exports.

The study of the processes of domestic trade and commerce.

## BUREAU OF STANDARDS

GRANDE K. BURNESS, 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; research 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 waste resulting from excessive variety in commodities.

## BUREAU OF MINES

SCOTT THOMAS, Director

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

Study of the extraction and marketing of minerals and collection of statistics on mineral resources and mine accidents.

The dissemination of results of scientific and economic researches in statistics, technical papers, mineral resources series, mineral circulars, and miscellaneous publications.

## BUREAU OF FISHERIES

HARRY O'MALLEY, Commissioner

The production 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 aquaculture; study of fishery methods and development in increasing the collection of fishery products; administration of State fisheries and the sale and distribution of shrimps of the coast of Florida.

## BUREAU OF LIGHTHOUSES

WALTER B. PERRY, Commissioner

Maintenance of lighthouses and aids aids to water navigation; construction and maintenance of aids to navigation along the coast.

The issue of Light Lists, Guide Lists, and Notices to Mariners; and information regarding aids aids to navigation.

## COAST AND GEODETIC SURVEY

HAROLD E. HAYES, Director

Survey of the coasts of the United States and publication of charts; the delineation of international waters, including Alaska, the Aleutian Islands, the Gulf of Mexico, and the Virgin Islands; the Coast and Geodetic Survey; and the issue of Notices to Mariners and other observations and astronomical observations.

Publication of charts, soundings, tide tables, current tables, and special publications.

## BUREAU OF NAVIGATION

JAMES J. TRACY, Commissioner

Supervision of commercial marine and merchant marine; supervision of registration, licensing, numbering, and other requirements of the United States flag and the annual production of a list of such vessels.

The regulation of the navigation and merchant marine and the supervision of the flag, tonnage, tonnage, etc.

## STEAMBOAT INSPECTION SERVICE

WALTER B. PERRY, Commissioner, Inspector General

The inspection of merchant vessels, including boilers, hulls, masts, rigging, and equipment; the issue of licenses of vessels, and licenses of pilots, masters, and deck men; and the investigation of accidents at steamboat inspection base.

## UNITED STATES PATENT OFFICE

THOMAS S. HODGSON, Commissioner

The granting of patents and the registration of trademarks, designs, and labels after technical examination and judicial proceedings.

Maintenance of library with rights search room, containing copies of United States patents and trade marks; designs, and other documents; and relating to patents and trademarks. Furnishing copies of records pertaining to patents.

Publication of the weekly Official Gazette, showing the patents and trademarks issued.

## RADIO DIVISION

W. D. YERGEN, Chief

Supervision of radio stations on shore; inspection of radio stations on ships; including broadcasting, marine, and other stations; and the issue of licenses, certificates, and other documents; and the supervision of the International Radio Conference and the International Maritime Radio Conference.

# PUBLICATIONS OF THE DEPARTMENT OF COMMERCE

Recent publications of the Department of Commerce having the most direct interest to readers of the *Survey* or *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.

## OFFICE OF THE SECRETARY

**Air Commerce Bulletin**, Feb. 1, 1930, 28 pages. This bulletin is issued semi-monthly by the Aeronautics Branch of the Department of Commerce and contains short articles on aviation developments. It also contains lists of aircraft having approved type certificates and of air transport routes.

**Airports and Landing Fields**, Revised Jan. 1, 1930. Aeronautics Bulletin No. 5, 15 pages. This publication is issued by the Aeronautics Branch of the Department of Commerce and lists airports and landing fields throughout the United States and also gives a list of proposed airports.

**Radio Service Bulletin**, Jan. 1930, 10 pages. Issued monthly by Radio Division of Department of Commerce. Contains list of radio stations and references to current radio literature. Single copies of bulletin are distributed free.

**Test of Scandinavian Gang Saws on Pacific Coast**, Report of Subcommittee on Gang Saws of Committee of the National Committee on Wood Utilization, Vol. 13, pages 2-11, 2 illus. Report on tests made with gang saws from Sweden in a sawmill at Olympia, Wash., on specimens of Sitka spruce, hemlock, and small timbers in mill. Price, 10¢.

## BUREAU OF THE CENSUS

The information concerning the methods and distribution of Census data is contained in the following:

**Census of Manufactures, 1929**, Reports giving detailed information for various industries by States.

- Chemical, 1929, 10 pages, price 10¢.
- Iron and Steel, 1929, 10 pages, price 10¢.
- Leather and Leather Goods, 1929, 10 pages, price 10¢.
- Machinery, 1929, 10 pages, price 10¢.
- Textiles, 1929, 10 pages, price 10¢.
- Food Products, 1929, 10 pages, price 10¢.
- Stone, Brick, and Glass, 1929, 10 pages, price 10¢.
- Woolen and Worsted, 1929, 10 pages, price 10¢.
- Wood Products, 1929, 10 pages, price 10¢.
- Other Industries, 1929, 10 pages, price 10¢.

**Birth, Stillbirth, and Infant Mortality Statistics, 1927**, Part I, Summary and Rate Tables and General Tables—Report based upon data secured from transactions of certificates of births, stillbirths, and deaths received from registration area for births, including 35 States and District of Columbia in Continental United States and also Virgin Islands. Paper, 258 pages, price 60¢.

**Mortality Statistics, 1927**, Part II, Year and Sex Tables—This report presents an analysis of mortality statistics shown in Part I of 1927 report. Paper, 10 pages, price 25¢.

**Telephones, 1927**, Census of Industrial Statistics—This report presents information concerning public telephone systems or lines reported within United States, with comparative figures for earlier years. Paper, 24 pages, price 10¢.

**BUREAU OF FOREIGN AND DOMESTIC COMMERCE**  
(The publication of this bureau may be obtained from the Director at Washington.)

**Monthly Summary of Foreign Commerce of United States**, Dec. 1929, Part I and Part II. Part I contains statistics of exports of domestic manufactures and minerals by value in December, 1929 and 1928, and for 12 months ended December, 1929 and 1928. Part II contains summaries of foreign and import trade, monthly foreign import and export values, and statistics of trade with Russia, Mexico, and Porto Rico. Single copies, Part I, 10¢; Part II, 25¢. Annual subscription, \$1.00.

**Consolidation of Foreign Exports by States and Countries**. This is a supplement to Monthly Data Handbook of United States.

**Louisville Grocery Survey**, Part I, Census of Food Distribution. Distribution Cost Studies No. 10, 11, 12, 13, 14, 15, 16, 17 charts, 17 diagrams. Data on sales made, expenses incurred, and commodities handled by all agencies selling groceries in Louisville district. Price, 17¢.

## BUREAU OF STANDARDS

**Bureau of Standards Journal of Research**, Feb. 1930, Pages 177-227. Illustrations, plates, charts. This journal contains the papers, formerly issued as Scientific and Technical 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. Price of single papers varies according to size of volume; the price of this volume is 40¢. Annual subscription, \$2.75.

**Turning with Shallow Cuts at High Speeds**, by H. J. French and F. G. Digges. Research Paper No. 120. Reprint from Bureau of Standards Journal of Research, Vol. 3, Dec., 1929, pp. 839-893, 8 illus., 14 pages of plates, 24 charts. Description of a method for testing lathe tools under shallow cuts and fine feeds. Price, 30¢.

**Method of Measuring Stress-strain Relations of Wet Textiles with Application to Wet Rayons**, by Homer A. Hamm and R. E. Stevens. Research Paper No. 122. Reprint from Bureau of Standards Journal of Research, Vol. 3, December, 1929, pp. 927-936, 2 illus., 3 pages of plates. Price, 10¢.

**Corrosion of Open Valley Flashings**, by K. Hilding Bell. Research Paper No. 123. Reprint from Bureau of Standards Journal of Research, Vol. 3, Dec., 1929, pp. 957-962, 6 illus., 3 pages. Study of corrosion of copper flashings on roofs and possible methods for its prevention. Price, 10¢.

**Comparative Properties of Wrought Iron Made by Hand Laddering and by Aspin Process**, by Henry S. Rawdon and O. A. Kault. Research Paper No. 124. Reprint from Bureau of Standards Journal of Research, Vol. 3, Dec., 1929, pp. 963-992, 5 illus., 29 plates. Price, 20¢.

**Gravimetric Method for Determination of Ruthenium**, by Ralph Ghelard. Research Paper No. 125. Reprint from Bureau of Standards Journal of Research, Vol. 3, Dec., 1929, pp. 1007-1004. Description of method of determining ruthenium by means of hydrolytic precipitation from chloride solution. Price, 25¢.

## BUREAU OF MINES

**Mineral Resources of United States, 1928**. The reports on mineral resources are first issued in the form of bulletins of which the following have been released since the February announcement and may be obtained at the price indicated.

- Asbestos Materials in 1928**, by Oliver Bowler. (Pt. II, pp. 257-262) Price, 10¢.
- Asphaltum in 1928**, by G. R. Hopkins and E. M. Cooley. (Pt. II, pp. 263-267) Price, 10¢.
- Phosphate Rock in 1928**, by Bertrand L. Johnson. (Pt. II, pp. 268-273) Price, 10¢.
- Sulfur in 1928**. (Pt. II, pp. 274-275) Price, 5¢.
- Silver in 1928**, by A. T. Coons. (Pt. II, pp. 276-287) Price, 20¢.
- Uranium in 1928**, by Charles Willie Merrill. (Pt. I, pp. 278-283) Price, 10¢.

## BUREAU OF FISHERIES

**Progress of Biological Inquiries, 1928**, Including Extracts from Proceedings of Divisional Conference, Jan. 2-5, 1929, by Elmer Higgins. Document No. 1068. (Appendix X to Report of Commissioner of Fisheries for Fiscal Year 1929, pp. 627-730.) A record of fishery investigations conducted during 1928, with a report on the conference of the division of scientific inquiry held Jan. 2 to 5, 1929. Price, 20¢.

## BUREAU OF NAVIGATION

**American Documented Seagoing Merchant Vessels of 500 Gross Tons and Over, Dec., 1929**, ii+71 pages. Published monthly. Single copies, 10¢; annual subscription, 75¢.

## COAST AND GEODETIC SURVEY

**United States Magnetic Tables and Magnetic Charts for 1926**, by Daniel L. Hagerd. Serial No. 453; ii+136 pages, 4 maps in pocket. Price, 60¢.

**Magnetic Declination in Delaware, Maryland, Virginia, West Virginia, Kentucky, and Tennessee**, Serial No. 457; iv+112 pages, 1 illus., 1 plate, 2 maps. This publication is for use of surveyors and shows location of magnetic stations in the States named. Price, 20¢.

**Leading Bank Pilot, Coast of New Jersey, 1929**, Fourth edition. Serial No. 452; ii+28 pages, 3 maps in pocket. Description of inland waters on the coast of New Jersey between Sandy Hook and Cape May. Price, 30¢.

**Catalogue of Charts, Maps, Coast Pilots, Tide Tables, and Current Tables of Philippine Islands, Jan. 1, 1930**, Serial No. 456; 15 pages, 3 charts.

**Synoptical Report, April-June, 1927**, by Frank Neumann-Nasser. No. 485; ii+43 pages. Report on earthquakes occurring in all parts of the world during period stated. Price, 10¢.

**United States Coast and Geodetic Survey Its Work, Methods, and Organization**, Special Publication No. 23; vi+111 pages, 10 illus., 1 plate.

**Discussion Comments of Magnetic**, by George Hartnell. Serial Publication No. 457; iv+30 pages, 9 illus. Price, 10¢.