

UNITED STATES
DEPARTMENT OF COMMERCE
WASHINGTON

SURVEY OF CURRENT BUSINESS

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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 August, 1929, semiannual issue

INTRODUCTION

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

At semiannual intervals detailed tables are published giving, for each item, monthly figures for the past two years and yearly comparisons, where available, back to 1913; also blank lines sufficient for six months have been left at the bottom of each table, enabling those who care to do so to enter new figures as soon as they appear (see August, 1929, issue). In the intervening months the more important comparisons only are given in the table entitled "Trend of business movements."

WEEKLY SUPPLEMENT

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

RELATIVE AND INDEX NUMBERS

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

The relative numbers are computed by allowing the monthly average for the base year or period to equal 100. If the movement for a current month is greater than the base, the relative number will be greater than 100, and vice versa. The difference between 100 and the relative number will give at once the per cent increase or decrease compared with the base period. Thus a relative number of 115 means an increase of 15 per cent over the base period, while a relative number of 80 means a decrease of 20 per cent from the base.

Relative numbers may also be used to calculate the approximate percentage increase or decrease in a movement from one period to the next. Thus, if a relative number at one month is 120 and for a later month it is 144 there has been an increase of 20 per cent.

When two or more series of relative numbers are combined by a system of weightings, the resulting series is denominated an index number. The index number, by combining many relative numbers, is

designed to show the trend of an entire group of industries or for the country as a whole, instead of for the single commodity or industry which the relative number covers. Comparisons with the base year or with other periods are made in the same manner as in the case of relative numbers.

RATIO CHARTS

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

RECORD BOOK

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

METHODS OF USE

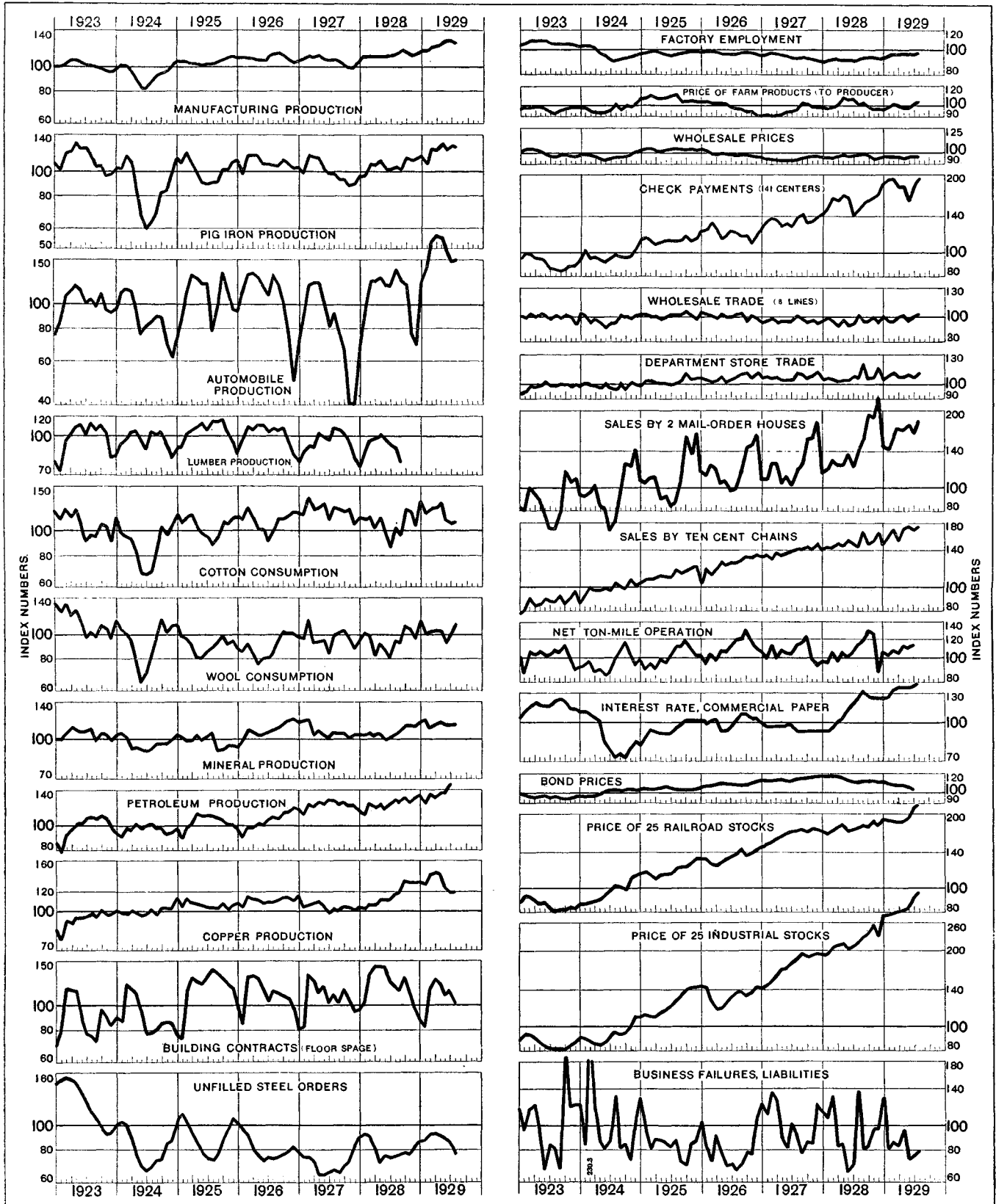
Methods of using and interpreting current business statistics have been collected by the department from many business concerns and are described in a booklet entitled "How to Use Current Business Statistics," together with methods of collecting statistics. This booklet may be obtained from the Superintendent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

This issue presents practically complete data for the month of August and contains text covering the early weeks of September (page 1), for which the basic figures in table and chart form are presented regularly in the weekly supplements. As most data covering a particular month's business are not available until from 15 to 30 days after the close of the month, a complete picture of that month's operations can not be presented at an early date, but the weekly supplements give every week the latest data available.



MONTHLY BUSINESS INDICATORS, 1923-1929

[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]



BUSINESS CONDITIONS IN AUGUST

PRODUCTION

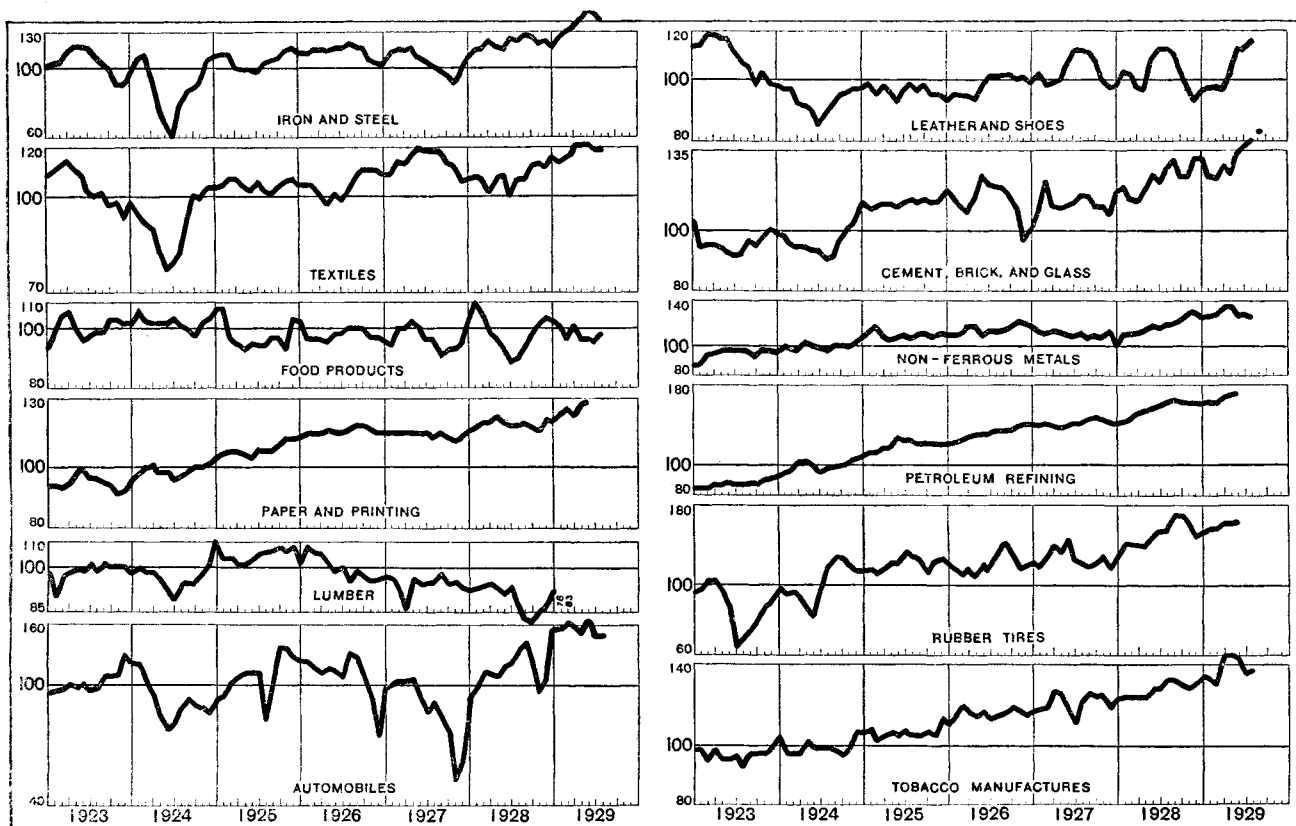
The manufacturing production during August, according to the weighted index of the Federal Reserve Board, showed practically no change from the preceding month but was greater than in August of last year. Mineral production, after allowances for seasonal changes, showed a gain over both the preceding month and August, 1928. Automobile production showed a slight decline from the preceding month but was greater than a year ago. Steel production declined from July but was greater than a year ago, while the consumption of cotton and wool by textile mills registered substan-

in either the preceding month or the same period of last year. Gains over both period were general in all lines except meats which declined from the preceding month and groceries which showed no change from August, 1928.

Sales by department stores showed gains over both the preceding month and August of last year. The value of merchandise stocks held by department stores at the end of August showed a gain over the preceding month but was lower than a year ago. Sales by 10-cent chain store systems showed large gains as compared with both periods.

MANUFACTURING PRODUCTION BY MAJOR GROUPS

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



tial gains over the previous month and August of last year.

COMMODITY STOCKS

The general index of commodity stocks showed a gain over the previous month and August a year ago, due to larger holdings of raw materials; stocks of manufactured goods at the end of August were lower than at the end of either the preceding month or August a year ago.

SALES

Unfilled orders for manufactured goods at the end of August were lower than at the end of the previous month, but showed a gain over last year.

Wholesale trade in August, after adjustments for seasonal conditions, showed a larger sales volume than

Other chain-store systems, including groceries, drugs, and shoes, showed substantial gains in business volume as compared with both the preceding month and the same period of 1928.

Sales of manufactured goods by manufacturers was generally greater than in August of last year. New orders for machine tools showed a substantial gain over a year ago. New sales of structural steel and steel castings were greater and fabricated steel plate and malleable castings were smaller than in August, 1928. New orders received for electric hoists and electric overhead cranes were greater than a year ago. New orders for textiles were smaller than in the corresponding period of last year.

PRICES

The general level of wholesale prices showed no change from the previous month but was lower than a year ago. As compared with the preceding month declines in the prices for fuel, metals, and farm products were balanced by gains in the prices for hides and leather and chemicals. Contrasted with last year declines in the prices for foods, hides and leather, textiles, fuels and chemicals more than offset the gains registered in the prices for metals, building materials and sundry miscellaneous items.

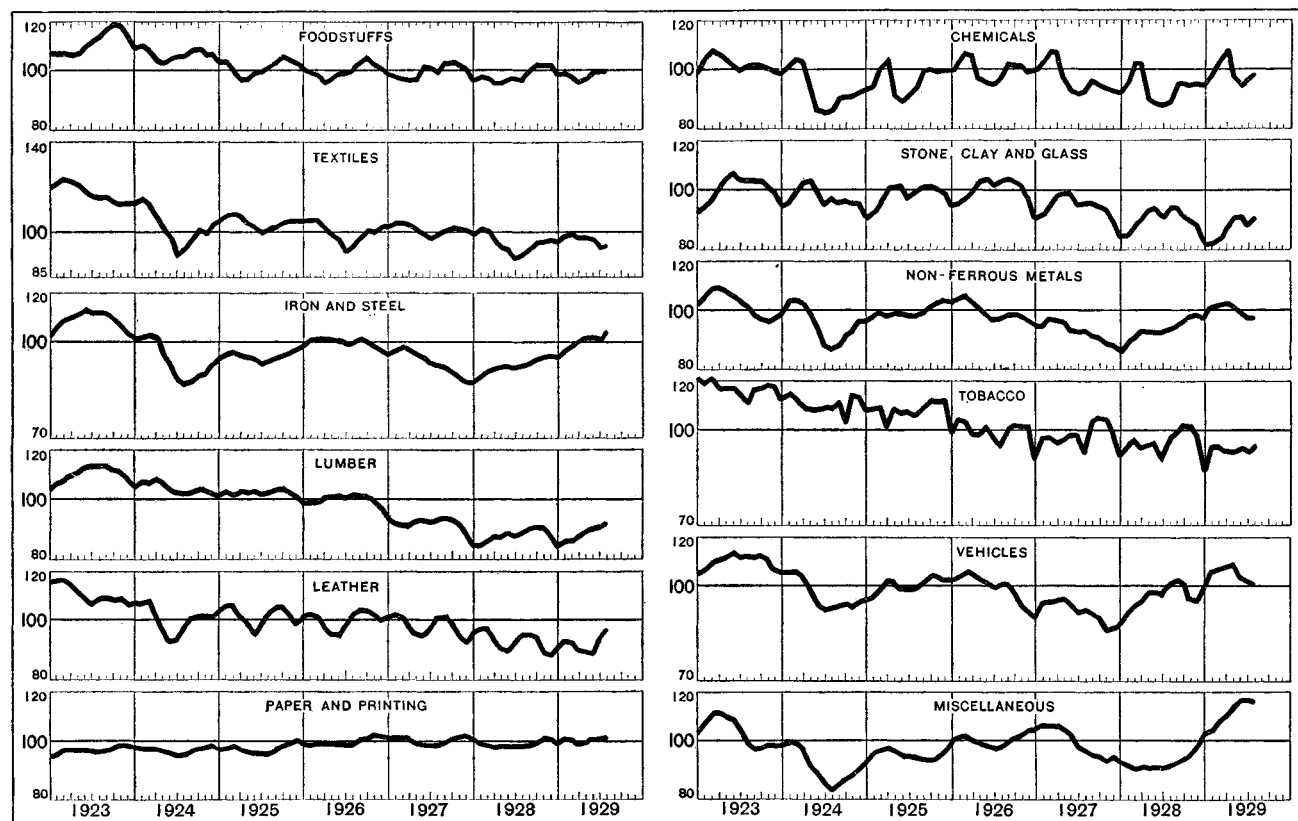
The index of prices received by farmers for their produce showed a gain of 2 per cent over the preceding month and 3 per cent over a year ago. Prices for all

with the preceding month factory employment in all major industries was greater, except in factories producing foods, iron and steel, and automobiles, which declined and paper and printing and non-ferrous metals which showed no change. Contrasted with a year ago factory employment in August was greater in all industrial groups except stone, clay and glass and tobacco products, where declines were recorded.

Factory pay-roll payments in August showed considerable gains over both the preceding month and August of last year, the increase over a year ago amounting to almost 9 per cent. Wage payments were larger in August than in the preceding month

FACTORY EMPLOYMENT, BY GROUPS

[1926 monthly average=100. August, 1929, is latest month plotted]



major groups of farm products were higher than in the previous month, except meat animals which declined. Contrasted with a year ago, farmers received higher prices for all items except cotton and cottonseed and certain unclassified produce.

The cost of living showed only slight change from the previous month but was higher than a year ago. The principal gain over last year occurred in food prices, while the principal decline was registered in clothing costs.

EMPLOYMENT

Industrial employment in August showed a gain as compared with both the preceding month and the corresponding period of last year, the increase over a year ago amounting to more than 5 per cent. As compared

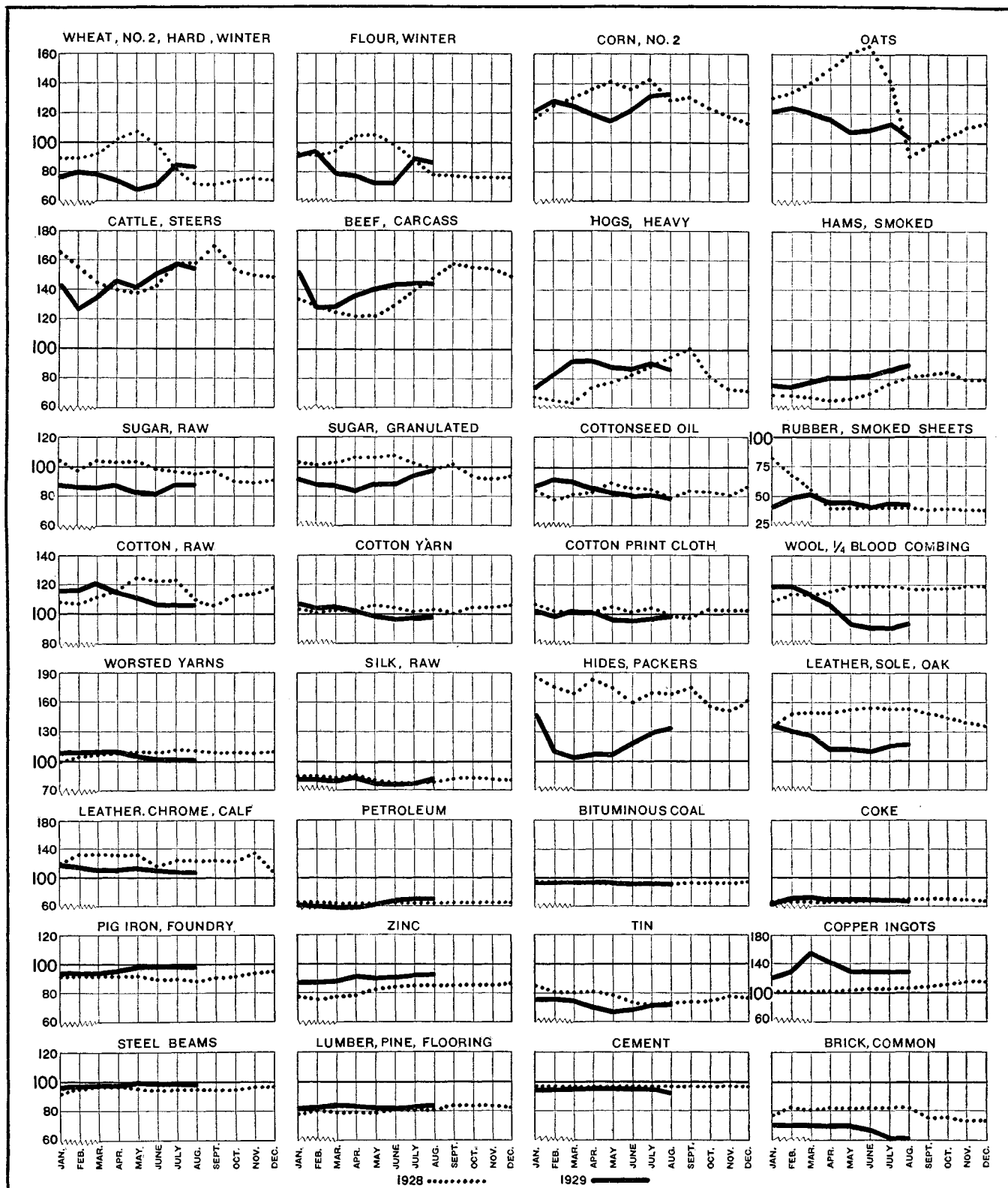
for all groups except foods, where a decline was registered. As contrasted with a year ago August pay-roll payments were greater for all major groups except stone, clay and glass, which showed a decline.

Employment reports from representative States showed generally larger employment in August than in either the preceding month or the corresponding period of 1928, with pay-roll payments showing similar comparison with both periods.

Industrial lay offs during August showed a gain over both the preceding month and August a year ago while voluntary industrial quits showed a decline from the preceding month but were higher than last year. Industrial accessions showed a considerable decline from both prior comparative periods.

WHOLESALE PRICES FOR SPECIFIED COMMODITIES

[Relative numbers, 1926 monthly average taken as 100. August, 1929, is latest month plotted. Data from which these charts are drawn are given on the opposite page]



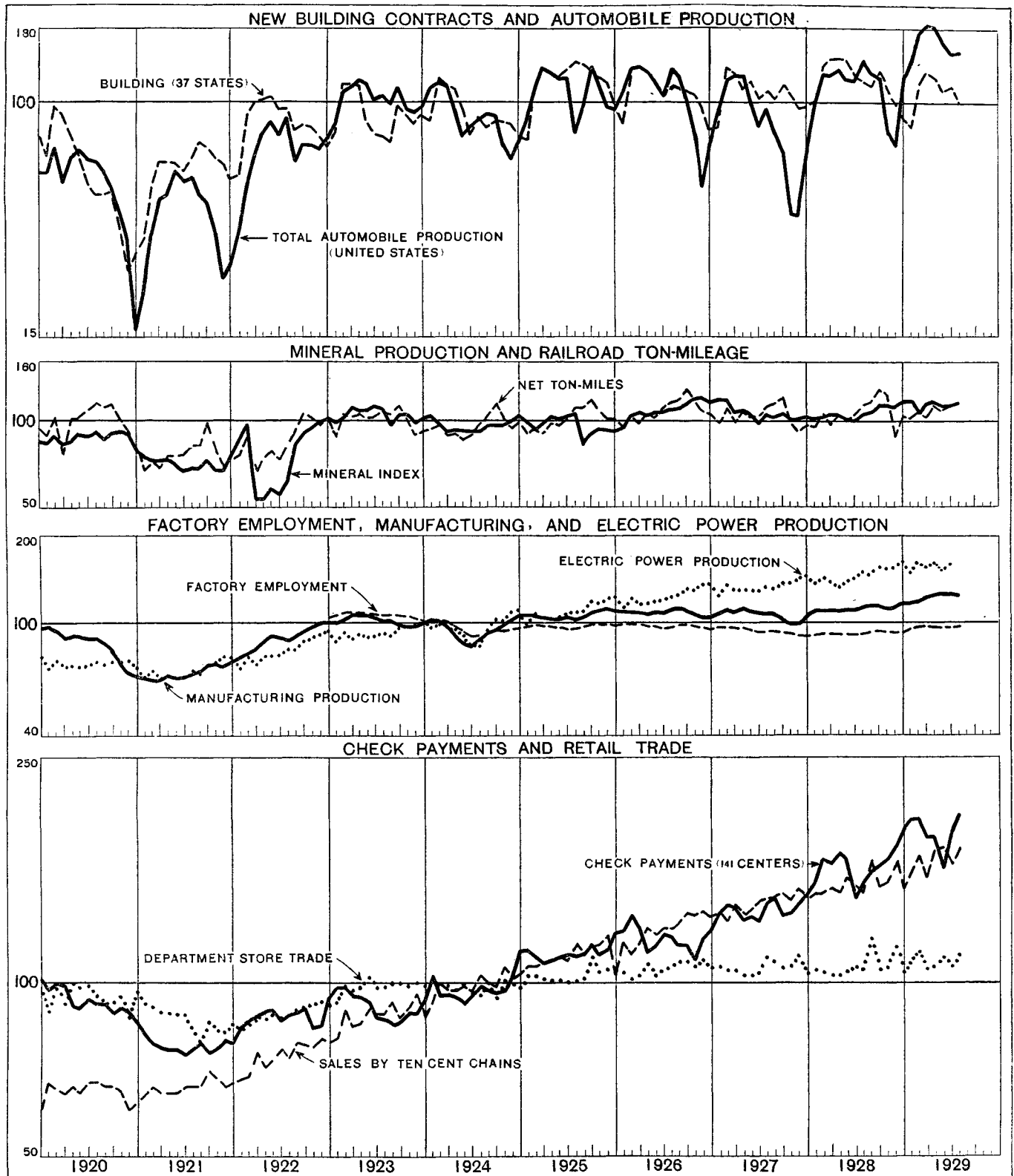
WHOLESALE PRICES FOR SPECIFIED COMMODITIES—Continued

NOTE.—Prices to producer on farm products and market price of wool 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				
		July, 1929	August, 1929	August, 1928	June, 1929	July, 1929	August, 1929	July, 1928	August, 1928
FARM PRODUCTS—AVERAGE PRICE TO PRODUCER									
Wheat.....	Bushel.....	1.024	1.107	0.952	64	76	82	87	71
Corn.....	Bushel.....	.912	.959	.982	124	131	137	147	141
Potatoes.....	Bushel.....	.870	1.386	.731	34	47	75	42	39
Cotton.....	Pound.....	.178	.180	.188	119	118	119	139	125
Cottonseed.....	Ton.....	34.84	32.69	36.87	132	128	120	144	136
Cattle, beef.....	Pound.....	.0980	.0962	.0951	151	152	149	142	147
Hogs.....	Pound.....	1.033	1.028	1.001	83	88	87	82	85
Lambs.....	Pound.....	1.190	1.139	1.188	106	103	98	106	103
FARM PRODUCTS—MARKET PRICE									
Wheat, No. 1, northern spring (Minneapolis).....	Bushel.....	1.43	1.34	1.19	73	91	85	87	75
Wheat, No. 2, red, winter (Chicago).....	Bushel.....	1.334	1.273	1.332	70	87	83	99	86
Corn, contract grade No. 2, cash (Chicago).....	Bushel.....	.995	1.002	.974	121	131	132	142	128
Oats, contract grades, cash (Chicago).....	Bushel.....	.483	.439	.390	109	112	102	143	91
Barley, feeding (Chicago).....	Bushel.....	.650	.639	.730	77	94	92	120	105
Rye, No. 2, cash (Chicago).....	Bushel.....	1.047	1.028	.984	93	110	108	118	103
Cotton, middling upland (New York).....	Pound.....	.186	.187	.193	107	106	106	123	110
Wool, 1/4 blood combing, Ohio and Pennsylvania fleeces (Boston).....	Pound.....	.42	.43	.54	91	91	93	120	117
Cattle, steers, good to choice, corn fed (Chicago).....	Cwt.....	14.975	14.688	15.106	151	157	154	157	159
Hogs, heavy (Chicago).....	Cwt.....	11.200	10.663	11.706	86	91	86	88	95
Sheep, ewes (Chicago).....	Cwt.....	5.550	5.156	5.719	81	84	78	82	87
Sheep, lambs (Chicago).....	Cwt.....	13.800	12.875	14.313	93	101	94	111	105
FOOD									
Flour, standard patents (Minneapolis).....	Barrel.....	7.690	7.306	6.619	76	91	87	87	79
Flour, winter straights (Kansas City).....	Barrel.....	6.313	6.235	5.656	73	87	86	89	78
Sugar, 96° centrifugal (New York).....	Pound.....	.038	.038	.041	81	88	88	97	95
Sugar, granulated, in barrels (New York).....	Pound.....	.052	.054	.055	89	94	98	104	100
Cottonseed oil, prime yellow (New York).....	Pound.....	.096	.094	.094	81	81	79	85	80
Beef, fresh, carcass, good native steers (Chicago).....	Pound.....	.238	.238	.244	143	145	145	139	149
Beef, fresh, carcass, steers (New York).....	Pound.....	.255	.251	.260	139	149	147	146	152
Pork, smoked hams (Chicago).....	Pound.....	.267	.275	.249	82	87	89	77	81
Butter, creamery, 92 score (New York).....	Pound.....	.42	.43	.47	98	93	96	100	104
Oleomargarine, standard, uncolored (Chicago).....	Pound.....	.235	.235	.215	103	103	103	94	94
TEXTILES									
Cotton yarns, carded, white, northern, mule spun, 22-1-cones (Boston).....	Pound.....	.348	.349	.369	97	97	97	107	103
Cotton-print cloth, 64 x 60-38 1/2"-5.35-yards to pound.....	Yard.....	.073	.075	.075	96	97	100	105	99
Cotton sheeting, brown 4/4 Trion (New York).....	Yard.....	.083	.084	.091	90	89	90	99	98
Worsted yarns, 2/32's cross-bred stock, white, in skein (Boston).....	Pound.....	1.450	1.450	1.600	101	101	101	112	112
Women's dress goods, French, 39 inches, at mills, serge.....	Yard.....	.975	.975	1.025	94	94	94	99	99
Suitings, unfinished worsted—13-ounce, mill.....	Yard.....	1.996	1.901	2.008	100	100	95	100	100
Suitings, serge, 11-ounce, 56-58 inch.....	Yard.....	1.959	1.959	1.998	90	90	90	95	92
Silk, Japan, 13-15.....	Pound.....	4.876	5.073	4.851	80	79	82	78	78
Hosiery, women's, pure silk, mill.....	Dozen pair.....	9.250	9.250	9.500	80	80	80	82	82
LEATHER									
Hides, green salted, packers' heavy native steers (Chicago).....	Pound.....	.181	.188	.236	119	129	134	170	168
Hides, calfskins, No. 1, country, 8 to 15 pounds (Chicago).....	Pound.....	.199	.198	.275	107	115	114	160	159
Leather, chrome calf, dull or bright "B" grades (Boston).....	Square foot.....	.490	.490	.565	110	108	108	125	125
Leather, sole, oak, scoured backs, heavy (Boston).....	Pound.....	.505	.520	.670	111	115	119	153	153
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	5.000	100	100	100	103	103
FUEL									
Coal, bituminous, mine-run (composite price).....	Net ton.....	3.906	3.913	4.009	91	91	91	92	93
Coal, bituminous, prepared sizes (composite price).....	Net ton.....	4.245	4.330	4.388	87	89	90	91	92
Coal, anthracite, chestnut (composite price).....	Long ton.....	12.754	12.848	12.853	92	93	93	94	93
Coke, Connellsville (range of prompt and future), furnace—at ovens.....	Short ton.....	2.800	2.763	2.875	68	68	67	68	70
Petroleum, crude, Kansas-Oklahoma—at wells.....	Barrel.....	1.300	1.300	1.210	69	69	69	63	64
METALS									
Pig iron, foundry No. 2, northern (Pittsburgh).....	Long ton.....	20.260	20.260	18.260	98	98	98	89	89
Pig iron, basic, valley furnace.....	Long ton.....	18.500	18.500	16.000	100	100	100	86	86
Steel billets, Bessemer (Pittsburgh).....	Long tons.....	35.000	35.000	32.000	101	100	100	91	91
Copper ingots, electrolytic, early delivery (New York).....	Pound.....	.1778	.1778	.1453	129	129	129	105	105
Brass, sheets, mill.....	Pound.....	.233	.233	.193	122	122	122	101	101
Lead, pig, desilverized, for early delivery (New York).....	Pound.....	.0680	.0675	.0625	83	81	80	74	74
Tin, straits (New York).....	Pound.....	.4640	.4665	.4808	68	71	71	72	74
Zinc, slab, western (St. Louis).....	Pound.....	.0677	.0680	.0625	91	92	93	85	85
BUILDING MATERIAL AND MISCELLANEOUS									
Lumber, pine, southern, yellow flooring, mill.....	M feet.....	37.270	37.430	36.340	82	83	83	80	81
Brick, common red, domestic building (New York).....	Thousand.....	10.125	10.125	13.500	67	62	62	82	82
Cement, Portland, net without bags to trade, f. o. b. plant (Chicago district).....	Barrel.....	1.650	1.604	1.683	95	95	92	97	97
Steel beams, mill (Pittsburgh).....	Cwt.....	1.950	1.950	1.850	100	100	100	95	95
Rubber, smoked sheets (New York).....	Pound.....	.213	.206	.193	43	44	43	40	40
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	2.525	86	91	91	88	88
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 August showed a decline from the previous month but were greater than a year ago. Wool consumption showed gains over both periods. Woolen machinery was likewise more active than a year ago.

Cotton receipts into sight were greater than in August of last year. Exports of raw cotton showed a decline from last year, while the consumption of cotton by domestic mills showed gains over both the preceding month and August a year ago. For the first eight months of the year cotton consumption was

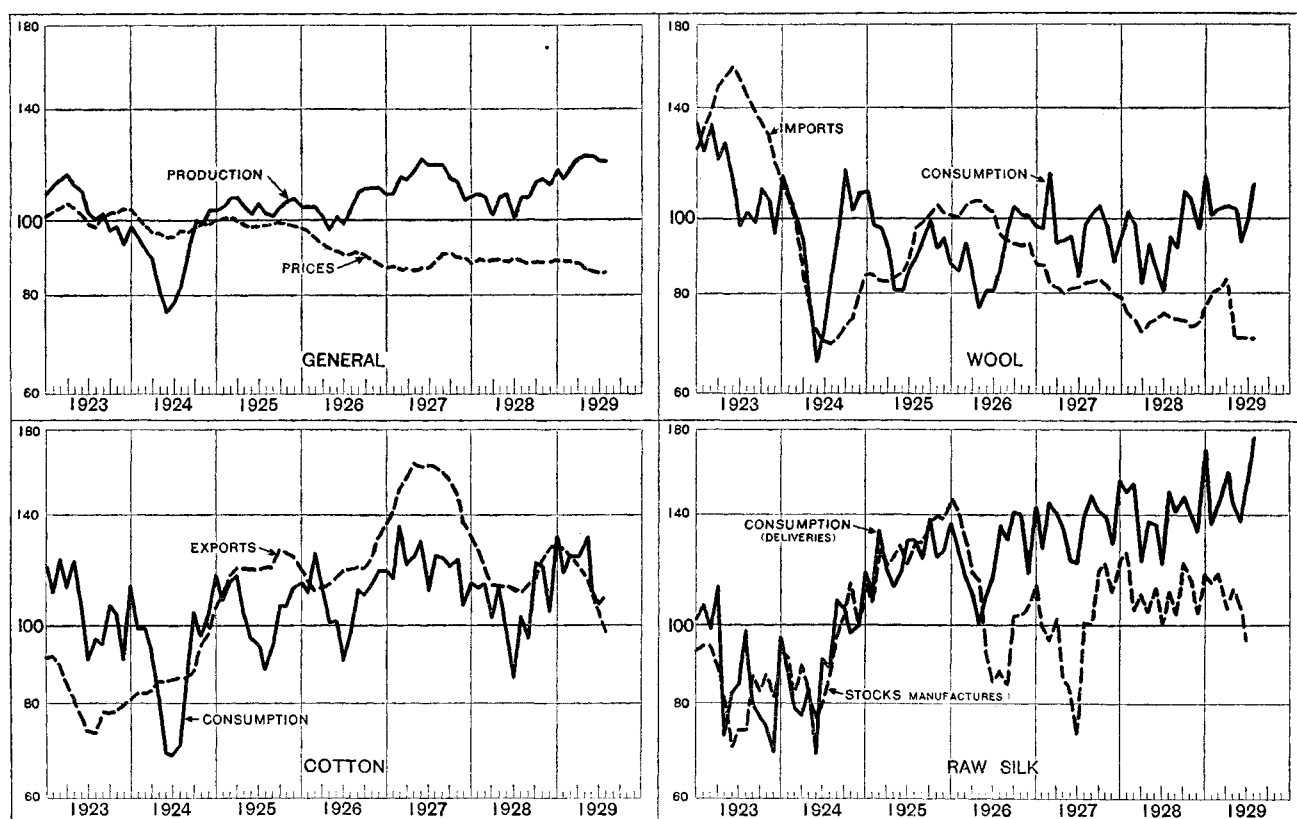
period of 1928. Rayon prices showed no change from either period.

The production of cotton textiles showed a gain over both the preceding month and August a year ago. New orders, however, were larger than in July but showed a decline from a year ago. The production of fine cotton goods showed gains over both periods. Imports of cotton cloth showed a decline from July but a gain over a year ago, while exports showed declines from both periods.

Prices for cotton goods were generally higher than in July, but showed a decline from a year ago. Cotton

THE TEXTILE INDUSTRIES

[Relative numbers, monthly average 1923-1925, taken as 100. August, 1929, 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]



13 per cent larger than in the same period of last year. Cotton stocks held at mills and in public storage at the end of August were 14 per cent heavier than a year ago.

Silk imports showed gains over both the previous month and August a year ago. The apparent consumption of silk was likewise greater than in either period, while silk machinery was generally more active than in either the previous month or August a year ago.

Rayon imports were larger than in July but smaller than a year ago, while for the first eight months of the year a gain of 45 per cent was reported over the same

finishers reported a larger operating activity than in either the preceding month or August a year ago. Shipments by cotton finishers during the first 8 months of the year showed a gain of 15 per cent over the same period of 1928. Stocks of finished goods held by finishers at the end of August were lower than in July but showed a slight gain over a year ago.

Imports of burlaps and unmanufactured fibers showed gains over both the preceding month and August of last year. For the first eight months of the year the importations of these items were larger than in the same period of 1928.

METALS

Pig-iron production during August showed a slight decline from the preceding month but was 20 per cent greater than a year ago. For the first eight months of the year the output of pig iron showed a gain of 18 per cent over the corresponding period of 1928. Wholesale prices for iron showed no change from the preceding month, but were generally higher than a year ago.

The production of steel ingots showed a gain in August over both the preceding month and August of last year. Steel-ingot production during the first 8 months of the year was 18 per cent greater than in the same period of last year. Unfilled steel orders at the end of August declined about 11 per cent from the

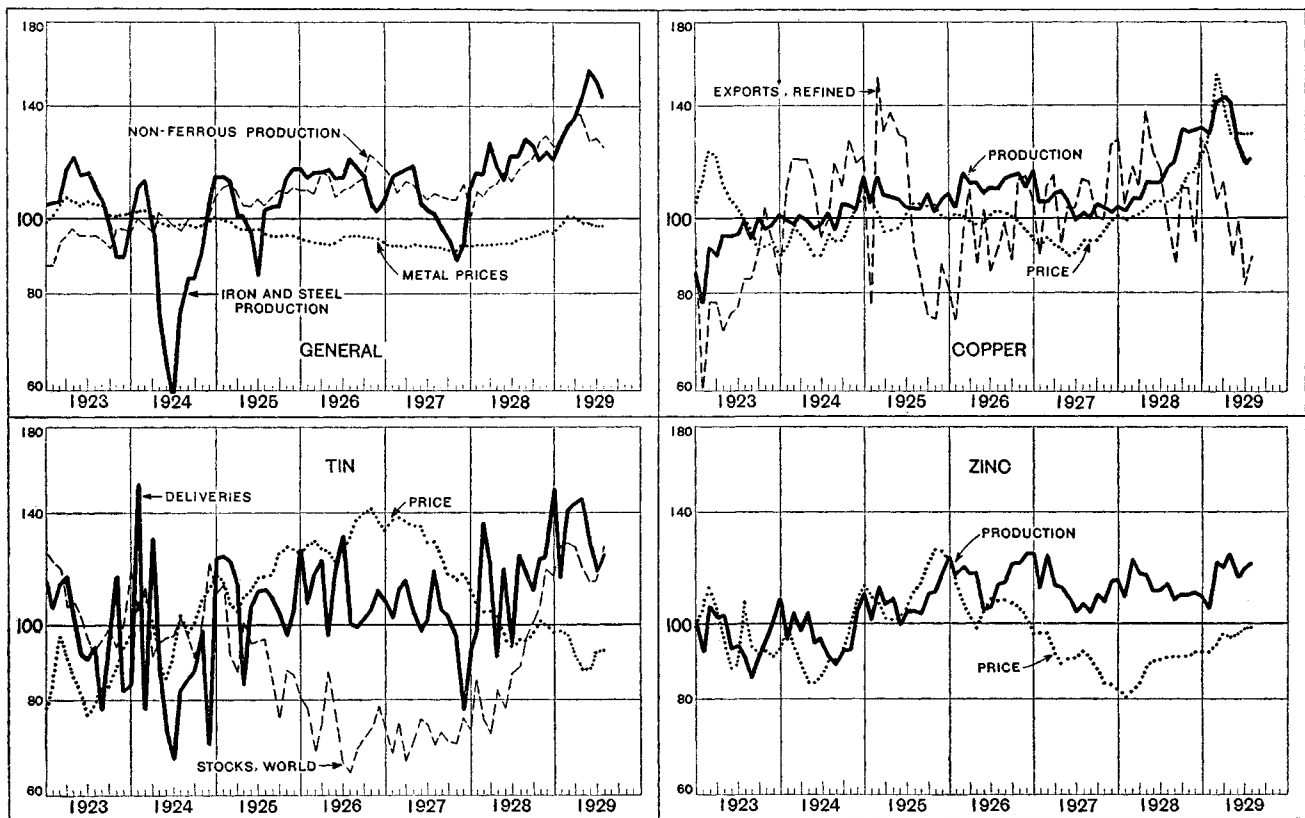
For the first 8 months of the year new orders for structural steel showed a gain of 19 per cent over the same period of 1928.

New orders for enameled sanitary ware were greater than a year ago. Shipments of enameled sanitary ware during the first eight months of the year, however, were considerably lower than during the same period of last year. Stocks of sanitary ware held at the end of August were considerably greater than a year ago.

New orders for fabricated steel plate were smaller than in either the preceding month or August of last year. Production of track work and steel barrels was greater than in either prior period. Shipments of cold-

THE METAL INDUSTRIES

[Relative numbers, monthly average 1923-1925, taken as 100. August, 1929, is latest month plotted]



previous month but were fractionally higher than a year ago.

The production of steel sheets by independent manufacturers showed substantial gains over both the preceding month and August a year ago. For the first 8 months of the year steel sheet production was 11 per cent heavier than in the same period of last year. Steel prices showed no change from the preceding month but were generally higher than a year ago.

New orders and production of steel castings showed declines from the preceding month but were greater than a year ago. For the first 8 months of the year the output of steel castings was 31 per cent larger than in the same period of last year.

Bookings for fabricated structural steel were greater than in either the preceding month or August a year ago.

finished steel bars were also larger than in either period. The output of malleable castings was smaller than in July but showed practically no change from a year ago.

New orders for machine tools showed a gain over both the preceding month and August of last year. New orders for electric overhead cranes were likewise greater than in either period. New orders for mechanical stokers, measured in horsepower, showed a decline from July but were greater than a year ago.

The output of copper was smaller than in July but greater than a year ago. For the first eight months of the year copper production was about 20 per cent greater than a year ago. Stocks of refined copper in North and South America at the end of August were 90 per cent larger than a year ago.

FUELS

The production of bituminous coal was greater than in the preceding month or August a year ago. Prices for bituminous averaged higher than in July but were lower than last year.

The production of anthracite was greater than in the preceding month but showed a decline from a year ago. Prices for anthracite averaged higher than in July but showed practically no change from a year ago.

The production of crude petroleum showed a gain

ago. Stocks of pneumatic tires at the end of the month likewise showed a gain over last year.

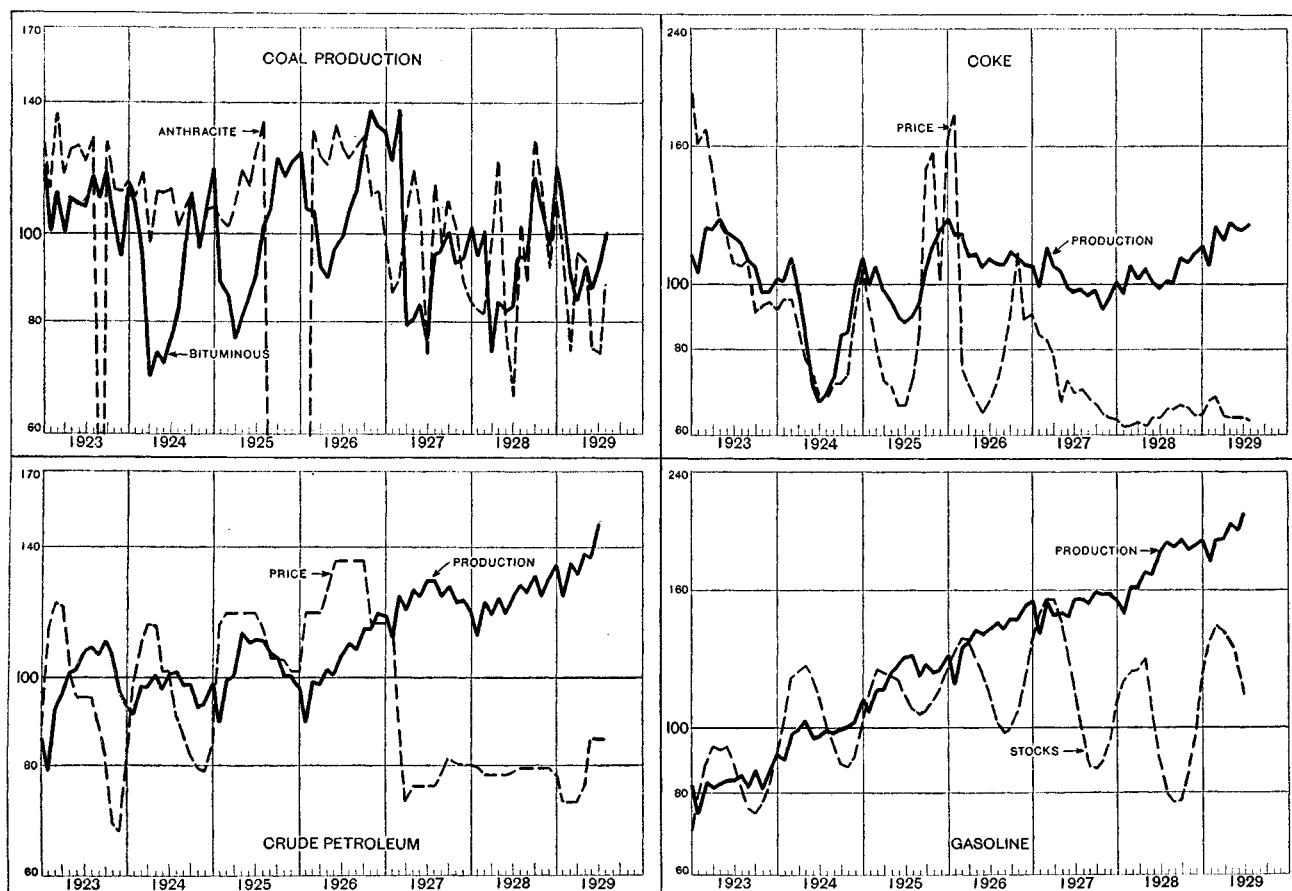
HIDES AND LEATHER

Imports of hides and skins were lower than in July but greater than a year ago. For the first eight months of the year imports were 15 per cent smaller than in the same period of last year.

More animals were slaughtered under Federal inspection in August than in either the preceding month or the corresponding period of last year.

THE FUEL INDUSTRIES

[Relative numbers, monthly average 1923-1925 taken as 100. August, 1929, is latest month plotted where data were available]



over both periods, while the price for petroleum showed no change from the preceding month but averaged higher than a year ago.

AUTOMOBILES AND RUBBER

The output of automobiles was smaller than in July but showed a gain over a year ago. For the first eight months of the year automobile production showed a gain of more than 38 per cent over the corresponding period of 1928.

Imports of rubber were lower than in July but greater than a year ago. For the first eight months of the year rubber imports showed an increase of 48 per cent over the same period of 1928. Production of pneumatic tires in August was greater than a year

ago. The production of sole leather showed a gain over July but was lower than in August a year ago. For the first eight months of the year sole leather output showed a decline of 12 per cent from the corresponding period of last year. Stocks of sole and belting leather at the end of July were lower than a year ago. Exports in August were lower than in either the preceding month or August last year. Prices for sole leather averaged higher than in July, but were 22 per cent below the level of a year ago.

The production of shoes showed gains over both the preceding month and August of last year. Prices for shoes showed practically no change from either the preceding month or the same period of last year. Shoe exports were lower than in either period.

BUILDING AND CONSTRUCTION

New building contracts awarded in August, measured in value, showed a decline from both the preceding month and the corresponding period of 1928. The decline from a year ago was solely due to smaller contracts for residential construction. For the first eight months of the year building contracts showed a decline of about 7 per cent from the same period of 1928. All classifications, however, showed larger awards during this period except residential construction, educational buildings and other public and semi-public structures. The declines in the latter two groupings, however, were unimportant when compared with the decline of approximately \$500,000,000 in residential construction.

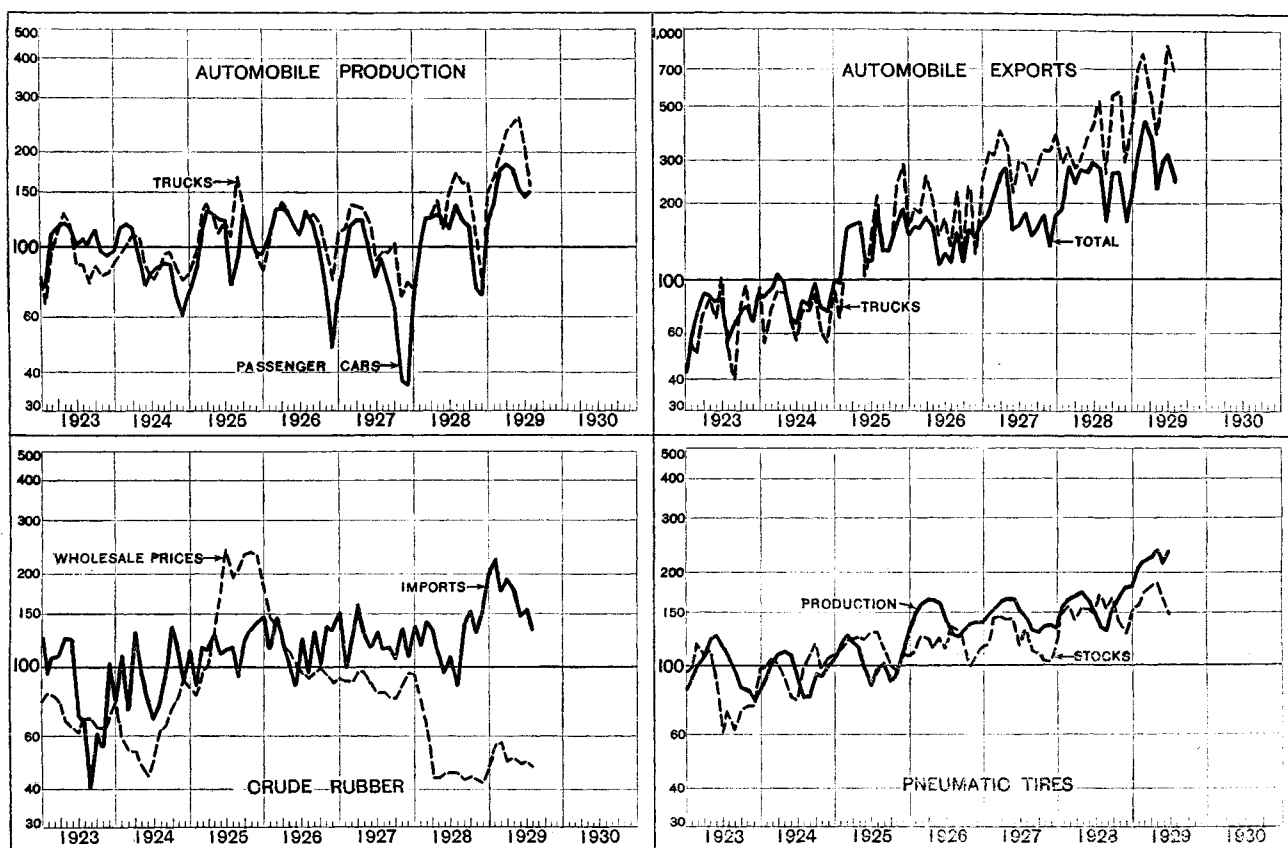
ago. For the first eight months of the year production and shipments of cement showed a decline from the corresponding period of last year amounting to 2 per cent. Wholesale prices for cement averaged lower than in either the previous month or August of last year.

New awards for concrete paving showed declines from both the preceding month and August of last year; the eight months' total also showed a decline from a year ago.

New orders and shipments for vitreous-china plumbing fixtures were greater than in either the previous month or August of last year, but the totals for the first eight months showed declines amounting to more than 5 per cent from the same period of 1928.

THE AUTOMOBILE AND RUBBER INDUSTRIES

[Relative numbers, monthly average 1923-1925 taken as 100. Where available, August, 1929, is latest month plotted]



LUMBER AND LUMBER PRODUCTS

The production of the major types of lumber showed gains as compared with the previous month, but declines were registered from a year ago. Lumber prices were generally higher than in either period. Exports of the principal types of lumber were lower than in the preceding month but higher than a year ago.

STONE, CLAY AND GLASS

The production of Portland cement showed a gain over the preceding month but was lower than a year

ago. The output of polished plate glass, on the other hand, showed gains in August over both the preceding month and August of last year. For the eight months ended August polished plate glass production showed a gain of 17 per cent over the same period of 1928.

The production of illuminating glassware showed a gain over August but was lower than a year ago. For the first eight months of the year, however, the output was 8 per cent larger than in the same period of 1928.

FOODSTUFFS AND TOBACCO

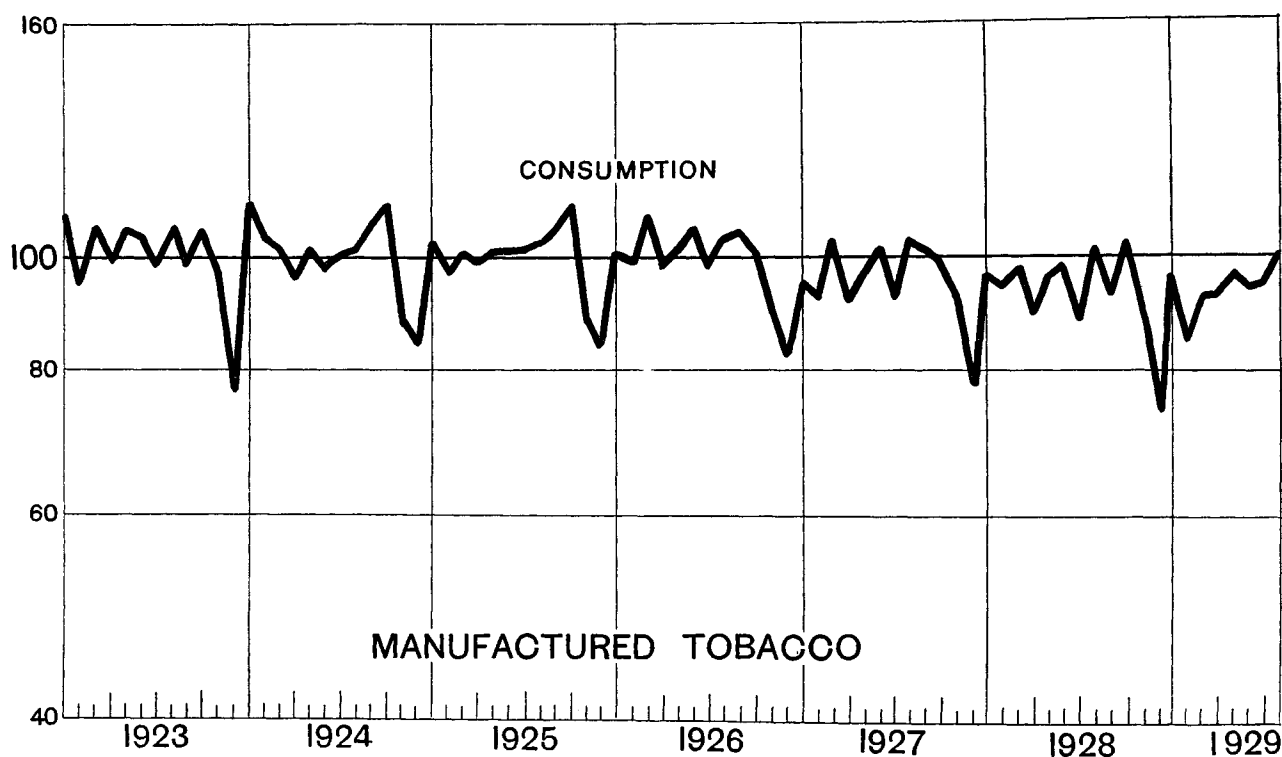
The visible supply of wheat in the United States and Canada at the end of August was considerably greater than a year ago. Receipts and shipments of wheat at the principal domestic primary markets were also greater than a year ago. Exports of wheat showed a gain over August of last year. Wheat prices were lower than in July but were generally higher than a year ago. The output of wheat flour showed a gain over both the preceding month and August of last year.

The visible supply of corn was substantially lower than a year ago. Receipts and shipments of corn at principal markets also showed declines from last year.

Receipts and shipments of hogs at primary markets during the first eight months of the year showed substantial declines from the same period of 1928. The output of pork products under Federal inspection in August was smaller than in July but substantially higher than a year ago. For the first eight months of the year, however, the production of pork was 3 per cent smaller than in the same period of last year. Pork exports in August were greater than a year ago, but showed a decline from July. For the first 8 months of the year exports of pork showed a gain of 6 per cent over the corresponding period of a year ago. Cold-storage holdings of pork products at the end of August were substantially lower than at that time last year.

CONSUMPTION OF MANUFACTURED TOBACCO

[Relative numbers, monthly average 1923-1925 taken as 100. August, 1929, is latest month plotted]



The price of corn showed practically no change from the preceding month but was higher than a year ago.

The visible supply of oats and barley was greater than a year ago. Prices for oats averaged higher than last year, while barley prices showed a decline.

Receipts and shipments of cattle at primary markets were lower than in August, 1928. The production of beef products under Federal inspection was greater than in either the preceding month or August a year ago. Exports of beef were smaller than in July but larger than last year. Cold-storage holdings of beef products were more than 50 per cent larger at the end of August than a year ago. Prices for cattle and beef averaged lower than in either the preceding month or the corresponding period of last year.

Receipts of butter at primary markets were lower than a year ago, but for the first eight months of the year showed a gain of almost 5 per cent over the same period of 1928. Storage holdings of butter at the end of the month were substantially heavier than a year ago. Prices for butter averaged higher than in July but were lower than a year ago. The receipts of cheese at primary markets were lower than last year. Storage holdings of cheese showed a gain over a year ago. The wholesale price of cheese showed no change from the preceding month but was lower than a year ago.

Receipts of poultry were larger than in either the preceding month or August of last year. Storage holdings at the end of the month also showed gains over both periods.

TRANSPORTATION

The movement of goods by rail, as indicated by figures on the carloadings, was considerably greater than in July and showed a gain of 4½ per cent over August of last year. For the first eight months of the year freight car loadings showed a gain of almost 5 per cent over the same period of last year. The movement of commodities by river and canal was generally greater during the first eight months than in the corresponding period of a year ago.

DISTRIBUTION MOVEMENT

Sales by mail-order houses and 10-cent chain store system were substantially larger than in either the preceding month or August of 1928. For the first

money rates averaged lower. Rates on both types averaged higher than a year ago.

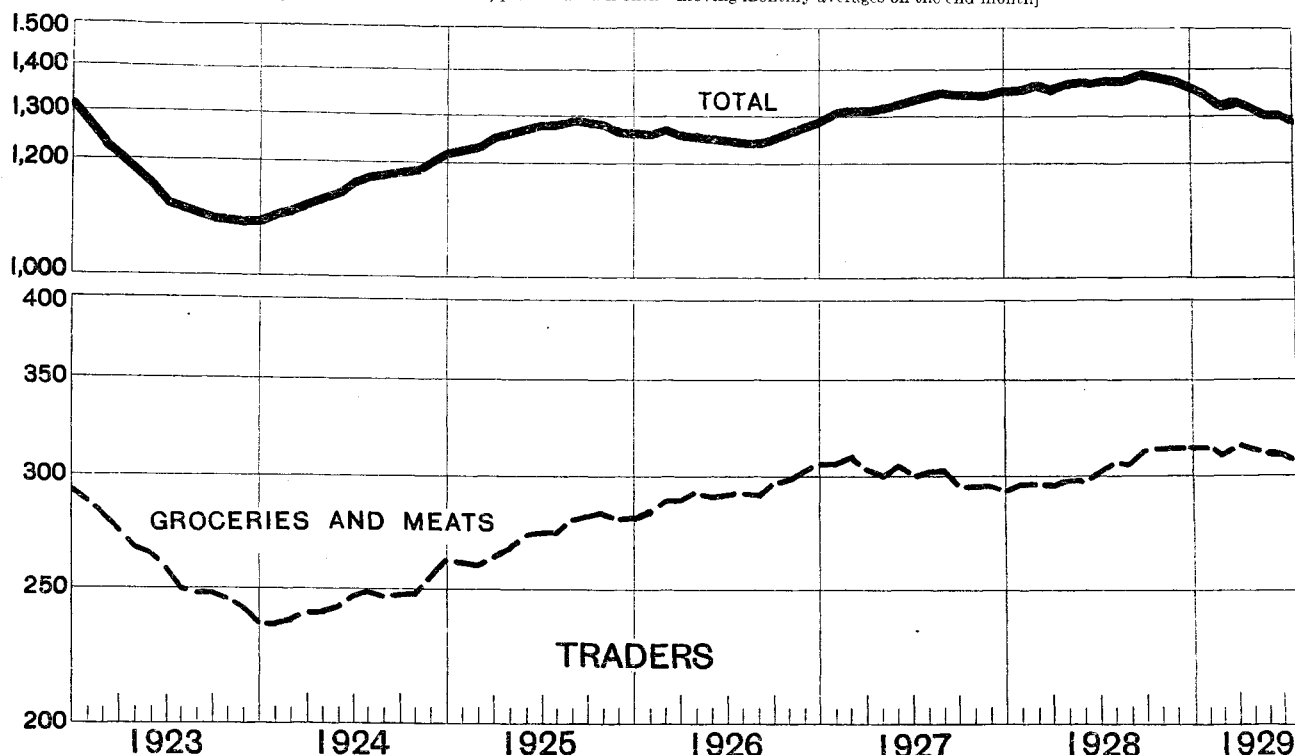
New sales of life insurance were lower than in July but greater than a year ago. The volume of dividend and interest payments showed a considerable gain over a year ago. Prices for stocks reached a new high point during the month. Bond prices, however, showed further declines from both the preceding month and a year ago. Business failures were fewer in number and showed smaller liabilities than in August of last year.

GOLD, SILVER, AND FOREIGN EXCHANGE

Domestic receipts of gold at the mint were greater than in either the preceding month or August of last

BUSINESS FAILURES AMONG MERCHANTS

[Actual number of failures, plotted as 12 months' moving monthly averages on the end month]



eight months of the year mail-order houses reported an increase of 30 per cent over the corresponding period of last year, while chain 10-cent stores showed a gain of more than 9 per cent over the same period. Magazine advertising was 10 per cent heavier than in August of last year, measured in lineage.

BANKING AND FINANCE

The volume of check payments was greater than a year ago. Bills discounted by Federal reserve banks showed a decline from both the preceding months and August of last year. Loans and discounts of Federal reserve member banks were lower than in July but greater than a year ago. Brokers loans reached a new high level during the month. Interest rates on time funds were stronger than in July, while call

year. Gold imports showed a considerable gain over a year ago, while exports were lower.

The output of silver in both the United States and Canada was greater than in the previous month or August a year ago. Silver stocks were likewise greater than in either period. Domestic imports of silver were larger than in either the preceding month or August a year ago, while exports, showing a gain over July, were lower than last year. Silver prices were substantially lower than a year ago.

Exchange on the principal foreign currencies showed only little change from the preceding month but important gains were registered in the Italian lira, and the Japanese yen. As compared with a year ago exchange rates showed only slight change except for gains in the exchange on Italy and Japan.

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	Maxi- mum since Jan. 1, 1923	Mini- mum since Jan. 1, 1923	1928			1929			PER CENT INCREASE (+) OR DECREASE (-)	
			June	July	August	June	July	August	August, 1929, from July, 1929	August, 1929, from August, 1928
PRODUCTION										
TOTAL INDUSTRIAL										
Unadjusted, except for working days.....	125	81	108	105	110	124	119	121	+1.7	+10.0
Adjusted for seasonal variations.....	123	83	109	110	112	126	123	123	0.0	+9.8
MANUFACTURING										
Total (adjusted for working days only).....	127	79	108	106	110	126	119	121	+1.7	+10.0
Total (adjusted for seasonal variations).....	128	82	111	111	113	128	125	125	0.0	+10.6
Iron and steel.....	155	59	115	124	121	155	151	143	-5.3	+18.2
Textiles.....	121	77	108	100	107	121	117	119	+0.9	+11.2
Food products.....	110	90	93	89	90	96	96	98	+2.1	+8.9
Paper and printing.....	127	91	118	117	117	128	123			
Lumber.....	110	78	91	94	87	85	87			
Automobiles.....	166	47	117	119	133	166	146	147	+0.7	+10.5
Leather and shoes.....	134	86	108	112	112	113	113	115	+1.8	+2.7
Cement, brick, and glass.....	140	92	123	119	126	134	138	140	+1.4	+11.1
Nonferrous metals.....	137	87	115	113	117	126	128	124	-3.1	+6.0
Petroleum refining.....	171	84	153	156	160	170	171			
Rubber tires.....	166	66	143	149	151	162	141			
Tobacco manufactures.....	142	93	125	125	129	139	131	133	+1.5	+3.1
MINERALS										
Total (adjusted for working days only).....	124	84	104	103	110	116	118	121	+2.5	+10.0
Total (adjusted for seasonal variations).....	120	90	101	100	105	112	114	115	+0.9	+9.5
Bituminous coal.....	125	77	91	93	91	100	101	97	-4.0	+6.6
Anthracite coal.....	133	1	76	67	94	76	72	81	+12.5	-13.8
Crude petroleum.....	147	88	118	119	123	136	144	147	+2.1	+19.5
Iron-ore shipments.....	143	0	107	104	104	126	119	121	+1.7	+16.3
Copper.....	139	82	110	113	116	124	122	119	-2.5	+2.6
Zinc.....	127	93	117	117	120	122	125	127	+1.6	+5.8
Lead.....	125	75	100	97	107	112	120			
Silver.....	123	85	93	76	87	91	88	91	+3.4	+4.6
ANIMAL PRODUCTS (Marketings)										
Total.....	124	79	116	108	97	112	116	100	-13.8	+3.1
Wool.....	421	14	378	387	195	306	404	268	-33.7	+37.4
Livestock.....	131	76	83	78	79	76	83	77	-7.2	-2.5
Poultry and eggs.....	148	67	106	92	80	111	96	89	-7.3	+11.3
Dairy products.....	160	64	147	138	117	147	144	116	-19.4	-0.9
Fish.....	279	44	168	154	170	179	243	247	+1.6	+45.3
CROPS (Marketings)										
Total.....	251	45	52	87	115	56	90	145	+61.1	+26.1
Grains *.....	218	38	56	147	186	75	179	218	+21.8	+17.2
Vegetables *.....	199	60	164	107	83	147	169	88	-47.9	+6.0
Fruits *.....	266	43	75	164	165	89	106	130	+22.6	-21.2
Cotton products *.....	353	11	25	28	41	18	11	72	+554.5	+75.6
Miscellaneous crops *.....	266	18	24	22	116	25	18	178	+888.9	+53.4

* 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	Maxi- mum since Jan. 1, 1923	Mini- mum since Jan. 1, 1923	1928			1929			PER CENT INCREASE (+) OR DECREASE (-)	
			June	July	August	June	July	August	August, 1929, from July, 1929	August, 1929, from August, 1928
PRODUCTION—Continued										
FOREST PRODUCTS										
Total.....	112	74	95	87	88	90	88	91	+3.4	+3.4
Lumber.....	112	71	93	88	88	87	86	91	+5.8	+3.4
Pulpwood.....	151	54	96	64	82	99	81	77	+4.9	-6.1
Gum (rosin and turpentine) *.....	204	18	172	170	161	177	204	189	-7.4	+17.4
Distilled wood.....	148	65	84	80	78	102	97	100	+3.1	+28.2
NEW ORDERS										
Total.....	138	73	97	95	98	90	91			
Textiles.....	179	70	85	77	92	87	85			
Iron and steel.....	143	71	117	116	118	124	134			
Lumber.....	141	67	101	100	100	75	83			
Paper and printing.....	118	85	102	99	106	107	109			
Stone and clay products.....	129	75	104	97	97	94	90			
STOCKS										
Grand total.....	138	82	108	105	107	119	121	126	+4.1	+17.8
Total manufactured goods.....	125	88	117	118	115	117	118	114	-3.4	-0.9
Foodstuffs.....	129	79	118	126	117	113	132	126	-4.5	+7.7
Textiles.....	138	78	134	129	125	124	125	123	-1.6	-1.6
Iron and steel.....	157	78	140	133	131	145	139	128	-7.9	-2.3
Nonferrous metals.....	133	74	120	119	121	116	120	125	+4.2	+3.3
Lumber.....	125	78	94	104	105	99	101	102	+1.0	-2.9
Stone, clay, etc.....	192	64	153	149	140	169	154	130	-15.6	-7.1
Leather.....	123	66	71	71	72	71	71	71	0.0	-1.4
Rubber.....	199	77	162	145	134	199	177	156	-11.9	+16.4
Paper.....	155	46	153	155	156	94	90	98	+8.9	-37.2
Chemicals and oils.....	125	84	96	90	91	99	104	107	+2.9	+17.6
Total raw materials.....	157	69	102	96	101	119	123	134	+8.9	+32.7
Foodstuffs.....	212	68	126	123	136	167	188	212	+12.8	+55.9
Textiles.....	202	43	81	67	65	80	64	66	+3.1	+1.5
Metals.....	136	54	74	87	92	94	100	112	+12.0	+21.7
Chemicals and oils.....	153	73	93	91	93	96	94	96	+2.1	+3.2
UNFILED ORDERS										
Total.....	167	67	75	77	75	83	82	76	-7.3	+1.3
Textiles.....	154	62	67	68	66	73	71	69	-2.8	+4.5
Iron and steel.....	157	66	75	75	75	85	84	76	-9.5	+1.3
Transportation equipment.....	204	49	69	68	60	78	73	79	+8.2	+31.7
Lumber.....	142	56	84	91	88	95	97	86	-11.3	-2.3
WHOLESALE TRADE										
Grand total, all classes.....	124	82	89	90	110	91	96	113	+17.7	+2.7
Groceries.....	119	83	97	92	101	96	99	101	+2.0	0.0
Meats.....	130	87	114	113	118	122	123	120	-2.4	+1.7
Dry goods.....	128	70	71	74	110	70	74	111	+50.0	+0.9
Men's clothing.....	167	43	39	68	148	49	69	156	+126.1	+5.4
Boots and shoes.....	130	68	77	98	119	90	110	130	+18.2	+9.2
Hardware.....	118	76	96	90	95	97	95	99	+4.2	+4.2
Drugs.....	131	88	104	102	115	105	111	122	+9.9	+6.1
Furniture.....	131	72	83	78	108	93	87	117	+34.5	+8.2
RETAIL TRADE										
CHAIN STORES:										
Ten-cent.....	305	62	139	128	136	153	146	161	+10.3	+18.4
Grocery.....	237	77	208	197	204	222	227	233	+2.6	+14.2
Drug.....	224	82	162	163	169	197	204	211	+3.4	+24.9
Shoe.....	184	55	147	116	110	161	120	134	+11.7	+21.8
DEPARTMENT STORES:										
Sales.....	187	71	104	78	85	106	80	89	+11.3	+4.7
Stocks.....	117	83	96	93	97	95	92	96	+4.3	-1.0

* 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			PER CENT INCREASE (+) OR DECREASE (-)	
			June	July	August	June	July	August	August, 1929, from July, 1929	August, 1929, from August, 1928
EMPLOYMENT										
(Relative to 1926 monthly average as 100)										
Number employed, by industries:										
Total, all classes.....	111	92	93	92	94	99	98	99	+1.0	+5.3
Food products.....	119	95	97	97	97	99	100	99	-1.0	+2.1
Textiles.....	122	91	94	91	92	97	94	95	+1.1	+3.3
Iron and steel.....	113	86	92	91	92	102	101	100	-1.0	+8.7
Lumber.....	113	85	88	87	89	90	90	92	+2.2	+3.4
Leather.....	117	88	89	93	95	89	94	97	+3.2	+2.1
Paper and printing.....	103	94	98	98	98	100	101	101	0.0	+3.1
Chemicals.....	108	85	88	87	88	94	96	98	+2.1	+11.4
Stone, clay, and glass.....	106	82	93	91	94	91	88	91	+3.4	-3.2
Metal products other than iron and steel.....	109	86	92	92	93	99	97	97	0.0	+4.3
Tobacco products.....	120	86	95	90	97	94	93	95	+2.2	-2.1
Vehicles.....	113	84	98	97	100	103	102	101	-1.0	+1.0
Miscellaneous.....	116	83	90	90	90	115	116	115	-0.9	+27.8
Amount of pay roll, by industries:										
Total, all classes.....	109	84	94	91	94	103	98	102	+4.1	+8.5
Food products.....	114	93	100	100	98	103	103	102	-1.0	+4.1
Textiles.....	124	87	92	87	90	97	91	95	+4.4	+5.6
Iron and steel.....	111	75	93	89	93	107	102	105	+2.9	+12.9
Lumber.....	108	82	90	87	90	91	90	93	+3.3	+3.3
Leather.....	123	79	85	91	97	87	94	101	+7.4	+4.1
Paper and printing.....	106	86	101	99	99	105	103	104	+1.0	+5.1
Chemicals.....	108	86	92	92	93	100	100	102	+2.0	+9.7
Stone, clay, and glass.....	106	78	93	88	94	91	84	89	+6.0	-5.3
Metal products other than iron and steel.....	112	81	94	90	97	105	100	102	+2.0	+5.2
Tobacco products.....	119	81	95	90	94	94	93	96	+3.2	+2.1
Vehicles.....	120	84	100	96	102	110	98	109	+11.2	+6.9
Miscellaneous.....	119	81	92	89	89	119	116	113	-2.6	+27.0
PRICE INDEX NUMBERS										
FARM PRICES										
(Relative to 1909-1914 average as 100)										
All groups.....	152	125	145	145	139	135	140	143	+2.1	+2.9
Grains.....	178	108	152	142	120	111	122	129	+5.7	+7.5
Fruits and vegetables.....	253	108	168	156	137	120	136	160	+17.6	+16.8
Meat animals.....	167	98	150	157	162	163	167	165	-1.2	+1.9
Dairy and poultry.....	166	122	132	134	136	137	137	141	+2.9	+3.7
Cotton and cottonseed.....	252	81	162	170	153	146	145	146	+0.7	-4.6
Unclassified.....	108	79	87	88	87	85	85	86	+1.2	-1.1
WHOLESALE PRICES										
Department of Labor Indexes										
(Relative to 1926 monthly average as 100)										
All commodities.....	105	94	98	98	99	96	98	98	0.0	-1.0
Farm products.....	114	94	107	107	107	103	108	107	-0.9	0.0
Food, etc.....	107	85	100	102	104	99	103	103	0.0	-1.0
Hides and leather products.....	127	98	124	124	121	108	109	110	+0.9	-9.1
Textile products.....	114	93	96	97	96	93	93	93	0.0	-3.1
Fuel and lighting.....	112	81	82	83	85	83	82	81	-1.2	-4.7
Metals and metal products.....	113	97	99	99	100	105	105	104	-1.0	+4.0
Building materials.....	116	90	94	94	95	96	97	97	0.0	+2.1
Chemicals.....	104	93	95	95	95	93	93	94	+1.1	-1.1
House-furnishing goods.....	111	97	97	97	97	97	97	97	0.0	0.0
Miscellaneous.....	127	79	82	81	79	80	81	81	0.0	+2.5
Classified by state of manufacture:										
Semimanufactured articles.....	128	94	98	98	97	94	96	96	0.0	-1.0
Finished products.....	103	93	97	98	99	97	98	97	-1.0	-2.0
Raw materials.....	109	93	99	100	99	97	99	99	0.0	0.0
Nonagricultural commodities.....	106	93	95	96	97	95	96	94	-2.1	-3.1
Commercial Indexes										
(Relative to 1926 monthly average as 100)										
Dun's.....	106	85	104	103	103	100	102	102	0.0	-1.0
Bradstreet's.....	112	95	102	102	103	97	98	98	0.0	-4.9

INDEXES OF BUSINESS—Continued

Relative to monthly average indicated	Maximum since Jan. 1, 1923	Minimum since Jan. 1, 1923	1928			1929			PER CENT INCREASE (+) OR DECREASE (-)	
			June	July	August	June	July	August	August, 1929, from July, 1929	August, 1929, from August, 1928
PRICE INDEX NUMBERS—Contd.										
COST OF LIVING										
National Industrial Conference Board Indexes										
(Relative to July, 1914)										
All items weighted.....	172	158	161	161	161	160	162	163	+0.6	+1.2
Food (Department of Labor).....	167	141	153	153	154	155	159	160	+0.6	+3.9
Shelter.....	186	159	162	161	161	159	159	159	0.0	-1.2
Clothing.....	177	160	171	174	173	167	166	169	+1.8	-2.3
Fuel and light (combined).....	179	156	158	158	159	157	157	158	+0.6	-0.6
Fuel.....	208	174	176	177	178	175	176	177	+0.6	-0.6
Light.....	123	118	122	121	121	120	120	120	0.0	-0.8
Sundries.....	176	168	171	171	171	168	169	169	0.0	-1.2

PRODUCTION OF ELECTRIC CURRENT IN THE UNITED STATES, 1927 ¹

	GENERATORS		Current generated, thous. kilowatt-hours		GENERATORS		Current generated, thous. kilowatt-hours
	Number	Rated capacity, kilowatts			Number	Rated capacity, kilowatts	
United States, total.....	35,338	36,275,001	102,759,754	Minnesota.....	704	617,382	1,341,119
Central electric light and power stations.....	11,967	25,811,305	74,686,378	Mississippi.....	378	110,935	183,549
Electric railways.....	419	1,470,904	2,975,863	Missouri.....	865	666,208	1,226,779
Electrified divisions of steam railroads.....	64	358,335	844,780	Montana.....	155	277,048	1,422,579
Manufacturing establishments.....	19,028	7,345,685	20,558,426	Nebraska.....	608	218,124	491,447
Isolated plants.....	3,860	1,288,772	3,694,306	Nevada.....	67	37,525	166,868
STATES				New Hampshire.....	412	279,879	679,847
Alabama.....	284	440,643	1,518,994	New Jersey.....	1,466	1,137,560	2,893,234
Arizona.....	198	263,339	774,557	New Mexico.....	143	41,875	67,139
Arkansas.....	331	118,152	220,820	New York.....	3,344	4,696,609	13,852,905
California.....	782	2,088,745	7,428,777	North Carolina.....	498	662,822	2,235,779
Colorado.....	359	291,187	745,529	North Dakota.....	201	40,492	67,496
Connecticut.....	763	681,210	1,515,773	Ohio.....	2,001	2,579,717	7,244,404
Delaware.....	89	55,698	168,281	Oklahoma.....	470	281,847	855,911
District of Columbia.....	82	179,202	435,644	Oregon.....	237	275,068	1,040,068
Florida.....	402	345,788	695,387	Pennsylvania.....	3,989	3,958,822	11,870,183
Georgia.....	508	446,284	973,583	Rhode Island.....	312	333,463	670,668
Idaho.....	170	223,895	753,501	South Carolina.....	335	559,796	1,294,584
Illinois.....	2,249	2,613,631	7,596,284	South Dakota.....	213	63,397	143,937
Indiana.....	1,058	1,104,281	3,006,575	Tennessee.....	477	420,221	1,189,596
Iowa.....	627	601,128	1,841,302	Texas.....	1,218	743,327	2,294,242
Kansas.....	697	420,521	995,487	Utah.....	138	148,727	375,422
Kentucky.....	454	390,744	876,063	Vermont.....	258	173,570	409,319
Louisiana.....	588	298,989	915,252	Virginia.....	503	534,036	1,417,663
Maine.....	444	301,586	978,844	Washington.....	396	753,370	2,514,330
Maryland.....	301	431,407	1,012,880	West Virginia.....	576	812,881	2,525,070
Massachusetts.....	1,691	1,769,080	3,313,270	Wisconsin.....	1,382	889,656	2,597,152
Michigan.....	1,665	1,835,939	5,789,716	Wyoming.....	240	59,195	131,947

¹ Compiled by the U. S. Department of Commerce, Bureau of the Census, according to data collected at the quinquennial census of electrical industries and the biennial census of manufactures taken in 1928. These data represent the total output of electric current in the United States (not including outlying possessions) in 1927. Of the total 72.7 per cent came from central electric light and power stations, 20 per cent from manufacturing establishments, 2.9 per cent from electric railroads, 0.8 per cent from electrified divisions of steam railroads, and 3.6 per cent from isolated plants.

INDEXES OF MARKET VALUES OF COMMON STOCKS

(1926=100)

Month	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929
13 Automobiles and Trucks												
January.....	25.0	28.5	63.8	32.9	24.4	41.6	43.1	53.2	93.2	116.4	183.5	281.4
February.....	27.8	31.2	52.2	32.3	24.5	42.5	44.4	55.0	96.5	120.2	182.0	277.1
March.....	26.1	35.3	64.4	31.4	27.6	44.7	43.7	54.0	88.6	127.8	217.4	284.2
April.....	25.2	39.2	65.5	32.1	34.2	46.1	40.6	57.2	83.0	133.6	241.4	277.6
May.....	25.8	42.7	56.8	31.2	38.4	43.5	38.7	61.3	81.7	139.4	249.4	260.5
June.....	28.6	49.6	51.9	26.9	37.8	40.6	38.7	65.1	87.2	141.3	235.3	241.7
July.....	30.7	51.9	51.8	26.5	38.2	38.6	41.5	70.3	98.3	144.5	238.4	241.0
August.....	30.8	48.9	44.2	25.2	35.7	41.7	42.8	73.9	113.6	157.4	244.7	240.8
September.....	26.3	53.6	43.3	25.4	37.8	41.8	42.9	83.7	117.0	174.2	270.0	240.9
October.....	28.4	66.9	38.6	24.8	38.8	39.3	42.0	97.3	114.6	173.6	283.6	-----
November.....	29.5	68.2	33.6	26.8	38.1	40.9	43.5	99.1	109.4	173.6	284.3	-----
December.....	29.1	66.2	31.5	26.8	40.8	42.5	48.0	92.8	116.4	180.2	268.5	-----
Monthly average.....	27.8	48.5	49.8	28.5	34.7	42.0	42.5	71.9	100.0	148.5	241.5	-----
7 Automobile Tires and Rubber Goods												
January.....	101.9	159.5	236.7	113.6	94.9	98.3	64.6	73.1	119.1	92.8	153.3	195.4
February.....	110.7	169.7	201.6	113.7	93.4	103.8	59.6	74.0	117.6	97.5	139.6	188.9
March.....	107.0	188.2	216.6	112.0	105.2	107.7	50.8	73.2	106.1	106.0	129.3	209.8
April.....	107.4	205.1	213.5	116.1	114.0	104.2	44.4	78.5	99.6	108.1	127.4	200.3
May.....	111.2	224.3	190.5	120.7	116.4	90.6	43.6	83.8	88.8	108.4	128.8	194.4
June.....	115.0	244.8	188.4	97.6	109.1	74.2	41.4	88.1	97.4	104.0	115.8	184.8
July.....	119.5	270.6	184.1	89.7	105.0	66.4	46.1	101.2	96.5	106.3	113.3	184.9
August.....	119.7	247.7	154.5	83.8	94.5	63.0	53.3	96.0	98.1	114.5	119.3	169.5
September.....	116.5	243.7	151.9	88.1	93.0	63.2	55.3	101.6	98.0	128.1	127.6	163.4
October.....	124.2	261.1	133.4	87.9	91.5	53.5	55.8	114.9	92.5	125.6	137.6	-----
November.....	137.2	243.1	115.7	86.8	85.1	56.2	59.8	126.1	94.2	124.5	143.2	-----
December.....	150.6	238.4	97.2	96.5	89.6	59.2	69.0	119.4	91.4	143.6	167.3	-----
Monthly average.....	118.4	224.7	173.7	100.5	99.3	78.4	53.6	94.2	100.0	113.3	133.5	-----
10 Airplanes												
January.....	-----	-----	-----	-----	-----	-----	-----	-----	98.1	106.8	289.1	903.0
February.....	-----	-----	-----	-----	-----	-----	-----	-----	103.6	105.4	278.6	913.6
March.....	-----	-----	-----	-----	-----	-----	-----	-----	97.3	110.8	291.7	905.1
April.....	-----	-----	-----	-----	-----	-----	-----	-----	92.0	104.9	445.5	923.0
May.....	-----	-----	-----	-----	-----	-----	-----	-----	92.0	103.6	672.0	1,147.0
June.....	-----	-----	-----	-----	-----	-----	-----	-----	106.0	125.0	576.6	1,069.0
July.....	-----	-----	-----	-----	-----	-----	-----	-----	111.7	134.7	565.2	1,131.0
August.....	-----	-----	-----	-----	-----	-----	-----	-----	107.1	144.7	591.5	1,130.0
September.....	-----	-----	-----	-----	-----	-----	-----	-----	100.5	200.0	693.7	994.4
October.....	-----	-----	-----	-----	-----	-----	-----	-----	93.6	202.8	667.4	-----
November.....	-----	-----	-----	-----	-----	-----	-----	-----	97.9	202.2	752.9	-----
December.....	-----	-----	-----	-----	-----	-----	-----	-----	101.2	269.0	817.0	-----
Monthly average.....	-----	-----	-----	-----	-----	-----	-----	-----	100.0	150.8	553.4	-----
4 Agricultural Implements												
January.....	49.0	61.1	69.7	58.6	49.9	56.5	54.1	68.4	94.2	113.0	217.9	384.8
February.....	52.1	61.0	64.3	59.6	51.5	60.9	54.8	68.1	96.7	122.7	217.5	392.5
March.....	50.7	64.2	68.3	58.2	56.9	59.3	53.3	66.6	91.6	125.2	237.5	395.0
April.....	49.5	68.9	70.2	54.4	59.1	56.8	52.8	67.4	89.8	129.7	249.2	389.5
May.....	52.2	69.2	66.0	57.3	61.9	54.2	53.1	69.5	89.8	143.1	264.1	399.8
June.....	51.9	74.2	68.6	51.9	63.3	49.9	53.4	69.5	95.3	149.2	259.9	380.5
July.....	51.9	76.2	68.2	47.9	63.3	48.8	56.8	72.0	102.2	152.5	263.9	418.6
August.....	52.7	69.9	66.0	45.9	67.6	47.3	59.9	77.6	106.3	162.0	281.7	423.9
September.....	52.1	71.0	67.2	49.4	68.0	48.0	59.1	83.1	106.8	184.9	301.3	444.8
October.....	56.5	74.6	65.5	48.1	67.4	46.7	59.0	81.6	105.0	191.6	309.4	-----
November.....	61.5	71.8	60.2	47.4	62.9	48.2	63.3	80.4	106.4	210.2	337.1	-----
December.....	61.1	70.6	57.2	49.4	57.3	48.7	67.2	82.1	114.0	219.7	348.1	-----
Monthly average.....	53.4	69.4	66.0	52.3	60.8	52.1	57.2	73.9	100.0	158.7	274.0	-----
4 Electrical Equipment												
January.....	33.4	37.1	44.6	33.9	38.7	50.1	55.5	80.0	99.8	99.4	147.9	257.0
February.....	35.2	37.8	41.3	35.1	40.8	52.1	56.9	78.4	106.1	100.9	143.3	258.1
March.....	34.9	39.5	42.6	36.2	42.9	52.7	57.6	80.2	95.2	102.4	157.7	256.8
April.....	34.8	40.7	41.2	37.0	45.9	50.3	56.1	81.2	92.3	108.1	178.2	255.2
May.....	36.8	43.2	38.4	37.1	46.1	48.8	37.8	86.0	93.9	113.6	178.9	281.6
June.....	36.8	43.3	38.7	34.8	46.0	48.5	60.3	88.0	98.3	119.5	164.4	308.1
July.....	36.7	44.7	38.5	33.7	47.3	47.8	65.0	88.4	102.6	132.8	161.9	359.9
August.....	36.7	42.5	37.9	32.0	50.1	49.3	70.4	94.7	106.2	139.2	169.7	405.2
September.....	36.9	43.9	39.0	34.0	50.1	48.7	65.8	93.9	105.2	149.3	180.8	399.0
October.....	38.3	45.2	37.7	34.5	50.9	48.2	63.4	90.5	99.5	141.2	181.7	-----
November.....	38.2	44.7	35.3	36.7	59.2	50.8	67.0	97.3	100.4	141.7	203.0	-----
December.....	37.7	44.9	33.0	38.5	50.7	53.1	71.8	96.2	101.5	146.4	208.5	-----
Monthly average.....	36.4	42.3	39.0	35.3	47.4	50.0	62.3	87.9	100.1	124.5	173.0	-----

¹ Compiled by *Standard Statistics Co. (Inc.)*. The indexes are weighted by the number of shares of each stock outstanding and are corrected for the value of right, stock dividends, changes in par value, and consolidations. Weekly indexes have been averaged to give monthly data which are presented in these tables. This table represents details of group averages shown in table on p. 22 of the July, 1929, SURVEY, and is a continuation of the table shown on pp. 20 and 21 of the August, 1929 SURVEY. Further details will appear in subsequent issues.

INDEXES OF MARKET VALUES OF COMMON STOCKS¹—Continued

(1926=100)

MONTH	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929
17 Chain Stores												
January.....	14.5	17.4	22.5	19.1	20.9	29.7	40.1	63.5	118.3	100.5	130.3	158.6
February.....	14.9	17.4	20.3	19.1	21.8	31.4	41.1	62.6	114.9	101.0	128.6	152.9
March.....	14.3	18.3	20.9	18.7	21.8	32.2	44.0	62.5	99.8	101.9	131.6	149.6
April.....	14.2	19.5	21.6	19.0	22.9	32.9	43.6	66.3	88.5	103.8	135.6	148.7
May.....	14.5	19.7	21.0	19.7	23.8	33.6	44.2	67.7	87.4	106.6	139.0	148.3
June.....	14.6	20.8	21.0	18.7	24.0	33.2	50.2	71.6	94.3	106.4	136.8	144.5
July.....	14.8	23.4	20.3	18.1	24.3	33.1	57.5	82.8	98.3	110.0	135.3	148.0
August.....	14.9	23.5	19.3	16.9	27.0	34.0	56.8	87.4	98.7	119.7	142.9	148.7
September.....	14.9	23.4	19.8	17.1	28.4	35.0	57.2	90.1	98.5	128.7	150.5	154.6
October.....	15.6	24.5	19.9	18.1	29.0	35.7	56.2	103.0	95.8	127.4	150.9	-----
November.....	16.1	22.9	19.1	19.2	29.0	38.2	58.2	108.6	100.9	132.3	161.0	-----
December.....	16.6	22.1	18.1	20.2	29.1	39.9	61.5	110.1	103.6	132.6	155.7	-----
Monthly average.....	15.0	21.1	20.3	18.7	25.2	34.1	50.9	81.4	100.0	114.2	141.5	-----
4 Mail-order Houses												
January.....	48.8	58.1	74.3	40.6	27.8	30.8	43.4	77.9	111.0	95.4	158.1	377.9
February.....	50.5	56.4	68.7	37.0	28.4	42.1	44.0	76.7	107.3	100.0	162.2	344.6
March.....	48.3	56.9	72.9	33.4	31.6	41.7	42.0	72.7	98.2	98.5	172.4	333.5
April.....	47.0	59.3	74.5	35.3	35.1	41.0	39.4	74.0	92.4	99.4	184.2	322.3
May.....	46.8	64.9	67.7	37.4	36.4	37.6	39.0	81.1	90.9	98.6	189.6	327.8
June.....	44.7	65.9	66.4	33.2	36.1	35.5	41.2	80.7	96.4	101.9	193.4	321.7
July.....	46.0	68.3	63.1	30.6	37.2	33.8	47.9	89.7	100.5	106.4	210.1	345.3
August.....	45.0	65.8	59.9	29.4	40.9	35.0	51.9	98.5	104.8	118.3	250.0	369.9
September.....	45.6	66.0	60.7	31.4	41.5	37.3	51.6	103.1	102.3	129.1	284.3	376.4
October.....	50.9	69.3	50.1	31.1	41.1	38.1	52.3	103.1	98.6	128.5	312.2	-----
November.....	52.6	70.6	45.5	29.2	38.7	40.5	63.0	109.5	97.0	137.3	378.1	-----
December.....	54.6	72.7	40.7	25.9	40.0	41.4	69.1	113.0	99.8	156.0	363.4	-----
Monthly average.....	48.4	64.5	62.0	32.9	36.2	37.9	48.7	90.8	100.0	114.1	238.2	-----
4 Department Stores												
January.....	11.6	16.1	35.0	23.3	35.5	59.1	72.7	87.2	110.8	102.7	139.4	227.7
February.....	12.2	15.8	31.8	23.4	37.4	61.9	73.3	87.7	107.5	106.2	141.3	213.0
March.....	11.9	18.0	32.5	25.3	38.6	64.3	73.6	88.0	97.5	105.6	151.3	205.0
April.....	12.2	22.3	32.3	28.5	40.2	63.5	71.9	88.9	91.1	112.1	161.5	197.0
May.....	12.2	27.1	29.1	28.5	40.3	62.6	70.8	93.3	89.8	118.7	163.1	195.7
June.....	12.1	29.3	27.1	26.0	39.3	67.7	71.7	99.0	95.3	114.9	160.9	196.7
July.....	12.6	30.3	26.1	26.0	39.7	65.5	74.4	99.4	95.2	117.5	161.9	228.4
August.....	12.6	29.0	23.8	24.6	42.4	65.0	79.4	97.9	101.6	128.8	174.4	235.1
September.....	13.1	28.8	24.1	25.7	44.0	66.3	81.6	100.6	101.6	132.9	183.9	247.8
October.....	13.3	31.9	23.5	27.6	45.5	66.5	80.2	108.5	101.9	135.3	185.4	-----
November.....	14.2	32.2	22.4	29.9	52.7	67.9	83.0	113.2	102.8	140.7	216.3	-----
December.....	14.4	34.3	21.4	35.0	56.2	70.5	87.3	115.8	104.2	140.8	215.3	-----
Monthly average.....	12.7	26.3	27.4	27.0	42.7	65.1	76.7	98.3	100.0	121.4	171.2	-----
3 Shoe Stores												
January.....	-----	-----	-----	-----	-----	-----	-----	-----	109.1	100.3	156.5	173.3
February.....	-----	-----	-----	-----	-----	-----	-----	-----	107.2	100.5	169.9	161.7
March.....	-----	-----	-----	-----	-----	-----	-----	-----	100.8	102.0	174.0	163.8
April.....	-----	-----	-----	-----	-----	-----	-----	-----	95.4	106.6	190.9	155.6
May.....	-----	-----	-----	-----	-----	-----	-----	-----	89.6	108.3	198.8	156.5
June.....	-----	-----	-----	-----	-----	-----	-----	-----	83.7	112.4	195.4	168.2
July.....	-----	-----	-----	-----	-----	-----	-----	-----	95.4	117.2	190.6	172.7
August.....	-----	-----	-----	-----	-----	-----	-----	-----	104.1	121.2	190.7	172.4
September.....	-----	-----	-----	-----	-----	-----	-----	-----	104.2	128.9	183.2	177.9
October.....	-----	-----	-----	-----	-----	-----	-----	-----	99.7	134.4	177.5	-----
November.....	-----	-----	-----	-----	-----	-----	-----	-----	99.3	140.7	176.7	-----
December.....	-----	-----	-----	-----	-----	-----	-----	-----	101.1	142.4	177.1	-----
Monthly average.....	-----	-----	-----	-----	-----	-----	-----	-----	100.0	117.9	181.8	-----
6 Silk and Silk Goods Stores												
January.....	-----	-----	-----	-----	-----	-----	-----	-----	125.4	78.2	77.3	131.8
February.....	-----	-----	-----	-----	-----	-----	-----	-----	120.3	73.6	76.1	122.1
March.....	-----	-----	-----	-----	-----	-----	-----	-----	112.0	75.7	81.2	120.4
April.....	-----	-----	-----	-----	-----	-----	-----	-----	102.9	70.0	90.0	115.4
May.....	-----	-----	-----	-----	-----	-----	-----	-----	95.5	67.9	102.8	109.0
June.....	-----	-----	-----	-----	-----	-----	-----	-----	95.5	68.0	93.2	106.6
July.....	-----	-----	-----	-----	-----	-----	-----	-----	97.5	67.2	89.1	103.5
August.....	-----	-----	-----	-----	-----	-----	-----	-----	94.9	71.0	93.1	110.0
September.....	-----	-----	-----	-----	-----	-----	-----	-----	93.3	71.7	100.0	104.7
October.....	-----	-----	-----	-----	-----	-----	-----	-----	90.3	73.3	108.1	-----
November.....	-----	-----	-----	-----	-----	-----	-----	-----	86.2	71.6	123.8	-----
December.....	-----	-----	-----	-----	-----	-----	-----	-----	85.9	75.5	127.6	-----
Monthly average.....	-----	-----	-----	-----	-----	-----	-----	-----	100.0	72.0	96.9	-----

¹ See footnote on p. 19.

INDEXES OF MARKET VALUES OF COMMON STOCKS ¹—Continued

(1926=100)

MONTH	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929
3 Chemicals												
January.....	38.9	43.8	49.7	40.6	44.5	58.2	56.5	66.3	89.5	115.9	158.6	223.1
February.....	40.6	46.0	44.8	39.0	45.2	60.8	55.9	67.7	97.7	121.8	151.3	231.4
March.....	40.1	47.5	46.4	35.7	46.7	61.3	53.6	68.1	93.2	127.8	157.6	231.7
April.....	39.6	51.4	48.2	36.0	51.6	58.3	52.8	68.5	90.6	132.6	162.2	235.3
May.....	40.4	53.3	46.5	37.5	53.1	54.4	56.0	71.5	91.5	133.7	162.0	247.7
June.....	40.5	52.5	50.7	32.3	53.3	52.8	56.2	73.1	95.1	133.9	156.8	269.7
July.....	42.0	53.1	51.9	30.5	53.3	50.8	60.2	73.3	99.7	140.9	160.1	314.9
August.....	42.0	47.6	49.3	20.5	60.0	50.4	59.4	78.4	105.7	147.2	170.5	319.8
September.....	41.5	50.0	49.3	33.2	64.0	51.5	57.3	80.7	106.5	153.2	181.5	337.7
October.....	42.0	51.1	47.9	35.6	64.4	49.4	56.6	83.3	105.5	147.8	191.6	-----
November.....	42.6	48.8	44.7	37.8	57.1	52.0	59.6	86.0	105.0	154.0	201.9	-----
December.....	43.0	48.7	38.5	44.1	58.9	54.7	65.7	88.5	114.6	158.8	199.9	-----
Monthly average.....	41.1	49.5	47.3	35.2	54.3	54.6	57.5	75.3	100.0	139.0	171.2	-----
4 Fertilizer												
January.....	265.2	336.8	351.9	213.9	133.6	122.6	69.6	67.7	134.4	72.6	108.1	145.6
February.....	280.3	339.8	327.2	200.6	145.2	131.7	60.5	89.5	141.6	72.8	101.7	137.6
March.....	277.9	354.2	350.5	179.4	163.1	124.8	39.6	72.2	113.6	66.1	101.5	133.7
April.....	281.2	373.6	357.5	177.9	165.7	98.2	33.8	80.7	103.6	62.3	116.4	120.3
May.....	291.0	398.4	342.0	176.9	161.3	76.0	33.1	89.8	99.5	63.5	125.6	108.3
June.....	305.2	409.0	349.3	151.0	159.6	57.5	29.9	87.0	104.2	66.0	115.5	96.0
July.....	310.4	427.9	343.4	144.0	155.0	46.1	44.4	106.1	99.0	72.7	119.0	103.2
August.....	324.5	403.2	309.3	121.9	154.0	49.4	53.7	100.0	96.6	80.7	117.7	94.8
September.....	336.4	390.1	326.8	145.7	151.5	50.3	52.5	101.7	91.0	87.9	130.3	94.5
October.....	343.7	390.9	308.2	137.5	143.6	44.9	48.6	119.2	75.3	81.2	125.2	-----
November.....	343.8	360.3	267.0	137.3	124.8	47.0	53.3	129.3	72.8	82.1	135.6	-----
December.....	340.8	345.3	199.1	131.7	123.8	48.5	60.9	130.4	72.3	101.1	130.1	-----
Monthly average.....	308.4	377.0	319.4	159.8	148.4	75.3	48.3	97.8	100.0	75.8	118.9	-----
7 Drugs, Medicines, Cosmetics, etc.												
January.....	-----	-----	-----	-----	-----	-----	-----	-----	98.9	116.5	169.4	254.0
February.....	-----	-----	-----	-----	-----	-----	-----	-----	97.3	117.9	174.2	247.5
March.....	-----	-----	-----	-----	-----	-----	-----	-----	93.0	118.2	179.8	245.2
April.....	-----	-----	-----	-----	-----	-----	-----	-----	90.8	121.6	197.6	235.0
May.....	-----	-----	-----	-----	-----	-----	-----	-----	92.6	123.0	206.7	230.9
June.....	-----	-----	-----	-----	-----	-----	-----	-----	94.2	128.6	200.8	225.0
July.....	-----	-----	-----	-----	-----	-----	-----	-----	96.5	131.3	203.1	227.2
August.....	-----	-----	-----	-----	-----	-----	-----	-----	103.2	135.4	207.4	221.8
September.....	-----	-----	-----	-----	-----	-----	-----	-----	103.0	140.7	220.4	224.6
October.....	-----	-----	-----	-----	-----	-----	-----	-----	105.1	155.0	231.2	-----
November.....	-----	-----	-----	-----	-----	-----	-----	-----	109.4	161.8	245.8	-----
December.....	-----	-----	-----	-----	-----	-----	-----	-----	114.5	165.9	241.8	-----
Monthly average.....	-----	-----	-----	-----	-----	-----	-----	-----	100.0	134.7	206.5	-----
9 Sugar Producing and Refining												
January.....	112.5	118.8	196.8	122.0	75.2	95.7	105.7	92.1	101.2	113.3	106.7	112.2
February.....	116.3	119.3	184.4	121.0	80.6	114.1	112.6	98.7	108.1	113.2	95.9	105.8
March.....	114.8	125.6	184.1	117.9	91.8	119.3	109.0	98.2	99.6	111.4	99.7	101.2
April.....	110.2	134.1	218.6	106.2	93.3	121.0	96.7	97.3	95.3	112.1	104.6	98.9
May.....	115.3	143.7	217.7	104.2	95.5	110.9	92.8	93.6	94.0	115.9	110.4	99.6
June.....	115.8	146.1	208.2	78.0	101.3	98.6	90.3	95.7	94.8	113.3	106.2	95.2
July.....	115.6	152.5	206.1	71.7	101.8	90.2	93.3	94.8	95.1	111.3	101.7	98.2
August.....	113.9	147.4	168.9	66.6	104.8	86.0	95.1	91.4	96.2	110.8	101.3	97.1
September.....	113.5	153.3	171.1	65.6	101.4	96.6	96.9	88.7	97.7	117.3	101.9	95.2
October.....	116.3	176.2	160.2	58.6	97.5	94.7	88.5	85.2	99.3	108.8	97.3	-----
November.....	118.6	183.3	140.3	63.2	90.1	94.9	87.4	93.2	105.9	103.5	104.6	-----
December.....	119.1	193.3	116.2	62.2	98.3	104.6	90.3	96.1	112.1	104.5	105.4	-----
Monthly average.....	115.2	149.5	181.1	86.4	94.3	102.2	96.6	93.8	100.0	111.3	103.0	-----
13 Household Products and Supplies												
January.....	-----	-----	-----	-----	-----	-----	-----	-----	106.1	103.3	129.8	166.6
February.....	-----	-----	-----	-----	-----	-----	-----	-----	105.8	104.3	129.3	171.8
March.....	-----	-----	-----	-----	-----	-----	-----	-----	99.1	103.8	129.8	166.3
April.....	-----	-----	-----	-----	-----	-----	-----	-----	93.9	104.9	139.2	161.5
May.....	-----	-----	-----	-----	-----	-----	-----	-----	92.9	107.9	145.2	162.8
June.....	-----	-----	-----	-----	-----	-----	-----	-----	100.0	107.9	142.5	162.3
July.....	-----	-----	-----	-----	-----	-----	-----	-----	100.9	109.2	141.3	171.4
August.....	-----	-----	-----	-----	-----	-----	-----	-----	101.8	112.9	139.9	179.7
September.....	-----	-----	-----	-----	-----	-----	-----	-----	102.8	119.1	146.0	183.0
October.....	-----	-----	-----	-----	-----	-----	-----	-----	98.0	117.8	148.8	-----
November.....	-----	-----	-----	-----	-----	-----	-----	-----	99.5	121.1	156.9	-----
December.....	-----	-----	-----	-----	-----	-----	-----	-----	99.7	125.8	158.9	-----
Monthly average.....	-----	-----	-----	-----	-----	-----	-----	-----	100.0	111.5	142.3	-----

¹ See footnote on p. 19.

TREND OF BUSINESS MOVEMENTS

The following table contains a summary of the monthly figures, designed to show the trend in important industrial and commercial movements. These data represent continuations of the figures presented in the latest semiannual number (August, 1929), 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 of relative numbers, including base periods, see introduction on inside front cover.

	1929					1928		PER CENT INCREASE (+) OR DECREASE (-)		CUMULATIVE TOTAL FROM JANUARY 1 THROUGH AUGUST 31		Per ct. increase (+) or decrease (-) cumulative 1929 from 1928	
	April	May	June	July	August	July	August	August, 1929, from July, 1929	August, 1929, from August, 1928	1928	1929		
TEXTILES													
Wool													
Receipts at Boston:													
Total.....thous. of lbs.	15,390	24,215	47,795	56,981	40,476	54,907	29,720	-29.0	+36.2	255,217	244,921	-4.0	
Domestic.....thous. of lbs.	6,442	16,108	40,596	53,652	35,594	51,346	25,802	-33.7	+38.0	182,152	164,498	-9.7	
Foreign.....thous. of lbs.	8,948	8,107	7,199	3,329	4,882	3,561	3,918	+46.7	+24.6	73,065	80,423	+10.1	
Imports:													
In condition imported.....thous. of lbs.	28,165	19,786	16,592	18,815	17,068	18,289	14,472	-9.3	+17.9	173,478	203,090	+17.1	
Grease equivalent.....thous. of lbs.	30,941	22,372	17,903	21,931	19,015	19,805	16,078	-13.3	+18.3	193,986	226,065	+16.5	
Consumption by textile mills, grease equivalent.....thous. of lbs.	49,205	48,765	44,066	47,296	52,044	38,099	45,103	+11.3	+16.7	347,418	392,656	+13.0	
Machinery, activity, hourly:													
Looms—													
Wide.....per ct. of hours active..	70	67	65	62	60	53	55	-3.2	+9.1				
Narrow.....per ct. of hours active..	64	61	61	60	62	49	48	+3.3	+29.2				
Carpet and rug.....per ct. of hours active..	70	72	69	61	66	55	63	-8.2	+4.8				
Sets of cards.....per ct. of hours active..	87	86	85	80	80	78	77	0.0	+3.9				
Combs.....per ct. of hours active..	81	84	88	86	93	59	65	+8.1	+43.1				
Spinning spindles—													
Woolen.....per ct. of hours active..	84	82	82	78	77	75	74	-1.3	+4.1				
Worsted.....per ct. of hours active..	70	66	65	62	69	50	58	+11.3	+19.0				
Prices:													
Raw, territory, fine, scoured.....dolls. per lb.	1.04	1.00	.97	.93	.93	1.17	1.14	0.0	-18.4				
Raw, Ohio and Pa. fleeces.....dolls. per lb.	.49	.43	.42	.42	.43	.55	.54	+2.4	-20.4				
Worsted yarn.....dolls. per lb.	1.55	1.50	1.45	1.45	1.45	1.60	1.60	0.0	-9.4				
Women's dress goods, French serge, 39-in.....dolls. per yd.	.98	.98	.98	.98	.98	1.03	1.03	0.0	-4.9				
Suiting, 13-oz.....dolls. per yd.	2.008	2.008	2.008	2.1996	1.901	2.008	2.008	-4.8	-5.3				
Cotton													
Production, crop estimate.....thous. of bales					³ 14,825		⁴ 14,478						
Ginnings.....thous. of bales					⁵ 3,653		⁵ 2,501						
Receipts into sight.....thous. of bales	555	328	220	126	823	339	509	+553.2	+61.7	4,871	4,532	-7.0	
Imports, unmanufactured.....bales	84,621	42,486	26,113	21,369	24,793	18,473	25,258	+16.0	-1.8	217,805	331,165	+52.0	
Exports, unmanufactured (including linters).....bales	472,304	328,068	308,947	246,983	235,914	341,849	259,489	-4.5	-9.1	4,125,640	3,607,261	-12.6	
Consumption by textile mills.....bales	631,710	668,229	570,281	546,457	558,113	439,521	526,340	+2.1	+6.0	4,319,051	4,874,085	+12.9	
Stocks, domestic, end of month:													
Total, mills and warehouses.....thous. of bales	4,130	3,325	2,665	2,038	2,189	2,201	² 1,923	+7.4	+13.8				
Mills.....thous. of bales	1,607	1,477	1,289	1,052	802	1,011	² 782	-23.8	+2.6				
Warehouses.....thous. of bales	2,523	1,848	1,376	986	1,387	1,190	² 1,141	+40.7	+21.6				
Stocks, world visible, end of month:													
Total.....thous. of bales	6,053	5,268	4,476	3,651	3,458	4,056	3,450	-5.3	-0.6				
American.....thous. of bales	3,680	3,000	2,302	1,693	1,629	2,165	1,790	-3.8	-9.0				
Prices:													
To producer.....dolls. per lb.	.185	.180	.179	.178	.180	.210	.188	+1.1	-4.3				
In New York, middling.....dolls. per lb.	.201	.195	.188	.186	.187	.215	.193	+0.5	-3.1				
Cotton Yarn													
Machinery activity of spindles:													
Active spindles.....thousands	30,924	30,910	30,628	30,396	30,237	28,160	² 28,217	-0.5	+7.2				
Total activity.....millions of hours	8,861	9,165	8,155	7,744	8,130	6,251	7,431	+5.0	+9.4				
Activity per spindle.....hours	261	261	232	222	234	176	209	+5.4	+12.0				
Ratio to capacity.....per cent.	110.3	110.9	² 104.8	² 100.3	97.7	79.7	² 87.1	-2.6	+12.2				
Carded sales yarn:													
Production.....thous. of lbs.	18,269	17,941	20,272	13,211	19,639	12,522	14,044	+48.7	+39.8	139,252	149,734	+7.5	
Stocks, end of month.....thous. of lbs.	8,446	8,760	8,785	8,901	8,185	12,350	11,574	-8.0	-29.3				
Unfilled orders, end of month.....thous. of lbs.	40,345	37,609	32,650	32,472	32,175	24,619	27,044	-0.9	+19.0				
Prices:													
22/1 cones, Boston.....dolls. per lb.	.363	.353	.348	.348	.349	.384	.369	+0.3	-5.4				
40/1s, southern spinning.....dolls. per lb.	.510	.499	.499	.505	.510	.515	.514	+1.0	-0.8				
Cotton Goods													
Cotton textiles:													
Production.....thous. of yds.	283,878	341,370	285,928	234,439	307,538	221,826	302,470	+31.2	+1.7	2,403,481	2,386,826	-0.7	
New orders.....thous. of yds.	202,520	278,335	228,244	262,889	312,635	187,439	340,810	+18.9	-8.3	2,200,533	2,300,743	+4.6	
Shipments.....thous. of yds.	277,098	326,121	252,003	252,779	326,398	217,540	324,073	+29.1	+0.7	2,298,295	2,414,509	+5.1	
Stocks, end of month.....thous. of yds.	352,091	367,340	401,200	382,920	364,000	463,270	441,667	-4.9	-17.6				
Unfilled orders, end of month.....thous. of yds.	430,298	382,512	358,748	368,858	355,095	272,227	288,964	-3.7	+22.9				
Fine cotton goods, production.....pieces	425,925	526,971	465,658	408,659	435,437	80,358	136,237	+18.8	+256.3	2,027,505	3,590,861	+77.	
Cotton cloth:													
Imports.....thous. of sq. yds.	5,334	6,527	4,880	5,175	3,927	3,490	3,753	-24.1	+4.6	44,207	41,674	-5.7	
Exports.....thous. of sq. yds.	49,233	46,261	44,730	50,412	42,359	44,951	43,928	-16.0	-3.6	336,350	398,147	+18.4	
Fabric for tire manufacture, consumption.....thous. of lbs.	23,620	23,302	20,359			20,947	21,854						
Elastic webbing, shipments.....thous. of dolls.	1,766	1,725	1,473	1,357		1,211	1,399			⁶ 9,502	⁶ 11,174	+17.6	
Prices:													
Print cloth, 64 x 60.....dolls. per yd.	.076	.073	.072	.073	.075	.079	.075	+2.7	-0.0				
Sheeting, brown.....dolls. per yd.	.089	.087	.084	.083	.084	.092	.091	+1.2	-7.7				
Cotton goods (Fairchild) rel. to 1911-1913.....	164	162	159	159	160	165	163	+0.6	-1.8				

² Revised³ As of Sept. 1.⁴ Final estimate for 1928.⁵ As of Sept. 16.⁶ Cumulative through July 31.

TREND OF BUSINESS MOVEMENTS—Continued

	1929					1928		PER CENT INCREASE (+) OR DECREASE (-)		CUMULATIVE TOTAL FROM JANUARY 1 THROUGH AUGUST 31		Per ct. increase (+) or decrease (-) cumulative 1929 from 1928	
	April	May	June	July	August	July	August	August, 1929, from July, 1929	August, 1929, from August, 1928	1928	1929		
TEXTILES—Continued													
Cotton Finishing													
White, dyed and printed (outside mills):													
Billings, finished goods.....thous. of yds.	96,707	88,707	78,964	75,582	75,845	58,685	70,748	+0.3	+7.2	585,642	677,394	+15.7	
New orders, gray yardage.....thous. of yds.	90,469	79,228	65,462	69,475	69,168	62,310	71,743	-0.4	-3.6	572,854	643,436	+12.3	
Shipments, finished goods.....cases	57,030	54,247	45,674	44,809	45,238	40,500	46,283	+1.0	-2.3	365,276	419,697	+14.9	
Stocks, finished goods, end mo.....cases	34,920	35,618	35,487	37,299	36,320	37,958	35,819	-2.6	+1.4				
Operating activity.....per ct. of capacity	74	71	60	57	60	51	54	+5.3	+11.1				
Unfilled orders, end of month.....days	6.4	5.2	5.1	4.9	4.9	3.8	4.4	0.0	+11.4				
Printed only (mills and outside):													
Production.....thous. of yds.	88,635	85,894	72,808	60,902	69,315	49,996	54,495	+13.8	+27.2	500,751	630,664	+25.9	
Stocks, end of month.....thous. of yds.	82,106	78,184	78,492	87,397	87,918	75,977	74,682	+0.6	+17.7				
Silk													
Imports, raw.....thous. of lbs.	6,220	8,599	7,596	7,858	9,620	5,832	9,320	+22.4	+3.2	57,711	62,566	+8.4	
Deliveries (consumption).....bales	53,855	49,121	46,504	² 51,624	59,704	40,931	50,821	+15.7	+17.5	380,538	414,263	+8.9	
Stocks, end of month:													
At warehouses.....bales	39,125	39,898	47,425	² 42,596	48,408	38,866	50,975	+13.6	-5.0				
At manufacturing plants.....bales	23,108	24,623	23,162	20,985		22,188	24,429						
Silk machinery activity:													
Broad looms.....per cent of normal	101.1	101.0	100.7	99.7	101.9	93.0	89.8	+2.2	+13.5				
Narrow looms.....per cent of normal	68.8	74.2	67.8	65.1	65.5	52.1	54.1	+0.6	+21.1				
Spinning spindles.....per cent of normal	66.9	65.3	63.1	63.8	65.2	62.7	52.1	+2.2	+25.1				
Prices:													
Raw, Japanese, 13-15, N. Y.dolls. per lb.	5.145	4.777	4.925	4.876	5.073	4.851	4.851	+4.0	+4.6				
Silk goods, composite.....dolls. per yd.	1.18	1.18	1.19	1.18	1.18	1.17	1.16	0.0	+1.7				
Rayon													
Imports.....thous. of lbs.	1,683	1,589	1,582	858	990	659	1,248	+15.4	-20.7	7,962	11,577	+45.4	
Stocks, bonded, end of month.....thous. of lbs.	2,736	2,423	2,902	2,802		2,949	2,976						
Price, 150 denier, A grade, N. Y.dolls. per lb.	1.30	1.30	² 1.23	1.15	1.15	1.50	1.50	0.0	0.0				
Clothing													
Men's and boys' garments cut:													
Suits.....thous. of garments	1,885	1,987	2,198	2,202		2,129	2,315			⁶ 15,253	⁶ 15,557	+2.0	
Separate trousers.....thous. of garments	2,295	2,412	2,221	2,307		1,898	2,222			⁶ 14,488	⁶ 15,761	+8.8	
Overcoats.....thous. of garments	235	346	507	631		590	734			⁶ 2,599	⁶ 2,918	+12.3	
Overalls:													
Cut.....thous. of dozen garments	394	384	362	² 380	419	346	394	+10.3	+6.3	2,921	3,078	+5.4	
Net shipments.....thous. of dozen garments	348	352	317	² 361	407	330	360	+12.7	+13.1	2,544	2,799	+10.0	
Unfilled orders, end of mo.....thous. of dozen garments	229	194	161	² 220	144	169	159	-34.5	-9.4				
Hosiery													
Production.....thous. of dozen pairs	3,639	3,823	3,543	3,068	3,417	2,786	3,474	+11.4	-1.6	27,307	28,040	+2.7	
Net shipments.....thous. of dozen pairs	3,493	3,658	3,567	3,075	3,485	2,963	3,735	+13.3	-6.7	26,733	27,306	+2.1	
Stocks, end of month.....thous. of dozen pairs	7,985	8,394	8,413	7,943	8,139	8,916	8,656	+2.5	-6.0				
New orders.....thous. of dozen pairs	3,977	4,101	3,513	2,813	3,427	2,836	3,207	+21.8	+6.9	26,325	27,872	+5.9	
Unfilled orders, end of month.....thous. of dozen pairs	4,665	5,071	4,841	4,437	4,234	4,711	4,079	-4.6	+3.8				
Knit Underwear													
Production.....thous. of dozen garments	1,274	1,316	1,187	² 1,091	1,146	881	1,098	+5.0	+4.4	8,760	9,391	+7.2	
Net shipments.....thous. of dozen garments	1,112	1,168	1,126	² 1,064	1,376	942	1,306	+29.3	+5.4	8,383	8,955	+6.8	
Stocks, end of mo.....thous. of dozen garments	1,523	1,679	1,735	1,797	1,689	1,658	1,570	-6.0	+7.6				
New orders.....thous. of dozen garments	1,071	1,088	1,157	² 891	1,137	852	1,236	+27.6	-8.0	8,486	9,477	+11.7	
Unfilled orders, end of month.....thous. of dozen garments	2,444	2,349	2,293	² 2,103	1,853	1,947	1,896	-11.9	-2.3				
Burlaps and Fibers													
Imports:													
Burlaps.....thous. of lbs.	69,787	71,649	51,216	41,526	74,698	58,541	47,766	+79.9	+56.4	462,319	480,270	+3.9	
Fibers (unmanufactured).....long tons	30,389	26,300	21,182	20,469	25,048	18,449	20,657	+22.4	+21.3	204,154	227,676	+11.5	
Pyroxylin Coated Textiles													
Pyroxylin spread.....thous. of lbs.	5,554	5,245	4,615	4,331	4,294	5,040	5,596	-0.9	-23.3	40,449	42,130	+4.2	
Shipments billed.....thous. of linear yards	4,822	4,563	4,007	3,509	3,540	3,757	4,241	+0.9	-16.5	31,288	34,985	+11.8	
Unfilled orders, end mo.....thous. of linear yards	4,061	3,531	2,910	2,805	2,468	4,182	3,853	-12.0	-35.9				
Fur													
Sales by dealers.....thous. of dollars	12,994	12,522	8,546	8,135	11,335	12,215	12,110	+39.3	-6.4	97,755	99,105	+1.4	
Buttons													
Fresh-water pearl buttons:													
Production.....ratio to capacity	52.6	51.6	50.1	40.9	45.5	29.7	² 44.5	+11.2	+2.2				
Stocks, end of month.....thous. of gross	11,114	11,226	11,351	11,170	10,951	10,847	² 10,669	-2.0	+2.7				
IRON AND STEEL													
Iron													
Manganese ore, imports.....thous. of long tons	31	29	51	48	33	22	26	-31.2	+26.9	133	246	+85.0	
Iron ore:													
Imports.....thous. of long tons	284	276	244	301	298	183	226	-1.0	+31.9	1,644	2,068	+25.8	
Shipments from mines.....thous. of long tons	2,516	9,549	10,174	10,671	10,807	8,980	9,243	+1.3	+16.9	32,518	43,717	+34.4	
Receipts—													
Lake Erie ports and furnaces.....thous. of long tons	1,191	6,753	6,985	7,509	7,518	6,078	6,390	+0.1	+17.7	21,515	29,956	+39.2	
Other ports.....thous. of long tons	387	2,527	2,805	3,127	3,284	2,655	2,819	+5.0	+16.5	9,610	12,130	+26.2	

² Revised.⁶ Cumulative through July 31.

TREND OF BUSINESS MOVEMENTS—Continued

The cumulatives shown are through August, except where otherwise noted. Earlier data for items shown here may be found on pages 27 to 138 of the August, 1929, "Survey"	1929					1928		PER CENT INCREASE (+) OR DECREASE (-)		CUMULATIVE TOTAL FROM JANUARY 1 THROUGH AUGUST 31		Per ct. increase (+) or decrease (-) cumulative 1929 from 1928
	April	May	June	July	August	July	August	August, 1929, from July, 1929	August, 1929, from August, 1928	1928	1929	
IRON AND STEEL—Continued												
Machinery—Continued												
Machine tools:												
New orders.....rel. to 1922-24.....	320	334	292	259	298	204	241	+15.1	+23.7			
Shipments.....rel. to 1922-24.....	311	301	296	278	277	181	208	-0.4	+33.2			
Unfilled orders, end of mo. rel. to 1922-24.....	718	721	722	694	693	420	428	-0.1	+61.9			
Electric hoists:												
New orders—												
Quantity.....number.....	508	541	600	504	437	394	402	-13.3	+8.7	3,396	4,468	+31.6
Value.....dollars.....	246,673	268,043	283,170	249,447	264,888	204,636	180,365	+6.2	+46.9	1,562,306	2,197,690	+40.7
Shipments.....dollars.....	232,483	262,641	269,978	290,141	339,881	177,404	193,248	+17.1	+75.9	1,460,442	2,057,539	+40.9
Electric overhead cranes:												
Shipments.....thous. of dolls.....	748	1,122	1,091	1,146	1,060	463	564	-7.5	+87.9	4,532	7,378	+62.8
New orders.....thous. of dolls.....	1,194	1,457	1,189	1,157	1,165	733	821	+0.7	+41.9	4,826	10,637	+120.4
Unfilled orders, end of mo. thous. of dolls.....	4,587	4,786	5,047	5,118	5,193	1,800	1,952	+1.5	+166.0			
Woodworking machinery:												
New orders.....thous. of dolls.....	1,718	1,620	1,678	1,691	1,748	1,247	1,641	+3.4	+6.5	11,082	14,147	+27.7
Shipments.....thous. of dolls.....	2,130	1,786	1,612	1,767	1,974	1,264	1,436	+11.7	+37.5	10,282	13,739	+33.6
Shipments.....number of machines.....	1,420	1,231	1,056	1,232	1,386	932	1,170	+12.5	+18.5	7,860	9,505	+20.9
Cancellations.....thous. of dolls.....	30	40	27	18	25	32	6	+38.9	+316.7	201	276	+37.3
Unfilled orders, end of mo. thous. of dolls.....	2,582	2,406	2,445	2,369	2,130	1,838	2,058	-10.1	+3.5			
Electric industrial trucks and tractors:												
Shipments, domestic—												
Tractors.....number of vehicles.....	12	28	17	18	15	5	5	-16.7	+200.0	71	118	+66.2
All other types.....number of vehicles.....	169	174	168	145	127	87	85	-12.4	+49.4	761	1,220	+60.3
Exports.....number of vehicles.....	13	9	16	5	10	15	6	+100.0	+66.7	97	85	-12.4
Fire-extinguishing equipment, shipments:												
Motor vehicles.....number.....	108	118	120	132	115	105	125	-12.9	-8.0	807	866	+7.3
Hand types.....number.....	58,696	54,420	51,929	62,266	63,444	48,897	47,490	+1.9	+33.6	382,446	439,042	+14.8
Patents issued:												
Total, all classes.....number.....	4,267	3,861	3,591	4,054	3,533	3,107	3,390	-12.9	+4.2	28,210	29,625	+5.0
Agricultural implements.....number.....	62	62	51	53	51	44	29	-3.8	+75.9	324	409	+26.2
Internal-combustion engines.....number.....	54	50	39	92	55	59	43	-40.2	+27.9	414	439	+6.0
NONFERROUS METALS												
Copper												
Production:												
Mines.....short tons.....	94,902	93,392	82,354	79,229	78,885	73,426	76,952	-0.4	+2.5	573,271	693,520	+21.0
Smelter.....short tons.....	110,313	108,961	95,339	94,690	91,735	83,875	88,517	-3.1	+3.6	667,056	804,676	+20.6
Refined (N. and S. America).....short tons.....	161,285	161,784	156,447	153,513	148,648	135,092	143,560	-3.2	+3.5	1,038,279	1,241,095	+19.5
World production, blister.....short tons.....	196,820	192,589	174,586	174,347	173,729	156,190	161,838	-0.4	+7.3	1,219,277	1,450,736	+19.0
Domestic shipments, refined.....short tons.....	99,051	93,743	95,258	98,720	96,970	82,245	83,398	-1.8	+16.3	609,671	788,508	+29.3
Exports.....short tons.....	45,842	36,949	40,852	33,876	36,811	47,855	41,186	+8.7	-10.6	385,022	340,494	-11.6
Stocks (North and South America), end mo.:												
Refined.....short tons.....	57,494	70,412	83,140	97,729	104,372	54,871	54,793	+6.8	+90.5			
Blister.....short tons.....	253,509	262,229	251,481	239,470	241,678	241,131	238,923	+0.9	+1.2			
Wholesale price, electrolytic.....dolls. per lb.....	.1950	.1778	.1778	.1778	.1778	.1453	.1453	0.0	+22.4			
Wire Cloth												
Production.....thous. of sq. ft.....	509	536	456	438	498	367	430	+13.7	+15.8	3,509	3,782	+7.8
Shipments.....thous. of sq. ft.....	441	518	404	461	434	365	387	-5.9	+12.1	3,258	3,414	+4.8
Stocks, end of month.....thous. of sq. ft.....	1,137	1,120	1,084	1,049	978	1,124	1,120	-6.8	-12.7			
New orders.....thous. of sq. ft.....	247	262	244	345	302	346	408	-12.5	-26.0	3,047	3,358	+10.2
Unfilled orders, end of month.....thous. of sq. ft.....	497	495	249	405	211	247	285	-47.9	-26.0			
Make and hold orders, end of month.....thous. of sq. ft.....	689	618	568	507	480	405	457	-5.3	+5.0			
Tin												
Deliveries (consumption).....long tons.....	8,435	8,480	7,455	6,865	7,185	5,545	7,200	+4.7	-0.2	51,205	62,140	+21.4
Stocks, end of month:												
World visible supply.....long tons.....	26,353	24,765	23,751	23,789	26,400	18,022	18,456	+11.0	+43.0			
United States.....long tons.....	3,603	3,464	3,820	3,087	2,858	2,878	1,718	-7.4	+66.4			
Imports.....long tons.....	8,838	8,902	7,150	5,521	9,737	4,772	6,534	+76.4	+47.9	50,229	64,406	+28.2
Price, pig, New York.....dolls. per lb.....	.4597	.4392	.4426	.4640	.4665	.4710	.4808	+0.5	-3.0			
Zinc												
Retorts in operation, end of month.....number.....	73,319	73,231	72,087	72,329	58,800	62,384	66,428	-18.7	-11.5			
Per cent of total.....per cent.....	61.2	61.1	60.2	60.1	49.2	53.9	57.4	+18.1	+14.3			
Production.....short tons.....	54,653	56,958	52,953	54,441	55,290	50,890	52,157	+1.6	+6.0	419,124	427,629	+2.0
Stocks, end of month.....short tons.....	34,588	33,826	36,932	44,142	47,833	42,210	44,416	+8.4	+7.7			
Ore, Joplin district:												
Shipments.....short tons.....	54,821	37,961	60,119	48,995	63,127	43,227	43,466	+28.8	+45.2	386,234	436,854	+13.1
Stocks, mines, end of month.....short tons.....	26,448	40,957	47,458	39,813	42,876	31,679	39,303	+7.7	+9.1			
Price, slab, prime western.....dolls. per lb.....	.0666	.0662	.0669	.0677	.0680	.0620	.0625	+0.4	+8.8			
Lead												
Production.....short tons.....	62,476	62,119	57,579	56,924	53,948	48,671	53,403	-5.2	+1.0	422,599	459,205	+8.7
Ore shipments:												
Joplin district.....short tons.....	11,615	8,424	8,491	5,373	7,808	6,623	6,125	+45.3	+27.5	59,367	70,666	+18.0
Utah.....short tons.....	75,935	96,688	76,003	66,083	92,668	56,395	78,811	+40.2	+17.6	557,644	651,834	+16.9
Receipts in U. S. ore.....short tons.....	57,449	58,140	53,542	54,865	54,865	49,305	53,575			367,561	386,028	+5.0
Stocks, U. S. and Mexico, end mo. short tons.....	156,888	162,255	173,612	173,549	175,641	158,919	156,976	+1.2	+11.9			
Price, pig, desilverized, N. Y.....dolls. per lb.....	.0719	.0700	.0700	.0680	.0675	.0622	.0625	-0.7	+8.0			

2 Revised.

6 Cumulative through July 31.

TREND OF BUSINESS MOVEMENTS—Continued

The cumulatives shown are through August, except where otherwise noted. Earlier data for items shown here may be found on pages 27 to 138 of the August, 1929, "Survey"	1929					1928		PER CENT INCREASE (+) OR DECREASE (-)		CUMULATIVE TOTAL FROM JANUARY 1 THROUGH AUGUST 31		Per ct. in-crease (+) or de-crease (-) cumu-lative 1929 from 1928
	April	May	June	July	August	July	August	August, 1929, from July, 1929	August, 1929, from August, 1928	1928	1929	
RUBBER												
Crude Rubber												
World shipments, plantation.....long tons..	73,547	66,345	61,390	71,562		52,831	58,345			317,361	497,976	+56.9
Imports (including latex).....long tons..	55,730	51,186	41,828	44,338	37,851	31,258	31,204	-14.6	+21.3	272,603	403,415	+48.0
Consumption by tire mfrs.....thous. of lbs..	65,673	66,028	56,861			47,128	62,224					
World stocks, end of month:												
World total.....long tons..	266,379	252,867	245,553	255,247		208,789	201,078					
United States.....long tons..	107,659	97,192	92,062	95,536	90,769	83,242	68,995	-5.0	+31.6			
Europe.....long tons..	36,789	37,143	37,135	37,168		39,269	35,755					
Producing countries.....long tons..	30,731	35,242	36,336	39,131	36,802	21,578	21,828	-6.0	+68.6			
Afloat.....long tons..	91,200	83,290	80,020	83,412		64,700	74,500					
Tires and Tubes												
Pneumatic tires:												
Production.....thousands..	5,913	6,109	5,478	4,834		4,881	5,607			33,576	38,200	+13.8
Stocks, end of month.....thousands..	12,697	13,386	13,468	11,932		8,396	7,539					
Shipments—												
Domestic.....thousands..	5,242	5,185	5,288	5,745		5,811	6,131			31,623	34,745	+9.9
Export.....thousands..	229	204	153	271		121	179			1,033	1,444	+39.8
Inner tubes:												
Production.....thousands..	5,726	5,745	5,234	4,672		5,009	6,264			35,301	36,942	+4.6
Stocks, end of month.....thousands..	13,601	14,196	14,056	11,763		11,248	10,466					
Shipments—												
Domestic.....thousands..	5,220	5,146	5,115	6,177		6,469	6,886			33,221	35,633	+7.3
Export.....thousands..	153	133	98	91		83	132			643	942	+46.5
Solid and cushion:												
Production.....thousands..	39	40	40	38		46	52			304	255	-16.1
Stocks, end of month.....thousands..	139	135	133	130		152	149					
Shipments—												
Domestic.....thousands..	40	40	38	39		45	49			282	256	-9.2
Exports.....thousands..	3	3	2	2		4	5			27	16	-40.7
Other Rubber Products												
Rubber-proofed fabrics, production:												
Total.....thous. of yds..	4,000	4,860	4,409	4,260		3,447	4,613			19,455	27,337	+40.5
Auto fabrics.....thous. of yds..	917	919	1,199	1,188	1,349	763	764	+13.6	+76.6	6,434	7,937	+23.4
Raincoat fabrics.....thous. of yds..	1,889	2,387	1,948	1,864		1,951	2,598			8,415	11,925	+41.7
All other.....thous. of yds..	1,194	1,554	1,262	1,208		733	1,251			5,370	8,814	+64.1
Rubber heels:												
Production.....thous. of pairs..	17,256	19,541	20,007			17,620	21,289					
Shipments—												
To shoe manufacturers.....thous. of pairs..	11,028	12,552	12,262			12,070	11,642					
To repair trade.....thous. of pairs..	6,506	7,604	8,256			7,372	9,244					
For export.....thous. of pairs..	1,072	1,054	926			457	729					
Stocks, end of month.....thous. of pairs..	47,209	44,969	44,581			49,679	49,511					
Rubber soles:												
Production.....thous. of pairs..	2,601	2,916	2,502			3,168	3,461					
Shipments—												
To shoe manufacturers.....thous. of pairs..	1,967	2,361	2,185			1,897	2,209					
To repair trade.....thous. of pairs..	623	635	522			808	917					
For export.....thous. of pairs..	23	32	17			55	46					
Stocks, end of month.....thous. of pairs..	4,184	3,997	3,843			5,067	5,633					
Other Rubber Products												
Mechanical rubber goods, shipments:												
Total.....thous. of dolls..	7,035	7,189	6,792	6,306		5,157	6,306			41,096	46,503	+13.2
Belting.....thous. of dolls..	1,668	1,798	1,613	1,645		1,396	1,888			10,790	10,988	+1.8
Hose.....thous. of dolls..	2,730	2,643	2,658	2,355		1,795	2,068			15,973	17,768	+15.8
All other.....thous. of dolls..	2,636	2,748	2,521	2,305		1,966	2,360			15,342	17,747	+15.7
Rubber bands, shipments.....thous. of lbs..	231	205	187	192		173	193			1,340	1,562	+16.6
Rubber flooring, shipments.....thous. of sq. ft..	596	733	525	566		477	583			3,923	3,873	-1.3
Calendered rubber clothing:												
Production.....no. coats and sundries..	91,193	100,706	87,530	89,871		59,685	74,509			745,242	564,995	-24.2
Net orders.....no. coats and sundries..	102,490	78,972	98,444	60,921		37,512	64,695			460,705	435,517	-5.5
HIDES AND LEATHER												
Hides												
Imports:												
Total hides and skins.....thous. of lbs..	39,505	38,643	41,509	49,910	47,956	50,175	47,056	-3.9	+1.9	380,372	322,184	-15.3
Calfskins.....thous. of lbs..	3,379	5,096	6,559	5,636	4,900	4,134	4,053	-13.0	+20.9	31,334	31,591	+0.8
Cattle hides.....thous. of lbs..	16,155	14,122	17,450	24,259	28,137	28,193	26,540	+16.0	+6.0	215,873	153,935	-28.7
Goatskins.....thous. of lbs..	10,869	9,882	8,309	9,361	7,692	7,873	7,951	-17.8	-3.3	63,734	68,633	+7.7
Sheepskins.....thous. of lbs..	6,406	6,301	6,224	6,849	4,405	6,171	6,773	-35.7	-35.0	45,945	44,522	-3.1
Stocks, end of month:												
Total.....thous. of lbs..	246,359	246,330	250,025	248,549		239,877	243,591					
Cattle hides.....thous. of lbs..	206,248	201,176	196,202	194,453		194,668	197,086					
Calf and kid skins.....thous. of lbs..	22,058	26,068	32,525	30,951		25,551	25,758					
Sheep and lamb skins.....thous. of lbs..	18,053	19,086	21,298	23,145		19,658	20,747					
Prices:												
Green salted, packers' heavy native steers.....dolls. per lb..	.149	.149	.168	.181	.188	.239	.236	+3.9	-20.3			
Calfskins, country, No. 1.....dolls. per lb..	.187	.179	.186	.199	.198	.278	.275	-0.5	-28.0			
Inspected slaughter of livestock:												
United States—												
Cattle.....thous. of animals..	662	676	636	706	726	662	717	+2.8	+1.3	5,473	5,343	-2.4
Calves.....thous. of animals..	460	427	344	363	388	362	369	+6.9	+5.1	3,204	3,071	-4.2
Swine.....thous. of animals..	3,761	3,798	3,756	3,597	3,130	2,984	2,545	-13.0	+23.0	33,256	31,903	-4.1
Sheep.....thous. of animals..	1,119	1,202	1,108	1,255	1,298	1,076	1,196	+3.4	+8.5	8,529	9,091	+6.6
Canada—												
Cattle and calves.....thous. of animals..	105	110	93	105	99	100	105	-5.7	-5.7	731	714	-2.3
Swine.....thous. of animals..	208	187	161	159	161	164	140	+1.3	+15.0	1,716	1,548	-9.8
Sheep.....thous. of animals..	19	17	25	55	77	45	62	+40.0	+24.2	226	270	+19.5

2 Revised.

* Cumulative through July 31.

TREND OF BUSINESS MOVEMENTS—Continued

The cumulatives shown are through August, except where otherwise noted. Earlier data for items shown here may be found on pages 27 to 138 of the August, 1929, "Survey"	1929					1928		PER CENT INCREASE (+) OR DECREASE (-)		CUMULATIVE TOTAL FROM JANUARY 1 THROUGH AUGUST 31		Per ct. increase (+) or decrease (-) cumulative 1929 from 1928
	April	May	June	July	August	July	August	August, 1929, from July, 1929	August, 1929, from August, 1928	1928	1929	
HIDES AND LEATHER—Continued												
Leather												
Sole and belting leather:												
Production—												
Sole only, thous. of backs, bends, sides..	1,184	1,144	1,244	² 1,176	1,295	1,436	1,463	+10.1	-11.5	10,889	9,570	-12.1
Sole and belting, thous. of lbs.	22,939	22,691	24,911	23,965	—	25,070	25,701	—	—	⁶ 171,691	⁶ 161,577	-5.9
Stocks, end of month—												
In process of tanning, thous. of lbs.	79,487	80,606	79,153	80,641	—	90,949	89,508	—	—	—	—	—
Finished, thous. of lbs.	76,444	72,070	70,616	68,538	—	69,557	72,439	—	—	—	—	—
Exports, thous. of lbs.	1,080	1,149	758	832	782	531	996	-6.0	-21.5	6,788	7,720	+13.7
Price oak, scoured backs, dolls. per lb.	.49	.49	.49	.51	.52	.67	.67	+2.0	-22.4	—	—	—
Upper leather:												
Production, thous. of sq. ft.	65,152	63,653	66,425	71,323	—	66,464	73,150	—	—	⁶ 473,284	⁶ 462,063	-2.4
Stocks, end of month—												
In process of tanning, thous. of sq. ft.	130,430	134,079	135,198	141,207	—	147,443	147,602	—	—	—	—	—
Finished, thous. of sq. ft.	246,992	241,783	235,156	230,871	—	254,563	253,854	—	—	—	—	—
Exports, thous. of sq. ft.	10,818	10,208	8,491	9,267	7,736	8,403	9,000	-16.5	-14.0	93,994	78,873	-16.1
Chrome calf, "B" grades, dolls. per sq. ft.	.50	.51	.50	.49	.49	.57	.57	0.0	-14.0	—	—	—
Leather Products												
Shoes:												
Production, thous. of pairs..	29,382	29,159	² 28,120	29,944	—	28,154	34,974	—	—	⁶ 196,633	⁶ 202,457	+3.0
Exports, thous. of pairs..	372	333	357	320	291	344	331	-9.1	-12.1	2,958	2,898	-2.0
Wholesale prices—												
Men's black calf blucher, Mass., 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	5.00	5.00	0.0	-3.0	—	—	—
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..	258,301	263,933	252,703	255,711	292,545	202,051	237,043	+14.4	+23.4	1,698,218	2,034,826	+19.8
PAPER AND PRINTING												
Wood Pulp												
Mechanical:												
Production, short tons..	162,042	166,375	142,915	² 122,946	111,878	112,403	114,668	-9.0	-2.4	1,085,290	1,129,739	+4.1
Consumption and shipments, short tons..	142,920	148,251	136,669	136,695	145,432	125,465	138,309	+6.4	+5.2	1,696,982	1,144,040	-32.6
Stocks, end of month, short tons..	160,875	178,963	185,209	171,535	137,982	171,098	147,611	-19.6	-6.5	—	—	—
Imports, short tons..	23,314	21,044	24,014	18,724	24,731	14,553	17,233	+32.1	+43.5	158,244	168,368	+6.4
Chemical:												
Production, short tons..	233,742	241,354	225,940	221,388	237,762	200,654	222,116	+7.4	+7.0	1,721,548	1,842,240	+7.0
Consumption and shipments, short tons..	234,638	242,254	223,016	221,105	235,310	204,512	221,008	+6.4	+6.5	1,725,124	1,839,563	+6.6
Stocks, end of month, short tons..	36,150	34,112	36,188	35,940	37,354	42,580	44,682	+5.9	-16.4	—	—	—
Imports, short tons..	123,757	121,989	153,956	161,185	142,502	129,910	120,643	-11.6	+18.1	914,023	1,057,949	+15.7
Price, sulphite, dolls. per 100 lbs..	2.45	2.49	2.53	2.60	2.60	2.53	2.53	0.0	+2.8	—	—	—
Newsprint Paper												
Production:												
United States, total, short tons..	118,679	123,504	113,407	111,578	120,868	109,861	116,120	+8.3	+4.1	944,781	930,088	-1.6
Ratio to capacity, per cent.	82	82	82	81	—	82	77	—	—	—	—	—
Canada, short tons..	221,784	245,644	225,055	229,045	225,873	187,434	200,480	-1.4	+12.7	1,546,167	1,764,939	+14.1
Consumption by publishers, short tons..	189,986	200,826	192,424	173,375	172,239	152,763	162,184	-0.7	+6.2	1,375,349	1,481,938	+7.7
Shipments:												
United States, short tons..	121,548	124,840	114,558	112,616	118,789	109,849	114,768	+5.5	+3.5	923,796	940,992	+1.9
Canada, short tons..	220,270	247,449	233,920	227,502	224,254	185,069	197,224	-1.4	+13.7	1,530,891	1,668,549	+9.0
Imports, short tons..	178,076	206,036	202,398	210,497	209,901	174,667	173,872	-0.3	+20.7	1,380,777	1,552,115	+12.4
Exports, Canada, short tons..	162,381	214,342	219,895	199,692	217,638	167,456	179,334	+9.0	+21.4	1,412,170	1,627,631	+15.3
Stocks, end of month:												
At mills—												
United States, short tons..	27,102	25,778	24,602	23,603	25,656	40,386	40,838	+8.7	-37.2	—	—	—
Canada, short tons..	25,741	23,893	24,199	28,993	29,785	48,270	52,108	+2.7	-42.8	—	—	—
At publishers, short tons..	166,089	154,948	161,318	191,647	205,532	199,214	209,044	+7.2	-1.7	—	—	—
In transit to publishers, short tons..	46,724	51,425	48,716	44,781	44,676	44,266	39,744	-0.2	+12.4	—	—	—
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	—	—	—
Printing												
Book publication:												
American manufacture, no. of titles..	718	601	695	501	—	555	551	—	—	—	—	—
Imported, no. of titles..	108	135	125	131	—	128	169	—	—	—	—	—
Sales books:												
New orders, thous. of books..	12,718	12,748	12,332	11,476	12,839	12,098	12,538	+11.9	+2.4	99,156	99,053	-0.1
Shipments, thous. of books..	12,176	12,154	12,445	13,737	13,631	9,986	13,738	-0.8	-0.8	95,825	100,708	+5.1
Blank forms, new orders, thous. of sets..	62,074	70,169	58,687	57,225	54,054	48,963	58,108	-5.5	-7.0	370,315	473,313	+27.8
Box Board												
Operation, thous. of inch hours..												
Operation, per ct. of capacity..	81.3	83.4	² 83.5	² 79.2	80.6	76.3	81.6	+1.8	-1.2	—	—	—
Production, short tons..	251,147	264,830	² 241,028	² 236,377	263,542	201,153	230,750	+11.5	+14.2	1,767,105	1,989,366	+12.6
New orders, short tons..	250,366	240,395	² 231,230	² 240,617	256,537	209,976	236,682	+6.6	+8.4	1,774,912	1,954,721	+10.1
Shipments, short tons..	247,773	260,283	² 235,865	² 235,863	262,297	203,741	233,104	+11.2	+12.5	1,760,937	1,975,389	+12.2
Stocks, end of month, short tons..	57,881	62,311	² 62,384	² 63,333	61,924	49,969	47,709	-2.2	+29.8	—	—	—
Stocks of waste paper, end of month:												
On hand, short tons..	142,666	150,048	² 159,005	² 173,306	171,316	132,265	117,009	-1.1	+46.4	—	—	—
In transit and unshipped purchases, tons..	68,005	54,433	² 56,904	² 64,359	61,741	62,056	48,108	-4.1	+28.3	—	—	—
Unfilled orders, end of month, short tons..	98,162	89,485	² 81,880	² 88,275	83,048	79,492	81,816	-5.9	+1.5	—	—	—
Consumption of waste paper, short tons..	231,089	248,813	² 234,119	² 215,537	255,194	190,810	213,626	+18.4	+19.5	1,634,911	1,882,919	+15.4

² Revised.⁶ Cumulative through July 31.

TREND OF BUSINESS MOVEMENTS—Continued

The cumulatives shown are through August, except where otherwise noted. Earlier data for items shown here may be found on pages 27 to 138 of the August, 1929, "Survey"	1929					1928		PER CENT INCREASE (+) OR DECREASE (—)		CUMULATIVE TOTAL FROM JANUARY 1 THROUGH AUGUST 31		Per ct. in-crease (+) or de-crease (—) cumulative 1929 from 1928
	April	May	June	July	August	July	August	August, 1929, from July, 1929	August, 1929, from August, 1928	1928	1929	
PAPER AND PRINTING—Continued												
Other Board												
Binder's board, production.....short tons..	2, 994	3, 491	3, 092	2, 828	3, 443	2, 153	3, 092	+21.7	+11.4	25, 675	24, 518	—4.5
Book paper:												
Production.....short tons..	138, 024	138, 024	129, 743	130, 768	138, 614	117, 492	130, 416	+6.0	+6.3	1, 008, 705	1, 065, 847	+5.7
Ratio to capacity.....per cent..	93	92	94	91	93	80	89	+2.2	+4.5			
Shipments.....short tons..	139, 404	137, 034	130, 132	130, 245	136, 951	118, 314	133, 024	+5.1	+3.0	998, 024	1, 072, 096	+7.4
Stocks, end of month.....short tons..	71, 399	74, 255	74, 255	74, 988	77, 248	88, 491	85, 836	+3.0	—10.0			
New orders—												
Coated.....p. ct. of normal production..	89	86	84	82	85	77	77	+3.7	+10.4			
Uncoated p. ct. of normal production..	84	80	82	81	77	80	79	—11.9	—2.5			
Unfilled orders, end of month—												
Coated.....p. ct. of normal production..	10	10	9	10	9	10	8	—10.0	+12.5			
Uncoated p. ct. of normal production..	10	9	8	9	8	8	7	—11.1	+14.3			
Wrapping paper:												
Production.....short tons..	91, 286	94, 302	87, 191	84, 093	91, 849	88, 477	100, 779	+9.2	—8.9	760, 460	729, 153	—4.1
Ratio to capacity.....per cent..	85	85	85	79	83	86	89	+5.1	—6.7			
Shipments.....short tons..	91, 377	92, 227	86, 406	85, 775	90, 655	94, 228	100, 174	+5.7	—9.5	750, 741	730, 128	—2.7
Stocks, end of month.....short tons..	86, 075	87, 733	88, 091	86, 233	87, 104	92, 467	93, 340	—1.0	—6.7			
Fine paper:												
Production.....short tons..	41, 819	41, 660	38, 513	37, 624	38, 924	33, 984	39, 331	+3.5	—1.0	311, 472	315, 905	+1.4
Ratio to capacity.....per cent..	93	90	90	85	84	80	84	—1.2	0.0			
Shipments.....short tons..	40, 564	42, 368	37, 897	36, 608	38, 146	34, 562	38, 938	+4.2	—2.0	308, 082	318, 778	+3.5
Stocks end of month.....short tons..	50, 213	49, 488	50, 103	47, 583	46, 840	53, 156	53, 535	+24.6	—12.5			
All other grades:												
Production.....short tons..	104, 506	111, 182	100, 897	100, 503	105, 855	95, 469	110, 677	+4.5	—5.1	819, 803	832, 992	+1.6
Shipments.....short tons..	102, 278	107, 735	100, 098	101, 783	104, 638	96, 056	109, 154	+2.8	—4.1	812, 281	825, 702	+1.7
Stocks, end of month.....short tons..	55, 486	58, 932	59, 875	57, 592	58, 009	70, 578	72, 438	+0.7	—19.9			
Total paper (inc. newsprint and box board):												
Production.....short tons..	745, 461	773, 502	710, 779	700, 943	759, 302	646, 436	728, 073	+8.3	+4.3	5, 612, 326	6, 659, 898	+18.7
Ratio to capacity.....per cent..	88	86	86	86	83	77	78	—3.5	+6.4			
Shipments.....short tons..	742, 944	764, 487	704, 956	702, 890	751, 475	656, 750	729, 162	+6.9	+3.0	5, 553, 861	5, 863, 084	+5.6
Stocks, end of month.....short tons..	348, 156	358, 497	359, 310	353, 342	356, 781	395, 044	393, 696	+1.0	—9.4			
Paper Board Shipping Boxes												
Production:												
Total.....thous. of sq. ft..	492, 272	490, 117	506, 830	481, 762	514, 751	404, 520	441, 792	+6.8	+16.5	3, 253, 035	3, 941, 689	+21.2
Corrugated.....thous. of sq. ft..	387, 596	386, 241	406, 908	384, 885	413, 501	335, 732	364, 756	+7.4	+13.4	2, 595, 632	3, 113, 120	+19.9
Solid fiber.....thous. of sq. ft..	104, 676	103, 876	99, 922	96, 877	101, 250	68, 788	77, 036	+4.5	+31.4	608, 744	828, 569	+36.1
Operating activity:												
Total.....per cent of normal..	82	82	85	80	89	72	79	+11.3	+12.7			
Corrugated.....per cent of normal..	83	83	87	82	91	71	77	+11.0	+18.2			
Solid fiber.....per cent of normal..	79	79	77	74	82	75	84	+10.8	—2.4			
Rope paper sacks, shipments.....index number..	83	81	96	85	101	89	111	+18.8	—9.0			
Abrasive paper and cloth:												
Domestic shipments.....reams..	98, 384	95, 224	90, 355	88, 566	88, 506	81, 689	99, 789			\$ 607, 694	\$ 656, 467	+8.0
Foreign shipments.....reams..	24, 642	26, 040	16, 696	11, 400	11, 400	17, 657	17, 875			\$ 128, 904	\$ 140, 182	+8.7
Building Costs												
Building materials:												
Frame house, 6-rm. 1st of mo. rel. to 1913..	176	177	176	177	177	175	177	0.0	0.0			
Brick house, 6-rm. 1st of mo. rel. to 1913..	181	182	181	182	182	181	181	0.0	+0.6			
Bldg. costs, 1st of mo. rel. to 1913..	203.4	205.2	205.7	204.8	205.9	206.7	207.3	+0.5	—0.7			
Bldg. costs (A. G. C.), 1st of mo. rel. to 1913..	204	203	203	202	203	198	200	+0.5	+1.5			
Plumbing fixtures, 6 pieces.....dollars..	97.90	98.16	97.54	97.94	98.84	100.09	101.21	+0.9	—2.3			
Construction costs (Am. Appraisal):												
Frame.....rel. to 1913..	204	204	204	204	204	204	204	0.0	0.0			
Brick, wood frame.....rel. to 1913..	214	214	214	214	214	213	213	0.0	+0.5			
Brick, steel frame.....rel. to 1913..	197	197	197	197	197	198	198	0.0	—0.5			
Reinforced concrete.....rel. to 1913..	201	201	201	200	201	201	201	+0.5	0.0			
Contracts and Losses												
Contracts awarded (36 States):												
Commercial buildings.....thous. of sq. ft..	14, 506	15, 789	13, 353	12, 873	13, 481	16, 835	11, 974	+4.7	+12.6	101, 716	108, 533	+6.7
Industrial buildings.....thous. of sq. ft..	6, 844	10, 325	8, 841	9, 563	10, 148	6, 214	8, 548	+6.1	+18.7	58, 875	69, 540	+18.1
Residential buildings.....thous. of sq. ft..	49, 908	38, 740	36, 227	36, 161	28, 339	43, 093	42, 859	—21.6	—33.9	384, 564	282, 781	—26.5
Educational buildings.....thous. of sq. ft..	4, 627	6, 050	6, 349	6, 525	5, 190	5, 586	5, 418	—20.5	—4.2	41, 073	41, 013	—1.6
Other public and semi-public buildings.....thous. of sq. ft..	5, 070	6, 866	5, 195	5, 743	5, 896	6, 605	6, 392	+2.7	—7.8	47, 388	38, 669	—18.4
Grand total.....thous. of sq. ft..	81, 407	77, 586	70, 297	71, 320	63, 875	78, 778	78, 638	—10.4	—18.8	640, 976	546, 361	—14.8
Contracts awarded, value (36 States):												
Commercial buildings.....thous. of dolls..	73, 527	82, 681	78, 625	88, 137	68, 365	93, 144	57, 178	—22.4	+19.6	595, 947	624, 969	+4.9
Industrial buildings.....thous. of dolls..	67, 515	79, 915	69, 621	66, 318	71, 820	31, 193	41, 318	+3.3	+73.8	359, 427	523, 222	+45.6
Residential buildings.....thous. of dolls..	249, 896	185, 658	185, 328	194, 754	142, 049	221, 345	207, 521	—27.1	—31.5	1, 814, 848	1, 404, 452	—26.7
Education buildings.....thous. of dolls..	28, 730	36, 690	41, 745	46, 303	31, 149	35, 315	33, 559	—32.7	—7.2	264, 904	260, 905	—1.5
Other public and semi-public buildings.....thous. of dolls..	54, 962	47, 387	39, 324	49, 537	42, 762	50, 380	45, 470	—13.7	—6.0	383, 402	328, 427	—14.3
Public works and utilities.....thous. of dolls..	148, 543	132, 383	117, 426	179, 897	114, 766	132, 853	114, 714	—36.2	0.0	863, 008	871, 583	+1.0
Grand total.....thous. of dolls..	623, 174	566, 010	532, 069	624, 976	470, 910	564, 229	499, 760	—24.7	—5.8	4, 381, 536	4, 014, 857	—8.4
Contracts awarded, Canada.....thous. of dolls..	43, 328	64, 860	72, 420	57, 941	58, 622	38, 360	39, 449	+1.2	+48.6	334, 066	394, 685	+18.1
Building volume (A. G. C.).....rel. to 1913..	178	211	231	218	239	237	239	+9.6	0.0			
Fire losses:												
United States and Canada, (Journal of Commerce).....thous. of dolls..	22, 647	21, 637	26, 631	31, 528	27, 504	17, 106	17, 724	—12.8	+55.2	209, 879	222, 706	+6.1
Canada (Monetary Times).....thous. of dolls..	1, 972	2, 551	3, 079	5, 027	3, 776	1, 491	2, 356	—24.9	+60.3	17, 437	24, 660	+41.1

* Cumulative through July 31.

TREND OF BUSINESS MOVEMENTS—Continued

The cumulatives shown are through August, except where otherwise noted. Earlier data for items shown here may be found on pages 27 to 138 of the August, 1929, "Survey"	1929					1928		PER CENT INCREASE (+) OR DECREASE (-)		CUMULATIVE TOTAL FROM JANUARY 1 THROUGH AUGUST 31		Per ct. increase (+) or decrease (-) cumulative 1929 from 1928
	April	May	June	July	August	July	August	August, 1929, from July, 1929	August, 1929, from August, 1928	1928	1929	
LUMBER PRODUCTS—Continued												
Flooring—Continued												
Oak flooring:												
Production.....M ft. b. m.	36,578	41,353	36,722	37,638	36,382	46,065	51,529	-3.3	-29.4	349,737	283,239	-19.0
Shipments.....M ft. b. m.	41,837	41,558	39,979	37,002	37,631	47,832	51,860	+1.7	-27.4	372,439	299,459	-19.6
Stocks, end of month.....M ft. b. m.	75,744	74,013	72,147	70,435	70,198	68,851	67,864	-0.3	+3.4			
New orders.....M ft. b. m.	40,244	33,909	34,479	25,901	30,972	45,972	49,427	+19.6	-37.3	370,504	279,644	-26.3
Unfilled orders, end of month.....M ft. b. m.	68,925	57,496	50,832	43,895	35,937	49,912	47,026	-18.1	-23.6			
Doors at Wholesale												
Fir, manufacturing plants:												
Production.....number	309,192	371,162	322,987	302,452		434,299	314,154					
Shipments.....number	287,222	357,900	258,041	340,978		431,800	344,643					
Stocks, end of month.....number	260,160	217,204	282,150	217,547		302,990	267,118					
New orders.....number	349,579	222,746	261,271	204,745		327,387	227,311					
Unfilled orders, end of month.....number	632,744	476,215	477,349	315,566		470,617	344,094					
Wooden Furniture												
Household furniture and case goods:												
Shipments.....dolls., average per firm	57,081	57,605	47,831	53,748	70,482	43,462	65,947	+31.1	+69	389,925	459,605	+17.9
Unfilled orders.....dolls., average per firm	32,776	38,713	36,232	64,573	77,568	59,214	57,288	+20.1	+35.4			
Grand Rapids district:												
Unfilled orders, end of month.....No. of days' production	34	60	58	68	64	54	53	+5.9	+20.8			
Shipments.....No. of days' production	19	23	22	24	30	22	31	+25.0	-3.2			
New orders.....No. of days' production	18	49	20	36	30	31	30	-16.7	0.0			
Outstanding accounts, end of month.....No. of days' sales	42	43	44	46	53	48	56	+15.2	-5.4			
Cancellations.....per cent of new orders	14.0	4.0	11.0	5.0	5.0	5.0	7.0	0.0	-28.6			
Plant operation.....per cent of full time	94.0	89.0	88.0	90.0	97.0	88.0	92.0	7.8	+5.4			
Plywood and Veneer												
Douglas-fir plywood:												
Production.....thous. of sq. ft. of surface	11,655	15,652	13,169	15,567	12,713	8,218	11,094	-18.3	+14.6			
Shipments.....thous. of sq. ft. of surface	11,406	15,906	12,778	14,113	12,661	8,387	10,988	-10.3	+15.2			
New orders (sales).....thous. of sq. ft. of surface	14,084	14,342	10,525	12,149	7,863	8,782	11,030	-35.3	-28.7			
Unfilled orders, end of month.....thous. of sq. ft. of surface	19,105	17,222	14,120	12,308	8,691	7,494	8,024	-29.4	+8.3			
Stocks, end of month.....thous. of sq. ft. of surface	5,306	5,185	5,702	7,158	7,201	7,251	7,358	+0.6	-2.1			
Other plywood:												
New orders.....thous. of sq. ft. of surface	5,953	5,369	6,135			2,920	4,239					
Shipments.....thous. of sq. ft. of surface	4,067	3,447	4,234			2,523	2,961					
Unfilled orders, end of month.....thous. of sq. ft. of surface	7,237	8,040	9,724			3,918	5,131					
Rotary-cut veneer:												
Receipts.....number of carloads	307	220	169	272	174	181	259	-36.0	-32.8	1,210	1,600	+32.2
Purchases.....number of carloads	256	157	181	260	122	249	325	-53.1	-62.5	1,652	1,854	+12.2
Bushel baskets:												
Production.....dozens	224,835	244,782	202,426	232,860		229,342	243,056			*1,398,668	*1,362,455	-2.6
Shipments.....dozens	149,055	152,274	200,814	232,154		294,662	262,810			*1,343,000	*1,069,759	-20.3
Stocks, end of month.....dozens	565,598	662,636	665,881	674,339		565,911	570,726					
STONE, CLAY, AND GLASS PRODUCTS												
Clay Products												
Common brick:												
Stocks, end of month—												
Burned.....thousands	315,607	325,208	308,257	290,044	290,265	408,563	491,088	+0.1	-40.1			
Unburned.....thousands	153,168	168,036	154,185	95,756	110,904	208,202	206,938	+15.8	-46.4			
Shipments.....thousands	284,793	121,641	154,021	118,834	130,982	238,941	218,339	+10.2	-40.0	1,625,111	1,077,096	-33.7
Unfilled orders, end of month.....thousands	207,649	144,271	163,126	148,289	109,564	299,457	221,625	-26.1	-50.6			
Plants closed down.....number	19	15	50	17	56	11	14	+229.4	+300.0			
Price, red, New York.....dolls. per thous.	11.50	11.50	11.00	10.13	10.13	13.50	13.50	0.0	-25.0			
Porcelain plumbing fixtures:												
Net new orders.....pieces	13,417	8,970	9,669	13,153	12,168	12,976	12,960	-7.5	-6.1	199,894	95,802	-52.1
Shipments.....pieces	12,193	10,059	10,807	11,845	13,873	20,253	22,970	+17.1	-39.6	132,263	89,055	-32.7
Unfilled orders, end of month.....pieces	37,184	35,045	31,234	30,088	26,911	81,699	65,029	-10.6	-58.6			
Stocks, end of month.....pieces	47,315	48,228	45,848	37,947	40,343	48,621	47,690	+6.3	-15.4			
Vitreous china plumbing fixtures:												
New orders.....pieces	205,870	199,477	196,707	244,351	259,096	184,783	217,305	+6.0	+19.2	2,223,381	2,075,889	-6.6
Shipments.....pieces	251,920	254,776	246,071	271,411	285,256	248,363	267,610	+5.1	+6.6	2,192,471	2,080,020	-5.1
Unfilled orders, end of month.....pieces	543,378	488,079	438,715	411,655	385,470	403,339	353,034	-6.4	+9.2			
Stocks, end of month.....pieces	544,899	543,987	591,633	582,414	559,487	460,360	477,593	-3.9	+17.1			
Floor and wall tile:												
Production.....thous. of sq. ft.	2,652	2,630	2,627	6,246		6,452	6,841			638,336	642,830	+11.7
Shipments, quantity.....thous. of sq. ft.	2,617	2,635	2,624	6,461		6,595	7,403			638,421	639,341	+2.4
Shipments, value.....thous. of dolls.	2,376	2,437	2,412	2,507		2,529	2,847			614,576	615,146	+3.9
Stocks, end of month.....thous. of sq. ft.	218,609	218,465	218,092	18,301		12,837	12,343					
Terra cotta, new orders:												
Quantity.....net tons	12,949	13,313	10,798	11,756	8,606	14,191	12,058	-26.8	-28.6	103,137	88,769	-13.9
Value.....thous. of dolls.	1,472	1,487	1,178	1,183	940	1,385	1,123	-20.5	-16.3	9,775	9,718	-0.6
Sand-lime brick:												
Production.....thousands	16,155	12,969	17,578	16,061	15,772	18,072	21,680	-1.8	-27.3	131,915	107,948	-18.2
Shipments by rail.....thousands	4,659	5,658	5,412	4,263	4,462	6,055	8,284	+4.7	-46.1	44,996	32,728	-27.3
Shipments by trucks.....thousands	13,580	13,107	13,757	12,266	10,746	11,772	13,215	-12.4	-18.7	89,454	85,102	-4.9
Stocks, end of month.....thousands	14,236	10,561	10,447	8,854	8,879	12,591	14,446	+0.3	-38.5			
Unfilled orders, end of month.....thousands	11,587	9,188	14,968	14,739	9,700	11,762	14,503	-34.2	-33.1			

* Revised.

* Cumulative through July 31.

TREND OF BUSINESS MOVEMENTS—Continued

The cumulatives shown are through August, except where otherwise noted. Earlier data for items shown here may be found on pages 27 to 138 of the August, 1929, "Survey"	1929					1928		PER CENT INCREASE (+) OR DECREASE (-)		CUMULATIVE TOTAL FROM JANUARY 1 THROUGH AUGUST 31		Per ct. in-crease (+) or de-crease (-) cumulative 1929 from 1928
	April	May	June	July	August	July	August	August, 1929, from July, 1929	August, 1929, from August, 1928	1928	1929	
STONE, CLAY, AND GLASS PRODUCTS—Continued												
Portland Cement												
Production.....thous. of bbls..	13,750	16,151	² 16,803	² 17,281	18,594	17,474	18,759	+7.6	-0.9	113,294	110,951	-2.1
Operation.....per ct. of capacity..	67.1	76.4	80.9	80.4	93.1	97.0	93.1	+15.8	0.0			
Shipments.....thous. of bbls..	13,325	16,706	² 18,949	² 20,295	23,019	19,901	21,970	+13.4	+4.8	115,824	113,562	-2.0
Stocks, end of month.....thous. of bbls..	30,151	29,624	² 27,457	² 24,525	20,101	22,580	19,374	-18.0	+3.8			
Stocks, clinker, end of month.....thous. of bbls..	15,472	14,911	² 13,586	² 11,619	8,991	11,707	9,357	-22.6	-3.9			
Wholesale prices, composite.....dolls. per bbl..	1.650	1.650	1.650	1.650	1.604	1.683	1.683	-2.8	-4.7			
Plate Glass												
Production, polished.....thous. of sq. ft..	12,555	12,782	12,278	13,057	14,716	9,966	12,159	+12.7	+21.6	86,386	191,247	+17.2
Highways												
Concrete pavements, new contracts:												
Total.....thous. of sq. yds..	16,654	23,704	16,421	18,022	11,969	13,123	16,889	-33.6	-29.1	109,748	103,472	-5.7
Road.....thous. of sq. yds..	12,315	17,518	10,410	11,344	7,010	6,984	9,254	-38.2	-34.2	69,667	69,201	-0.7
Federal-aid highways:												
Completed—												
Cost.....thous. of dolls..	7,410	10,309	15,552	16,445	9,729	8,828	12,145	-40.8	-19.9	93,408	93,280	-0.2
Distance.....miles..	211	335	520	693	442	483	599	-36.2	-26.2	3,940	3,282	-16.7
Under construction, end of month.....miles..	7,707	7,900	8,359	8,494	8,724	9,497	9,547	+2.7	-8.6	70,931	64,363	-9.3
Glass Containers												
Actual production:												
Quantity.....gross..	2,519	2,683	2,561	2,396	2,715	2,374	2,686	+13.3	+1.1	19,620	20,076	+2.3
Relation to capacity.....per cent..	79.1	79.1	81.5	73.3	77.5	77.2	80.9	+5.7	-4.2			
New orders.....gross..	2,408	2,584	2,023	2,224	1,922	2,008	1,909	-13.6	+0.7	18,925	19,609	+3.6
Shipments.....gross..	2,546	2,657	2,679	2,507	2,656	2,311	2,654	+5.9	+0.1	19,454	20,149	+3.6
Unfilled orders, end of month.....gross..	10,214	9,859	9,278	8,824	8,079	9,166	8,467	-8.4	-4.6			
Stocks, end of month.....gross..	6,588	6,601	6,500	6,388	6,447	6,267	6,297	+0.9	+2.4			
Illuminating Glassware												
Production:												
Total.....number of turns..	3,285	3,884	3,239	1,818	2,819	1,748	2,985	+55.1	-5.6	23,467	25,225	+7.5
Ratio to capacity.....per ct. of capacity..	42.9	46.8	46.3	18.7	36.4	22.3	36.5	+94.7	-0.3			
New orders.....per ct. of capacity..	45.3	48.1	44.6	40.1	42.9	40.2	44.5	+7.0	-3.6			
Shipments.....per ct. of capacity..	44.9	42.2	45.1	35.3	43.8	26.8	42.5	+24.1	+3.1			
Unfilled orders, end of month.....number of weeks' supply..	1.1	1.4	1.6	1.5	1.4	1.6	1.8	-6.7	-22.2			
Stocks, end mo.....number of weeks' supply..	5.3	5.8	6.0	5.4	4.7	4.6	4.3	-13.0	+9.3			
CHEMICALS AND OILS												
Chemicals												
Sulphuric acid:												
Exports.....thous. of lbs..	634,959	287,306	693,027	506,758	641,492	773,624	291,035	+26.6	+120.4	5,022,603	4,524,324	-9.9
Price, wholesale.....dolls. per 100 lbs..	.78	.78	.78	.78	.78	.78	.78	0.0	0.0			
Nitrate of soda:												
Imports.....long tons..	119,620	127,645	64,733	40,501	51,684	28,150	75,318	+27.6	-31.4	816,914	735,482	-10.0
Production in Chile—												
Quantity.....metric tons..	272,200	276,600	252,600	272,300	270,300	264,300	275,000	-0.7	-1.7	2,042,300	2,133,100	+5.4
Potash salts:												
Imports.....long tons..	21,299	24,696	9,895	37,126	45,505	38,461	57,327	+22.6	-20.6	239,097	213,850	-10.6
Production in France—												
(K ₂ O content).....metric tons..	38,990	37,242	39,700			30,260	34,300					
Sales in Germany—												
(K ₂ O content).....metric tons..	107,588	77,326	97,723	89,190		102,608	108,696			6,905,586	6,914,239	+1.0
Superphosphate (acid phosphate):												
Production.....short tons..	286,897	276,462	302,434	305,808	344,460	294,121	² 304,857	+12.6	+13.0	2,546,674	2,476,096	-2.8
Stocks, end of month.....short tons..	831,841	822,659	967,766	² 1,206,174	1,358,748	1,237,006	² 1,380,278	+12.6	-1.6			
Shipments.....short tons..	468,200	116,580	55,459	² 62,956	86,251	64,378	² 87,688	+37.0	-1.6	1,507,320	1,505,151	-0.1
Fertilizer:												
Exports.....long tons..	136,937	114,655	140,090	123,515	112,346	98,803	103,575	-9.0	+8.5	864,769	993,353	+14.9
Consumption, Southern States.....short tons..	1,242,330	219,763	99,407	20,047	45,517	19,101	² 62,823	+127.1	-27.5	5,101,167	5,013,841	-1.7
Dyes and dyestuffs, exports:												
Vegetable.....thous. of lbs..	160	202	264	126	191	254	237	+51.6	-19.4	2,224	1,380	-37.9
Coal tar.....thous. of lbs..	26	27	21	3,180	13	8,340	1,335			21,385	5,659	-73.5
Arsenic												
Crude:												
Production.....short tons..	1,382	1,888	2,452	1,444	887	1,385	2,086	-38.6	-57.5	11,331	11,758	+3.8
Stocks, end of month.....short tons..	2,451	2,073	2,161	1,998	1,876	2,105	2,999	-6.1	-37.4			
Refined:												
Production.....short tons..	836	779	917	812	857	728	803	+5.5	+6.7	5,828	6,959	+19.4
Stocks, end of month.....short tons..	3,316	3,236	3,709	3,305	3,414	1,568	1,618	+3.3	+111.0			
Price index numbers:												
Crude drugs.....rel. to Aug., 1914..	187	187	184	183	179	197	193	-2.2	-7.3			
Essential oils.....rel. to Aug., 1914..	205	193	190	191	188	162	161	-1.6	+16.8			
Drugs and pharmaceuticals.....rel. to Aug., 1914..	164	163	163	173	177	168	164	+2.3	+7.9			
Chemicals.....rel. to 1913-14..	113	113	113	113	112	113	113	-0.9	-0.9			
Oils and fats.....rel. to 1913-14..	123	118	116	117	123	123	121	+5.1	+1.7			
Wood Chemicals												
Acetate of lime:												
Production—												
United States.....thous. of lbs..	² 12,071	² 12,703	² 11,935	² 10,658	11,025	9,570	9,486	+3.4	+16.2	88,385	94,134	+6.6
Canada.....thous. of lbs..	1,032	751	² 677	² 720	715	443		-0.7		6,164	7,397	+20.0

² Revised.⁶ Cumulative through July 31.

TREND OF BUSINESS MOVEMENTS—Continued

The cumulatives shown are through August, except where otherwise noted. Earlier data for items shown here may be found on pages 27 to 138 of the August, 1929, "Survey"	1929					1928		PER CENT INCREASE (+) OR DECREASE (-)		CUMULATIVE TOTAL FROM JANUARY 1 THROUGH AUGUST 31		Per ct. increase (+) or decrease (-) cumulative 1929 from 1928
	April	May	June	July	August	July	August	August, 1929, from July, 1929	August, 1929, from August, 1928	1928	1929	
FOODSTUFFS—Continued												
Oats												
Production, crop estimate.....thous. of bush.					³ 1,204,987		⁴ 1,448,677					
Receipts, principal markets.....thous. of bush.	9,494	10,432	8,486	10,123	36,320	6,610	27,271	+258.8	+33.2	104,004	102,871	-1.
Visible supply, end of month.....thous. of bush.	12,204	10,063	8,114	8,129	25,897	1,954	15,687	+218.6	+65.1			
Exports, including meal.....thous. of bush.	358	513	254	255	837	104	2,403	+228.2	-65.2	4,849	3,884	-19.9
Prices, contract grades,												
Chicago.....dolls. per bush.	.50	.46	.47	.48	.44	.61	.39	-8.3	+12.8			
Grindings, Canada.....thous. of bush.	776	900	895	854		723	988			⁶ 6,015	⁶ 6,099	+1.4
Production, oatmeal and rolled oats, Canada.....thous. of lbs.	8,987	10,728	11,360	12,145		9,320	15,968			⁶ 73,825	⁶ 77,019	+4.3
Barley												
Production, crop estimate.....thous. of bush.					³ 304,143		⁴ 356,667					
Receipts, principal markets.....thous. of bush.	3,450	3,264	3,338	4,849	18,666	2,217	23,611	+284.9	-20.9	50,138	46,388	-7.5
Visible supply, end mo.....thous. of bush.	6,849	6,022	5,731	5,518	9,805	685	6,313	+77.7	+55.3			
Exports.....thous. of bush.	1,862	1,268	2,783	4,120	4,624	2,242	8,758	+12.2	-47.2	18,992	22,387	+17.9
Price, fair to good, malting, Chicago.....dolls. per bush.	.55	.55	.53	.65	.64	.83	.73	-1.5	-12.3			
Rye												
Production, crop estimate.....thous. of bush.					³ 41,028		⁴ 41,676					
Receipts, principal markets.....thous. of bush.	1,064	1,464	870	880	5,766	571	2,636	+118.7	+118.7	11,556	13,122	+13.6
Visible supply, end mo.....thous. of bush.	6,632	6,325	6,422	6,447	8,015	1,146	1,440	+24.3	+456.6			
Exports, including flour.....thous. of bush.	32	368	295	106	470	195	709	+343.4	-33.7	7,202	1,691	-76.5
Price, No. 2, Chicago.....dolls. per bush.	1.00	.90	.89	1.05	1.03	1.13	.98	-1.9	+5.1			
Total Grains												
Total grain exports, incl. flour.....thous. of bush.	13,741	19,140	13,127	18,907	23,761	10,496	27,476	+25.7	-13.5	115,399	151,374	+31.2
Rice												
Production, crop estimate.....thous. of bush.					³ 35,285		⁴ 41,881					
Southern paddy, receipts at mills.....bbls.	429,389	231,893	191,944	125,737		16,892	338,269					
Shipments:												
Total from mills.....pockets (100 lbs.)	745,097	714,677	650,414	515,342		285,155	346,076					
New Orleans.....pockets (100 lbs.)	131,246	125,528	130,369	113,969	126,470	35,274	96,643	+11.0	+30.9	1,209,422	1,012,927	-16.2
Stocks, end of month.....pockets (100 lbs.)	1,763,837	1,311,568	865,117	485,177		829,608	695,660					
Exports.....pockets (100 lbs.)	378,971	343,168	261,377	231,401	221,314	189,472	126,668	-4.4	+74.7	2,461,348	2,737,980	+11.2
Imports.....pockets (100 lbs.)	21,356	15,257	2,984	6,556	5,549	31,688	6,026	-15.4	-7.9	265,271	176,193	-33.6
Other Crops												
Apples:												
Production, crop estimate.....thous. of bush.					³ 145,523		⁴ 185,743					
Cold-storage holdings, end of month.....thous. of bbls.	1,257											
Car-lot shipments.....carloads	2,918	1,668	1,001	1,903	3,532	3,369	4,170	+85.6	-15.3	26,491	31,754	+19.9
Potatoes:												
Production, crop estimate.....thous. of bush.					³ 349,112		⁴ 464,483					
Car-lot shipments.....carloads	19,341	19,683	24,321	19,359	16,871	20,972	15,538	-12.9	+8.6	170,973	161,256	-5.7
Onions, car-lot shipments.....carloads	4,141	3,366	1,700	2,351	2,545	1,652	2,561	+8.3	-0.6	19,866	19,827	-0.2
Citrus fruits, car-lot shipments.....carloads	16,713	15,524	11,820	8,152	7,348	5,070	4,254	-9.9	+72.7	59,687	103,265	+73.0
Hay, all tame:												
Production, crop estimate.....thous. of tons					³ 93,600		⁴ 92,983					
Receipts.....tons	57,993	44,197	47,445	27,599		43,770	59,774			⁶ 360,224	⁶ 398,027	+10.5
Cattle and Beef												
Cattle movements, primary markets:												
Receipts.....thousands	1,748	1,653	1,444	1,659	1,615	1,650	1,829	-2.7	-11.7	13,272	12,390	-6.6
Shipments, total.....thousands	646	680	528	592	684	608	814	+15.5	-16.0	5,072	4,593	-9.4
Shipments, stocker and feeder.....thousands	292	292	176	173	267	196	336	+54.3	-20.5	1,854	1,657	-10.6
Local slaughter.....thousands	1,080	979	901	1,039	938	1,013	1,007	-9.7	-6.9	8,097	7,704	-4.9
Beef products:												
Production, inspected.....thous. of lbs.	392,784	392,816	364,470	402,501	406,700	375,745	398,056	+1.0	+2.2	3,101,199	3,079,746	-0.7
Apparent consumption.....thous. of lbs.	415,184	417,481	388,426	² 420,212	419,530	386,213	407,512	-0.2	+2.9	3,204,064	3,220,634	+0.5
Exports.....thous. of lbs.	1,073	1,293	1,496	2,268	1,457	1,510	1,419	-35.8	+2.7	9,590	11,593	+20.9
Cold-storage holdings, end mo.....thous. of lbs.	70,714	57,315	52,055	² 45,930	47,979	32,442	31,065	+4.5	+54.4			
Prices:												
Cattle, corn-fed, Chicago.....dolls. per 100 lbs.	13.88	13.44	14.38	14.98	14.69	14.99	15.11	-1.9	-2.8			
Steer rounds No. 2.....dolls. per lb.	.224	.230	.234	.238	.238	.229	.244	0.0	-2.5			
Western dressed steers, N. Y.....dolls. per lb.	.225	.231	.238	.255	.251	.249	.260	-1.6	-3.5			
Hogs and Pork												
Hog movements, primary markets:												
Receipts.....thousands	3,545	3,375	3,230	3,257	2,926	2,924	2,523	-10.2	+16.0	31,413	28,694	-8.7
Shipments, total.....thousands	1,273	1,300	1,149	1,199	1,120	1,193	1,160	-6.6	-3.4	11,752	10,772	-8.3
Shipments, stocker and feeder.....thousands	73	57	53	38	38	45	43	0.0	-11.6	505	427	-15.4
Local slaughter.....thousands	2,258	2,083	2,081	2,055	1,810	1,719	1,363	-11.9	+32.8	19,641	17,902	-8.9
Pork products, total:												
Production, inspected.....thous. of lbs.	655,418	665,985	672,947	675,915	586,150	537,820	466,696	-13.3	+25.6	5,810,771	5,636,362	-3.0
Apparent consumption.....thous. of lbs.	559,351	622,890	582,512	² 604,320	616,812	560,122	550,185	+2.1	+12.1	4,791,501	4,703,642	-1.8
Exports.....thous. of lbs.	89,813	98,080	100,556	96,298	87,277	84,290	81,924	-9.4	+6.5	745,521	790,558	+6.0
Cold-storage holdings, end of month.....thous. of lbs.	923,558	870,785	841,937	² 814,354	720,104	1,024,124	859,903	-11.6	-16.3			
Fresh and cured.....thous. of lbs.	738,810	687,295	642,238	² 611,344	540,205	819,185	682,015	-11.6	-20.8			
Lard (included in pork products):												
Production.....thous. of lbs.	137,953	141,989	144,272	139,693		108,522	92,401			⁶ 1,125,025	⁶ 1,076,525	-4.3
Exports.....thous. of lbs.	59,144	64,192	67,252	64,274	55,487	52,940	50,658	-13.7	+9.5	499,589	538,777	+7.4
Cold-storage holdings, end of month.....thous. of lbs.	184,748	183,490	199,699	² 203,010	179,899	204,939	177,888	-11.4	+1.1			

² Revised.³ As of Sept. 1.⁴ Final estimate for 1928.⁶ Cumulative through July 31.

TREND OF BUSINESS MOVEMENTS—Continued

The cumulatives shown are through August, except where otherwise noted. Earlier data for items shown here may be found on pages 27 to 138 of the August, 1929, "Survey"	1929					1928		PER CENT INCREASE (+) OR DECREASE (-)		CUMULATIVE TOTAL FROM JANUARY 1 THROUGH AUGUST 31		Per ct. in-crease (+) or de-crease (-) cumu-lative 1929 from 1928
	April	May	June	July	August	July	August	August, 1929, from July, 1929	August, 1929, from August, 1928	1928	1929	
FOODSTUFFS—Continued												
Hogs and Pork—Continued												
Prices:												
Hogs, heavy, Chicago.....dolls. per 100 lbs..	11.46	10.75	10.66	11.20	10.66	10.86	11.71	-4.8	-9.0			
Hams, smoked, Chicago.....dolls. per lb..	.248	.249	.254	.267	.275	.236	.249	+3.0	+10.4			
Lard, prime contract, N. Y.....dolls. per lb..	.122	.120	.123	.125	.124	.125	.128	-0.8	-3.1			
Sheep and Lambs												
Sheep movement, primary market:												
Receipts.....thousands..	2,010	2,169	1,749	2,112	2,537	1,898	2,362	+20.1	+7.4	14,610	15,522	+6.2
Shipments, total.....thousands..	954	1,074	740	876	1,384	828	1,250	+58.0	+10.7	6,893	7,247	+5.1
Shipments, stocker and feeder.....thousands..	211	217	226	231	639	234	564	+176.6	+13.3	1,726	1,949	+12.9
Local slaughter.....thousands..	1,049	1,101	1,020	1,216	1,155	1,068	1,097	-5.0	+5.3	7,703	8,255	+7.2
Lamb and mutton:												
Production, inspected.....thous. of lbs..	44,575	46,397	42,012	46,804	49,096	39,395	44,525	+4.9	+10.3	332,582	353,681	+6.3
Apparent consumption.....thous. of lbs..	46,183	46,694	41,967	47,563	48,749	39,449	44,443	+2.5	+9.7	336,634	359,533	+6.8
Cold-storage holdings, end of month.....thous. of lbs..	2,533	2,461	3,061	2,639	3,159	1,822	1,691	+19.7	+86.8			
Prices:												
Sheep, ewes, Chicago.....dolls. per 100 lbs..	9.18	5.91	5.31	5.55	5.16	5.38	5.72	-7.0	-9.8			
Sheep, lambs, Chicago.....dolls. per 100 lbs..	16.45	12.78	12.75	13.80	12.88	15.18	14.31	-6.7	-10.0			
Miscellaneous Meats												
Cold-storage holdings, end mo.....thous. of lbs..	88,314	82,331	81,132	81,068	76,811	63,610	56,888	-5.3	+35.0			
Total Meats												
Production, inspected.....thous. of lbs..	1,092,777	1,105,198	1,079,429	1,125,221	1,041,946	952,959	909,277	-7.4	+14.6	9,244,550	9,069,790	-1.9
Cold-storage holdings, end mo.....thous. of lbs..	1,085,119	1,012,892	978,185	943,991	848,053	1,121,998	949,547	-10.2	-10.7			
Apparent consumption.....thous. of lbs..	1,020,718	1,087,065	1,012,905	1,072,095	1,085,191	985,784	1,002,140	+1.2	+8.3	8,332,259	8,283,809	-0.6
Poultry												
Receipts at 5 markets.....thous. of lbs..	16,846	17,593	20,434	22,548	26,150	22,238	22,361	+16.0	+16.9	165,655	172,328	+4.0
Cold-storage holdings, end of mo.....thous. of lbs..	52,901	41,643	42,001	40,896	49,000	40,395	40,749	+19.8	+20.2			
Fish												
Total catch, prin. fishing ports.....thous. of lbs..	29,042	28,631	31,728	43,185	43,903	27,324	30,130	+1.7	+45.7	200,776	244,308	+21.7
Cold-storage holdings, 15th of mo.....thous. of lbs..	31,360	30,119	40,451	51,334	64,723	53,140	66,170	+26.1	-2.2			
Canned salmon:												
Shipments, United States.....cases..	109,690	186,202	217,781	367,842	454,600	832,632				*1,850,861	*2,198,089	+18.8
Exports, Canada.....cases..	49,177	90,775	42,794	38,983	53,100	26,333	121,152	+36.2	-56.2	601,772	642,706	+6.8
Butter												
Production (factory).....thous. of lbs..	126,664	226,180	181,359	173,314	144,436	165,247	143,391	-16.7	+0.7	1,067,685	1,164,828	+9.1
Receipts, 5 markets.....thous. of lbs..	48,707	63,259	69,511	68,104	54,885	65,145	55,339	-19.4	-0.8	418,441	437,134	+4.5
Cold-storage holdings, creamery, end of month.....thous. of lbs..	5,883	28,369	91,962	151,621	168,974	120,437	136,175	+11.4	+24.1			
Apparent consumption.....thous. of lbs..	170,745	203,760	192,045	241,232	185,708	185,928	189,164	-23.0	-1.8	1,415,615	1,451,825	+2.6
Wholesale price, New York.....dolls. per lb..	.45	.44	.44	.42	.43	.45	.47	+2.4	-8.5			
Cheese												
Total, all varieties:												
Production (factory).....thous. of lbs..	31,105	41,083	48,854	47,004	37,751	56,653	49,401	-19.7	-23.6	372,998	271,665	-27.2
Receipts, 5 markets.....thous. of lbs..	12,331	16,751	18,404	20,548	18,605	21,741	18,727	-9.5	-0.7	133,856	126,559	-5.5
Apparent consumption.....thous. of lbs..	39,886	40,639	38,625	36,607	39,453	34,461	36,541	+7.8	+8.0	322,404	306,464	-4.9
Cold-storage holdings, end mo.....thous. of lbs..	54,618	61,097	79,724	98,070	106,154	89,708	101,498	+8.2	+4.6			
Imports.....thous. of lbs..	5,553	6,183	8,608	6,653	5,268	5,937	5,597	-20.8	-5.9	47,033	50,666	+7.7
Exports, United States.....thous. of lbs..	242	204	209	285	138	172	215	-51.6	-35.8	1,788	1,794	+0.3
Exports, Canada.....thous. of lbs..	804	1,692	8,403	15,074	11,047	20,095	15,788	-26.7	-30.0	51,743	39,960	-22.8
American whole milk:												
Cold-storage holdings, end mo.....thous. of lbs..	42,032	47,641	62,737	79,907	86,654	73,088	83,906	+8.4	+3.3			
Wholesale price, New York.....dolls. per lb..	.24	.23	.23	.23	.23	.26	.26	0.0	-11.5			
Eggs												
Receipts, 5 markets.....thous. of cases..	2,596	2,331	1,813	1,409	1,151	1,335	1,076	-18.3	+7.0	13,253	12,866	-2.9
Cold-storage holdings, end of month:												
Case.....thous. of cases..	3,952	6,705	8,510	8,962	8,540	10,496	9,944	-4.7	-14.1			
Frozen.....thous. of lbs..	51,825	71,560	84,766	91,488	86,695	81,670	89,196	-5.2	-2.8			
Milk												
Condensed milk:												
Total stocks, mfrs., end mo.—												
Case goods.....thous. of lbs..	12,534	22,193	31,459	34,750	32,142	30,397	30,542	-7.5	+5.2			
Bulk goods.....thous. of lbs..	11,312	18,262	25,803	29,890	28,973	20,794	19,332	-3.1	+49.9			
Unsold stocks, mfrs., end mo.—												
Case goods.....thous. of lbs..	7,984	17,249	25,140	28,883	26,950	23,594	24,159	-6.7	+11.6			
Bulk goods.....thous. of lbs..	4,012	6,644	9,296	9,221	8,686	8,611	8,367	-5.8	+3.8			
Exports.....thous. of lbs..	3,643	2,689	3,280	3,865	3,366	3,011	3,246	-12.9	+3.7	26,461	28,271	+6.8
Wholesale price, New York.....dolls. per case..	6.13	6.13	6.13	6.13	6.13	5.97	6.18	0.0	-0.8			
Evaporated milk:												
Manufacturers' stocks, end of mo.—												
Total, case goods.....thous. of lbs..	126,314	160,426	222,956	281,137	272,418	180,377	161,679	-3.1	+58.5			
Unsold, case goods.....thous. of lbs..	89,789	116,144	173,684	215,878	186,717	124,738	101,819	-13.5	+83.4			
Exports.....thous. of lbs..	5,963	5,917	7,121	5,929	4,609	5,180	6,343	-22.3	-27.3	54,847	49,934	-9.0
Wholesale price, New York.....dolls. per case..	4.30	4.30	4.30	4.30	4.30	4.34	4.45	0.0	-3.4			
Production, condensed and evaporated milk.....thous. of lbs..	194,810	257,343	290,350	261,989	180,084	197,877	160,360	-31.3	+12.3	1,450,741	1,565,816	+7.9

* Revised.

* Cumulative through July 31.

TREND OF BUSINESS MOVEMENTS—Continued

The cumulatives shown are through August, except where otherwise noted. Earlier data for items shown here may be found on pages 27 to 138 of the August, 1929, "Survey"	1929					1928		PER CENT INCREASE (+) OR DECREASE (-)		CUMULATIVE TOTAL FROM JANUARY 1 THROUGH AUGUST 31		Per ct. increase (+) or decrease (-) cumulative 1929 from 1928
	April	May	June	July	August	July	August	August, 1929, from July, 1929	August, 1929, from August, 1928	1928	1929	
TRANSPORTATION—Continued												
Ocean Traffic												
Clearances, vessels in foreign trade:												
Total.....thous. of net tons..	6,661	7,277	7,664	8,099	8,428	7,781	8,377	+4.1	+0.6	50,841	54,854	+7.9
American.....thous. of net tons..	2,738	2,851	2,985	3,176	2,219	3,056	3,173	+1.4	+1.4	19,640	20,973	+6.8
Foreign.....thous. of net tons..	3,924	4,425	4,679	4,923	5,208	4,725	5,204	+5.8	+0.1	31,201	33,880	+8.6
Shipbuilding												
Completed during month:												
Total.....gross tons..	20,668	9,775	37,616			25,523	12,537					
Steel seagoing.....gross tons..	9,468	3,804	14,379			21,450	2,245					
Building or under contract, end of month:												
Merchant vessels.....thous. of gross tons..	290	268	170	160		256	235			* 1,684	* 1,369	-18.7
Freight Cars												
Surplus (daily av. last week of month):												
Total.....cars..	220,821	222,626	217,657	197,923	158,112	271,017	201,864	-20.1	-21.7			
Box.....cars..	89,952	109,924	116,657	96,577	87,985	137,618	114,355	-8.9	-23.1			
Coal.....cars..	87,367	64,156	55,150	58,485	31,021	90,513	47,615	-47.0	-34.9			
Shortage (daily av. last week of month):												
Total.....cars..	19	18	75	3	12	82	8	+300.0	+50.0			
Box.....cars..												
Coal.....cars..		18	11			32	8					
Car loadings:												
Total.....cars..	3,983,978	4,205,709	5,260,571	4,153,220	5,590,853	3,944,041	5,348,407	+34.6	+4.5	33,754,221	35,341,011	+4.7
Grain and grain products.....cars..	143,743	152,544	215,606	246,696	315,570	207,348	288,572	+27.9	+9.4	1,603,246	1,657,760	+3.4
Livestock.....cars..	106,894	105,838	116,744	91,969	121,285	91,007	126,780	+31.9	-4.3	956,907	887,517	-7.3
Coal and coke.....cars..	643,238	690,020	842,553	644,715	916,215	606,857	874,369	+42.1	+4.8	5,894,998	6,352,737	+7.8
Forest products.....cars..	278,814	277,316	347,917	245,036	343,449	238,676	332,061	+40.2	+3.4	2,274,635	2,287,694	+0.6
Ore.....cars..	110,678	283,805	379,813	304,962	378,560	250,150	321,700	+24.1	+17.7	1,214,094	1,587,575	+30.8
Merchandise and l. c. l.....cars..	1,060,943	1,053,688	1,273,002	996,357	1,307,417	986,282	1,290,844	+31.2	+1.3	8,827,770	8,881,392	+0.6
Miscellaneous.....cars..	1,639,668	1,642,498	2,084,936	1,623,485	2,208,357	1,563,721	2,114,081	+36.0	+4.5	12,982,571	13,686,336	+5.4
Railroad Operations												
Operating revenue:												
Freight.....thous. of dolls..	393,058	412,018	390,360	416,405		* 382,226	421,007					
Passenger.....thous. of dolls..	67,509	68,896	79,329	79,551		* 82,822	85,102					
Total operating.....thous. of dolls..	513,955	537,748	531,748	557,568		* 513,730	557,856					
Operating expenses.....thous. of dolls..	376,494	390,977	381,596	389,262		* 376,044	383,908					
Net operating income.....thous. of dolls..	94,204	103,616	105,961	122,783		* 95,231	128,414					
Freight carried.....mills. ton-miles	38,334	42,027	40,725	41,991		* 39,153	42,406					
Railway Equipment												
Locomotive (Am. Ry. Assn.):												
Owned, end of month—												
Quantity.....number..	58,144	58,052	57,876	² 57,635	57,482	59,975	59,769	-0.3	-3.8			
Tractive power.....mills. of lbs..	2,550	2,549	2,546	2,541	2,541	2,590	2,585	0.0	-1.7			
In bad order end of month—												
Quantity.....number..	8,057	7,803	7,453	7,681	7,106	8,310	7,954	-7.5	-10.7			
Per cent of total in use.....per cent.	14.0	13.4	13.0	13.4	12.4	14.0	13.4	-7.5	-7.5			
Installed.....number..	130	177	158	120	153	116	114	+27.5	+34.2	995	1,084	+8.9
Retired.....number..	308	289	297	369	306	235	320	-17.1	-4.4	2,009	2,306	+14.8
New orders.....number..	58	50	181	36	46	32	70	+27.8	-34.3	241	609	+152.7
Shipments, manufacturers' (Census)—												
Total.....number..	61	99	78	69	129	46	34	+87.0	+279.4	394	517	+31.2
Steam, domestic.....number..	57	92	58	39	117	19	23	+20.0	+408.7	257	420	+63.4
Electric, domestic.....number..	2	2	1	3	6	5	4	+100.0	+50.0	85	25	-70.6
Unfilled orders (railroads), end of mo.—												
From manufacturers.....number..	308	265	334	365	370	56	81	+1.4	+356.8			
In railroad shops.....number..	38	59	55	45	25	17	19	-44.4	+31.6			
Unfilled orders, manufacturers' (Census)—												
Total.....number..	495	444	552	539	436	198	204	-19.1	+113.7			
Steam, domestic.....number..	419	362	489	490	392	98	135	-20.0	+190.4			
Electric, domestic.....number..	24	22	21	18	13	59	26	-27.8	-50.0			
Exports, steam.....number..	10	14	14	32	30	32	20	-6.2	+50.0	133	153	+15.0
Freight cars (Am. Ry. Assn.):												
Owned, end of month—												
Quantity.....thous. of cars..	2,267	2,267	2,266	2,267	2,267	2,300	2,299	0.0	-1.4			
Capacity.....mills. of lbs..	203,569	208,850	208,867	209,095	209,284	210,437	210,483	+0.1	-0.6			
In bad order, end of month—												
Quantity.....cars..	142,543	144,634	142,064	137,495	134,253	151,867	149,252	-2.4	-20.0			
Per cent of total in use.....per cent.	6.5	6.5	6.4	6.2	6.0	6.7	6.6	-3.2	-9.1			
New orders.....cars..	6,983	8,364	5,869	442	2,585	307	767	+484.8	+237.0	23,400	62,156	+165.6
Shipments—												
Total.....cars..	5,510	8,459	6,517	7,109	7,811	4,963	5,295	+9.9	+47.5	30,430	41,971	+37.9
Domestic.....cars..	5,300	8,350	6,514	6,963	4,633	4,908	5,261	+9.6	+45.1	29,763	39,761	+33.6
Unfilled orders (railroads)—												
Total.....cars..	43,486	39,843	39,173	36,014	31,671	13,531	8,177	-12.1	+287.3			
From manufacturers.....cars..	36,674	33,588	34,145	31,590	27,289	10,371	5,673	-13.6	+281.0			
In railroad shops.....cars..	6,812	6,255	5,028	4,424	4,382	3,160	2,504	-0.9	+75.0			
Passenger cars:												
New orders.....cars..	250	131	176	97	149	19	589	+53.6	-74.7	1,702	1,105	-35.1
Shipments—												
Total.....c..	86	48	94	64	76	123	147	+18.8	-48.3	671	656	-2.2
Domestic.....c..	78	44	82	53	64	123	144	+20.8	-55.6	604	607	+0.1

² Revised.⁶ Cumulative through July 31.

TREND OF BUSINESS MOVEMENTS—Continued

The cumulatives shown are through August, except where otherwise noted. Earlier data for items shown here may be found on pages 27 to 138 of the August, 1929, "Survey"	1929					1928		PER CENT INCREASE (+) OR DECREASE (-)		CUMULATIVE TOTAL FROM JANUARY 1 THROUGH AUGUST 31		Per ct. in-crease (+) or de-crease (-) cumu-lative 1929 from 1928
	April	May	June	July	August	July	August	August, 1929, from July, 1929	August, 1929, from August, 1928	1928	1929	
TRANSPORTATION—Continued												
Passenger Travel												
National parks:												
Visitors.....number.....	64,807	102,207	273,059	593,324	523,623	553,394	499,633	-11.7	+4.8	1,687,702	1,719,144	+1.9
Automobiles entered.....number.....	19,460	21,190	59,412	131,511	112,574	111,642	98,523	-14.4	+14.3	322,787	361,953	+12.1
Arrivals from abroad:												
Immigrants.....number.....	28,565	25,711	22,490	20,068	20,682	20,682	24,629			\$ 163,272	\$ 152,039	-6.9
United States citizens.....number.....	32,288	27,169	28,119	37,636	32,974	32,974	63,191			\$ 207,235	\$ 219,253	+5.8
Departures abroad:												
Emigrants.....number.....	3,387	4,985	4,881	5,086	7,804	7,804	6,488			\$ 40,726	\$ 29,612	-27.3
United States citizens.....number.....	25,277	31,505	42,846	56,339	68,463	68,463	50,323			\$ 277,348	\$ 245,094	-11.6
Passports issued.....number.....	29,995	38,175	29,508	18,115	11,295	15,776	9,866	-37.6	+14.5	155,263	162,555	+4.7
Pullman company operations:												
Revenue.....thous. of dolls.....	6,404	6,471	7,763	7,230	7,279	7,279	7,593			\$ 47,026	\$ 47,945	+2.0
Passengers carried.....thousands.....	2,582	2,590	3,000	2,939	3,073	3,073	3,312			\$ 19,569	\$ 19,228	-1.7
Trend of business in hotels:												
Room occupancy.....per ct. of capacity.....	75	71	66	63	65	60	63	+3.2	+3.2			
Average sale per occupied room.....dollars.....	4.09	3.88	3.97	3.94	4.13	3.98	4.09	+4.8	+1.0			
Warehouses												
Public merchandise warehouses, space occupied.....per ct. of total.....	71.8	71.0	71.0	71.2		67.1	67.9					
PUBLIC UTILITIES												
Telephone companies:												
Operating revenues.....thous. of dolls.....	74,830	76,158	74,622	75,141	67,676	68,784				\$ 471,786	\$ 521,472	+10.5
Operating income.....thous. of dolls.....	17,776	18,355	18,194	15,905	15,019	15,985				\$ 116,560	\$ 125,592	+7.7
Telegraph companies:												
Commercial telegraph tolls.....thous. of dolls.....	11,328	11,853	11,396	11,679	10,618	11,530				\$ 74,334	\$ 79,565	+7.0
Operating revenues.....thous. of dolls.....	14,344	15,016	14,440	14,843	13,376	14,328				\$ 93,020	\$ 100,753	+8.3
Operating income.....thous. of dolls.....	1,700	1,749	1,516	1,528	1,428	1,887				\$ 11,771	\$ 11,498	-2.3
Gas and electric companies:												
Gross earnings.....thous. of dolls.....	190,000	189,750	183,000	178,000	173,646	173,952				\$ 1,285,426	\$ 1,332,750	+3.7
Net earnings.....thous. of dolls.....	83,000	82,500	79,000	71,000	62,260	61,810				\$ 492,622	\$ 578,500	+17.4
Electric railways (212 companies):												
Passengers carried.....thous. of persons.....	774,517	792,894	744,310	722,289	724,812	728,849	736,223	+0.3	-1.5	6,199,555	6,120,093	-1.3
Average fare.....cents.....	8.202	8.221	8.228	8.244	8.081	8.121						
ELECTRIC POWER												
Electric power production:												
United States—												
Total.....mills. of kw. hours.....	7,881	\$ 8,084	\$ 7,768	8,011	7,142	7,510				\$ 33,477	\$ 55,403	+65.5
By water power.....mills. of kw. hours.....	3,285	\$ 3,483	\$ 3,066	3,060	3,071	\$ 3,036				\$ 20,451	\$ 21,193	+3.6
By fuels.....mills. of kw. hours.....	4,596	4,601	4,702	4,951	4,071	\$ 4,474				\$ 29,026	\$ 34,222	+17.9
In street railways, manuf. plants, etc.....mills. of kw. hours.....	375	378	362	368	381	382				\$ 3,134	\$ 2,635	-14.3
In central stations.....mills. of kw. hours.....	7,506	7,706	7,406	7,643	6,762	7,128				\$ 46,384	\$ 52,718	+13.7
Canada—												
Total.....mills. of kw. hours.....	1,409	1,457	1,377	1,411	1,248	\$ 1,314				\$ 8,994	\$ 9,978	+10.9
By water power.....mills. of kw. hours.....	1,379	1,432	1,369	1,393	1,233	\$ 1,298				\$ 8,876	\$ 9,798	+10.4
Exported.....mills. of kw. hours.....	111	112	119	129	130	146				\$ 897	\$ 823	-8.2
Electric power, gross revenue.....thous. of dolls.....	167,900	165,600			146,600	148,200						
Consumption of electrical power:												
By geographic divisions—												
United States.....rel. to 1923-25.....	136.4	136.9	135.2	129.0	128.2	120.2	120.8	-0.6	+6.1			
New England.....rel. to 1923-25.....	125.4	123.3	123.5	113.4	108.7	102.4	102.2	-4.1	+6.4			
North Central.....rel. to 1923-25.....	146.5	148.9	142.0	141.3	135.5	131.8	132.4	-4.1	+2.3			
Middle Atlantic.....rel. to 1923-25.....	128.0	130.4	129.5	120.5	127.9	110.8	118.3	+6.1	+8.1			
Southern.....rel. to 1923-25.....	126.3	128.1	128.4	114.7	132.7	112.0	112.8	+15.7	+17.6			
Western.....rel. to 1923-25.....	137.0	144.7	134.2	129.4	127.0	116.5	127.5	-1.9	-0.4			
By industry—												
All industry.....rel. to 1923-25.....	136.4	136.9	135.2	129.0	128.2	120.2	120.8	-0.6	+6.1			
Chemicals and allied products.....rel. to 1923-25.....	131.7	129.2	133.8	127.0	125.0	128.5	119.2	-1.6	+4.9			
Food and kindred products.....rel. to 1923-25.....	121.2	122.6	121.8	129.9	132.2	129.2	128.3	+1.8	+3.0			
Rolling mills and steel plants.....rel. to 1923-25.....	153.3	172.2	154.3	144.4	150.9	121.2	125.4	+4.5	+20.3			
Metal working plants.....rel. to 1923-25.....	148.3	144.2	143.4	144.4	134.6	126.3	125.8	-6.8	+7.0			
Metal groups.....rel. to 1923-25.....	149.9	154.8	147.9	144.2	140.7	124.2	125.5	-2.4	+12.1			
Leather and its products.....rel. to 1923-25.....	82.0	95.2	98.7	82.0	102.2	99.0	94.7	+24.6	+7.9			
Lumber and its products.....rel. to 1923-25.....	108.0	111.1	113.8	103.2	102.3	108.8	111.6	-0.9	+8.3			
Paper and pulp.....rel. to 1923-25.....	136.0	129.9	137.3	122.3	123.6	127.3	129.1	+1.1	-4.3			
Rubber and its products.....rel. to 1923-25.....	155.7	157.6	158.1	136.7	120.2	135.3	138.4	-12.1	-13.2			
Shipbuilding.....rel. to 1923-25.....	116.1	135.2	106.9	107.7	96.3	67.2	67.3	-10.6	+43.1			
Stone, clay and glass.....rel. to 1923-25.....	145.0	143.5	170.3	154.7	157.7	129.8	135.3	+1.9	+16.6			
Textiles.....rel. to 1923-25.....	128.1	129.9	123.0	113.4	110.0	91.8	97.3	-3.0	+13.1			
Automobiles, including repair parts.....rel. to 1923-25.....	170.6	161.8	154.0	139.5	143.0	143.7	143.2	+2.5	-0.1			
EMPLOYMENT AND WAGES												
Employment in factories:												
Massachusetts.....rel. to 1919-23.....	79.0	78.8	77.2	77.0	77.8	72.9	74.2	+1.0	+4.9			
New York State.....rel. to 1923.....	88.3	87.5	87.6	87.3	87.7	81.5	82.5	+0.5	+6.3			
New Jersey.....rel. to 1923.....	100	101	101	102	103	90	91	+1.0	+13.2			
Pennsylvania.....rel. to 1923.....	85	85	86	86	87	79	81	+1.2	+7.4			

² Revised.

⁶ Cumulative through July 31.

TREND OF BUSINESS MOVEMENTS—Continued

The cumulatives shown are through August, except where otherwise noted. Earlier data for items shown here may be found on pages 27 to 138 of the August, 1929, "Survey"	1929					1928		PER CENT INCREASE (+) OR DECREASE (-)		CUMULATIVE TOTAL FROM JANUARY 1 THROUGH AUGUST 31		Per ct. increase (+) or decrease (-) cumulative 1929 from 1928
	April	May	June	July	August	July	August	August, 1929, from July, 1929	August, 1929, from August, 1928	1928	1929	
EMPLOYMENT AND WAGES—Contd.												
Employment in factories—Continued.												
Delaware.....rel. to 1923.....	79	79	78	81	84	75	74	+3.7	+13.5			
Iowa.....rel. to 1923.....	127.4	127.6	130.8	129.7	133.2	123.3	124.0	+2.7	+7.4			
Maryland.....rel. to 1924.....	91.8	91.6	93.9	93.0	93.0	85.6	88.1	0.0	+5.6			
Illinois.....rel. to 1925-27.....	103.0	103.7	104.1	103.4	105.1	93.9	96.3	+1.6	+9.1			
Wisconsin.....rel. to 1923.....	99.2	99.1	98.2	100.3	99.2	96.8	97.9	-1.1	+1.3			
Ohio.....rel. to 1923.....	115	115	116			104	106					
Cleveland.....rel. to Jan., 1921.....	123.1	124.0	123.9			111.3	113.8					
Milwaukee.....number.....	43,891	44,067	43,814	43,761	43,736	37,314	37,385	-0.1	+17.0			
New York State.....number.....	488,390	484,464	484,637	483,142	485,330	451,125	456,303	+0.5	+6.4			
Oklahoma.....number.....	34,809	34,686	36,795	34,984	38,978	29,405	31,137	+11.4	+25.2			
Total pay roll:												
New York State (weekly).....thous. of dolls.....	14,687	14,549	14,549	14,398	14,599	13,149	13,411	+1.4	+8.9			
Oklahoma (weekly).....thous. of dolls.....	908	1,039	1,005	965	1,074	793	877	+11.3	+22.5			
Wisconsin.....rel. to 1923.....	111.5	110.1	107.0	100.2	105.3	98.7	108.7	+5.1	-3.1			
New York State.....rel. to 1923.....	97.4	96.5	96.5	95.5	96.8	87.2	89.0	+1.4	+8.8			
New Jersey.....rel. to 1923.....	113	114	114	111	115	96	99	+3.6	+16.2			
Pennsylvania.....rel. to 1923.....	92	94	93	88	93	76	83	+5.7	+12.0			
Delaware.....rel. to 1923.....	86	88	86	84	90	74	76	+7.1	+18.4			
Illinois.....rel. to 1925-27.....	105.2	105.7	107.5	102.7		91.4	96.3					
Employment, Canada.....rel. to calendar year 1926.....	110.4	116.2	122.2	124.7	127.8	117.7	119.3	+2.5	+7.1			
Ohio, construction.....rel. to 1923.....	107.8	122.5	132.8			130.6	139.4					
Employment, trade-unions:												
United States.....per cent of total.....	88.0	89.0	91.0			88.0	91.0					
Canada.....per cent of total.....	94.5	96.0	97.1			97.5	97.6					
Anthracite mines:												
Employment.....rel. to 1923-25.....	104.1	107.2	95.4	85.6	93.6	100.7	110.9	+9.3	-15.6			
Pay roll.....rel. to 1923-25.....	77.4	85.4	71.0	56.8	68.9	82.5	97.2	+21.3	-29.1			
Federal civilian employees, Washington, D. C., and month.....number.....	63,507	63,841	63,904	63,372		61,650	62,111					
Average weekly earnings, factories:												
Illinois.....dollars.....	28.96	29.05	29.46	28.16	28.57	27.45	29.13	+1.5	-1.9			
New York State.....dollars.....	30.07	30.03	30.02	29.80	30.08	29.15	29.39	+0.9	+2.3			
Wisconsin.....dollars.....	26.94	26.64	26.03	23.96	26.51	24.45	26.60	+10.6	-0.3			
Oklahoma.....dollars.....	26.08	29.95	27.31	27.57	27.55	26.97	28.15	-0.1	-2.1			
Massachusetts.....rel. to 1914.....	232.6	232.4	231.5	231.0	234.2	234.6	234.4	+1.4	-0.1			
New York.....rel. to 1914.....	240.9	240.6	240.5	238.8	241.0	233.6	235.5	+0.9	+2.3			
New Jersey.....rel. to 1913.....	114	114	113	110	113	108	109	+2.7	+3.7			
Pennsylvania.....rel. to 1923.....	109	110	108	101	137	96	102	+5.9	+4.9			
Delaware.....rel. to 1923.....	107	111	108	102	105	98	102	+2.9	+2.9			
Illinois.....rel. to 1925-27.....	105.2	105.7	107.5	102.7	106.0	91.4	96.3	+3.2	+10.1			
Wisconsin.....rel. to 1923.....	112.4	111.1	109.0	100.0	106.3	102.0	111.0	+6.3	-4.2			
Average weekly earnings (National Industrial Conference Board):												
Grand total (both sexes).....dollars.....	28.53	28.54	28.28	28.09		27.09	27.35					
Total male.....dollars.....	31.61	31.48	31.16			29.95	30.30					
Skilled male.....dollars.....	33.09	33.04	32.66	32.52		31.35	31.77					
Unskilled male.....dollars.....	25.95	25.59	25.45	25.23		24.69	24.78					
Total women.....dollars.....	17.85	17.95	17.86	17.54		17.07	17.04					
Average weekly hours:												
Nominal (both sexes).....hours.....	49.8	49.9	49.7			49.6	49.6					
Actual (both sexes).....hours.....	49.3	49.0	48.5	48.8		47.5	47.9					
Wages, road labor, by districts:												
New England.....cents per hour.....	51	50	51	49	51	47	48	+4.1	+6.3			
Middle Atlantic.....cents per hour.....	42	42	42	42	42	43	41	0.0	+2.4			
South Atlantic.....cents per hour.....	27	30	29	30	30	27	34	0.0	-11.8			
East South Central.....cents per hour.....	27	26	26	25	25	25	25	0.0	0.0			
West South Central.....cents per hour.....	31	31	32	30	30	27	29	0.0	+3.4			
East North Central.....cents per hour.....	38	40	38	40	39	38	39	-2.5	0.0			
West North Central.....cents per hour.....	37	37	37	36	37	36	38	2.8	-2.6			
Mountain.....cents per hour.....	44	45	47	47	48	44	50	+2.1	-4.0			
Pacific.....cents per hour.....	53	53	52	53	52	53	53	-1.9	-1.9			
United States, average.....cents per hour.....	38	40	40	39	40	40	42	+2.6	-4.8			
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.....	125.5	125.5	125.5	125.5	125.5	125.5	125.5	0.0	0.0			
Applicants per 100 jobs, employment agencies:												
United States.....number.....	128	126	128	131	124	137	129	-5.3	-3.9			
Eastern States.....number.....	126	126	127	139	136	151	223	-2.2	-39.0			
Central States.....number.....	134	126	140	141	135	150	132	-4.3	+2.3			
Southern States.....number.....	200	198	185	174	178	174	121	+2.3	+47.1			
Western States.....number.....	73	93	71	83	75	80	69	-9.6	+8.7			
Illinois.....number.....	134	124	139	148		151	138					
Wisconsin.....number.....	117	106	120	115		113	107					
Canada.....number.....	117	118	121	100		113	109					
Factory Labor Turnover												
(Percentage of number on pay roll)												
Departures:												
Total.....per cent (annual basis).....	55.7	52.1	51.1	46.5	45.4	38.0	42.3	-2.4	+7.3			
Voluntary quits.....per cent (annual basis).....	43.3	40.8	39.5	35.7	34.9	27.2	31.9	-2.2	+9.4			
Lay offs.....per cent (annual basis).....	5.5	5.7	5.4	5.0	5.5	5.9	5.1	+10.0	+7.8			
Discharges.....per cent (annual basis).....	6.9	5.6	6.2	5.8	5.0	4.9	5.3	-13.8	-5.7			
Accessions.....per cent (annual basis).....	70.2	59.9	60.9	61.4	50.4	46.9	55.7	-17.9	-9.5			
Industrial disputes:												
Disputes.....number.....	52	73	72	87		42	42					
Workers involved.....number.....	52,292	58,959	54,668	30,626		132,187	105,760					
Man-days lost in month.....number.....	1,429,046	1,578,929	1,538,998	1,334,160		3,337,386	3,553,750					

2 Revised.

TREND OF BUSINESS MOVEMENTS—Continued

The cumulatives shown are through August, except where otherwise noted. Earlier data for items shown here may be found on pages 27 to 138 of the August, 1929, "Survey"	1929					1928		PER CENT INCREASE (+) OR DECREASE (-)		CUMULATIVE TOTAL FROM JANUARY 1 THROUGH AUGUST 31		Per ct. increase (+) or decrease (-) cumulative 1929 from 1928
	April	May	June	July	August	July	August	August, 1929, from July, 1929	August, 1929, from August, 1928	1928	1929	
BANKING AND FINANCE—Continued												
Life Insurance—Continued												
Premium collections (44 companies):												
Ordinary.....thous. of dolls.	172,282	174,278	158,733	169,773	154,206	152,862	143,386	-9.2	+7.5	1,246,918	1,326,414	+6.4
Industrial.....thous. of dolls.	55,768	52,218	55,801	57,932	56,143	53,072	50,228	-3.1	+11.8	411,454	439,783	+6.9
Group.....thous. of dolls.	8,336	7,691	7,345	11,494	7,129	7,296	5,705	-38.0	+25.0	62,139	76,108	+22.5
Total.....thous. of dolls.	236,386	234,187	221,879	239,199	217,478	213,230	199,319	-9.1	+9.1	1,720,511	1,842,305	+7.1
Admitted life insurance assets (40 companies):												
Grand total.....mills. of dolls.	13,269	13,373	13,469	13,594	13,691	12,312	12,406	+0.7	+10.4			
Mortgage loans—												
Total.....mills. of dolls.	5,710	5,750	5,792	5,849	5,887	5,338	5,382	+0.6	+9.4			
Farm.....mills. of dolls.	1,597	1,599	1,599	1,607	1,600	1,601	1,602	-0.4	-0.1			
All other.....mills. of dolls.	4,113	4,151	4,193	4,242	4,287	3,737	3,780	+1.1	+13.4			
Bonds and stocks (book value):												
Total.....mills. of dolls.	5,037	5,085	5,119	5,171	5,188	4,665	4,704	+0.3	+10.3			
Government.....mills. of dolls.	1,017	1,033	1,048	1,048	1,062	916	927	+1.3	+14.6			
Railroad.....mills. of dolls.	2,477	2,498	2,507	2,517	2,526	2,397	2,411	+0.4	+4.8			
Public utility.....mills. of dolls.	1,251	1,256	1,261	1,267	1,274	1,128	1,138	+0.6	+12.0			
All other.....mills. of dolls.	292	298	303	339	326	224	228	-3.8	+43.0			
Policy loans and premium notes.....mills. of dolls.	1,608	1,630	1,652	1,670	1,688	1,472	1,486	+1.1	+13.6			
(Life Insurance Sales Research Bureau)												
Sales of ordinary life insurance:												
United States total.....thous. of dolls.	862,578	873,490	829,202	796,900	765,702	700,939	702,275	-3.9	+9.0	5,985,352	6,478,170	+8.2
Eastern manuf. dist.....thous. of dolls.	355,180	352,208	334,551	319,437	300,810	273,188	273,055	-5.8	+10.2	2,462,929	2,674,267	+8.6
Western manuf. dist.....thous. of dolls.	196,585	200,638	189,447	182,763	177,990	163,694	163,568	-2.6	+8.8	1,325,302	1,490,498	+12.5
Western agric. district.....thous. of dolls.	125,988	125,716	125,349	121,224	116,749	107,659	104,287	-3.7	+11.9	904,057	938,020	+3.8
Southern district.....thous. of dolls.	98,246	102,475	97,104	90,954	90,526	85,056	86,288	-0.5	+4.9	708,607	729,634	+3.0
Far western district.....thous. of dolls.	86,579	92,453	82,751	82,522	79,627	71,342	75,077	-3.5	+6.1	584,457	645,751	+10.5
Canada total, 15 companies.....thous. of dolls.	53,333	51,283	54,700	56,078	42,468	49,492	43,503	-24.3	-2.4	374,547	405,286	+8.2
Banking												
Check payments:												
New York City.....mills. of dolls.	47,979	50,043	43,263	49,215	49,034	35,085	35,102	-0.4	+39.7	318,100	395,967	+24.5
Outside New York City.....mills. of dolls.	26,803	26,520	26,423	28,444	28,339	23,897	23,401	-0.4	+21.1	198,501	217,301	+9.5
Canada.....mills. of dolls.	1,873	2,097	1,817	2,108	1,937	1,896	1,813	-8.1	+6.8	15,051	15,621	+3.8
Federal reserve banks:												
Bills discounted.....mills. of dolls.	986	988	1,125	1,076	974	1,086	1,039	-9.5	-6.3			
Notes in circulation.....mills. of dolls.	1,664	1,654	1,736	1,779	1,829	1,613	1,651	+2.8	+10.8			
Total investments.....mills. of dolls.	343	270	226	232	328	394	378	+41.4	-16.8			
Total reserve.....mills. of dolls.	2,986	2,970	3,041	3,109	3,149	2,756	2,765	+1.3	+13.9			
Total deposits.....mills. of dolls.	2,410	2,331	2,438	2,398	2,348	2,402	2,325	-2.1	+1.0			
Reserve ratio.....per cent.	73.3	74.5	72.9	74.4	75.4	68.6	69.5	+1.3	+8.5			
Federal reserve member banks:												
Total loans and discounts.....mills. of dolls.	16,451	16,202	16,925	17,058	16,950	15,861	15,729	-0.6	+7.8			
Total investments.....mills. of dolls.	5,875	5,799	5,560	5,549	5,456	6,589	6,405	-1.7	+14.8			
Net demand deposits.....mills. of dolls.	13,234	12,791	13,293	13,395	12,985	13,186	12,871	-3.1	+0.9			
Brokers, loans, end of month:												
To N. Y. Stock Ex. members—												
Total.....mills. of dolls.	6,775	6,665	7,071	7,473	7,882	4,837	5,051	+5.5	+56.0			
Ratio to market value.....per cent.	9.19	9.39	9.15	8.87	8.79	9.00	8.80	-0.9	-0.1			
By New York F. R. member banks.....mills. of dolls.	5,532	5,288	5,769	5,960	6,217	4,259	4,235	+4.3	+46.8			
Interest rates:												
Time loans, 90 days.....per cent.	8.75	8.75	8.13	7.75	8.88	6.00	6.25	+14.6	+42.1			
Call loans, renewal.....per cent.	8.89	8.91	7.70	9.23	8.23	6.05	6.87	-10.8	+19.8			
Prime com. paper (4-6 mos.).....per cent.	6.00	6.00	6.00	6.00	6.13	5.13	5.38	+2.2	+13.9			
Prime bankers' acceptances.....per cent.	5.50	5.50	5.50	5.13	5.13	4.25	4.63	0.0	+10.8			
N. Y. Fed. Res. Bank (redisc.).....per cent.	5.00	5.00	5.00	5.00	6.00	5.00	5.00	+20.0	+20.0			
Federal land banks.....per cent.	5.10	5.13	5.19	5.29	5.31	5.04	5.04	+0.4	+5.4			
Intermediate credit banks.....per cent.	5.48	5.54	5.60	5.68	5.65	4.63	4.84	-0.5	+16.7			
Deposits, New York State savings banks, end of month.....mills. of dolls.	4,439	4,418	4,459	4,434	4,426	4,283	4,299	-0.2	+3.0			
Public Finance												
Government debt, gross, end mo. mills. of dolls.	17,196	17,167	16,931	16,832	16,805	17,526	17,648	-0.2	-4.8			
Customs receipts.....thous. of dolls.	50,404	48,279	52,401	52,144	56,427	44,591	52,797	+8.2	+6.9	361,110	409,055	+13.3
Total ordinary receipts.....thous. of dolls.	173,508	166,722	165,882	169,473	174,502	154,859	173,495	+3.0	+0.6	2,308,762	2,509,586	+8.7
Expenditures chargeable to ordinary receipts.....thous. of dolls.	335,643	225,269	420,473	349,825	210,725	278,620	308,594	-39.8	-31.7	2,308,304	2,372,889	+3.0
U. S. money in circulation:												
Daily average.....mills. of dolls.	4,679	4,684	4,687	4,764	4,777	4,746	4,743	+0.2	+0.7			
Gold and Silver												
Gold:												
Domestic receipts at mint.....fine ounces	65,547	70,520	73,468	92,256	100,387	72,676	98,769	+8.8	+1.6	596,414	583,636	-2.1
Rand output.....fine ounces	872,123	897,598	856,029	889,480	889,000	867,211	891,863	0.0	-0.3	6,870,900	6,962,495	+1.3
Monetary stock of U. S. —												
Daily average.....mills. of dolls.	4,226	4,292	4,311	4,335	4,351	4,113	4,118	+0.4	+5.7			
Imports.....thous. of dolls.	24,687	24,098	30,762	35,524	19,271	10,331	2,445	-45.8	+688.2	95,753	236,302	+146.8
Exports.....thous. of dolls.	1,594	467	550	803	881	74,190	1,698	+9.7	-48.1	531,406	8,733	
Silver:												
Production—												
United States.....thous. of fine oz.	5,422	5,080	4,976	4,523	4,967	3,915	4,776	+9.8	+4.0	37,681	39,980	+6.1
Canada.....thous. of fine oz.	1,151	1,500	1,146	1,910	2,744	2,389	2,252	+43.7	+21.8	12,826	12,951	+1.0
Stocks, end of month—												
United States.....thous. of fine oz.	867	1,105	1,382	682	1,074	262	263	+57.5	+308.4			
Canada.....thous. of fine oz.	1,032	300	543	339	880	430	720	+159.6	+22.2			
Imports.....thous. of dolls.	3,957	4,602	5,022	4,723	7,345	6,544	6,496	+55.5	+13.1	44,493	44,802	+0.7
Exports.....thous. of dolls.	5,752	7,485	5,445	6,784	8,522	6,160	9,246	+25.6	-7.8	57,737	56,661	-1.9
Price at New York.....dolls. per fine oz.	.557	.541	.524	.525	.526	.592	.589	+0.2	-10.7			

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TREND OF BUSINESS MOVEMENTS—Continued

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	April	May	June	July	August	July	August	August, 1929, from July, 1929	August, 1929, from August, 1928	1928	1929	
FOREIGN EXCHANGE RATES—Con.												
New Security Issues												
Foreign loans in the U. S.thous. of dolls.	12,457	55,320	144,626	235,000	25,000	43,591	—	—	—	1,080,595	546,433	-49.4
Foreign governments.....thous. of dolls.	—	—	6,000	—	15,000	41,396	—	—	—	539,870	56,750	-89.5
Total corporation.....thous. of dolls.	725,798	1,313,893	630,102	860,747	776,220	323,748	199,426	-9.8	+289.2	4,915,295	7,148,819	+45.4
Purpose of issue—												
New capital.....thous. of dolls.	891,626	920,046	613,880	801,453	751,177	284,803	180,716	-6.3	+315.7	3,389,406	6,496,973	+91.7
Refunding.....thous. of dolls.	134,172	390,847	16,222	59,294	25,045	38,945	18,710	-57.8	+33.9	1,525,889	948,848	-37.8
Type of security—												
Stocks.....thous. of dolls.	438,276	869,271	357,982	648,504	658,090	208,212	73,892	+1.5	+790.6	1,872,161	4,898,698	+161.7
Bond and notes.....thous. of dolls.	287,522	444,622	272,120	212,243	118,132	115,536	125,534	-44.3	-5.9	3,043,134	2,380,123	-21.8
Class of industry—												
Railroads.....thous. of dolls.	159,783	105,308	91,350	27,580	660	18,874	13,726	—	—	544,631	479,489	-12.0
Public utilities.....thous. of dolls.	127,811	342,919	129,552	319,796	111,865	57,598	97,776	-65.0	+14.4	1,865,262	1,849,360	-0.9
Industrials.....thous. of dolls.	148,837	459,215	105,205	127,621	91,282	98,810	32,989	-28.5	+176.7	960,878	1,550,312	+61.3
Oil.....thous. of dolls.	35,267	36,102	45,641	17,639	2,105	15,030	—	-88.1	—	102,327	299,515	+192.7
Land and buildings.....thous. of dolls.	33,952	48,857	40,843	41,269	35,503	64,538	30,256	-14.0	+17.3	548,984	464,996	-15.3
Shipping and misc.....thous. of dolls.	203,822	319,290	217,511	326,844	534,808	68,374	44,678	+63.6	—	898,983	2,449,920	+172.5
Bond issues (Canada):												
Govt. and provincial.....thous. of dolls.	10,000	41,266	2,526	—	—	—	—	—	—	49,770	60,209	+21.0
Municipal.....thous. of dolls.	1,420	22,712	7,363	1,537	—	975	964	—	—	16,146	62,535	+287.3
Corporation.....thous. of dolls.	2,485	6,607	10,080	39,525	—	9,565	4,095	—	—	206,649	153,953	-25.5
States and municipalities:												
Permanent loans.....thous. of dolls.	87,343	190,222	162,168	84,921	75,866	75,886	78,445	-10.7	-3.3	931,451	871,680	-6.4
Temporary loans.....thous. of dolls.	105,141	60,118	48,109	59,321	15,310	57,104	63,543	-74.2	-75.9	520,143	529,834	+1.9
Tax-exempt securities outstand- ing, end of month.....mills of dolls.	17,329	17,437	17,523	17,756	17,606	16,845	16,865	-0.8	+4.4	—	—	—
Agricultural Finances												
Loans outstanding, end mo.:												
Federal farm loan banks.....thous. of dolls.	1,203,724	1,204,128	1,204,916	1,204,363	1,203,806	1,185,714	1,187,365	0.0	+1.4	—	—	—
Joint-stock land banks.....thous. of dolls.	602,421	599,413	597,956	596,403	594,876	608,314	608,706	-0.3	-2.3	—	—	—
Federal intermediate credit banks.....thous. of dolls.	77,609	69,326	68,101	68,981	68,882	67,815	66,978	-0.1	+2.8	—	—	—
Stocks and Bonds												
Stock prices, average daily closing:												
25 industrials, average.....dolls. per share	357.70	363.37	372.70	414.04	431.20	257.98	267.16	+4.1	+61.4	—	—	—
25 railroads, average.....dolls. per share	128.49	128.95	134.37	149.27	151.29	119.18	121.57	+1.4	+24.4	—	—	—
103 stocks, average.....dolls. per share	81.55	76.26	82.50	86.25	90.35	73.30	76.59	+4.8	+18.0	—	—	—
Southern cotton mills.....dolls. per share	98.00	96.77	95.15	92.45	90.41	108.17	104.82	-2.2	-13.7	—	—	—
Stock prices, average weekly closing:												
Industrials, rails, and utilities (405).....rel. to 1926	186.6	187.8	190.7	207.2	218.1	144.2	148.3	+5.3	+47.1	—	—	—
All industrials (338).....rel. to 1926	193.4	192.6	191.0	202.7	210.3	147.8	152.6	+3.7	+37.8	—	—	—
All railroads (33).....rel. to 1926	138.3	138.7	144.8	160.0	165.4	124.6	126.5	+3.4	+30.8	—	—	—
All utilities (34).....rel. to 1926	201.4	212.3	233.0	272.8	304.3	145.3	147.9	+11.5	+105.7	—	—	—
Automobiles and trucks (13).....rel. to 1926	277.6	260.5	241.7	241.0	240.8	238.4	244.7	-0.1	-1.6	—	—	—
Automobile tires and rubber goods (7).....rel. to 1926	200.3	184.4	184.9	184.9	169.5	113.3	119.3	-8.3	+42.1	—	—	—
Airplane (10).....rel. to 1926	923.0	1,147.0	1,069.0	1,131.0	1,130.0	565.2	591.5	-0.1	+91.0	—	—	—
Agricultural implements (4).....rel. to 1926	389.5	399.8	380.5	418.6	423.9	263.9	281.7	+1.3	+50.5	—	—	—
Chain stores (17).....rel. to 1926	148.7	148.3	144.5	148.0	148.7	135.3	142.9	+0.5	+4.1	—	—	—
Copper and brass (9).....rel. to 1926	294.0	279.8	270.8	280.8	288.9	150.0	155.2	+2.9	+86.1	—	—	—
Food, other than meat (20).....rel. to 1926	171.4	172.0	175.6	189.1	186.7	158.1	152.1	-1.3	+22.7	—	—	—
Machinery and machine equipment (10).....rel. to 1926	163.1	160.8	159.4	171.8	177.2	132.7	135.4	+3.1	+30.9	—	—	—
Oil producing and refining (16).....rel. to 1926	147.6	146.3	144.1	149.1	157.5	110.9	112.6	+5.6	+39.9	—	—	—
Railroad equipment (9).....rel. to 1926	142.4	138.2	141.7	148.5	157.8	125.1	123.6	+6.3	+27.7	—	—	—
Rayon (5).....rel. to 1926	143.2	143.4	138.0	126.6	126.2	167.0	165.1	-0.3	-23.6	—	—	—
Steel and iron (10).....rel. to 1926	190.8	185.3	188.2	211.5	238.4	136.6	143.6	+12.7	+66.0	—	—	—
Textiles (30).....rel. to 1926	131.5	127.0	122.4	120.3	118.1	120.3	120.5	-1.8	-2.0	—	—	—
Theaters, motion pictures, and amusements (7).....rel. to 1926	135.8	140.1	133.4	139.0	142.5	111.0	116.6	+2.5	+22.2	—	—	—
Tobacco and tobacco products (10).....rel. to 1926	136.4	139.1	135.1	139.1	141.6	134.3	137.6	+1.8	+2.9	—	—	—
Traction, motor transportation, etc. (9).....rel. to 1926	90.4	85.8	83.7	83.0	83.1	96.0	95.7	+0.1	-13.2	—	—	—
Stock yields:												
Total common (90).....per cent.	3.30	3.32	3.32	3.08	2.98	4.14	4.01	-3.2	-25.7	—	—	—
Industrials (50).....per cent.	3.25	3.30	3.42	3.32	3.22	4.11	3.96	-3.0	-18.7	—	—	—
Public utilities (20).....per cent.	2.65	2.48	2.22	1.95	1.78	3.48	3.39	-8.7	-47.5	—	—	—
Railroads (20).....per cent.	4.68	4.79	4.62	4.17	4.04	5.14	5.08	-3.1	-20.5	—	—	—
Preferred, high-grade industrial (20).....per cent.	5.45	5.45	5.49	5.52	5.54	5.40	5.43	+0.4	+2.0	—	—	—
U. S. FOREIGN TRADE												
Imports												
Grand total.....thous. of dolls.	410,666	400,149	353,400	353,570	369,530	317,848	346,715	+4.5	+6.6	2,750,495	3,009,472	+9.4
By grand divisions:												
Europe—												
Total.....thous. of dolls.	113,942	113,790	106,427	115,145	—	97,596	107,785	—	—	699,348	770,568	+10.2
France.....thous. of dolls.	11,432	13,954	13,267	14,577	—	11,321	15,074	—	—	83,478	95,242	+14.1
Germany.....thous. of dolls.	24,426	20,626	19,328	22,806	—	20,668	21,011	—	—	122,931	148,799	+21.0
Italy.....thous. of dolls.	9,819	10,374	10,608	8,485	—	6,956	6,875	—	—	56,753	65,098	+14.7
United Kingdom.....thous. of dolls.	29,973	29,753	25,378	27,970	—	28,103	27,517	—	—	208,747	197,561	-3.0
North America—												
Total.....thous. of dolls.	93,639	92,363	81,898	79,974	—	77,473	78,190	—	—	567,033	602,339	+6.2
Canada.....thous. of dolls.	40,395	44,330	44,292	44,671	—	41,798	43,236	—	—	273,867	292,660	+6.9

2 Revised.

6 Cumulative through July 31.

TREND OF BUSINESS MOVEMENTS—Continued

The cumulatives shown are through August, except where otherwise noted. Earlier data for items shown here may be found on pages 27 to 138 of the August, 1929, "Survey"	1929					1928		PER CENT INCREASE (+) OR DECREASE (-)		CUMULATIVE TOTAL FROM JANUARY 1 THROUGH AUGUST 31		Per ct. in-crease (+) or de-crease (-) cumulative 1929 from 1928
	April	May	June	July	August	July	August	August, 1929, from July, 1929	August, 1929, from August, 1928	1928	1929	
U. S. FOREIGN TRADE—Continued												
Imports—Continued												
By grand divisions—Continued.												
South America—												
Total.....thous. of dolls..	61,284	53,628	50,740	46,630	-----	45,894	51,079	-----	-----	\$ 348,020	\$ 391,058	+12.4
Argentina.....thous. of dolls..	13,063	9,172	8,342	7,416	-----	8,119	8,965	-----	-----	\$ 65,145	\$ 70,694	+8.5
Asia and Oceania—												
Total.....thous. of dolls..	124,500	130,059	107,848	104,963	-----	89,788	100,886	-----	-----	\$ 733,416	\$ 806,475	+10.0
Japan.....thous. of dolls..	28,819	33,828	32,483	28,803	-----	24,888	38,991	-----	-----	\$ 211,588	\$ 230,614	+9.0
Africa, total.....thous. of dolls..	17,300	10,308	6,488	7,437	-----	7,037	8,782	-----	-----	\$ 55,929	\$ 70,053	+25.3
By economic classes:												
Crude materials.....thous. of dolls..	146,932	141,697	120,724	119,611	125,719	106,065	122,186	+5.1	+2.9	1,012,562	1,073,369	+6.0
Foodstuffs, crude and food animals.....thous. of dolls..	52,172	46,561	40,955	\$ 42,957	39,527	43,174	45,940	-8.0	-14.0	380,753	368,980	-3.1
Manufactured foodstuffs.....thous. of dolls..	45,919	42,290	36,527	\$ 32,990	35,559	33,314	30,060	+7.8	+18.3	276,773	303,152	+9.5
Semimanufactures.....thous. of dolls..	82,264	85,917	75,557	71,620	79,464	60,038	66,337	+11.0	+19.8	494,306	605,821	+22.6
Finished manufactures.....thous. of dolls..	83,379	83,684	79,637	\$ 86,392	89,262	75,258	82,192	+3.3	+8.6	586,102	658,150	+12.3
Exports												
Grand total, including reexports.....thous. of dolls..	425,293	384,850	393,293	\$ 403,360	382,000	378,984	379,872	-5.3	+2.4	3,136,845	3,408,428	+8.7
By grand divisions:												
Europe—												
Total.....thous. of dolls..	172,223	146,025	153,988	161,005	-----	152,377	149,196	-----	-----	\$ 1,250,686	\$ 1,280,913	+2.4
France.....thous. of dolls..	19,444	13,248	14,603	15,795	-----	15,918	15,167	-----	-----	\$ 118,424	\$ 138,386	+16.9
Germany.....thous. of dolls..	26,541	23,927	21,261	24,634	-----	22,094	24,579	-----	-----	\$ 228,132	\$ 204,854	-10.2
Italy.....thous. of dolls..	13,065	9,771	12,642	8,667	-----	11,853	9,955	-----	-----	\$ 88,765	\$ 87,910	-1.0
United Kingdom.....thous. of dolls..	59,290	54,431	52,824	50,889	-----	52,155	52,826	-----	-----	\$ 437,010	\$ 459,093	+5.1
North America—												
Total.....thous. of dolls..	128,035	132,897	115,658	116,845	-----	110,770	118,926	-----	-----	\$ 739,313	\$ 841,721	+13.9
Canada.....thous. of dolls..	91,928	97,905	80,481	79,736	-----	77,324	85,851	-----	-----	\$ 506,588	\$ 582,373	+15.0
South America—												
Total.....thous. of dolls..	44,386	35,852	49,690	49,312	-----	43,907	43,766	-----	-----	\$ 261,469	\$ 337,319	+29.0
Argentina.....thous. of dolls..	15,874	13,886	20,464	20,500	-----	16,736	17,348	-----	-----	\$ 96,905	\$ 128,610	+32.7
Asia and Oceania—												
Total.....thous. of dolls..	69,491	61,535	61,667	63,374	-----	61,979	59,973	-----	-----	\$ 440,598	\$ 486,462	+10.4
Japan.....thous. of dolls..	20,522	17,380	16,966	15,005	-----	17,987	15,517	-----	-----	\$ 140,909	\$ 141,545	+0.5
Africa.....thous. of dolls..	11,156	8,541	12,289	12,824	-----	9,950	8,011	-----	-----	\$ 64,906	\$ 80,013	+23.3
By economic classes:												
Total domestic exports only.....thous. of dolls..	418,080	376,919	386,827	\$ 393,835	375,340	371,471	371,312	-4.7	+1.1	3,067,462	3,347,632	+9.1
Crude materials.....thous. of dolls..	71,247	57,407	56,130	\$ 50,014	50,893	60,177	52,375	+1.8	-2.8	650,639	585,093	-10.1
Foodstuffs, crude and food animals.....thous. of dolls..	15,814	21,212	14,534	\$ 20,259	28,439	14,217	29,310	+40.4	-3.0	140,671	175,656	+24.9
Manufactured foodstuffs.....thous. of dolls..	37,448	35,922	34,011	\$ 35,841	37,023	30,661	34,749	+3.3	+6.5	287,361	310,405	+8.0
Semimanufactures.....thous. of dolls..	65,429	59,662	62,134	\$ 60,548	57,052	61,397	55,873	-5.8	+2.1	486,252	500,387	+2.9
Finished manufactures.....thous. of dolls..	228,141	202,717	220,018	\$ 227,173	201,932	205,019	199,005	-11.1	+1.5	1,502,539	1,766,091	+17.5
Agricultural exports (quantities):												
All commodities.....rel. to 1910-14..	86	79	69	70	76	64	75	+8.6	+1.3	-----	-----	-----
All commodities except cotton.....rel. to 1910-14..	112	112	102	117	132	84	126	+12.8	+4.8	-----	-----	-----
CANADIAN FOREIGN												
Total trade:												
Imports.....thous. of dolls..	97,517	125,615	111,949	114,201	111,631	103,404	114,175	-2.3	-2.2	806,201	890,204	+10.4
Exports.....thous. of dolls..	67,154	109,436	114,492	105,686	98,395	127,369	113,904	-6.9	-13.6	814,893	793,791	-2.6

² Revised.

³ Cumulative through July 31.



PUBLICATIONS OF THE DEPARTMENT OF COMMERCE

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

OFFICE OF THE SECRETARY

Air Commerce Bulletin, August 15, 1929.—35 pages, maps. Issued semimonthly by the Aeronautics Branch of the Department of Commerce. Contains short articles on aviation developments and a list of air transport routes.

Same, September 2, 1929. 29 pages, maps.

Radio Service Bulletin, July, 1929.—16 pages. Issued monthly by the Radio Division of the Department of Commerce. Contains list of radio stations and references to current radio literature. Price, 15¢.

Survey of Nonutilized Wood in North Carolina.—Report of Subcommittee of National Committee on Wood Utilization Cooperating with State of North Carolina Department of Conservation and Development. vi+62 pages, 18 illus., map. Study of the forest resources of North Carolina, the amount of nonutilized wood produced, and methods of disposal of this wastage. Price, 20¢.

BUREAU OF THE CENSUS

[For information concerning the plan of publication and distribution of Census reports, address the Director of the Census.]

Census of Manufactures, 1927. Industry bulletins giving detailed information for the various industries, by States:

Manufactured Ice, Refrigerators and Refrigerator Cabinets, and Mechanical Refrigerators. Paper, 15 pages, price 5¢.
Buttons. Paper, 7 pages, price 5¢.
Petroleum Refining. Paper, 8 pages, price 5¢.
Training Materials, Natural Dyestuffs, Mordants and Assistants, and Sizes. Paper, 7 pages, price 5¢.
Wood Preserving, compiled in cooperation with the Department of Agriculture, Forest Service. Paper, 7 pages, price 5¢.
Cement and Concrete Products. Paper, 13 pages, price 5¢.
Beverages, Flavoring Extracts and Flavoring Syrups, and Malt. Paper, 16 pages, price 5¢.

Prisoners in State and Federal Prisons and Reformatories, 1926.—Statistics of prisoners received and discharged during the year, for State and Federal institutions. Paper, 139 pages, price 20¢.

BUREAU OF FOREIGN AND DOMESTIC COMMERCE

[The publications of this bureau may also be purchased from the bureau or its district offices.]

Monthly Summary of Foreign Commerce of United States, July, 1929.—Parts I and II. Part I contains statistics of exports of domestic merchandise, and imports by articles for July, 1928 and 1929, and for seven months ended July, 1928 and 1929. Part II contains summaries of export and import trade; monthly average import and export prices; and statistics of trade with Alaska, Hawaii, and Porto Rico. Single copies, Part I, 10¢; Part II, 5¢. Annual subscription, \$1.25.

Latin American and Canadian Markets for American Motion-picture Equipment.—Trade Information Bulletin No. 641; ii+38 pages. Survey of the number of motion-picture theaters in operation in the Latin American countries and in Canada, the kinds of equipment used, and the markets for American equipment in these countries. Price, 10¢.

British Trade in Rubber and Rubber Products.—Trade Information Bulletin No. 644; ii+16 pages. Discussion of the crude rubber production of the British Empire, the production restriction measures adopted and their abandonment, the manufacture of rubber goods in Great Britain, and the British trade in these products. Price, 5¢.

Export Markets for American Brushes.—Trade Information Bulletin No. 645; ii+27 pages. Discussion of the production of brushes in the United States, the amount of export trade, the regional variations in the markets for these products, and the credit terms extended. Price, 5¢.

Boot and Shoe Industry and Trade in Germany.—Trade Information Bulletin No. 646; ii+38 pages. Data concerning conditions in the boot and shoe industry of Germany, distribu-

tion methods employed, styles sold, and foreign trade in these products. Price, 10¢.

Cattle Raising in Argentina.—Trade Information Bulletin No. 647; ii+14 pages. Discussion concerning cattle raising and the development of the packing industry in Argentina. Price, 5¢.

BUREAU OF STANDARDS

Bureau of Standards Journal of Research, August, 1929.—Pages 191-341, illustrations, plates, charts. Contains the papers formerly issued as the Technologic and Scientific Papers series, now discontinued. The articles are known as the Research Papers Series and are issued separately after publication in the journal. Single copies, 25¢; annual subscription, \$2.75.

Same, September, 1929. Pages 343-506, illus., plates, charts.
Commercial Standards Monthly Review of Progress in Commercial Standardization and Simplification, August, 1929.—Pages 35-58. Contains articles and items regarding the standardization activities of the Bureau of Standards. Annual subscription, \$1.

Simplified Practice Recommendations:

R23-29. Sheet Steel. x+18 pages, 1 chart. Price 10¢.
R45-28. Grinding Wheels. (3d ed., 1928, supersedes R45.) viii+34 pages, illus., chart. Price, 15¢.

Technical News Bulletin, August, 1929.—Pages 73-83. Monthly. Contains a brief account of the laboratory activities of the bureau and gives a list of pamphlets issued and magazine articles published during the preceding month. Annual subscription, 25¢.

Same, September, 1929. Pages 85-92.

BUREAU OF MINES

Oxides in Pig Iron: Their Origin and Action in Steel-making Process, by C. H. Herty, jr., and J. M. Gaines, jr.—Bulletin 308; iv+56 pages, 16 illus. Report on experiments to determine the amount of silicates in iron and their effect on the quality of steel produced. Price, 15¢.

Mineral Resources of United States, 1927.—The reports on mineral resources are first issued in the form of bulletins of which the following have been released since the September announcement and may be obtained at the price indicated:

Gold, Silver, Copper, Lead, and Zinc in Arizona in 1927. (Pt. I, pp. 731-744.) Price, 5¢.
Gold, Silver, Copper, Lead, and Zinc in Utah in 1927. (Pt. I, pp. 637-676.) Price, 10¢.

Mineral Resources of United States, 1928.

Carbon Black in 1928. (Pt. II, pp. 31-35.) Price, 5¢.
Fuller's Earth in 1928. (Pt. II, pp. 37-40.) Price, 5¢.

Mineral Resources of United States in 1928 (Preliminary Summary), introduction by Frank J. Katz, statistics assembled by Martha B. Clark. ii+416 pages, 1 plate. Price, 20¢.

BUREAU OF FISHERIES

Bulletin of United States Bureau of Fisheries, Vol. XLIII, 1927, Part II. iv+658 pages, illus., plates, maps. The papers in this volume were published separately previous to the issue in this form. Price, \$2.

BUREAU OF NAVIGATION

American Documented Seagoing Merchant Vessels of 500 Gross Tons and Over, August, 1929.—ii+71 pages. Monthly. Single copies, 10¢; annual subscription, 75¢.

COAST AND GEODETIC SURVEY

Instructions, Primary Tide Stations.—Special Publication No. 154; iv+53 pages, 7 illus. Instructions for collecting data for the rise and fall of tide in any locality and for the study of crustal movements in the earth. Price, 10¢.

CHIEF FUNCTIONS OF THE DEPARTMENT OF COMMERCE

R. P. LAMONT, Secretary of Commerce

JULIUS KLEIN, Assistant Secretary of Commerce,

EPHRAIM F. MORGAN, Solicitor

AERONAUTICS BRANCH

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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 aeronautics. (Some of these functions are performed by special divisions of the Lighthouse Service, the Bureau of Standards, and the Coast and Geodetic Survey.)

BUREAU OF THE CENSUS

WILLIAM M. STEUART, Director

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

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

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

Compilation quarterly or monthly, of statistics on cotton, wool, leather, and other industries; annually of forest 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 attachés, trade commissioners, and consular officers, and its distribution through weekly Commerce Reports, bulletins, confidential circulars, the news and trade press, and district and cooperative officers in 65 cities.

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

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

The publicity of statistics on imports and exports.

The study of the processes of domestic trade and commerce.

BUREAU OF STANDARDS

GEORGE K. BURGESS, Director

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

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

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

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

BUREAU OF MINES

SCOTT TURNER, Director

Technical investigations in the mining, preparation, and utilization of minerals, including the study of mine hazards and safety methods and of improved methods in the 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. Studies in the economics and marketing of minerals and collection of statistics on mineral resources and mine accidents.

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

BUREAU OF FISHERIES

HENRY O'MALLEY, Commissioner

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

BUREAU OF LIGHTHOUSES

GEORGE R. PUTNAM, Commissioner

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

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

COAST AND GEODETIC SURVEY

RAYMOND S. PATTON, Director

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

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

BUREAU OF NAVIGATION

ARTHUR J. TYLER, Commissioner

Superintendence of commercial marine and merchant seamen.

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

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

STEAMBOAT INSPECTION SERVICE

DICKERSON N. HOOVER, Supervising Inspector General

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

UNITED STATES PATENT OFFICE

THOMAS E. ROBERTSON, Commissioner

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

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

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

RADIO DIVISION

W. D. TERRELL, Chief

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