

UNITED STATES
DEPARTMENT OF COMMERCE
WASHINGTON

SURVEY OF
CURRENT BUSINESS

DECEMBER, 1928

No. 88



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

IMPORTANT NOTICE

In addition to figures given from Government sources, there are also incorporated for completeness of service figures from other sources generally accepted by the trades, the authority and responsibility for which are noted in the "Sources of Data" on pages 139-142 of the August, 1928, semiannual issue

Subscription price of the SURVEY OF CURRENT BUSINESS is \$1.50 a year; single copies (monthly), 10 cents, semiannual issues, 25 cents. Foreign subscriptions, \$2.25; single copies (monthly issues), including postage, 14 cents; semiannual issues, 36 cents. Subscription price of COMMERCE REPORTS is \$4 a year; with the SURVEY, \$5.50 a year. Make remittances only to Superintendent of Documents, Washington, D. C., by postal money order, express order, or New York draft. Currency at sender's risk. Postage stamps or foreign money not accepted

INTRODUCTION

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

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

WEEKLY SUPPLEMENT

Realizing that current statistics are highly perishable and that to be of use they must reach the business man at the earliest possible moment, the department has arranged to distribute supplements every week to subscribers in the United States. The supplements are usually mailed on Saturdays and give such information as has been received during the week ending on the preceding Tuesday. The monthly information contained in these bulletins is republished in the 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 and metals have already been issued and may be obtained for 10 cents per copy from the Superintendent of Documents, Government Printing Office, Washington, D. C. (Do not send stamps.) Notices of other sections will be given in the SURVEY as they are issued.

METHODS OF USE

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

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



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PRELIMINARY SUMMARY FOR NOVEMBER

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

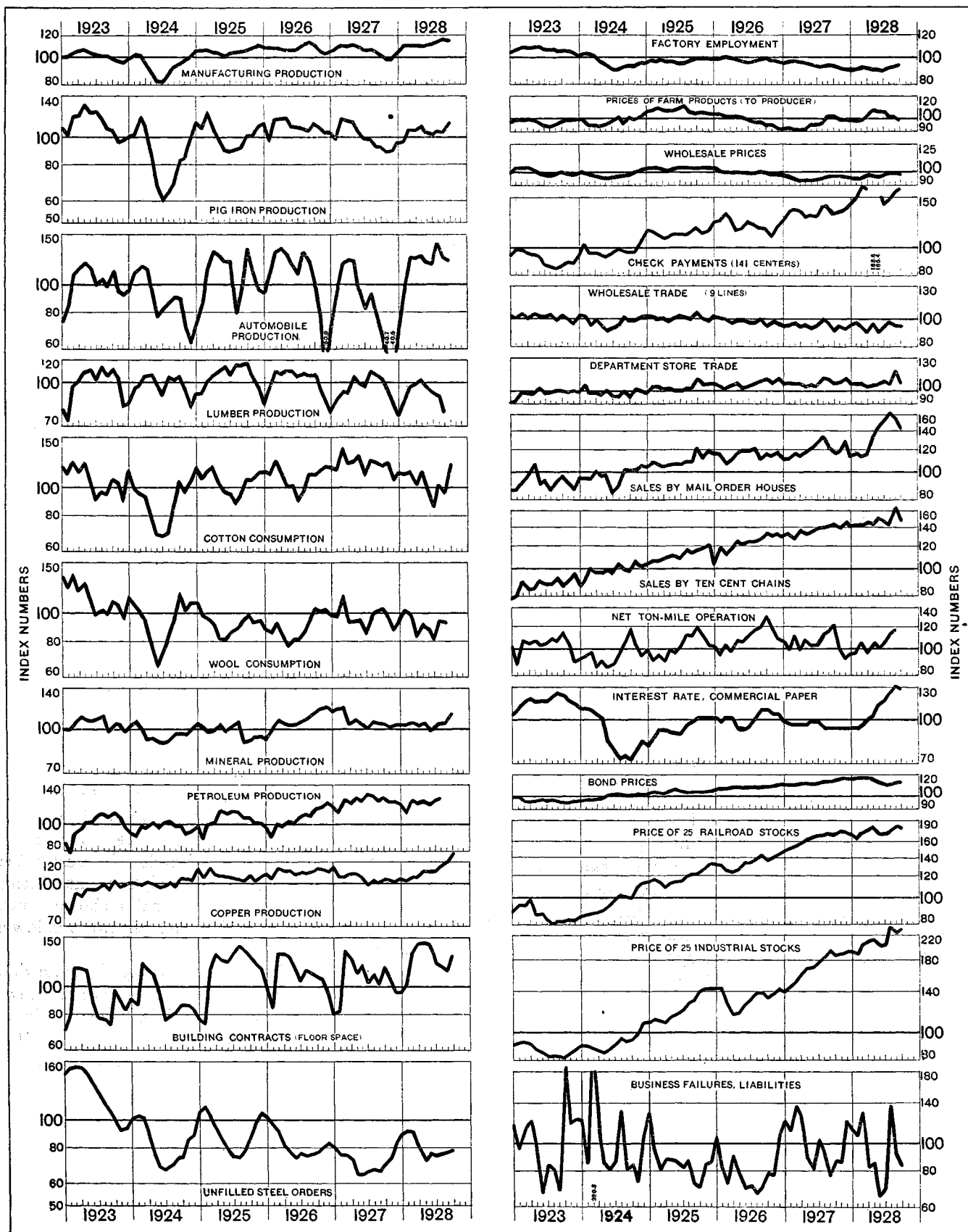
Loans and discounts of Federal reserve member banks were somewhat higher than in the previous month, showing an advance over the same month of last year, as well. Interest rates on time money showed very little change from the previous month but were higher than last year. Call-loan rates averaged lower than in October but were higher than

a year ago. Stock prices continued to average higher, while bond prices, which showed a slight advance from the previous month, were lower than a year ago, reflecting the effect of higher interest rates. Brokers' loans reached a new high point during November. The Federal reserve ratio showed only slight change from the previous month but was lower than a year ago.

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

MONTHLY BUSINESS INDICATORS, 1923-1928

[Ratio charts—see explanations on inside front cover. The curves on check payments, wholesale trade, sales of mail-order houses and 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 OCTOBER

PRODUCTION

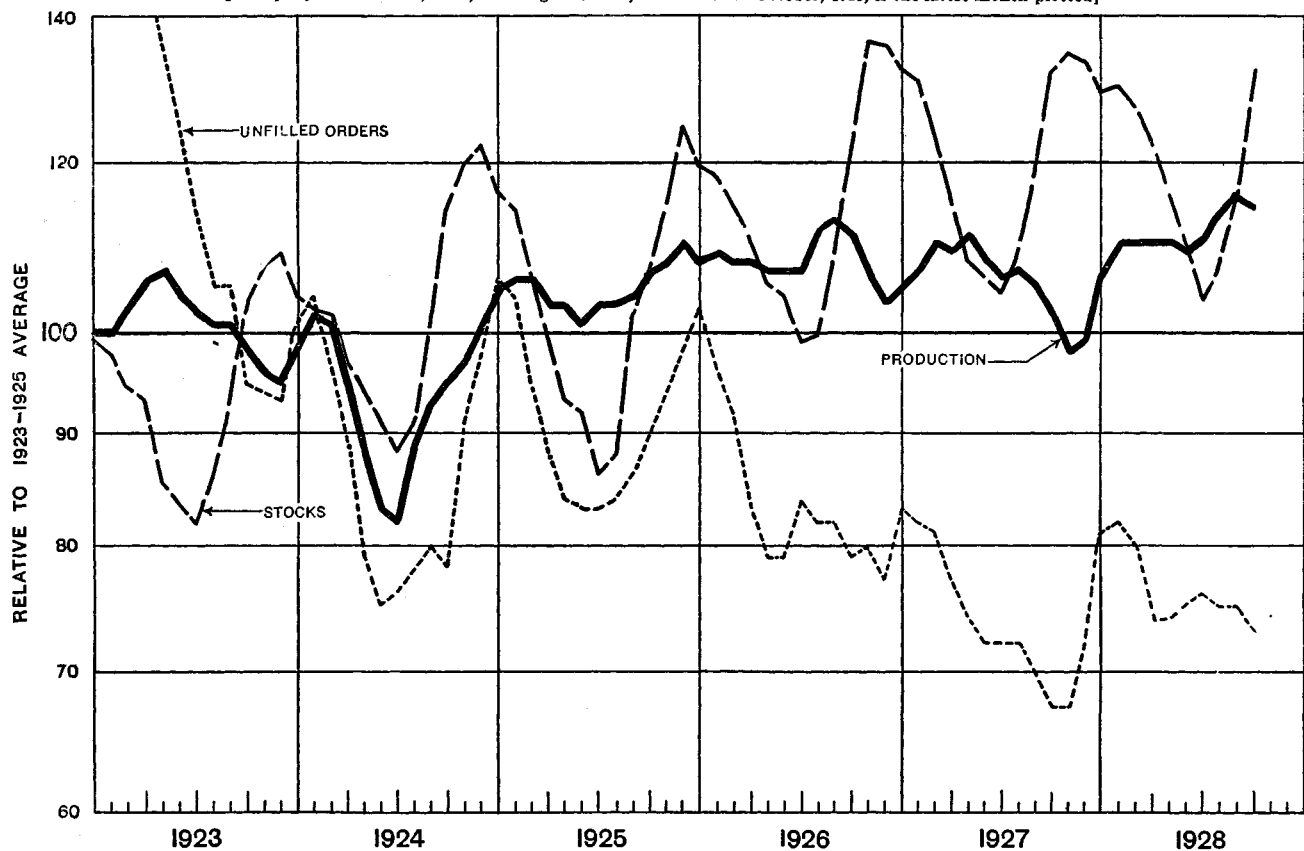
Industrial production during October, according to the weighted index of the Federal Reserve Board, after adjustments for seasonal variations, remained unchanged from the previous month, each being higher than at any other time on record. The principal gains over a year ago occurred in the output of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

compared with a year ago, iron and steel and lumber showed larger unfilled orders, while textiles declined.

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

PRODUCTION, STOCKS, AND UNFILLED ORDERS FOR MANUFACTURED COMMODITIES

[1923-1925 monthly average=100. Adjustment has been made for the seasonal movement and relative number of working days for production. Unfilled orders are principally those of iron, steel, building materials, and textiles. October, 1928, is the latest month plotted]



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

COMMODITY STOCKS

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

SALES

The general index of unfilled orders was slightly lower than for the previous month and October of last year. Compared with September, unfilled orders for textiles and transportation equipment were larger but forward business on the books of lumber mills declined. As

trade was recorded by the men's clothing, women's clothing, and furniture lines.

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

PRICES

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

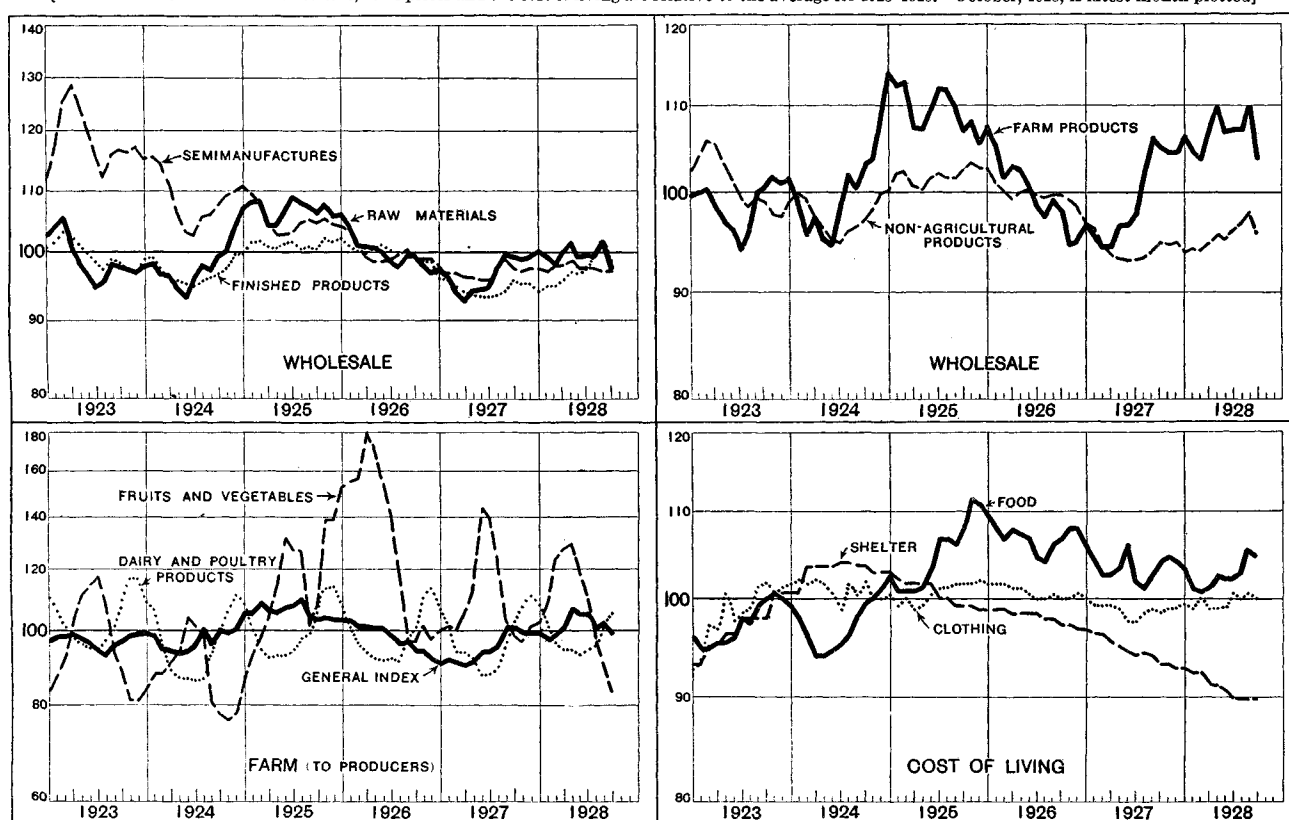
unchanged. Increases from a year ago in prices for food and clothing were insufficient to offset declines in the other items comprising the cost of living.

EMPLOYMENT

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

PRICE COMPARISONS

[Prices at wholesale are relative to 1926; farm prices and the cost of living are relative to the average for 1923-1925. October, 1928, is latest month plotted]



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

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

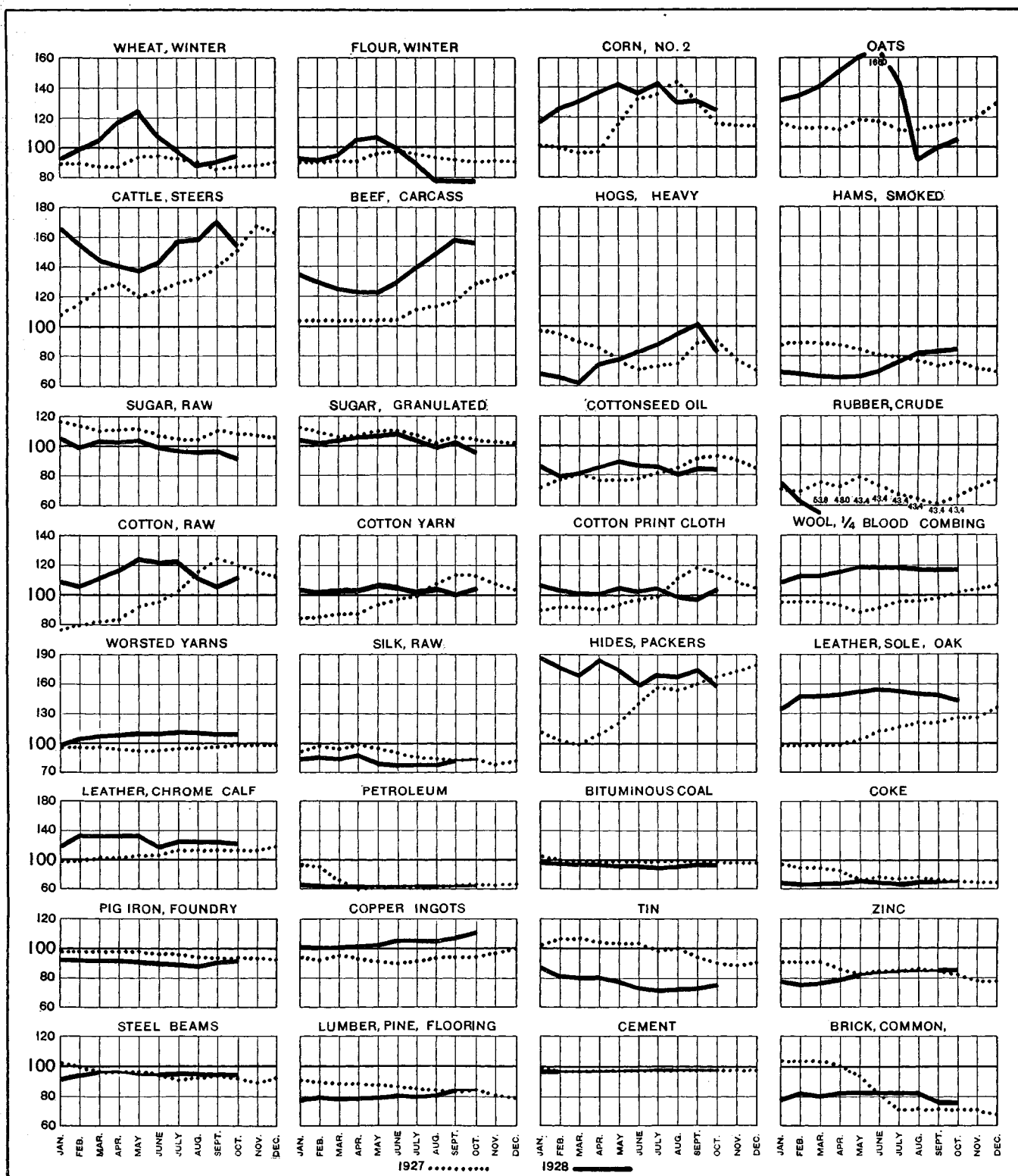
The cost of living index showed no change from September but was slightly less than a year ago. Compared with last month, the cost of living was unchanged, while that of food and clothing showed slight declines, the cost of shelter, light, and sundries remaining

recorded decreases in the number employed as compared with a year ago. Marked advances in employment conditions in the vehicle, nonferrous metals, iron and steel, and chemical industries, however, more than offset decreases in other lines.

Factory pay-roll payments in October showed a substantial gain over the previous month and over the corresponding month of last year. All industrial groups except leather showed larger payments than in September. The principal increases in wage payments over the previous month were recorded by iron, steel, and nonferrous metal establishments. Contrasted with October, 1927, increased pay rolls in vehicle, nonferrous metal, chemical, paper, and food products industries were more than sufficient to offset declines in wage payments by textile, lumber, leather, tobacco, stone, clay, and glass, and miscellaneous plants.

WHOLESALE PRICES FOR SPECIFIED COMMODITIES

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



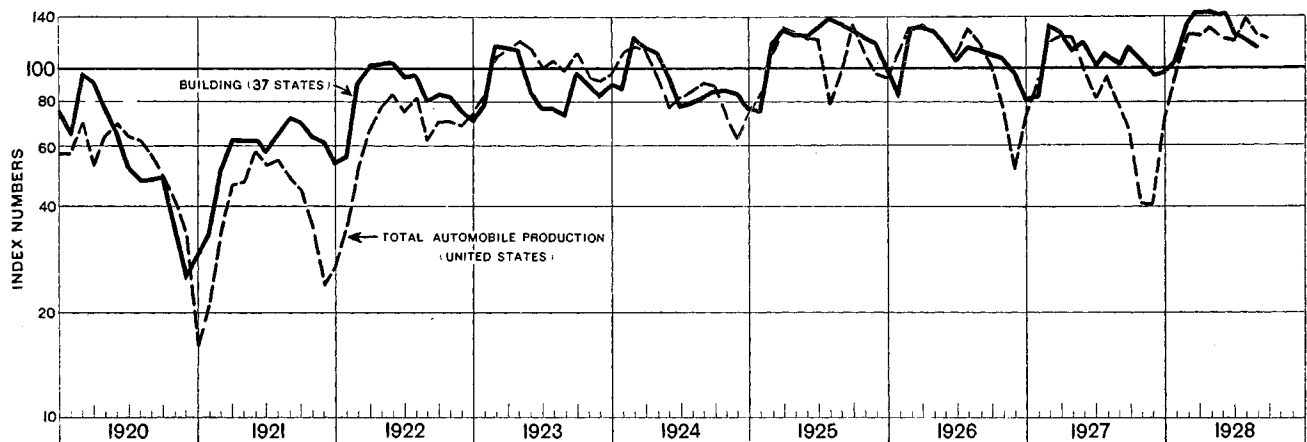
WHOLESALE PRICES FOR SPECIFIED COMMODITIES

* NOTE.—Prices to producer on farm products and market price of wool are from U. S. Department of Agriculture, Bureau of Agricultural 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				
		September, 1928	October, 1928	October, 1927	August, 1928	September, 1928	October, 1928	September, 1927	October, 1927
FARM PRODUCTS—AVERAGE PRICE TO PRODUCER									
Wheat.....	Bushel.....	0.944	0.987	1.137	71	70	73	88	84
Corn.....	Bushel.....	.951	.847	.876	141	136	121	136	125
Potatoes.....	Bushel.....	.648	.580	.979	39	35	31	58	53
Cotton.....	Pound.....	.176	.181	.200	125	117	120	149	139
Cottonseed.....	Ton.....	30.98	34.08	36.60	136	114	125	127	135
Cattle, beef.....	Pound.....	.0996	.0963	.0755	147	154	149	115	117
Hogs.....	Pound.....	.1117	.0955	.1016	85	95	81	83	86
Lambs.....	Pound.....	.1197	.1157	.1122	103	103	100	96	97
FARM PRODUCTS—MARKET PRICE									
Wheat, No. 1, northern spring (Minneapolis).....	Bushel.....	1.201	1.185	1.275	78	78	77	85	82
Wheat, No. 2, red, winter (Chicago).....	Bushel.....	1.395	1.436	1.344	86	91	93	85	87
Corn, contract grade No. 2, cash (Chicago).....	Bushel.....	.993	.937	.878	128	131	124	131	116
Oats, contract grades, cash (Chicago).....	Bushel.....	.425	.448	.498	91	99	104	114	116
Barley, feeding (Chicago).....	Bushel.....	.673	.617	.823	105	97	89	120	119
Rye, No. 2, cash (Chicago).....	Bushel.....	.998	1.053	.999	103	105	110	102	105
Tobacco, leaf, average sales, warehouse (Kentucky).....	Cwt.....	7.871	12.077	11.331	137	93	143	184	134
Cotton, middling upland (New York).....	Pound.....	.185	.196	.211	110	105	112	125	120
Wool, $\frac{1}{4}$ blood combing, Ohio and Pennsylvania fleeces (Boston).....	Pound.....	.54	.54	.47	117	117	117	98	102
Cattle, steers, good to choice, corn fed (Chicago).....	Cwt.....	16.188	14.625	14.325	159	170	154	140	150
Hogs, heavy (Chicago).....	Cwt.....	12.431	10.030	11.055	95	101	81	88	90
Sheep, ewes (Chicago).....	Cwt.....	5.600	5.350	5.250	87	83	81	79	80
Sheep, lambs (Chicago).....	Cwt.....	14.156	13.075	13.865	105	103	95	99	101
FOOD									
Flour, standard patents (Minneapolis).....	Barrel.....	6.588	6.410	7.231	79	78	76	84	86
Flour, winter straights (Kansas City).....	Barrel.....	5.650	5.588	6.535	78	78	77	92	90
Sugar, 96° centrifugal (New York).....	Pound.....	.042	.039	.047	95	97	91	110	108
Sugar, granulated, in barrels (New York).....	Pound.....	.056	.052	.057	100	102	94	106	104
Cottonseed oil, prime yellow (New York).....	Pound.....	.099	.099	.109	80	84	83	91	92
Beef, fresh, carcass, good native steers (Chicago).....	Pound.....	.259	.255	.210	149	158	155	116	128
Beef, fresh, carcass, steers (New York).....	Pound.....	.284	.282	.225	152	166	165	125	132
Pork, smoked hams (Chicago).....	Pound.....	.254	.260	.233	81	83	84	73	76
Butter, creamery, 92 score (New York).....	Pound.....	.49	.48	.48	104	109	107	102	107
Oleomargarine, standard, uncolored (Chicago).....	Pound.....	.220	.235	.245	94	96	103	105	107
TEXTILES									
Cotton yarns, carded, white, northern, mulespun, 22-1-cones (Boston).....	Pound.....	.358	.372	.402	103	100	104	113	112
Cotton-print cloth, 64 x 60-38 $\frac{1}{2}$ —5.35—yards to pound.....	Yard.....	.074	.078	.087	99	98	103	119	115
Cotton sheeting, brown 4/4 Trilon (New York).....	Yard.....	.089	.090	.111	98	96	96	118	120
Worsted yarns, 2/32's cross-bred stock, white, in skein (Boston).....	Pound.....	1.575	1.575	1.400	112	110	110	96	98
Woman's dress goods, French, 39 inches at mills, serge.....	Yard.....	.988	.975	1.000	99	96	94	94	97
Suitings, unfinished worsted—13-ounce, mill.....	Yard.....	2.008	2.008	1.913	100	100	100	95	95
Suitings, serge, 11-ounce, 56-58 inch.....	Yard.....	1.998	1.998	2.048	92	92	92	95	95
Silk, Japan, 13-15.....	Pound.....	5.096	5.145	5.145	78	82	83	82	83
Hosiery, women's, pure silk, mill.....	Dozen pair.....	10.290	10.290	10.780	85	85	85	89	89
LEATHER									
Hides, green salted, packers' heavy native steers (Chicago).....	Pound.....	.246	.219	.233	168	175	156	160	166
Hides, calfskins, No. 1, country, 8 to 15 pounds (Chicago).....	Pound.....	.275	.246	.218	159	159	142	121	125
Leather, chrome calf, dull or bright "B" grades (Boston).....	Square foot.....	.565	.550	.510	125	125	121	113	113
Leather, sole, oak, scoured backs, heavy (Boston).....	Pound.....	.650	.630	.550	153	148	144	121	126
Boots and shoes, men's black calf, blucher (Massachusetts).....	Pair.....	6.750	6.750	6.500	106	106	106	102	102
Boots and shoes, men's dress welt tan calf (St. Louis).....	Pair.....	5.000	5.000	5.000	102	102	102	102	102
FUEL									
Coal, bituminous, mine-run (composite price).....	Net ton.....	4.019	4.020	4.199	93	93	93	99	97
Coal, bituminous, prepared sizes (composite price).....	Net ton.....	4.495	4.639	4.932	92	94	97	105	103
Coal, anthracite, chestnut (composite price).....	Long ton.....	13.040	13.040	13.389	93	95	95	97	97
Coke, Connellsville (range of prompt and future) furnace—at ovens.....	Short ton.....	2.875	2.910	2.906	70	70	71	73	71
Petroleum, crude, Kansas-Oklahoma—at wells.....	Barrel.....	1.210	1.210	1.240	64	64	64	64	66
METALS									
Pig iron, foundry No. 2, northern (Pittsburgh).....	Long ton.....	18.635	18.860	19.260	89	90	92	93	93
Pig iron, basic, valley furnace.....	Long ton.....	16.188	17.100	17.000	86	87	92	92	92
Steel billets, Bessemer (Pittsburgh).....	Long ton.....	32.000	32.800	33.000	91	91	91	94	94
Copper ingots, electrolytic, early delivery (New York).....	Pound.....	.1472	.1520	.1296	105	107	110	94	94
Brass, sheets, mill.....	Pound.....	.194	.199	.183	101	102	105	96	96
Lead, pig, desilverized, for early delivery (New York).....	Pound.....	.0645	.0650	.0625	74	77	77	75	74
Tin, Straits (New York).....	Pound.....	.4807	.4897	.5850	74	74	75	94	90
Zinc, slab, western (St. Louis).....	Pound.....	.0625	.0625	.0600	85	85	85	85	82
BUILDING MATERIAL AND MISCELLANEOUS									
Lumber, pine, southern, yellow flooring, mill.....	M feet.....	37.73	37.73	37.98	81	84	84	83	84
Brick, common red, domestic building (New York).....	Thousand.....	12.50	12.50	11.75	82	76	76	71	71
Cement, Portland, net without bags to trade, f. o. b. plant (Chicago district).....	Barrel.....	1.600	1.600	1.600	97	97	97	97	97
Steel beams, mill (Pittsburgh).....	Cwt.....	1.850	1.850	1.800	95	95	95	93	92
Rubber, smoked sheets (New York).....	Pound.....	.182	.187	.343	40	38	39	70	71
Sulphuric acid, 66° (New York).....	Ton.....	15.500	15.500	15.200	107	107	107	103	104
Wood pulp, sulphite, domestic, unbleached, news grade (New York).....	Cwt.....	2.525	2.525	2.525	88	88	88	91	88
Newsprint, rolls, contract, mill.....	Cwt.....	3.250	3.250	3.250	94	94	94	94	94

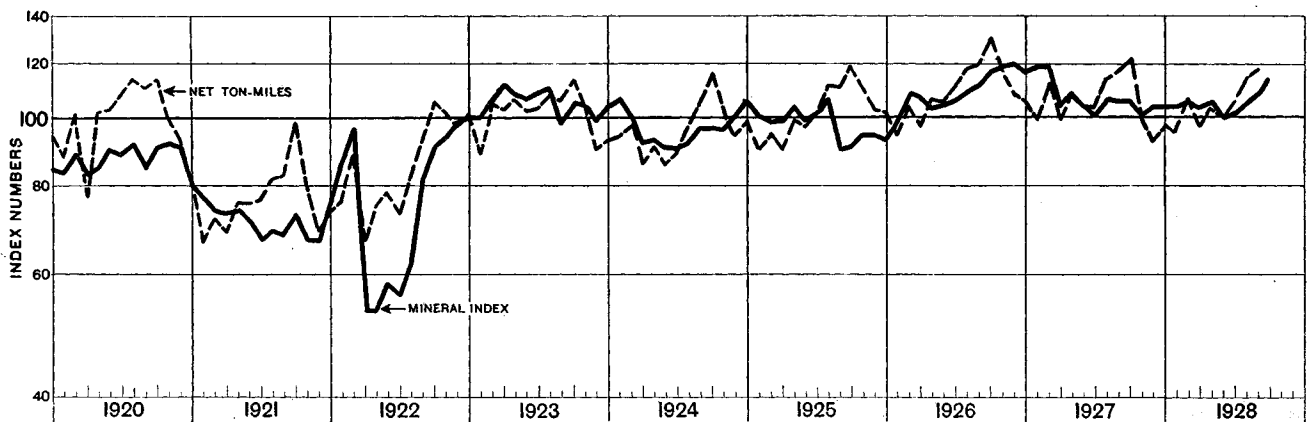
NEW BUILDING CONTRACTS AND AUTOMOBILE PRODUCTION

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



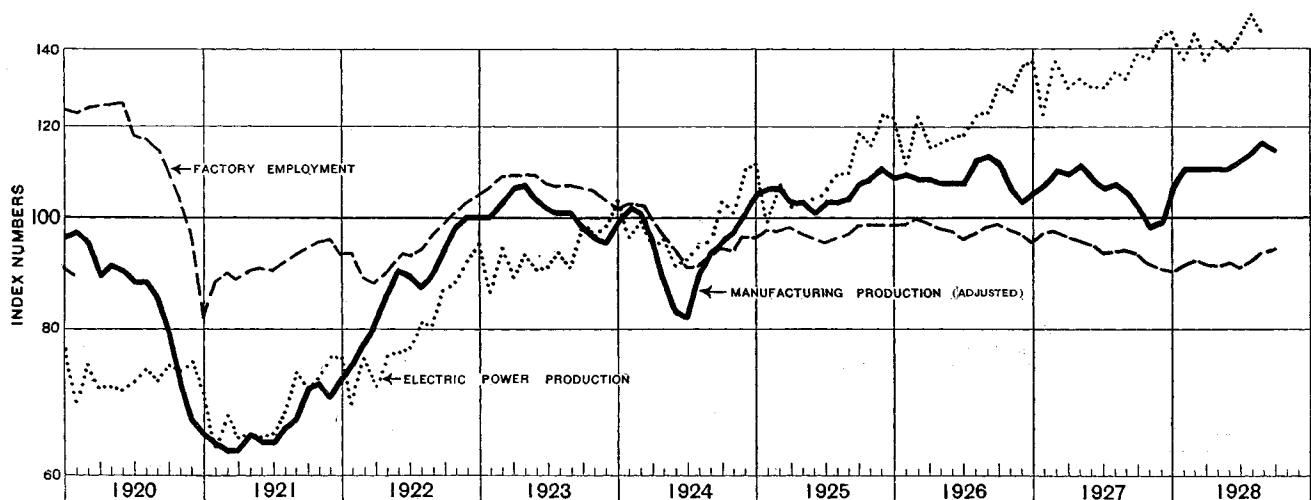
MINERAL PRODUCTION AND RAILROAD TON-MILEAGE

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



FACTORY EMPLOYMENT, MANUFACTURING, AND ELECTRIC-POWER PRODUCTION

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



REVIEW OF PRINCIPAL BRANCHES OF INDUSTRY AND COMMERCE

TEXTILES

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

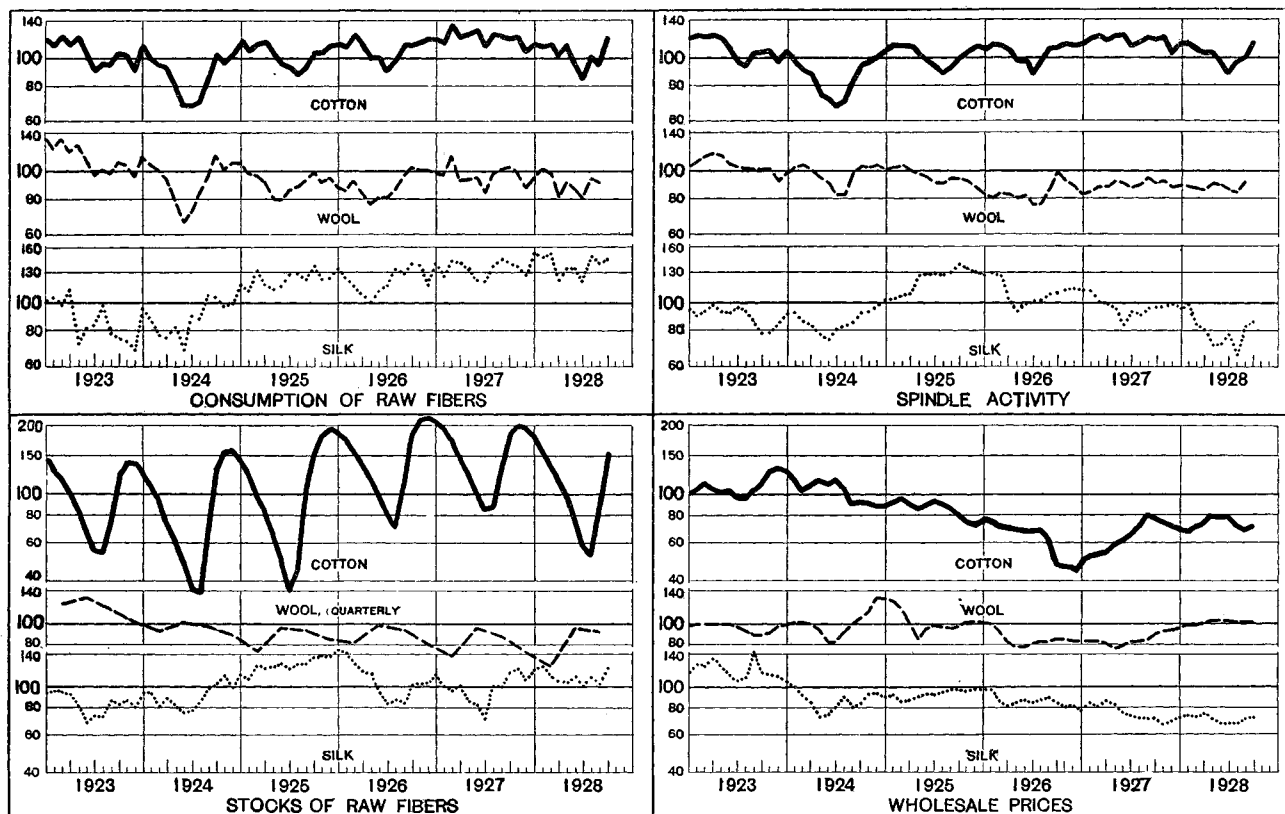
Cotton consumption by textile mills was larger than for either the preceding month or for October of last year. For the first 10 months of the year, however, the consumption of cotton was 13 per cent smaller

of last year, while new orders exceeded those of either prior period. Prices of cotton goods showed a gain over September but were less than a year ago.

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

THE TEXTILE INDUSTRIES

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



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

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

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

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

METALS

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

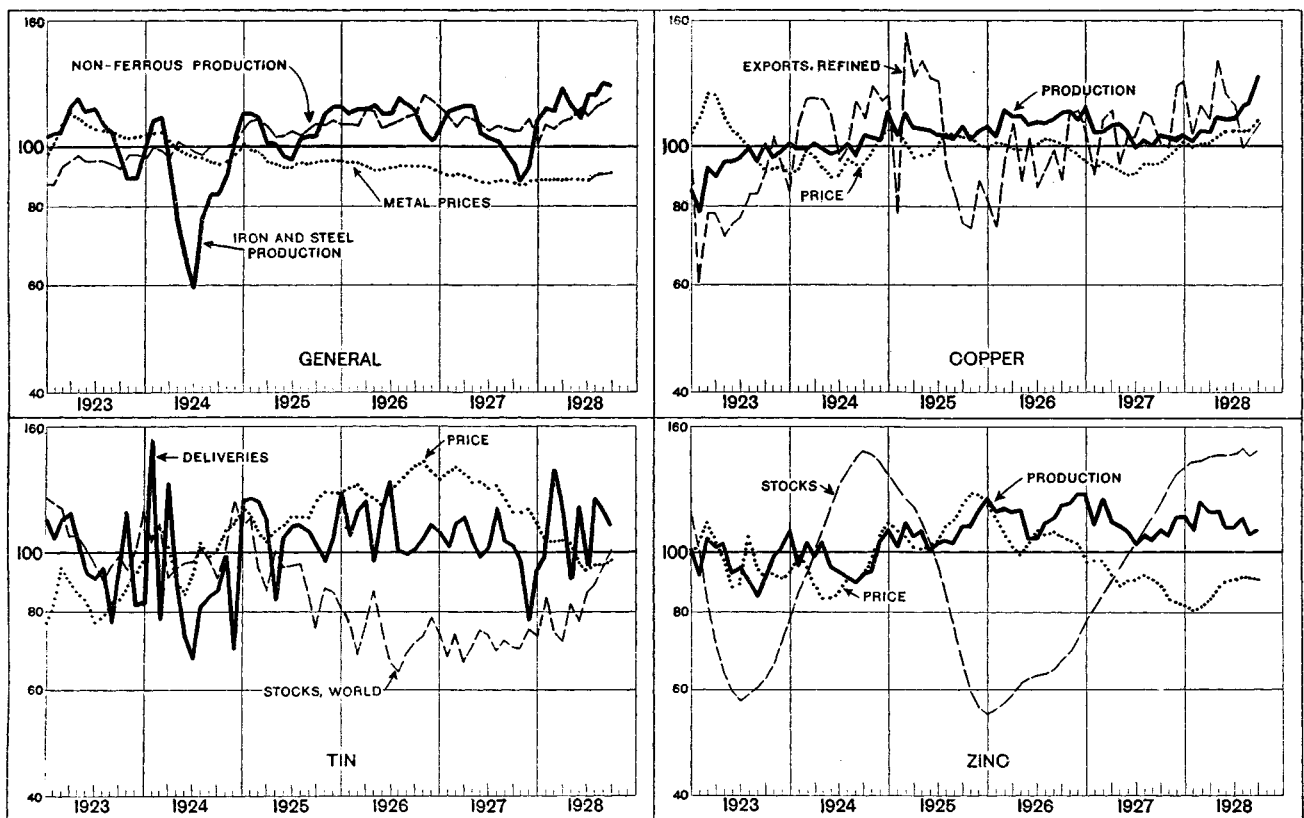
The output of steel ingots was greater than for either the previous month or the corresponding month of last

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

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

THE METAL INDUSTRIES

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



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

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

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

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

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

FUELS

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

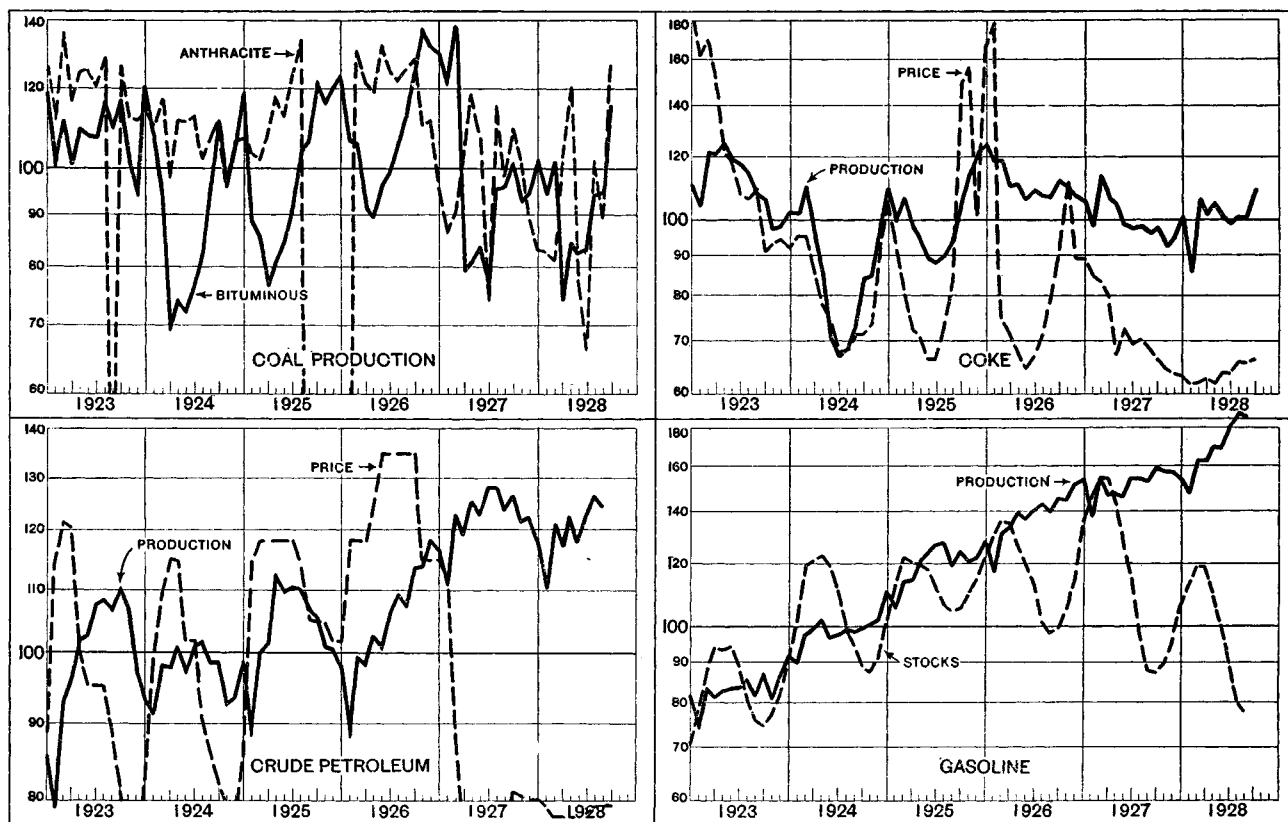
Imports of rubber were substantially larger than during either the previous month or October, 1927. The aggregate amount of rubber imported during the first 10 months of the current year, however, showed little change from that brought into the country during the corresponding period of last year.

HIDES AND LEATHER

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

THE FUEL INDUSTRIES

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



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

AUTOMOBILES AND RUBBER

Although the output of passenger cars, both in the United States and Canada, was less than during the previous month, it was larger than is usually recorded at this season of the year, the total for the United States being exceeded in October of earlier years only in one instance, that of October, 1925. The output of trucks, both in the United States and in Canada, was larger than for either prior period. For the first 10 months of the current year, the production, both of passenger cars and of trucks, exceeded that of a corresponding period in any previous year. Shipments of accessories and parts during October, while slightly less than during the previous month, were considerably greater than a year ago.

a year ago, increases in calfskins and goatskins over September more than offsetting declines in cattle hides and sheepskins. Prices of hides were less than in September. The October output of sole leather was greater than during either the previous month or the corresponding month of last year. Exports of sole and of upper leather also exceeded those of the previous month, although upper leather was exported in smaller quantities than a year ago. Leather prices declined from September but exceeded last year's level.

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

BUILDING AND CONSTRUCTION

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

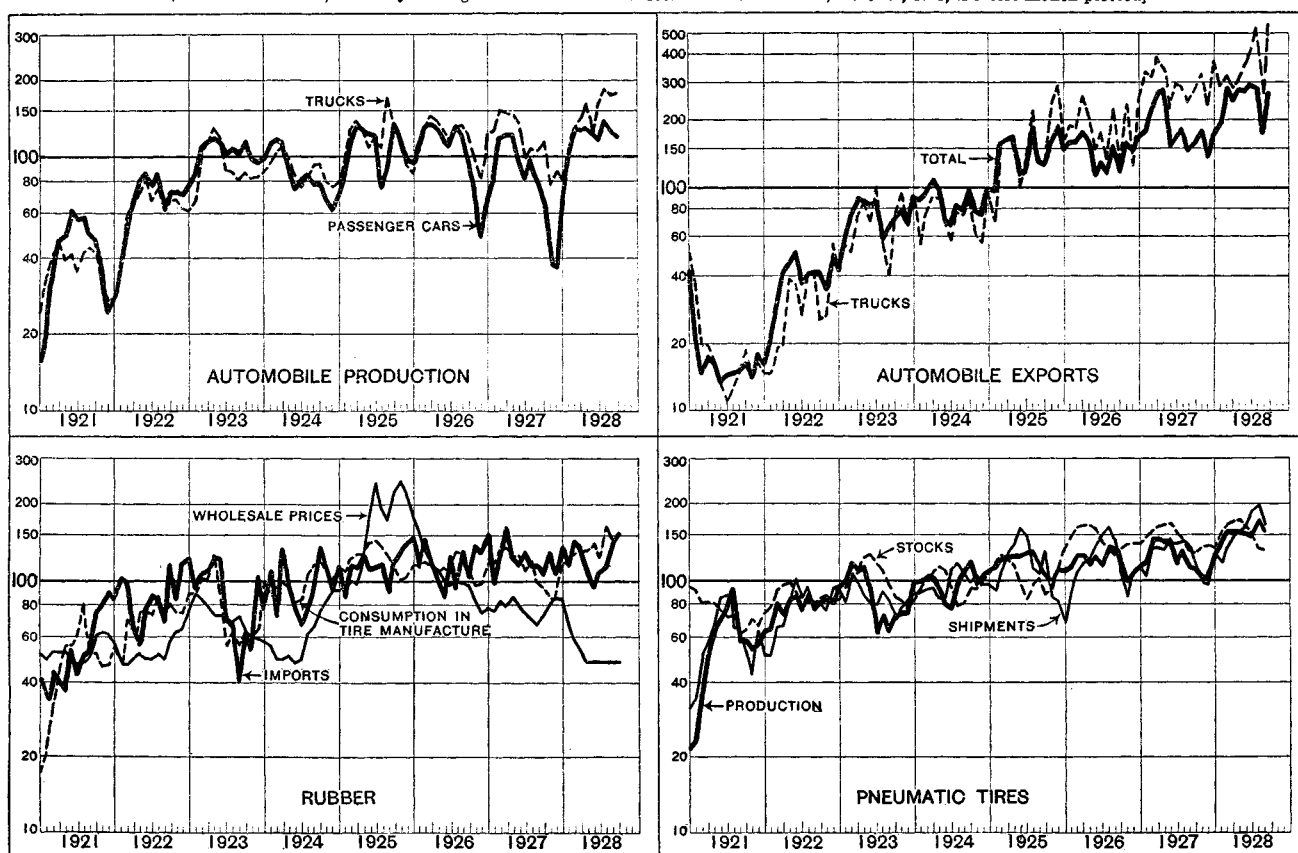
than at the end of September; those for maple flooring also being less than a year ago. Lumber prices averaged higher than during September; those of hardwoods being higher and those of softwoods being lower than a year ago.

STONE, CLAY AND GLASS PRODUCTS

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

THE AUTOMOBILE AND RUBBER INDUSTRIES

(Relative numbers, monthly average 1923-1925 taken as 100. Where available, October, 1928, is latest month plotted)



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

LUMBER AND LUMBER PRODUCTS

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

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

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

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

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

FOODSTUFFS AND TOBACCO

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

The visible supply of corn was greater than in September, but very much less than a year ago. The Department of Agriculture's estimate indicates the

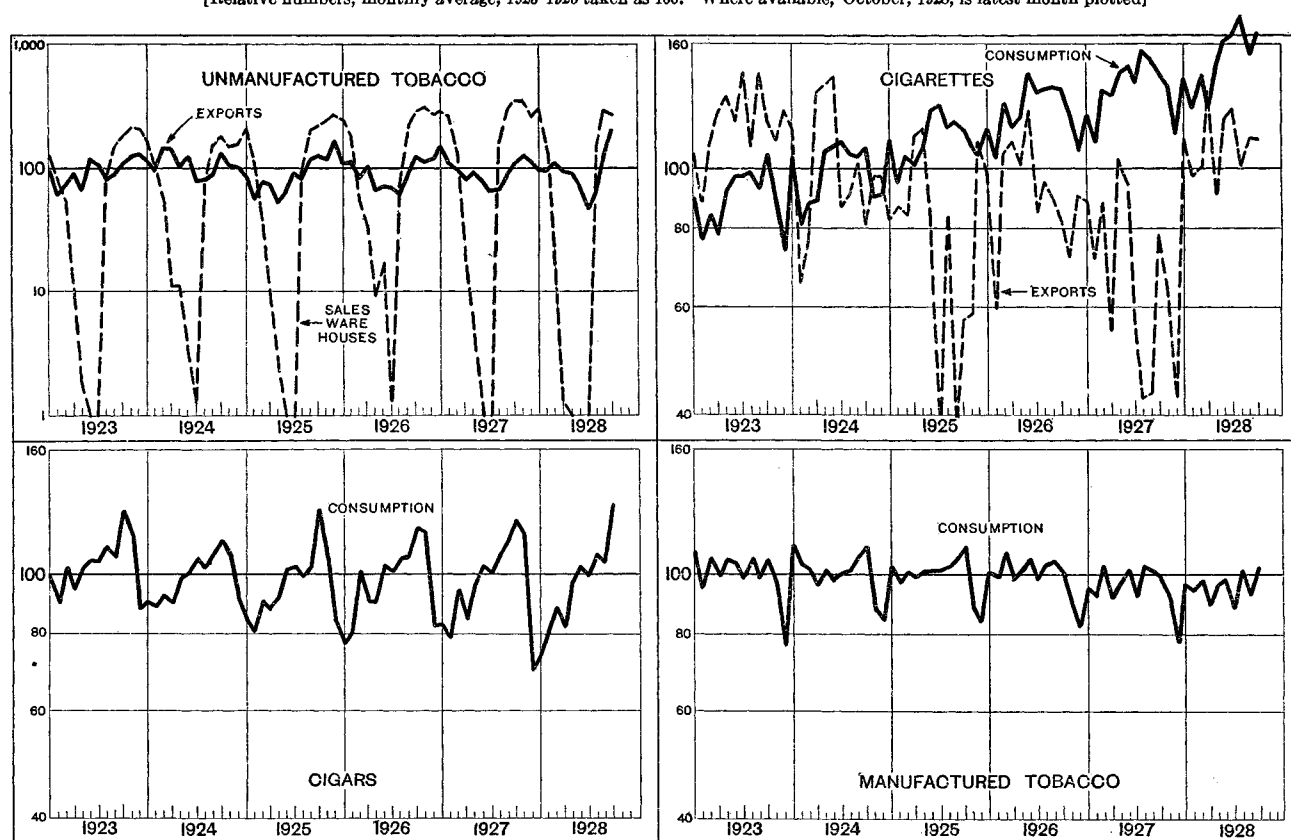
receipts being less and the shipments greater than in October, 1927. The output of inspected beef also exceeded September's total but was less than a year ago.

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

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

THE TOBACCO INDUSTRIES

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



1928 crop to be slightly larger than that for last year. Receipts and shipments of corn at the principal markets were less than during either the previous month or October of last year. Prices also declined from the previous month but were at a higher level than in October, 1927.

The visible supply of oats was less than in September or a year ago. Receipts at the principal markets also were smaller than for either prior period, although the estimate of the 1928 crop indicated a 25 per cent increase over last year's total. Prices for oats averaged slightly above those for September but were lower than a year ago.

The receipts and shipments of cattle at the primary markets were larger than during the previous month,

Imports of coffee were considerably less than for either the previous month or for the corresponding month of last year. Coffee prices on the other hand ranged higher than for either prior period. An increase in the imports of tea, as compared both with September and with the corresponding month of last year, was accompanied by a decline in price from both periods.

Although the estimate of the 1928 tobacco crop indicated a considerable increase over last year's total, prices were higher than for either the previous month or for October, 1927. The consumption of each kind of tobacco was larger than for either prior period and exports of unmanufactured leaf showed a similar tendency.

TRANSPORTATION

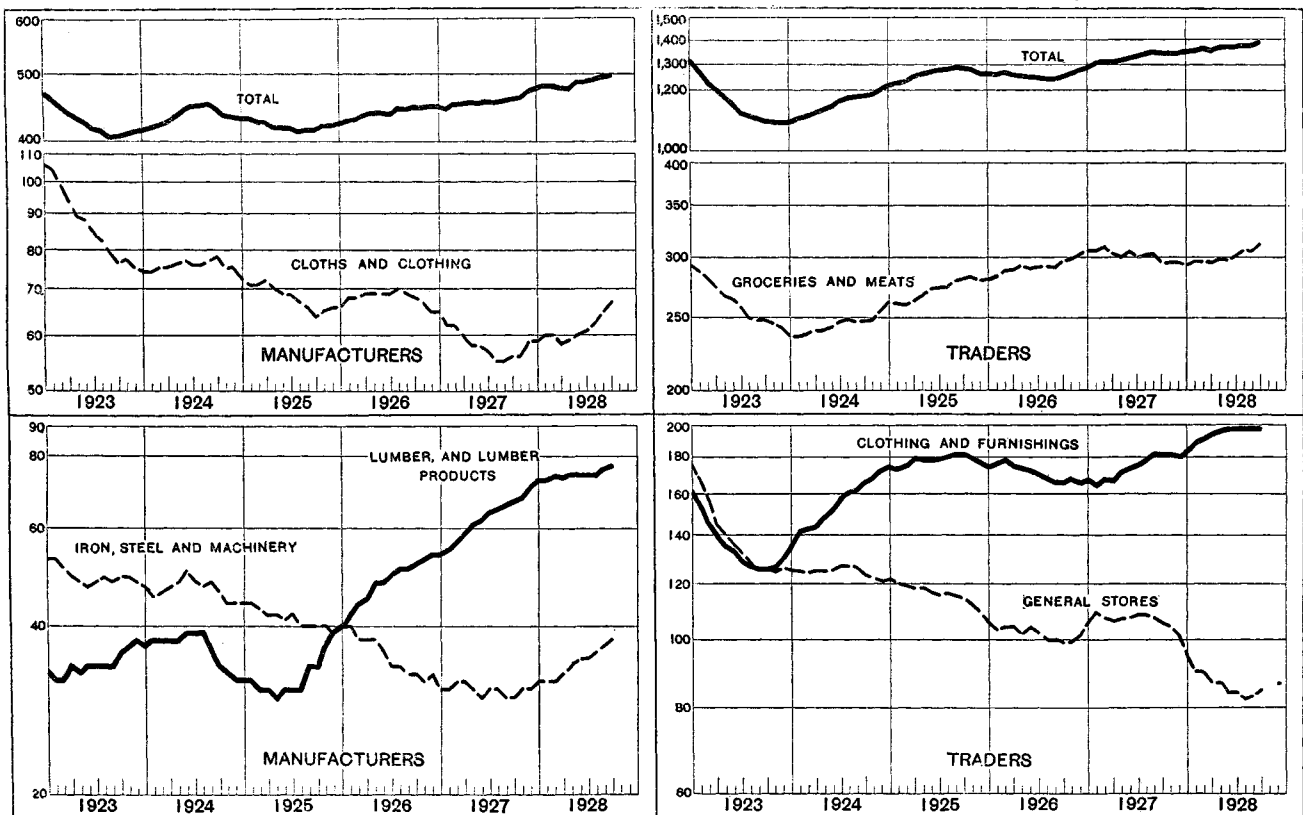
Car loadings in October were 5 per cent larger than a year ago, the only classes of goods to show a decrease from October, 1927, being grain, livestock, and forest products. For the first 10 months of 1927 car loadings showed a slight decline from the corresponding period of last year, grain and miscellaneous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

DISTRIBUTION MOVEMENT

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

BUSINESS FAILURES

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



BANKING AND FINANCE

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

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

GOLD, SILVER, AND FOREIGN EXCHANGE

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

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

INDEXES OF BUSINESS

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

Relative to 1923-1925 monthly average as 100	Maximum since Jan. 1, 1923	Minimum since Jan. 1, 1923	1927			1928			PER CENT INCREASE (+) OR DECREASE (-)	
			August	September	October	August	September	October	Oct., 1928, from Sept., 1928	Oct., 1928, from Oct., 1927
PRODUCTION										
TOTAL INDUSTRIAL										
Unadjusted, except for working days.....	117	81	105	106	105	110	115	117	+ 1.7	+ 11.4
Adjusted for seasonal variations.....	114	83	107	105	103	112	114	114	0.0	+ 10.7
MANUFACTURING										
Total (adjusted for working days only).....	116	79	104	106	104	110	115	116	+ 0.9	+ 11.5
Total (adjusted for seasonal variations).....	116	82	107	105	102	113	116	114	- 1.7	+ 11.8
Iron and steel.....	127	59	102	98	94	121	127	125	- 1.6	+ 33.0
Textiles.....	121	77	119	118	113	109	108	111	+ 2.8	- 1.8
Food products.....	106	92	97	93	94	91	97	99	+ 2.1	+ 5.3
Paper and printing.....	118	91	112	113	111	117	118			
Lumber.....	110	90	95	99	94	86	82	81	- 1.2	- 13.8
Automobiles.....	139	47	89	81	70	133	139	120	- 13.7	+ 71.4
Leather and shoes.....	117	86	112	113	108	111	111	106	- 4.5	- 1.9
Cement, brick, and glass.....	128	92	115	113	108	118	126	119	- 5.6	+ 10.2
Nonferrous metals.....	121	87	108	107	106	116	118	120	+ 1.7	+ 13.2
Petroleum refining.....	162	84	136	139	142	160	162			
Rubber tires.....	166	66	119	113	176	154	165	166	+ 0.6	+ 43.1
Tobacco manufactures.....	129	93	119	123	121	131	129	127	- 1.6	+ 5.0
MINERALS										
Total (adjusted for working days only).....	124	84	111	111	112	110	115	122	+ 6.1	+ 8.9
Total (adjusted for seasonal variations).....	120	90	106	105	105	105	108	114	+ 5.6	+ 8.6
Bituminous coal.....	125	77	92	92	90	91	94	99	+ 5.3	+ 10.0
Anthracite coal.....	133	1	106	99	106	95	95	119	+ 25.3	+ 12.3
Crude petroleum.....	126	88	123	124	124	122	125			
Iron-ore shipments.....	134	0	99	87	95	105	109	115	+ 5.5	+ 21.1
Copper.....	128	82	101	104	102	116	121	128	+ 5.8	+ 25.5
Zinc.....	124	93	114	111	110	121	114	110	- 3.5	0.0
Lead.....	125	75	112	111	105	108	115	108	- 6.1	+ 2.9
Silver.....	123	85	94	90	91	82	79	81	+ 2.5	- 11.0
ANIMAL PRODUCTS (marketings)										
Total.....	124	79	105	87	95	97	92	102	+ 10.9	+ 7.4
Wool.....	421	26	225	89	68	195	54	35	- 54.3	- 48.5
Livestock.....	131	76	89	85	108	79	92	95	+ 3.3	- 12.0
Poultry and eggs.....	148	68	77	75	73	80	76	86	+ 13.2	+ 17.8
Dairy products.....	160	64	123	89	81	117	95	89	- 6.3	+ 9.9
Fish.....	187	44	187	150	154	170	137	153	+ 11.7	- 0.6
CROPS (marketings)										
Total.....	251	45	115	183	219	115	178	251	+ 41.0	+ 14.6
Grains*.....	205	38	169	178	160	186	165	174	+ 5.5	+ 8.8
Vegetables*.....	199	60	86	146	199	83	133	151	+ 13.5	- 24.1
Fruits*.....	266	55	124	183	223	165	206	266	+ 29.1	+ 19.3
Cotton products*.....	353	11	74	186	260	45	184	353	+ 91.8	+ 35.8
Miscellaneous crops*.....	266	22	106	220	266	117	206	207	+ 0.5	- 22.2
FOREST PRODUCTS										
Total.....	112	78	99	98	96	89	77	87	+ 13.0	- 9.4
Lumber.....	112	78	102	99	94	88	77	84	+ 9.1	- 10.6
Pulpwood.....	151	54	63	84	100	82	68	108	+ 58.8	+ 8.0
Gum (rosin and turpentine)*.....	161	18	119	124	117	161	129	128	- 0.8	+ 9.4
Distilled wood.....	148	65	116	113	104	73	65	85	+ 30.8	- 18.3

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

INDEXES OF BUSINESS—Continued

Relative to 1923-1925 monthly average as 100	Maximum since Jan. 1, 1923	Minimum since Jan. 1, 1923	1927			1928			PER CENT INCREASE (+) OR DECREASE (-)	
			August	September	October	August	September	October	Oct., 1928, from Sept., 1928	Oct., 1928, from Oct., 1927
PRODUCTION—Continued										
NEW ORDERS										
Total.....	139	25	95	98	92	98	95			
Textiles.....	153	30	108	118	103	92	99			
Iron and steel.....	144	24	96	99	99	118	124			
Lumber.....	141	22	101	103	95	100	92			
Paper and printing.....	128	14	102	107	107	108	109			
Stone and clay products.....	129	19	98	99	96	97	93			
STOCKS										
Grand total.....	134	82	109	120	132	107	115	131	+13.9	-0.8
Total manufactured goods.....	120	88	115	114	110	114	109	108	-0.9	-1.8
Foodstuffs.....	129	79	129	116	96	117	105	92	-12.4	-4.2
Textiles.....	138	78	95	108	109	125	118	115	-2.5	+5.5
Iron and steel.....	152	78	117	125	115	131	130	134	+3.1	+16.5
Nonferrous metals.....	133	74	114	111	113	125	129	128	-0.8	+13.3
Lumber.....	125	78	122	122	122	98	96	96	0.0	-21.3
Stone, clay, etc.....	178	64	123	116	118	140	130	120	-7.7	+1.7
Leather.....	123	66	69	69	70	72	73	73	0.0	+1.4
Rubber.....	185	77	140	129	129	134	130	130	0.0	+3.4
Paper.....	155	46	116	118	107	156	137	139	+1.5	+29.9
Chemicals and oils.....	125	84	94	97	103	90	97	103	+6.2	0.0
Total raw materials.....	150	69	104	124	149	102	120	149	+24.2	0.0
Foodstuffs.....	159	68	119	125	136	136	145	156	+7.6	+14.7
Textiles.....	202	43	96	135	173	66	96	149	+55.2	-13.9
Metals.....	136	54	96	103	117	100	116	133	+14.7	+13.7
Chemicals and oils.....	153	73	89	110	146	93	108	139	+28.7	-4.8
UNFILLED ORDERS										
Total.....	157	67	73	71	68	75	75	72	-4.0	+5.9
Textiles.....	154	62	85	87	84	66	69	74	+7.2	-11.9
Iron and steel.....	157	66	66	65	66	75	75	75	0.0	+13.6
Transportation equipment.....	204	53	66	62	62	60	60	62	+3.3	0.0
Lumber.....	142	56	78	72	62	88	84	69	-17.9	+11.3
WHOLESALE TRADE										
Grand total, all classes.....	124	82	111	112	106	109	110	112	+1.8	+5.7
Groceries.....	119	86	97	102	102	101	101	108	+8.0	+5.9
Meats.....	130	87	111	117	122	118	130	125	-3.8	+2.5
Dry goods.....	128	71	125	113	99	110	105	99	-5.7	0.0
Men's clothing.....	167	43	165	140	101	148	137	122	-10.9	+20.8
Women's clothing.....	188	26	98	95	87	92	88	106	+20.5	+21.8
Boots and shoes.....	128	68	122	127	114	119	110	108	-1.8	-5.3
Hardware.....	118	82	98	106	105	96	100	108	+8.0	+2.9
Drugs.....	125	88	110	122	128	115	119	133	+11.8	+3.9
Furniture.....	131	72	111	117	118	108	127	131	+3.1	+11.0
RETAIL TRADE										
MAIL-ORDER HOUSES (4 houses).....	156	64	105	118	147	127	143	183	+28.0	+24.5
CHAIN STORES:										
Ten-cent.....	250	62	130	128	153	133	144	163	+13.2	+6.5
Grocery.....	224	77	170	171	190	205	200	228	+14.0	+20.0
Wearing apparel.....	350	47	165	198	250	197	246	287	+16.7	+14.8
Drug.....	169	82	140	137	151	169	164	169	+3.0	+11.9
Cigar.....	160	79	106	106	111	104	105	107	+1.9	-3.6
Candy.....	161	70	110	119	124	123	122	134	+9.8	+8.1
Shoe.....	163	55	101	108	121	109	130	127	-3.1	+5.0
DEPARTMENT STORES:										
Sales.....	186	71	89	100	119	85	106	123	+16.0	+3.4
Stocks.....	117	83	97	107	113	96	101	110	+8.9	-2.7

INDEXES OF BUSINESS—Continued

Relative to 1923-1925 monthly average as 100	Maximum since Jan. 1, 1923	Minimum since Jan. 1, 1923	1927			1928			PER CENT INCREASE (+) OR DECREASE (-)	
			August	September	October	August	September	October	Oct., 1928, from Sept., 1928	Oct., 1928, from Oct., 1927
EMPLOYMENT										
Number employed, by industries:										
Total, all classes.....	109	90	93	94	93	92	93	94	+1.1	+1.1
Food products.....	112	90	93	97	97	91	94	96	+2.1	-1.0
Textiles.....	114	85	92	94	95	86	87	90	+3.4	-5.3
Iron and steel.....	114	87	93	92	91	93	94	95	+1.1	+4.4
Lumber.....	107	80	88	89	88	85	85	85	0.0	-3.4
Leather.....	112	86	97	97	95	91	91	90	-1.1	-5.3
Paper and printing.....	106	97	102	103	104	101	102	103	+1.0	-1.0
Chemicals.....	111	88	94	98	97	91	98	98	0.0	+1.0
Stone, clay, and glass.....	107	85	97	97	95	95	95	93	-2.1	-2.1
Metal products other than iron and steel.....	110	87	93	92	91	94	95	97	+2.1	+6.6
Tobacco products.....	108	82	89	92	94	87	89	91	+2.2	-3.2
Vehicles.....	110	82	82	88	87	98	99	98	-1.0	+12.6
Miscellaneous.....	115	86	100	98	98	94	95	97	+2.1	-1.0
Amount of pay roll, by industries:										
Total, all classes.....	111	85	96	95	96	95	97	100	+3.1	+4.2
Food products.....	108	90	97	99	99	95	98	100	+2.0	+1.0
Textiles.....	115	78	94	96	98	84	87	93	+6.9	-5.1
Iron and steel.....	117	79	94	92	91	98	98	103	+5.1	+13.2
Lumber.....	107	84	94	95	96	89	91	93	+2.2	-3.1
Leather.....	117	77	101	98	92	92	91	88	-3.3	-4.3
Paper and printing.....	114	94	108	109	111	108	110	112	+1.8	+0.9
Chemicals.....	114	89	100	102	102	98	102	104	+2.0	+2.0
Stone, clay, and glass.....	111	84	99	98	99	98	96	98	+2.1	-1.0
Metal products other than iron and steel.....	114	81	92	89	90	99	100	107	+7.0	+18.9
Tobacco products.....	111	81	84	95	96	86	90	92	+2.2	-4.2
Vehicles.....	114	79	92	87	90	101	101	105	+4.0	+16.7
Miscellaneous.....	119	86	102	98	102	96	98	100	+2.0	-2.0
PRICE INDEX NUMBERS										
FARM PRICES										
(Relative to 1909-1914 average as 100)										
All groups.....	152	125	132	140	139	139	141	137	-2.8	-1.4
Grains.....	178	108	138	134	128	120	117	116	-0.9	-9.4
Fruits and vegetables.....	253	108	172	145	138	137	127	114	-10.2	-17.4
Meat animals.....	162	98	136	142	145	162	174	160	-8.0	+10.3
Dairy and poultry.....	166	122	127	137	146	136	145	150	+3.4	+2.7
Cotton and cottonseed.....	252	81	136	179	169	153	142	147	+3.5	-13.0
Unclassified.....	108	79	81	87	83	87	85	83	-2.4	0.0
WHOLESALE PRICES										
Department of Labor Indexes										
(Relative to 1926 monthly average as 100)										
All commodities.....	105	94	95	97	97	99	100	98	-2.0	+1.0
Farm products.....	114	94	102	106	105	107	109	104	-4.6	-1.0
Food, etc.....	107	85	94	97	100	104	107	102	-4.7	+2.0
Hides and leather products.....	127	98	112	113	113	121	121	118	-2.5	+4.4
Textile products.....	114	94	96	99	98	96	96	96	0.0	-2.0
Fuel and lighting.....	112	81	84	84	84	85	85	85	0.0	+1.2
Metals and metal products.....	113	97	98	98	97	100	101	101	0.0	+4.1
Building materials.....	116	90	93	92	92	95	95	95	0.0	+3.3
Chemicals.....	104	95	95	96	97	95	95	96	+1.1	-1.0
House-furnishing goods.....	111	97	99	99	99	97	97	97	0.0	-2.0
Miscellaneous.....	127	79	90	89	88	79	80	80	0.0	-9.1
Classified by state of manufacture:										
Semimanufactured articles.....	128	96	97	99	98	97	97	97	0.0	-1.0
Finished products.....	103	93	93	94	96	99	101	99	-2.0	+3.1
Raw materials.....	109	93	98	100	100	99	101	97	-4.0	-3.0
Nonagricultural commodities.....	106	93	93	94	95	97	98	96	-2.0	+1.1
Commercial Indexes										
(Relative to 1926 monthly average as 100)										
Dun's.....	106	85	100	101	102	103	103	102	-1.0	0.0
Bradstreet's.....	112	95	100	103	104	103	102	101	-1.0	-2.8

INDEXES OF BUSINESS—Continued

Relative to 1923-1925 monthly average as 100	Maximum since Jan. 1, 1923	Minimum since Jan. 1, 1923	1927			1928			PER CENT INCREASE (+) OR DECREASE (-)	
			August	September	October	August	September	October	Oct., 1928, from Sept., 1928	Oct., 1928, from Oct., 1927
PRICE INDEX NUMBERS—Contd.										
COST OF LIVING										
National Industrial Conference Board Indexes										
(Relative to July, 1914)										
All items weighted.....	172	158	162	163	164	161	163	163	0.0	-0.6
Food (Department of Labor).....	167	141	152	154	156	154	158	157	-0.6	+0.6
Shelter.....	186	161	169	168	167	161	161	161	0.0	-3.6
Clothing.....	177	160	170	171	170	173	174	173	-0.6	+1.8
Fuel and light (combined).....	179	156	161	162	163	159	160	161	+0.6	-1.2
Fuel.....	208	174	181	183	184	178	180	182	+1.1	-1.1
Light.....	123	118	122	122	122	121	121	121	0.0	-0.8
Sundries.....	176	171	172	172	173	171	171	171	0.0	-1.2

ADDITIONAL PRELIMINARY RETURNS, CENSUS OF MANUFACTURES, 1927¹

INDUSTRY	VALUE OF PRODUCTS			PERSONS EMPLOYED			INDUSTRY	VALUE OF PRODUCTS			PERSONS EMPLOYED		
	1927	1925	Per cent increase (?)	1927	1925	Per cent increase (?)		1927	1925	Per cent increase (?)	1927	1925	Per cent increase (?)
	Thousands of dollars			Number				Thousands of dollars			Number		
Adhesives, other than glue and rubber cement.....	7,945	9,853	-19.4	502	561	-10.5	Lace goods.....	27,298	30,844	-11.5	6,482	7,006	-7.5
Asbestos products.....	44,156	36,274	21.7	6,337	6,129	3.4	Leather, tanned, curried, and finished.....	494,781	462,014	7.1	53,047	53,043	-----
Baskets, rattan and willow ware, not including furniture.....	20,960	16,658	25.8	8,594	6,808	26.2	Lighting equipment manufacture.....	251,449	217,793	15.5	-----	-----	-----
Batteries, total.....	150,452	155,248	-3.1	-----	-----	-----	Nonclay refractories.....	22,252	19,430	14.5	4,729	4,102	15.3
Beverages.....	242,515	237,761	2.0	26,974	27,384	-1.5	Perfumes, cosmetics, and toilet preparations.....	177,091	-----	-----	-----	-----	-----
Brushes.....	47,844	45,824	4.4	7,673	7,836	-2.1	Printing inks.....	37,734	34,753	8.6	2,294	2,150	6.7
Cement.....	293,565	300,895	-2.4	36,292	38,437	-5.6	Pulp goods.....	23,818	20,270	17.5	2,989	3,017	-0.9
Caskets, coffins, burial cases, and morticians' goods.....	74,891	70,413	6.4	11,665	11,479	1.6	Radio apparatus and tubes.....	191,849	176,990	8.4	-----	-----	-----
Common brick.....	74,625	87,276	-14.5	26,297	29,524	-10.9	Rag carpets and rugs.....	5,890	5,710	3.2	1,633	1,901	-14.1
Chocolate and cocoa products.....	122,723	106,642	15.1	6,427	7,128	-9.8	Red earthenware.....	2,371	2,400	-1.2	673	705	-4.5
Coffee roasting and spice grinding.....	380,157	297,528	27.8	8,168	9,665	-15.5	Roofing tile.....	5,435	5,841	-7.0	1,410	1,302	8.3
Drain tile.....	4,238	4,110	3.1	1,533	1,539	-0.4	Sewer pipes.....	34,379	33,536	2.5	11,029	10,711	3.0
Dressed furs ²	27,357	25,423	7.6	5,468	5,056	8.1	Sewing machines, cases, and attachments.....	45,222	46,298	-2.3	11,838	12,121	-2.3
Engraving, steel and copperplate, and plate printing.....	38,658	32,106	20.4	8,427	7,259	16.1	Soap.....	287,060	278,273	3.2	13,432	15,406	-12.8
Face brick.....	46,179	47,914	-3.6	15,312	14,701	4.2	Steel and brass pens.....	1,658	1,446	14.7	534	487	9.7
Fire brick.....	40,621	44,838	-9.4	12,269	13,452	-8.8	Stoneware and yellow and rock-ingham ware.....	4,929	4,311	14.3	1,660	1,463	13.5
Floor and wall tile and similar tile.....	27,959	22,455	24.5	9,264	7,704	20.2	Trunks, suit cases, and bags.....	59,959	61,224	-2.1	11,178	10,348	8.0
Furniture and store and office fixtures.....	842,716	-----	-----	-----	-----	-----	Vitrified brick or block.....	11,049	11,767	-6.1	3,510	3,638	-3.5
Gas meters and water meters.....	36,715	34,292	7.1	5,915	5,514	7.3	White ware.....	32,476	32,949	-1.4	13,395	13,480	-0.6
Glass.....	279,708	295,959	-5.5	65,813	69,371	-5.1	Wood preserving.....	184,558	-----	-----	12,259	-----	-----
Haircloth.....	3,616	2,746	31.7	385	355	8.5	Wool shoddy.....	12,597	21,022	-40.1	1,679	2,218	-24.3
Hollow building tile.....	25,953	28,452	-8.8	7,929	8,250	-3.9	Writing ink.....	5,342	6,084	-12.2	491	524	-6.3

¹ Compiled by the U. S. Department of Commerce, Bureau of the Census, from reports collected in connection with the census of manufactures. Data for other industries will appear as they are completed. Statistics in greater detail may be obtained from the bureau's preliminary statements on the respective industries.

² A minus sign (-) denotes decrease.

³ Value of products and receipts for contract work.

FLOOR AND WALL TILE ¹

MONTH	Production	Shipments		Stocks, end of month	Production	Shipments		Stocks, end of month	Production	Shipments		Stocks, end of month
	1924				1925				1926			
	Square feet		Value	Square feet	Square feet		Value	Square feet	Square feet		Value	Square feet
January.....	4,784,933	3,662,495	\$1,202,232	6,725,486	3,707,380	3,061,814	\$1,090,044	9,273,492	5,069,911	4,404,227	\$1,664,517	7,744,206
February.....	4,764,692	3,525,043	1,092,103	7,241,801	3,804,906	3,297,656	1,166,964	9,535,538	4,938,921	4,274,041	1,603,531	7,838,722
March.....	5,067,113	3,986,924	1,187,576	7,844,941	4,106,761	3,917,862	1,361,282	9,704,917	5,659,129	4,997,070	1,861,501	8,617,235
April.....	4,532,963	4,091,811	1,308,588	8,107,465	3,953,531	4,288,052	1,508,768	9,265,448	5,330,429	5,178,162	1,872,847	8,513,628
May.....	3,928,441	3,539,444	1,221,538	8,126,151	4,260,763	4,344,017	1,549,582	8,495,827	5,483,792	5,071,192	1,889,848	8,794,369
June.....	3,977,342	3,803,613	1,329,864	8,135,130	4,506,862	4,556,067	1,631,274	7,590,686	5,770,984	5,529,547	2,061,051	8,565,048
July.....	3,527,485	3,650,567	1,260,824	7,747,682	4,594,522	4,870,211	1,733,089	7,375,322	5,847,698	5,526,373	2,094,805	9,023,321
August.....	3,878,151	3,923,304	1,329,346	7,526,825	4,908,662	4,907,158	1,801,931	6,867,613	5,842,431	6,006,805	2,241,974	8,797,949
September.....	4,109,773	3,778,454	1,314,150	7,673,906	5,194,018	5,219,495	1,905,990	6,913,415	5,435,254	5,756,751	2,119,786	8,576,344
October.....	4,422,386	4,060,339	1,471,346	7,968,691	5,412,056	5,515,201	2,045,539	6,839,880	5,921,648	5,344,115	2,032,334	8,690,152
November.....	3,901,648	3,298,604	1,177,044	8,065,835	5,238,613	5,057,176	1,776,390	6,926,379	5,600,995	5,110,662	1,950,251	8,770,089
December.....	3,828,533	3,056,289	1,143,450	9,125,005	5,363,558	5,108,444	1,911,876	7,789,150	5,433,438	5,057,424	1,924,189	9,001,354
Year's total.....	50,723,460	44,376,887	15,038,061	-----	55,051,632	54,143,153	19,482,729	-----	66,334,650	62,256,369	23,316,634	-----
Monthly average.....	4,226,955	3,698,074	1,253,172	7,857,410	4,587,636	4,511,929	1,623,561	8,048,139	5,527,888	5,188,031	1,943,053	8,577,701

MONTH	Production	Shipments		Stocks, end of month	Production	Shipments		Stocks, end of month
	1927				1928			
	Square feet		Value	Square feet	Square feet		Value	Square feet
January.....	5,616,791	4,436,602	\$1,692,308	10,232,554	4,702,025	4,019,156	\$1,526,204	13,963,728
February.....	5,186,851	4,412,009	1,687,766	11,250,739	4,675,108	4,245,023	1,708,661	14,241,990
March.....	5,548,929	5,278,465	2,008,207	11,493,179	5,348,991	5,355,017	2,074,504	13,982,101
April.....	5,517,956	5,022,172	1,916,368	11,860,245	5,236,788	5,687,619	2,060,213	13,576,999
May.....	5,252,833	5,172,391	1,936,356	11,894,209	5,728,534	5,913,771	2,214,618	14,430,676
June.....	5,240,515	5,173,542	1,959,959	11,971,667	6,192,106	6,604,309	2,461,583	13,030,846
July.....	5,214,383	5,299,324	1,989,451	11,374,500	-----	6,598,763	2,548,456	-----
August.....	5,554,007	5,460,747	2,085,932	11,393,156	-----	-----	-----	-----
September.....	5,612,278	5,696,250	2,162,548	11,359,837	-----	-----	-----	-----
October.....	5,928,267	5,326,080	2,009,768	12,072,756	-----	-----	-----	-----
November.....	5,079,608	4,409,461	1,672,408	12,767,315	-----	-----	-----	-----
December.....	4,550,522	3,707,753	1,580,662	13,288,515	-----	-----	-----	-----
Year's total.....	64,302,940	59,394,796	22,701,633	-----	-----	-----	-----	-----
Monthly average.....	5,358,578	4,949,566	1,891,803	-----	-----	-----	-----	-----

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

TREND OF BUSINESS MOVEMENTS

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

	1928					1927		PER CENT INCREASE (+) OR DECREASE (-)		CUMULATIVE TOTAL FROM JAN. 1 THROUGH OCT. 31		Per ct. increase (+) or decrease (-) cumulative 1928 from 1927	
	June	July	August	September	October	September	October	Oct., 1928, from Sept., 1928	Oct., 1928, from Oct., 1927	1927	1928		
TEXTILES													
Wool													
Receipts at Boston:													
Total.....thous. of lbs.	55,841	54,907	29,720	10,315	8,090	16,956	16,578	-21.6	-51.2	312,902	273,722	-12.6	
Domestic.....thous. of lbs.	50,082	51,346	25,802	7,156	4,598	11,799	9,033	-35.7	-49.1	201,423	192,906	-3.7	
Foreign.....thous. of lbs.	5,759	3,561	3,918	3,159	3,492	5,157	7,545	+10.5	-53.7	111,479	79,716	-28.5	
Imports:													
In condition imported.....thous. of lbs.	19,671	18,289	14,472	14,510	20,730	15,832	21,053	+42.9	-1.5	228,556	208,723	-8.7	
Grease equivalent.....thous. of lbs.	21,383	19,805	16,078	17,015	24,193	18,933	24,535	+42.2	-1.4	260,323	235,356	-9.6	
Consumption by textile mills, grease equivalent.....thous. of lbs.	41,282	38,099	45,103	43,492	51,477	48,153	49,122	+18.4	+4.8	463,516	442,387	-4.6	
Stocks, grease equivalent, end of quarter:													
Total.....thous. of lbs.	385,407			369,816		357,107		-4.0	+3.6				
Held by manufacturers.....thous. of lbs.	173,556			158,346		175,436		-8.8	-9.7				
Held by dealers.....thous. of lbs.	211,850			211,470		181,671		-0.2	+16.4				
Machinery activity, hourly:													
Looms—													
Wide.....per ct. of hours active	59	53	55	59	67	64	66	+13.6	+1.5				
Narrow.....per ct. of hours active	58	49	48	53	66	65	67	+24.5	-1.5				
Carpet and rug.....per ct. of hours active	62	55	63	62	67	65	64	+8.1	+4.7				
Sets of cards.....per ct. of hours active	81	78	77	85	93	84	84	+9.4	+10.7				
Combs.....per ct. of hours active	63	59	65	74	82	81	88	+10.8	-6.8				
Spinning spindles—													
Woolen.....per ct. of hours active	78	75	74	80	88	82	82	+10.0	+7.3				
Worsted.....per ct. of hours active	49	50	58	62	68	71	74	+9.7	-8.1				
Prices:													
Raw, territory, fine, scoured...dolls. per lb.	1.18	1.17	1.14	1.14	1.10	1.12	1.12	-3.5	-1.8				
Raw, Ohio and Pa. fleeces, 3/4 blood, combing, grease...dolls. per lb.	.55	.55	.54	.54	.54	.45	.47	0.0	+14.9				
Worsted yarn.....dolls. per lb.	1.58	1.60	1.60	1.58	1.58	1.38	1.40	0.0	+12.9				
Women's dress goods, French serge, 39-in.....dolls. per yd.	1.03	1.03	1.03	.99	.98	.98	1.00	-1.0	-2.0				
Suiting, 13-oz.....dolls. per yd.	2.008	2.008	2.008	2.008	2.008	1.913	1.913	0.0	+5.0				
Cotton													
Production, crop estimate.....thous. of bales					14,133		12,789						
Ginnings.....thous. of bales					11,320		10,895						
Receipts into sight.....thous. of bales	297	339	509	2,027	3,927	2,000	2,837	+93.7	+38.4	11,805	10,753	-8.9	
Imports, unmanufactured.....bales	14,587	18,473	25,258	18,508	27,840	28,347	19,235	+50.4	+44.7	341,161	263,782	-22.7	
Exports, unmanufactured (incl. linters).....bales	457,781	341,849	259,489	814,569	1,240,702	631,041	1,113,018	+52.3	+11.5	7,695,088	6,169,207	-19.8	
Consumption by textile mills.....bales	510,565	438,743	526,729	492,221	618,788	627,784	613,520	+25.7	+0.9	6,239,493	5,427,459	-13.0	
Stocks, domestic, end of month:													
Total, mills and warehouses.....thous. of bales	2,805	2,197	1,971	3,366	5,831	5,081	6,743	+73.2	-13.5				
Mills.....thous. of bales	1,159	1,007	782	720	1,195	1,116	1,324	+66.0	-9.7				
Warehouses.....thous. of bales	1,646	1,190	1,189	2,646	4,636	3,965	5,419	+75.2	-14.4				
Stocks, world visible, end of month:													
Total.....thous. of bales	4,962	4,056	3,480	4,114	6,198	5,356	6,479	+50.7	-4.3				
American.....thous. of bales	2,910	2,165	1,790	2,563	4,645	4,108	5,297	+81.2	-12.3				
Prices:													
To producer, all grades.....dolls. per lb.	.197	.210	.188	.176	.181	.225	.210	+2.8	-13.8				
In New York, middling.....dolls. per lb.	.214	.215	.193	.185	.196	.218	.211	+5.9	-7.1				
Cotton Yarn													
Machinery activity of spindles:													
Active spindles.....thousands	28,624	28,228	28,244	28,277	30,315	32,398	32,535	+7.2	-6.8				
Total activity.....millions of hours	7,248	6,259	7,431	6,961	8,694	8,761	8,705	+24.9	-0.1				
Activity per spindle.....hours	203	176	209	196	246	240	238	+25.5	+3.4				
Ratio to capacity.....per cent	88.4	79.7	87.7	90.6	103.9	106.6	105.0	+14.7	-1.0				
Carded sales yarn:													
Production.....thous. of lbs.	19,415	12,522	14,046	18,839	17,621	17,618	16,619	-6.5	+6.0		175,712		
Stocks, end of month.....thous. of lbs.	12,539	12,350	11,574	10,248	8,476	8,570	10,165	-17.3	-16.6				
Unfilled orders, end of mo.....thous. of lbs.	25,435	24,619	27,044	34,836	39,041	24,124	27,220	+12.1	+43.4				
Prices:													
22/1 cones, Boston.....dolls. per lb.	.374	.384	.369	.358	.372	.406	.402	+3.9	-7.5				
40/1s, southern spinning.....dolls. per lb.	.489	.515	.514	.501	.495	.547	.546	-1.2	-9.3				
Cotton Goods													
Cotton textiles:													
Production.....thous. of yds.	287,818	221,826	302,470	253,688	284,899	346,902	331,854	+12.3	-14.1		2,942,048		
New orders.....thous. of yds.	267,025	187,439	340,810	387,151	401,953	333,607	225,560	+3.8	+78.2		2,989,637		
Shipments.....thous. of yds.	270,342	217,540	324,073	278,110	307,402	346,199	293,411	+10.5	+4.8		2,883,807		
Stocks, end of month.....thous. of yds.	458,984	463,270	441,667	417,245	394,742	201,920	257,011	-5.4	+53.6				
Unfilled orders, end month.....thous. of yds.	302,328	272,227	288,964	398,005	492,556	479,368	432,447	+23.8	+13.9				
Fine cotton goods, production.....pieces	134,158	80,358	136,237	113,627	282,763	490,697	466,529	+148.9	-39.4	4,829,298	2,423,896	-49.8	

¹ Quarter ending in month indicated.

² Quarter ending Sept. 30, 1927.

³ As of Nov. 1, 1928.

⁴ Final estimate for 1927.

⁵ As of Nov. 1, 1927.

⁶ Revised.

TREND OF BUSINESS MOVEMENTS—Continued

	1928					1927		PER CENT INCREASE (+) OR DECREASE (-)		CUMULATIVE TOTAL FROM JAN. 1 THROUGH OCT. 31		Per ct. increase (+) or decrease (-) cumulative 1928 from 1927	
	June	July	August	September	October	September	October	Oct., 1928, from Sept., 1928	Oct., 1928, from Oct., 1927	1927	1928		
TEXTILES—Continued													
Cotton Goods—Continued													
Cotton cloth:													
Imports.....thous. of sq. yds.	4,615	3,490	3,753	3,139	3,676	4,741	4,425	+17.1	-16.9	52,370	51,019	-2.6	
Exports.....thous. of sq. yds.	46,534	44,951	43,928	34,694	56,087	50,333	42,836	+61.7	+30.9	464,810	419,616	-9.7	
Fabrics for tire manufacture, consumption.....thous. of lbs.	19,646	20,947	21,854	17,797	-----	13,998	13,549	-----	-----	* 139,659	* 169,540	+21.4	
Elastic webbing, shipments.....thous. of dolls.	1,384	1,211	1,399	1,478	1,624	-----	-----	+9.9	-----	-----	14,003	-----	
Prices:													
Print cloth, 64 x 60.....dolls. per yd.	.077	.079	.075	.074	.078	.089	.087	+5.4	-10.3	-----	-----	-----	
Sheeting, brown.....dolls. per yd.	.091	.092	.091	.089	.090	.110	.111	+1.1	-18.9	-----	-----	-----	
Cotton goods (Fairchild), rel. to 1911-1913.....	162	165	163	160	163	177	175	+1.9	-6.9	-----	-----	-----	
Cotton Finishing													
White, dyed and printed (outside mills):													
Billings, finished goods.....thous. of yds.	70,029	58,685	70,748	69,805	83,935	84,899	85,490	+20.2	-1.8	858,369	739,382	-13.9	
New orders, gray yardage.....thous. of yds.	61,347	62,310	71,743	74,483	87,175	87,386	77,296	+17.0	+12.8	841,616	734,512	-12.7	
Shipments, finished goods.....cases.	42,357	40,500	46,283	45,767	50,984	52,316	50,175	+11.4	+1.6	505,180	462,027	-8.5	
Stocks, finished goods, end mo.....cases.	38,907	37,958	35,819	33,410	32,046	37,053	39,094	-4.1	-18.0	-----	-----	-----	
Operating activity.....per ct. of capacity.	53	51	54	61	66	72	73	+8.2	-9.6	-----	-----	-----	
Unfilled orders, end of month.....days.	3.6	3.8	4.4	5.0	6.0	5.8	5.4	+20.0	+11.1	-----	-----	-----	
Printed only (mills and outside):													
Production.....thous. of yds.	63,796	49,996	54,495	66,079	77,320	58,673	64,943	+17.0	+19.1	-----	644,150	-----	
Stocks, end of month.....thous. of yds.	79,416	75,977	74,682	75,161	73,687	-----	-----	-2.0	-----	-----	-----	-----	
Silk													
Imports, raw.....thous. of lbs.	6,174	5,832	9,320	7,202	8,272	7,625	7,942	+14.9	+4.2	72,939	73,281	+0.5	
Deliveries (consumption).....bales.	46,051	40,931	50,821	47,797	49,940	50,107	47,827	+4.5	+4.4	461,075	478,275	+3.7	
Stocks, end of month:													
At warehouses.....bales.	41,127	38,866	50,975	50,464	49,381	58,986	62,366	-2.1	-20.8	-----	-----	-----	
At manufacturing plants.....bales.	24,746	22,188	24,429	22,786	26,676	22,100	25,967	+17.1	+2.7	-----	-----	-----	
Silk machinery activity:													
Broad looms.....per cent of normal.	97.4	93.0	89.8	92.7	102.0	81.9	84.2	+10.0	+21.1	-----	-----	-----	
Narrow looms.....per cent of normal.	55.4	52.1	54.1	54.0	50.5	50.8	54.2	-6.5	-6.8	-----	-----	-----	
Spinning spindles.....per cent of normal.	57.1	62.7	52.1	66.9	69.3	77.1	77.6	+3.6	-10.7	-----	-----	-----	
Prices:													
Raw, Japanese, 13-15, N. Y.....dolls. per lb.	4.851	4.851	4.851	5.096	5.145	5.096	5.145	+1.0	0.0	-----	-----	-----	
Silk goods, composite.....dolls. per yd.	1.18	1.17	1.16	1.16	1.16	1.20	1.20	0.0	-3.3	-----	-----	-----	
Rayon													
Imports.....thous. of lbs.	710	659	1,248	924	1,238	1,129	1,386	+34.0	-10.7	13,161	10,117	-23.1	
Stocks, bonded, end of month.....thous. of lbs.	3,157	2,949	2,976	2,814	-----	1,875	1,674	-----	-----	-----	-----	-----	
Price, 150 denier, A grade, N. Y.....dolls. per lb.	1.50	1.50	1.50	1.50	1.50	1.50	1.50	0.0	0.0	-----	-----	-----	
Clothing													
Men's and boy's garments cut:													
Suits.....thous. of garments.	1,902	1,911	2,045	1,601	-----	1,839	1,715	-----	-----	* 18,789	* 17,729	-5.6	
Separate trousers.....thous. of garments.	1,818	1,638	1,895	1,852	-----	1,963	1,989	-----	-----	* 19,014	* 16,916	-11.0	
Overcoats.....thous. of garments.	463	535	666	647	-----	729	704	-----	-----	* 4,179	* 3,669	-12.2	
Overalls:													
Cut.....thous. of dozen garments.	367	346	* 394	383	-----	-----	-----	-----	-----	-----	* 3,304	-----	
Net shipments.....thous. of dozen garments.	322	330	* 360	358	-----	-----	-----	-----	-----	-----	* 2,902	-----	
Unfilled orders end of mo.....thous. of dozen garments.	159	169	* 159	158	-----	-----	-----	-----	-----	-----	-----	-----	
Hosiery													
Production.....thous. of dozen pairs.	3,292	2,786	3,469	3,255	-----	3,841	4,151	-----	-----	* 33,585	* 30,557	-9.0	
Net shipments.....thous. of dozen pairs.	3,386	2,963	3,731	3,755	-----	4,355	4,294	-----	-----	* 33,490	* 30,484	-9.0	
Stocks, end of month.....thous. of dozen pairs.	9,011	8,916	8,648	8,128	-----	7,695	7,965	-----	-----	-----	-----	-----	
New orders.....thous. of dozen pairs.	3,573	2,836	3,202	3,810	-----	4,896	4,246	-----	-----	* 35,641	* 30,130	-15.5	
Unfilled orders, end of mo.....thous. of dozen pairs.	4,900	4,711	4,076	3,957	-----	6,407	6,481	-----	-----	-----	-----	-----	
Knit Underwear													
Production.....thous. of dozen garments.	1,113	881	1,098	1,016	1,297	1,055	1,181	+27.7	+9.8	10,584	11,073	+4.6	
Net shipments.....thous. of dozen garments.	998	942	1,306	1,402	1,614	1,464	1,359	+8.0	+11.4	11,056	11,299	+2.2	
Stocks, end of mo.....thous. of dozen garments.	1,761	1,658	1,570	1,370	1,228	1,216	1,322	-10.4	-7.1	-----	-----	-----	
New orders.....thous. of dozen garments.	894	852	1,236	1,213	1,483	1,241	1,147	+22.3	+29.3	11,512	11,182	-2.9	
Unfilled orders, end of month.....thous. of dozen garments.	2,053	1,947	1,896	1,696	1,645	2,416	2,185	-3.0	-24.7	-----	-----	-----	
Burlaps and Fibers													
Imports:													
Burlaps.....thous. of lbs.	56,913	58,541	47,766	43,617	30,874	40,337	37,396	-29.2	-17.4	495,651	536,810	+8.3	
Fibers (unmanufactured).....long tons.	19,672	18,449	20,657	21,004	25,615	18,284	16,705	+22.0	+53.3	254,647	251,568	-1.2	
Pyroxylin Coated Textiles													
Pyroxylin spread.....thous. of lbs.	5,123	5,038	5,562	4,795	5,600	3,600	3,042	+16.8	+84.1	36,119	50,666	+40.3	
Shipments billed.....thous. of linear yards.	4,274	3,814	4,201	3,852	4,386	2,901	2,649	+13.9	+65.6	27,515	39,397	+43.2	
Unfilled orders, end mo.....thous. of linear yards.	4,226	4,194	3,855	4,439	3,704	2,421	2,426	-16.6	+52.7	-----	-----	-----	
Fur													
Sales by dealers.....thous. of dollars.	13,840	12,215	12,110	10,244	12,576	13,64	8,843	+22.8	+42.2	153,895	120,575	-21.7	

* Revised.

* Cumulative through Sept. 30.

TREND OF BUSINESS MOVEMENTS—Continued

The cumulatives shown are through October, except where otherwise noted. Earlier data for items shown here may be found on pages 28 to 137 of the August, 1928, "Survey"	1928					1927		PER CENT INCREASE (+) OR DECREASE (-)		CUMULATIVE TOTAL FROM JAN. 1 THROUGH OCT. 31		Per ct. in-crease (+) or de-crease (-) cumu-lative 1928 from 1927
	June	July	August	Septem-ber	October	Septem-ber	October	Oct., 1928, from Sept., 1928	Oct., 1928, from Oct., 1927	1927	1928	
U. S. FOREIGN TRADE—Continued												
Imports—Continued												
By grand divisions—Continued.												
Asia and Oceania—												
Total.....thous. of dolls.....	87,252	89,769	100,888	97,355	-----	105,979	98,994	-----	-----	\$ 1,023,159	\$ 931,646	-8.9
Japan.....thous. of dolls.....	22,306	24,890	38,991	33,679	-----	35,369	33,973	-----	-----	\$ 308,265	\$ 284,249	-7.8
Africa, total.....thous. of dolls.....	9,472	6,968	8,782	5,257	-----	6,651	5,071	-----	-----	\$ 71,781	\$ 70,899	-1.2
By classes and commodities:												
Crude materials.....thous. of dolls.....	109,666	106,005	122,188	110,237	117,686	130,660	119,220	+6.8	-1.3	1,360,747	1,240,428	-8.8
Foodstuffs, crude, and food animals.....thous. of dolls.....	48,325	43,174	45,939	37,207	41,967	33,190	44,194	+12.8	-5.0	303,921	459,926	+51.3
Manufactured foodstuffs.....thous. of dolls.....	30,005	33,314	30,060	33,791	35,391	33,016	41,347	+4.7	-14.4	386,245	345,954	-10.4
Semimanufactures.....thous. of dolls.....	57,655	60,050	66,380	63,366	71,214	63,094	67,807	+12.4	+5.0	630,469	628,968	-0.2
Finished manufactures.....thous. of dolls.....	71,597	75,246	82,155	74,960	89,147	82,194	83,173	+18.9	+7.2	727,806	750,159	+3.1
Exports												
Grand total, including reexports.....thous. of dolls.....	388,563	378,768	379,874	421,737	555,000	425,267	488,643	+31.6	+13.6	3,966,766	4,112,596	+3.7
By grand divisions:												
Europe—												
Total.....thous. of dolls.....	161,481	152,342	149,183	192,861	-----	211,728	254,462	-----	-----	\$ 1,611,028	\$ 1,591,959	-1.2
France.....thous. of dolls.....	15,712	15,918	15,167	20,048	-----	21,084	29,050	-----	-----	\$ 148,038	\$ 154,238	+4.2
Germany.....thous. of dolls.....	28,365	22,094	24,579	46,291	-----	51,855	62,637	-----	-----	\$ 316,538	\$ 297,972	-5.9
Italy.....thous. of dolls.....	11,254	11,853	9,955	14,275	-----	8,169	14,494	-----	-----	\$ 86,324	\$ 112,995	+30.9
United Kingdom.....thous. of dolls.....	52,230	52,120	52,826	59,173	-----	72,463	89,958	-----	-----	\$ 598,405	\$ 548,284	-8.4
North America—												
Total.....thous. of dolls.....	114,005	110,590	118,940	115,621	-----	118,505	114,543	-----	-----	\$ 941,333	\$ 973,663	+3.4
Canada.....thous. of dolls.....	81,888	77,325	85,851	87,277	-----	85,725	80,682	-----	-----	\$ 629,134	\$ 679,790	+8.1
South America—												
Total.....thous. of dolls.....	39,005	43,907	43,766	33,905	-----	33,884	32,719	-----	-----	\$ 328,341	\$ 339,145	+3.3
Argentina.....thous. of dolls.....	15,692	16,736	17,348	11,457	-----	12,976	13,640	-----	-----	\$ 119,440	\$ 125,715	+5.3
Asia and Oceania—												
Total.....thous. of dolls.....	63,520	61,979	59,973	71,806	-----	52,903	77,031	-----	-----	\$ 549,685	\$ 572,362	+4.1
Japan.....thous. of dolls.....	21,628	17,987	15,517	27,542	-----	17,923	33,711	-----	-----	\$ 172,839	\$ 183,959	+6.4
Africa, total.....thous. of dolls.....	10,552	9,950	8,011	7,544	-----	8,247	9,888	-----	-----	\$ 77,731	\$ 80,467	+3.5
Total domestic exports only.....thous. of dolls.....	380,385	371,471	371,428	414,977	544,022	416,472	480,428	+31.1	+13.2	3,907,681	4,026,578	+3.0
By classes of commodities:												
Crude materials.....thous. of dolls.....	74,918	60,177	52,375	120,187	176,359	102,145	160,282	+46.7	+10.0	929,321	947,185	+1.9
Foodstuffs, crude, and food animals.....thous. of dolls.....	17,158	14,212	29,308	42,363	52,381	69,429	62,425	+23.6	-16.1	351,081	234,566	-33.2
Manufactured foodstuffs.....thous. of dolls.....	31,222	30,666	34,867	35,897	51,641	38,562	45,643	+43.9	+13.1	378,849	375,865	-0.8
Semimanufactures.....thous. of dolls.....	63,066	61,397	56,093	50,994	59,992	54,791	55,001	+17.6	+9.1	584,085	597,610	+2.3
Finished manufactures.....thous. of dolls.....	193,941	205,019	198,785	165,537	203,649	151,545	157,077	+23.0	+29.6	1,664,346	1,871,352	+12.4
Agricultural exports (quantities):												
All commodities.....rel. to 1910-14.....	76	64	75	138	201	142	185	+45.7	+8.6	-----	-----	-----
All commodities except cotton.....rel. to 1910-14.....	91	84	126	168	232	211	218	+38.1	+6.4	-----	-----	-----
CANADIAN FOREIGN TRADE												
Total trade:												
Imports.....thous. of dolls.....	110,694	103,404	114,175	106,066	112,341	91,803	93,936	+5.9	+19.6	910,289	1,024,608	+12.6
Exports.....thous. of dolls.....	109,139	127,369	113,904	111,856	143,955	99,335	105,821	+28.7	+36.0	951,088	1,070,794	+12.6

7 Revised.

8 Cumulative through Sept. 30.

PUBLICATIONS OF THE DEPARTMENT OF COMMERCE

Recent publications of the Department of Commerce having the most direct interest to readers of the *SURVEY 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

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

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

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

BUREAU OF THE CENSUS

(For information concerning plan of publication and distribution of census publications, address the Director of the Census)

Stocks of Leaf Tobacco, and the American Production, Imports, Exports, and Consumption of Tobacco and Tobacco Products, Bulletin 163. This report deals with the stocks of leaf tobacco held by certain classes of manufacturers of and dealers in leaf tobacco. Paper. 45 pages. Price, 10¢.

Financial Statistics of Cities having a Population of over 30,000, 1926.—Annual investigation of the Bureau of the Census, which shows the financial transactions of 250 cities, the assessed valuation of taxable property in those cities, and the taxes levied thereon; also their indebtedness and specified assets at the close of the year. Cloth. 505 pages. Price, \$1.25.

BUREAU OF FOREIGN AND DOMESTIC COMMERCE

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

Annual Report of Director of Bureau of Foreign and Domestic Commerce to Secretary of Commerce for Fiscal Year Ended June 30, 1928. iv+54 pages, 1 chart. Price, 5¢.

Commerce Yearbook, 1928: Vol. II, Foreign Countries. vi+751 pages, 64 illus., 10 maps. Commencing with this issue the Commerce Yearbook will be designated by the year in which it is published, and there will be no issue bearing the date 1927. This volume of the 1928 Yearbook gives a brief review of economic conditions in 65 countries and contains many statistical tables comparing the activities of the different countries. Price, \$1.25.

Monthly Summary of Foreign Commerce of United States, Sept., 1928. Parts I and II. Part I contains statistics of exports of domestic merchandise, and imports by articles for September, 1927 and 1928, and for nine months ended September, 1927 and 1928. Part II contains summaries of export and import trade; monthly average import and export prices; statistics of trade with Alaska, Hawaii, and Porto Rico. Single copies, Part I, 10¢; Part II, 5¢. Annual subscription, \$1.25.

Analyzing Retail Selling Time, Cost of Selling Commodities Over Retail Counter, by G. E. Bittner. Distribution Cost Studies No. 2; 15 pages, charts. Data regarding the salaries and wages paid in retail stores, the amount of time spent, and the cost of making sales, and the amount and cost of nonproductive time.

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

Practical Aids to American Exporters. viii+14 pages. This pamphlet describes the activities of the Bureau of Foreign and Domestic Commerce in promoting foreign trade through the informational service of its various divisions and district and cooperative offices, the trade opportunity information furnished, and publications issued.

External Trade of New England, by Robert J. McFall. Domestic Commerce Series No. 22; iv+44 pages, 20 illus. Study of the movement of goods into and out of the New England States by freight, express, and mail. Price, 10¢.

BUREAU OF STANDARDS

Bureau of Standards Journal of Research, Sept., 1928. Pages 297-485, illus., plates. This journal contains the papers formerly issued as the Technologic and Scientific papers series,

which series have been discontinued. The articles in the journal are known as the Research Papers series and are issued separately after publication in the journal. Single copies, 25¢; annual subscription, \$2.75.

Same, Oct., 1928. Pages 487-684, illus., plates.

Same, Nov., 1928. Pages 685-866, illus., plates.

BUREAU OF FISHERIES

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

BUREAU OF MINES

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

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

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

Coal in 1926. (Pt. II, pp. 419-585, 16 illustrations.) Price, 30¢.

Gold and Silver in 1926. (Pt. I, pp. 673-709.) Price, 10¢.

Gold, Silver, Copper, Lead, and Zinc in Arizona in 1926. (Pt. I, pp. 627-672.) Price, 10¢.

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

Abrasive Materials in 1927. (Pt. II, pp. 91-98.)

Antimony in 1927. (Pt. I, pp. 39-49.)

Asphalt and Related Bitumens in 1927. (Pt. II, pp. 67-80.)

Bauxite and Aluminum in 1927. (Pt. I, pp. 7-24.)

Mercury in 1927. (Pt. I, pp. 51-74.)

Platinum and Allied Metals in 1927. (Pt. I, pp. 25-38.)

Slate in 1927. (Pt. II, pp. 81-90.)

Analyses of West Virginia Coals.—Technical Paper 405; iv+343 pages, 1 illus. Discusses the distribution of coal in West Virginia, mining methods employed and transportation facilities available, with analyses of mine samples. Price, 20¢.

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

BUREAU OF NAVIGATION

American Documented Seagoing Merchant Vessels of 500 Gross Tons and Over, Oct., 1928. ii+72 pages. Published monthly. Single copies, 10¢; annual subscription, 75¢.

COAST AND GEODETIC SURVEY

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

LIGHTHOUSE SERVICE

Light List, Ohio, Tennessee, Kanawha, Monongahela, and Allegheny Rivers, 14th Lighthouse District, 1928, corrected to Sept. 15. 130 pages. Describes all aids to navigation maintained by the Government on the rivers named. Price, 20¢.

STEAMBOAT INSPECTION SERVICE

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

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

CHIEF FUNCTIONS OF THE DEPARTMENT OF COMMERCE

WILLIAM F. WHITING, Secretary of Commerce

WALTER F. BROWN, Assistant Secretary of Commerce. EPHRAIM F. MORGAN, Solicitor

AERONAUTICS BRANCH

WILLIAM P. MCCracken, Jr., Assistant Secretary of Commerce for Aeronautics

Establishment of civil airways and maintenance of aids to air navigation; inspection and registration of aircraft and licensing of pilots; enforcement of air traffic rules; investigation of accidents; encouragement of municipal air ports; fostering of air commerce; scientific research in aeronautics; and dissemination of information relating to commercial 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, inmates of institutions, mines and quarries, forest products, and water transportation every 10 years; censuses of agriculture and electrical public utilities every 5 years; and a census of manufactures every 2 years.

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

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

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

BUREAU OF FOREIGN AND DOMESTIC COMMERCE

JULIUS KLEIN, 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 offices in 65 cities.

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

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

The publication of statistics on imports and exports.

The study of the processes of domestic trade and commerce.

BUREAU OF STANDARDS

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

E. LESTER JONES, 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.