

## INDUSTRIES BY GROUPS

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The industries shown in this report are arranged in 16 general groups. The assignment of industries to these groups is shown in the table of contents under the titles of the several groups.

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# Group 1.—FOOD AND KINDRED PRODUCTS

## THE GROUP AS A WHOLE

This group of industries embraces the manufacture of foods, beverages, and certain related products, including prepared feeds for animals and fowls. The manufacture of ice is also included, as well as that of chewing gum, but the tobacco-manufacturing industries are classified in the "Miscellaneous industries" group (No. 16). Measured by value of products, Group 1 outranks all others.

The food and kindred-products group comprises two subgroups. The first embraces establishments engaged in the production of butter, cheese, condensed milk, meat, and other animal products. The second is made up of establishments whose principal products are derived from vegetable and mineral sources; for example, bread and other bakery products, flour and other grain-mill products, feeds, confectionery, sugar, canned and preserved fruits and vegetables, beverages, and manufactured ice.

This group, as constituted at the censuses for 1925 and earlier years, included the "Poultry killing and dressing" industry, and as constituted at the census for 1929 it includes the "Poultry killing, dressing, and packing" industry. The figures for these two industries are not comparable, and neither was canvassed at the census for 1927; but, since the items for these industries are very

small in comparison with the corresponding ones for the group as a whole, the comparableness of the group totals for different census years is not affected to any material extent. (The figures for the "Poultry killing and dressing" industry for 1925 and earlier years were excluded from the totals for the group as shown in the 1927 report but are included in the corresponding totals as given in the present report.)

Considerable duplication occurs in the statistics for the products of the industries in Group 1, because of the fact that to a great extent the products of certain industries are used as materials by others. For example, the products of flour mills and of sugar refineries become, in large measure, materials for bakeries and for candy factories, respectively. Thus the gross value of products for the group as a whole is considerably greater than the net value of its products in the form in which they reach the ultimate consumer.

The following table gives summary statistics for the group as a whole, for each of its subgroups—"Animal products" and "Vegetable products and beverages"—and for each industry separately. Detailed reports for the industries in the group, statistics for which have previously been published in pamphlet form, appear on pages 45 to 216.

### SUMMARY FOR GROUP 1.—FOOD AND KINDRED PRODUCTS: 1914 TO 1929

[The aggregates for the group and the totals for the "Animal products" subgroup for years prior to 1927 as here given differ from those published in the report for 1927 because of the inclusion in this table, but not in the corresponding table in the report for 1927, of data for the "Poultry killing and dressing" industry for 1925 and earlier years. (See text, p. 191). Data for establishments with products under \$5,000 in value included for 1919 and 1914 but not for subsequent years. SEE GENERAL EXPLANATIONS—Establishments Covered—Size]

INDUSTRY	Census year	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, containers for products, fuel, and purchased electric energy	Value of products	Value added by manufacture <sup>1</sup>	Horsepower
Aggregate for the group	1929	56,320	753,247	\$902,142,070	\$8,632,282,857	\$12,023,530,289	\$3,391,306,432	4,007,013
	1927	49,787	679,520	823,387,593	8,113,432,583	11,015,800,010	2,902,427,427	4,134,973
	1925	48,113	694,790	793,630,786	7,748,077,877	10,418,536,301	2,609,858,424	3,881,952
	1923	51,847	682,197	705,571,072	6,909,840,444	9,524,050,769	2,533,204,315	3,723,025
	1921	52,118	626,018	749,206,284	6,122,932,701	8,267,129,504	2,144,190,773	( <sup>2</sup> )
	1919	69,423	733,004	774,723,835	10,252,630,850	12,748,348,405	2,495,717,009	3,203,106
	1914	67,403	530,436	303,341,625	3,907,186,447	4,977,700,917	1,070,574,470	2,603,032
Animal products, total	1929	12,761	201,745	292,185,788	4,263,956,803	5,148,405,908	884,630,130	1,001,228
	1927	11,774	189,645	249,881,090	3,815,253,930	4,568,035,919	747,781,983	965,363
	1925	11,803	189,933	245,303,522	3,752,514,877	4,498,930,697	740,415,820	875,878
	1923	12,576	205,068	255,859,878	3,290,701,050	3,977,644,070	716,883,614	785,494
	1921	11,329	152,700	231,609,782	2,687,298,601	3,276,562,331	589,203,730	( <sup>2</sup> )
	1919	13,752	233,512	285,356,028	4,050,621,270	5,680,474,702	720,853,492	672,236
	1914	12,388	147,392	61,373,402	1,836,283,526	2,141,581,893	302,298,372	450,677
Butter, cheese, and condensed and evaporated milk	1929	6,820	29,563	37,581,538	892,387,621	1,066,172,052	173,784,431	274,410
	1927	6,721	31,009	39,620,390	897,804,349	1,057,544,724	159,740,375	230,918
	1925	6,830	28,274	34,073,893	847,006,150	973,518,040	126,511,800	201,630
	1923	7,430	32,888	40,188,955	810,575,800	955,350,083	144,774,883	190,900
	1921	6,615	31,400	37,702,551	609,145,142	738,440,107	120,294,965	( <sup>2</sup> )
	1919	7,669	35,313	37,639,670	623,360,299	1,006,125,489	130,759,193	168,551
	1914	7,628	23,059	15,847,081	315,025,635	364,285,150	40,259,516	130,250

See footnotes at end of summary.

## CENSUS OF MANUFACTURES: 1929

## SUMMARY FOR GROUP 1.—FOOD AND KINDRED PRODUCTS: 1914 TO 1929—Continued

[See note at head of this summary, p. 41]

INDUSTRY	Census year	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, containers for products, fuel, and purchased electric energy	Value of products	Value added by manufacture <sup>1</sup>	Horsepower
Canning and preserving: Fish, crabs, shrimps, oysters, and clams.....	1929	348	13,612	\$8,799,068	\$53,239,911	\$50,848,618	\$27,008,602	21,602
	1927	337	12,660	8,105,581	42,891,556	65,082,187	22,190,031	18,574
	1925	319	10,530	7,234,219	39,193,990	61,060,530	21,866,570	19,527
	1923	361	9,144	6,181,175	31,051,988	50,538,369	19,539,381	17,648
	1921	320	7,046	5,314,703	22,022,433	36,114,407	14,091,974	( <sup>2</sup> )
	1919	475	12,437	9,505,919	53,093,789	80,260,423	20,269,634	26,830
	1914	395	11,156	4,102,696	20,692,359	33,349,462	12,657,103	12,861
Ice cream.....	1929	3,150	22,399	33,893,044	155,904,386	328,413,911	172,440,525	230,882
	1927	2,961	21,927	33,107,615	150,602,029	301,044,991	151,042,962	209,315
	1925	2,790	23,043	33,456,757	140,863,762	286,175,680	146,311,924	189,328
	1923	2,702	23,132	32,434,770	145,307,036	259,969,937	114,659,951	169,730
	1921	2,528	20,200	28,236,752	121,169,627	213,201,743	92,091,816	( <sup>2</sup> )
	1919	3,475	19,155	21,698,899	116,375,479	180,488,065	73,107,686	102,646
	1914	2,437	10,370	6,844,615	32,771,710	55,983,133	23,211,417	45,408
Meat packing, wholesale.....	1929	1,277	122,505	165,867,420	2,974,127,757	3,434,654,008	460,526,341	524,989
	1927	1,250	119,085	161,583,827	2,903,740,403	3,057,215,718	393,475,315	489,576
	1925	1,269	120,422	159,355,189	2,926,192,435	3,050,286,291	425,093,856	441,510
	1923	1,397	132,702	167,669,106	2,176,010,241	2,586,804,140	409,793,999	382,127
	1921	1,184	117,042	152,002,633	1,868,198,302	2,200,942,072	332,743,770	( <sup>2</sup> )
	1919	1,304	160,996	209,489,263	3,782,929,533	4,246,290,614	463,361,081	358,522
	1914	1,279	98,832	62,135,722	1,441,662,658	1,661,965,424	210,302,766	252,079
Poultry killing, dressing, and packing, wholesale <sup>4</sup> .....	1929	485	7,769	7,284,558	106,865,506	130,161,230	23,295,724	13,500
Poultry killing and dressing <sup>4</sup> .....	1925	166	2,763	2,631,302	38,761,276	45,454,139	6,662,863	5,684
	1923	127	1,510	1,446,270	21,782,594	26,424,085	4,641,491	2,000
	1921	169	2,255	1,994,959	29,321,111	34,716,913	5,395,502	( <sup>2</sup> )
	1919	196	2,140	2,045,013	30,015,817	41,705,079	5,689,292	4,010
	1914	118	1,353	622,278	11,205,003	12,916,008	1,711,005	2,230
Sausage, meat puddings, headcheese, etc., and sausage casings, not made in meat-packing establishments.....	1929	681	5,807	8,850,172	81,371,687	108,246,194	26,874,507	25,755
	1927	605	4,607	7,463,677	60,215,590	81,548,299	21,332,700	19,080
	1925	489	4,914	7,652,132	61,497,294	82,436,065	20,638,711	18,184
	1923	499	4,592	6,830,590	51,083,397	69,510,400	18,477,000	17,017
	1921	513	3,872	5,470,184	37,441,680	53,087,039	15,045,403	( <sup>2</sup> )
	1919	633	3,471	4,679,118	43,040,356	66,610,062	12,669,736	12,671
	1914	533	2,016	1,821,010	17,925,555	28,082,121	5,159,566	5,981
Vegetable products and beverages, total.....	1929	43,559	551,502	930,957,182	4,368,325,059	6,875,093,291	2,500,767,302	3,516,085
	1927	38,013	489,875	673,606,493	4,298,178,647	6,462,624,091	2,154,645,444	3,160,610
	1925	36,250	474,827	548,377,264	3,996,163,000	5,910,605,004	1,923,442,604	3,006,074
	1923	39,271	477,079	539,711,194	3,730,085,388	5,546,406,989	1,810,320,701	2,937,541
	1921	40,784	443,825	514,665,592	3,435,834,190	4,990,587,233	1,554,933,943	( <sup>2</sup> )
	1919	50,152	489,300,907	489,300,907	6,293,000,586	7,067,873,703	1,774,864,117	2,540,870
	1914	55,015	389,044	211,968,223	2,067,902,921	2,880,179,010	768,276,098	2,053,255
Beverages.....	1929	5,154	28,281	38,314,414	103,020,180	270,323,803	167,297,623	140,166
	1927	4,700	26,372	36,100,034	95,430,198	242,684,456	147,264,258	153,731
	1925	4,210	27,384	36,053,279	98,466,054	237,780,741	139,294,687	168,865
	1923	4,614	26,274	37,689,110	99,572,199	238,720,867	129,157,068	221,292
	1921	3,807	33,202	45,051,969	110,162,037	237,627,701	121,525,754	( <sup>2</sup> )
	Bread and other bakery products.....	1929	20,785	266,841	274,661,581	737,096,500	1,526,110,811	789,011,311
1927		18,129	171,995	236,225,862	693,236,163	1,394,700,224	701,464,001	284,244
1925		17,684	166,411	219,006,219	668,016,500	1,268,194,507	600,178,007	227,256
1923		18,739	162,813	214,578,951	574,520,592	1,122,969,314	548,385,812	193,189
1921		20,173	148,500	198,938,825	598,614,090	1,080,971,652	491,357,052	( <sup>2</sup> )
1919		25,095	141,592	158,237,059	713,239,411	1,151,896,318	438,059,907	165,711
1914		25,068	124,052	76,866,613	274,257,468	491,863,025	217,635,567	166,797
Canning and preserving: Fruits and vegetables; pickles, jellies, preserves, and sauces.....	1929	2,097	98,866	74,978,590	462,062,128	750,342,041	288,270,913	224,067
	1927	2,436	90,924	62,309,660	355,185,602	572,345,862	217,160,290	189,821
	1925	2,403	89,896	67,427,244	385,573,475	610,070,748	230,497,273	187,400
	1923	2,438	72,534	57,152,628	298,969,822	515,316,273	216,347,451	175,714
	1921	1,905	51,729	36,799,333	237,681,621	365,717,630	128,695,418	( <sup>2</sup> )
	1919	3,805	77,486	50,939,004	358,665,058	548,927,692	189,361,544	154,631
	1914	3,326	62,915	23,094,328	138,965,550	210,990,397	71,124,847	106,487
Cereal preparations.....	1929	121	6,488	8,875,622	101,471,521	175,223,126	73,751,605	66,291
	1927	77	6,023	8,417,246	91,748,332	155,563,286	63,814,064	59,679
	1925	96	6,168	7,941,797	92,577,423	160,070,069	57,601,586	52,626
	1923	92	6,410	7,878,136	84,458,127	132,745,148	48,287,621	61,312
	1921	82	5,749	7,178,051	74,558,581	118,040,788	43,482,207	( <sup>2</sup> )
	1919	105	7,634	8,508,879	117,838,248	159,233,465	41,885,217	46,992
	1914	137	5,177	3,134,348	30,767,110	50,984,932	23,217,822	25,826
Chewing gum.....	1929	37	2,205	2,732,946	23,231,172	60,160,126	36,928,651	16,350
	1927	40	2,524	2,727,330	27,167,564	64,833,320	34,833,816	16,067
	1925	41	2,130	2,637,509	17,908,033	47,848,150	29,870,117	7,712
	1923	45	2,052	2,233,473	15,457,188	40,870,014	25,383,726	6,905
	1921	60	1,904	2,148,076	19,098,185	38,804,925	18,050,740	( <sup>2</sup> )
	1919	62	3,199	2,679,803	25,202,312	61,240,156	26,037,844	6,172
	1914	74	2,048	828,467	7,322,290	17,159,607	9,837,308	3,030
Chocolate and cocoa products, not including confectionery.....	1929	59	6,249	7,778,061	76,549,371	119,540,093	30,091,322	63,236
	1927	69	6,427	7,330,405	90,422,852	122,723,220	32,300,377	62,742
	1925	60	7,128	7,991,952	78,522,104	106,642,474	33,120,370	58,266
	1923	58	6,876	7,729,938	60,843,057	95,531,464	34,688,467	47,197
	1921	55	6,652	7,278,377	49,134,379	81,649,432	32,515,053	( <sup>2</sup> )
	1919	49	9,083	9,270,077	101,764,406	139,268,296	37,593,830	33,414
1914	36	4,160	2,035,598	24,483,303	35,712,810	11,239,507	19,676	
Coffee and spice, roasting and grinding.....	1929	928	9,053	10,600,300	332,160,200	424,344,837	92,194,037	45,465
	1927	784	8,195	9,537,473	284,062,793	384,281,306	80,028,513	42,542
	1925	729	9,665	10,015,042	224,843,452	297,527,593	72,084,141	37,358
	1923	712	8,882	9,372,237	160,248,705	226,059,026	50,810,321	( <sup>2</sup> )
	1921	704	10,540	9,201,242	243,899,108	304,791,677	60,892,569	29,706
	1914	696	8,549	4,507,692	116,519,603	150,748,756	34,229,153	26,566

See footnotes at end of summary.

FOOD AND KINDRED PRODUCTS

SUMMARY FOR GROUP 1.—FOOD AND KINDRED PRODUCTS: 1914 TO 1929—Continued

[See note at head of this summary, p. 41]

INDUSTRY	Census year	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, containers for products, fuel, and purchased electric energy	Value of products	Value added by manufacture <sup>1</sup>	Horsepower
Confectionery.....	1929	2, 021	63, 501	\$56, 442, 674	\$216, 192, 474	\$393, 290, 840	\$178, 077, 375	112, 644
	1927	1, 008	63, 163	56, 080, 548	218, 372, 553	361, 627, 843	173, 554, 790	110, 596
	1925	1, 031	63, 600	55, 234, 527	205, 432, 007	370, 081, 441	173, 048, 774	100, 456
	1923	2, 014	63, 485	54, 881, 549	202, 718, 714	366, 255, 785	163, 537, 071	91, 455
	1921	2, 254	61, 004	50, 210, 101	174, 071, 063	313, 997, 573	139, 925, 610	(2)
	1919	3, 140	76, 493	54, 401, 057	252, 433, 691	447, 726, 103	195, 292, 412	77, 036
	1914	2, 317	51, 610	20, 043, 933	63, 602, 526	153, 685, 523	59, 992, 607	52, 370
Corn sirup, corn sugar, corn oil, and starch.....	1929	35	6, 730	6, 372, 909	104, 284, 827	105, 983, 730	61, 698, 912	84, 686
	1927	26	6, 072	10, 480, 679	90, 605, 776	134, 461, 166	43, 555, 300	81, 003
	1925	30	6, 492	9, 378, 157	93, 063, 575	132, 897, 974	30, 834, 369	72, 617
	1923	31	6, 537	9, 690, 104	74, 480, 950	116, 500, 034	42, 070, 084	65, 704
	1921	32	6, 131	7, 840, 008	50, 801, 124	80, 040, 705	29, 170, 671	70, 000
	1919	56	7, 795	11, 962, 483	130, 328, 848	186, 256, 260	65, 927, 412	62, 036
	1914	89	4, 509	3, 540, 565	40, 207, 592	52, 615, 401	12, 407, 809	41, 454
Feeds, prepared, for animals and fowls.....	1929	750	10, 223	12, 821, 380	327, 019, 743	402, 752, 534	74, 832, 791	170, 482
	1927	447	9, 632	9, 702, 954	244, 675, 705	290, 792, 642	55, 116, 637	115, 855
Flavoring extracts and flavoring sirups.....	1929	642	5, 041	7, 070, 860	55, 517, 026	120, 086, 237	73, 508, 311	33, 838
	1927	500	5, 011	7, 134, 274	51, 090, 727	107, 219, 365	60, 128, 668	27, 903
	1925	481	3, 890	5, 077, 920	47, 063, 805	94, 211, 634	47, 148, 120	23, 311
	1923	457	3, 596	4, 194, 406	38, 177, 028	74, 153, 326	35, 976, 298	17, 929
	1921	463	3, 462	4, 058, 518	45, 340, 070	77, 125, 602	31, 776, 523	(2)
	1919	602	3, 586	2, 062, 566	50, 416, 804	70, 923, 650	26, 506, 846	6, 553
	1914	560	2, 300	1, 140, 848	13, 604, 769	20, 600, 675	12, 791, 012	3, 526
Flour and other grain-mill products.....	1929	4, 022	27, 028	35, 072, 386	868, 872, 560	1, 060, 269, 418	101, 366, 840	641, 456
	1927	4, 035	20, 982	37, 550, 472	972, 711, 040	1, 148, 700, 360	176, 040, 320	641, 608
	1925	4, 413	31, 988	30, 700, 230	1, 125, 378, 941	1, 298, 014, 788	172, 635, 847	660, 010
	1923	5, 232	35, 104	41, 704, 207	885, 971, 543	1, 048, 577, 469	162, 605, 016	703, 856
	1921	6, 485	35, 378	43, 142, 734	903, 809, 720	1, 170, 740, 131	185, 930, 411	(3)
	1919	10, 708	45, 481	50, 888, 383	1, 799, 180, 987	2, 052, 434, 385	293, 253, 398	875, 464
	1914	10, 788	30, 718	24, 593, 162	752, 270, 021	877, 670, 700	126, 409, 688	821, 406
Food preparations, not elsewhere classified.....	1929	862	10, 610	11, 657, 726	96, 387, 630	171, 860, 687	75, 473, 348	36, 716
	1927	674	10, 294	11, 386, 636	98, 248, 740	166, 964, 672	68, 716, 032	34, 773
Ice, manufactured.....	1929	4, 110	32, 184	42, 390, 295	39, 808, 164	210, 052, 264	171, 144, 100	1, 077, 295
	1927	3, 169	22, 120	32, 611, 118	40, 815, 512	184, 764, 988	143, 079, 470	965, 406
	1925	3, 077	24, 015	35, 045, 829	44, 725, 272	186, 000, 630	142, 243, 704	923, 134
	1923	3, 007	26, 852	35, 639, 585	46, 604, 017	164, 062, 187	117, 968, 170	846, 012
	1921	2, 715	24, 066	32, 630, 180	51, 174, 441	158, 889, 173	107, 714, 732	(2)
	1919	2, 807	30, 247	34, 001, 837	42, 877, 609	137, 004, 798	94, 127, 280	509, 925
	1914	2, 543	23, 011	14, 840, 591	17, 755, 064	60, 386, 267	42, 631, 263	458, 938
Macaroni, spaghetti, vermicelli, and noodles.....	1929	353	5, 072	5, 384, 353	27, 330, 126	47, 074, 230	19, 738, 104	24, 448
	1927	363	4, 587	5, 070, 930	27, 433, 792	45, 363, 200	17, 919, 408	21, 406
	1925	327	4, 560	5, 025, 625	27, 491, 142	43, 480, 344	15, 998, 293	19, 873
	1923	343	4, 098	4, 332, 312	16, 646, 400	20, 556, 591	12, 016, 101	18, 101
	1921	409	3, 865	3, 748, 643	19, 064, 054	31, 012, 787	11, 048, 733	(2)
	1919	557	4, 543	4, 168, 009	25, 100, 951	37, 067, 108	11, 947, 247	10, 093
	1914	373	3, 534	1, 687, 760	7, 938, 181	12, 838, 570	4, 946, 398	8, 562
Malt.....	1929	28	590	1, 050, 759	18, 023, 740	23, 602, 938	4, 670, 180	18, 698
	1927	23	500	904, 420	17, 186, 750	20, 274, 172	3, 087, 422	15, 390
	1925	23	568	902, 830	19, 986, 251	24, 060, 238	4, 082, 987	15, 250
	1923	22	487	741, 656	13, 153, 000	16, 431, 052	3, 277, 152	14, 805
	1921	20	616	923, 834	17, 458, 265	21, 004, 649	3, 546, 384	(2)
	1919	55	1, 352	1, 845, 210	31, 612, 707	39, 340, 414	7, 727, 707	27, 483
	1914	97	1, 989	1, 827, 520	30, 198, 031	48, 132, 833	8, 933, 902	32, 494
Oleomargarine, not made in meat-packing establishments.....	1929	41	1, 534	2, 263, 700	30, 890, 075	46, 521, 823	15, 631, 748	6, 670
	1927	36	1, 502	2, 258, 464	27, 145, 141	30, 282, 364	12, 137, 223	8, 746
	1925	38	1, 639	2, 278, 102	28, 384, 433	30, 866, 034	11, 471, 601	6, 740
	1923	31	1, 484	1, 921, 448	25, 772, 271	35, 952, 721	10, 180, 450	5, 922
	1921	45	2, 041	2, 728, 058	28, 062, 134	39, 176, 577	11, 114, 443	(2)
	1919	42	2, 861	3, 184, 118	66, 042, 792	70, 815, 580	13, 772, 788	9, 435
	1914	17	917	583, 592	10, 257, 480	15, 079, 784	4, 822, 304	3, 481
Peanuts: Grading, roasting, cleaning, and shelling.....	1925	60	1, 990	977, 619	18, 183, 593	20, 623, 810	2, 440, 217	8, 830
	1923	70	1, 492	748, 239	15, 176, 422	18, 180, 238	3, 012, 816	7, 703
	1921	60	2, 009	1, 064, 562	17, 054, 215	19, 608, 947	2, 614, 732	(2)
	1919	78	2, 460	1, 328, 712	28, 474, 652	33, 354, 377	4, 880, 325	7, 851
	1914	61	2, 353	560, 469	12, 571, 391	14, 906, 369	2, 424, 078	4, 232
Peanuts, walnuts, and other nuts, processed or shelled.....	1929	160	7, 933	3, 079, 740	30, 520, 480	49, 608, 894	10, 079, 408	16, 193
	1927	144	7, 376	3, 287, 114	45, 890, 488	55, 940, 802	10, 059, 314	13, 956
Rice cleaning and polishing.....	1929	60	1, 580	1, 448, 594	38, 443, 520	48, 793, 777	10, 350, 248	22, 001
	1927	60	1, 524	1, 546, 315	16, 480, 679	54, 129, 646	7, 648, 967	23, 012
	1925	63	1, 296	1, 098, 124	45, 847, 273	53, 497, 857	7, 050, 584	21, 000
	1923	69	1, 764	1, 378, 899	40, 212, 670	47, 098, 246	6, 856, 676	22, 220
	1921	76	1, 940	1, 706, 986	34, 178, 609	41, 213, 472	7, 034, 863	(2)
	1919	86	2, 113	1, 932, 196	76, 633, 816	90, 038, 412	13, 404, 666	25, 340
	1914	59	1, 253	645, 863	20, 615, 860	29, 615, 860	2, 423, 494	15, 571
Shortenings (not including lard) and vegetable cooking oils.....	1929	40	2, 712	3, 003, 940	139, 030, 964	154, 553, 197	15, 522, 233	36, 647
	1927	33	2, 655	2, 624, 371	137, 078, 600	148, 408, 076	11, 389, 476	33, 462
Sugar, beet.....	1929	82	7, 490	10, 020, 743	70, 960, 908	108, 552, 581	37, 591, 673	146, 393
	1927	79	7, 402	9, 709, 969	79, 016, 770	104, 026, 584	25, 969, 814	142, 023
	1925	89	8, 872	12, 088, 067	87, 038, 255	132, 330, 012	45, 306, 787	146, 985
	1923	84	7, 571	10, 103, 132	70, 820, 160	118, 313, 978	47, 493, 828	127, 771
	1921	92	13, 602	22, 658, 392	121, 868, 893	139, 109, 655	17, 240, 702	(2)
	1919	85	11, 781	15, 908, 118	87, 029, 144	140, 155, 892	62, 129, 748	127, 394
	1914	60	7, 997	6, 606, 204	41, 399, 361	62, 005, 210	21, 205, 849	76, 705

See footnotes at end of summary.



## CENSUS OF MANUFACTURES: 1929

## SUMMARY FOR GROUP 1.—FOOD AND KINDRED PRODUCTS: 1914 TO 1929—Continued

[See note at head of this summary, p. 41]

INDUSTRY	Census year	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, containers for products, fuel, and purchased electric energy	Value of products	Value added by manufacture <sup>1</sup>	Horsepower
Sugar, cane, not including products of refineries-----	1929	70	2,319	\$1,642,463	\$12,222,558	\$18,325,702	\$6,103,234	66,779
	1927	53	971	639,154	5,830,411	8,009,120	2,178,700	45,705
	1925	94	2,060	1,410,964	11,586,359	13,434,999	1,848,040	72,700
	1923	122	2,820	1,727,893	20,063,065	27,180,783	6,217,778	88,214
	1921	134	2,724	2,296,207	16,041,432	22,061,221	6,019,780	( <sup>2</sup> )
	1919	202	6,101	4,009,369	44,143,416	57,741,320	13,597,004	101,869
	1914	181	3,632	1,661,370	15,958,218	21,635,373	5,677,155	113,246
Sugar refining, cane-----	1929	21	13,912	17,850,493	438,399,151	507,339,262	68,990,111	98,637
	1927	21	13,996	17,707,257	551,594,278	507,445,632	45,851,354	86,979
	1925	21	14,502	18,955,114	549,896,102	606,632,783	56,736,681	80,098
	1923	20	15,254	20,044,499	681,880,130	726,241,577	44,361,438	72,082
	1921	20	15,457	19,463,410	426,600,908	466,602,362	40,001,444	( <sup>2</sup> )
	1919	20	18,202	22,710,464	662,143,981	730,986,706	68,842,725	62,541
	1914	18	11,253	7,823,377	264,085,368	289,398,715	25,313,357	49,066
Vinegar and cider-----	1929	172	970	1,021,581	6,010,029	10,450,332	4,434,303	8,074
	1927	158	1,123	1,235,996	5,858,241	10,755,246	4,897,005	7,562
	1925	161	1,243	1,231,947	5,838,030	12,233,099	5,395,019	9,920
	1923	190	1,317	1,279,000	7,462,321	12,535,126	5,072,805	8,414
	1921	227	1,481	1,578,142	9,893,000	16,248,328	8,855,138	( <sup>2</sup> )
	1919	720	1,981	2,047,469	15,558,525	24,722,610	9,164,085	17,943
	1914	618	1,229	712,067	4,440,452	7,810,892	3,370,440	13,117

<sup>1</sup> Value of products less cost of materials, containers for products, fuel, and purchased electric energy. See GENERAL EXPLANATIONS—Value Added by Manufacture.<sup>2</sup> Not called for on schedule.<sup>3</sup> Revised; revision not carried into total for subgroup or aggregate for group.<sup>4</sup> Because of the fact that this industry as constituted at the census for 1929 included poultry packing, the figures for that year are not comparable with those for the "Poultry killing and dressing" industry as reported for 1925 and prior years. The poultry industry was not canvassed at the census for 1927.<sup>5</sup> No comparable figures available for earlier years.<sup>6</sup> No statistics compiled for 1925.<sup>7</sup> Data for the grading, roasting, and shelling of peanuts for 1927 and 1929 are included in the figures for "Peanuts, walnuts, and other nuts, processed or shelled." For 1925 and earlier years the treating of nuts other than peanuts was included in the "Food preparations, not elsewhere classified" industry.<sup>8</sup> Formerly classified under the title "Lard substitutes and vegetable cooking oils." No comparable figures for years prior to 1927.

## BEVERAGES

**Description of the industry.**—This industry embraces establishments engaged primarily in the manufacture of carbonated beverages (not including spring waters), cereal beverages, and fruit beverages. Many of the products of the beverage industry are made according to secret formulas and sold under trade-mark names. Some of the establishments report, as secondary products, sirups, extracts, ice, vinegar, candy, and ice cream. Establishments engaged solely in bottling products manufactured by others, or natural waters, are not classified in this industry. The manufacture of cider is not included here but is covered by the classification "Vinegar and cider." In the main, the statistics do not include data for establishments which manufacture fruit beverages and sell them at retail, although the canvass covered a number of such establishments which sold a part of their product at retail.

**Decrease in capacity of power equipment.**—It will be noted that the aggregate rated capacity of power equipment, as given in Table 1, has declined from census to census since 1923, despite the facts that the value of products and value added by manufacture have increased during each two-year period, and that the number of establishments in operation was larger in 1929 than in any preceding year covered by the tables. The explanation of this decrease is found in the marked decline in the amount of horsepower reported by cereal-beverage plants formerly operated as breweries. These plants had a great deal of idle power equipment in 1923, but the amount of such idle equipment for which data have been included in the returns made to the Bureau of the Census has been declining from census to census. (Manufacturers are required to report all their power equipment, both active and idle.)

TABLE 1.—SUMMARY FOR THE UNITED STATES: 1921 TO 1929

YEAR OR PERIOD	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, containers for products, fuel, and purchased electric energy	Value of products <sup>1</sup>	Value added by manufacture <sup>2</sup>	Horsepower <sup>3</sup>
1920.....	5,154	28,281	\$38,314,414	\$103,026,180	\$270,323,803	\$167,207,023	149,106
1927.....	4,709	20,072	30,100,934	95,430,198	242,694,456	147,204,258	153,731
1925.....	4,210	27,894	36,053,270	98,466,054	237,700,741	130,204,687	168,805
1923.....	4,514	20,274	37,089,110	99,572,100	228,720,807	120,157,068	221,202
1921 <sup>4</sup> .....	3,807	33,202	45,661,909	116,102,687	237,027,701	121,525,754	(4)
PER CENT OF INCREASE OR DECREASE (—)							
1927-1920.....	8.1	4.9	0.1	8.0	11.4	13.6	-3.0
1925-1927.....	13.3	-1.5	0.1	-3.1	2.1	5.7	-0.0
1923-1925.....	-0.7	-6.5	-4.3	-1.1	3.9	7.8	-23.7
1921-1923.....	10.7	-11.8	-17.4	-14.2	-3.7	0.3	-----

<sup>1</sup> The figures for 1920 refer to sales (shipments or deliveries) by manufacturers; those for earlier years represent production. See GENERAL EXPLANATIONS—Value of Products.

<sup>2</sup> Value of products less cost of materials, containers for products, fuel, and purchased electric energy. See GENERAL EXPLANATIONS—Value Added by Manufacture.

<sup>3</sup> See "Decrease in capacity of prime movers," above.

<sup>4</sup> The figures for 1921 are the sums of the corresponding items for the "Mineral and soda waters" and "Liquors, malt" industries, as published in the report for that year. (The establishments classified in the last-named industry were engaged almost wholly in the production of cereal beverages in 1921.)

<sup>5</sup> Not called for on schedule.

CENSUS OF MANUFACTURES: 1929

TABLE 2.—GENERAL STATISTICS, BY STATES: 1929 AND 1927

STATE	Census year	Number of establishments	Salaried officers and employes <sup>1</sup>	Wage earners (average for the year)	HORSEPOWER (RATED CAPACITY) OF POWER EQUIPMENT			Salaries	Wages	COST OF MATERIALS, CONTAINERS FOR PRODUCTS, FUEL, AND PURCHASED ELECTRIC ENERGY			Value of products <sup>2</sup>	Value added by manufacture <sup>3</sup>
					Total	Prime movers	Motors run by purchased energy			Total	Materials and containers	Fuel and purchased energy		
United States	1929	5,154	7,791	28,281	149,106	67,060	81,206	\$19,581,666	\$38,314,414	\$103,026,180	\$97,640,115	\$5,377,065	\$270,323,803	\$167,207,023
	1927	4,769	7,147	26,972	153,731	75,462	78,236	17,158,450	30,100,934	95,430,198	89,797,932	5,032,266	242,694,456	147,264,258
Alabama	1929	105	192	562	1,475	203	1,272	446,666	563,264	2,234,341	2,160,334	65,007	5,690,161	3,464,820
	1927	103	190	580	1,207	54	1,153	431,538	483,293	2,272,834	2,210,297	62,537	5,018,020	2,740,705
Arizona	1929	21	22	63	173	-----	173	52,574	81,315	230,773	218,080	11,793	508,690	367,917
	1927	18	18	58	84	-----	84	23,200	55,000	149,550	143,484	6,060	308,840	220,290
Arkansas	1929	77	78	371	1,204	242	902	178,615	357,037	1,260,554	1,214,742	45,812	3,156,269	1,895,715
	1927	65	82	399	855	81	774	140,151	326,321	954,041	915,823	38,218	2,356,303	1,402,262
California	1929	180	361	1,130	3,554	3,031	5,023	310,040	1,778,181	4,640,792	4,451,054	189,738	12,337,317	7,696,525
	1927	170	263	1,001	6,804	2,462	4,342	6,804	1,610,831	3,107,074	2,915,205	191,800	8,405,346	5,368,272
Colorado	1929	34	57	145	1,132	798	334	153,012	203,500	550,583	524,230	26,353	1,234,224	683,641
	1927	30	63	151	1,403	1,177	286	117,593	166,459	572,136	539,691	32,495	1,318,105	745,910
Connecticut	1929	101	109	301	954	75	870	231,553	403,001	1,088,318	1,033,692	54,626	2,833,301	1,744,983
	1927	94	82	271	1,938	505	828	1,883,581	355,349	937,918	937,918	63,928	2,371,729	1,433,811
Delaware	1929	12	6	22	91	-----	91	14,466	26,524	78,721	73,609	3,112	105,661	118,940
	1927	11	4	20	58	-----	58	6,040	26,860	83,076	86,159	2,917	171,597	83,621
District of Columbia	1929	21	48	158	927	545	382	170,343	267,870	593,728	669,659	20,060	1,550,910	958,182
	1927	22	45	185	842	571	271	148,014	248,882	580,655	554,372	26,283	1,468,774	888,119
Florida	1929	130	137	455	1,819	53	1,766	295,202	586,535	1,986,224	1,911,035	75,180	4,570,640	2,593,416
	1927	124	148	656	1,913	203	1,710	375,929	803,897	2,047,939	2,632,420	115,519	5,810,183	3,162,244
Georgia	1929	168	238	843	3,093	688	2,315	622,658	896,593	3,443,311	3,326,802	116,509	8,517,517	5,074,206
	1927	142	191	807	2,481	667	1,824	484,557	778,039	3,191,234	3,065,248	95,980	7,684,878	4,493,644
Idaho	1929	15	3	24	77	-----	77	6,718	27,896	60,799	67,610	2,066	178,190	108,481
	1927	12	3	17	59	-----	59	1,600	20,333	66,075	62,835	3,240	160,765	94,683
Illinois	1929	267	552	1,742	8,052	3,396	4,050	1,487,240	2,668,437	7,103,878	6,723,014	370,964	19,160,990	12,057,121
	1927	259	395	1,471	7,617	3,360	4,257	1,020,985	2,162,911	6,162,839	5,797,361	365,478	15,940,892	9,778,053
Indiana	1929	132	170	579	2,217	450	1,767	402,694	769,722	1,924,015	1,814,371	109,644	4,799,998	2,842,683
	1927	119	174	614	1,843	232	1,011	404,897	805,034	2,177,065	2,059,892	118,863	5,088,190	2,910,525
Iowa	1929	92	89	270	830	102	728	168,851	318,978	852,295	808,916	43,289	2,125,849	1,273,644
	1927	82	59	256	634	10	618	102,806	293,833	701,171	694,037	37,134	1,720,871	1,028,703
Kansas	1929	66	43	211	592	15	487	93,986	228,131	561,247	534,832	26,415	1,383,215	821,068
	1927	54	29	176	489	23	466	53,539	194,910	484,957	492,508	22,889	1,166,143	681,180
Kentucky	1929	80	149	635	1,783	880	894	285,885	593,334	1,635,499	1,577,542	57,957	4,622,443	2,980,644
	1927	79	131	361	1,724	832	892	322,905	472,140	1,530,875	1,466,064	64,211	3,999,916	2,400,911
Louisiana	1929	78	187	683	2,480	775	1,705	538,124	715,531	2,444,230	2,350,686	93,003	6,020,892	4,182,603
	1927	59	178	580	3,446	1,659	1,737	460,710	593,007	2,130,720	2,037,781	92,945	5,555,813	3,425,987
Maine	1929	50	31	103	363	6	357	51,077	128,348	340,840	335,509	14,334	930,070	580,830
	1927	44	26	95	292	-----	292	31,070	105,463	404,568	360,936	13,632	872,793	468,235
Maryland	1929	69	106	510	2,847	393	2,454	272,162	686,157	1,483,266	1,368,674	114,592	3,956,892	2,474,590
	1927	69	109	507	3,207	790	2,507	250,494	622,205	1,510,855	1,394,035	116,850	3,897,599	2,294,624
Massachusetts	1929	207	409	1,304	4,481	1,846	2,635	1,114,220	1,714,043	6,334,230	6,143,644	190,586	16,974,000	9,639,776
	1927	200	321	1,182	4,436	2,000	2,376	870,707	1,650,551	5,394,643	5,128,342	176,361	14,160,095	8,855,452
Michigan	1929	136	203	844	3,421	1,115	2,308	529,372	1,870,711	3,168,850	3,000,853	158,297	8,000,550	4,841,700
	1927	120	202	764	3,265	974	2,291	442,535	1,130,572	3,010,886	2,879,376	131,510	7,096,011	4,085,155
Minnesota	1929	93	232	634	3,855	2,264	1,591	667,738	767,895	1,718,883	1,534,191	184,092	4,724,457	3,095,574
	1927	80	230	658	5,290	3,827	1,463	651,936	821,455	1,561,587	1,333,015	228,572	4,617,133	3,055,561
Mississippi	1929	94	143	539	1,316	74	1,242	348,046	480,701	1,980,200	1,912,674	73,616	4,883,537	2,897,247
	1927	92	146	543	1,131	34	1,097	302,534	477,938	1,934,637	1,876,707	57,930	4,555,123	2,620,491
Missouri	1929	142	277	1,105	4,678	1,913	2,795	693,155	1,531,602	3,199,380	3,040,681	158,690	9,240,819	6,046,819
	1927	117	185	979	5,129	3,798	1,331	623,417	1,572,794	3,364,018	3,110,310	253,703	9,473,198	6,109,180
Montana	1929	22	21	53	288	-----	288	33,032	83,977	166,232	153,876	12,356	415,354	240,122
	1927	18	17	56	572	150	422	26,065	61,050	132,327	118,745	13,582	369,859	234,532
Nebraska	1929	50	33	160	1,117	565	552	65,738	133,407	398,870	369,797	38,082	987,723	588,844
	1927	47	28	142	2,164	1,027	527	61,707	161,522	358,851	319,208	43,643	843,852	455,001
Nevada	1929	8	8	15	220	10	210	17,660	22,181	48,507	43,708	4,739	136,830	88,323
	1927	4	2	9	197	10	187	7,200	14,398	47,200	43,010	4,100	97,920	60,726
New Hampshire	1929	32	32	96	478	112	366	55,139	119,458	341,049	326,444	15,505	775,113	433,194
	1927	31	24	78	316	47	268	30,301	86,890	300,133	343,015	17,118	749,607	398,874
New Jersey	1929	203	300	1,299	6,296	3,418	2,878	986,950	2,200,905	3,205,683	2,961,175	244,508	10,316,672	7,610,989
	1927	201	230	1,085	6,063	2,840	2,223	661,828	1,870,504	2,941,677	2,709,171	232,506	8,624,219	5,682,542
New Mexico	1929	17	13	31	88	-----	88	10,640	34,096	63,508	89,469	4,039	258,498	164,900
	1927	11	5	24	34	-----	34	0,867	24,885	79,213	75,621	3,292	178,620	99,713
New York	1929	493	891	3,582	30,230	10,130	11,100	2,567,511	5,628,879	14,340,092	13,292,054	1,057,093	33,271,074	23,922,012
	1927	437	1,110	3,750	27,663	10,141	8,527	2,982,877	6,645,182	13,950,370	12,872,086	1,078,284	33,400,200	24,449,830
North Carolina	1929	148	183	757	2,102	70	2,032	552,616	919,421	3,405,908	3,311,098	94,810	8,460,686	5,063,778
	1927	191	191	852	2,775	24	2,751	447,079	945,954	3,577,425	3,452,948	124,477	8,440,194	4,862,679

See footnotes at end of table.

# BEVERAGES

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TABLE 2.—GENERAL STATISTICS, BY STATES: 1929 AND 1927—Continued

STATE	Cen-sus year	Num-ber of estab-lish-ments	Sala-ried offi-cers and em-ploy-ees <sup>1</sup>	Wage earners (aver-age for the year)	HORSEPOWER (RATED CAP-ACITY) OF POWER EQUIPMENT			Salaries	Wages	COST OF MATERIALS, CONTAINERS FOR PRODUCTS, FUEL, AND PUR-CHASED ELECTRIC ENERGY			Value of products <sup>2</sup>	Value added by manu-fac-ture <sup>3</sup>
					Total	Prime movers	Motors run by pur-chased energy			Total	Materials and containers	Fuel and purchased energy		
North Dakota.....	1929	17	18	42	102	4	08	\$20,568	\$50,197	\$117,508	\$110,484	\$7,114	\$318,213	\$200,615
	1927	16	21	35	89	-----	89	20,600	30,965	108,022	101,066	7,856	278,238	160,310
Ohio.....	1929	228	415	1,445	10,880	4,760	0,120	1,028,911	2,000,702	4,594,014	4,296,987	297,027	11,042,262	7,048,248
	1927	211	408	1,515	13,705	5,303	8,402	910,539	2,204,368	4,435,840	4,101,278	334,262	11,408,757	7,033,217
Oklahoma.....	1929	02	00	372	842	35	807	184,059	434,274	1,130,613	1,088,160	42,444	2,871,338	1,740,725
	1927	68	54	278	662	122	540	74,782	272,893	804,102	775,903	28,190	1,035,926	1,131,824
Oregon.....	1929	29	30	82	310	18	202	91,132	120,541	273,322	256,008	10,414	752,907	470,646
	1927	10	34	80	1,590	1,250	346	70,457	127,246	280,569	200,549	20,020	620,832	334,203
Pennsylvania.....	1929	468	553	2,293	17,175	11,170	0,005	1,410,262	3,412,525	7,771,380	7,244,390	520,990	20,724,144	12,952,704
	1927	480	572	2,462	23,458	13,748	9,710	1,504,770	3,833,893	8,056,738	7,371,522	685,216	20,081,075	12,025,237
Rhode Island.....	1929	38	55	154	569	100	480	133,627	180,105	460,948	436,518	24,430	1,102,707	641,849
	1927	38	53	151	2,686	1,771	915	107,319	179,386	432,627	397,492	35,165	1,100,498	607,871
South Carolina.....	1929	80	116	395	978	65	013	303,905	415,417	1,481,003	1,433,851	47,152	3,707,359	2,226,356
	1927	88	112	434	1,516	431	1,085	220,011	466,409	1,390,748	1,338,142	52,606	3,180,308	1,935,590
South Dakota.....	1929	10	12	36	127	12	115	10,146	40,230	108,521	103,120	5,401	248,660	140,139
	1927	14	7	25	90	12	84	8,342	24,293	64,677	58,730	5,947	155,923	91,246
Tennessee.....	1929	93	133	657	3,977	2,083	1,294	382,473	737,980	2,091,327	2,010,815	71,512	5,589,805	3,408,638
	1927	70	146	632	2,763	1,060	1,060	380,770	652,013	1,916,863	1,811,443	105,410	4,874,011	2,068,058
Texas.....	1929	325	336	1,470	4,535	1,342	3,193	711,945	1,766,561	4,763,362	4,573,258	190,104	12,110,643	7,353,281
	1927	272	260	1,277	3,633	1,061	2,632	516,647	1,364,489	4,131,369	3,960,786	170,613	10,003,715	5,932,316
Utah.....	1929	18	19	66	433	202	231	43,587	90,137	222,126	204,387	17,730	540,750	327,630
	1927	15	17	77	428	200	228	26,018	101,768	266,867	250,209	16,058	500,703	235,836
Vermont.....	1929	10	10	23	57	-----	57	15,195	27,043	58,954	55,594	3,360	173,132	114,178
	1927	9	9	27	52	-----	52	12,652	25,489	71,836	60,725	2,111	160,071	117,835
Virginia.....	1929	110	128	524	1,165	35	1,130	422,395	640,872	2,070,498	2,013,501	56,997	5,210,389	3,133,501
	1927	99	142	512	1,253	63	1,190	301,348	546,512	2,107,830	2,100,425	68,406	4,777,154	2,000,324
Washington.....	1929	49	57	161	1,150	33	1,117	104,779	244,505	600,490	598,711	40,779	1,381,747	772,257
	1927	43	43	171	1,293	75	1,218	86,164	206,886	708,770	600,541	48,235	1,450,359	760,583
West Virginia.....	1929	83	90	330	1,624	118	1,506	180,590	385,420	1,077,450	1,032,792	44,658	2,751,518	1,074,008
	1927	68	80	327	1,372	68	1,314	194,250	303,908	1,185,268	1,140,402	44,866	2,078,941	1,403,073
Wisconsin.....	1929	170	204	1,030	8,039	5,200	2,839	686,592	1,382,406	5,203,763	4,923,727	280,036	13,630,561	8,435,798
	1927	158	247	709	4,601	2,689	2,012	442,146	883,770	3,075,300	2,887,408	187,828	8,202,706	5,187,310
Wyoming.....	1929	8	4	14	60	5	45	8,418	19,921	44,157	41,201	2,800	110,045	75,788
	1927	8	5	16	68	25	43	9,700	17,577	30,815	32,599	4,216	105,806	60,050

<sup>1</sup> Not including proprietors and firm members, as follows: For 1929, 4,534; 1927, 4,759. The total numbers of persons engaged—proprietors and firm members, salaried officers and employees, and wage earners—as reported for this industry, are as follows: For 1929, 40,000; 1927, 38,878.  
<sup>2</sup> The figures for 1929 refer to sales (shipments or deliveries) by manufacturers; those for 1927 represent production. See GENERAL EXPLANATIONS—Value of Products.  
<sup>3</sup> Value of products less cost of materials, containers for products, fuel, and purchased electric energy. See GENERAL EXPLANATIONS—Value Added by Manufacture.

TABLE 3.—PRODUCTS, BY KIND AND VALUE, FOR THE UNITED STATES: 1929, 1927, AND 1925

[The figures given for 1929 refer to sales (shipments or deliveries) by manufacturers; those for earlier years represent production. See GENERAL EXPLANATIONS—Value of Products]

KIND	1929	1927	1925	KIND	1929	1927	1925
1. Beverage industry, all products, total.....	\$270,323,803	\$242,694,456	\$237,700,741	Beverages, all industries, aggregate value (sum of 2 and 4).....	\$265,430,436	\$241,003,264	\$233,886,555
2. Carbonated, cereal, and still beverages, and grape juice.....	260,486,192	234,756,201	228,673,805	Carbonated beverages.....	216,210,938	181,710,970	167,652,098
3. Other products (not normally belonging to the industry).....	9,837,611	7,938,255	9,030,935	Cereal beverages.....	45,959,400	50,688,381	50,098,044
4. Carbonated, cereal, and still beverages, and grape juice, made as secondary products in other industries.....	4,044,244	7,237,003	5,212,749	Still beverages.....	4,111,300	3,022,470	(3)
				Grape juice.....	5,145,708	5,671,487	6,645,513

<sup>1</sup> Revised because of a reclassification of products.  
<sup>2</sup> Includes value of "Still beverages."  
<sup>3</sup> Not reported separately; included in value of "Carbonated beverages."  
<sup>4</sup> Reported as "Fruit beverages," but principally grape juice.

CENSUS OF MANUFACTURES: 1929

TABLE 4.—PRODUCTS, BY KIND AND VALUE, BY STATES: 1929, 1927, AND 1925

[The figures for 1929 refer to sales (shipments or deliveries) by manufacturers; those for earlier years represent production. See GENERAL EXPLANATIONS—Value of Products. Figures are given for each State which can be shown separately without disclosing data for individual establishments. Some of the "Other States," however, reported larger values of certain classes of products than some of the States shown separately.]

PRODUCT AND STATE	VALUE			PRODUCT AND STATE	VALUE		
	1929	1927	1925		1929	1927	1925
<b>CARBONATED BEVERAGES</b>				<b>CEREAL BEVERAGES</b>			
United States.....	\$210, 210, 938	\$181, 710, 976	1 \$167, 652, 008	United States.....	\$45, 950, 490	\$50, 688, 331	\$50, 688, 044
Alabama.....	5, 652, 307	4, 963, 162	4, 630, 967	California.....	3, 374, 010	2, 846, 118	3, 273, 408
Arizona.....	603, 387	330, 082	350, 517	Colorado.....	382, 824	(2)	(1)
Arkansas.....	2, 047, 575	2, 335, 873	2, 270, 290	Connecticut.....	29, 867	75, 819	541, 005
California.....	7, 172, 406	4, 560, 328	4, 515, 151	Illinois.....	4, 291, 788	4, 049, 027	5, 090, 342
Colorado.....	708, 873	845, 823	776, 366	Indiana.....	392, 044	(2)	(2)
Connecticut.....	2, 722, 194	2, 238, 310	2, 018, 004	Maryland.....	828, 551	823, 853	680, 135
Delaware.....	195, 601	171, 607	199, 634	Massachusetts.....	1, 382, 720	1, 613, 078	1, 795, 472
District of Columbia.....	1, 284, 580	1, 255, 422	1, 211, 704	Michigan.....	234, 006	252, 377	696, 913
Florida.....	4, 570, 547	5, 653, 749	6, 487, 172	Minnesota.....	1, 269, 491	1, 510, 850	2, 870, 175
Georgia.....	8, 380, 204	7, 768, 733	7, 074, 600	Missouri.....	3, 121, 490	4, 706, 248	5, 237, 150
Idaho.....	185, 360	163, 125	100, 066	New Jersey.....	2, 219, 507	2, 570, 940	1, 731, 868
Illinois.....	14, 216, 402	11, 601, 708	7, 542, 188	New York.....	11, 554, 742	13, 086, 938	17, 035, 794
Indiana.....	4, 330, 195	4, 089, 716	4, 183, 901	Ohio.....	1, 850, 030	2, 343, 702	3, 163, 040
Iowa.....	1, 906, 097	1, 551, 143	1, 633, 255	Pennsylvania.....	7, 051, 151	7, 400, 707	8, 594, 634
Kansas.....	1, 387, 223	1, 022, 040	1, 164, 813	Washington.....	454, 004	472, 180	336, 730
Kentucky.....	3, 917, 338	3, 402, 624	2, 818, 806	Wisconsin.....	5, 357, 970	3, 487, 421	2, 577, 356
Louisiana.....	5, 028, 420	4, 954, 800	4, 128, 828	Other States 1	2, 156, 089	3, 888, 305	5, 165, 004
Maine.....	949, 370	871, 703	925, 952	<b>STILL BEVERAGES</b>			
Maryland.....	3, 055, 070	2, 602, 543	2, 340, 050	United States.....	4, 111, 300	3, 022, 470	(1)
Massachusetts.....	14, 125, 620	12, 198, 795	12, 741, 076	Arizona.....	16, 261	37, 018	(1)
Michigan.....	6, 559, 107	5, 145, 190	5, 487, 020	California.....	360, 906	551, 122	(1)
Minnesota.....	2, 492, 554	2, 246, 984	1, 910, 222	Illinois.....	308, 907	245, 782	(1)
Mississippi.....	4, 267, 637	4, 524, 735	3, 675, 102	Indiana.....	160, 927	169, 655	(1)
Missouri.....	5, 884, 094	4, 455, 111	4, 349, 709	Iowa.....	140, 903	200, 972	(1)
Montana.....	375, 595	326, 760	325, 923	Kansas.....	45, 874	38, 346	(1)
Nebraska.....	867, 918	671, 293	1, 012, 657	Louisiana.....	234, 013	50, 754	(1)
Nevada.....	99, 076	54, 648	58, 672	Massachusetts.....	38, 755	94, 321	(1)
New Hampshire.....	777, 093	749, 807	767, 200	Michigan.....	107, 520	60, 044	(1)
New Jersey.....	8, 557, 530	5, 966, 815	5, 891, 347	Minnesota.....	220, 114	160, 202	(1)
New Mexico.....	257, 134	170, 283	135, 865	Missouri.....	110, 810	109, 277	(1)
New York.....	21, 208, 354	19, 254, 774	18, 524, 555	Nebraska.....	31, 900	48, 654	(1)
North Carolina.....	8, 441, 331	8, 347, 680	6, 716, 050	New Jersey.....	106, 537	66, 816	(1)
North Dakota.....	304, 975	258, 843	336, 817	New York.....	1, 222, 430	309, 123	(1)
Ohio.....	9, 304, 073	8, 601, 540	8, 166, 847	North Dakota.....	14, 552		
Oklahoma.....	2, 856, 782	2, 000, 339	1, 611, 607	Ohio.....	105, 114	202, 273	(1)
Oregon.....	493, 798	442, 364	499, 004	Oregon.....	90, 319		
Pennsylvania.....	12, 621, 736	11, 294, 261	11, 017, 878	Pennsylvania.....	161, 918	309, 210	(1)
Rhode Island.....	1, 116, 602	981, 771	983, 908	South Dakota.....	38, 024		
South Carolina.....	3, 707, 088	3, 080, 412	3, 284, 074	Texas.....	145, 885	144, 690	(1)
South Dakota.....	229, 408	149, 200	236, 066	Utah.....	49, 516		
Tennessee.....	5, 428, 515	4, 498, 910	3, 972, 304	Washington.....	3, 000	44, 338	(1)
Texas.....	11, 634, 294	6, 547, 104	7, 570, 793	Wisconsin.....	134, 766	103, 780	(1)
Utah.....	337, 095	313, 105	455, 000	Other States 1	223, 584	890, 105	(1)
Vermont.....	170, 132	185, 671	179, 984	<b>GRAPE JUICE</b>			
Virginia.....	5, 118, 007	4, 694, 697	4, 035, 328	United States.....	5, 148, 708	5, 071, 487	4 6, 545, 513
Washington.....	906, 166	819, 384	907, 770	California.....	263, 377	260, 981	226, 580
West Virginia.....	2, 084, 775	2, 677, 098	2, 187, 444	New York.....	2, 650, 150	2, 758, 002	3, 436, 240
Wisconsin.....	8, 460, 136	7, 610, 980	7, 030, 341	Ohio.....	183, 120	268, 242	304, 373
Wyoming.....	104, 856	89, 489	131, 935	Other States 1	2, 052, 062	2, 384, 262	2, 579, 314

1 Still beverages not reported separately for 1925; value included with that of carbonated beverages.

2 Included in figure for "Other States."

3 For 1929: District of Columbia, Florida, Georgia, Kansas, Kentucky, Louisiana, Montana, Nebraska, Nevada, New Hampshire, Oklahoma, Oregon, South Dakota, Tennessee, Texas, Utah, Virginia, West Virginia, Wyoming.

4 For 1929: Colorado, Connecticut, District of Columbia, Florida, Georgia, Kentucky, Maine, Maryland, Mississippi, Montana, New Hampshire, New Mexico, North Carolina, Oklahoma, Rhode Island, South Carolina, Tennessee, Virginia, West Virginia, Wyoming.

5 See footnote 4, Table 3.

6 For 1929: Arkansas, Connecticut, Idaho, Indiana, Iowa, Michigan, Minnesota, Missouri, Montana, Nebraska, New Jersey, Oregon, Pennsylvania, Utah, Washington, Wisconsin.



## CENSUS OF MANUFACTURES: 1929

TABLE 6.—DELIVERY VEHICLES OPERATED, BY KIND, NUMBER, AND CAPACITY, BY STATES: 1929

STATE	NUMBER OF ESTABLISHMENTS <sup>1</sup>		VALUE OF PRODUCTS <sup>1</sup>		DELIVERY VEHICLES					
	In the industry	Reporting vehicles	Total for the industry	Total for establishments reporting vehicles	Horse-drawn		Gasoline		Electric	
					Number	Capacity, tons (2,000 pounds)	Number	Capacity, tons (2,000 pounds)	Number	Capacity, tons (2,000 pounds)
United States.....	5,154	4,083	\$270,823,803	\$234,477,650	180	202	15,806	25,191	304	1,006
Alabama.....	105	87	5,699,101	5,408,802	4	4	329	404	10	9
Arizona.....	21	14	598,090	348,774			35	44		
Arkansas.....	77	58	3,160,269	2,661,894	1	1	273	369		
California.....	186	138	12,337,317	9,192,291			651	1,067	6	13
Colorado.....	34	28	1,234,224	1,126,277	1	1	94	118		
Connecticut.....	101	90	2,833,301	2,653,460			236	304		
Delaware.....	12	7	195,601	143,788			19	20		
District of Columbia.....	21	21	1,566,910	1,556,910			123	184		
Florida.....	130	96	4,579,040	3,970,596	8	8	342	446	2	2
Georgia.....	168	139	8,517,517	7,599,044			487	688	3	3
Idaho.....	15	10	178,100	103,254			12	13	1	1
Illinois.....	267	227	19,100,990	16,430,255	5	14	932	1,943		
Indiana.....	132	110	4,700,998	4,441,892			425	550		
Iowa.....	92	77	2,125,840	1,938,735	3	6	242	293		
Kansas.....	66	44	1,383,215	1,006,413			189	260		
Kentucky.....	80	60	4,622,443	3,915,655	5	6	264	368	2	4
Louisiana.....	76	59	6,626,892	6,361,855			361	599	6	13
Maine.....	50	35	930,670	784,861	2	2	81	115		
Maryland.....	69	53	3,956,892	3,272,810	2	2	361	562		
Massachusetts.....	207	200	15,974,006	15,360,516	5	6	613	1,052	9	24
Michigan.....	136	116	8,000,550	6,521,018	2	2	580	870		
Minnesota.....	93	59	4,724,457	4,217,538	10	17	234	351		
Mississippi.....	94	77	4,833,537	4,649,990	5	6	314	445		
Missouri.....	142	106	9,240,199	6,511,739			476	696	1	1
Montana.....	22	17	415,354	373,724			31	37		
Nebraska.....	50	40	987,723	856,327	1	1	97	112		
Nevada.....	8	6	139,830	122,488			13	19		
New Hampshire.....	32	27	775,113	713,189			62	92		
New Jersey.....	203	154	10,816,672	10,038,090	3	3	630	1,518	8	10
New Mexico.....	17	9	258,498	144,949			17	21		
New York.....	493	342	38,271,074	35,425,208	49	35	1,209	2,807	188	706
North Carolina.....	143	122	8,469,689	7,945,313	10	14	499	688	2	2
North Dakota.....	17	13	318,213	224,465	1	1	18	22		
Ohio.....	228	186	11,642,262	10,764,349	6	6	630	1,454	2	3
Oklahoma.....	92	69	2,871,338	2,492,223	5	3	327	408	6	9
Oregon.....	29	23	752,967	690,355			60	77	1	2
Pennsylvania.....	468	394	20,724,144	19,341,913	18	18	1,356	2,220	36	75
Rhode Island.....	33	31	1,102,797	1,009,634			74	135		
South Carolina.....	36	26	3,707,359	3,513,362	4	4	220	287	4	12
South Dakota.....	19	12	248,660	191,449			21	26		
Tennessee.....	93	66	5,589,865	4,841,204			312	480		
Texas.....	325	231	12,116,643	10,299,752	18	19	979	1,223	17	18
Utah.....	18	15	549,756	519,050			49	59		
Vermont.....	10	10	173,132	173,132			23	33		
Virginia.....	110	92	5,210,389	4,952,753			386	529		
Washington.....	49	37	1,381,747	1,208,374			120	151		
West Virginia.....	33	27	2,751,518	2,596,438			251	374		
Wisconsin.....	170	143	13,039,501	5,707,581	12	23	463	519		
Wyoming.....	8	5	119,945	81,255			8	10		

<sup>1</sup> The number of establishments reporting delivery vehicles formed 79.2 per cent of the total number of establishments in the industry, and their combined value of products amounted to 86.7 per cent of the total value of products of all establishments in the industry.

# BEVERAGES

**TABLE 7.—PRIME MOVERS, MOTORS, GENERATORS, AND CONSUMPTION OF PURCHASED ELECTRIC ENERGY—NUMBER AND RATED CAPACITY OF PRIME MOVERS, ELECTRIC MOTORS, AND GENERATORS, 1929, 1927, AND 1925; QUANTITY OF ELECTRIC ENERGY PURCHASED, 1929**

TYPE	1929		1927		1925		PERCENT DISTRIBUTION OF RATED HORSE-POWER CAPACITY
	Number	Capacity	Number	Capacity	Number	Capacity	
		Horsepower		Horsepower		Horsepower	
Prime movers and electric motors driven by purchased energy, aggregate.....	27,078	149,100	23,851	163,731	18,036	108,865	100.0
Prime movers, total.....	802	67,000	883	75,495	1,247	102,412	45.5
Steam, total.....	798	64,199	761	72,502	1,031	97,007	43.0
Engines.....	760	61,489	740	70,526	1,013	94,862	41.2
Turbines.....	32	2,710	21	2,066	18	2,235	1.8
Internal-combustion engines.....	86	3,441	122	2,903	215	5,312	2.3
Water wheels and water turbines.....	8	320			1	3	0.2
Electric motors driven by purchased energy.....	26,180	81,200	22,968	78,236	17,380	66,453	54.5
Electric motors, total.....	30,223	103,881	27,256	100,174	23,200	99,004	100.0
Driven by purchased energy.....	26,180	81,200	22,968	78,236	17,380	66,453	78.2
Driven by energy generated in establishments reporting.....	4,043	22,676	4,288	21,938	5,820	32,551	21.8
Electric generators.....	163	Kilowatts 16,537 Kilowatt-hours	235	Kilowatts 18,583	204	Kilowatts 24,745	
Electric energy purchased <sup>1</sup> .....		61,553,090		(?)		(?)	

<sup>1</sup> This item covers the consumption of purchased electric energy for all purposes—power, heat, light, etc.      <sup>2</sup> Data incomplete.

**TABLE 8.—WAGE EARNERS, BY MONTHS, FOR THE UNITED STATES, 1929 AND 1925, AND BY STATES, 1929**  
(The month of maximum employment is indicated by bold-faced figures and that of minimum employment by *italic* figures)

STATE	Average number employed during year	NUMBER EMPLOYED ON 15TH DAY OF MONTH OR NEAREST REPRESENTATIVE DAY												Per cent minimum is of maximum		
		January	February	March	April	May	June	July	August	September	October	November	December			
United States:																
1929.....	28,281	<b>23,889</b>	21,007	24,057	27,525	29,448	32,668	34,871	33,746	31,174	28,050	25,364	24,323	22,771	20,414	60.4
1925.....	27,384	<b>21,370</b>	22,135	23,604	26,081	28,802	34,010	35,015	33,074	30,894	29,810	23,534	22,771	22,771	19,810	62.5
Alabama.....	502	<i>512</i>	514	532	554	580	611	618	610	606	592	521	517	517	481	82.8
Arizona.....	63	<i>44</i>	44	47	54	69	85	88	82	70	58	54	51	51	44	50.0
Arkansas.....	371	<i>276</i>	288	321	357	504	382	406	441	314	313	297	297	297	207	53.0
California.....	1,130	900	<b>987</b>	1,025	1,093	1,131	1,204	1,394	1,304	1,252	1,163	1,096	980	980	880	73.8
Colorado.....	148	<i>130</i>	122	128	140	132	174	186	183	166	135	128	124	124	101.2	
Connecticut.....	301	<b>235</b>	241	250	271	327	373	400	390	347	275	240	240	240	188	58.8
Delaware.....	22	<i>19</i>	19	19	21	24	24	27	27	25	23	20	20	20	20	70.4
District of Columbia.....	158	<i>133</i>	132	134	152	162	185	194	187	180	150	141	141	141	141	68.0
Florida.....	485	<i>458</i>	474	470	485	497	497	500	497	497	488	476	472	472	472	90.5
Georgia.....	848	<i>785</i>	794	807	840	863	895	918	915	894	840	818	808	808	787	85.7
Idaho.....	24	<i>21</i>	21	22	22	23	23	27	29	25	22	21	21	21	21	70.0
Illinois.....	1,742	<b>1,450</b>	1,465	1,536	1,694	1,708	2,032	2,127	2,131	1,948	1,714	1,640	1,465	1,465	1,465	68.0
Indiana.....	679	<i>480</i>	476	490	550	611	703	737	742	634	541	490	476	476	476	63.6
Iowa.....	270	<i>214</i>	214	234	251	270	334	368	374	302	250	217	213	213	166	56.4
Kansas.....	211	<i>147</i>	151	173	205	225	285	299	294	248	192	163	162	162	129	49.3
Kentucky.....	335	<i>476</i>	476	493	527	551	581	625	645	592	514	492	492	492	492	71.8
Louisiana.....	683	<i>578</i>	587	600	670	721	786	807	778	772	698	627	602	602	502	72.1
Maine.....	108	<i>80</i>	78	80	105	125	140	140	140	120	93	85	80	80	80	53.4
Maryland.....	519	<i>475</i>	470	470	522	547	560	560	561	495	484	484	484	484	484	80.3
Massachusetts.....	1,301	<b>1,054</b>	<b>1,044</b>	1,104	1,277	1,400	1,472	1,748	1,627	1,406	1,181	1,077	1,049	1,049	1,049	69.7
Michigan.....	844	<i>658</i>	671	729	796	881	1,052	1,120	1,147	947	846	663	680	680	680	54.1
Minnesota.....	634	<i>489</i>	495	505	661	728	790	838	705	686	569	532	510	510	484	68.4
Mississippi.....	530	<i>471</i>	465	494	530	550	602	607	607	595	551	505	488	488	488	76.6
Missouri.....	1,105	<i>971</i>	908	974	1,108	1,334	1,385	1,373	1,373	1,230	1,028	947	825	825	825	59.6
Montana.....	53	<i>44</i>	44	44	44	52	63	68	70	61	54	49	49	49	49	62.0
Nebraska.....	160	<i>117</i>	117	121	142	168	202	226	229	186	150	130	129	129	129	51.1
Nevada.....	15	<i>11</i>	14	15	15	16	17	20	20	18	12	12	12	12	12	55.0
New Hampshire.....	96	<i>73</i>	72	80	91	100	120	129	127	107	87	81	74	74	74	55.8
New Jersey.....	1,290	<b>1,022</b>	1,064	1,078	1,200	1,247	1,505	1,602	1,562	1,480	1,250	1,250	1,250	1,250	1,250	61.5
New Mexico.....	31	<i>20</i>	20	20	32	30	42	42	41	33	27	26	26	26	26	46.5
New York.....	3,532	<b>3,048</b>	<b>3,060</b>	3,062	3,410	3,023	4,168	4,493	4,150	3,880	3,207	3,004	3,004	3,004	3,004	66.8
North Carolina.....	757	<i>745</i>	741	745	751	756	760	773	775	777	763	743	743	743	743	95.4
North Dakota.....	42	<i>33</i>	33	34	38	43	53	53	54	49	44	44	44	44	44	60.0
Ohio.....	1,445	<b>1,194</b>	1,225	1,268	1,413	1,509	1,694	1,774	1,779	1,604	1,397	1,275	1,214	1,214	1,214	67.1
Oklahoma.....	372	<i>255</i>	263	293	356	405	454	500	490	446	397	322	294	294	294	61.0
Oregon.....	52	<i>33</i>	35	72	77	82	95	100	125	95	74	67	67	67	67	50.4
Pennsylvania.....	2,203	<b>1,986</b>	2,003	2,054	2,228	2,336	2,554	2,698	2,672	2,488	2,079	2,079	2,079	2,079	2,079	73.7
Rhode Island.....	154	<i>126</i>	129	131	148	168	188	199	180	169	139	133	131	131	131	63.3
South Carolina.....	395	<i>377</i>	370	381	390	408	411	414	414	410	402	382	379	379	379	91.1
South Dakota.....	36	<i>28</i>	29	30	33	36	49	48	47	41	32	30	29	29	29	53.3
Tennessee.....	657	<i>574</i>	577	600	661	700	727	741	742	698	656	620	594	594	594	77.4
Texas.....	1,470	<b>1,154</b>	1,164	1,250	1,420	1,550	1,690	1,770	1,815	1,720	1,530	1,310	1,228	1,228	1,228	63.0
Utah.....	96	<i>49</i>	60	53	53	52	60	60	61	50	52	52	52	52	52	53.8
Vermont.....	23	<i>13</i>	13	14	20	20	20	20	20	20	14	14	14	14	14	34.2
Virginia.....	524	<i>479</i>	481	490	513	537	565	575	573	554	517	498	498	498	498	63.3
Washington.....	151	<i>130</i>	135	155	160	175	194	201	201	177	151	134	134	134	134	64.2
West Virginia.....	330	<i>275</i>	275	292	328	354	388	402	359	357	317	291	288	288	288	68.4
Wisconsin.....	1,039	<i>890</i>	902	1,008	1,060	1,160	1,200	1,272	1,187	1,070	940	921	897	897	897	70.5
Wyoming.....	14	<i>10</i>	9	9	13	13	19	22	22	15	12	10	10	10	10	40.9



# BREAD AND OTHER BAKERY PRODUCTS

**Description of the industry.**—This classification is applied to industrial establishments engaged primarily in baking bread, biscuit, crackers, cakes, pastry, etc. Bakeries operated in connection with restaurants, chain stores, etc., are included whenever it is possible to segregate the bakery business from the other business, or, if such segregation is impossible, where it is obvious that the income derived from the bakery business constitutes the greater part of the total income.

This industry embraces two distinct branches, for which separate statistics are given in Tables 1, 2, 3, and 8. The first branch comprises establishments operating on a factory basis and manufacturing biscuit, crackers, machine-made cookies, pretzels, etc., designed to be packed in containers so as to retain their palatability for an indefinite period. The second branch comprises bakeries engaged in the production of bread, cakes, pies, and other commodities designed for consumption within a few days and distributed locally or within the radius of quick delivery.

**Detailed statistics of materials and products.**—Although the schedules used for canvassing the bakery industry at the several biennial censuses beginning with that for 1923 have called for detailed data on materials and products, the returns have been incomplete to such a degree as to render it impracticable to give comparative figures for different census years. This condition arises because certain establishments which made satisfactory returns at one census have failed to do so at another.

As a majority of the bakeries whose products are valued at less than \$20,000 do not keep complete records, it is impossible to obtain detailed data from such bakeries. Furthermore, some of those with products valued at \$20,000 or more have failed to make their returns as called for by the schedule.

These facts should be kept in mind in making use of Tables 3, 4, and 5, and careful attention should be given to the headnotes of these tables.

**TABLE 1.—BREAD AND OTHER BAKERY PRODUCTS—SUMMARY FOR THE UNITED STATES, FOR THE INDUSTRY, 1899 TO 1929, AND FOR ITS BRANCHES, 1914 TO 1929**

[Data for establishments with products under \$5,000 in value included for 1919 and prior years but not for 1921 and subsequent years. See GENERAL EXPLANATIONS—Establishments Covered—Size]

YEAR OR PERIOD	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, containers for products, fuel, and purchased electric energy	Value of products <sup>1</sup>	Value added by manufacture <sup>2</sup>	Horsepower
<b>THE BAKERY INDUSTRY AS A WHOLE</b>							
1929	20,785	200,841	\$274,561,581	\$737,099,500	\$1,526,110,811	\$789,011,311	355,523
1927	18,129	171,095	236,225,862	693,236,183	1,394,700,224	701,404,061	284,244
1925	17,684	160,411	219,606,219	668,016,500	1,268,194,507	660,178,007	227,280
1923	18,739	162,013	214,578,951	574,520,502	1,122,906,314	548,386,812	193,186
1921	20,173	148,500	198,938,825	608,614,000	1,089,971,652	491,367,652	(*)
1919	26,095	141,692	168,237,059	713,239,411	1,161,896,318	438,686,907	165,711
1914	25,993	124,052	76,860,613	274,267,468	491,803,025	217,035,557	106,797
1909	23,926	100,216	59,351,386	238,033,003	396,864,844	168,831,181	65,169
1904	18,226	81,278	43,172,262	155,988,868	209,582,811	113,593,943	37,140
1899	14,836	60,192	27,864,024	95,051,652	175,308,682	80,316,780	22,472
Per cent of increase or decrease (—):							
1927-1929	14.7	16.8	16.2	6.3	0.4	12.5	25.1
1925-1927	2.5	7.2	7.6	3.8	10.0	16.9	25.1
1923-1925	-5.6	-1.4	2.3	10.3	12.9	9.4	17.7
1921-1923	-7.1	9.5	7.9	-4.0	3.0	11.6	-----
1919-1921	-19.6	4.9	25.7	-16.1	-5.4	12.0	-----
1910-1929	-17.2	41.8	73.5	3.3	32.5	79.9	114.5
1909-1919	4.9	41.3	106.9	199.0	190.2	176.2	164.3
1899-1909	61.3	66.5	113.0	150.4	120.3	97.8	190.0
<b>BISCUIT AND CRACKERS</b>							
1929	375	33,871	\$34,208,069	\$107,100,664	\$274,489,531	\$167,388,807	56,193
1927	220	32,982	34,028,801	107,932,438	248,980,954	141,057,510	40,773
1925	194	31,946,206	31,946,206	107,268,104	244,520,508	137,268,404	44,437
1923	147	35,117	31,267,976	80,351,464	211,788,251	123,430,787	36,212
1921	149	31,474	29,109,955	83,045,944	187,508,633	104,462,730	(*)
1919	176	34,341	26,065,785	103,134,410	204,020,505	100,886,155	29,196
1914	166	26,030	10,794,810	43,073,845	89,484,284	45,810,439	22,103
Per cent of increase or decrease (—):							
1927-1929	70.5	2.7	0.5	-0.8	10.2	13.7	12.0
1925-1927	13.4	1.9	0.5	0.6	1.8	2.8	12.0
1923-1925	16.2	-7.8	1.9	20.1	15.5	12.1	20.2
1921-1923	12.1	11.6	7.7	7.6	12.9	17.2	-----
1919-1921	-15.3	-8.3	11.7	-10.5	-8.1	3.5	-----
1910-1929	113.1	-1.4	31.2	3.8	34.5	65.9	92.6
<b>BAKERY PRODUCTS, OTHER THAN BISCUIT AND CRACKERS</b>							
1929	20,410	169,970	\$240,353,512	\$629,998,836	\$1,251,621,280	\$621,622,444	299,330
1927	17,909	139,013	202,167,061	585,303,725	1,145,710,270	500,406,545	234,471
1925	17,490	128,034	187,660,924	560,748,399	1,023,607,990	462,019,003	182,849
1923	18,572	127,406	183,220,976	485,169,038	911,118,003	425,949,025	157,074
1921	20,024	117,026	169,828,870	515,508,050	902,462,909	386,894,913	(*)
1919	24,919	107,251	132,171,264	610,105,001	947,875,753	337,770,752	136,515
1914	25,707	99,016	66,072,303	230,583,623	402,408,741	171,825,118	84,004
Per cent of increase or decrease (—):							
1927-1929	14.0	20.1	18.9	7.0	9.2	10.9	27.7
1925-1927	2.4	8.6	7.7	4.4	11.9	21.1	28.2
1923-1925	-5.8	0.4	2.4	15.6	12.4	8.7	15.7
1921-1923	-7.3	8.9	7.9	-5.9	1.0	10.1	-----
1919-1921	-19.6	9.1	28.5	-15.5	-4.8	14.5	-----
1910-1929	-18.1	55.7	81.9	3.3	32.0	84.0	119.3

<sup>1</sup> For 1929, manufacturers' sales (shipments or deliveries); for earlier years, production. See GENERAL EXPLANATIONS—Value of Products.

<sup>2</sup> Value of products less cost of materials, containers for products, fuel, and purchased electric energy. See GENERAL EXPLANATIONS—Value Added by Manufacture.

<sup>3</sup> Not called for on schedule.

<sup>4</sup> No comparable data are available for years prior to 1914.



CENSUS OF MANUFACTURES: 1929

TABLE 2.—GENERAL STATISTICS, BY STATES, FOR THE INDUSTRY, 1929, 1927, AND 1919, AND FOR ITS BRANCHES, 1929 AND 1927—Continued

[See note at head of this table]

STATE	Cen- sus year	Num- ber of estab- lish- ments	Salaried officers and em- ployees	Wage earners (aver- age for the year)	HORSEPOWER (RATED CAPACITY) OF POWER EQUIPMENT			Salaries	Wages	COST OF MATERIALS, CONTAINERS FOR PRODUCTS, FUEL, AND PUR- CHASED ELECTRIC ENERGY			Value of products <sup>1</sup>	Value added by manufac- ture <sup>2</sup>
					Total	Prime movers	Motors run by pur- chased energy			Total	Materials and containers	Fuel and purchased energy		
THE INDUSTRY AS A WHOLE—Con.														
Minnesota	1929	438	408	3,501	6,953	1,662	5,291	Dollars 892,000	Dollars 4,255,308	Dollars 12,610,050	Dollars 12,066,210	Dollars 552,840	Dollars 26,581,658	Dollars 13,902,608
	1927	307	307	3,229	5,494	1,422	4,072	1,037,190	3,742,023	11,605,469	11,079,243	526,226	23,871,385	12,205,916
	1919	426	850	2,975	3,234	1,255	1,070	1,396,283	2,593,101	14,006,084	13,023,934	382,150	22,815,466	8,809,372
Mississippi	1929	68	58	610	1,030	70	1,500	97,512	611,262	1,824,159	1,734,610	89,549	3,460,603	1,636,444
	1927	66	48	493	865	---	865	89,548	471,460	1,559,099	1,482,514	76,555	3,001,963	1,432,894
	1919	82	66	295	692	18	644	69,062	243,677	1,460,377	1,400,805	49,572	2,189,341	738,964
Missouri	1929	711	706	7,650	15,260	2,960	12,260	1,657,476	9,741,689	26,845,902	25,762,395	1,083,507	59,233,709	32,387,807
	1927	702	808	6,029	12,582	2,568	10,024	1,692,974	8,243,782	26,528,122	25,393,369	1,134,753	53,953,066	27,424,944
	1919	975	1,219	6,156	6,730	2,611	4,119	1,878,709	6,093,327	26,356,306	25,021,065	734,731	43,839,428	17,483,032
Montana	1929	82	49	469	788	---	788	110,077	668,022	1,808,410	1,764,028	104,382	3,748,856	1,880,446
	1927	85	37	412	610	6	613	82,000	584,102	1,840,040	1,744,544	101,502	3,463,125	1,617,079
	1919	110	74	384	488	97	391	108,905	436,026	1,934,085	1,860,552	68,133	3,124,232	1,184,547
Nebraska	1929	217	219	2,154	3,914	113	3,801	465,840	2,432,072	7,237,309	6,914,057	323,312	16,382,507	9,145,138
	1927	195	303	1,564	3,182	124	3,058	505,957	1,970,071	6,109,261	5,621,419	247,842	13,123,016	6,954,355
	1919	324	372	1,624	2,050	284	1,826	511,692	1,542,182	7,023,043	7,379,763	243,290	13,813,167	5,900,124
Nevada	1929	14	17	65	129	---	129	27,232	108,282	335,061	320,404	14,507	576,342	241,281
	1927	11	16	51	85	---	85	28,010	84,129	229,730	220,075	9,655	460,075	231,245
	1919	17	5	38	70	---	70	5,707	47,997	169,284	151,782	7,502	274,209	114,925
New Hampshire	1929	89	70	561	863	---	863	132,122	699,058	2,320,340	2,204,525	115,815	4,343,456	2,023,116
	1927	76	64	466	867	00	807	103,702	619,630	2,071,985	1,997,090	104,295	4,009,425	1,712,936
	1919	127	76	471	488	73	415	66,702	501,972	2,847,693	2,704,777	82,016	4,069,425	1,221,732
New Jersey	1929	982	581	7,228	10,977	1,040	9,937	1,328,540	11,765,100	28,310,217	26,895,163	1,424,064	57,298,003	28,978,846
	1927	934	654	6,367	10,310	1,025	8,035	1,539,313	10,735,448	28,033,845	27,472,910	1,460,935	58,959,553	30,025,709
	1919	1,263	1,215	5,911	13,307	2,059	10,448	1,540,073	8,440,239	36,912,088	35,882,064	1,029,184	55,793,446	18,861,358
New Mexico	1929	34	16	177	332	---	332	25,694	198,051	603,496	630,318	33,178	1,164,600	501,104
	1927	32	4	164	202	---	202	6,090	179,862	539,304	501,867	37,437	959,179	419,875
	1919	40	12	116	94	12	82	10,230	122,655	491,215	469,840	21,375	787,770	296,504
New York	1929	3,199	3,824	33,704	52,185	8,583	43,602	9,378,202	52,771,427	135,807,182	129,803,375	5,993,807	295,199,431	159,892,240
	1927	2,492	3,700	30,017	41,024	8,110	32,914	8,952,366	45,768,599	127,146,094	121,697,030	5,449,098	273,134,234	145,988,140
	1919	3,897	5,607	28,541	20,141	9,018	10,223	8,983,138	35,800,834	137,170,483	133,691,370	3,579,113	233,206,886	90,036,403
North Carolina	1929	83	154	1,249	2,808	616	2,292	303,399	1,291,827	3,757,223	3,592,058	164,565	7,229,866	3,472,042
	1927	61	59	1,012	1,060	2	1,058	117,147	1,190,239	3,205,039	3,034,743	120,296	6,108,949	2,903,010
	1919	70	71	385	415	26	389	101,204	393,568	1,060,641	1,007,164	53,477	2,571,518	910,877
North Dakota	1929	56	62	470	1,038	---	1,038	110,930	530,304	1,704,022	1,612,039	91,983	3,487,367	1,782,745
	1927	41	49	284	762	3	759	76,181	314,419	1,280,007	1,218,858	67,149	2,285,182	999,175
	1919	68	39	242	328	20	308	66,768	222,629	1,212,736	1,107,047	46,989	1,949,673	736,937
Ohio	1929	1,321	1,201	13,567	23,778	1,040	22,738	2,854,274	18,496,979	51,605,275	49,548,205	2,057,070	103,236,031	51,029,756
	1927	1,114	1,333	11,373	22,267	1,232	20,035	3,559,193	14,968,443	49,207,937	47,305,610	1,902,377	92,990,270	43,782,289
	1919	1,621	2,469	9,091	12,532	2,219	10,363	4,101,357	9,005,666	49,956,545	48,744,427	1,211,118	78,819,091	28,863,456
Oklahoma	1929	209	169	1,766	3,880	179	3,710	345,142	2,090,017	6,247,674	5,998,792	248,972	13,222,090	6,074,416
	1927	180	147	1,362	2,932	8	2,924	199,955	1,620,344	5,921,072	5,678,872	242,200	11,094,290	6,073,218
	1919	288	230	993	1,265	102	1,163	298,041	1,020,805	5,040,242	4,899,397	140,845	8,128,632	3,088,360
Oregon	1929	218	234	1,647	2,672	112	2,560	485,018	2,166,436	5,580,950	5,303,262	277,704	10,888,264	5,307,308
	1927	161	217	1,266	2,157	100	2,057	448,882	1,829,247	5,172,737	4,981,879	240,861	9,995,759	4,829,052
	1919	146	310	1,076	1,125	116	1,009	518,069	1,120,911	6,709,069	5,573,984	135,085	9,031,478	3,322,490
Pennsylvania	1929	1,929	2,554	23,060	41,812	6,721	35,091	6,136,260	31,180,687	81,254,270	77,743,710	3,510,554	170,608,502	89,354,232
	1927	1,900	2,142	22,375	36,515	6,557	29,959	5,342,296	29,349,988	80,067,717	76,656,294	3,411,463	164,863,331	84,705,614
	1919	2,651	3,530	16,410	20,011	7,225	12,786	6,420,834	17,352,111	33,473,863	31,393,410	2,080,447	132,880,426	49,406,563
Rhode Island	1929	155	250	1,749	2,478	---	2,478	455,312	2,268,416	6,032,956	5,729,002	306,054	12,111,570	6,078,614
	1927	133	115	1,246	1,955	277	1,678	376,770	1,950,577	4,864,124	4,627,796	9,377,339	4,513,215	
	1919	243	291	1,166	1,155	379	776	402,705	1,314,570	6,138,039	5,043,188	104,851	9,833,391	3,745,352
South Carolina	1929	49	117	730	1,311	---	1,311	229,188	803,956	1,975,400	1,882,795	92,695	4,016,137	2,040,647
	1927	35	70	485	910	5	905	129,728	555,717	1,763,944	1,691,093	72,851	3,407,293	1,703,349
	1919	60	114	432	479	23	450	107,306	371,478	2,092,614	2,017,339	75,275	3,281,650	1,180,045
South Dakota	1929	139	72	731	1,405	5	1,400	193,707	807,691	2,527,115	2,407,762	119,363	4,826,519	2,299,494
	1927	76	80	445	878	7	871	149,380	503,235	1,816,876	1,720,240	90,636	3,350,691	1,533,815
	1919	120	73	456	610	27	592	144,045	432,925	2,231,494	2,140,066	85,428	3,582,012	1,350,518
Tennessee	1929	131	230	2,124	3,454	410	3,044	483,611	2,126,381	6,414,379	6,194,173	222,200	13,939,048	7,522,609
	1927	84	293	1,852	2,593	291	2,302	549,172	1,596,993	5,785,145	5,593,218	191,427	12,093,410	6,308,274
	1919	135	403	1,325	1,257	184	1,073	402,734	1,008,157	4,904,655	4,810,656	154,020	8,444,062	3,480,307
Texas	1929	587	535	5,137	9,208	1,303	7,905	1,168,233	5,862,247	16,897,278	16,272,113	625,165	35,881,047	18,083,769
	1927	468	354	3,827	6,501	1,100	5,401	825,040	4,406,774	14,161,873	13,541,234	620,039	27,062,856	12,939,983
	1919	610	624	2,752	2,792	863	1,029	805,411	2,502,208	12,700,172	12,298,613	401,559	20,154,202	7,454,030
Utah	1929	59	46	665	893	6	857	130,497	696,091	2,508,145	2,393,282	114,863	5,013,072	2,594,927
	1927	44	52	483	748	---	748	117,906						

# BREAD AND OTHER BAKERY PRODUCTS

**TABLE 2.—GENERAL STATISTICS, BY STATES, FOR THE INDUSTRY, 1929, 1927, AND 1919, AND FOR ITS BRANCHES, 1929 AND 1927—Continued**

[See note at head of this table]

STATE	Census year	Number of establishments	Salaried officers and employees	Wage earners (average for the year)	HORSEPOWER (RATED CAPACITY) OF POWER EQUIPMENT			Salaries	Wages	COST OF MATERIALS, CONTAINERS FOR PRODUCTS, FUEL, AND PURCHASED ELECTRIC ENERGY			Value of products <sup>1</sup>	Value added by manufacture <sup>2</sup>
					Total	Prime movers	Motors run by purchased energy			Total	Materials and containers	Fuel and purchased energy		
<b>THE INDUSTRY AS A WHOLE—Cont.</b>														
Virginia.....	1929	116	242	1,700	3,411	32	3,379	Dollars 484,098	Dollars 2,067,604	Dollars 6,103,789	Dollars 233,408	Dollars 11,467,974	Dollars 5,304,185	
	1927	90	191	1,380	2,745	60	2,685	350,094	1,670,807	5,531,452	5,325,760	10,505,061	4,974,100	
	1919	125	310	1,262	1,514	118	1,306	579,388	1,233,409	7,010,534	6,881,635	11,002,210	3,982,685	
Washington.....	1929	370	348	2,007	4,116	32	4,084	723,722	3,851,830	10,107,700	9,080,088	20,490,217	10,382,517	
	1927	382	2,218	2,418	3,055	252	3,703	622,303	3,003,670	9,742,066	9,334,185	18,817,252	9,074,280	
	1919	364	345	1,743	1,720	55	1,071	635,208	2,220,892	0,237,008	0,000,945	15,043,030	5,806,022	
West Virginia.....	1929	124	164	1,440	3,404	176	3,288	464,314	1,907,549	5,402,002	5,257,581	11,005,655	5,543,593	
	1927	117	184	1,236	2,594	2	2,594	405,517	1,746,210	5,747,228	5,562,105	10,777,001	5,030,733	
	1919	146	113	707	1,557	328	1,220	184,845	835,162	4,775,248	4,084,755	6,879,183	2,103,936	
Wisconsin.....	1929	711	513	4,768	6,739	904	5,775	1,255,784	6,215,213	16,409,610	15,614,504	34,205,338	17,705,728	
	1927	714	418	4,189	6,218	969	5,249	985,317	5,388,064	15,184,740	14,450,335	30,907,002	15,722,316	
	1919	742	489	2,540	2,347	248	2,099	720,712	2,511,934	12,906,252	12,578,560	20,130,468	7,134,216	
Wyoming.....	1929	37	10	152	239	-----	239	29,000	215,213	633,378	597,467	1,198,983	505,005	
	1927	37	9	122	170	5	165	18,694	177,122	481,000	451,302	806,724	415,034	
	1919	61	11	103	105	-----	105	10,631	127,104	685,452	661,267	1,073,000	388,508	
<b>BISCUIT AND CRACKERS</b>														
United States.....	1929	376	4,086	33,871	56,193	22,082	34,111	10,407,049	34,208,060	107,100,604	104,452,038	2,048,026	274,489,531	107,388,867
	1927	220	4,405	32,982	40,773	23,278	20,495	9,001,165	34,028,801	107,932,438	104,770,373	3,150,015	248,089,954	141,057,510
	1919	179	6,889	34,341	429,100	18,267	10,929	12,105,682	26,065,705	103,134,410	101,330,803	1,797,547	204,020,505	100,886,155
Individual States:														
California.....	1929	29	228	1,407	3,115	970	2,145	480,308	1,636,597	5,067,335	4,972,093	85,242	11,878,250	6,820,915
	1927	25	210	1,564	2,950	970	1,980	459,287	1,089,602	4,787,807	4,669,822	117,085	10,704,081	5,916,274
Illinois.....	1929	21	409	3,003	3,835	2,565	1,240	1,082,036	3,392,030	11,322,890	11,104,180	218,710	29,810,875	18,487,985
	1927	15	400	2,978	4,081	2,760	1,931	942,986	3,201,506	10,716,711	10,428,935	280,770	26,069,559	15,363,848
Indiana.....	1929	8	102	700	1,775	405	1,370	248,985	798,249	2,404,772	2,338,000	65,812	5,042,470	2,637,704
	1927	6	165	743	1,703	510	1,193	318,044	739,006	2,278,330	2,206,397	66,942	4,882,108	2,608,850
Iowa.....	1929	8	148	858	2,204	805	1,399	376,483	990,189	3,055,000	2,977,513	78,387	6,706,305	3,740,460
	1927	8	115	943	1,400	804	605	281,036	977,503	3,547,980	3,450,005	97,381	4,025,273	
Louisiana.....	1929	7	49	505	549	150	390	131,058	304,024	1,084,106	1,054,526	20,070	2,584,789	1,450,543
	1927	4	45	544	321	160	171	110,398	377,787	1,210,510	1,184,831	34,670	2,534,188	1,314,678
Maryland.....	1929	8	76	688	1,477	125	1,352	192,472	627,183	2,027,285	1,958,880	68,399	4,523,244	2,495,959
	1927	4	120	570	1,522	125	927	201,687	607,701	1,095,220	1,004,902	30,324	1,406,627	1,404,401
Massachusetts.....	1929	10	302	1,869	2,926	1,175	1,751	610,006	1,677,481	5,219,790	5,089,009	180,781	13,044,577	7,824,787
	1927	10	231	1,033	1,948	1,280	908	458,544	1,511,013	4,707,777	4,547,700	100,077	12,437,703	7,729,020
Michigan.....	1929	21	258	1,403	1,848	860	988	610,278	1,323,840	4,697,737	4,555,711	142,020	11,068,522	6,400,785
	1927	16	184	1,283	1,870	885	904	440,432	1,309,425	4,323,614	4,185,249	138,305	9,520,068	5,197,054
Minnesota.....	1929	10	79	710	2,310	1,330	980	100,707	710,593	2,384,692	2,323,055	60,786	6,180,770	3,802,078
	1927	9	78	736	1,455	1,110	345	150,838	791,175	2,563,036	2,484,886	78,150	6,470,027	2,906,991
Missouri.....	1929	14	240	2,500	4,410	2,700	1,716	447,140	2,330,056	7,829,489	7,611,630	217,859	19,437,414	11,007,025
	1927	11	176	2,436	3,802	2,378	1,429	343,433	2,355,103	8,137,837	7,857,185	286,652	16,711,409	8,573,632
New Jersey.....	1929	13	21	120	263	-----	263	54,240	128,484	394,104	366,128	28,030	806,440	502,285
	1927	3	7	52	73	35	38	11,921	62,615	164,956	159,490	8,490	341,468	176,482
New York.....	1929	27	1,219	8,535	12,957	4,910	8,047	2,750,847	9,707,798	27,377,278	26,840,876	527,402	75,239,709	47,852,431
	1927	23	1,147	9,004	12,703	6,529	7,174	2,206,195	11,020,944	30,417,129	29,442,452	974,697	75,447,372	45,030,243
Ohio.....	1929	20	268	1,833	3,121	285	2,836	662,597	1,985,414	6,013,248	6,720,451	180,797	16,673,878	9,760,622
	1927	16	232	1,730	3,473	454	3,010	521,774	1,859,285	7,037,126	6,850,080	181,040	13,971,448	6,984,322
Oregon.....	1929	5	49	293	301	105	196	81,994	233,790	635,574	618,574	17,000	1,433,180	707,606
	1927	5	35	206	297	100	197	80,679	211,170	706,221	691,805	14,416	1,405,918	759,697
Pennsylvania.....	1929	95	414	3,988	5,695	2,938	2,757	960,792	3,597,213	10,450,371	10,065,985	384,389	28,189,060	17,738,593
	1927	18	424	3,110	4,726	3,620	1,106	709,998	2,832,494	9,420,695	9,102,081	323,014	23,094,948	13,608,353
Tennessee.....	1929	7	65	440	1,038	400	638	116,300	390,819	1,313,712	1,285,122	23,500	3,244,843	1,931,131
Washington.....	1929	10	89	488	753	15	738	179,341	528,110	1,014,297	1,570,005	43,392	3,494,633	1,880,336
	1927	13	123	444	698	75	623	300,553	515,958	1,561,282	1,522,001	39,191	3,267,713	1,706,431
Wisconsin.....	1929	6	133	783	1,478	950	525	300,119	743,684	2,587,437	2,538,289	49,148	6,772,800	4,185,369
	1927	6	105	847	1,463	909	494	255,781	790,176	2,800,187	2,767,058	49,000	6,555,565	3,749,468
Groups of States:														
Ala., 3 est.; Ga., 1.....	1929	4	36	481	917	150	767	90,936	370,809	1,292,182	1,264,840	27,342	3,071,709	1,779,527
Ark., 2 est.; Tex., 8.....	1929	10	110	844	1,292	1,025	267	211,135	645,860	2,515,388	2,470,498	44,890	6,836,075	4,320,687
Colo., 3 est.; Okla., 2; Utah, 3.....	1929	8	55	644	1,060	84	976	161,095	658,861	2,316,101	2,262,277	53,914	6,230,772	3,014,581
Ky., 3 est.; Va., 2.....	1929	5	54	385	674	-----	674	86,819	270,688	944,380	909,667	84,722	1,719,038	774,647
Nebr., 4 est.; N. Dak., 1; S. Dak., 1.....	1929	6	101	774	1,729	105	1,624	222,492	784,693	2,598,340	2,529,861	68,479	7,538,710	4,940,870

See footnotes at end of table.

## CENSUS OF MANUFACTURES: 1929

TABLE 2.—GENERAL STATISTICS, BY STATES, FOR THE INDUSTRY, 1929, 1927, AND 1919, AND FOR ITS BRANCHES, 1929 AND 1927—Continued

[See note at head of this table]

STATE	Cen- sus year	Number of estab- lish- ments	Salaried officers and em- ployees	Wage earners (aver- age for the year)	HORSEPOWER (RATED CAPACITY) OF POWER EQUIPMENT			Salaries	Wages	COST OF MATERIALS, CONTAINERS FOR PRODUCTS, FUEL, AND PUR- CHASED ELECTRIC ENERGY			Value of products <sup>1</sup>	Value added by manufac- ture <sup>2</sup>
					Total	Prime mov- ers	Motors run by pur- chased energy			Total	Materials and containers	Fuel and purchased energy		
BISCUIT AND CRACKERS—continued														
Groups of States—Conn., 1; Del., 2; D. C., 1; Kans., 1; Me., 1; N. H., 1; R. I., 1)														
	1929	8	120	461	400		400	Dollars 210,184	Dollars 336,284	Dollars 1,004,007	Dollars 1,007,161	Dollars 56,906	Dollars 2,795,508	Dollars 1,731,501
States not shown separately	1927	20	612	3,544	5,140	1,530	3,601	1,170,490	3,115,978	11,841,000	11,567,212	273,887	25,302,743	13,461,644
BAKERY PRODUCTS, OTHER THAN BISCUIT AND CRACKERS														
United States	1929	20,410	\$16,956	100,970	200,330	10,440	282,890	\$9,410,816	\$240,353,512	\$620,908,836	\$602,136,090	\$27,862,776	\$1,251,021,280	\$621,622,444
	1927	17,909	\$16,282	130,013	234,471	14,724	210,747	\$7,648,607	\$202,197,061	\$585,303,725	\$559,274,511	\$26,029,214	\$1,145,710,270	\$599,406,646
	1919	24,910	\$24,253	107,251	180,515	21,779	114,730	\$30,714,284	\$132,171,204	\$610,105,001	\$592,427,067	\$17,677,334	\$947,876,763	\$337,770,762
Individual States:														
Arizona	1929	55	41	322	580		580	107,023	447,689	1,559,526	1,476,804	79,722	2,687,905	1,131,370
	1927	47	42	263	364	26	338	73,397	303,589	1,380,324	1,313,392	66,932	2,428,980	1,048,606
California	1929	1,332	976	9,898	25,228	436	24,792	2,380,999	15,623,524	39,221,323	37,085,542	1,235,781	70,269,003	37,047,680
	1927	1,068	775	8,143	12,697	204	12,463	1,941,426	13,671,656	34,583,063	33,415,903	1,167,760	67,263,639	32,079,976
Florida	1929	187	178	1,724	3,445	2	3,443	303,831	1,086,169	5,115,714	4,853,542	262,172	10,650,284	5,540,570
	1927	169	104	1,639	3,341	15	3,326	390,018	2,140,501	5,541,569	5,241,683	299,888	10,994,217	5,452,648
Idaho	1929	56	23	207	479	6	474	41,404	330,028	1,100,910	1,086,025	80,294	2,024,503	857,584
	1927	48	18	208	417		417	44,400	274,612	909,738	850,334	60,404	1,592,126	682,388
Illinois	1929	2,187	1,563	13,926	22,772	1,449	21,323	3,491,820	22,528,049	54,762,049	52,534,690	2,227,350	108,780,490	54,018,441
	1927	1,975	1,337	12,119	20,468	2,152	18,316	3,687,790	10,875,588	64,004,827	61,700,421	2,364,406	104,905,174	50,000,347
Indiana	1929	488	390	4,205	14,344	241	14,103	1,020,793	5,550,300	16,412,431	14,660,700	715,671	20,450,870	14,047,439
	1927	446	407	3,311	6,314	32	6,282	904,104	4,424,008	14,585,190	13,954,262	630,937	20,890,182	12,314,983
Iowa	1929	395	291	2,658	5,149	30	5,119	620,139	3,180,810	9,499,500	8,941,915	557,645	18,210,818	8,720,250
	1927	359	235	2,232	4,400	14	4,476	452,628	2,762,657	8,763,678	8,230,594	483,084	16,780,410	8,022,700
Louisiana	1929	201	167	1,913	2,954	153	2,801	405,344	1,993,300	5,716,351	5,459,171	267,180	10,054,572	5,238,221
	1927	171	161	1,468	2,203	175	2,028	303,554	1,431,444	5,217,600	4,905,572	252,037	9,850,655	4,642,049
Maryland	1929	282	327	2,784	5,672	11	5,661	729,444	3,777,349	10,579,730	10,162,424	414,315	20,487,197	9,910,458
	1927	297	267	2,937	4,832	20	4,812	673,194	3,808,713	11,128,310	10,653,401	474,849	21,613,304	10,484,004
Massachusetts	1929	1,067	781	8,544	11,461	840	10,621	1,748,876	12,022,714	34,444,340	32,048,384	1,405,956	67,225,725	32,781,385
	1927	1,034	692	6,840	10,004	1,050	9,044	1,047,077	9,516,729	32,304,025	31,077,807	1,316,218	61,208,518	28,874,403
Michigan	1929	724	791	7,886	13,860	1,162	12,698	1,812,065	11,031,816	32,163,684	30,830,374	1,333,310	62,420,637	30,257,253
	1927	517	778	5,270	10,401	1,048	9,353	2,283,367	7,427,534	25,479,210	24,507,836	971,374	45,502,247	20,023,037
Minnesota	1929	428	329	3,181	4,643	332	4,311	702,292	3,544,715	10,234,358	9,742,254	492,104	20,304,888	10,160,530
	1927	298	310	2,498	4,030	312	3,727	880,352	2,960,851	9,042,433	8,594,357	448,076	18,401,358	9,358,025
Mississippi	1929	68	58	610	1,639	70	1,569	97,512	471,466	1,824,150	1,734,610	89,549	3,460,003	1,636,444
	1927	60	48	463	865		865	80,548	471,466	1,559,069	1,482,514	79,555	3,001,963	1,442,894
Missouri	1929	697	466	5,150	10,813	260	10,553	1,210,336	7,411,033	19,016,413	18,150,765	865,648	39,790,295	20,770,882
	1927	691	382	4,193	8,780	185	8,595	1,340,541	5,888,679	18,300,285	17,636,184	864,101	37,241,597	18,851,312
Montana	1929	82	40	499	788		788	110,077	608,022	1,808,410	1,764,028	104,382	3,748,856	1,880,446
	1927	85	37	412	610	0	613	82,000	584,102	1,840,046	1,744,544	101,602	3,463,125	1,617,079
Nevada	1929	14	17	65	129		129	27,232	103,282	335,061	320,404	14,597	576,342	241,281
	1927	11	10	51	85		85	28,010	84,120	229,730	220,075	9,655	400,975	231,245
New Jersey	1929	969	660	7,094	10,714	1,040	9,674	1,274,294	11,636,616	27,925,053	26,529,025	1,396,028	59,401,614	28,476,561
	1927	931	547	6,305	10,237	1,590	8,647	1,527,392	10,672,833	28,768,859	27,316,414	1,452,445	58,618,085	29,849,226
New Mexico	1929	34	16	177	332		332	25,094	198,051	663,496	630,318	33,178	1,164,090	501,194
	1927	32	4	164	202		202	0,000	179,862	539,304	501,867	37,437	950,170	401,875
New York	1929	3,172	2,605	25,169	39,228	3,673	35,555	6,627,355	43,003,629	107,929,804	102,953,490	4,976,405	219,950,722	112,029,818
	1927	2,460	2,553	20,413	28,321	2,581	25,740	6,746,171	34,747,655	99,728,965	92,254,654	4,474,311	197,080,862	100,957,897
North Carolina	1929	83	154	1,249	2,808	516	2,292	303,399	1,291,827	3,757,223	3,502,568	164,505	7,220,865	3,472,042
	1927	61	59	1,012	1,660	2	1,658	117,147	1,000,230	3,205,030	3,034,743	120,206	6,103,940	3,003,910
Ohio	1929	1,292	938	11,734	20,657	755	19,902	2,191,767	16,511,595	44,602,027	42,821,754	1,870,273	89,561,191	41,869,134
	1927	1,098	1,101	9,634	18,794	828	17,966	3,037,424	12,829,158	42,170,801	40,440,524	1,721,337	79,018,828	36,847,067
Oregon	1929	213	185	1,444	2,371	7	2,364	403,019	1,932,646	4,945,382	4,684,673	260,704	9,455,084	4,509,702
	1927	159	182	1,060	1,860		1,860	359,203	1,609,077	4,406,516	4,240,071	226,446	8,529,871	4,003,355
Pennsylvania	1929	1,834	2,140	19,972	30,117	3,783	32,334	5,175,468	27,583,374	70,803,890	67,677,731	3,120,168	142,410,533	71,015,634
	1927	1,882	1,718	19,265	31,789	2,937	28,862	4,572,328	27,017,494	70,641,122	67,553,583	3,037,539	141,768,383	71,127,261
South Carolina	1929	46	117	730	1,311		1,311	229,188	803,956	1,975,490	1,882,795	92,695	4,016,137	2,040,647
	1927	35	70	485	910	5	905	129,728	555,717	1,763,944	1,691,093	72,851	3,467,292	1,763,349

See footnotes at end of table.

# BREAD AND OTHER BAKERY PRODUCTS

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**TABLE 2.—GENERAL STATISTICS, BY STATES, FOR THE INDUSTRY, 1929, 1927, AND 1919, AND FOR ITS BRANCHES, 1929 AND 1927—Continued**

[See note at head of this table]

STATE	Census year	Number of establishments	Salaried officers and employees	Wage earners (average for the year)	HORSEPOWER (RATED CAPACITY) OF POWER EQUIPMENT			Salaries	Wages	COST OF MATERIALS, CONTAINERS FOR PRODUCTS, FUEL, AND PURCHASED ELECTRIC ENERGY			Value of products <sup>1</sup>	Value added by manufacture <sup>2</sup>
					Total	Prime movers	Motors run by purchased energy			Total	Materials and containers	Fuel and purchased energy		
<b>BAKERY PRODUCTS, OTHER THAN BISCUIT AND CRACKERS—continued.</b>														
<b>Individual States—Continued.</b>														
Tennessee.....	1929	124	105	1,084	2,416	10	2,406	Dollars 367,249	Dollars 1,735,762	Dollars 5,102,067	Dollars 4,000,061	Dollars 193,010	Dollars 10,604,205	Dollars 5,501,538
Vermont.....	1920	42	54	342	643	-----	643	114,205	430,158	1,360,307	1,284,017	81,390	2,541,503	1,175,280
	1927	44	64	270	601	15	586	107,516	382,074	1,460,382	1,380,608	81,960	2,465,478	1,000,090
Washington.....	1920	354	250	2,110	3,303	17	3,346	544,381	3,823,720	8,493,403	8,115,183	378,220	10,905,584	8,502,181
	1927	360	120	1,974	3,257	177	3,080	321,810	3,147,021	8,181,084	7,812,094	360,500	16,540,530	7,307,855
West Virginia.....	1920	124	104	1,440	3,404	170	3,288	404,314	1,007,540	5,462,092	5,257,581	204,511	11,005,055	5,543,563
	1927	117	154	1,280	2,504	-----	2,504	405,517	1,745,210	5,747,228	5,502,105	185,123	10,777,001	5,030,733
Wisconsin.....	1920	705	380	3,075	5,201	14	5,247	955,065	5,471,520	13,822,173	13,070,215	745,058	27,432,532	13,010,350
	1927	700	311	3,342	4,755	-----	4,755	730,530	4,598,488	12,378,580	11,702,277	678,312	24,351,497	11,072,008
Wyoming.....	1920	37	10	152	230	-----	230	20,900	215,781	633,378	507,407	35,011	1,198,083	505,005
	1927	37	0	122	170	5	105	18,094	177,122	481,000	461,302	20,008	890,724	415,034
<b>Groups of States:</b>														
Ala., 83 est.; Ga., 103.....	1920	186	340	2,038	5,063	140	4,863	711,904	2,090,040	8,745,580	8,383,842	361,747	17,140,751	8,401,102
Ark., 93 est.; Tex., 570.....	1920	672	510	5,191	9,414	282	9,132	1,141,448	6,145,194	17,030,834	16,340,200	684,574	34,287,000	17,250,265
Colo., 177 est.; Okla., 207; Utah, 47.....	1920	431	338	3,416	6,530	487	6,043	732,061	4,133,087	12,088,532	11,554,080	534,452	23,778,002	11,080,470
Ky., 108 est.; Va., 114.....	1920	282	370	2,044	6,104	101	6,003	700,593	3,752,300	10,614,892	10,210,394	395,498	10,054,520	6,330,034
Nebr., 213 est.; N. Dak., 55; S. Dak., 138.....	1920	406	252	2,581	4,028	13	4,015	507,085	2,085,874	8,870,700	8,404,887	465,870	17,157,083	8,280,917
<b>Other States (Conn., 352 est.; Del., 34; D. C., 99; Kans., 281; Mo., 132; N. H., 88; R. I., 154).....</b>														
States not shown separately.....	1927	2,057	2,343	21,041	30,342	1,345	37,007	4,828,840	27,520,004	83,058,427	79,720,147	3,082,280	103,700,084	80,110,657

<sup>1</sup> The figures for 1920 refer to sales (shipments or deliveries) by manufacturers; those for earlier years represent production. See GENERAL EXPLANATIONS—Value of products.

<sup>2</sup> Value of products less cost of materials, containers for products, fuel, and purchased electric energy. See GENERAL EXPLANATIONS—Value Added by Manufacture.

<sup>3</sup> Not including proprietors and firm members, as follows: For 1920, 21,588; 1927, 10,481; 1919, 27,008. The total numbers of persons engaged—proprietors and firm members, salaried officers and employees, and wage earners—as reported for the industry, are as follows: For 1920, 244,070; 1927, 211,113; 1919, 200,042.

<sup>4</sup> Data for purchased power other than electric (power transmitted into the plant by belt or shaft) are included in the State items for 1919 but not in the United States totals.

<sup>5</sup> Includes data for establishments engaged primarily in the production of pretzels, which were classified in the "Bakery products other than biscuit and crackers" branch of the industry for 1927 and 1919. "Number of establishments" is the only item materially affected by this change.

<sup>6</sup> Not including proprietors and firm members, as follows: For 1920, 219; 1927, 83; 1919, 54. The total numbers of persons engaged—proprietors and firm members, salaried officers and employees, and wage earners—as reported for this branch of the industry, are as follows: For 1920, 38,775; 1927, 37,470; 1919, 41,284.

<sup>7</sup> Alabama, 2 establishments; Arkansas, 1; Colorado, 3; Connecticut, 1; Georgia, 1; Kansas, 1; Kentucky, 2; Maine, 2; Nebraska, 2; New Hampshire, 1; North Dakota, 1; Oklahoma, 1; South Dakota, 1; Tennessee, 2; Texas, 3; Utah, 3; Virginia, 2.

<sup>8</sup> Not including proprietors and firm members, as follows: For 1920, 21,369; 1927, 10,308; 1919, 27,854. The total numbers of persons engaged—proprietors and firm members, salaried officers and employees, and wage earners—as reported for this branch of the industry, are as follows: For 1920, 205,295; 1927, 173,043; 1919, 159,358.

<sup>9</sup> Alabama, 74 establishments; Arkansas, 79; Colorado, 169; Connecticut, 289; Delaware, 82; District of Columbia, 66; Georgia, 87; Kansas, 270; Kentucky, 161; Maine, 125; Nebraska, 133; New Hampshire, 76; North Dakota, 40; Oklahoma, 179; Rhode Island, 183; South Dakota, 76; Tennessee, 82; Texas, 463; Utah, 41; Virginia, 88.

**TABLE 3.—PRODUCTS, BY KIND, QUANTITY, AND VALUE, FOR THE INDUSTRY AND ITS BRANCHES, FOR THE UNITED STATES: 1929**

[The statistics in this table were compiled from returns made by 375 establishments which reported 100 per cent of the total value of products for the "Biscuit and crackers" branch of the industry and by 6,834 establishments which reported 89.5 per cent of the total for the "Bakery products other than biscuit and crackers" branch. These two groups of establishments, 10,209 in number, together reported 91.4 per cent of the total value of products for the industry, as a whole. See "Detailed statistics of materials and products," p. 52]

KIND	Total	REPORTED BY—		KIND	Total	REPORTED BY—	
		Manufacturers of biscuit and crackers	Manufacturers of other bakery products			Manufacturers of biscuit and crackers	Manufacturers of other bakery products
Total.....	\$1,304,614,614	\$274,480,531	\$1,120,125,083	Soft cake:			
Bread, rolls, and coffee cake:				Found cake, package cake, and fruit cake, value.....	\$238,351,501	\$5,546,421	\$227,805,080
Pounds.....	9,804,221,325	22,076,640	9,842,144,685	Doughnuts, crullers, and other fried cakes: <sup>1</sup>			
Value.....	\$762,352,193	\$1,542,936	\$760,809,257	Dozens.....	201,091,442	609,339	200,302,103
Biscuit, crackers, and cookies:				Value.....	\$40,130,188	\$130,700	\$30,000,308
Pounds.....	1,348,706,253	1,322,682,270	20,113,074	Pies, value.....	\$74,008,165	\$10,698	\$74,001,467
Value.....	\$263,400,172	\$259,107,363	\$4,301,309	Other products, value.....	\$13,098,907	\$1,039,768	\$12,059,139
Pretzels:							
Pounds.....	45,303,341	43,864,815	1,438,526				
Value.....	\$7,274,488	\$7,000,055	\$208,433				

<sup>1</sup> In addition, bread and other bakery products to the value of \$3,407,310 were reported as secondary products by establishments classified in other industries.  
<sup>2</sup> Both handmade and machinemade.



CENSUS OF MANUFACTURES: 1929

TABLE 4.—AGGREGATE VALUE OF PRODUCTS AND PRODUCTS REPORTED IN DETAIL, BY KIND, QUANTITY, AND VALUE, FOR THE INDUSTRY, BY STATES: 1929

The figures refer to sales (shipments or deliveries) by manufacturers. See GENERAL EXPLANATIONS—Value of Products. Quantities and values of products were reported in detail by 10,269 establishments and values of products reported in detail by 10,578 establishments (failed to report in detail) value of products amounted to \$1,394,614.614, or 91.4 per cent of \$1,526,110.811, the aggregate for the industry. The remaining 10,578 establishments failed to report in detail

STATE	Aggregate value of products for the industry	Total value	PRODUCTS REPORTED IN DETAIL										Pies, value	Other products, value
			Bread, rolls, coffee cake, etc.		Crackers, biscuit (not including raised biscuit) sponge goods, sweet goods, machine-made cookies, etc.		Pretzels, value	Soft cake		Pies, value				
			Quantity	Value	Quantity	Value		Pound cake, package cake, fruit cake, etc., value	Doughnuts, crullers, and other fried cakes					
United States	\$1,526,110,811	\$1,394,614,614	9,864,221,325	\$762,352,193	1,345,766,253	\$263,469,172	\$7,274,433	\$233,351,501	301,091,442	\$40,130,188	\$74,908,165	\$13,098,907		
Alabama	8,132,614	7,782,078	59,061,183	4,849,588	(*)	(*)	(*)	1,519,400	267,620	23,018	207,195	1,013,787		
Arizona	2,087,905	2,259,179	22,799,726	1,870,965	(*)	(*)	(*)	167,691	202,973	42,808	101,972	15,000		
Arkansas	5,242,127	4,741,586	41,660,775	3,324,862	(*)	(*)	(*)	682,854	835,052	135,837	173,968	476,000		
California	88,147,253	79,860,886	671,918,499	44,718,499	63,103,192	12,491,091	80,752	13,926,947	10,214,914	2,161,709	6,111,423	370,462		
Colorado	11,773,612	10,808,234	67,980,435	4,821,382	(*)	(*)	(*)	1,089,483	1,851,117	858,313	1,669,877	2,924,622		
Connecticut	19,224,874	17,221,681	165,941,454	12,294,657	(*)	(*)	(*)	1,964,486	4,331,400	868,943	1,867,619	2,208,924		
Delaware	2,432,835	2,256,788	22,128,129	1,791,432	(*)	(*)	(*)	256,828	418,347	86,430	52,171	100,106		
District of Columbia	10,645,058	9,947,544	90,856,207	7,245,183	(*)	(*)	(*)	1,518,836	620,454	123,942	897,478	136,869		
Florida	10,656,284	9,575,305	86,642,335	7,283,982	(*)	(*)	(*)	1,518,836	620,454	123,942	897,478	136,869		
Georgia	12,083,546	11,651,410	77,253,024	6,836,647	(*)	(*)	(*)	2,233,164	608,072	141,864	270,789	2,108,866		
I Idaho	2,024,503	1,514,641	11,712,189	1,176,503	(*)	(*)	(*)	215,955	194,456	39,848	69,953	12,322		
Illinois	138,391,365	122,516,621	704,382,113	57,899,376	155,821,298	30,411,915	83,107	21,219,622	16,701,492	3,538,717	8,445,111	898,773		
Indiana	31,820,189	28,048,024	186,156,551	12,882,403	27,412,875	4,793,026	12,958	2,769,289	4,791,064	974,227	1,695,371	320,198		
Iowa	24,010,214	22,048,024	166,558,777	12,882,403	88,576,253	6,494,075	(*)	1,440,350	2,409,438	446,227	1,552,357	281,432		
Kansas	11,668,039	9,089,920	96,493,968	7,400,020	(*)	(*)	(*)	456,693	948,003	183,199	980,408	716,439		
Kentucky	10,265,588	9,089,920	84,663,968	7,400,020	(*)	(*)	(*)	1,015,879	1,140,344	200,654	687,275	1,170,607		
Louisiana	13,426,748	12,116,237	100,269,476	7,061,570	(*)	(*)	(*)	1,866,106	1,140,344	200,654	687,275	1,170,607		
Maine	6,426,302	6,426,302	43,626,948	3,388,094	(*)	(*)	(*)	914,622	633,679	111,512	505,267	61,170		
Maryland	25,010,441	23,206,306	171,097,871	12,418,064	(*)	(*)	(*)	4,088,844	1,140,344	200,654	687,275	1,170,607		
Massachusetts	80,270,302	72,933,270	431,986,855	36,263,677	25,310,522	4,161,651	(*)	14,600,240	18,510,676	3,830,964	1,446,119	1,397,203		
Michigan	75,519,459	69,112,349	526,410,859	38,129,826	69,361,753	13,259,838	(*)	11,949,882	18,753,529	3,749,576	3,749,576	1,248,988		
Minnesota	26,581,658	23,623,357	155,017,226	11,936,780	61,258,383	9,805,398	(*)	3,240,697	13,753,529	2,812,191	5,119,578	1,248,988		
Mississippi	3,460,608	3,460,608	32,516,789	2,516,485	(*)	(*)	(*)	384,297	4,519,742	888,705	788,915	327,365		
Missouri	69,349,262	53,949,262	334,157,659	24,552,393	98,826,331	17,067,410	(*)	8,115,626	2,650,853	465,898	1,900,123	1,247,814		
Montana	3,748,856	3,259,534	24,075,659	2,763,889	(*)	(*)	(*)	1,852,361	649,069	138,415	496,116	32,588		
Nebraska	16,392,507	14,622,541	83,679,287	6,525,330	(*)	(*)	(*)	1,852,361	1,250,655	276,598	87,743	5,801,816		
Nevada	4,576,342	4,576,342	5,057,874	413,570	(*)	(*)	(*)	44,951	131,255	26,006	40,980	630		
New Hampshire	4,343,456	3,779,846	38,737,896	2,955,624	(*)	(*)	(*)	360,988	1,497,225	29,701	105,578	54,895		
New Jersey	57,298,035	51,284,563	438,364,418	34,227,220	4,212,254	748,608	136,141	10,974,784	7,313,296	1,450,830	3,218,694	428,336		
New Mexico	1,164,690	1,164,690	6,222,245	476,307	(*)	(*)	(*)	107,253	156,807	32,219	25,389	14,400		
New York	295,190,431	277,543,702	1,542,562,245	129,769,543	342,786,450	73,081,234	348,343	49,469,133	42,894,216	8,529,681	13,671,645	2,675,623		
North Carolina	3,487,367	3,487,367	62,496,467	5,268,532	(*)	(*)	(*)	1,262,875	252,121	127,107	239,240	82,183		
North Dakota	103,255,030	95,253,237	790,850,107	7,434,519	(*)	(*)	(*)	162,720	162,720	51,689	53,440	653,327		
Ohio	3,487,367	3,487,367	62,496,467	5,268,532	(*)	(*)	(*)	1,262,875	252,121	127,107	239,240	82,183		
Oklahoma	103,255,030	95,253,237	790,850,107	7,434,519	(*)	(*)	(*)	162,720	162,720	51,689	53,440	653,327		
Oregon	10,888,284	9,576,593	76,296,207	5,923,096	(*)	(*)	(*)	1,459,592	1,916,034	403,248	589,686	1,094,602		
Pennsylvania	13,222,090	159,117,767	1,182,400,921	88,778,688	110,279,768	23,100,902	(*)	31,282,680	16,058,504	3,002,327	6,681,764	1,735,876		
Rhode Island	4,016,137	3,829,950	35,234,851	2,927,327	(*)	(*)	(*)	814,708	81,716	16,622	56,015	15,203		
South Carolina	4,016,137	3,829,950	35,234,851	2,927,327	(*)	(*)	(*)	814,708	81,716	16,622	56,015	15,203		
South Dakota	4,016,137	3,829,950	35,234,851	2,927,327	(*)	(*)	(*)	814,708	81,716	16,622	56,015	15,203		
Tennessee	35,881,047	31,772,981	246,114,247	18,314,297	(*)	(*)	(*)	2,752,014	691,746	104,168	574,582	245,773		
Texas	5,013,072	4,696,013	34,768,554	2,451,445	(*)	(*)	(*)	4,578,840	4,144,620	831,207	1,528,099	6,520,481		
Utah	2,541,593	2,318,174	18,172,551	1,838,760	(*)	(*)	(*)	154,221	336,297	94,394	84,228	1,200,719		
Vermont	11,467,974	10,593,445	98,466,293	7,103,126	(*)	(*)	(*)	6,645,205	885,021	187,092	36,142	118,693		
Virginia	20,490,217	18,284,979	129,172,551	9,841,274	(*)	(*)	(*)	3,065,806	2,839,486	535,187	1,150,380	1,131,180		
Washington	11,045,655	10,841,031	100,650,303	8,506,577	(*)	(*)	(*)	1,233,697	532,620	108,850	363,009	128,684		
West Virginia	34,205,338	29,154,036	206,850,808	15,839,164	(*)	(*)	(*)	3,723,245	7,759,307	1,517,037	1,195,412	131,372		
Wisconsin	1,198,983	906,828	8,796,683	746,686	(*)	(*)	(*)	96,329	188,920	38,575	20,072	5,266		
Wyoming	1,198,983	906,828	8,796,683	746,686	(*)	(*)	(*)	96,329	188,920	38,575	20,072	5,266		
Combined to avoid disclosing data for individual establishments					156,506,771	28,290,713	1,817,752					\$30,018,465		

1 In addition, bread and other bakery products to the value of \$3,407,319 were reported as secondary products by establishments classified in other industries.  
 2 The United States total represents the actual value of "Other products," but many of the State items include also the values of certain of the specified products for which separate figures could not be given without disclosing the production of individual establishments. (See footnote 3.) Thus the sum of the several State items exceeds the United States total by the combined amount of the specified items not shown separately by States, namely, \$30,018,465.  
 3 The values of specified products not shown for certain States, in order to avoid disclosing the production of individual establishments, are included in the "Other products" column; and both the quantities and the values are included in the appropriate items at the foot of the table. (See footnote 2.)  
 4 See footnote 2.

# BREAD AND OTHER BAKERY PRODUCTS

**TABLE 5.—PRINCIPAL MATERIALS CONSUMED, BY KIND, QUANTITY, AND COST, FOR THE INDUSTRY, BY STATES, 1929**

[The consumption of materials in detail was reported by 9,990 establishments, whose combined value of products amounted to \$1,355,313,725, or 90.8 per cent of the aggregate for the industry. The remaining 10,785 establishments failed to report materials in detail.]

	FLOUR						SUGAR			EGGS, FRESH, FROZEN, AND DRIED			BUTTER, OLEOMARGARINE, AND OTHER BUTTER SUBSTITUTES			LARD	
	White		Graham and whole wheat		Rye		Other			Cost			Pounds			Cost	
	Barrels	Cost	Barrels	Cost	Barrels	Cost	Barrels	Cost	Barrels	Cost	Pounds	Cost	Pounds	Cost	Pounds	Cost	
United States.....	38,595,082	\$248,625,455	1,399,425	\$9,269,219	1,592,561	\$10,185,835	1,411,833	\$9,740,318	977,101,997	\$52,701,215	\$42,770,484	50,056,612	\$16,004,736	253,383,204	\$50,946,561		
Alabama.....	228,045	1,553,119	4,274	33,595	783	5,941	3,345	25,271	5,498,565	297,699	220,736	116,022	42,391	1,035,980	129,064		
Arizona.....	79,864	543,953	4,779	31,933	378	18,477	2,727	15,473	1,416,964	86,786	102,786	51,770	13,994	233,733	42,923		
Arkansas.....	164,064	1,054,718	5,523	41,663	1,579	10,418	1,093	8,945	2,553,685	197,904	102,994	50,506	23,276	988,041	117,373		
California.....	2,203,060	14,965,537	18,743	1,255,597	51,761	363,157	53,442	383,292	56,808,700	3,056,694	2,556,330	2,277,650	820,800	8,424,678	1,036,637		
Colorado.....	290,473	1,779,162	15,591	101,050	8,026	48,158	4,109	35,355	7,807,127	431,636	2,556,330	165,582	30,071	2,730,250	318,800		
Connecticut.....	498,092	3,382,982	17,590	124,498	35,155	240,322	25,234	191,313	9,496,374	498,578	435,725	592,084	128,784	3,304,918	420,064		
Delaware.....	80,315	521,396	17,987	6,928	36,990	6,810	1,055	14,637	610,800	46,291	30,125	35,554	9,183	272,494	31,641		
District of Columbia.....	288,546	1,945,753	7,822	58,612	8,508	58,452	2,298	25,113	5,677,685	293,221	246,017	130,263	42,397	1,382,184	171,235		
Florida.....	279,926	1,884,684	11,080	84,196	4,339	31,429	6,886	58,758	2,600,730	246,102	246,102	142,988	45,449	1,196,146	140,949		
Georgia.....	325,127	2,181,663	18,595	141,657	2,605	19,729	5,406	38,413	9,523,448	517,952	347,641	246,228	82,807	3,150,249	373,183		
Idaho.....	51,550	339,304	5,116	30,764	1,265	8,593	456	4,627	739,432	48,071	38,481	41,579	11,638	291,109	26,540		
Illinois.....	2,900,311	18,081,311	94,560	609,833	247,568	1,424,327	153,003	1,043,822	92,829,462	5,170,324	4,004,215	7,068,802	2,303,888	25,402,475	3,101,819		
Indiana.....	1,179,047	7,402,879	20,834	142,931	16,324	98,225	28,146	214,786	19,696,121	1,496,849	593,713	577,885	498,724	4,885,202	628,519		
Iowa.....	366,892	4,516,911	23,942	165,715	10,145	59,999	25,366	177,083	16,069,290	263,639	188,340	147,868	138,140	5,182,999	628,519		
Kansas.....	339,292	1,946,906	11,438	71,519	3,568	24,583	2,351	16,091	6,669,570	266,996	102,669	186,063	141,069	1,617,674	196,762		
Kentucky.....	324,594	2,114,794	6,473	49,497	8,162	53,031	19,299	19,969	6,275,939	368,668	194,765	169,864	61,950	1,359,311	171,052		
Louisiana.....	493,367	2,810,046	3,312	21,736	2,532	18,150	2,692	30,620	7,638,877	419,497	273,445	291,566	73,692	2,746,410	319,674		
Maine.....	172,107	1,234,660	4,944	37,548	3,410	22,601	8,071	58,071	2,208,371	169,763	133,643	100,375	58,044	1,268,600	159,083		
Maryland.....	725,929	4,720,642	8,353	57,940	17,337	115,345	13,113	109,222	16,308,171	859,541	533,643	748,748	235,140	4,758,090	594,083		
Massachusetts.....	1,973,949	13,081,872	77,859	505,498	66,066	440,239	94,944	739,064	57,023,756	2,800,511	2,839,794	2,786,307	690,417	13,756,884	1,704,230		
Michigan.....	1,840,387	11,688,229	68,137	492,719	185,916	1,252,634	227,827	1,647,890	53,845,075	2,653,759	2,316,576	2,270,518	675,404	14,084,992	1,743,588		
Minnesota.....	601,115	3,795,245	21,275	137,987	26,642	173,039	72,327	467,350	18,588,622	1,038,024	572,473	720,983	211,145	3,734,458	423,733		
Mississippi.....	118,067	787,724	1,571	13,200	1,392	9,815	1,746	12,894	792,351	99,417	46,466	57,648	15,252	6,413,485	689,163		
Missouri.....	1,491,862	8,741,068	45,908	305,379	35,995	235,630	33,857	245,815	40,310,752	2,155,305	1,263,008	1,076,747	346,642	11,258,862	1,305,274		
Montana.....	107,214	715,042	4,132	27,568	1,705	11,877	5,026	33,162	1,375,406	89,041	54,593	58,062	22,197	629,252	80,944		
Nebraska.....	410,387	2,537,449	16,294	108,991	11,937	66,579	10,738	68,181	11,030,269	620,945	252,944	287,197	80,518	3,734,458	423,733		
Nevada.....	18,389	127,214	2,913	21,067	731	4,772	305	2,745	23,392	22,398	10,500	30,778	11,218	169,875	19,933		
New Hampshire.....	140,925	943,001	2,135	14,650	2,957	18,304	12,458	63,069	1,460,368	81,480	77,031	44,294	14,150	999,639	109,939		
New Jersey.....	434,995	9,362,507	60,213	411,518	95,478	632,636	86,703	658,160	33,306,178	1,794,402	2,141,278	2,021,453	662,647	7,644,756	978,245		
New Mexico.....	29,156	212,036	1,556	11,887	259	1,772	1,169	1,122	244,232	25,984	17,012	10,147	3,539	120,240	14,869		
New York.....	6,297,585	41,156,070	294,122	1,955,453	426,859	2,834,377	399,448	2,337,287	184,950,771	9,004,142	9,964,200	15,249,346	4,941,925	48,588,116	5,951,928		
North Carolina.....	241,747	1,605,135	4,633	35,203	4,381	29,632	3,948	29,632	4,984,013	267,035	206,080	231,642	65,424	1,151,702	141,930		
North Dakota.....	82,832	541,515	2,071	13,130	1,085	5,753	1,283	16,395	1,465,645	84,480	21,968	38,095	13,160	532,462	63,392		
Ohio.....	2,970,822	18,508,695	65,835	484,931	75,492	482,396	90,419	662,730	71,145,107	3,918,877	2,694,369	3,273,191	956,906	15,445,586	1,907,632		
Oklahoma.....	387,378	2,506,129	10,655	77,625	2,486	16,905	1,191	8,770	8,633,695	457,841	206,016	111,335	32,512	2,372,428	285,362		
Oregon.....	319,884	1,885,609	31,720	119,190	1,408	8,866	16,169	106,821	10,890,346	596,963	412,190	295,979	82,941	1,048,777	131,225		
Pennsylvania.....	4,355,215	30,130,590	91,098	622,291	109,678	715,174	113,314	890,533	107,869,348	5,766,095	5,633,084	4,611,043	1,755,433	29,157,194	3,496,441		
Rhode Island.....	390,574	2,373,739	8,446	57,243	11,148	78,259	11,498	110,002	6,988,130	369,763	408,129	188,239	72,460	2,803,682	284,386		
South Carolina.....	115,302	777,632	1,119	8,684	471	3,249	4,665	31,708,178	48,264	140,839	140,839	48,264	17,454	809,036	97,662		
South Dakota.....	115,332	707,884	4,465	28,956	3,145	17,718	1,628	12,755	2,135,951	119,987	53,643	92,573	31,474	686,412	78,792		
Tennessee.....	368,113	2,416,089	5,155	37,804	1,408	8,866	16,169	106,821	10,890,346	596,963	412,190	295,979	82,941	1,048,777	131,225		
Texas.....	976,199	6,272,061	22,271	160,932	6,927	41,486	45,969	459,532	26,011,859	1,414,790	777,060	4,611,043	1,755,433	29,157,194	3,496,441		
Utah.....	149,949	924,122	20,698	124,362	6,927	41,486	45,969	459,532	26,011,859	1,414,790	777,060	4,611,043	1,755,433	29,157,194	3,496,441		
Vermont.....	30,855	640,237	1,831	14,113	471	3,249	4,665	31,708,178	48,264	140,839	140,839	48,264	17,454	809,036	97,662		
Virginia.....	90,697	2,309,737	5,107	38,807	2,484	16,290	5,353	44,301	447,686	311,607	246,228	99,271	31,474	686,412	78,792		
Washington.....	511,816	3,188,820	38,926	293,931	15,048	85,672	5,452	37,952	12,823,750	770,935	469,361	443,186	149,592	2,574,389	319,734		
West Virginia.....	391,498	2,567,370	5,516	39,019	2,969	19,483	2,945	24,750	118,178	167,393	167,393	118,178	34,692	1,922,038	241,915		
Wisconsin.....	800,095	4,949,148	30,059	184,713	74,063	393,533	37,291	315,150	1,080,071	1,080,071	1,080,071	1,133,026	292,771	6,376,506	763,462		
Wyoming.....	29,102	203,602	1,283	8,438	211	1,851	211	1,653	237,295	14,838	14,867	9,303	3,416	137,708	19,548		



CENSUS OF MANUFACTURES: 1929

TABLE 5.—PRINCIPAL MATERIALS CONSUMED, BY KIND, QUANTITY, AND COST, FOR THE INDUSTRY, BY STATES: 1929—Continued

[See note at head of this table]

	LARD SUBSTITUTES		OTHER SHORTENING		FLUID MILK		CONDENSED AND EVAPORATED MILK		POWDERED MILK		YEAST		MALT EXTRACTS	
	Pounds	Cost	Pounds	Cost	Pounds	Cost	Pounds	Cost	Pounds	Cost	Pounds	Cost	Pounds	Cost
United States.....	117,826,482	\$14,740,900	141,535,482	\$17,574,002	111,597,891	\$5,789,861	173,240,882	\$13,521,529	73,307,082	\$7,423,567	108,304,924	\$20,103,979	52,063,547	\$3,000,790
Alabama.....	918,397	108,970	612,220	80,466	357,970	20,151	838,600	38,470	615,090	60,274	714,941	135,087	278,190	19,967
Arizona.....	590,596	66,300	179,369	22,781	313,320	13,310	11,094	58,361	45,430	45,187	364,435	85,858	161,582	13,557
Arkansas.....	895,253	51,104	173,735	20,890	310,315	13,092	685,196	33,981	791,538	98,080	92,441	28,441	166,742	13,160
California.....	9,890,165	1,225,003	12,882,437	1,653,727	6,668,151	340,850	4,528,113	301,440	5,794,980	540,210	7,439,041	1,349,007	2,940,628	231,727
Colorado.....	1,225,951	153,400	563,128	60,491	6,668,151	340,850	4,528,113	301,440	5,794,980	540,210	7,439,041	1,349,007	2,940,628	231,727
Connecticut.....	1,224,739	153,733	1,427,960	177,932	1,617,206	82,970	2,770,819	255,016	1,162,605	117,008	1,466,924	288,882	509,658	37,027
Delaware.....	134,171	16,881	244,971	28,325	80,540	1,945	2,017,928	18,417	260,556	79,555	236,920	40,684	145,059	9,029
District of Columbia.....	595,876	77,089	1,238,676	160,867	732,060	40,951	2,287,096	184,021	340,380	57,590	817,267	136,811	211,762	14,011
Florida.....	677,041	94,083	1,054,611	134,523	37,518	3,221	1,682,806	63,506	632,506	94,319	984,088	190,354	179,892	7,984
Georgia.....	498,665	59,790	1,121,635	145,411	461,560	22,934	1,210,509	84,142	1,106,707	114,906	1,037,728	207,139	249,624	19,040
I Idaho.....	217,114	28,575	30,833	4,883	100,610	5,829	39,184	3,329	173,510	18,780	219,839	49,295	124,280	10,147
Illinois.....	11,628,280	1,435,694	11,230,977	1,415,412	12,659,553	586,104	15,488,289	1,024,417	3,357,890	345,591	7,585,300	1,472,925	3,050,627	214,146
Indiana.....	3,326,760	399,267	3,900,968	471,876	2,077,966	102,417	5,368,065	324,089	1,840,807	154,821	3,124,223	603,117	1,262,820	85,609
Iowa.....	1,127,713	213,463	2,344,012	297,655	718,848	35,333	3,300,164	221,691	1,066,897	109,599	2,139,102	388,379	951,075	66,261
Kansas.....	1,147,072	133,869	722,121	83,007	528,667	28,711	1,463,463	119,197	570,808	53,816	955,870	199,882	736,541	59,791
Kentucky.....	885,718	109,750	1,621,164	146,394	529,269	46,739	1,187,009	84,986	644,044	64,539	1,165,443	187,690	328,121	24,338
Louisiana.....	897,659	86,823	779,048	103,351	798,646	77,442	1,051,465	85,879	568,953	58,506	1,019,637	227,971	606,121	43,856
Maine.....	728,484	98,823	375,159	51,473	337,551	15,295	66,286	6,409	847,373	91,738	569,738	105,507	296,927	20,025
Maryland.....	1,514,536	193,865	2,783,823	360,824	2,423,629	80,287	4,665,978	203,577	2,011,439	230,198	378,311	643,888	42,905	
Massachusetts.....	6,514,306	823,390	8,359,822	1,067,521	5,436,204	286,250	8,989,827	690,106	6,113,420	563,972	5,206,945	883,365	1,824,402	126,380
Michigan.....	7,845,746	896,377	5,464,169	678,321	6,282,667	328,415	15,417,854	1,155,563	3,719,525	369,005	5,562,000	991,489	1,570,261	117,230
Minnesota.....	2,147,919	266,800	2,055,522	234,732	1,792,959	87,154	2,981,904	226,251	977,218	101,508	1,624,459	314,579	568,292	41,147
Mississippi.....	847,788	82,393	36,107	4,282	4,282	5,671	444,720	34,480	131,649	13,106	739,844	94,687	189,705	16,524
Missouri.....	3,350,258	394,733	5,671,282	707,045	2,062,607	108,704	8,391,394	684,537	1,307,576	167,043	3,228,582	577,989	1,537,451	108,552
Montana.....	270,758	36,654	131,163	18,008	108,172	5,863	16,750	1,523	494,878	39,744	368,355	90,016	242,973	20,600
Nebraska.....	792,102	96,845	1,266,371	161,106	471,507	22,007	1,489,984	114,461	614,544	63,969	924,313	182,481	570,251	38,227
Nevada.....	54,530	6,293	31,368	4,206	149,560	7,336	77,314	6,144	63,125	6,313	35,491	4,167	14,167	1,805
New Hampshire.....	208,639	27,354	329,668	47,835	203,898	8,975	808,090	54,382	416,588	39,962	481,549	83,966	208,933	14,519
New Jersey.....	3,143,784	386,215	5,834,646	698,545	3,402,289	184,819	7,576,375	593,436	2,133,721	209,933	4,133,013	742,271	2,239,708	154,601
New Mexico.....	126,446	16,508	49,791	3,734	65,740	5,863	16,750	1,523	92,320	10,176	117,254	28,882	45,279	3,672
New York.....	19,803,785	2,492,444	25,924,156	3,462,731	27,003,411	1,357,389	30,664,008	2,629,251	10,226,921	1,174,896	15,967,929	2,681,016	10,112,494	678,386
North Carolina.....	460,139	58,084	740,733	88,726	87,496	4,288	325,450	29,868	128,474	12,847	912,348	170,676	223,101	17,365
North Dakota.....	155,362	18,207	155,362	25,562	164,820	7,568	303,246	18,563	13,184	309,681	65,721	65,721	131,487	9,730
Ohio.....	8,873,003	1,068,531	11,535,117	1,468,337	6,445,333	352,368	14,935,865	1,181,286	3,601,602	360,605	7,849,043	1,460,249	3,913,001	250,895
Oklahoma.....	1,129,710	153,671	453,201	54,765	500,991	27,115	2,041,345	1,165,205	2,265,228	28,330	3,982,584	1,197,983	547,131	42,241
Oregon.....	1,159,166	149,297	1,426,165	172,851	698,586	49,390	624,789	44,540	591,204	46,938	984,401	188,049	339,368	28,266
Pennsylvania.....	11,645,400	1,476,052	13,830,210	1,709,210	15,748,381	921,678	16,227,609	1,334,695	9,355,013	930,133	12,872,781	2,855,813	8,587,151	543,127
Rhode Island.....	647,139	85,770	1,346,624	174,081	1,158,008	59,416	6,648,646	32,444	870,445	58,809	963,537	174,715	444,551	30,147
South Carolina.....	392,918	42,292	170,248	4,453	1,107,064	4,453	365,409	32,444	416,805	39,796	482,904	87,076	88,310	6,268
South Dakota.....	483,539	63,424	297,384	26,017	510,960	26,583	131,847	9,915	299,366	30,315	353,760	73,310	188,661	13,967
Tennessee.....	1,477,923	201,882	1,121,170	141,692	380,376	18,896	1,440,656	116,360	1,303,942	129,346	980,095	176,638	264,435	19,315
Texas.....	2,510,513	300,582	2,562,581	308,226	2,562,581	308,226	3,265,040	204,584	1,562,879	156,287	2,966,440	529,940	1,325,221	90,600
Utah.....	151,613	19,637	368,416	51,359	1,560,740	7,788	12,162	1,261	520,581	33,434	365,456	74,836	365,708	30,600
Vermont.....	263,519	31,423	170,248	20,838	162,232	7,789	4,378	439,813	41,801	303,613	62,019	214,407	15,109	
Virginia.....	838,141	105,529	1,304,189	158,689	293,781	14,112	1,428,969	131,846	1,346,571	135,401	1,015,144	197,735	374,801	27,869
Washington.....	2,862,567	375,312	1,730,399	233,147	529,824	119,105	785,964	58,447	1,357,359	121,174	1,794,786	371,282	829,824	62,829
West Virginia.....	291,015	34,890	660,577	85,901	2,971,886	14,512	1,679,029	115,510	1,199,297	122,417	2,945,915	226,388	511,869	39,077
Wisconsin.....	2,602,672	320,753	2,488,126	300,329	2,502,686	122,613	3,446,425	287,806	1,069,686	101,756	2,805,319	473,474	1,072,087	73,696
Wyoming.....	78,311	10,046	48,196	6,238	64,130	3,200	20,250	2,137	1,120,365	11,739	91,063	25,028	33,871	3,229

# BREAD AND OTHER BAKERY PRODUCTS

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TABLE 6.—OVENS, BY KIND AND NUMBER, FOR THE INDUSTRY, BY STATES: 1929

STATE	NUMBER OF ESTABLISHMENTS <sup>1</sup>		VALUE OF PRODUCTS <sup>1</sup>		NUMBER OF OVENS REPORTED									
	In the industry	Reporting ovens	Total for industry	Total for establishments reporting ovens	Draw-plate	Peel	Portable	Rack	Reel	Rotary	Sugar-wafer	Traveling hearth	Traveling tray	Other
United States.....	20,785	14,017	\$1,526,110,811	\$1,391,052,833	1,828	16,537	3,839	1,380	1,430	1,510	305	410	565	446
Alabama.....	86	60	8,132,914	7,809,115	8	82	31	15	6	7	2	2	2	2
Arizona.....	55	35	2,087,905	2,114,173	3	28	3	1	6	4	2	2	2	3
Arkansas.....	95	68	5,242,127	4,717,848	5	55	22	15	23	5	0	0	0	0
California.....	1,301	865	88,147,253	80,311,252	104	1,003	166	100	122	136	22	27	44	46
Colorado.....	180	118	11,773,612	10,777,953	6	147	33	5	15	10	2	1	5	1
Connecticut.....	353	282	19,225,874	17,040,445	85	320	66	27	6	25	6	17	9	0
Delaware.....	36	17	2,432,335	2,100,202	3	23	6	4	2	2	3	2	2	2
District of Columbia.....	100	80	10,645,058	10,492,043	11	65	50	8	10	31	6	8	3	3
Florida.....	187	123	10,656,284	9,665,055	9	134	36	32	17	26	1	10	2	2
Georgia.....	104	81	12,085,546	11,618,041	33	134	23	94	15	14	4	6	1	1
Idaho.....	56	30	2,024,503	1,610,847	1	142	11	3	1	1	1	4	4	4
Illinois.....	2,208	1,356	138,591,365	126,100,223	99	1,047	443	133	86	100	34	13	45	21
Indiana.....	496	384	34,502,346	32,484,870	26	409	151	37	23	23	5	6	18	10
Iowa.....	404	302	25,016,214	23,521,445	13	245	104	16	28	20	0	1	18	3
Kansas.....	282	190	11,668,039	10,131,246	0	147	50	22	44	17	1	11	4	4
Kentucky.....	171	90	10,205,588	8,962,273	2	123	25	20	1	10	4	3	3	5
Louisiana.....	208	124	13,489,311	11,540,008	14	228	11	36	6	22	2	2	2	2
Maine.....	133	103	7,426,748	6,944,322	15	70	50	2	8	3	4	4	2	2
Maryland.....	290	177	25,016,441	24,087,069	12	227	19	11	11	35	1	12	11	1
Massachusetts.....	1,077	1,031	80,270,302	78,868,147	136	927	426	38	70	88	2	14	20	39
Michigan.....	745	532	73,519,459	70,155,231	65	578	228	47	21	51	12	18	26	28
Minnesota.....	438	281	26,581,658	21,151,268	27	217	104	12	22	26	1	4	7	7
Mississippi.....	68	53	3,460,603	2,911,701	10	72	10	13	1	2	2	2	2	2
Missouri.....	711	561	59,233,709	57,223,096	38	593	104	54	57	47	23	18	15	10
Montana.....	82	64	3,748,856	3,467,602	5	70	15	2	8	8	1	2	1	1
Nebraska.....	217	103	16,382,507	15,551,084	28	155	58	5	18	10	1	3	4	4
Nevada.....	14	14	576,342	576,342	2	14	2	2	1	1	1	1	1	2
New Hampshire.....	80	65	4,343,456	4,010,220	3	64	31	2	1	3	1	2	2	2
New Jersey.....	982	703	57,298,063	51,338,020	98	809	81	39	16	67	1	10	19	26
New Mexico.....	34	15	1,164,090	666,590	15	4	4	4	4	4	4	4	4	4
New York.....	3,199	2,180	205,199,431	274,877,030	441	3,087	332	213	269	223	141	102	89	90
North Carolina.....	83	71	7,229,865	7,010,216	5	118	25	15	1	3	1	1	1	1
North Dakota.....	56	35	3,487,367	3,005,127	2	36	10	1	7	4	1	1	1	1
Ohio.....	1,321	910	103,235,031	97,377,889	70	978	292	75	103	120	10	26	37	8
Oklahoma.....	209	134	13,222,090	11,537,426	6	117	34	4	72	9	2	2	2	3
Oregon.....	218	187	10,888,264	10,236,616	20	194	37	15	11	20	0	0	7	7
Pennsylvania.....	1,929	1,123	170,608,562	136,255,670	169	1,311	233	117	103	143	20	69	76	31
Rhode Island.....	155	120	12,111,570	10,523,736	29	141	63	4	5	14	3	3	0	0
South Carolina.....	46	41	4,016,137	3,993,529	5	64	10	3	2	12	2	2	1	1
South Dakota.....	130	72	4,826,519	3,951,954	4	40	29	2	0	6	3	1	4	4
Tennessee.....	131	93	13,939,048	12,729,393	11	114	24	7	17	20	5	1	4	2
Texas.....	587	382	35,881,047	32,017,082	43	315	80	48	141	54	1	10	15	13
Utah.....	50	40	5,013,072	4,641,314	35	38	6	3	5	3	1	2	1	1
Vermont.....	42	37	2,641,593	2,468,470	0	38	12	1	3	4	4	1	1	1
Virginia.....	116	93	11,467,974	10,544,397	5	132	33	10	7	12	3	4	4	1
Washington.....	370	259	20,490,217	18,430,028	20	209	42	25	12	20	1	3	7	10
West Virginia.....	124	99	11,005,655	10,221,607	6	140	41	24	7	13	1	4	4	4
Wisconsin.....	711	641	34,205,338	32,873,287	60	532	154	30	22	22	2	5	5	24
Wyoming.....	37	26	1,198,983	1,036,243	13	22	13	4	4	4	4	4	4	4

<sup>1</sup> The number of establishments reporting ovens formed 70.3 per cent of the total number of establishments in the industry, and their combined value of products formed 91.2 per cent of the total value of products of all establishments in the industry.

## CENSUS OF MANUFACTURES: 1929

TABLE 7.—DELIVERY VEHICLES, BY KIND AND NUMBER, FOR THE INDUSTRY, BY STATES: 1929

STATE	NUMBER OF ESTABLISHMENTS <sup>1</sup>		VALUE OF PRODUCTS <sup>1</sup>		NUMBER OF DELIVERY VEHICLES REPORTED		
	In the industry	Reporting vehicles	Total for the industry	Total for establishments reporting vehicles	Horse-drawn	Gasoline	Electric
United States.....	20,785	9,003	\$1,520,110,811	\$1,080,730,747	0,715	42,524	3,083
Alabama.....	86	50	8,132,914	7,450,022	12	344	20
Arizona.....	55	30	2,087,905	2,100,417	.....	81	.....
Arkansas.....	95	60	5,242,127	4,605,347	2	246	2
California.....	1,361	527	88,147,253	67,692,045	33	3,012	154
Colorado.....	180	86	11,773,612	8,809,195	61	203	28
Connecticut.....	353	219	19,225,874	14,690,064	70	837	48
Delaware.....	36	18	2,432,395	2,217,512	17	95	9
District of Columbia.....	100	58	10,645,058	9,597,221	48	408	116
Florida.....	187	106	10,660,284	8,850,792	13	479	23
Georgia.....	104	61	12,085,546	9,022,551	1	518	27
Idaho.....	50	26	2,024,503	1,398,798	.....	47	1
Illinois.....	2,208	630	138,591,305	86,804,830	69	3,111	420
Indiana.....	496	299	34,502,346	28,364,861	91	1,268	83
Iowa.....	404	192	25,016,214	19,640,601	5	750	20
Kansas.....	282	187	11,668,030	9,327,808	.....	440	42
Kentucky.....	171	82	10,205,588	7,827,617	72	349	1
Louisiana.....	208	110	13,489,311	10,033,046	57	350	9
Maine.....	133	62	7,426,748	6,260,850	24	189	1
Maryland.....	290	119	25,010,441	19,854,155	211	747	102
Massachusetts.....	1,077	546	80,270,302	62,770,602	574	2,361	172
Michigan.....	745	369	73,519,459	54,518,171	131	2,380	304
Minnesota.....	438	106	26,581,658	19,151,820	45	785	11
Mississippi.....	68	47	3,490,603	2,724,110	2	147	1
Missouri.....	711	205	59,233,799	42,040,398	172	1,471	250
Montana.....	82	46	3,748,856	3,018,675	.....	108	.....
Nebraska.....	217	93	10,382,507	14,384,104	54	362	.....
Nevada.....	14	9	576,342	501,000	.....	20	.....
New Hampshire.....	80	45	4,343,456	3,749,671	16	224	.....
New Jersey.....	982	473	57,288,063	44,073,656	502	1,798	171
New Mexico.....	34	15	1,104,690	692,778	.....	31	.....
New York.....	3,199	1,118	295,199,431	180,652,603	2,139	5,809	1,306
North Carolina.....	83	61	7,229,865	6,213,075	.....	417	4
North Dakota.....	66	27	3,487,367	2,620,404	.....	98	.....
Ohio.....	1,321	669	103,235,031	75,395,383	574	3,091	314
Oklahoma.....	209	113	13,222,000	11,010,049	1	448	8
Oregon.....	218	90	10,888,264	8,716,672	2	430	8
Pennsylvania.....	1,929	726	170,608,502	108,520,298	1,487	3,627	187
Rhode Island.....	155	100	12,111,570	9,310,760	62	467	32
South Carolina.....	46	35	4,010,137	3,807,415	4	207	4
South Dakota.....	139	35	4,826,519	3,404,327	1	83	1
Tennessee.....	131	67	13,939,048	11,050,253	.....	439	28
Texas.....	587	313	35,881,047	28,025,053	56	1,325	21
Utah.....	50	28	5,018,072	5,001,422	.....	119	.....
Vermont.....	42	31	2,541,593	2,287,012	.....	111	.....
Virginia.....	116	78	11,467,974	10,113,766	30	428	19
Washington.....	370	193	20,490,217	15,771,331	2	721	11
West Virginia.....	124	88	11,005,655	9,757,120	3	460	15
Wisconsin.....	711	320	34,205,338	25,110,871	70	1,035	1
Wyoming.....	87	17	1,168,983	696,931	.....	26	.....

<sup>1</sup> The number of establishments reporting delivery vehicles formed 43.3 per cent of the total number of establishments in the industry, and their combined value of products formed 71.2 per cent of the total value of products of all establishments in the industry.

TABLE 8.—PRIME MOVERS, MOTORS, GENERATORS, AND CONSUMPTION OF PURCHASED ELECTRIC ENERGY—NUMBER AND RATED CAPACITY OF PRIME MOVERS AND ELECTRIC MOTORS, FOR THE INDUSTRY, 1929, 1927, 1925, 1919, AND 1914, AND FOR ITS BRANCHES, 1929 AND 1927, AND OF GENERATORS, FOR THE INDUSTRY, 1929, 1927, AND 1925, AND FOR ITS BRANCHES, 1929 AND 1927; QUANTITY OF ELECTRIC ENERGY PURCHASED, 1929

[No power-equipment statistics for the separate branches of this industry were tabulated for years prior to 1927]

TYPE	1929		1927		1925		1919		1914		PER CENT DISTRIBUTION OF RATED HORSEPOWER CAPACITY	
	Number	Capacity	Number	Capacity	Number	Capacity	Number	Capacity	Number	Capacity	1929	1919
<b>THE BAKERY INDUSTRY AS A WHOLE</b>												
Prime movers and electric motors driven by purchased energy, aggregate.....	94,373	Horse-power 355,523	72,648	Horse-power 284,244	57,136	Horse-power 227,286	38,935	Horse-power 105,711	19,664	Horse-power 106,797	100.0	100.0
Prime movers, total.....	667	38,522	459	38,002	592	37,875	1,333	40,040	1,925	37,864	10.8	24.2
Steam, total.....	512	21,507	276	35,340	299	34,130	420	34,250	580	30,095	6.0	20.7
Engines.....	464	19,702	258	33,873	203	32,455	359	31,230	(1)	(1)	5.5	18.9
Turbines.....	48	1,805	18	1,476	6	1,075	31	3,020	(1)	(1)	0.5	1.8
Internal-combustion engines.....	150	10,755	181	2,153	261	3,345	800	5,274	1,304	7,400	4.7	3.2
Water wheels and water turbines.....	5	260	2	600	2	400	44	522	41	360	0.1	0.3
Electric motors driven by purchased energy.....	93,706	317,001	72,189	246,242	56,574	189,411	37,002	125,605	17,730	68,933	89.2	75.8
Electric motors, total.....	100,413	347,205	78,865	274,640	62,410	210,802	41,311	140,388	20,132	86,779	100.0	100.0
Driven by purchased energy.....	93,706	317,001	72,189	246,242	56,574	189,411	37,002	125,605	17,730	68,933	91.3	85.8
Driven by energy generated in establishments reporting.....	6,707	30,205	6,676	28,407	5,836	27,451	3,709	20,723	2,393	17,846	8.7	14.2
Electric generators.....	130	Kilowatts 18,964 Kilowatt-hours	157	Kilowatts 18,496	251	Kilowatts 20,721	(2)	(2)	(2)	(2)		
Electric energy purchased <sup>1</sup> .....		404,673,548		(4)		(4)		(2)		(2)		
<b>BISCUIT AND CRACKERS</b>												
Prime movers and electric motors driven by purchased energy, aggregate.....	8,927	Horse-power 50,193	6,275	Horse-power 49,773							100.0	
Prime movers, total.....	115	22,082	167	23,278							39.3	
Steam, total.....	76	10,150	165	22,778							18.1	
Engines.....	63	8,830	150	21,408							15.7	
Turbines.....	13	1,320	15	1,370							2.4	
Internal-combustion engines.....	39	11,932		500							21.2	
Water wheels and water turbines.....			2									
Electric motors driven by purchased energy.....	8,812	34,111	6,108	20,495							60.7	
Electric motors, total.....	13,437	56,539	10,903	48,083							100.0	
Driven by purchased energy.....	8,812	34,111	6,108	20,495							60.3	
Driven by energy generated in establishments reporting.....	4,625	22,428	4,795	21,588							39.7	
Electric generators.....	76	Kilowatts 12,305 Kilowatt-hours	69	Kilowatts 11,022								
Electric energy purchased <sup>1</sup> .....		27,223,266		(4)								
<b>BAKERY PRODUCTS, OTHER THAN BISCUIT AND CRACKERS</b>												
Prime movers and electric motors driven by purchased energy, aggregate.....	85,446	Horse-power 299,330	66,373	Horse-power 234,471							100.0	
Prime movers, total.....	552	10,440	292	14,724							5.5	
Steam, total.....	436	11,357	111	12,571							3.8	
Engines.....	401	10,872	108	12,405							3.6	
Turbines.....	35	485	3	100							0.2	
Internal-combustion engines.....	111	4,823	181	2,153							1.6	
Water wheels and water turbines.....	5	200									0.1	
Electric motors driven by purchased energy.....	84,894	282,890	66,081	219,747							94.5	
Electric motors, total.....	89,976	290,767	67,902	226,596							100.0	
Driven by purchased energy.....	84,894	282,890	66,081	219,747							97.3	
Driven by energy generated in establishments reporting.....	2,082	7,877	1,881	6,819							2.7	
Electric generators.....	54	Kilowatts 6,650 Kilowatt-hours	88	Kilowatts 6,874								
Electric energy purchased <sup>1</sup> .....		377,450,282		(4)								

<sup>1</sup> Not called for separately on schedule.

<sup>2</sup> Not called for on schedule.

<sup>3</sup> This item covers the consumption of purchased electric energy for all purposes—power, heat, light, etc.

<sup>4</sup> Data incomplete.

## CENSUS OF MANUFACTURES: 1929

TABLE 9.—WAGE EARNERS, BY MONTHS, FOR THE UNITED STATES, 1929, 1925, 1919, 1914, AND 1909, AND BY STATES, 1929, FOR THE INDUSTRY

[The month of maximum employment is indicated by bold-faced figures and that of minimum employment by *italic* figures]

STATE	Average number employed during year	NUMBER EMPLOYED ON 15TH DAY OF MONTH OR NEAREST REPRESENTATIVE DAY												Per cent minimum is of maximum
		January	February	March	April	May	June	July	August	September	October	November	December	
<b>United States:</b>														
1929	200,841	<b>195,178</b>	197,518	198,756	198,590	200,732	202,348	202,333	202,246	204,138	204,497	202,753	200,994	95.4
1925	160,411	<b>155,859</b>	155,968	156,869	156,888	158,381	162,185	162,176	161,040	163,892	165,547	163,224	161,403	94.4
1919	141,592	<b>135,040</b>	134,558	134,887	137,164	137,136	140,783	143,229	144,280	144,941	147,242	140,383	150,061	86.5
1914	124,052	<b>118,515</b>	119,908	121,564	122,561	123,348	125,121	125,983	125,881	126,130	126,772	126,731	126,080	93.5
1909	100,216	<b>96,639</b>	96,916	98,223	98,222	98,857	100,310	101,652	101,839	102,625	102,770	102,511	102,342	94.0
Alabama	1,513	<i>1,469</i>	1,473	1,470	1,483	1,513	1,519	1,518	1,523	1,538	1,561	1,543	1,540	93.9
Arizona	322	311	311	308	333	333	321	309	307	321	330	340	346	87.0
Arkansas	808	<i>804</i>	<i>800</i>	875	869	875	860	804	914	915	931	904	946	80.2
California	11,395	<b>11,186</b>	11,313	11,401	11,387	11,421	11,883	11,199	11,337	11,525	11,479	11,559	11,550	90.8
Colorado	1,630	<i>1,638</i>	<i>1,616</i>	1,623	1,632	1,666	1,718	1,747	1,754	1,774	1,736	1,706	1,678	90.0
Connecticut	2,562	<i>2,445</i>	2,467	2,475	2,496	2,515	2,573	2,600	2,618	2,639	2,648	2,643	2,625	92.3
Delaware	378	371	370	369	379	380	381	385	381	380	370	381	383	95.8
District of Columbia	1,346	1,344	1,353	1,354	1,355	1,349	1,335	1,353	1,335	1,345	1,350	1,347	1,372	97.2
Florida	1,724	1,728	1,779	1,776	1,750	1,724	1,684	1,645	1,654	1,693	1,722	1,750	1,705	92.5
Georgia	1,906	<i>1,776</i>	1,843	1,866	1,818	1,977	1,917	1,972	1,947	1,997	1,957	1,928	1,875	98.9
Idaho	267	258	<i>258</i>	257	262	260	270	273	274	275	276	270	267	92.8
Illinois	16,020	<b>16,350</b>	16,575	16,687	16,667	16,837	17,089	17,137	17,040	17,205	17,343	17,244	17,008	94.3
Indiana	5,055	<i>4,913</i>	4,952	4,965	4,965	5,029	5,095	5,111	5,031	5,128	5,247	5,107	5,007	94.2
Iowa	3,516	<i>3,361</i>	3,378	3,410	3,481	3,568	3,567	3,544	3,579	3,625	3,564	3,541	3,544	92.7
Kansas	1,791	1,745	<i>1,754</i>	1,747	1,784	1,818	1,800	1,808	1,815	1,817	1,811	1,804	1,799	95.3
Kentucky	1,620	1,581	1,578	<i>1,573</i>	1,580	1,601	1,582	1,601	1,602	1,671	1,711	1,687	1,673	91.9
Louisiana	2,418	2,389	2,395	2,392	2,383	<i>2,360</i>	2,300	2,425	2,405	2,497	2,460	2,453	2,407	94.5
Maine	1,042	<i>953</i>	986	993	1,001	1,054	1,075	1,114	1,098	1,070	1,067	1,042	1,041	80.4
Maryland	3,452	3,371	3,378	3,360	3,396	3,453	3,457	3,495	3,508	3,516	3,560	3,474	3,466	94.6
Massachusetts	10,413	10,217	10,447	10,371	<i>10,172</i>	10,335	10,575	10,676	10,512	10,395	10,452	10,503	10,391	90.2
Michigan	9,349	8,829	9,159	9,239	9,291	9,547	9,585	9,687	9,574	9,549	9,347	9,209	9,175	91.1
Minnesota	3,891	3,742	<i>3,797</i>	3,721	3,836	3,902	3,998	4,067	3,985	4,021	3,931	3,910	3,866	91.1
Mississippi	610	607	606	607	608	608	608	611	612	615	608	618	618	97.4
Missouri	7,050	7,526	7,758	7,755	7,723	7,718	7,777	7,654	7,482	7,727	7,743	7,536	7,491	95.2
Montana	469	<i>445</i>	445	454	454	468	480	492	492	483	478	471	466	90.4
Nebraska	2,154	2,108	2,114	<i>2,090</i>	2,101	2,150	2,191	2,180	2,188	2,204	2,231	2,135	2,150	93.7
Nevada	65	63	66	65	65	64	65	65	66	66	66	65	64	95.5
New Hampshire	561	530	<i>529</i>	534	542	541	587	591	598	581	570	560	563	88.5
New Jersey	7,223	7,122	7,132	7,149	<i>7,094</i>	7,186	7,212	7,305	7,310	7,302	7,327	7,292	7,248	90.8
New Mexico	177	<i>175</i>	174	173	174	174	177	179	179	181	181	179	180	95.0
New York	33,704	33,495	33,850	<b>34,253</b>	34,094	34,113	33,843	33,295	33,417	33,550	33,793	33,621	<b>33,093</b>	90.6
North Carolina	1,249	1,139	1,198	1,217	1,238	1,237	1,257	1,253	1,293	1,280	1,292	1,279	1,285	92.0
North Dakota	479	441	437	<i>432</i>	449	463	466	480	490	495	492	502	490	80.1
Ohio	13,567	<b>13,019</b>	13,242	13,285	13,282	13,486	13,763	13,763	13,743	14,001	13,968	13,705	13,530	93.2
Oklahoma	1,706	<i>1,658</i>	1,661	1,681	1,695	1,701	1,702	1,723	1,723	1,727	1,736	1,737	1,728	95.5
Oregon	1,647	<i>1,572</i>	<i>1,572</i>	1,599	1,615	1,600	1,645	1,659	1,675	1,707	1,696	1,717	1,707	91.6
Pennsylvania	23,960	<b>23,321</b>	23,639	23,819	23,485	23,844	24,187	24,041	24,034	24,397	24,523	24,273	24,157	95.1
Rhode Island	1,749	1,728	1,749	1,740	1,708	1,715	1,723	1,755	1,771	1,768	1,770	1,779	1,762	95.8
South Carolina	730	<i>674</i>	676	736	745	745	755	753	753	729	744	738	712	80.3
South Dakota	731	<i>684</i>	684	682	712	740	730	707	827	766	793	795	696	80.3
Tennessee	2,124	<i>1,959</i>	1,974	2,043	2,063	2,083	2,152	2,180	2,188	2,201	2,178	2,236	2,230	87.6
Texas	5,127	<b>4,839</b>	4,981	5,095	5,046	5,087	5,042	5,083	5,159	5,291	5,416	5,324	5,225	90.3
Utah	605	<i>628</i>	632	641	648	660	668	692	681	677	680	675	668	90.0
Vermont	842	<i>839</i>	838	<i>839</i>	837	838	841	850	867	840	842	840	840	94.1
Virginia	1,709	<i>1,645</i>	1,653	1,687	1,705	1,723	1,743	1,743	1,740	1,743	1,740	1,715	1,670	94.4
Washington	2,607	<b>2,490</b>	2,492	2,500	2,556	2,562	2,584	2,673	2,708	2,725	2,712	2,612	2,660	91.4
West Virginia	1,449	<i>1,407</i>	1,411	1,422	1,430	1,441	1,458	1,468	1,476	1,477	1,465	1,468	1,465	95.3
Wisconsin	4,758	<b>4,433</b>	4,468	4,551	4,649	4,608	4,811	4,939	4,993	5,027	4,947	4,893	4,800	88.2
Wyoming	152	<i>150</i>	152	151	151	153	153	153	153	152	152	152	152	98.0

## BUTTER, CHEESE, AND CONDENSED AND EVAPORATED MILK

**Description of the industries.**—These industries consist in the manufacture of butter, cheese, condensed and evaporated milk, and certain related products, in factories not located on farms. (The farm production of butter is treated as an agricultural operation and is not, therefore, covered by the census of manufactures. Data in regard to the production of butter on farms are collected in connection with the quinquennial census of agriculture.) Skimming or separating stations operated in connection with butter factories have been treated as parts of the factories. Data have not been included for independent separating stations and establishments which were engaged primarily in the purchase and sale of milk and cream but which incidentally manufactured small quantities of butter and cheese from surplus stock. Establishments engaged primarily in the manufacture of malted milk are classified under the designation "Food preparations, not elsewhere classified."

**Classification by industries.**—The primary products of the three industries are as follows: (1) Butter, (2) cheese, (3) condensed and evaporated milk. Each establishment as a whole is classified, on the basis of its product or products of chief value, in one industry or another. Considerable overlapping occurs, however, especially between the butter industry and the cheese industry; that is to say, butter is made as a secondary product in cheese factories and cheese is made as a secondary product in butter factories. Moreover, some of the establishments in each of the three industries manufacture certain products—for

example, ice cream—not normally belonging to any one of them.

**Detailed statistics of products.**—In Tables 3 to 6 are shown the quantities and values of the specified products, regardless of the industry classification of the establishments in which manufactured; for example, the quantity of butter includes the amount made as a secondary product by establishments engaged primarily in the manufacture of cheese or of condensed and evaporated milk, and also by those engaged primarily in other lines of manufacture, such as the manufacture of ice cream.

The differences between the total values of the several classes of products, as shown in Tables 3 to 6, and the total values of products for the corresponding industries, as given in Tables 1 and 2, are due to the overlapping among the several industries. (See **GENERAL EXPLANATIONS—Classification of Establishments.**) To illustrate: The total value of creamery butter produced in the group, \$705,980,195, as given in Tables 3 and 4, includes the value of butter made as a secondary product in the cheese industry and the condensed and evaporated milk industry but does not include the value of cheese and other secondary products made in the butter industry, whereas the total value of the products of the butter industry, \$746,417,620, as given in Tables 1 and 2, includes the value of cheese and other secondary products made in the butter industry but does not include the value of butter made as a secondary product in other industries.

## CENSUS OF MANUFACTURES: 1929

TABLE 1.—SUMMARY FOR THE GROUP AS A WHOLE, 1899 TO 1929, AND FOR THE SEPARATE INDUSTRIES, 1904 TO 1929, FOR THE UNITED STATES

[Data for establishments with products under \$5,000 in value included for 1910 and prior years but not for 1921 and subsequent years. See GENERAL EXPLANATIONS—Establishments Covered—Size]

YEAR OR PERIOD	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, containers for products, fuel, and purchased electric energy	Value of products <sup>1</sup>	Value added by manufacture <sup>2</sup>	Horsepower
<b>THE GROUP AS A WHOLE</b>							
1929	6,820	29,563	\$37,581,530	\$392,387,621	\$1,066,172,052	\$173,784,431	274,410
1927	6,721	31,006	30,620,300	397,804,349	1,057,644,724	159,740,375	230,018
1925	6,830	28,274	34,973,893	847,008,150	973,518,046	126,511,806	201,639
1923	7,490	32,888	40,188,955	810,575,800	955,350,933	144,774,893	196,966
1921	6,015	31,460	37,702,551	609,145,142	738,440,107	129,204,965	(*)
1919	7,669	35,313	37,939,676	925,366,206	1,066,125,480	139,760,193	168,561
1914	7,023	23,059	15,847,081	315,025,635	364,285,150	40,269,515	130,250
1909	8,479	18,431	11,081,308	235,540,084	274,557,718	39,011,654	101,137
1904	8,929	15,557	8,412,937	142,020,277	168,182,739	25,262,512	93,731
1899	9,242	12,799	6,145,501	108,841,200	130,783,349	21,042,140	87,745
Per cent of increase or decrease (—):							
1927-1929	1.5	-4.7	-5.1	-0.6	0.8	8.8	18.8
1925-1927	-1.0	9.7	13.3	6.0	26.3	14.5	
1923-1925	-3.1	-14.0	-13.0	4.5	-12.6	2.4	
1921-1923	12.3	4.5	6.6	33.1	12.0		
1910-1921	-13.7	-10.9	-0.6	-34.2	-30.7	-7.5	
1910-1929	-11.1	-16.3	-0.9	-3.7	(*)	24.3	62.8
1909-1910	-9.6	91.6	242.4	203.3	288.3	258.2	66.7
1899-1909	-8.3	44.0	80.3	110.4	100.0	77.8	15.3
<b>BUTTER</b>							
1929	3,527	19,007	\$24,197,840	\$635,873,536	\$740,417,620	\$110,544,034	164,413
1927	3,510	20,066	25,632,586	637,336,685	730,010,876	101,674,191	145,973
1925	3,493	17,758	22,202,579	603,309,054	683,593,103	80,198,239	129,872
1923	3,053	20,312	24,050,203	549,557,934	640,474,204	90,910,360	126,351
1921	3,444	18,506	22,028,884	407,501,391	479,723,555	72,222,104	(*)
1919	3,738	17,641	18,852,729	514,345,739	583,163,011	68,817,272	94,962
1914	4,356	14,149	10,119,478	212,546,847	243,379,371	30,832,624	91,448
1909	4,783	11,563	7,241,253	169,646,441	194,999,198	25,352,757	78,123
1904	6,235	9,530	5,405,872	101,290,711	118,620,999	17,230,288	77,409
Per cent of increase or decrease (—):							
1927-1929	0.2	-5.0	-5.2	-0.2	1.0	8.7	12.6
1925-1927	0.7	13.2	14.7	5.6	8.1	20.8	15.1
1923-1925	-4.4	-12.6	-10.8	9.8	6.7	-11.8	0.4
1921-1923	6.1	9.8	3.8	34.9	33.5	26.9	
1910-1921	-7.9	4.9	21.6	-20.8	-17.7	4.9	
1910-1929	-5.0	8.3	28.4	23.6	28.0	60.0	73.1
1909-1910	-21.8	62.6	160.4	203.2	199.1	171.4	21.6
<b>CHEESE</b>							
1929	2,758	3,401	\$4,588,067	\$92,727,217	\$110,644,732	\$17,917,515	24,739
1927	2,738	3,520	4,897,205	100,787,583	118,447,767	17,000,174	20,076
1925	2,935	3,398	4,320,459	103,568,606	118,677,694	15,109,288	20,830
1923	3,398	4,283	5,112,622	107,021,707	127,765,146	20,743,439	22,315
1921	2,739	3,498	4,424,410	69,113,354	81,879,621	12,701,297	(*)
1919	3,539	3,997	4,808,991	129,425,265	143,455,704	14,030,439	24,411
1914	3,982	2,908	2,085,684	46,758,685	51,744,770	4,986,094	19,200
1909	3,560	2,704	1,609,802	39,021,766	44,263,177	5,241,411	11,638
1904	3,610	2,652	1,493,900	26,256,612	29,138,100	3,881,488	10,366
Per cent of increase or decrease (—):							
1927-1929	0.7	-3.4	-6.3	-8.0	-6.6	1.5	17.9
1925-1927	-6.7	3.6	13.3	-2.7	-0.2	16.9	6.7
1923-1925	-13.7	-20.7	-15.6	-3.2	-7.1	-27.2	-6.7
1921-1923	21.0	22.4	15.6	54.8	58.0	62.5	
1910-1921	-21.0	-12.5	-8.0	-46.0	-42.9	-9.0	
1910-1929	-21.9	-14.9	-4.6	-28.4	-22.9	27.7	1.3
1909-1910	-0.8	47.8	188.0	231.7	224.1	167.7	100.8
<b>CONDENSED AND EVAPORATED MILK</b>							
1929	535	7,065	\$8,795,629	\$103,786,818	\$208,109,700	\$45,322,882	85,258
1927	464	7,390	9,190,599	159,680,081	200,086,091	40,406,010	63,969
1925	402	7,118	8,390,855	140,040,590	171,246,969	31,206,369	53,937
1923	378	8,293	10,126,040	153,995,159	187,111,243	33,115,084	48,309
1921	382	9,402	10,349,257	132,625,307	176,836,931	44,311,534	(*)
1919	401	13,675	14,277,056	282,595,292	330,596,774	50,911,482	49,178
1914	190	6,002	3,661,919	55,720,103	69,161,090	13,440,897	19,092
1909	136	4,164	2,170,193	26,877,857	35,295,343	8,417,486	11,588
1904	81	3,376	1,513,159	16,372,954	20,523,690	4,150,736	5,956
Per cent of increase or decrease (—):							
1927-1929	15.3	-4.4	-4.3	2.6	4.6	12.2	33.3
1925-1927	15.4	3.8	9.5	14.0	10.8	29.5	18.6
1923-1925	6.3	-14.2	-17.1	-9.1	-8.5	-5.8	11.7
1921-1923	-1.0	-12.4	-2.2	16.2	5.8	-28.3	
1910-1921	-4.7	-30.8	-27.5	-63.1	-47.9	-22.1	
1910-1929	33.4	-48.3	-38.4	-42.0	-38.4	-20.4	73.4
1909-1910	194.0	228.4	557.9	951.4	861.9	576.1	324.4

<sup>1</sup> For 1929, sales (shipments or deliveries) by manufacturers; for earlier years, production. See GENERAL EXPLANATIONS—Value of Products.<sup>2</sup> Value of products less cost of materials, containers for products, fuel, and purchased electric energy. See GENERAL EXPLANATIONS—Value Added by Manufacture.<sup>3</sup> Not called for on schedule.<sup>4</sup> Less than one-tenth of 1 per cent.

# BUTTER, CHEESE, AND CONDENSED MILK

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**TABLE 2.—GENERAL STATISTICS FOR THE GROUP AS A WHOLE AND FOR THE SEPARATE INDUSTRIES, BY STATES: 1929, 1927, AND 1919**

[This table presents statistics separately for each State for which figures can be given without disclosing data for individual establishments, and for the remaining States in groups. Data for establishments with products under \$5,000 in value are included for 1919 but not for subsequent years. SEE GENERAL EXPLANATIONS—Establishments Covered—Size]

STATE	Census year	Number of establishments	Salaried officers and employees <sup>1</sup>	Wage earners (average for the year)	HORSEPOWER (RATED CAPACITY) OF POWER EQUIPMENT			Salaries	Wages	COST OF MATERIALS, CONTAINERS FOR PRODUCTS, FUEL, AND PURCHASED ELECTRIC ENERGY			Value of products <sup>2</sup>	Value added by manufacture <sup>1</sup>
					Total	Prime movers	Motors run by purchased energy			Total	Materials and containers	Fuel and purchased energy		
<b>THE GROUP AS A WHOLE</b>														
United States.....	1929	6,820	9,824	29,563	274,410	104,123	170,287	\$16,233,841	\$37,581,536	\$802,387,021	\$380,203,557	\$12,184,064	\$1,066,172,052	\$173,784,431
	1927	6,721	9,760	31,006	230,018	97,960	132,022	15,232,509	30,620,390	807,804,340	884,845,107	12,060,152	1,057,544,724	159,740,375
	1919	7,669	10,100	35,313	168,551	115,072	43,470	10,217,698	37,939,676	920,366,200	915,240,647	11,125,640	1,000,125,480	139,759,193
<b>BUTTER</b>														
United States.....	1929	3,527	7,530	19,097	184,413	43,324	121,089	12,489,080	24,107,840	635,387,586	628,985,648	6,887,038	740,417,620	110,544,034
	1927	3,519	7,573	20,096	145,073	45,205	100,078	11,807,609	25,532,586	637,330,685	629,953,118	7,383,507	730,010,876	101,674,191
	1919	3,738	6,692	17,641	94,062	53,775	41,187	9,522,089	18,852,720	514,345,739	500,928,330	4,417,400	583,163,011	68,817,272
Alabama.....	1929	13	8	27	328	20	308	12,781	28,122	585,217	573,520	11,601	723,617	138,400
	1927	11	13	38	321	112	209	23,319	40,530	675,052	652,471	22,581	816,237	141,185
	1919	4	22	65	637	450	187	37,290	42,358	854,068	818,431	35,637	982,943	128,875
Arizona.....	1929	8	25	55	410	250	169	50,486	77,463	1,277,407	1,251,420	25,087	1,630,330	361,923
	1927	5	19	41	314	240	104	37,437	55,661	1,040,339	1,012,710	27,629	1,267,874	220,874
	1919	6	17	68	291	281	10	36,509	86,266	925,908	900,002	16,906	1,147,040	222,032
Arkansas.....	1929	14	16	43	809	56	750	14,204	48,044	900,226	977,738	21,488	1,247,214	247,988
	1927	8	3	17	129	2	127	3,455	20,293	378,530	372,640	5,800	400,201	81,731
California.....	1929	92	258	1,092	6,921	427	6,494	495,347	1,543,460	30,506,580	30,108,205	398,375	36,421,103	5,914,523
	1927	87	300	1,211	8,300	1,002	7,298	492,755	1,657,347	32,622,486	32,007,396	615,096	38,954,437	6,331,951
	1919	121	376	1,268	4,030	1,151	3,470	614,130	1,542,380	36,346,021	35,960,721	376,300	40,650,853	4,313,832
Colorado.....	1929	60	142	303	3,859	871	2,988	280,082	340,492	8,030,080	7,042,531	96,549	9,854,633	1,815,553
	1927	64	221	498	4,848	1,280	3,568	307,725	561,758	8,914,296	8,802,307	111,059	10,942,019	2,628,653
	1919	65	137	338	1,728	1,039	689	201,614	281,530	7,303,502	7,203,808	99,694	8,708,304	1,404,502
Florida.....	1929	4	2	10	107	70	127	4,200	14,220	320,046	318,931	7,815	405,756	79,702
Georgia.....	1929	13	22	52	536	80	456	41,341	51,303	880,843	862,485	18,358	1,051,475	170,632
	1927	9	23	80	312	215	97	33,663	63,670	1,044,319	1,020,228	18,091	1,237,876	193,557
Idaho.....	1929	34	88	309	1,570	190	1,380	171,475	356,654	9,415,645	9,324,578	91,067	11,127,108	1,711,463
	1927	30	86	279	1,377	315	822	154,272	339,163	8,067,552	7,975,477	92,075	9,652,032	1,584,480
	1919	32	64	145	704	195	509	93,871	187,018	3,130,213	3,004,560	35,623	3,604,496	534,283
Illinois.....	1929	113	353	820	7,469	1,500	5,969	733,292	1,068,583	28,005,930	27,740,603	259,327	33,384,457	5,378,527
	1927	108	407	940	5,060	589	4,471	671,825	1,203,474	29,770,828	29,478,411	292,417	31,295,678	4,404,850
	1919	129	367	813	4,015	1,430	2,585	596,848	799,255	23,738,506	23,588,871	149,635	26,376,027	2,697,521
Indiana.....	1929	98	301	876	6,273	4,099	513,685	1,040,465	22,073,251	22,433,337	239,014	29,982,733	4,309,492	
	1927	90	454	955	5,246	1,059	4,187	788,328	1,050,068	25,787,747	25,510,082	277,065	30,271,758	4,484,011
	1919	92	488	1,453	3,112	1,125	1,987	656,058	1,260,268	24,047,827	23,833,038	214,780	27,000,732	3,852,005
Iowa.....	1929	446	854	2,082	15,220	5,446	9,774	1,184,922	2,552,111	85,104,000	84,242,037	862,860	90,056,244	11,851,338
	1927	415	974	1,983	14,344	5,976	8,368	965,501	2,539,168	75,084,003	74,848,410	835,554	80,842,907	11,158,904
	1919	411	557	1,695	9,081	6,307	3,314	761,161	1,078,637	49,430,481	48,940,956	492,526	50,422,287	6,082,806
Kansas.....	1929	76	244	637	4,688	818	3,770	436,732	730,330	22,606,775	22,448,761	248,014	29,098,057	4,271,282
	1927	78	285	725	4,134	710	3,424	480,774	730,408	23,203,637	23,001,668	201,960	27,180,911	3,929,274
	1919	59	263	740	2,955	1,750	1,205	472,767	728,286	21,155,952	21,007,748	148,204	24,443,667	3,287,715
Kentucky.....	1929	21	138	293	3,730	1,065	2,734	277,188	333,987	8,107,280	8,119,604	77,685	10,203,676	2,006,387
	1927	12	170	550	2,351	628	1,723	300,019	715,600	8,493,092	8,400,192	93,900	9,028,628	1,435,536
	1919	16	50	140	1,082	598	514	63,537	120,428	3,272,047	3,235,301	37,556	3,655,208	382,261
Louisiana.....	1929	7	0	15	283	-----	283	11,195	18,354	200,341	202,736	0,006	894,551	95,210
Maryland.....	1929	5	-----	2	205	24	181	-----	1,730	50,041	54,909	1,132	68,167	12,126
	1927	5	2	5	62	62	-----	2,459	3,742	66,670	63,620	3,050	75,716	9,046
	1919	10	2	9	122	121	-----	2,040	10,548	171,232	166,855	4,377	205,745	34,513
Massachusetts.....	1929	6	4	14	83	10	73	4,300	20,662	501,231	495,863	5,338	521,853	20,022
	1927	9	10	39	233	10	223	17,196	49,134	1,360,390	1,348,611	11,770	1,621,678	261,188
	1919	20	23	51	304	80	224	25,326	61,513	1,808,554	1,786,161	22,393	2,148,354	339,800
Michigan.....	1929	212	289	838	7,060	1,809	6,097	490,788	1,096,197	25,081,072	24,812,117	268,955	29,121,355	4,040,283
	1927	242	362	977	7,012	2,070	6,542	681,662	1,207,435	27,895,149	27,680,652	284,407	32,141,512	4,276,363
	1919	231	300	984	4,943	2,242	2,701	563,601	1,173,610	29,630,892	29,346,320	234,563	33,385,420	3,804,528
Minnesota.....	1929	823	1,232	2,655	23,790	9,645	14,147	1,280,647	3,413,307	114,779,527	113,737,410	1,039,117	128,704,989	13,925,462
	1927	821	970	2,531	23,130	10,364	12,772	1,032,435	3,598,231	116,119,277	115,038,141	1,081,190	128,637,337	12,518,060
	1919	832	555	1,902	14,644	10,742	3,902	688,249	2,237,868	81,931,151	81,360,264	570,887	88,882,271	6,951,120
Mississippi.....	1929	15	33	84	828	85	743	60,850	88,483	2,638,710	2,605,637	33,073	3,151,374	512,054
	1927	10	54	110	891	195	696	84,331	109,694	2,996,348	2,945,117	51,231	3,590,700	590,442
	1919	19	33	106	501	200	301	43,838	99,825	1,894,615	1,865,970	28,645	2,248,090	353,484
Missouri.....	1929	83	408	990	7,535	1,283	9,252	845,294	1,219,295	32,791,833	32,503,368	288,465	39,323,118	6,531,285
	1927	78	453	885	6,654	2,331	4,323	807,846	1,125,713	29,443,536	29,083,990	359,540	34,977,513	5,533,977
	1919	66	231	686	2,751	817	1,934	488,288	640,842	20,035,695	19,913,865	121,830	22,147,691	2,111,966
Montana.....	1929	54	88	272	1,474	297	1,474	160,136	302,433	5,576,321	5,485,938	90,383	6,865,664	1,292,345
	1927	56	103	219	1,225	42	1,183	188,576	308,942	5,857,432	5,779,757	77,675	7,079,784	1,222,352
	1919	47	87	199	1,209	275	925	131,395	254,197	3,463,451	3,410,583	46,868	4,219,316	755,865

See footnotes at end of table.



CENSUS OF MANUFACTURES: 1929

TABLE 2.—GENERAL STATISTICS FOR THE GROUP AS A WHOLE AND FOR THE SEPARATE INDUSTRIES, BY STATES: 1929, 1927, AND 1919—Continued

[See note at head of this table]

STATE	Census year	Number of establishments	Salaried officers and employees <sup>1</sup>	Wage earners (aver- age for the year)	HORSEPOWER (RATED CAPACITY) OF POWER EQUIPMENT			Salaries	Wages	COST OF MATERIALS, CONTAINERS FOR PRODUCTS, FUEL, AND PUR- CHASED ELECTRIC ENERGY			Value of products <sup>2</sup>	Value added by manufac- ture <sup>3</sup>
					Total	Prime movers	Motors run by pur- chased energy			Total	Materials and con- tainers	Fuel and purchased energy		
BUTTER—continued														
Nebraska	1929	88	448	870	10,806	3,463	7,153	\$1,113,086	\$1,140,542	\$30,022,168	\$30,206,298	\$415,870	\$47,873,028	\$8,251,460
	1927	73	442	848	8,520	2,598	5,082	702,511	1,021,487	37,408,294	30,955,083	538,211	44,740,330	7,247,030
	1919	51	709	1,063	6,832	4,288	2,544	997,720	1,183,230	31,680,508	31,332,785	853,723	37,240,778	6,564,270
Nevada	1929	7	8	30	312	55	257	13,748	36,152	607,313	806,210	11,103	1,050,533	143,220
	1927	7	9	31	241	81	241	15,735	36,361	910,333	896,881	13,452	1,014,470	104,143
	1919	6	6	17	158	53	100	12,927	22,409	590,648	502,138	7,510	692,023	62,375
New Mexico	1929	5	6	13	95		95	0,200	14,545	233,516	229,082	4,434	303,388	69,872
	1929	35	71	112	1,235	187	1,048	143,448	183,522	3,570,679	3,540,408	36,271	4,420,300	843,711
	1927	58	89	188	1,533	448	1,105	151,830	270,407	5,262,570	5,201,285	61,285	6,519,115	1,266,545
New York	1929	123	146	350	2,010	1,537	473	182,108	405,251	8,003,066	8,811,528	91,568	10,558,321	1,055,225
	1929	15	21	40	431	30	401	38,500	55,838	854,704	842,403	12,301	1,035,678	180,074
	1927	16	25	46	319	43	270	41,198	48,148	798,998	785,618	13,380	1,013,234	214,230
North Carolina	1929	7	19	31	86	0	77	26,005	22,347	520,160	513,618	6,482	622,288	102,188
	1929	55	177	474	2,731	807	1,924	318,700	552,317	15,390,600	15,237,420	153,276	18,004,541	2,613,845
	1927	42	138	267	2,167	709	1,458	251,272	335,297	13,610,440	13,492,400	117,080	15,460,469	1,850,023
North Dakota	1929	67	103	212	1,294	472	792	180,163	241,340	9,996,070	9,936,609	60,001	11,121,687	1,125,017
	1929	118	426	1,195	10,572	1,850	8,713	850,361	1,530,206	35,380,193	35,060,633	338,560	42,774,340	7,385,147
	1927	117	482	1,390	8,910	2,827	6,083	840,766	1,756,800	35,991,854	35,596,512	395,342	42,243,765	6,251,911
Ohio	1929	141	500	1,362	7,405	4,613	2,792	839,295	1,458,105	34,727,203	34,465,248	271,955	41,061,933	6,334,790
	1929	40	166	257	1,750	172	1,578	162,145	286,389	9,055,717	9,862,594	93,123	11,483,912	1,528,195
	1927	37	123	386	1,404	125	1,279	223,524	323,115	6,083,791	6,884,614	90,177	12,042,818	2,050,027
Oklahoma	1929	20	95	301	835	266	509	185,850	200,520	6,724,502	6,704,716	53,786	7,718,428	993,926
	1929	81	142	403	3,001	323	2,678	268,928	557,542	9,595,127	9,446,077	140,060	11,773,009	2,178,782
	1927	76	148	464	2,475	193	2,282	261,595	645,068	9,927,544	9,782,970	144,565	12,207,700	2,280,162
Oregon	1929	70	177	349	1,714	314	1,400	227,618	395,827	7,438,658	7,369,497	69,161	8,727,869	1,280,211
	1929	71	101	221	2,393	907	1,426	118,115	300,904	4,684,863	4,616,300	68,554	5,940,096	1,255,233
	1927	88	89	108	2,434	1,305	1,120	119,701	231,533	5,147,349	5,064,398	92,951	6,103,238	955,889
Pennsylvania	1929	160	65	357	3,314	2,220	1,088	72,745	334,822	8,333,000	8,212,507	120,493	9,718,085	1,385,065
	1929	5	5	6	75	10	65	7,740	5,477	119,766	117,990	1,776	149,403	29,637
	1927	6	5	17	84	12	72	6,300	16,318	163,449	160,344	4,105	205,257	41,808
South Carolina	1929	83	104	439	3,520	403	3,117	242,581	495,636	15,323,017	15,160,002	163,415	17,981,061	2,658,044
	1927	81	157	345	2,534	444	2,090	237,907	439,134	14,188,081	14,028,957	159,124	15,808,381	1,680,300
	1919	86	103	223	1,502	732	770	139,376	295,008	9,438,457	9,364,078	74,379	10,895,783	1,367,326
South Dakota	1929	36	116	249	2,463	467	1,996	201,901	311,234	6,951,391	6,800,320	90,081	8,055,822	1,104,521
	1927	30	79	371	1,730	558	1,172	144,410	489,896	5,068,461	5,594,217	74,184	6,715,779	1,047,378
	1919	10	28	50	165	66	99	36,189	46,269	1,891,683	1,885,777	5,866	1,971,699	80,116
Tennessee	1929	61	164	376	4,193	133	4,060	342,038	403,301	8,638,924	8,480,444	149,480	11,043,201	2,404,277
	1927	39	184	402	3,063	565	3,098	309,726	454,925	8,635,457	8,505,971	129,486	10,995,921	2,360,464
	1919	31	100	200	953	335	618	145,740	201,822	5,966,048	5,904,093	61,955	7,161,298	1,105,100
Texas	1929	27	71	195	1,590	421	1,169	135,209	259,773	4,615,035	4,567,137	58,798	5,567,681	951,046
	1927	22	55	165	582	159	432	118,251	171,404	4,305,341	4,271,071	33,370	4,905,526	600,185
	1919	17	60	118	397	198	199	109,900	120,025	2,356,789	2,335,030	21,759	2,698,795	342,066
Vermont	1929	40	44	85	1,084	424	600	38,158	95,783	2,339,568	2,305,471	34,097	2,718,205	378,697
	1927	54	57	98	1,457	472	985	36,070	122,399	2,867,205	2,829,294	37,911	3,320,367	453,192
	1919	92	107	293	1,729	1,166	573	80,670	270,856	8,890,845	8,821,345	69,500	10,194,160	1,363,315
Virginia	1929	23	55	123	2,064	296	1,768	110,809	145,014	2,001,525	1,949,643	51,882	2,543,396	541,871
	1927	25	56	143	1,174	70	1,104	112,833	176,502	2,306,766	2,257,702	49,054	2,984,174	677,418
	1919	20	30	94	440	85	365	35,998	78,910	1,105,290	1,082,030	23,266	1,535,200	429,964
Washington	1929	84	195	535	5,158	1,858	3,300	428,550	783,408	11,905,744	11,705,649	200,095	14,063,079	3,057,335
	1927	88	241	787	5,648	830	4,818	408,177	861,806	13,120,947	12,901,685	219,262	16,106,731	3,075,784
	1919	101	283	475	2,877	1,215	1,602	319,235	588,555	10,730,481	10,611,350	119,131	12,900,885	2,260,404
West Virginia	1929	5	4	6	82	5	77	6,140	7,160	148,601	140,322	2,249	183,576	34,074
	1927	6	5	9	76	44	32	5,173	6,232	135,056	134,020	1,927	107,708	31,842
	1919	6	5	20	171	158	18	3,030	15,441	243,671	241,446	2,225	209,234	55,503
Wisconsin	1929	429	664	1,933	16,039	6,138	9,001	807,932	2,547,282	61,880,014	61,144,457	736,467	71,722,873	9,841,059
	1927	466	544	1,733	13,481	6,285	7,196	607,885	2,478,485	68,421,650	67,776,425	645,234	77,637,218	8,615,550
	1919	498	354	1,317	8,675	5,502	2,173	358,803	1,448,874	52,346,629	52,069,930	286,649	56,642,327	4,295,698
Wyoming	1929	17	23	43	351	46	305	48,332	50,027	1,075,539	1,055,131	20,408	1,369,218	293,070
	1927	16	13	55	314	78	236	28,610	82,316	991,910	975,491	16,126	1,162,126	179,216
	1919	13	24	35	234	110	124	35,539	53,823	789,436	777,440	11,990	949,249	150,813
Other States	1929	6	8	11	280	20	200	13,762	20,514	233,505	229,954	3,551	340,255	160,750
	1927	21	17	40	868	397	471	20,241	41,003	954,691	939,677	15,014	1,159,360	201,660
	1919	64	41	173	1,069	602	467	46,048	109,685	2,497,104	2,447,377	49,727	3,224,486	737,382

See footnotes at end of table.

BUTTER, CHEESE, AND CONDENSED MILK

TABLE 2.—GENERAL STATISTICS FOR THE GROUP AS A WHOLE AND FOR THE SEPARATE INDUSTRIES, BY STATES: 1920, 1927, AND 1919—Continued

[See note at head of this table]

STATE	Cen- sus year	Num- ber of estab- lish- ments	Salar- ied offi- cers and em- ploy- ees <sup>1</sup>	Wage earners (aver- age for the year)	HORSEPOWER (RATED CAPACITY) OF POWER EQUIPMENT			Salaries	Wages	COST OF MATERIALS, CONTAINERS FOR PRODUCTS, FUEL, AND PUR- CHASED ELECTRIC ENERGY			Value of products <sup>2</sup>	Value added by manufac- ture <sup>3</sup>
					Total	Prime movers	Motors run by pur- chased energy			Total	Materials and con- tainers	Fuel and purchased energy		
CHEESE														
United States	1929	2,758	801	3,401	24,730	15,701	0,038	\$850,410	\$4,588,067	\$02,727,217	\$01,284,020	\$1,442,507	\$110,644,732	\$17,017,515
	1927	2,738	835	3,520	20,976	15,012	5,304	708,903	4,897,205	100,787,583	99,292,672	1,494,911	118,447,757	17,060,174
	1919	3,530	590	3,997	24,411	22,021	4,790	1,050,043	4,808,001	129,425,205	127,088,010	1,437,255	143,455,704	14,030,439
Arkansas	1920	10	7	15	123	10	113	5,770	25,273	301,144	356,255	4,880	420,592	68,448
California	1929	37	43	181	1,170	142	1,034	93,120	333,280	2,012,600	2,861,673	51,017	4,108,527	1,195,837
	1927	34	54	160	804	81	723	100,732	275,180	2,170,061	2,140,471	35,600	3,017,793	841,722
	1919	48	37	210	772	203	569	60,047	209,183	3,253,961	3,180,203	67,758	3,702,988	538,427
Colorado	1929	16	4	29	149	33	116	6,750	44,825	713,432	700,528	12,004	846,004	133,532
	1927	8	3	23	100	23	77	3,852	28,401	427,802	410,469	8,333	553,105	125,809
	1919	8	23	40	110	40	70	50,135	46,413	532,107	520,270	5,837	732,200	200,153
Idaho	1929	34	12	62	198	61	137	10,311	79,020	1,429,811	1,405,870	23,935	1,004,054	234,243
	1927	21	24	60	1,085	1,821	164	26,557	99,073	1,473,250	1,440,721	20,529	1,801,028	417,778
	1919	14	8	24	117	14	103	8,158	30,627	660,112	650,210	9,002	727,750	61,047
Illinois	1929	77	27	137	1,094	460	628	49,800	195,808	2,023,244	2,580,050	42,588	3,194,381	671,137
	1927	52	27	114	612	526	386	29,937	108,840	2,174,685	2,143,243	31,442	2,650,000	484,081
	1919	50	16	67	432	419	13	23,151	100,395	1,203,098	1,185,183	18,515	1,484,390	280,701
Indiana	1929	22	10	80	400	34	432	30,707	70,301	2,024,820	2,002,117	22,703	2,365,790	340,000
	1927	7	1	15	80	48	41	780	20,640	170,432	101,841	8,601	212,114	41,082
Iowa	1929	12	4	11	74	49	25	2,016	12,531	202,951	197,229	5,725	244,317	41,363
	1927	5	1	5	32	32	3	180	5,590	72,058	70,800	17,221	89,882	17,221
	1919	20	1	17	100	95	5	200	17,342	248,706	243,972	4,791	284,145	35,379
Kansas	1929	0	4	16	113	20	63	3,700	20,300	303,813	383,566	10,247	476,857	83,044
	1927	3	2	3	27	17	10	1,435	4,870	60,239	58,885	1,354	70,585	10,346
Michigan	1929	47	32	79	515	201	254	69,000	100,335	1,749,970	1,727,481	22,489	2,145,989	396,019
	1927	38	29	53	558	432	129	17,820	76,900	1,242,306	1,224,805	17,501	1,421,064	178,698
	1919	55	35	146	608	586	82	54,589	171,563	3,218,281	3,161,063	56,288	3,663,131	444,850
Minnesota	1929	52	37	77	488	340	148	28,255	60,170	1,725,097	1,700,205	25,432	2,028,416	302,710
	1927	50	32	120	401	340	61	14,042	88,043	1,539,911	1,516,854	24,087	1,709,012	260,071
	1919	66	0	89	505	452	53	400,455	89,729	2,505,880	2,481,755	24,125	2,838,132	332,285
Mississippi	1920	11	11	31	348	75	273	22,019	32,547	815,394	800,090	14,404	955,892	140,408
Missouri	1929	20	8	23	314	181	133	11,147	26,217	519,642	511,857	7,785	630,785	111,143
	1927	3	2	2	0	5	1	2,080	41,700	41,840	450	46,206	46,206	4,505
Montana	1929	6	4	4	43	41	2	4,073	108,171	100,277	1,894	1,894	138,160	29,080
	1927	5	2	10	50	35	21	3,063	16,078	258,000	254,815	3,851	321,331	62,065
	1919	6	5	5	27	24	3	6,017	95,110	93,455	93,455	107,110	107,110	12,000
Nebraska	1920	12	7	28	201	124	80	9,168	38,326	631,314	620,700	10,524	780,855	155,541
New Jersey	1929	3	2	2	11	0	2	2,300	28,440	27,780	600	30,224	10,784	
	1927	( <sup>9</sup> )	( <sup>9</sup> )	( <sup>9</sup> )	( <sup>9</sup> )	( <sup>9</sup> )	( <sup>9</sup> )	( <sup>9</sup> )	( <sup>9</sup> )	( <sup>9</sup> )	( <sup>9</sup> )	( <sup>9</sup> )	( <sup>9</sup> )	( <sup>9</sup> )
	1919	8	8	8	54	54	54	6,172	105,797	105,280	517	127,908	22,171	
New York	1929	248	72	403	2,780	1,535	1,254	148,914	600,220	12,585,052	12,880,971	108,081	14,984,083	2,300,931
	1927	281	90	488	2,858	1,648	1,210	155,148	620,481	11,828,539	11,151,392	177,177	13,602,860	2,174,311
	1919	508	215	1,002	5,236	4,880	350	247,036	907,033	23,359,132	23,090,194	262,908	26,530,612	3,180,480
Ohio	1929	36	11	78	464	317	147	43,207	90,547	735,700	722,600	13,010	1,258,000	252,309
	1927	45	16	60	303	243	120	54,082	130,285	1,042,151	1,024,581	17,570	1,383,609	341,548
	1919	66	1	59	510	510	1,097	125,422	1,097	1,525,312	1,514,248	11,064	1,753,274	227,962
Oklahoma	1920	4	2	2	34	15	19	2,320	50,003	58,823	1,170	60,054	0,961	
Oregon	1929	38	26	110	405	48	357	51,987	167,164	2,078,414	2,043,629	34,885	3,492,010	514,202
	1927	42	37	149	376	159	217	60,247	216,050	2,084,518	2,040,055	34,803	3,035,788	651,270
	1919	52	5	66	498	419	79	3,797	89,067	2,544,773	2,524,879	20,394	2,854,282	309,509
Pennsylvania	1929	18	11	48	160	111	48	17,337	59,003	714,015	701,038	12,977	883,000	100,045
	1927	20	34	128	489	198	201	66,328	157,960	2,040,063	1,985,531	54,532	2,408,954	408,891
	1919	64	57	188	1,625	1,472	153	92,108	210,481	3,035,723	2,902,064	42,750	3,817,471	781,748
Tennessee	1929	8	4	23	150	68	82	5,657	16,091	511,579	505,042	5,037	505,062	85,073
	1927	3	2	3	14	14	14	120	2,875	27,210	26,029	200	34,787	7,568
Texas	1920	7	9	25	105	105	105	15,084	25,842	408,857	401,850	6,008	500,617	91,760
Utah	1929	15	6	30	170	56	114	0,115	35,281	440,890	432,064	8,235	530,837	89,938
	1927	11	3	23	33	18	15	5,300	26,074	335,451	328,947	6,504	394,174	58,723
	1919	17	3	28	65	56	9	2,540	20,028	105,704	100,419	5,285	235,184	39,480
Vermont	1920	7	1	5	4	4	4	250	6,091	133,458	131,782	1,720	153,553	20,095
	1927	7	2	8	43	41	2	225	8,318	108,017	100,230	2,387	220,807	31,250
	1919	38	10	48	262	194	68	21,602	60,407	1,339,449	1,323,804	10,645	1,482,936	143,487
Washington	1929	14	25	56	265	100	165	47,319	89,211	1,031,443	1,015,519	15,924	1,378,003	346,560
	1927	12	18	37	130	20	110	33,829	67,813	732,327	723,056	8,671	971,389	239,012
	1919	15	8	19	146	121	25	5,930	26,879	470,113	463,552	6,561	550,206	80,163
Wisconsin	1929	1,003	457	1,080	13,710	11,418	2,301	152,426	2,288,049	55,387,077	54,541,065	846,312	64,970,802	9,582,825
	1927	2,055	434	1,971	11,548	9,851	1,697	190,203	2,820,538	71,578,955	70,568,058	1,010,897	82,515,023	10,930,068
	1919	2,323	141	1,912	13,180	12,801	289	53,197	2,445,020	84,349,798	83,450,320	899,478	91,402,078	7,112,880
Wyoming	1920	7	3	25	48	43	5	2,185	30,091	409,637	305,213	14,424	475,181	65,544
Groups of States:														
Dol., 1 est.; Md., 1;	1920	0	7	17	915	80	835	8,010	20,519	281,856	274,591	7,265	354,550	72,094
Va., 4	1929	4	4	9	22	10	12	5,700	13,040	85,508	82,774	2,704	124,889	30,321
Me., 2 est.; Mass., 2	1929	3	2	2	36	23	13	2,060	2,060	91,400	89,509	1,951	111,887	

## CENSUS OF MANUFACTURES: 1929

TABLE 2.—GENERAL STATISTICS FOR THE GROUP AS A WHOLE AND FOR THE SEPARATE INDUSTRIES, BY STATES: 1929, 1927, AND 1919—Continued

[See note at head of this table]

STATE	Census year	Number of establishments	Salaried officers and employees <sup>1</sup>	Wage earners (average for the year)	HORSEPOWER (RATED CAPACITY) OF POWER EQUIPMENT			Salaries	Wages	COST OF MATERIALS, CONTAINERS FOR PRODUCTS, FUEL, AND PURCHASED ELECTRIC ENERGY			Value of products <sup>2</sup>	Value added by manufacture <sup>3</sup>
					Total	Prime movers	Motors run by purchased energy			Total	Materials and containers	Fuel and purchased energy		
CONDENSED AND EVAPORATED MILK														
United States	1929	535	1,433	7,065	85,258	45,008	40,160	\$2,885,342	\$3,795,020	\$163,786,818	\$159,033,280	\$3,853,529	\$209,109,700	\$45,322,882
	1927	464	1,352	7,390	63,909	37,089	20,880	2,565,997	9,190,599	159,680,081	155,509,407	4,030,674	200,086,061	40,406,010
	1919	401	2,812	13,675	440,178	38,676	10,502	5,045,556	14,277,056	282,595,292	277,324,307	5,270,985	339,506,774	56,011,482
California	1929	40	106	588	8,671	2,059	6,612	239,009	812,470	14,448,716	14,099,788	348,928	17,542,160	3,093,444
	1927	30	93	611	4,592	1,072	3,520	212,318	894,069	14,860,459	14,447,643	412,810	18,002,519	3,142,080
	1919	11	104	544	1,784	953	831	230,405	570,327	10,070,964	9,815,993	254,971	11,908,142	1,807,178
Illinois	1929	33	86	455	5,002	3,000	1,402	190,286	585,081	10,450,438	10,211,004	230,434	13,293,700	2,843,368
	1927	31	128	477	5,395	3,335	1,560	313,842	692,092	9,904,854	9,625,852	270,002	12,506,457	2,601,033
	1919	38	260	1,111	4,020	3,603	3,557	485,114	1,204,082	24,676,819	24,272,797	404,022	30,437,845	5,761,026
Indiana	1929	16	36	233	2,420	1,245	1,175	78,412	250,218	5,246,369	5,135,880	110,519	6,271,681	1,025,282
	1927	10	8	108	1,033	640	443	20,408	103,026	2,403,799	2,344,865	58,946	2,820,307	446,508
	1919	7	40	205	702	455	337	107,740	204,137	3,925,788	3,833,437	92,351	4,017,448	601,600
Iowa	1929	5	15	31	231	85	146	22,772	30,881	792,070	776,000	15,980	1,248,998	455,650
	1927	(8)	(3)	(8)	(8)	(8)	(8)	(8)	(8)	(8)	(8)	(8)	(8)	(8)
	1919	3	7	51	354	340	14	42,052	60,237	792,504	755,035	37,559	1,093,716	301,122
Kansas	1929	9	27	110	1,727	1,107	530	46,236	140,851	2,500,998	2,427,846	73,152	3,522,108	1,021,110
	1927	8	29	138	1,770	990	780	46,985	173,882	2,398,024	2,320,818	77,206	2,938,366	540,342
	1919	6	24	187	508	483	25	71,804	183,330	2,247,272	2,185,018	62,254	2,810,144	562,872
Maryland	1929	6	12	54	1,002	665	337	21,387	51,414	902,442	861,742	40,700	1,288,226	385,784
	1927	6	8	81	1,502	435	1,127	10,817	94,700	1,519,894	1,477,720	42,174	1,843,513	323,610
	1919	5	14	70	272	270	2	28,317	71,077	1,281,564	1,246,251	35,313	1,884,148	302,584
Massachusetts	1929	6	7	30	203	203	203	16,271	38,502	784,442	775,100	9,342	1,023,143	238,701
Michigan	1929	30	83	476	5,318	3,864	1,454	168,112	608,114	10,020,149	9,748,708	271,441	13,105,460	3,086,320
	1927	40	143	703	5,411	3,830	1,581	220,544	888,188	12,587,761	12,244,164	343,607	15,793,868	3,206,107
	1919	32	203	1,004	3,625	3,007	518	428,095	1,138,168	23,107,168	22,673,469	433,699	27,738,047	4,930,870
Minnesota	1929	11	42	119	1,528	863	1,165	77,178	146,738	3,424,126	3,319,755	104,371	4,667,500	1,243,383
	1927	10	23	106	1,191	231	900	39,721	125,597	2,189,339	2,090,825	92,514	2,888,255	608,016
	1919	5	31	84	724	352	372	43,150	70,539	1,682,988	1,511,170	171,818	1,806,100	282,211
Mississippi	1929	6	26	95	2,535	1,007	028	47,129	119,143	2,200,025	2,252,171	44,454	3,076,166	779,541
Missouri	1929	12	41	188	1,076	515	561	67,964	144,030	3,008,367	2,948,890	59,477	4,610,886	1,608,519
	1927	5	24	64	409	340	60	33,322	63,067	1,567,740	1,535,985	31,761	2,430,415	808,600
New York	1929	84	191	905	12,362	6,798	5,564	360,626	1,178,755	18,186,460	17,696,225	490,235	23,002,170	4,875,710
	1927	92	189	1,207	11,297	6,073	4,865	380,256	1,596,297	23,941,461	23,301,108	640,353	31,240,760	7,308,209
	1919	100	689	3,730	9,784	7,967	1,817	1,470,291	3,666,567	78,454,084	77,092,915	1,361,160	91,010,432	13,456,348
Ohio	1929	43	78	412	6,212	3,125	3,087	177,838	518,164	7,983,453	7,782,125	201,328	10,006,014	2,052,601
	1927	36	98	419	3,427	1,756	1,071	147,139	601,220	8,703,784	8,481,040	222,744	10,580,014	1,876,230
	1919	30	92	711	2,486	2,121	366	186,056	708,177	14,162,050	13,925,447	237,603	17,107,564	3,034,614
Oregon	1929	4	21	80	586	100	306	36,574	91,639	2,245,158	2,204,452	40,700	2,634,580	380,422
	1927	3	20	81	470	175	295	40,531	91,851	2,300,087	2,251,753	49,234	2,714,815	413,823
	1919	8	67	180	1,121	618	503	107,804	221,400	3,253,252	3,182,839	70,413	4,180,061	926,800
Pennsylvania	1929	45	89	375	5,885	3,892	2,023	153,552	501,784	6,730,477	6,587,894	148,583	8,430,873	1,703,306
	1927	45	122	555	7,497	5,055	2,412	169,093	655,400	8,445,776	8,251,843	194,433	10,032,094	2,186,318
	1919	49	238	1,355	4,700	4,174	616	441,034	1,331,700	24,080,501	24,532,318	448,183	31,028,725	6,048,224
Tennessee	1929	5	25	156	1,003	555	448	40,178	172,436	3,379,514	3,334,368	45,146	4,788,770	1,409,262
Utah	1929	4	21	188	433	44	389	45,423	183,050	2,752,608	2,710,007	33,556	3,600,448	937,885
Vermont	1929	14	10	111	1,183	458	725	25,850	126,821	2,205,918	2,234,329	61,580	2,650,501	660,583
	1927	9	12	97	430	215	215	20,114	117,340	2,051,706	1,977,768	73,098	2,480,160	434,403
	1919	7	40	267	823	587	236	75,461	273,036	6,425,720	6,300,880	124,840	6,861,556	935,827
Washington	1929	11	58	255	1,903	637	1,266	127,438	280,960	5,138,386	5,038,511	90,875	6,166,254	1,027,868
	1927	13	85	326	2,460	800	1,600	167,913	380,587	6,909,408	6,804,315	105,183	8,765,098	1,705,000
	1919	14	230	734	2,072	1,379	993	490,909	906,545	15,640,991	15,306,573	254,418	19,580,730	3,030,745
Wisconsin	1929	107	341	1,789	18,541	10,681	7,860	740,381	2,215,247	63,183,911	61,987,467	1,198,454	66,045,329	13,401,418
	1927	80	238	1,690	12,107	8,325	3,782	500,645	2,077,774	47,002,824	46,006,667	1,096,157	58,703,840	10,711,010
	1919	51	582	2,744	10,380	8,320	2,060	1,100,266	2,844,596	61,287,896	60,162,599	1,125,296	73,342,268	12,054,373
Groups of States:														
Ala., 2 est.; Fla., 1; Ga., 1; La., 2	1929	6	13	58	1,413	221	1,102	20,835	64,002	887,510	867,186	20,325	1,183,356	205,846
Ariz., 1 est.; Colo., 4; Idaho, 2	1929	7	49	107	1,140	717	423	89,732	186,606	3,440,400	3,353,843	86,557	4,465,610	1,016,150
Conn., 1 est.; Me., 2; N. H., 1; N. J., 2	1929	6	9	59	768	240	528	12,175	102,549	747,897	723,372	24,525	943,048	195,151
Nebr., 3 est.; N. Dak., 3; S. Dak., 3	1929	9	3	25	597	70	497	8,500	38,907	347,035	312,614	34,421	518,102	171,127
Okla., 2 est.; Tex., 3	1929	6	9	28	778	585	163	7,500	48,838	376,734	366,075	10,650	511,108	134,374
Ky., 5 est.; Va., 4; W. Va., 2	1929	11	34	128	2,681	1,025	1,056	57,985	134,900	2,200,061	2,167,958	32,703	3,381,680	1,181,019
States not shown separately	1927	46	132	618	4,657	2,657	2,000	197,440	735,525	11,812,109	11,471,593	340,546	15,604,006	3,852,497
	1919	35	176	620	5,737	3,987	1,760	319,259	792,389	10,608,739	10,408,560	200,173	13,284,743	2,586,010

<sup>1</sup> Not including proprietors and firm members, as follows: The group as a whole—1929, 2,869; 1927, 2,541; 1919, 4,452. Butter—1929, 1,307; 1927, 1,270; 1919, 2,006. Cheese—1929, 1,524; 1927, 1,241; 1919, 2,400. Condensed and evaporated milk—1929, 88; 1927, 21; 1919, 45. The total numbers of persons engaged—proprietors and firm members, salaried officers and employees, and wage earners—are as follows: The group as a whole—1929, 42,256; 1927, 43,307; 1919, 49,865. Butter—1929, 27,034; 1927, 28,948; 1919, 26,830. Cheese—1929, 5,780; 1927, 5,590; 1919, 6,993. Condensed and evaporated milk—1929, 8,536; 1927, 8,763; 1919, 10,659.

<sup>2</sup> For 1929, manufacturers' sales (shipments or deliveries), for earlier years, production. See GENERAL EXPLANATION—Value of Products.

<sup>3</sup> Value of products less cost of materials, containers for products, fuel, and purchased electric energy. See GENERAL EXPLANATION—Value Added by Manufacture.

<sup>4</sup> Data for purchased power other than electric (power transmitted into the plant by belt or shaft) are included in the State items for 1919 but not in the United States totals.

<sup>5</sup> Connecticut, 2 establishments; Delaware, 1; Maine, 1; New Hampshire, 1.

<sup>6</sup> Connecticut, 9 establishments;

# BUTTER, CHEESE, AND CONDENSED MILK

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**TABLE 3.—PRODUCTS, BY KIND, QUANTITY, AND VALUE, FOR THE UNITED STATES: 1923 TO 1929**

[The figures given for 1929 refer to sales (shipments or deliveries) by manufacturers; those for earlier years represent production. See GENERAL EXPLANATIONS—Value of Products]

KIND	1929	1927	1926	1923
1. Butter, cheese, and condensed-milk industries, all products, total value.....	\$1,066,172,052	\$1,057,544,724	\$973,518,046	\$955,350,693
2. Butter, cheese, condensed and evaporated milk, dried and powdered milk, ice-cream mix, etc.....	1,024,893,502	1,000,452,000	913,907,750	888,772,678
3. Other products (not normally belonging to the industries).....	41,278,550	57,002,718	50,610,287	60,578,005
4. Butter, cheese, condensed milk, etc., made as secondary products in other industries.....	14,656,131	11,287,047	8,887,940	9,847,363
<b>Butter, cheese, condensed milk, etc., all industries:</b>				
Aggregate (sum of 2 and 4).....	\$1,039,549,633	\$1,011,739,053	\$922,795,690	\$898,620,041
<b>Creamery butter—</b>				
Pounds.....	1,615,688,347	1,502,600,959	1,453,483,350	
Value.....	\$705,980,195	\$695,100,356	\$635,703,455	1,310,608,148
<b>Whey butter—</b>				
Pounds.....	1,655,830	1,520,946	2,142,033	\$580,220,015
Value.....	\$468,517	\$518,551	\$985,617	
<b>Butter oil—</b>				
Pounds.....	747,327	440,413	2,309,915	(1)
Value.....	\$303,189	\$238,022	\$1,057,801	(1)
<b>Cheese, other than cottage, pot, and bakers'—</b>				
Total pounds.....	487,200,055	440,444,448	404,773,282	527,009,895
Total value.....	\$103,201,558	\$104,219,580	\$107,520,091	\$121,024,740
<b>American (whole-milk, part-skim, and skim)—</b>				
Pounds.....	375,370,089			
Value.....	\$70,904,190	413,536,760	464,320,522	
<b>Swiss (block), brick, Münster, and Limburger—</b>				
Pounds.....	58,133,000	\$93,045,714	\$100,369,710	
Value.....	\$12,075,845			
<b>Cream and Neufchâtel—</b>				
Pounds.....	42,002,538	26,433,044	22,804,705	
Value.....	\$11,123,014	\$8,030,593	\$6,128,102	(1)
<b>Italian—</b>				
Pounds.....	8,570,230	4,295,403	2,767,807	
Value.....	\$1,904,118	\$1,003,545	\$614,041	
<b>Other varieties—</b>				
Pounds.....	3,113,209	5,178,245	4,880,188	
Value.....	\$1,224,391	\$1,539,434	\$417,338	
<b>Cheese, cottage, pot, and bakers'—</b>				
Pounds.....	100,826,242	98,753,885	51,040,505	39,418,562
Value.....	\$9,431,803	\$5,041,070	\$4,231,503	\$3,500,293
<b>Condensed and evaporated milk and buttermilk—</b>				
Total pounds.....	2,310,727,133	2,007,300,199	1,813,843,130	1,834,869,101
Total value.....	\$173,310,186	\$107,840,070	\$145,304,250	\$165,125,420
<b>Condensed milk (sweetened)—</b>				
Total pounds.....	532,726,652	378,687,498	430,007,830	\$417,688,400
Total value.....	\$42,017,241	\$34,251,260	\$38,745,498	\$46,178,595
<b>Case goods—</b>				
Pounds.....	240,343,004			
Value.....	\$24,435,490			
<b>Bulk goods—</b>				
Pounds.....	286,332,088	(1)	(1)	(1)
Value.....	\$18,481,751			
<b>Evaporated milk (unsweetened) —</b>				
Total pounds.....	1,642,213,561	1,287,573,206	1,287,694,072	\$1,417,180,701
Total value.....	\$120,202,150	\$120,860,143	\$103,859,355	\$118,940,825
<b>Case goods—</b>				
Pounds.....	1,366,704,143			
Value.....	\$110,822,324			
<b>Bulk goods—</b>				
Pounds.....	275,440,418	(1)	(1)	(1)
Value.....	\$15,379,335			
<b>Condensed and evaporated buttermilk—</b>				
Pounds.....	135,786,020	113,030,396	95,450,310	(1)
Value.....	\$4,100,786	\$3,732,567	\$2,000,403	(1)
<b>Powdered whole milk, powdered cream, and powdered skim milk—</b>				
Pounds.....	220,714,282	131,705,085	88,320,703	
Value.....	\$20,173,453	\$15,462,091	\$10,532,180	
<b>Dried and powdered buttermilk—</b>				
Pounds.....	67,877,315	51,631,130	22,811,588	97,879,933
Value.....	\$4,306,706	\$4,274,340	\$1,434,766	\$12,528,460
<b>Sterilized milk (canned)—</b>				
Pounds.....	6,711,185	7,810,590	6,387,081	(1)
Value.....	\$498,452	\$650,445	\$413,209	(1)
<b>Sugar of milk (crude)—</b>				
Pounds.....	\$7,101,549	\$5,406,497	\$6,126,427	(1)
Value.....	\$885,809	\$643,045	\$889,838	(1)
<b>Ice-cream mix—</b>				
Pounds.....	137,202,022	114,106,369	112,848,766	(1)
Value.....	\$15,278,194	\$13,775,283	\$12,354,420	\$7,700,611
<b>Dried casein—</b>				
Pounds.....	57,826,167	23,516,481	21,977,789	21,371,176
Value.....	\$5,725,571	\$3,052,404	\$2,290,408	\$2,501,882

<sup>1</sup> No data.

<sup>2</sup> Not reported separately.

<sup>3</sup> Condensed buttermilk included with condensed milk and evaporated buttermilk with evaporated milk.

<sup>4</sup> Includes "Condensed milk, unsweetened," which was shown separately in reports for years prior to 1923.

<sup>5</sup> Includes data for a small amount of refined sugar of milk.

<sup>6</sup> No comparable data.

## CENSUS OF MANUFACTURES: 1929

TABLE 4.—BUTTER, BY KIND, QUANTITY, AND VALUE, BY STATES: 1929 AND 1927

[The figures for 1929 refer to sales (shipments or deliveries) by manufacturers; those for 1927 represent production. See GENERAL EXPLANATIONS—Value of Products. Figures are given for each State which can be shown separately without disclosing data for individual establishments. Certain of the States shown in groups, however, reported larger quantities and values of the specified classes of products than some of the States shown separately.]

KIND AND STATE	1929		1927		KIND AND STATE	1929		1927	
	Pounds	Value	Pounds	Value		Pounds	Value	Pounds	Value
<b>CREAMERY BUTTER</b>					<b>CREAMERY BUTTER—con.</b>				
United States.....	1,615,688,347	\$705,980,195	1,562,000,959	\$695,106,350	Pennsylvania.....	11,854,015	\$5,076,812	12,065,796	\$6,076,501
Alabama.....	2,153,770	853,935	1,087,106	756,749	South Carolina.....	408,717	197,572	400,583	200,342
Arizona.....	2,612,698	1,102,241	2,190,080	1,047,017	South Dakota.....	40,893,751	17,211,731	35,783,345	15,188,507
Arkansas.....	2,984,973	1,219,395	(1)	(1)	Tennessee.....	17,206,810	7,370,116	13,882,943	6,054,327
California.....	60,180,696	31,081,902	75,406,245	35,214,026	Texas.....	24,997,472	10,442,936	23,882,204	9,612,617
Colorado.....	22,020,043	9,083,253	20,998,638	9,201,904	Utah.....	11,703,481	5,204,634	10,591,969	4,690,146
Florida.....	1,061,421	429,360	(1)	(1)	Vermont.....	5,139,569	2,572,689	5,983,580	2,968,503
Georgia.....	2,158,368	928,259	(1)	(1)	Virginia.....	5,499,951	2,311,251	6,258,423	2,673,603
Idaho.....	23,570,907	10,297,593	20,371,134	8,831,159	Washington.....	28,604,016	13,533,259	31,746,918	14,284,887
Illinois.....	73,880,515	32,188,944	67,613,104	30,611,793	West Virginia.....	400,414	183,520	374,968	149,836
Indiana.....	56,608,373	24,947,720	61,537,349	27,680,376	Wisconsin.....	165,306,418	68,379,227	163,843,544	74,116,845
Iowa.....	213,730,792	93,073,779	186,988,285	83,510,545	Wyoming.....	2,803,589	1,195,952	2,441,999	1,050,211
Kansas.....	50,363,943	25,142,871	58,712,035	25,204,522	Other States <sup>1</sup> .....	405,564	250,980	5,598,603	2,510,537
Kentucky.....	20,632,515	9,205,421	20,201,654	9,012,700	<b>WHEY BUTTER</b>				
Louisiana.....	758,056	328,526	(1)	(1)	United States.....	1,055,836	468,517	1,529,946	518,551
Maryland.....	183,184	72,529	228,921	98,419	New York.....	107,274	51,253	528,006	103,683
Massachusetts.....	1,229,654	600,341	3,431,236	1,750,304	Wisconsin.....	678,408	261,052	777,018	313,180
Michigan.....	61,075,602	27,119,042	68,165,802	29,584,896	Calif., Idaho, Oreg., Wyo.....	687,747	75,342	-----	-----
Minnesota.....	288,629,616	125,610,200	278,515,757	124,799,782	Ill., Iowa, Minn.....	175,855	77,194	-----	-----
Mississippi.....	6,937,673	3,000,657	8,103,817	3,360,688	Mich., Ohio, Vt.....	6,492	3,076	-----	-----
Missouri.....	86,951,416	36,533,437	73,420,277	31,863,265	States not shown separately <sup>2</sup> .....	-----	-----	224,322	101,682
Montana.....	13,974,652	5,909,114	14,085,499	6,063,375	<b>BUTTER OIL</b>				
Nebraska.....	100,199,457	45,806,784	96,462,983	41,878,777	United States <sup>4</sup> .....	747,327	393,180	446,413	238,622
Nevada.....	2,278,249	1,032,930	2,191,267	998,554					
New Mexico.....	565,520	246,575	331,114	167,870					
New York.....	9,355,933	4,299,737	11,909,465	5,694,582					
North Carolina.....	2,230,058	981,203	2,234,054	980,566					
North Dakota.....	38,954,548	16,771,521	33,806,981	14,052,603					
Ohio.....	89,359,974	40,195,756	87,764,070	39,928,298					
Oklahoma.....	27,510,373	11,352,345	28,985,750	11,878,451					
Oregon.....	28,325,954	10,599,616	24,437,921	10,750,067					

<sup>1</sup> Included in figure for "Other States" in order to avoid disclosing data for individual establishments.

<sup>2</sup> For 1929: Connecticut, Delaware, Maine, New Hampshire, Rhode Island. For 1927: Arkansas, Connecticut, Delaware, Florida, Georgia, Louisiana, Maine, New Hampshire, New Jersey, Rhode Island.

<sup>3</sup> Idaho, Illinois, Michigan, Minnesota, Montana, Ohio, Pennsylvania, Vermont, Washington.

<sup>4</sup> For 1929: Colorado, Illinois, Iowa, Minnesota, Missouri, Montana, Nebraska, Pennsylvania, Texas, Wisconsin. For 1927: Illinois, Iowa, Michigan, New York, Oregon, Wisconsin.

BUTTER, CHEESE, AND CONDENSED MILK

TABLE 5.—CHEESE, BY KIND, QUANTITY, AND VALUE, BY STATES: 1929 AND 1927

[The figures for 1929 refer to sales (shipments or deliveries) by manufacturers; those for 1927 represent production. See GENERAL EXPLANATIONS—Value of Products. Figures are given for each State which can be shown separately without disclosing data for individual establishments. Certain of the "Other States," however, reported larger quantities and values of the specified classes of products than some of the States shown separately]

KIND AND STATE	1929		1927		KIND AND STATE	1929		1927	
	Pounds	Value	Pounds	Value		Pounds	Value	Pounds	Value
<b>CHEESE, OTHER THAN COTTAGE, POT, AND BAKERS', TOTAL</b>									
United States.....	487,200,055	\$103,201,558	440,444,448	\$104,210,586	Swiss (block) brick, Münster, and Limburger				
Arkansas.....	1,808,861	381,141	(1)	(1)	United States.....	58,133,900	\$12,076,845	(9)	(9)
California.....	10,205,886	2,385,158	7,130,937	1,588,434	Illinois.....	1,252,943	271,453		
Colorado.....	3,789,990	774,012	2,229,770	400,044	New York.....	3,221,927	823,110		
Idaho.....	7,735,331	1,635,004	8,952,535	1,830,964	Ohio.....	1,407,083	304,028		
Illinois.....	18,859,358	3,077,805	10,380,072	2,428,268	Wisconsin.....	50,005,004	10,208,520		
Indiana.....	10,220,203	2,215,878	503,120	121,277	Other States <sup>5</sup> .....	1,646,943	348,128		
Iowa.....	1,408,432	291,680	421,040	93,888	<b>Cream and Neufchatel</b>				
Kansas.....	2,353,998	503,065	315,347	82,150	United States.....	42,002,538	11,123,014	26,433,044	\$8,030,593
Michigan.....	7,342,874	1,508,760	5,202,812	1,335,396	California.....	1,030,218	281,164	867,060	248,028
Minnesota.....	8,800,687	1,807,413	8,074,801	1,808,530	Illinois.....	8,947,895	1,633,130	4,927,808	1,178,005
Mississippi.....	4,447,012	887,542	(1)	(1)	New York.....	22,819,347	6,802,218	11,514,274	3,900,615
Missouri.....	3,162,510	590,512	429,520	88,300	Wisconsin.....	7,444,504	1,847,803	4,482,520	1,133,040
Montana.....	1,081,903	300,132	1,378,472	297,801	Other States <sup>6</sup> .....	1,700,574	558,094	4,040,413	1,510,905
Nebraska.....	4,135,209	805,220	(1)	(1)	<b>Italian varieties</b>				
New York.....	49,067,931	13,036,138	44,112,850	11,718,330	United States.....	8,570,230	1,964,118	4,296,403	1,003,845
Ohio.....	5,298,648	1,430,748	4,039,903	1,000,091	California.....	5,284,063	1,210,564	1,596,558	353,009
Oklahoma.....	328,099	68,251	(1)	(1)	New York.....	1,420,773	304,960	530,412	108,915
Oregon.....	12,050,580	3,114,039	13,220,881	3,162,896	Wisconsin.....	700,950	174,544	1,160,125	285,130
Pennsylvania.....	1,370,191	314,858	0,334,047	(1)	Other States <sup>7</sup> .....	1,074,447	208,044	900,308	255,002
South Dakota.....	780,940	165,370	(1)	(1)	<b>Other varieties</b>				
Tennessee.....	2,365,893	557,081	134,902	33,948	United States.....	3,113,200	1,224,301	5,178,245	1,530,434
Texas.....	2,664,452	540,020	(1)	(1)	California.....	227,477	72,454	(1)	(1)
Utah.....	3,328,023	682,709	2,061,095	420,516	Illinois.....	333,027	82,448	200,004	69,730
Vermont.....	668,104	174,289	940,454	240,482	Wisconsin.....	320,531	130,742	933,486	260,841
Virginia.....	1,052,034	203,831	(1)	(1)	Other States <sup>8</sup> .....	2,226,264	938,747	3,064,755	1,218,803
Washington.....	5,277,723	1,236,685	3,658,599	851,348	<b>CHEESE, COTTAGE, POT, AND BAKERS'</b>				
Wisconsin.....	308,480,628	62,190,040	323,424,434	73,308,737	United States.....	100,820,242	9,431,803	68,763,886	5,941,070
Wyoming.....	2,300,963	454,272	2,138,163	494,269	Arkansas.....	18,449	3,787		
Other States <sup>1</sup> .....	5,469,432	1,140,440	3,004,526	795,426	California.....	10,949,148	1,886,769	12,488,046	1,360,631
<b>American (whole-milk, part-skim, and skim)</b>					Colorado.....	480,330	52,301	311,178	28,099
United States.....	375,370,980	70,904,100	(9)	(9)	Florida.....	55,076	6,781	(1)	(1)
Arkansas.....	1,808,861	381,141			Illinois.....	5,700,798	729,932	2,418,367	100,960
California.....	3,490,727	760,562			Indiana.....	2,053,316	324,028	3,180,370	224,000
Colorado.....	3,789,990	774,012			Iowa.....	823,264	80,375	524,050	61,194
Idaho.....	7,735,331	1,600,562			Kansas.....	1,199,039	108,697	206,448	28,884
Illinois.....	8,325,093	1,090,804			Kentucky.....	600,827	91,812	(1)	(1)
Indiana.....	9,064,250	2,151,849			Maryland.....	1,236,373	114,521	(1)	(1)
Iowa.....	1,303,628	260,505			Michigan.....	10,710,202	867,540	7,119,114	444,290
Kansas.....	2,346,822	502,421			Minnesota.....	2,040,720	220,531	1,313,713	150,972
Michigan.....	7,169,489	1,523,064			Missouri.....	2,944,028	359,177	2,404,033	267,280
Minnesota.....	8,230,938	1,692,502			Montana.....	25,032	4,404	14,460	2,067
Mississippi.....	4,447,012	887,542			Nebraska.....	1,072,588	147,700	644,287	65,388
Missouri.....	3,010,610	530,512			New York.....	20,900,022	1,542,403	13,850,010	941,768
Montana.....	1,081,903	300,132			Ohio.....	5,400,121	594,844	4,814,914	380,305
Nebraska.....	4,101,405	857,090			Oklahoma.....	103,808	15,362	(1)	(1)
New York.....	20,764,152	4,604,434			Oregon.....	1,848,486	245,012	2,117,646	224,080
Ohio.....	2,554,607	447,200			Pennsylvania.....	7,905,741	803,898	7,334,024	515,415
Oklahoma.....	328,099	68,254			Tennessee.....	100,060	20,546	(1)	(1)
Oregon.....	12,201,011	2,070,462			Texas.....	701,025	79,953	61,981	0,030
Pennsylvania.....	1,160,800	263,461			Utah.....	298,781	30,485	(1)	(1)
South Dakota.....	780,940	165,370			Vermont.....	60,543	1,400	612,385	33,474
Tennessee.....	2,258,793	530,561			Virginia.....	84,106	0,497	(1)	(1)
Texas.....	2,649,852	544,100			Washington.....	2,683,314	282,216	2,651,083	378,731
Utah.....	3,328,023	682,709			Wisconsin.....	9,002,287	587,223	4,458,984	380,905
Vermont.....	619,846	152,773			Wyoming.....	63,330	8,208	65,800	0,303
Virginia.....	1,031,784	199,781			Other States <sup>9</sup> .....	1,017,698	198,822	2,005,200	309,599
Washington.....	4,032,025	1,159,812							
Wisconsin.....	249,313,543	49,775,326							
Wyoming.....	2,180,963	421,272							
Other States <sup>2</sup> .....	3,814,873	801,505							

<sup>1</sup> Included in figures for "Other States."  
<sup>2</sup> For 1929: Alabama, Arizona, Delaware, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Nevada, New Jersey, North Carolina, North Dakota. For 1927: Arizona, Georgia, Louisiana, Maine, Massachusetts, Mississippi, Nebraska, Nevada, New Jersey, Oklahoma, South Dakota, Texas, Virginia.  
<sup>3</sup> Not reported separately. For combined production of American, Swiss, etc., see Table 3.  
<sup>4</sup> Alabama, Arizona, Kentucky, Maine, Maryland, Nevada, New Jersey, North Carolina, North Dakota.  
<sup>5</sup> Arizona, California, Idaho, Indiana, Iowa, Michigan, Minnesota, Missouri, Pennsylvania, Washington, Wyoming.  
<sup>6</sup> For 1929: Alabama, Indiana, Iowa, Kansas, Louisiana, Minnesota, Nebraska, Ohio, Oregon, Pennsylvania, Tennessee, Texas, Vermont, Virginia. For 1927: Arizona, Georgia, Indiana, Kansas, Louisiana, Minnesota, Missouri, Montana, Nebraska, New Jersey, Ohio, Oregon, Pennsylvania, Vermont, Virginia.  
<sup>7</sup> For 1929: Delaware, Massachusetts, Minnesota, New Jersey, Pennsylvania, Washington. For 1927: Indiana, Massachusetts, Minnesota, New Jersey, Pennsylvania, Vermont, Washington.  
<sup>8</sup> For 1929: Arizona, Minnesota, Nebraska, New York, Ohio, Pennsylvania, Washington. For 1927: Arizona, California, Maine, Michigan, Minnesota, New York, Ohio, Oklahoma, Pennsylvania, South Dakota, Washington.  
<sup>9</sup> For 1929: Alabama, Arizona, Connecticut, Georgia, Idaho, Louisiana, Maine, Mississippi, Nevada, New Jersey, North Carolina, North Dakota, South Dakota, West Virginia. For 1927: Arizona, Florida, Kentucky, Louisiana, Maryland, Massachusetts, Nevada, New Jersey, New Mexico, North Carolina, North Dakota, Oklahoma, South Dakota, Tennessee, Utah, Virginia, West Virginia.

CENSUS OF MANUFACTURES: 1929

TABLE 6.—CONDENSED AND EVAPORATED MILK AND ALLIED PRODUCTS, BY KIND, QUANTITY, AND VALUE, BY STATES: 1929 AND 1927

[The figures for 1929 refer to sales (shipments or deliveries) by manufacturers; those for 1927 represent production. See GENERAL EXPLANATIONS—Value of Products. Figures are given for each State which can be shown separately without disclosing data for individual establishments. Certain of the "Other States," however reported larger quantities and values of the specified classes of products than some of the States shown separately.]

KIND AND STATE	1929		1927		KIND AND STATE	1929		1927	
	Pounds	Value	Pounds	Value		Pounds	Value	Pounds	Value
<b>CONDENSED MILK (SWEETENED)</b>					<b>CONDENSED AND EVAPORATED BUTTERMILK</b>				
United States.....	532,720,652	\$42,917,241	378,687,408	\$34,251,260	United States.....	135,786,920	\$4,106,786	113,030,300	\$3,732,567
Case goods.....	240,343,004	24,435,490	(1)	(1)	California.....	9,182,225	230,887	10,502,028	429,004
Bulk goods.....	290,382,688	18,481,751	(1)	(1)	Illinois.....	14,468,010	523,034	8,000,710	275,940
California.....	35,176,912	3,022,105	17,436,784	1,872,049	Indiana.....	12,495,440	382,870	6,336,716	190,586
Illinois.....	63,100,977	5,607,883	37,481,644	3,286,001	Iowa.....	9,966,220	260,321	13,038,095	445,728
Indiana.....	26,188,040	1,018,095	17,050,303	1,102,084	Kansas.....	5,439,091	141,961	912,205	41,161
Case goods.....	872,283	55,803	(1)	(1)	Minnesota.....	7,616,827	260,563	4,195,173	122,002
Bulk goods.....	25,315,760	1,502,292	(1)	(1)	Missouri.....	12,914,120	306,350	8,115,506	280,220
Iowa.....	4,418,089	240,868	(2)	(2)	Nebraska.....	8,358,630	210,247	5,820,271	150,208
Kansas.....	13,637,582	987,678	12,507,685	1,061,246	Ohio.....	22,449,577	701,233	21,030,020	718,231
Massachusetts.....	3,603,804	343,915	(2)	(2)	Pennsylvania.....	3,828,218	119,469	4,873,345	167,472
Michigan.....	38,156,901	3,399,109	44,388,678	4,133,794	Washington.....	4,280,200	151,029	2,280,098	82,538
Case goods.....	15,050,074	1,854,115	(1)	(1)	Other States.....	24,797,732	777,835	25,030,531	811,419
Bulk goods.....	22,200,887	1,544,994	(1)	(1)	<b>POWDERED WHOLE MILK, POWDERED CREAM, AND POWDERED SKIM MILK</b>				
Minnesota.....	21,528,921	1,807,701	(2)	(2)	United States.....	220,714,282	20,173,463	131,705,085	15,462,601
Missouri.....	4,145,970	280,079	(2)	(2)	California.....	47,521,063	3,184,905	35,406,440	3,131,524
New York.....	96,931,997	8,555,431	99,939,833	10,723,304	Illinois.....	7,350,323	534,004	1,887,200	143,645
Case goods.....	54,646,809	5,601,280	(1)	(1)	Ohio.....	3,496,571	237,912	(2)	(2)
Bulk goods.....	42,285,188	3,064,142	(1)	(1)	Iowa.....	556,432	32,208	(2)	(2)
Ohio.....	25,120,537	1,329,040	27,303,818	1,553,415	Michigan.....	20,816,082	2,541,300	13,404,748	1,525,100
Pennsylvania.....	46,808,645	3,139,420	18,324,813	1,253,870	Minnesota.....	9,661,940	681,562	4,407,122	363,601
Texas.....	1,534,954	33,579	(2)	(2)	Mississippi.....	811,532	52,121	(2)	(2)
Vermont.....	12,832,765	1,089,433	18,405,215	1,450,193	Nebraska.....	1,470,087	109,876	(2)	(2)
Washington.....	1,240,887	37,104	(2)	(2)	New York.....	38,466,069	4,339,794	32,575,609	5,564,931
Wisconsin.....	84,649,256	6,303,648	34,499,685	2,915,532	Ohio.....	5,095,761	407,672	880,407	32,376
Other States.....	57,632,337	5,413,063	50,749,040	4,802,812	Oregon.....	1,930,201	143,103	(2)	(2)
<b>EVAPORATED MILK (UNSWEETENED)</b>					<b>DRIED AND POWDERED BUTTERMILK</b>				
United States.....	1,042,213,561	120,202,159	1,005,673,296	120,866,143	United States.....	67,877,315	4,306,700	51,631,130	4,274,340
Case goods.....	1,366,704,143	110,822,324	(1)	(1)	California.....	9,510,150	797,648	8,174,023	961,818
Bulk goods.....	275,440,418	15,379,835	(1)	(1)	Texas.....	1,818,738	192,601	(2)	(2)
California.....	147,986,224	11,261,092	161,351,813	13,031,671	Washington.....	10,939,007	897,736	8,490,342	718,217
Case goods.....	140,240,052	10,921,293	(1)	(1)	Wisconsin.....	45,731,530	4,640,136	17,221,057	2,180,283
Bulk goods.....	7,046,172	330,799	(1)	(1)	Other States.....	15,636,404	1,381,235	9,152,987	789,187
Illinois.....	85,027,181	6,547,943	90,202,761	7,723,842	<b>CONDENSED AND EVAPORATED BUTTERMILK</b>				
Case goods.....	73,162,891	5,804,118	(1)	(1)	United States.....	07,877,315	4,306,700	51,631,130	4,274,340
Bulk goods.....	11,864,290	743,825	(1)	(1)	California.....	5,287,554	343,218	8,571,832	522,742
Indiana.....	48,574,353	3,795,014	39,907,500	1,597,316	Idaho.....	838,245	52,024	(2)	(2)
Iowa.....	11,316,674	957,100	(2)	(2)	Illinois.....	897,486	58,822	(2)	(2)
Kentucky.....	27,958,680	2,519,529	(2)	(2)	Indiana.....	1,620,000	108,297	961,325	92,057
Michigan.....	84,034,080	7,132,154	97,017,282	7,161,966	Iowa.....	5,171,287	313,750	(2)	(2)
Minnesota.....	15,177,555	1,176,343	17,920,068	1,354,363	Kansas.....	3,594,681	209,578	2,430,862	195,287
Mississippi.....	10,090,374	1,452,402	(2)	(2)	Michigan.....	1,680,187	108,804	2,120,610	345,254
Missouri.....	37,676,042	3,548,509	(2)	(2)	Minnesota.....	10,284,815	1,162,348	9,005,481	689,519
New York.....	91,885,548	6,348,070	124,592,122	10,869,830	Mississippi.....	300,122	19,830	213,763	16,699
Case goods.....	66,685,595	4,511,711	(1)	(1)	Nebraska.....	986,622	73,510	1,317,885	90,862
Bulk goods.....	25,199,953	1,836,359	(1)	(1)	Nebaska.....	6,735,015	458,385	6,094,028	505,040
Ohio.....	76,136,111	5,813,586	80,821,704	6,810,659	New York.....	174,207	12,868	(2)	(2)
Case goods.....	47,016,946	5,044,479	(1)	(1)	North Dakota.....	2,085,015	173,560	2,000,751	160,460
Bulk goods.....	29,119,165	769,107	(1)	(1)	Ohio.....	1,080,087	80,963	2,549,117	90,587
Oregon.....	16,140,995	1,249,302	17,504,288	1,430,182	Oklahoma.....	520,501	38,310	(2)	(2)
Pennsylvania.....	26,977,021	2,130,958	89,288,975	6,448,710	South Dakota.....	631,145	38,086	(2)	(2)
Tennessee.....	37,460,876	3,543,020	(2)	(2)	Texas.....	512,190	38,140	(2)	(2)
Texas.....	1,047,667	83,855	(2)	(2)	Washington.....	267,760	12,372	1,801,790	98,724
Utah.....	43,994,263	3,429,000	(2)	(2)	Wisconsin.....	11,959,736	710,090	4,994,887	361,057
Vermont.....	24,298,498	1,350,043	7,848,500	528,444	Other States.....	3,634,681	254,008	8,342,908	1,031,934
Washington.....	62,412,957	4,900,960	85,842,364	7,218,351					
Wisconsin.....	680,720,628	50,695,731	584,003,712	40,206,263					
Case goods.....	568,951,840	44,828,138	(1)	(1)					
Bulk goods.....	111,768,788	5,867,593	(1)	(1)					
Other States.....	106,497,440	8,266,790	200,272,048	16,439,541					

See footnotes at end of table.



# BUTTER, CHEESE, AND CONDENSED MILK

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**TABLE 6.—CONDENSED AND EVAPORATED MILK AND ALLIED PRODUCTS, BY KIND, QUANTITY, AND VALUE, BY STATES: 1929 AND 1927—Continued**

[See note at head of this table]

KIND AND STATE	1929		1927		KIND AND STATE	1929		1927	
	Pounds	Value	Pounds	Value		Pounds	Value	Pounds	Value
<b>ICE-CREAM MIX</b>					<b>CASEIN (WET AND DRY)</b>				
United States.....	137,202,922	\$15,278,194	114,190,300	\$13,775,283	United States.....	57,820,167	\$5,725,571	23,516,481	\$3,052,404
California.....	11,378,780	1,175,823	1,090,403	136,662	California.....	7,823,501	971,147	3,821,102	505,340
Colorado.....	1,671,054	94,022	984,704	69,224	Idaho.....	808,827	104,480	(?)	(?)
Idaho.....	662,931	64,922	232,996	40,344	Illinois.....	1,317,657	196,713	(?)	(?)
Illinois.....	2,590,245	285,291	4,891,556	652,961	Michigan.....	337,940	40,369	(?)	(?)
Indiana.....	7,970,925	661,296	3,713,261	399,873	Minnesota.....	810,211	82,662	1,666,555	114,881
Iowa.....	4,594,540	260,777	3,368,970	393,322	New York.....	17,337,630	2,169,066	5,724,643	728,849
Kansas.....	7,177,857	733,550	1,023,128	111,695	Utah.....	681,036	79,132	(?)	(?)
Louisiana.....	3,058,598	368,577	1,843,202	317,331	Vermont.....	1,497,021	178,304	1,189,670	177,709
Massachusetts.....	7,045,043	930,295	2,010,017	245,922	Wisconsin.....	18,801,595	1,389,370	7,320,934	1,043,015
Michigan.....	6,708,780	740,429	10,098,033	1,885,982	Other States <sup>11</sup> .....	8,350,833	586,920	3,893,577	421,791
Minnesota.....	647,276	70,411	1,101,502	138,000					
New York.....	7,175,780	1,108,987	19,413,756	2,237,127	<b>SUGAR OF MILK (CRUDE)<sup>12</sup></b>				
Ohio.....	7,820,957	830,897	9,187,783	1,011,048	United States <sup>13</sup> .....	7,101,540	685,800	5,400,497	643,645
Pennsylvania.....	14,428,755	1,711,978	9,900,153	1,098,867					
Texas.....	870,067	92,301	(?)	(?)	<b>STERILIZED MILK (CANNED)</b>				
Washington.....	3,942,078	454,758	2,181,162	368,461	United States <sup>14</sup> .....	0,711,185	498,452	7,810,506	650,445
Wisconsin.....	26,791,314	3,224,650	21,698,373	2,515,351					
Other States <sup>10</sup> .....	22,515,303	2,463,550	15,454,165	2,153,713					

<sup>1</sup> Not reported separately.

<sup>2</sup> Included in figure for "Other States."

<sup>3</sup> Bulk goods only.

<sup>4</sup> For 1929: Alabama, Arizona, Colorado, Florida, Georgia, Kentucky, Maine, Maryland, Mississippi, Nebraska, New Hampshire, New Jersey, Oklahoma, Oregon, Tennessee, Utah, Virginia, West Virginia. For 1927: Colorado, Connecticut, Iowa, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Minnesota, Mississippi, Missouri, Nebraska, New Hampshire, New Jersey, Oregon, Tennessee, Texas, Utah, Virginia, Washington, West Virginia.

<sup>5</sup> Case goods only.

<sup>6</sup> For 1929: Arizona, Colorado, Connecticut, Idaho, Kansas, Louisiana, Maine, Maryland, Massachusetts, Nebraska, New Hampshire, New Jersey, Virginia. For 1927: Alabama, Arizona, Colorado, Idaho, Iowa, Kansas, Kentucky, Louisiana, Maryland, Massachusetts, Mississippi, Missouri, Nebraska, New Hampshire, New Jersey, Tennessee, Utah, Virginia.

<sup>7</sup> For 1929: Colorado, Idaho, Kentucky, Maryland, Michigan, New York, North Dakota, Oklahoma, Oregon, South Dakota, Tennessee, Texas, Wisconsin. For 1927: Colorado, Idaho, Kentucky, Maryland, Michigan, New York, North Dakota, Oklahoma, Oregon, South Dakota, Tennessee, Texas, Wisconsin.

<sup>8</sup> For 1929: Colorado, Idaho, Kansas, Kentucky, Maryland, Massachusetts, Missouri, Nevada, New Jersey, South Dakota, Tennessee, Utah, Vermont, Virginia. For 1927: Colorado, Idaho, Indiana, Iowa, Kansas, Maryland, Massachusetts, Mississippi, Nebraska, New Jersey, North Dakota, Oregon, Tennessee, Virginia.

<sup>9</sup> For 1929: Arizona, Colorado, Kentucky, Montana, Oregon, Pennsylvania, Utah. For 1927: Alabama, Arizona, Colorado, Idaho, Illinois, Iowa, Kentucky, Montana, New York, Oklahoma, Oregon, Pennsylvania, South Dakota, Tennessee, Texas, Utah.

<sup>10</sup> For 1929: Alabama, Arizona, Arkansas, Connecticut, Delaware, Florida, Georgia, Kentucky, Maine, Maryland, Massachusetts, Missouri, Montana, Nebraska, New Hampshire, New Jersey, North Carolina, North Dakota, Oklahoma, Oregon, Rhode Island, South Carolina, South Dakota, Tennessee, Utah, Vermont, Virginia, West Virginia. For 1927: Alabama, Arizona, Arkansas, Connecticut, District of Columbia, Florida, Georgia, Kentucky, Maine, Maryland, Massachusetts, Missouri, Montana, Nebraska, New Hampshire, New Jersey, North Carolina, North Dakota, Oklahoma, Oregon, Rhode Island, South Dakota, Tennessee, Texas, Vermont, Virginia, West Virginia.

<sup>11</sup> For 1929: Arizona, Georgia, Iowa, Maine, Massachusetts, Missouri, Montana, Ohio, Oregon, Pennsylvania, Texas, Virginia, Washington. For 1927: Alabama, Idaho, Illinois, Iowa, Maine, Massachusetts, Michigan, New Jersey, Ohio, Pennsylvania, Utah.

<sup>12</sup> Includes a small amount of refined sugar of milk.

<sup>13</sup> For 1929: California, Illinois, Michigan, New York, Vermont, Wisconsin. For 1927: California, Michigan, New York, Pennsylvania, Vermont.

<sup>14</sup> For 1929: California, Michigan, Pennsylvania, Washington. For 1927: Indiana, Iowa, New York, Ohio.

**TABLE 7.—PRIME MOVERS, MOTORS, GENERATORS, AND CONSUMPTION OF PURCHASED ELECTRIC ENERGY—NUMBER AND RATED CAPACITY OF PRIME MOVERS AND ELECTRIC MOTORS, 1929, 1927, 1925, 1919, AND 1914, AND OF GENERATORS, 1929, 1927, AND 1925; QUANTITY OF ELECTRIC ENERGY PURCHASED, 1929; FOR THE GROUP AS A WHOLE AND FOR THE SEPARATE INDUSTRIES**

TYPE	1929		1927		1925		1919		1914		PER CENT DISTRIBUTION OF RATED HORSE-POWER CAPACITY	
	Number	Capacity	Number	Capacity	Number	Capacity	Number	Capacity	Number	Capacity	1929	1919
											Horse-power	Horse-power
<b>THE GROUP AS A WHOLE</b>												
Prime movers and electric motors driven by purchased energy, aggregate.....	37,687	Horse-power 274,410	26,907	Horse-power 230,918	21,838	Horse-power 201,639	13,811	Horse-power 168,551	6,604	Horse-power 130,259	100.0	100.0
Prime movers, total.....	4,562	104,123	4,454	97,000	5,051	98,468	6,391	115,072	7,262	113,232	38.0	68.3
Steam, total.....	4,023	98,590	3,679	90,492	3,859	89,186	5,094	104,223	6,235	104,729	36.0	61.8
Engines.....	3,562	92,040	3,382	84,198	3,818	86,674	4,793	90,815	(?)	(?)	33.6	58.9
Turbines.....	431	6,400	207	6,204	41	2,512	301	4,908	(?)	(?)	2.4	2.9
Internal-combustion engines.....	509	4,064	750	7,089	1,122	8,463	1,234	9,204	949	7,220	1.8	5.5
Water wheels and water turbines.....	30	563	25	415	70	819	63	1,555	68	1,274	0.2	1.0
Electric motors driven by purchased energy.....	33,125	170,287	22,453	132,922	10,787	103,171	7,420	53,479	2,352	17,027	62.0	31.7
Electric motors, total.....	30,104	196,828	27,292	155,849	20,840	121,405	10,647	70,562	3,568	23,061	100.0	100.0
Driven by purchased energy.....	33,125	170,287	22,453	132,922	10,787	103,171	7,420	53,479	2,352	17,027	80.5	75.8
Driven by energy generated in establishments reporting.....	5,979	26,541	4,800	22,927	4,053	18,234	3,227	17,083	1,206	6,034	13.5	24.2
Electric generators.....	291	Kilowatts 24,282 Kilowatt-hours	218	Kilowatts 16,188	265	Kilowatts 14,064	(?)	(?)	(?)	(?)		
Electric energy purchased <sup>1</sup> .....		179,694,498		(?)		(?)		(?)		(?)		

See footnotes at end of table.



## CENSUS OF MANUFACTURES: 1929

TABLE 7.—PRIME MOVERS, MOTORS, GENERATORS, AND CONSUMPTION OF PURCHASED ELECTRIC ENERGY—NUMBER AND RATED CAPACITY OF PRIME MOVERS AND ELECTRIC MOTORS, 1929, 1927, 1925, 1919, AND 1914, AND OF GENERATORS, 1929, 1927, AND 1925; QUANTITY OF ELECTRIC ENERGY PURCHASED, 1929; FOR THE GROUP AS A WHOLE AND FOR THE SEPARATE INDUSTRIES—Continued

TYPE	1929		1927		1925		1919		1914		PER CENT DISTRIBUTION OF RATED HORSEPOWER CAPACITY	
	Number	Capacity	Number	Capacity	Number	Capacity	Number	Capacity	Number	Capacity	1929	1919
<b>BUTTER</b>												
Prime movers and electric motors driven by purchased energy, aggregate.....	24,736	Horse-power 164,413	18,300	Horse-power 145,973	.....	Horse-power 126,872	8,538	Horse-power 94,062	6,627	Horse-power 91,448	100.0	100.0
Prime movers, total.....	1,762	43,324	1,801	45,295	( <sup>1</sup> )	( <sup>2</sup> )	2,910	53,775	4,453	75,718	26.4	56.6
Steam, total.....	1,504	39,698	1,532	40,214	.....	.....	2,412	47,505	3,840	69,135	21.2	50.0
Engines.....	1,371	38,115	1,463	39,510	.....	.....	2,326	46,340	( <sup>1</sup> )	( <sup>1</sup> )	23.2	48.8
Turbines.....	193	1,683	69	704	.....	.....	89	1,165	( <sup>1</sup> )	( <sup>1</sup> )	1.0	1.2
Internal-combustion engines.....	176	3,390	253	4,870	.....	.....	459	5,522	552	5,620	2.1	5.8
Water wheels and water turbines.....	22	236	16	211	.....	.....	39	748	61	954	0.1	0.8
Electric motors driven by purchased energy.....	22,974	121,089	16,499	100,678	.....	.....	5,028	41,187	2,174	15,730	73.0	43.4
Electric motors, total.....	24,091	126,030	18,050	108,103	( <sup>3</sup> )	( <sup>3</sup> )	6,328	46,534	2,492	18,316	100.0	100.0
Driven by purchased energy.....	22,974	121,089	16,499	100,678	.....	.....	5,028	41,187	2,174	15,730	93.1	88.5
Driven by energy generated in establishments reporting.....	1,117	4,941	1,551	7,425	.....	.....	700	5,347	318	2,586	6.9	11.5
Electric generators.....	60	Kilowatts 4,931 Kilowatt-hours	35	Kilowatts 3,000	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	.....	.....
Electric energy purchased <sup>5</sup> .....	.....	141,195,403	.....	( <sup>6</sup> )	.....	( <sup>6</sup> )	.....	( <sup>6</sup> )	.....	( <sup>6</sup> )	.....	.....
<b>CHEESE</b>												
Prime movers and electric motors driven by purchased energy, aggregate.....	5,255	Horse-power 24,739	3,574	Horse-power 20,976	.....	Horse-power 20,830	3,040	Horse-power 24,411	2,415	Horse-power 19,200	100.0	100.0
Prime movers, total.....	2,022	15,701	1,048	15,012	( <sup>1</sup> )	( <sup>1</sup> )	2,714	22,621	2,363	18,892	63.5	92.7
Steam, total.....	1,701	14,492	1,466	13,805	.....	.....	1,956	19,500	1,979	17,348	58.0	79.9
Engines.....	1,522	13,245	1,280	10,790	.....	.....	1,771	17,769	( <sup>1</sup> )	( <sup>1</sup> )	53.5	72.8
Turbines.....	179	1,247	189	3,015	.....	.....	185	1,740	( <sup>1</sup> )	( <sup>1</sup> )	5.1	7.1
Internal-combustion engines.....	318	1,185	478	1,780	.....	.....	747	3,000	383	1,446	4.8	12.9
Water wheels and water turbines.....	3	23	4	21	.....	.....	11	112	1	8	0.1	0.5
Electric motors driven by purchased energy.....	3,283	9,038	1,626	5,364	.....	.....	332	1,790	52	407	36.5	7.3
Electric motors, total.....	3,305	9,221	1,720	6,029	( <sup>3</sup> )	( <sup>3</sup> )	364	1,932	57	457	100.0	100.0
Driven by purchased energy.....	3,233	9,038	1,626	5,364	.....	.....	332	1,790	52	407	98.0	92.7
Driven by energy generated in establishments reporting.....	72	183	100	665	.....	.....	32	142	5	50	2.0	7.3
Electric generators.....	12	Kilowatts 207 Kilowatt-hours	4	Kilowatts 85	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	.....	.....
Electric energy purchased <sup>5</sup> .....	.....	9,489,300	.....	( <sup>6</sup> )	.....	( <sup>6</sup> )	.....	( <sup>6</sup> )	.....	( <sup>6</sup> )	.....	.....
<b>CONDENSED AND EVAPORATED MILK</b>												
Prime movers and electric motors driven by purchased energy, aggregate.....	7,696	Horse-power 85,258	5,033	Horse-power 63,990	.....	Horse-power 53,937	2,227	Horse-power 49,178	562	Horse-power 10,602	100.0	100.0
Prime movers, total.....	778	45,098	705	37,080	( <sup>1</sup> )	( <sup>1</sup> )	707	38,676	430	18,712	52.9	78.6
Steam, total.....	758	44,406	681	36,473	.....	.....	726	37,209	410	18,240	52.1	75.7
Engines.....	699	40,689	630	33,895	.....	.....	696	35,206	( <sup>1</sup> )	( <sup>1</sup> )	47.7	71.6
Turbines.....	59	3,717	42	2,575	.....	.....	30	2,003	( <sup>1</sup> )	( <sup>1</sup> )	4.4	4.1
Internal-combustion engines.....	16	388	19	433	.....	.....	28	772	14	154	0.4	1.5
Water wheels and water turbines.....	6	304	6	183	.....	.....	13	695	6	312	0.4	1.4
Electric motors driven by purchased energy.....	6,918	40,160	4,328	26,880	.....	.....	1,400	10,502	126	890	47.1	21.4
Electric motors, total.....	11,708	61,577	7,486	41,717	( <sup>3</sup> )	( <sup>3</sup> )	3,955	22,096	1,009	4,288	100.0	100.0
Driven by purchased energy.....	6,918	40,160	4,328	26,880	.....	.....	1,400	10,502	126	890	65.2	47.5
Driven by energy generated in establishments reporting.....	4,790	21,417	3,158	14,837	.....	.....	2,495	11,594	883	3,398	34.8	52.5
Electric generators.....	210	Kilowatts 19,034 Kilowatt-hours	179	Kilowatts 12,563	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	.....	.....
Electric energy purchased <sup>5</sup> .....	.....	28,909,735	.....	( <sup>6</sup> )	.....	( <sup>6</sup> )	.....	( <sup>6</sup> )	.....	( <sup>6</sup> )	.....	.....

<sup>1</sup> Not called for separately on schedule.

<sup>2</sup> Not called for on schedule.

<sup>3</sup> This item covers the consumption of purchased electric energy for all purposes—power, heat, light, etc.

<sup>4</sup> Data incomplete.

<sup>5</sup> Power-equipment statistics in detail were not compiled separately for the several industries at the census for 1925.

BUTTER, CHEESE, AND CONDENSED MILK

TABLE 8.—WAGE EARNERS, BY MONTHS, FOR THE GROUP AS A WHOLE, FOR THE UNITED STATES, 1929  
1925, 1919, 1914, AND 1909, AND FOR THE SEPARATE INDUSTRIES, BY STATES, 1929

[This table presents statistics for only those States for which figures can be given without disclosing data for individual establishments. The sum of the State items in any column is not, therefore, equal to the United States total at the head of the column. The month of maximum employment is indicated by bold-faced figures and that of minimum employment by *italic* figures]

STATE	Average number employed during year	NUMBER EMPLOYED ON 15TH DAY OF MONTH OR NEAREST REPRESENTATIVE DAY												Per cent minimum is of maximum
		January	February	March	April	May	June	July	August	September	October	November	December	
United States:														
1929.....	20,563	<i>26,817</i>	20,870	27,780	20,594	31,362	<b>33,018</b>	32,888	31,870	30,314	28,081	27,041	27,315	81.2
1925.....	28,274	<i>25,025</i>	25,238	26,073	28,197	30,403	<b>32,084</b>	32,097	30,950	29,205	27,751	26,402	25,713	78.0
1919.....	35,313	<i>29,022</i>	30,050	31,375	34,871	38,009	<b>40,980</b>	40,584	39,017	37,182	35,016	34,122	32,859	70.8
1914.....	23,059	<i>19,707</i>	19,882	20,401	22,816	25,120	<b>26,548</b>	26,200	25,242	24,344	23,211	22,047	21,052	74.2
1909.....	18,431	<i>15,121</i>	15,230	15,978	18,050	20,202	<b>21,313</b>	21,392	20,934	20,005	18,002	17,571	16,343	70.7
<b>BUTTER<sup>1</sup></b>														
1929.....	10,097	<i>17,425</i>	17,406	17,927	18,901	10,840	20,760	20,811	20,419	10,744	10,140	18,550	18,184	83.7
1919.....	17,641	<i>14,796</i>	14,881	15,118	16,804	18,584	20,370	20,322	19,829	10,024	17,861	17,394	16,700	72.6
1914.....	14,140	<i>12,734</i>	<i>12,646</i>	12,825	13,760	14,921	15,782	15,098	15,438	14,720	14,110	13,714	13,431	80.1
Alabama.....	27	<i>21</i>	20	20	29	20	30	30	31	31	20	<i>21</i>	<i>21</i>	67.7
Arizona.....	55	<i>76</i>	74	70	67	72	44	<i>43</i>	44	<i>43</i>	44	44	<i>43</i>	50.6
Arkansas.....	43	<i>35</i>	35	36	38	47	47	47	47	46	44	46	46	74.5
California.....	1,092	<i>1,019</i>	1,024	1,109	1,163	1,165	1,178	1,139	1,134	1,070	1,048	1,024	1,022	86.5
Colorado.....	303	<i>280</i>	<i>280</i>	289	304	313	326	334	325	306	301	292	292	83.8
Florida.....	10	<i>7</i>	7	11	11	11	11	11	11	11	11	11	11	63.6
Georgia.....	52	<i>48</i>	51	50	56	57	61	57	60	61	59	59	59	63.9
Idaho.....	309	287	287	292	303	325	342	341	337	327	312	297	<i>264</i>	74.3
Illinois.....	820	732	731	771	803	805	940	948	905	884	820	777	767	77.1
Indiana.....	875	<i>812</i>	822	820	856	903	929	938	927	895	879	854	851	86.6
Iowa.....	2,082	1,885	<i>1,870</i>	1,925	2,032	2,124	2,252	2,278	2,230	2,100	2,118	2,055	2,036	82.5
Kansas.....	637	<i>557</i>	564	571	640	609	718	688	695	600	632	596	625	77.6
Kentucky.....	283	269	266	267	276	291	329	315	290	288	280	261	<i>257</i>	78.1
Louisiana.....	15	<i>13</i>	<i>13</i>	13	13	14	15	17	17	17	17	16	16	70.5
Maryland.....	2	<i>2</i>	2	2	2	2	2	2	2	2	2	2	2	-----
Massachusetts.....	14	<i>13</i>	<i>13</i>	13	13	13	16	16	15	14	14	13	14	56.7
Michigan.....	838	<i>781</i>	787	790	828	862	916	910	885	801	814	811	809	17.3
Minnesota.....	2,655	<i>2,479</i>	2,505	2,555	2,673	2,743	2,808	2,813	2,780	2,684	2,650	2,625	2,548	88.1
Mississippi.....	84	<i>74</i>	75	74	77	92	92	88	90	90	88	83	86	80.4
Missouri.....	990	<i>889</i>	901	906	955	1,000	1,105	1,101	1,053	1,019	975	967	948	80.5
Montana.....	272	<i>234</i>	237	241	200	283	305	307	317	289	278	261	253	73.8
Nebraska.....	870	<i>777</i>	793	760	827	881	1,027	1,047	978	895	897	836	807	70.0
Nevada.....	30	<i>30</i>	29	28	31	32	31	33	33	30	28	28	31	84.8
New Mexico.....	13	<i>12</i>	13	13	14	14	14	14	13	13	12	11	12	78.6
New York.....	112	<i>105</i>	106	106	110	114	120	122	120	117	112	108	108	86.1
North Carolina.....	49	<i>47</i>	47	48	48	50	50	61	50	49	48	48	48	62.2
North Dakota.....	474	<i>345</i>	329	381	423	475	559	574	544	588	597	599	399	50.1
Ohio.....	1,195	1,125	<i>1,107</i>	1,113	1,160	1,227	1,270	1,309	1,270	1,242	1,190	1,105	1,143	84.6
Oklahoma.....	257	<i>183</i>	197	235	257	282	305	294	280	272	250	250	239	59.4
Oregon.....	403	373	<i>373</i>	379	402	423	438	439	430	421	392	387	385	84.7
Pennsylvania.....	221	<i>201</i>	207	207	214	222	228	233	228	231	220	220	220	84.5
South Carolina.....	6	<i>6</i>	6	6	6	6	6	6	7	7	6	6	6	86.7
South Dakota.....	439	<i>398</i>	406	414	456	465	497	496	480	448	404	401	401	80.1
Tennessee.....	249	<i>224</i>	232	234	242	258	264	270	262	262	260	240	237	83.0
Texas.....	370	<i>346</i>	351	349	370	388	396	403	404	390	379	364	362	85.6
Utah.....	195	<i>183</i>	181	187	194	197	199	210	200	199	202	192	188	86.2
Vermont.....	85	<i>81</i>	81	81	84	86	91	93	92	86	85	80	77	82.8
Virginia.....	123	<i>113</i>	<i>112</i>	113	117	124	136	133	134	125	126	125	120	83.0
Washington.....	535	<i>498</i>	505	510	530	500	561	571	563	557	547	517	506	87.2
West Virginia.....	6	<i>5</i>	5	6	6	7	7	7	7	6	6	6	6	71.4
Wisconsin.....	1,938	<i>1,807</i>	1,814	1,864	1,950	2,003	2,036	2,027	2,020	1,974	1,943	1,910	1,896	88.8
Wyoming.....	43	<i>42</i>	42	42	44	46	46	46	46	44	44	43	41	91.1
<b>CHEESE<sup>1</sup></b>														
1929.....	3,401	<i>2,891</i>	2,918	3,059	3,393	3,688	3,842	3,866	3,762	3,579	3,413	3,266	3,137	74.8
1919.....	3,907	<i>2,843</i>	2,893	3,229	4,106	4,780	5,090	4,942	4,609	4,378	4,109	3,693	3,266	56.0
1914.....	2,908	<i>1,693</i>	1,723	1,987	3,040	3,045	3,810	3,778	3,643	3,488	3,202	2,689	2,130	44.4
Arkansas.....	15	<i>9</i>	9	9	9	14	19	20	20	19	19	19	19	45.0
California.....	181	<i>172</i>	172	176	181	182	183	181	183	184	184	184	178	90.1
Colorado.....	29	<i>27</i>	27	28	28	27	27	27	27	28	28	28	28	81.8
Idaho.....	62	<i>57</i>	54	56	61	66	68	68	68	68	68	61	58	79.4
Illinois.....	137	<i>121</i>	123	124	128	139	153	146	146	146	143	130	132	79.1
Indiana.....	80	<i>59</i>	58	64	74	88	98	104	98	98	81	71	70	55.8
Iowa.....	11	<i>11</i>	11	12	12	12	12	12	12	12	10	11	11	83.3
Kansas.....	16	<i>16</i>	16	16	16	14	15	15	15	14	17	17	17	82.4
Michigan.....	79	<i>71</i>	71	77	80	88	90	91	89	83	78	74	74	78.0
Minnesota.....	77	<i>64</i>	65	69	77	82	85	88	84	79	75	75	74	72.7
Mississippi.....	31	<i>24</i>	24	28	28	30	30	37	37	35	31	30	30	64.9
Missouri.....	23	<i>20</i>	20	20	22	23	23	24	24	25	24	23	23	80.0
Montana.....	4	<i>4</i>	4	4	4	4	4	4	4	4	4	5	5	75.0
Nebraska.....	28	<i>28</i>	28	28	28	28	28	28	28	27	27	27	27	96.4
New Jersey.....	2	<i>2</i>	2	2	2	2	2	2	2	2	2	2	2	-----
New York.....	493	<i>400</i>	406	419	456	548	584	593	550	519	483	468	481	67.5
Ohio.....	78	<i>69</i>	73	75	76	84	77	76	74	76	78	86	86	80.2
Oklahoma.....	2	<i>2</i>	2	2	2	3	3	3	3	2	2	2	2	66.7
Oregon.....	110	<i>76</i>	81	102	132	140	142	143	134	112	100	87	76	52.4

<sup>1</sup> No wage-earner statistics for the separate industries are available for 1925 or 1909.

## CENSUS OF MANUFACTURES: 1929

TABLE 8.—WAGE EARNERS, BY MONTHS, FOR THE GROUP AS A WHOLE, FOR THE UNITED STATES, 1929, 1925, 1919, 1914, AND 1909, AND FOR THE SEPARATE INDUSTRIES, BY STATES, 1929—Continued

[See note at head of this table]

STATE	Average number employed during year	NUMBER EMPLOYED ON 15TH DAY OF MONTH OR NEAREST REPRESENTATIVE DAY												Per cent minimum of maximum
		January	February	March	April	May	June	July	August	September	October	November	December	
<b>CHEESE—continued</b>														
Pennsylvania.....	48	47	47	47	44	48	49	49	46	50	50	47	47	88.0
Tennessee.....	23	17	17	17	23	24	28	28	27	27	25	22	22	60.7
Texas.....	25	25	28	25	24	24	26	26	28	28	28	26	26	88.5
Utah.....	30	28	29	29	31	35	33	33	34	30	25	24	22	62.0
Vermont.....	5	3	3	3	3	8	9	8	7	5	3	4	8	33.3
Washington.....	56	54	52	55	55	58	63	62	60	55	56	53	52	82.5
Wisconsin.....	1,680	1,419	1,430	1,505	1,719	1,837	1,894	1,901	1,869	1,781	1,694	1,610	1,504	74.6
Wyoming.....	25	25	26	26	26	24	28	27	27	24	24	22	22	78.6
<b>CONDENSED AND EVAPORATED MILK<sup>1</sup></b>														
1929.....	7,065	6,501	6,486	6,890	7,300	7,834	8,416	8,211	7,098	6,991	6,428	6,125	5,994	71.2
1919.....	13,675	11,333	12,276	13,023	13,961	14,705	15,593	15,320	14,489	13,780	13,646	13,035	12,884	73.0
1914.....	6,002	5,281	5,513	5,589	6,016	6,563	6,956	6,823	6,161	6,136	5,860	5,644	5,432	75.9
California.....	588	560	556	581	635	636	633	643	629	606	537	521	523	81.3
Illinois.....	455	436	443	448	460	488	522	522	505	460	465	372	395	71.0
Indiana.....	233	213	213	214	221	240	246	251	251	242	233	233	229	84.8
Iowa.....	31	30	28	30	33	31	38	38	36	35	28	26	25	65.3
Kansas.....	110	118	120	120	125	130	140	128	106	102	86	69	78	49.0
Maryland.....	54	49	48	50	54	67	75	55	54	48	46	52	51	61.3
Massachusetts.....	30	29	29	29	29	31	31	32	30	29	29	29	29	90.6
Michigan.....	476	447	443	453	463	556	574	555	520	434	429	415	420	72.3
Minnesota.....	110	108	108	115	120	125	135	128	124	121	115	114	116	80.0
Mississippi.....	95	78	77	75	106	116	121	117	111	110	95	75	67	47.1
Missouri.....	138	124	115	121	138	158	167	168	150	141	131	116	117	68.5
New York.....	905	816	733	848	1,024	1,091	1,168	1,145	1,004	861	758	704	711	80.3
Ohio.....	412	386	397	418	412	412	446	450	431	424	404	389	374	83.1
Oregon.....	80	81	89	97	92	89	100	80	71	60	63	70	70	60.0
Pennsylvania.....	375	228	235	333	426	479	520	533	466	369	313	316	269	42.8
Tennessee.....	156	127	127	133	142	168	200	195	191	175	152	136	127	63.5
Utah.....	183	189	186	190	191	191	198	197	194	189	173	170	173	85.4
Vermont.....	111	87	91	90	115	139	160	149	144	94	95	87	85	53.1
Washington.....	255	229	225	224	244	300	314	307	292	260	244	227	198	63.1
Wisconsin.....	1,789	1,703	1,750	1,788	1,816	1,867	2,088	1,990	1,876	1,765	1,662	1,591	1,566	74.5

<sup>1</sup> No wage-earner statistics for separate industries are available for 1925 or 1909.

## CANNING AND PRESERVING

**Description of the industries.**—Establishments engaged primarily in canning and preserving are grouped, for census purposes, into two industries: (1) Canning and preserving—fruits and vegetables, pickles, jellies, preserves, and sauces; (2) Canning and preserving—fish, crabs, shrimps, oysters, and clams. The products of the first of these industries may be classified in six major groups, namely, canned vegetables and soups; canned fruits; dried fruits; dried and dehydrated vegetables; preserves, jams, jellies, and fruit butter; and pickles, sauces, salad dressings, ketchup, etc. The products of the second industry are canned, pickled, smoked, dried, and boneless fish, and canned shrimps, oysters, clams, etc., shown in two major groups—canned fish, oysters, etc., and cured fish.

The canning and preserving industry does not include the canning of meats or other products by establishments engaged in meat packing (classified in the meat-packing industry); the manufacture of condensed and evaporated milk, sweetening sirups, and peanut butter; the drying and packing of fruits on farms; nor the shucking and shipment of fresh oysters in nonsealed containers. Statistics on the total production of the chief classes of canned foods, including those produced by meat-packing establishments, condensed and evaporated milk, sweetening sirups (other than cane), and peanut butter are, however, given in Table 6.

**Wage earners.**—In making use of the wage-earner statistics for this industry, it should be borne in mind that they are not strictly comparable with those for other industries because of the fact that canning is a seasonal activity (that is, canneries operate at full capacity during certain months of the year only). In the endeavor to show the importance of this industry, in comparison with others, as an employer of labor, the average number of wage earners *for the year* has been computed in the same manner as the averages for other industries; namely, by totalizing the figures for the several months, as reported by the canners, and dividing the sum by 12. The average computed by this method is, of course, less than the average for the period during which the canneries were in active operation. Furthermore, the monthly figures reported by canners do not represent the true monthly averages, for the reason that employment fluctuates greatly. To illustrate: Suppose that a cannery, employing 100 wage earners, operated 8

hours a day during 13 days in a certain month and 4 hours a day during the remaining 13 days. This cannery would undoubtedly report 100 wage earners as employed on the 15th or the "nearest representative day" of that month, as called for by the census schedule. (In practice, of course, the number of wage earners employed from day to day, as well as the number of hours worked daily, would vary considerably throughout the month.) Thus, in a case like this, the number of wage earners reported, 100, would be larger by one-third than the true average for the month, 75 (calculated on an 8-hour a day basis for the entire month), and the average for the year, computed as explained above, would be correspondingly overstated.

**Sizes of cans and cases.**—Table 3 shows the dimensions and the approximate capacities of the principal sizes of cans in use. These dimensions and capacities were obtained from the National Canners' Association, and are those agreed upon by the conference committee of that association and the National Wholesale Grocers' Association as complying with the Federal and State pure-food laws. The volume and the weight of contents given below allow for "reasonable tolerance"; that is to say, they represent, not the maximum capacity of the cans, but the quantities they actually contain when filled in the usual manner. All the production statistics in Tables 4, 5, 6, 7, and 8, except those for fish, oysters, etc., are given in the actual numbers of cases reported, but the figures for fish, oysters, etc., have been reduced to equivalent numbers of cases of standard-size cans.

**Quantities and values of products.**—Statistics showing the quantities and the values of the several classes and kinds of canned and processed foods which are treated as primary products of the canning and preserving industry (including those reported as secondary products by establishments in other industries) are given in Tables 4 to 8, inclusive; and in Table 6 is shown the total production, so far as reported separately, of the principal classes of canned and processed food products not belonging to the canning and preserving industry.

The schedule used in collecting data from establishments engaged primarily in the manufacture of pickles, jellies, preserves, sauces, etc., did not call for detailed figures for the quantities of the several classes of prod-

CENSUS OF MANUFACTURES: 1929

ucts, and therefore values only are shown for these products in Tables 4, 6, 7, and 8.

Alaskan production.—The statistics presented in Tables 1 to 12, inclusive, relate to the operations of establishments in continental United States, exclusive of Alaska. The production of canned salmon in Alaska is, however, of great importance, and accordingly a special statement showing the output of Alaskan fisheries has been prepared. From this statement, which follows, it will be seen that the production of canned salmon in Alaska in 1929 was more than treble that reported for continental United States. (See Table 7.)

PRODUCTS OF ALASKAN FISHERIES, BY QUANTITY AND VALUE: 1923 TO 1929

	1929 <sup>1</sup>	1927 <sup>1</sup>	1925 <sup>1</sup>	1923
Total value.....	\$45,425,871	\$34,088,205	\$30,042,188	\$37,541,135
Canned salmon:				
Standard cases.....	5,370,159	3,572,128	4,450,937	5,035,697
Value.....	\$40,469,385	\$30,010,264	\$31,080,531	\$32,373,007
Other canned fish:				
Standard cases.....	23,486	23,872	75,404	70,915
Value.....	\$203,676	\$146,819	\$402,801	\$554,220
Mild-cured, salted, and pickled fish:				
Pounds.....	14,309,167	25,000,311	44,002,088	29,100,106
Value.....	\$2,038,180	\$3,242,084	\$4,752,720	\$2,552,620
Other manufactured fish products, value.....	\$2,714,074	\$1,583,008	\$1,807,130	\$1,561,288

<sup>1</sup> Compiled by the Bureau of Fisheries.

TABLE 1.—SUMMARY FOR THE CANNING AND PRESERVING INDUSTRIES, IN COMBINATION AND SEPARATELY, FOR THE UNITED STATES: 1899 TO 1929

[Data for establishments with products under \$5,000 in value included for 1910 and prior years but not for 1921 and subsequent years. See GENERAL EXPLANATIONS—Establishments Covered—Size]

YEAR OR PERIOD	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, containers for products, fuel, and purchased electric energy	Value of products <sup>1</sup>	Value added by manufacture <sup>2</sup>	Horsepower
<b>THE CANNING AND PRESERVING INDUSTRIES</b>							
1929.....	3,345	112,478	\$83,777,048	\$515,302,030	\$831,100,554	\$315,888,515	245,780
1927.....	2,773	93,574	70,415,241	398,077,158	637,428,040	230,350,891	208,405
1925.....	2,722	96,396	74,061,493	424,767,436	677,181,278	252,368,843	207,017
1923.....	2,790	81,078	63,334,103	330,020,810	656,004,642	235,883,832	193,302
1921.....	2,225	59,075	42,114,036	259,704,054	401,831,446	142,127,302	( <sup>3</sup> )
1919.....	4,280	89,923	65,444,023	412,650,747	628,287,025	215,628,178	180,461
1914.....	4,220	74,071	27,197,024	159,667,900	243,430,850	83,781,050	110,348
1909.....	3,767	59,908	19,081,843	101,823,659	167,101,201	55,278,142	80,778
1904.....	3,108	50,944	16,330,352	83,147,336	130,465,076	47,318,640	60,320
1899.....	2,570	57,012	13,705,105	63,667,568	90,335,464	35,607,800	37,542
Per cent of increase or decrease (—):							
1927-1929.....	20.6	20.2	19.0	29.4	30.4	32.0	17.9
1925-1927.....	1.0	-2.9	-5.7	-0.8	-5.0	-5.2	0.7
1923-1925.....	-2.8	18.0	17.9	28.7	19.7	7.0	7.1
1921-1923.....	25.8	36.9	50.4	27.1	40.8	66.0	-----
1919-1921.....	-48.0	-33.6	-36.6	-37.1	-30.0	-34.1	-----
1910-1929.....	-21.8	25.1	26.1	24.9	32.3	40.5	36.2
1909-1919.....	13.6	50.0	248.2	305.3	290.9	390.1	123.4
1899-1909.....	46.6	5.2	39.2	59.0	58.2	55.0	115.2
<b>FRUITS AND VEGETABLES; PICKLES, JELLIES, PRESERVES, AND SAUCES</b>							
1929.....	2,997	98,866	\$74,978,590	\$402,062,128	\$750,342,041	\$288,270,013	224,097
1927.....	2,430	80,924	62,309,000	355,185,002	572,345,862	217,160,200	189,831
1925.....	2,403	85,866	67,427,244	385,573,475	616,070,748	230,497,273	187,490
1923.....	2,438	72,534	57,152,928	298,008,822	515,316,273	216,347,451	175,714
1921.....	1,905	51,720	36,799,333	237,081,021	365,717,039	128,035,418	( <sup>3</sup> )
1919.....	3,805	77,486	56,939,004	358,065,958	548,027,502	189,361,544	154,631
1914.....	3,825	62,915	23,094,328	138,966,550	210,090,397	71,124,847	100,487
1909.....	3,869	50,042	15,516,800	84,341,010	128,772,908	44,431,889	72,386
1904.....	2,780	46,499	13,490,784	68,217,318	107,838,300	39,020,001	54,201
1899.....	2,237	44,414	10,480,903	51,257,620	79,004,548	28,046,023	32,306
Per cent of increase or decrease (—):							
1927-1929.....	23.0	22.2	20.3	30.1	31.1	32.7	18.1
1925-1927.....	1.4	-5.8	-7.6	-7.9	-7.1	-5.8	1.2
1923-1925.....	-1.4	18.4	18.0	20.0	10.0	6.6	6.7
1921-1923.....	28.0	40.2	55.3	25.8	40.9	60.0	-----
1919-1921.....	-49.9	-33.2	-35.4	-33.7	-33.3	-32.4	-----
1910-1929.....	-21.2	27.6	31.7	28.8	30.9	52.2	44.9
1909-1919.....	12.9	54.8	267.0	325.3	325.6	326.2	112.4
1899-1909.....	50.0	12.7	47.9	64.5	61.2	55.1	117.4
<b>FISH, CRABS, SHRIMPS, OYSTERS, AND CLAMS</b>							
1929.....	348	13,012	\$8,790,058	\$53,230,011	\$80,848,513	\$27,608,002	21,682
1927.....	337	12,050	8,105,081	42,801,556	65,082,187	22,100,631	18,574
1925.....	319	10,530	7,234,249	39,193,960	61,000,530	21,866,570	19,527
1923.....	361	9,144	6,181,175	31,061,988	56,588,369	19,530,381	17,648
1921.....	320	7,040	5,314,703	22,022,438	36,114,407	14,091,974	( <sup>3</sup> )
1919.....	475	12,437	9,605,019	53,993,789	80,260,423	26,266,634	25,830
1914.....	305	11,156	4,102,696	20,692,350	33,340,462	12,057,103	12,861
1909.....	398	9,026	3,565,034	17,482,040	28,328,293	10,846,253	8,302
1904.....	379	8,445	2,830,568	14,030,018	22,627,667	7,097,649	6,050
1899.....	333	12,508	3,215,197	12,409,948	19,430,916	7,020,968	5,140
Per cent of increase or decrease (—):							
1927-1929.....	3.3	7.0	8.6	24.1	24.2	24.4	16.8
1925-1927.....	5.0	20.1	12.0	0.4	6.0	-1.5	-4.9
1923-1925.....	-11.0	15.2	17.0	26.2	20.7	11.9	10.6
1921-1923.....	12.8	15.1	16.3	41.0	40.1	38.6	-----
1919-1921.....	-32.6	-36.1	-44.1	-59.2	-55.0	-46.4	-----
1910-1929.....	-26.7	9.4	-7.4	-1.4	0.7	5.1	-16.0
1909-1919.....	19.3	25.3	166.6	208.9	183.8	142.2	207.8
1899-1909.....	19.5	-21.2	10.9	40.9	45.8	54.5	63.1

<sup>1</sup> For 1929, manufacturers' sales (shipments or deliveries); for earlier years, production. See GENERAL EXPLANATIONS—Value of Products.

<sup>2</sup> Value of products less cost of materials, containers for products, fuel, and purchased electric energy. See GENERAL EXPLANATIONS—Value Added by Manufacture.

<sup>3</sup> Not called for on schedule.

# CANNING AND PRESERVING

**TABLE 2.—GENERAL STATISTICS, FOR THE CANNING AND PRESERVING INDUSTRIES, BY STATES: 1929, 1927, AND 1919**

(This table presents statistics separately for each State for which figures can be given without disclosing data for individual establishments, and for the remaining States in groups. Data for establishments with products under \$5,000 in value are included for 1919 but not for subsequent years. See GENERAL EXPLANATIONS—Establishments Covered—Size)

STATE	Cen- sus year	Num- ber of estab- lish- ments	Sala- ried officers and em- ploy- ees <sup>1</sup>	Wage earn- ers (aver- age for the year)	HORSEPOWER (RATED CAPACITY) OF POWER EQUIPMENT			Salaries	Wages	COST OF MATERIALS, CONTAINERS FOR PRODUCTS, FUEL, AND PUR- CHASED ELECTRIC ENERGY			Value of products <sup>2</sup>	Value added by manufac- ture <sup>3</sup>
					Total	Primo movers	Motors run by pur- chased energy			Total	Materials and containers	Fuel and purchased energy		
<b>CANNING AND PRESERVING INDUSTRIES</b>														
United States.....	1929	3,345	11,088	112,478	245,789	102,805	142,954	\$24,040,083	\$83,777,048	\$515,302,030	\$608,402,128	\$6,809,011	\$831,100,554	\$915,888,516
	1927	2,773	10,174	93,574	208,405	96,887	111,518	21,750,732	70,415,241	398,077,158	302,210,200	5,896,808	672,345,049	230,350,801
	1919	4,280	14,179	80,923	180,401	124,241	60,220	24,708,064	60,444,023	412,050,747	400,827,014	6,832,733	628,287,925	215,628,178
<b>FRUITS AND VEGETABLES; PICKLES, JELLIES, PRESERVES, AND SAUCES</b>														
United States.....	1929	2,007	9,030	98,866	224,007	95,584	128,513	22,133,070	74,078,500	462,062,128	456,059,700	6,002,332	750,342,044	288,270,913
	1927	2,430	8,980	80,924	180,831	88,882	100,940	10,257,460	62,800,000	355,185,002	360,111,520	5,074,073	637,428,049	217,100,200
	1919	3,805	12,806	77,486	154,631	106,046	47,985	21,717,030	50,939,004	368,065,958	363,701,300	4,904,502	548,027,502	180,301,544
<b>Individual States:</b>														
Alabama.....	1929	4	19	101	100	25	75	40,091	60,071	507,080	503,344	4,330	816,000	308,926
	1927	5	14	121	113	33	80	38,011	65,641	523,072	518,902	4,110	737,620	214,564
Arkansas.....	1929	132	90	1,347	3,798	3,227	571	60,020	412,053	2,064,741	2,035,107	20,544	3,194,250	1,120,518
	1927	50	63	920	2,339	2,200	79	42,953	310,018	1,310,831	1,206,271	20,600	2,142,078	822,247
	1919	107	30	804	676	601	75	47,710	380,042	1,400,380	1,436,903	51,486	2,420,022	930,533
California.....	1929	389	1,772	28,180	39,139	4,082	35,057	4,261,830	23,462,511	138,318,125	137,081,070	1,237,040	220,465,301	82,147,266
	1927	311	1,714	23,762	33,622	4,003	28,789	3,877,352	22,370,144	115,403,442	114,312,809	1,000,570	181,061,691	60,258,140
	1919	387	2,062	21,294	24,140	5,335	18,805	5,039,656	10,840,730	135,046,327	131,620,015	1,425,712	201,705,781	65,840,451
Colorado.....	1929	26	78	820	1,001	740	855	253,480	599,578	3,202,807	3,233,954	58,918	5,322,062	2,020,195
	1927	21	100	558	1,906	1,090	876	244,011	390,250	2,100,036	2,005,361	41,275	3,487,252	1,380,616
	1919	24	98	689	1,896	1,428	468	197,033	485,951	1,830,510	1,788,342	42,174	3,190,048	1,369,532
Delaware.....	1929	53	105	1,414	3,519	2,131	1,388	175,428	866,603	4,120,701	4,038,410	96,372	6,053,647	2,823,856
	1927	59	81	1,255	2,846	2,410	430	139,130	560,103	3,415,083	3,338,076	77,607	5,294,447	1,878,764
	1919	78	130	1,459	2,067	2,012	55	230,019	822,150	3,022,300	3,660,127	62,269	5,684,367	1,961,901
Florida.....	1929	46	127	1,735	1,115	477	638	240,334	662,865	3,277,303	3,231,347	46,046	6,116,663	2,890,270
	1927	18	54	630	337	218	119	60,213	388,813	1,131,332	1,113,202	21,130	2,313,998	1,170,060
	1919	18	90	160	230	169	61	33,238	65,718	432,205	417,007	15,198	658,718	250,513
Georgia.....	1929	20	50	491	937	502	435	61,011	204,400	1,120,045	1,101,621	28,324	1,834,148	704,203
	1927	16	41	396	548	196	352	64,756	130,559	805,580	845,534	22,055	1,610,040	654,351
Idaho.....	1929	14	27	222	362	55	307	30,330	185,003	503,170	533,118	30,052	617,872	354,702
	1927	6	12	173	378	120	258	23,036	120,000	349,802	338,810	11,052	600,104	250,300
	1919	8	26	155	181	25	150	24,288	120,647	375,405	353,573	21,832	781,258	405,863
Illinois.....	1929	114	755	4,475	14,531	6,201	8,330	1,067,757	4,245,317	25,307,014	24,912,363	394,651	41,890,085	10,583,071
	1927	103	625	3,012	10,432	4,238	6,194	1,300,947	3,417,250	10,535,035	10,221,483	313,552	31,123,020	11,588,501
	1919	127	639	3,600	8,286	5,524	2,702	1,374,500	3,151,804	17,470,309	17,192,803	277,500	27,892,347	10,421,048
Indiana.....	1929	156	520	4,877	15,094	8,810	6,284	785,153	3,241,397	23,317,584	22,948,559	369,026	33,708,090	10,391,106
	1927	137	430	4,150	14,282	9,003	5,219	735,532	2,411,077	17,801,976	17,470,004	331,912	25,474,313	7,672,337
	1919	166	612	4,170	9,600	7,350	2,310	988,744	2,796,005	17,527,947	17,238,040	280,898	27,823,348	10,295,401
Iowa.....	1929	65	190	1,820	8,080	4,240	4,740	380,057	1,285,560	6,209,228	6,087,843	151,386	11,094,558	5,485,330
	1927	54	150	1,340	7,407	3,214	4,103	300,288	981,202	4,625,780	4,306,700	120,023	7,823,111	3,267,322
	1919	70	352	1,532	6,949	4,680	2,260	534,625	1,090,352	6,734,937	6,592,797	142,140	10,223,227	3,488,200
Kansas.....	1929	3	1	16	20	.....	20	400	3,180	15,820	15,626	.....	25,448	9,628
Kentucky.....	1929	35	143	893	1,840	1,201	630	260,003	510,831	3,570,304	3,524,758	45,540	5,320,804	1,750,500
	1927	28	102	946	1,545	986	559	316,320	677,510	3,242,200	3,190,812	42,487	5,171,070	1,920,371
	1919	28	238	1,147	1,075	642	433	531,272	655,758	5,723,452	5,608,080	55,472	8,406,480	2,774,034
Louisiana.....	1929	22	51	415	988	735	253	116,097	171,083	670,251	659,288	10,063	1,788,120	808,875
	1927	15	57	183	318	214	104	70,955	91,940	668,011	644,052	14,250	1,193,065	534,754
	1919	19	62	228	269	206	63	67,811	130,772	823,860	814,271	9,588	1,240,420	416,561
Maine.....	1929	100	178	1,140	4,822	2,833	1,080	202,806	862,535	5,295,008	5,223,348	71,720	8,313,883	3,018,815
	1927	78	115	916	3,952	2,575	1,377	172,077	621,683	3,517,148	3,466,725	50,423	5,322,811	1,805,603
	1919	102	224	1,050	3,781	3,378	403	290,568	747,980	4,863,503	4,786,170	67,333	7,408,034	2,555,131
Maryland.....	1929	264	503	6,050	13,181	8,934	4,247	901,728	3,184,522	10,072,358	10,881,067	201,291	30,283,186	10,610,827
	1927	288	520	5,946	12,719	9,068	3,651	825,859	2,814,990	16,076,485	16,411,697	204,788	25,420,800	8,760,316
	1919	432	571	7,768	15,853	14,349	1,504	997,009	3,830,511	21,428,914	21,126,020	303,885	29,514,402	8,085,488
Massachusetts.....	1929	34	159	518	952	415	537	387,502	581,744	5,825,058	5,748,361	77,297	6,498,057	3,673,297
	1927	32	107	435	1,272	800	472	370,150	500,231	4,300,505	4,300,758	61,747	5,023,232	2,260,727
Michigan.....	1929	83	340	2,617	6,084	2,515	4,169	700,687	1,861,595	9,790,418	9,512,431	193,987	16,200,578	6,563,100
	1927	60	314	2,481	5,853	2,523	3,330	630,903	1,354,820	7,848,759	7,653,870	194,880	12,608,111	4,750,352
	1919	96	368	2,592	4,846	3,788	1,058	678,781	1,539,812	10,980,300	10,821,024	159,306	10,008,621	5,028,231
Minnesota.....	1929	42	234	1,767	5,500	1,255	4,245	577,291	1,537,974	6,088,186	5,948,170	140,016	11,208,556	5,120,370
	1927	35	173	1,002	3,598	1,258	2,340	436,190	91,225	3,480,719	3,401,362	79,857	6,270,141	2,798,422
	1919	38	105	683	1,635	806	830	248,106	430,605	2,329,107	2,290,499	30,363	3,400,850	1,770,692
Mississippi.....	1929	8	26	387	376	292	84	42,150	145,539	764,639	746,900	17,730	1,277,512	512,873
	1927	10	24	284	284	230	54	18,921	91,384	439,552	432,558	6,994	643,908	204,350

See footnotes at end of table.

CENSUS OF MANUFACTURES: 1929

TABLE 2.—GENERAL STATISTICS, FOR THE CANNING AND PRESERVING INDUSTRIES, BY STATES: 1929, 1927, AND 1919—Continued

[See note at head of this table]

STATE	Cen- sus year	Num- ber of estab- lish- ments	Sala- ried officers and em- ploe- ees 1	Wage earners (aver- age for the year)	HORSEPOWER (RATED CAPACITY) OF POWER EQUIPMENT			Salaries	Wages	COST OF MATERIALS, CONTAINERS FOR PRODUCTS, FUEL, AND PUR- CHASED ELECTRIC ENERGY			Value of products 2	Value added by manufac- ture 3
					Total	Prime movers	Motors run by pur- chased energy			Total	Materials and containers	Fuel and purchased energy		
<b>FRUITS AND VEGETABLES; PICKLES, JELLIES, PRE- SERVES, AND SAUCES—CON.</b>														
<b>Individual States—Con.</b>														
Missouri	1929	121	113	1,254	2,050	2,057	809	\$287,348	\$658,016	\$4,476,382	\$4,430,707	\$45,675	\$6,026,715	\$2,450,333
	1927	79	173	1,002	1,831	1,013	818	306,312	598,354	4,395,043	4,340,375	55,568	6,507,076	2,112,033
	1919	158	181	1,266	2,805	2,406	390	248,678	510,000	4,931,161	4,889,151	42,010	6,376,880	1,445,728
Montana	1929	5	23	152	200	10	250	47,918	130,508	522,201	513,013	9,188	1,125,345	603,144
	1927	3	10	50	559	300	355	17,960	71,040	597,217	592,006	6,121	891,836	294,619
Nebraska	1929	10	28	330	902	210	692	60,867	173,370	1,841,241	1,317,583	23,658	1,759,738	418,407
	1927	10	25	211	820	275	545	57,617	160,593	820,868	808,516	17,352	1,273,536	446,668
New Hampshire	1929	5	7	25	438	270	108	17,750	29,319	143,717	140,876	2,841	248,003	104,286
New Jersey	1929	56	565	4,718	7,176	3,352	3,824	1,755,194	4,715,084	42,777,835	42,428,864	351,971	73,317,872	30,510,037
	1927	58	500	4,826	6,183	3,162	3,021	1,699,278	4,705,502	39,453,882	36,115,755	338,127	61,405,429	24,951,547
	1919	94	678	3,219	5,117	3,928	1,189	1,597,228	2,637,937	17,922,433	17,722,147	200,286	20,492,864	11,670,431
New York	1929	279	1,122	7,810	23,499	9,481	14,018	2,961,221	7,053,829	47,434,595	46,772,038	662,557	75,407,504	27,972,600
	1927	229	953	6,499	22,800	10,766	12,044	2,576,827	5,522,129	35,150,344	34,549,872	600,472	58,206,703	23,146,350
	1919	622	1,206	7,549	19,663	14,565	5,098	2,594,650	5,714,870	32,660,036	32,049,226	610,810	51,631,193	18,971,157
North Carolina	1929	0	11	88	254	39	215	26,632	45,860	291,841	290,304	1,537	461,737	169,896
	1927	4	4	34	85	85	85	6,550	18,638	72,938	71,793	1,145	127,036	54,998
Ohio	1929	106	333	2,480	9,907	6,036	3,871	712,068	1,800,076	12,131,703	11,951,400	180,303	18,952,074	6,820,371
	1927	98	560	2,349	8,251	4,076	3,575	658,365	1,630,188	10,133,014	9,948,090	184,924	15,319,420	5,186,406
	1919	124	405	2,061	7,105	5,985	1,120	747,064	2,064,794	11,514,713	11,847,288	167,425	17,289,782	5,775,060
Oklahoma	1929	10	35	184	222	117	105	45,087	72,156	515,123	507,600	7,517	818,250	303,127
	1927	7	83	84	210	76	135	11,418	44,911	219,380	216,453	3,877	350,882	131,552
Oregon	1929	77	276	4,101	4,214	429	3,785	540,900	2,582,478	16,100,180	15,934,775	165,405	24,603,741	8,503,561
	1927	55	210	2,734	2,031	193	1,838	410,479	1,887,705	9,304,420	9,199,538	104,882	13,996,518	4,692,098
	1919	67	241	1,868	3,007	1,611	1,496	463,443	1,411,751	9,701,801	9,663,715	187,080	14,059,673	4,358,312
Pennsylvania	1929	81	416	3,725	10,410	4,054	5,456	1,065,020	3,404,035	24,473,500	24,187,458	280,051	43,826,147	19,352,638
	1927	83	457	3,238	9,406	5,625	3,840	1,107,994	3,148,354	18,300,384	18,062,158	247,226	34,917,030	16,007,646
	1919	90	1,192	2,069	5,071	4,282	789	2,191,571	2,247,974	17,277,370	17,045,000	232,360	29,385,465	12,108,095
South Carolina	1929	12	17	179	436	407	29	27,441	69,342	495,994	488,023	7,971	751,119	255,125
Tennessee	1929	57	66	860	1,864	1,340	524	129,375	314,435	2,183,293	2,139,030	43,333	3,411,248	1,427,085
	1927	44	60	882	1,381	1,143	238	84,800	253,479	1,501,370	1,479,145	22,325	2,139,901	638,521
	1919	62	51	593	1,438	1,113	325	75,786	177,568	912,250	891,129	18,121	1,513,347	601,097
Texas	1929	46	101	597	830	331	400	186,383	309,929	1,994,426	1,992,013	32,413	3,292,225	1,297,790
	1927	38	81	555	852	296	550	128,860	269,995	1,050,188	1,025,340	30,839	2,770,018	1,110,830
	1919	27	108	354	550	273	277	106,200	155,470	1,129,165	1,115,508	13,667	1,913,214	784,049
Utah	1929	38	132	1,850	4,248	500	3,688	261,686	1,152,761	5,322,803	5,194,922	127,881	6,100,370	3,837,570
	1927	30	120	1,355	5,029	1,015	4,014	223,485	823,384	3,671,336	3,687,220	84,116	6,349,806	2,678,470
	1919	37	125	1,090	3,151	700	2,361	213,681	657,243	2,734,898	2,679,260	55,638	4,557,638	1,822,740
Vermont	1929	11	21	96	658	378	280	34,485	64,536	397,289	390,661	6,628	647,476	250,187
	1927	7	25	86	410	183	227	28,620	51,861	269,500	262,957	6,543	435,693	100,193
Virginia	1929	186	92	1,712	4,701	3,873	918	138,210	883,706	5,092,961	5,014,313	78,648	8,555,042	3,402,081
	1927	115	60	1,180	2,135	1,901	234	82,912	481,003	2,923,259	2,878,586	44,673	4,250,624	1,119,830
	1919	480	962	1,922	6,516	6,425	91	97,460	691,743	3,440,950	3,365,568	75,394	4,895,356	1,454,406
Washington	1929	72	297	3,720	3,383	455	2,925	638,405	2,967,861	14,101,291	13,900,667	200,624	22,233,749	8,132,468
	1927	61	193	2,300	2,549	388	2,161	397,511	1,640,867	7,389,279	7,241,725	138,554	11,804,429	4,424,150
	1919	47	109	1,604	1,294	418	876	373,597	1,303,603	7,135,363	7,039,230	99,133	11,337,269	4,201,006
West Virginia	1929	11	9	207	489	395	94	14,800	122,157	644,001	631,304	13,597	867,600	222,698
Wisconsin	1929	171	772	5,296	23,058	11,965	11,003	1,779,408	3,756,274	20,630,879	20,191,220	439,659	35,068,403	14,437,524
	1927	155	671	3,821	19,919	11,389	8,530	1,407,800	2,764,155	14,077,055	14,007,055	382,512	23,907,057	9,810,092
	1919	120	540	2,883	11,905	9,863	2,042	973,005	2,192,112	10,467,263	10,270,814	196,449	17,794,907	7,327,734
Groups of States: Ariz., 2 est.; N. Mex., 2; N. Dak., 1; Wyo., 1; Conn., 5 est.; D. C., 1; R. I., 3	1929	6	11	58	282	135	147	14,835	40,542	237,203	232,310	4,893	469,336	232,133
	1929	9	36	115	269	165	164	71,000	94,507	717,251	710,417	6,834	1,337,711	620,400
States not shown separately--	1927	24	52	465	1,344	1,002	342	92,530	257,481	1,031,556	1,012,520	19,030	2,147,494	1,115,944
	1919	171	344	1,742	4,850	3,886	970	600,637	1,051,549	7,270,189	7,176,054	95,135	11,241,387	3,971,198
<b>FISH, CRABS, SHRIMPS, OYSTERS, AND CLAMS</b>														
United States	1929	348	1,158	13,612	21,692	7,221	14,471	2,800,704	8,799,058	53,239,611	52,432,332	807,579	80,848,513	27,608,602
	1927	337	1,194	12,650	18,574	8,005	10,569	2,499,263	8,105,581	42,891,556	42,098,731	792,825	65,082,187	22,190,631
	1919	475	1,378	12,437	25,890	17,595	8,235	3,051,628	9,605,019	63,993,789	63,065,648	928,141	80,260,423	26,266,634
<b>Individual States:</b>														
Alabama	1929	4	8	189	132	126	6	14,400	59,543	286,050	281,076	4,974	487,393	201,343
	1927	4	14	268	146	146	6	24,480	141,290	348,751	340,046	8,705	714,281	365,530
California	1929	39	288	4,319	8,687	592	8,095	843,843	3,335,194	19,266,007	18,988,661	277,346	20,534,081	10,268,074
	1927	39	280	3,755	7,007	1,129	5,878	742,122	2,824,680	13,454,047	13,209,546	245,101	20,233,773	6,779,126

See footnotes at end of table.



# CANNING AND PRESERVING

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**TABLE 2.—GENERAL STATISTICS, FOR THE CANNING AND PRESERVING INDUSTRIES, BY STATES: 1929, 1927, AND 1919—Continued**

[See note at head of this table]

STATE	Census year	Number of establishments	Salaried officers and employes <sup>1</sup>	Wage earners (average for the year)	HORSEPOWER (RATED CAPACITY) OF POWER EQUIPMENT			Salaries	Wages	COST OF MATERIALS, CONTAINERS FOR PRODUCTS, FUEL, AND PURCHASED ELECTRIC ENERGY			Value of products <sup>2</sup>	Value added by manufacture <sup>3</sup>
					Total	Prime movers	Motors run by purchased energy			Total	Materials and containers	Fuel and purchased energy		
<b>FISH, CRABS, SHRIMPS, OYSTERS, AND CLAMS—Con.</b>														
<b>Individual States—Con.</b>														
Florida.....	1929	7	15	188	151	59	92	\$22,335	\$57,425	\$319,343	\$305,192	\$14,241	\$540,976	\$227,632
	1927	10	31	201	108	53	56	55,080	101,243	483,635	463,420	20,215	830,057	357,022
Georgia.....	1929	10	24	456	443	307	46	37,776	111,508	508,277	493,282	14,995	802,000	293,822
	1927	9	28	407	349	331	18	36,172	94,230	451,003	438,217	12,786	681,202	230,109
	1919	7	13	133	108	198	-----	20,466	65,252	142,003	138,510	3,533	280,821	138,728
Illinois.....	1929	7	11	34	9	-----	9	38,847	69,332	715,941	707,669	8,272	903,917	187,976
	1927	7	14	34	8	-----	8	47,425	63,428	699,555	692,319	7,236	622,759	224,204
	1919	5	4	20	13	-----	13	8,104	27,023	302,529	357,100	5,399	445,310	85,787
Louisiana.....	1929	27	61	1,402	664	647	17	105,304	380,434	2,009,785	1,961,283	48,502	3,126,409	1,110,714
	1927	24	65	1,188	776	770	-----	92,324	256,082	1,510,928	1,462,082	69,946	2,279,617	759,680
	1919	19	30	425	481	481	-----	56,558	100,380	524,280	503,904	23,382	905,965	381,070
Maine.....	1929	63	176	2,393	3,063	1,682	2,281	263,314	1,236,601	5,538,078	5,394,485	143,593	8,470,850	2,932,781
	1927	62	165	1,888	3,387	1,875	1,512	245,682	904,742	4,101,529	3,990,400	108,129	6,589,308	2,484,770
	1919	115	288	2,790	6,838	5,606	1,142	608,923	2,126,078	12,126,364	11,879,549	249,815	17,141,940	5,615,576
Maryland.....	1929	8	15	141	108	78	30	30,514	61,152	320,051	314,444	5,607	494,458	174,407
	1927	(?)	(?)	(?)	(?)	(?)	(?)	(?)	(?)	(?)	(?)	(?)	(?)	(?)
	1919	28	14	255	240	238	2	29,364	101,657	568,533	553,501	4,942	1,051,095	493,162
Massachusetts.....	1929	19	130	907	1,270	53	1,226	393,122	907,658	3,847,231	3,799,567	60,664	6,250,134	2,411,003
	1927	24	227	917	1,163	233	930	404,021	1,014,558	4,312,564	4,265,415	47,149	6,513,495	2,209,931
	1919	22	151	1,464	847	138	700	315,460	1,418,266	9,424,484	9,337,013	87,471	12,763,200	3,358,782
Michigan.....	1929	4	3	20	22	-----	22	2,560	27,140	105,030	97,067	8,242	140,831	34,002
	1927	4	5	10	15	-----	15	12,283	12,402	71,822	70,100	1,722	128,232	55,410
Mississippi.....	1929	14	46	636	392	354	38	78,370	295,801	1,112,125	1,081,704	30,421	1,968,408	840,283
	1927	18	51	940	403	355	48	99,819	355,707	1,156,300	1,104,242	50,148	2,144,553	985,163
	1919	18	45	845	627	615	12	78,713	280,730	1,007,336	1,016,338	49,008	1,679,052	621,710
New York.....	1929	23	85	236	248	-----	248	288,838	287,741	4,483,604	4,435,677	47,927	7,200,887	2,717,223
	1927	14	60	154	161	-----	161	163,983	170,049	2,486,350	2,401,018	25,341	3,624,590	1,136,231
	1919	15	60	107	105	5	100	130,180	130,670	2,498,177	2,468,336	9,841	2,926,281	458,304
North Carolina.....	1929	4	5	67	571	523	48	9,073	21,876	69,368	93,005	6,363	104,592	95,224
	1927	5	1	83	89	54	35	575	30,315	86,631	83,586	3,040	151,876	95,246
Oregon.....	1929	19	43	333	922	419	593	133,070	434,065	3,544,831	3,513,344	31,487	5,077,353	1,532,522
	1927	20	41	402	995	418	577	127,810	495,797	3,609,274	3,602,980	37,185	5,478,071	1,778,797
	1919	30	94	470	1,390	1,083	307	184,142	606,000	4,604,488	4,605,178	69,310	6,531,462	1,869,974
South Carolina.....	1929	10	23	546	585	578	7	28,780	140,977	341,335	310,115	22,220	678,031	330,660
	1927	9	21	836	980	980	-----	38,010	215,050	359,225	327,560	31,656	905,063	546,438
	1919	9	12	376	271	271	-----	14,710	118,672	201,238	188,493	12,746	420,339	219,301
Texas.....	1929	5	17	315	268	209	40	24,125	82,630	258,592	255,120	3,463	443,424	184,832
	1927	4	11	272	130	100	30	13,107	158,258	252,384	248,038	3,440	600,802	248,418
Virginia.....	1929	9	21	139	500	495	5	19,069	72,197	224,597	208,206	16,391	357,983	132,516
	1927	12	18	217	425	424	1	18,265	111,612	360,086	321,026	44,400	580,439	274,353
Washington.....	1929	63	153	1,122	2,520	924	1,065	383,285	948,029	8,772,583	8,714,313	58,270	12,202,094	3,420,511
	1927	57	125	908	2,030	888	1,142	347,575	983,008	8,119,880	8,045,908	70,981	11,493,522	3,373,533
	1919	80	247	1,790	6,050	5,306	1,644	613,582	1,850,551	10,477,703	10,399,570	168,133	16,178,381	5,700,078
Wisconsin.....	1929	4	11	33	30	-----	30	9,038	17,780	70,810	74,132	2,687	110,067	42,848
	1927	(?)	(?)	(?)	(?)	(?)	(?)	(?)	(?)	(?)	(?)	(?)	(?)	(?)
	1919	9	11	26	25	-----	25	11,634	28,220	183,157	180,350	2,867	271,893	88,736
Groups of States:														
Conn., 1 est.; Del., 1; D. C., 1; R. I., 1	1929	4	9	46	15	-----	15	24,280	25,184	302,415	299,865	2,550	415,357	112,942
Minn., 1 est.; N. J., 1; Ohio; Pa., 2	1929	5	14	90	184	85	99	35,771	131,263	1,100,910	1,097,576	9,334	1,435,271	328,361
States not shown separately..	1927	15	31	112	303	243	160	39,526	124,211	918,884	910,311	8,573	1,299,347	380,463
	1919	112	395	3,730	7,905	3,564	4,341	919,736	2,590,476	11,893,401	11,543,656	259,745	19,600,612	7,857,211

<sup>1</sup> Not including proprietors and firm members. The total numbers of persons engaged and the numbers of proprietors and firm members, as reported for these industries, are as follows: Canning and preserving industries: For 1929, total, 125,449; proprietors and firm members, 1,883; for 1927, total, 105,517; proprietors and firm members, 1,769; for 1919, total, 103,261; proprietors and firm members, 4,150. Fruits, vegetables, etc., industry: For 1929, total, 110,551; proprietors and firm members, 1,755; for 1927, total, 91,518; proprietors and firm members, 1,614; for 1919, total, 94,125; proprietors and firm members, 1,557; for 1919, total, 14,136; proprietors and firm members, 326.

<sup>2</sup> The figures for 1929 refer to sales (shipments or deliveries) by manufacturers; those for earlier years represent production. See GENERAL EXPLANATIONS—Value of Products.

<sup>3</sup> Value of products less cost of materials, containers for products, fuel, and purchased electric energy. See GENERAL EXPLANATIONS—Value Added by Manufacture.

<sup>4</sup> Data for purchased power other than electric (power transmitted into the plant by belt or shaft) are included in the State items for 1919 but not in the United States totals.

<sup>5</sup> Arizona, 2 establishments; Connecticut, 5; Kansas, 2; New Hampshire, 2; New Mexico, 1; North Dakota, 1; Rhode Island, 1; South Carolina, 5; West Virginia, 4; Wyoming, 1.

<sup>6</sup> Alabama, 4 establishments; Arizona, 3; Connecticut, 12; District of Columbia, 3; Georgia, 13; Kansas, 4; Massachusetts, 35; Mississippi, 11; Montana, 2; Nebraska, 12; New Hampshire, 5; New Mexico, 3; North Carolina, 14; North Dakota, 2; Oklahoma, 1; Rhode Island, 5; South Carolina, 3; South Dakota, 1; Vermont, 10; West Virginia, 23.

<sup>7</sup> Withheld from publication in order to avoid disclosing data for individual establishments.

<sup>8</sup> Delaware, 1 establishment; District of Columbia, 1; Maryland, 6; New Jersey, 2; Pennsylvania, 2; Rhode Island, 1; Wisconsin, 2.

<sup>9</sup> Alabama, 1 establishment; California, 58; Delaware, 1; District of Columbia, 2; Florida, 13; Michigan, 2; New Jersey, 3; North Carolina, 8; Ohio, 1; Pennsylvania, 4; Virginia, 19.

## CENSUS OF MANUFACTURES: 1929

TABLE 3.—SIZE-NUMBERS, DIMENSIONS, AND APPROXIMATE CAPACITIES OF CANS

KIND	Size-number <sup>1</sup>	DIMENSIONS		CAPACITY		KIND	Size-number <sup>1</sup>	DIMENSIONS		CAPACITY			
		Outside diameter or length and breadth	Outside height	Approximate volume	Approximate weight			Outside diameter or length and breadth	Outside height	Approximate volume	Approximate weight		
											Cu. in.	Ounces	Cu. in.
Sardines.....	1/4	3 1/8 by 4 5/16	2 15/16	7	8 1/2	Fruits and vegetables....	1	2 1/16	4	10		10	
Tuna fish.....	1/2	3 3/8	2	14 1/2	7		2	3 3/8	4 1/16	37	1	4	4
Sardines.....	3/4	3 7/16 by 4 3/8	1 3/4	21	11		2 1/2	4	4 1/16	52	1	14	14
Oysters and clams.....	1	2 1/16	4	19	2 5		3	4 1/4	4 7/8	61	2	1	1
Shrimps.....	1	2 1/16	4	19	4 1/4		3	4 1/4	5	63	2	2	2
Tuna fish.....	1	4	2 3/8	25	13		3	4 1/4	5 1/2	69	2	6	6
Salmon.....	1	3	4 5/8	27	15 1/2		10	6 5/16	7	189	6	10	10
Soups.....	1	2 1/16	4	10	10 1/2								

<sup>1</sup> In the compilation of production tables the quantities of the several classes of fish products have been reduced to standard cases of the following capacities: Sardines, No. 1/4 cans, 100 to the case; tuna fish, No. 1/2 cans, 48 to the case; salmon, shrimps, oysters, and clams, No. 1 cans, 48 to the case; all fruits and vegetables and soups are given in actual number of cases.

<sup>2</sup> Not including weight of liquid.

<sup>3</sup> The fruits usually packed in the No. 2 1/2 cans and the tomato and other pulps usually packed in the No. 10 cans are slightly heavier in proportion to their volume than the average of the contents of the other sizes of cans.

TABLE 4.—PRODUCTS, BY CLASS, QUANTITY, AND VALUE, FOR THE UNITED STATES: 1929 AND 1927

[Includes data for output of specified classes of commodities as secondary products of industries other than canning and preserving. See Table 7]

CLASS	QUANTITY		VALUE		PER CENT OF TOTAL		PER CENT OF INCREASE OR DECREASE (—) 1927-1929	
	1929	1927	1929	1927	1929	1927	Quantity	Value
	Total value.....			\$797, 838, 610	\$618, 335, 275	100.0	100.0	
	<i>Actual number of cases (as reported)</i> <sup>1</sup>	<i>Actual number of cases (as reported)</i> <sup>1</sup>						
Canned vegetables and soups.....	132, 196, 545	97, 355, 609	325, 738, 329	234, 259, 659	40.8	37.9	35.8	39.1
Canned fruits.....	83, 050, 106	27, 564, 341	137, 399, 341	101, 730, 609	17.2	16.4	19.0	35.1
	<i>Pounds</i>	<i>Pounds</i>						
Dried fruits.....	933, 698, 615	1, 012, 795, 660	75, 591, 508	64, 167, 036	9.5	10.4	-7.3	18.3
Dried and dehydrated vegetables.....			404, 704	80, 584	0.1	(3)		(4)
	<i>Standard cases (equivalent cases of standard-size cans)</i>	<i>Standard cases (equivalent cases of standard-size cans)</i>						
Canned fish, oysters, etc.....	15, 134, 355	5 11, 030, 870	58, 469, 890	5 51, 000, 315	7.3	8.3	37.2	14.4
	<i>Pounds</i>	<i>Pounds</i>						
Cured fish.....	102, 488, 050	91, 212, 832	17, 522, 818	13, 319, 909	2.2	2.1	12.4	31.6
Preserves, jams, jellies, and fruit butters.....			47, 149, 358	37, 682, 393	5.9	6.1		25.1
Pickles, sauces, salad dressings, etc.....			135, 262, 542	116, 004, 770	17.0	18.8		16.6

<sup>1</sup> See "Sizes of cans and cases," p. 70.

<sup>2</sup> Figures not comparable with those for 1927 because of a change in classification.

<sup>3</sup> Less than one-tenth of 1 per cent.

<sup>4</sup> See footnote 2.

<sup>5</sup> Compiled by the Bureau of Fisheries, Department of Commerce.

# CANNING AND PRESERVING

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**TABLE 5.—CANNED VEGETABLES AND SOUPS AND CANNED FRUITS—CASES PACKED, BY NUMBER AND SIZE, FOR THE UNITED STATES: 1929**

[Includes data for output of these commodities as secondary products in industries other than canning and preserving. See Table 7]

PRODUCT	Total	NUMBER OF CASES OF—						Glass jars	
		No. 1-size cans	No. 2-size cans	No. 2½-size cans	No. 3-size cans	No. 10-size cans	Special-size cans	20 ounces and under	Over 20 ounces
Aggregate number of cases.....	165,246,651	23,868,260	62,506,712	25,077,774	3,733,775	23,734,082	25,406,840	772,102	50,431
Canned vegetables and soups, total.....	132,100,545	20,055,145	58,516,858	13,430,340	3,651,280	12,600,623	22,650,000	589,454	18,830
Asparagus.....	2,727,471	440,405	111,388	173,746	—	142,307	1,840,400	679	330
Beans, with pork, with sauce, and baked.....	17,203,772	320,242	2,249,719	1,747,403	250,028	276,088	12,340,182	850	—
Beans, green.....	6,480,813	276,267	4,700,617	170,173	26,564	1,123,808	130,484	34,815	25
Beans, wax.....	1,240,456	55,160	971,791	—	2,175	162,811	47,072	10,511	36
Beans, lima.....	1,600,839	86,886	1,227,040	4,890	0,723	142,201	21,005	7,074	25
Beans, other.....	4,385,140	200,118	2,571,480	304,652	80,540	248,146	920,161	—	34
Beets.....	1,911,020	66,179	715,112	340,501	184,727	410,527	57,710	110,796	7,492
Greens, other than spinach.....	252,839	558	145,386	69,037	4,461	28,387	5,000	—	10
Corn.....	10,723,516	1,105,599	14,300,848	46,711	31,702	538,596	608,483	121	1,456
Hominy.....	1,705,324	2,205	419,054	975,110	90,855	80,852	106,639	—	—
Kraut.....	4,224,114	108,767	578,140	2,113,248	672,359	304,641	357,045	14	—
Peas.....	17,516,460	1,512,163	14,145,011	156,377	3,094	1,278,800	412,707	37,077	331
Pimentos.....	500,012	71,664	36,042	39,209	8,244	6,125	107,609	140,945	214
Pumpkin and squash.....	2,424,028	0,730	309,945	974,345	347,200	728,072	57,721	—	6
Spaghetti.....	4,230,075	55,242	747,692	718,413	37,272	30,306	2,673,614	67,536	—
Spinach.....	4,816,024	257,911	1,217,033	2,210,602	18,242	988,078	114,272	2,235	5,751
Succotash.....	289,743	71,664	246,043	154	—	5,707	10,204	—	16
Sweetpotatoes.....	308,093	3,822	50,188	237,787	38,407	37,186	817	420	—
Tomatoes.....	21,401,255	1,883,890	12,031,541	2,876,355	1,745,544	2,481,717	362,161	17,044	3,003
Tomato paste.....	606,140	2,474	38,720	11,814	—	151,491	363,810	37,822	—
Tomato pulp.....	2,891,177	395,740	12,336	3,333	—	2,438,355	15,281	—	—
Tomato sauce.....	952,482	10,171	7,006	—	—	38,914	899,878	10,518	5
Vegetables, mixed.....	824,718	33,346	628,982	33,615	—	55,881	71,278	1,016	—
Other canned vegetables and canned soups <sup>1</sup> .....	10,910,416	13,063,987	1,053,230	210,787	63,433	870,918	658,351	81,475	135
Canned fruits, total.....	33,050,106	3,213,124	3,989,854	11,041,434	82,405	11,066,050	2,837,840	182,708	37,592
Apples.....	3,592,551	220	890	41,438	9,363	3,540,318	82	240	—
Apple sauce.....	903,391	24,129	598,708	11,717	—	235,672	31,443	1,387	335
Apricots.....	4,267,294	508,868	105,203	1,830,382	1,709	1,297,630	451,787	9,598	2,117
Blackberries.....	844,060	8,027	248,333	0,232	—	624,598	49,732	0,300	244
Blueberries.....	228,441	1,122	41,942	—	33	181,835	1,000	1,050	50
Loganberries.....	358,807	9,801	192,292	218	—	104,272	52,018	—	200
Raspberries.....	608,335	25,410	317,823	816	—	188,046	68,696	5,972	1,690
Strawberries.....	403,204	21,114	151,234	76	—	113,058	80,712	37,000	10
Berries, other.....	73,521	553	14,587	—	—	56,090	2,321	—	—
Cherries, sour.....	1,123,855	11,575	290,015	10,137	7,028	779,790	10,845	7,498	58
Cherries, sweet.....	1,017,001	120,520	163,117	307,408	10,388	202,615	109,800	202	0,901
Fruits for salad.....	1,070,889	508,272	125,834	574,500	—	55,808	406,527	317	541
Grapefruit.....	1,174,823	110,838	763,149	—	27,844	2,550	258,527	5,430	479
Grapefruit juice.....	115,708	57,744	22,673	—	—	76	35,216	—	—
Olives, ripe.....	933,072	283,013	106,842	53,522	2,101	225,083	200,000	56,818	5,993
Peaches.....	8,723,022	901,850	288,138	5,149,291	5,369	1,919,741	449,206	4,300	5,653
Pears.....	4,931,022	415,093	307,361	2,802,135	11,071	851,070	390,845	2,543	895
Plums.....	171,944	4,527	18,479	50,758	851	88,110	11,370	7,923	20
Prunes.....	1,069,134	14,397	24,818	482,355	71	477,211	69,530	—	752
Other canned fruits.....	820,320	172,746	88,566	131,440	5,708	233,503	150,618	35,464	11,772

<sup>1</sup> Canned soups not shown separately, to avoid disclosing output of individual establishments.

**TABLE 6.—CANNED AND PROCESSED FOODS—PRODUCTION, BY CLASS, QUANTITY, AND VALUE, FOR THE UNITED STATES: 1929 AND 1927**

[This table shows the production, so far as reported separately, of the principal classes of canned and processed foods, including meats and other canned and processed food products reported by establishments in industries other than canning and preserving]

INDUSTRY AND CLASS OF PRODUCT	1929		1927	
	Quantity	Value	Quantity	Value
Total value.....		\$1,052,702,841		\$853,063,110
Primary products of canning and preserving industries and secondary products of other industries (Table 7).....		797,838,010		618,335,275
Canned vegetables and canned soups.....	<i>Actual number of cases</i> 132,100,545	325,738,320	<i>Actual number of cases</i> 97,855,699	234,259,650
Canned fruits.....	33,050,100	137,390,341	27,564,341	101,739,009
Canned fish, crabs, shrimps, oysters, and clams.....	<i>Standard cases</i> 15,134,355	58,469,890	<i>Standard cases</i> 11,030,870	51,090,315
Preserves, jams, jellies, and fruit butters.....		47,140,368		37,682,393
Pickles, sauces, salad dressings, etc.....		135,202,542		110,004,770
Dried fruits.....	<i>Pounds</i> 938,098,615	75,891,568	<i>Pounds</i> 1,012,705,060	64,167,036
Dried and dehydrated vegetables.....		404,764		80,584
Cured fish.....		192,488,650		13,319,900
Slaughtering and meat-packing industry: Canned meats and canned sausage.....		169,134,270		42,518,562
Other industries: Condensed and evaporated milk and buttermilk.....		2,310,727,133		173,316,156
Sweetening sirups, other than cane.....				23,108,129
Peanut butter.....				15,891,364

<sup>1</sup> Compiled by the Bureau of Fisheries, Department of Commerce.

<sup>2</sup> Figures not comparable with those for 1927 because of a change in classification.

## CENSUS OF MANUFACTURES: 1929

TABLE 7.—PRODUCTS, BY CLASS, KIND, QUANTITY, AND VALUE, FOR THE UNITED STATES: 1929, 1927, 1925, AND 1923

[The figures for 1929 refer to sales (shipments or deliveries) by manufacturers; those for earlier years represent production. See GENERAL EXPLANATIONS—Value of Products]

CLASS AND KIND	1929	1927	1925	1923
1. Canning and preserving industries, all products, total value.....	\$831, 190, 554	\$637, 428, 049	\$677, 131, 278	\$565, 904, 642
2. Canned and processed vegetables, fruits, and sea foods.....	779, 646, 150	603, 127, 377	653, 809, 850	542, 807, 314
3. Other products.....	51, 544, 404	34, 300, 672	23, 321, 410	23, 097, 328
4. Canned and processed vegetables, fruits, and sea foods, secondary products of other industries.....	18, 192, 400	15, 207, 898	11, 706, 852	7, 180, 461
Canned and processed vegetables, fruits, and sea foods, all industries: Aggregate value (sum of 2 and 4).....	797, 838, 610	618, 335, 275	665, 576, 711	549, 987, 775
VEGETABLES, SOUPS, AND FRUITS				
Total value.....	539, 484, 002	400, 237, 888	457, 837, 700	360, 644, 010
Canned vegetables and soups: Total number of cases.....	132, 190, 545	97, 355, 699	114, 867, 954	90, 924, 404
Total value.....	\$325, 738, 329	\$234, 259, 659	\$232, 891, 245	\$214, 714, 614
Beans, with pork, with sauce, and baked— Number of cases.....	17, 203, 772	17, 886, 709	17, 008, 747	(?)
Value.....	\$35, 556, 381	\$34, 959, 053	\$35, 511, 420	(?)
Beans, other than those above— Total number of cases.....	13, 613, 257	7, 473, 029	7, 670, 816	(?)
Total value.....	\$34, 107, 204	\$18, 110, 241	\$19, 053, 296	(?)
Beans, green— Number of cases.....	6, 480, 813	4, 130, 634	(?)	(?)
Value.....	\$10, 212, 096	\$10, 658, 905	(?)	(?)
Beans, wax— Number of cases.....	1, 240, 456	608, 305	(?)	(?)
Value.....	\$3, 413, 431	\$1, 052, 902	(?)	(?)
Beans, lima— Number of cases.....	1, 500, 839	(?)	(?)	(?)
Value.....	\$4, 466, 333	(?)	(?)	(?)
Beans, other— Number of cases.....	4, 385, 140	2, 644, 090	(?)	(?)
Value.....	\$10, 014, 634	\$5, 408, 344	(?)	(?)
Peas— Number of cases.....	17, 546, 460	13, 084, 793	16, 544, 208	14, 180, 198
Value.....	\$44, 667, 511	\$34, 030, 364	\$42, 887, 057	\$39, 767, 830
Tomatoes— Number of cases.....	21, 401, 255	13, 220, 068	21, 800, 064	17, 333, 622
Value.....	\$42, 170, 555	\$33, 813, 525	\$42, 080, 352	\$39, 077, 353
Corn— Number of cases.....	16, 723, 516	10, 254, 700	22, 596, 077	14, 402, 010
Value.....	\$30, 797, 117	\$22, 555, 387	\$51, 340, 305	\$30, 832, 664
Asparagus— Number of cases.....	2, 727, 471	2, 176, 755	1, 800, 410	1, 552, 751
Value.....	\$15, 465, 400	\$12, 201, 729	\$10, 487, 334	\$10, 965, 240
Spinach— Number of cases.....	4, 815, 024	2, 402, 190	2, 045, 217	1, 908, 772
Value.....	\$12, 131, 823	\$6, 225, 100	\$5, 455, 000	\$4, 978, 423
Krnut— Number of cases.....	4, 224, 114	3, 100, 929	2, 395, 409	2, 267, 685
Value.....	\$3, 421, 666	\$5, 450, 115	\$4, 573, 844	\$5, 145, 925
Spaghetti— Number of cases.....	4, 230, 075	2, 750, 501	1, 840, 627	(?)
Value.....	\$3, 320, 216	\$6, 060, 344	\$5, 550, 561	(?)
Tomato pulp— Number of cases.....	2, 891, 177	2, 459, 462	3, 630, 136	(?)
Value.....	\$5, 203, 703	\$3, 891, 253	\$6, 039, 275	(?)
Beets— Number of cases.....	1, 011, 020	815, 182	1, 557, 201	548, 858
Value.....	\$4, 676, 884	\$2, 040, 701	\$3, 816, 464	\$1, 763, 054
Pumpkin and squash— Number of cases.....	2, 424, 028	1, 093, 954	1, 182, 055	(?)
Value.....	\$4, 214, 066	\$1, 984, 189	\$2, 593, 108	(?)
Tomato paste— Number of cases.....	606, 140	437, 834	622, 746	(?)
Value.....	\$3, 840, 254	\$2, 298, 186	\$2, 808, 798	(?)
Tomato sauce— Number of cases.....	652, 482	410, 209	580, 270	(?)
Value.....	\$2, 648, 008	\$1, 083, 523	\$1, 947, 429	(?)
Hominy— Number of cases.....	1, 765, 324	1, 604, 726	1, 133, 473	(?)
Value.....	\$2, 531, 737	\$2, 180, 302	\$1, 517, 381	(?)
Pimentos— Number of cases.....	506, 012	489, 611	252, 851	(?)
Value.....	\$2, 014, 405	\$2, 059, 096	\$1, 463, 341	(?)
Vegetables, mixed— Number of cases.....	824, 718	(?)	(?)	(?)
Value.....	\$1, 931, 055	(?)	(?)	(?)
Sweetpotatoes— Number of cases.....	308, 063	(?)	(?)	(?)
Value.....	\$847, 318	(?)	(?)	(?)
Succotash— Number of cases.....	250, 743	(?)	(?)	(?)
Value.....	\$770, 706	(?)	(?)	(?)
Greens, other than spinach— Number of cases.....	252, 830	(?)	(?)	(?)
Value.....	\$575, 522	(?)	(?)	(?)
Other canned vegetables and canned soups— Number of cases.....	16, 010, 416	12, 530, 041	12, 103, 547	7, 38, 721, 680
Value.....	\$59, 065, 058	\$45, 016, 545	\$43, 065, 200	\$31, 594, 059

See footnotes at end of table.

# CANNING AND PRESERVING

**TABLE 7.—PRODUCTS, BY CLASS, KIND, QUANTITY, AND VALUE, FOR THE UNITED STATES: 1929, 1927, 1925, AND 1923—Continued**

[See note at head of this table]

CLASS AND KIND	1929	1927	1925	1923
<b>VEGETABLES, SOUPS, AND FRUITS—continued</b>				
<b>Canned fruits:</b>				
Total number of cases.....	33,050,100	27,504,341	25,002,780	10,132,022
Total value.....	\$137,399,341	\$101,730,000	\$102,038,209	\$80,223,510
<b>Peaches—</b>				
Number of cases.....	8,723,022	11,305,057	10,520,280	7,357,000
Value.....	\$35,675,117	\$30,235,437	\$38,501,506	\$20,262,022
<b>Pears—</b>				
Number of cases.....	4,031,022	2,063,502	3,870,917	1,853,358
Value.....	\$24,450,473	\$13,000,554	\$20,808,470	\$9,389,978
<b>Apricots—</b>				
Number of cases.....	4,267,204	3,090,357	2,087,061	1,596,302
Value.....	\$17,134,232	\$12,250,317	\$7,007,981	\$5,403,502
<b>Cherries—</b>				
Total number of cases.....	2,140,850	1,220,886	1,480,681	1,785,089
Total value.....	\$11,780,823	\$5,490,065	\$7,253,125	\$10,067,595
<b>Cherries, sweet—</b>				
Number of cases.....	1,017,001	(9)	(9)	(9)
Value.....	\$6,083,935	(9)	(9)	(9)
<b>Cherries, sour—</b>				
Number of cases.....	1,123,855	(9)	(9)	(9)
Value.....	\$5,090,888	(9)	(9)	(9)
<b>Fruits for salad—</b>				
Number of cases.....	1,070,889	1,101,188	914,217	413,442
Value.....	\$11,006,353	\$7,574,860	\$0,071,515	\$3,018,250
<b>Berries—</b>				
Total number of cases.....	2,510,374	2,374,588	2,110,559	2,217,111
Total value.....	\$10,749,000	\$9,806,725	\$0,070,850	\$10,380,674
<b>Raspberries—</b>				
Number of cases.....	608,335	528,540	461,877	(9)
Value.....	\$3,200,177	\$2,614,413	\$2,337,701	(9)
<b>Strawberries—</b>				
Number of cases.....	403,204	(9)	(9)	(9)
Value.....	\$2,418,250	(9)	(9)	(9)
<b>Blackberries—</b>				
Number of cases.....	844,066	625,333	650,624	(9)
Value.....	\$2,417,074	\$1,725,073	\$2,180,097	(9)
<b>Loganberries—</b>				
Number of cases.....	358,807	441,100	380,343	(9)
Value.....	\$1,310,403	\$1,041,434	\$1,533,527	(9)
<b>Blueberries—</b>				
Number of cases.....	228,441	(9)	(9)	(9)
Value.....	\$1,112,005	(9)	(9)	(9)
<b>Other berries—</b>				
Number of cases.....	73,521	778,510	611,715	(9)
Value.....	\$222,397	\$3,825,805	\$3,013,838	(9)
<b>Apples—</b>				
Number of cases.....	3,502,551	2,930,081	3,407,170	2,125,031
Value.....	\$7,940,987	\$5,805,138	\$6,950,977	\$0,530,051
<b>Olives, ripe *—</b>				
Number of cases.....	933,972	458,280	103,432	(9)
Value.....	\$4,075,118	\$2,808,238	\$1,000,807	(9)
<b>Grapefruit—</b>				
Number of cases.....	1,174,823	455,093	87,720	109,880
Value.....	\$4,180,893	\$1,758,037	\$320,717	\$701,544
<b>Prunes—</b>				
Number of cases.....	1,000,134	518,700	370,550	280,400
Value.....	\$3,225,100	\$1,530,940	\$1,185,192	\$054,815
<b>Apple sauce—</b>				
Number of cases.....	903,301	(10)	(10)	(10)
Value.....	\$2,446,796	(10)	(10)	(10)
<b>Plums—</b>				
Number of cases.....	171,044	223,055	222,272	215,036
Value.....	\$559,985	\$085,740	\$701,275	\$097,034
<b>Grapefruit juice—</b>				
Number of cases.....	115,708	(10)	(10)	(10)
Value.....	\$400,490	(10)	(10)	(10)
<b>Other canned fruits—</b>				
Number of cases.....	820,820	900,180	628,053	71,052,007
Value.....	\$3,128,008	\$3,021,044	\$1,038,701	\$5,040,239
<b>Dried fruits:</b>				
Total pounds.....	938,698,615	1,012,795,600	1,054,127,813	791,861,215
Total value.....	\$76,891,508	\$64,107,030	\$72,118,775	\$74,384,632
<b>Prunes—</b>				
Pounds.....	347,340,407	438,885,040	307,583,110	245,786,104
Value.....	\$30,301,509	\$23,737,732	\$28,971,288	\$22,352,088
<b>Raisins—</b>				
Pounds.....	421,203,500	495,201,830	533,721,040	380,068,441
Value.....	\$23,613,224	\$25,823,583	\$28,785,213	\$30,200,347
<b>Apricots—</b>				
Pounds.....	43,089,530	30,754,815	33,030,015	54,020,242
Value.....	\$7,320,041	\$5,438,011	\$5,433,578	\$5,191,060
<b>Apples—</b>				
Pounds.....	44,610,712	22,252,515	21,121,244	19,387,844
Value.....	\$5,200,137	\$2,228,303	\$2,226,833	\$1,662,815
<b>Peaches—</b>				
Pounds.....	35,840,539	38,037,012	30,857,406	61,616,496
Value.....	\$4,307,507	\$3,804,075	\$3,554,573	\$6,408,075
<b>Figs—</b>				
Pounds.....	28,020,981	(11)	(11)	(11)
Value.....	\$2,770,027	(11)	(11)	(11)
<b>Other dried fruits—</b>				
Pounds.....	18,565,000	41,572,042	31,805,023	30,903,088
Value.....	\$2,412,973	\$3,043,442	\$3,144,200	\$2,472,247
<b>Dried and dehydrated vegetables, value "</b>	\$404,704	\$80,534	\$180,480	\$321,254

See footnotes at end of table.

## CENSUS OF MANUFACTURES: 1929

TABLE 7.—PRODUCTS, BY CLASS, KIND, QUANTITY, AND VALUE, FOR THE UNITED STATES: 1929, 1927, 1925, AND 1923—Continued

[See note at head of this table]

CLASS AND KIND	1929	1927	1925	1923
PRESERVES, JAMS, JELLIES, AND FRUIT BUTTERS				
Total value.....	\$47,140,358	\$37,682,363	\$30,818,707	\$30,191,674
PICKLES, SAUCES, SALAD DRESSINGS, ETC., KETCHUP AND PREPARED HORSERADISH				
Total value.....	\$135,262,542	\$116,004,770	\$100,283,302	\$100,010,071
Salad dressings—				
Cooked.....	3,668,167	691,016		
Mayonnaise.....	20,609,641	27,090,024		
Other raw dressings.....	9,875,956	7,200,842	35,104,340	(11)
Sauces.....	9,012,864			
Prepared mustard.....	8,155,170	19,567,254		
Prepared horseradish.....	1,375,128			
Pickles.....	34,480,025	32,070,816	36,533,032	(12)
Ketchup.....	24,437,243	20,236,807	27,801,386	(12)
Olives, bottled and in bulk <sup>14</sup> .....	9,397,694	4,856,785	6,377,495	(12)
Kraut in bulk <sup>15</sup> .....	4,270,005	2,074,420	2,811,057	(12)
Tomato pulp, in bulk <sup>16</sup> .....	880,140	392,797	654,792	(12)
FISH, CRABS, SHRIMPS, OYSTERS, AND CLAMS				
Total value.....	\$75,992,708	\$64,410,224	\$63,030,093	\$50,142,020
Canned fish, oysters, etc.:				
Total standard cases.....	15,134,355	<sup>17</sup> 11,030,870	9,842,147	7,432,624
Total value.....	\$68,460,890	<sup>17</sup> \$51,090,315	\$47,463,403	\$30,886,901
Sardines—				
Standard cases <sup>18</sup> .....	9,272,042	6,183,364	5,163,418	3,384,577
Value.....	\$18,193,424	\$14,517,814	\$13,007,318	\$9,809,706
Salmon—				
Standard cases <sup>19</sup> .....	1,561,358	1,504,451	1,555,613	1,307,203
Value.....	\$14,303,102	\$15,712,407	\$15,370,976	\$12,060,506
Tuna—				
Standard cases <sup>20</sup> .....	1,540,793	1,255,818	1,102,471	817,836
Value.....	\$10,798,274	\$8,368,227	\$8,400,080	\$6,914,760
Shrimps—				
Standard cases.....	<sup>21</sup> 970,053	<sup>21</sup> 852,764	<sup>21</sup> 735,714	<sup>21</sup> 700,420
Value.....	\$5,535,487	\$3,321,652	\$3,782,819	\$4,381,534
Mackerel—				
Standard cases <sup>19</sup> .....	575,344	(22)	(22)	(22)
Value.....	\$2,320,004	(22)	(22)	(22)
Oysters—				
Standard cases <sup>23</sup> .....	454,858	447,297	567,730	524,544
Value.....	\$2,173,639	\$2,367,949	\$3,009,017	\$2,720,073
Clam chowder, juice, bouillon, and broth <sup>24</sup> —				
Standard cases <sup>21</sup> .....	296,543	261,730	220,159	147,783
Value.....	\$1,230,554	\$1,105,884	\$956,352	\$517,330
Clams—				
Standard cases <sup>25</sup> .....	167,029	202,066	121,718	155,527
Value.....	\$943,360	\$1,402,335	\$919,232	\$914,203
Other canned fish—				
Standard cases <sup>19</sup> .....	74,007	(26)	(26)	(26)
Value.....	\$520,575	(26)	(26)	(26)
Canned fish products—				
Standard cases <sup>19</sup> .....	211,528	293,380	399,817	334,665
Value.....	\$2,451,466	\$2,203,057	\$2,020,609	\$1,880,639
Cured fish:				
Total pounds.....	102,488,650	91,212,832	88,348,700	<sup>28</sup> 80,702,810
Total value.....	\$17,522,818	\$13,310,309	\$11,178,530	<sup>28</sup> \$10,256,110
Smoked fish—				
Total pounds.....	33,773,070	27,300,630	33,688,614	(29)
Total value.....	\$9,173,447	\$6,793,321	\$4,015,070	(29)
Salmon—				
Pounds.....	11,192,441	5,151,811	5,022,510	
Value.....	\$4,082,045	\$1,592,045	\$1,205,133	
Herring—				
Pounds.....	7,039,103	10,280,660	10,933,961	
Value.....	\$912,054	\$751,294	\$1,084,454	
Finnan haddock—				
Pounds.....	4,808,375	3,151,748	11,382,708	
Value.....	\$599,183	\$374,003	\$1,036,803	
Other smoked fish—				
Pounds.....	10,733,761	8,806,081	6,344,345	
Value.....	\$3,570,265	\$3,135,910	\$1,289,277	
Dried fish—				
Total pounds.....	12,322,302	8,132,082	15,905,520	(30)
Total value.....	\$1,198,181	\$837,157	\$1,509,921	(30)
Cod—				
Pounds.....	3,392,730	5,328,329	14,000,511	
Value.....	\$812,881	\$572,295	\$1,272,788	
Other dried fish—				
Pounds.....	3,029,563	2,803,753	1,905,015	
Value.....	\$385,300	\$264,862	\$228,133	
Salted and pickled fish—				
Total pounds.....	42,081,598	35,021,930	24,280,615	(31)
Total value.....	\$4,527,335	\$3,755,431	\$2,585,877	(31)
Salmon—				
Pounds.....	5,095,192	5,364,957	(32)	
Value.....	\$1,518,510	\$1,349,030	(32)	
Herring—				
Pounds.....	<sup>27</sup> 14,766,291	<sup>27</sup> 12,430,781	3,491,373	
Value.....	\$1,428,349	\$1,008,315	\$252,808	

See footnotes at end of table.

# CANNING AND PRESERVING

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**TABLE 7.—PRODUCTS, BY CLASS, KIND, QUANTITY, AND VALUE, FOR THE UNITED STATES: 1929, 1927, 1925, AND 1923—Continued**  
[See note at head of this table]

CLASS AND KIND	1929	1927	1925	1923
<b>FISH, CRABS, SHRIMPS, OYSTERS, AND CLAMS—continued</b>				
<b>Cured fish—Continued.</b>				
<b>Salted and pickled fish—Continued.</b>				
Mackerel—				
Pounds.....	8,131,840	9,105,080	5,317,224	-----
Value.....	\$884,525	\$774,584	\$703,011	-----
Cod—				
Pounds.....	7,223,274	6,088,440	7,102,955	-----
Value.....	\$471,383	\$401,039	\$683,086	-----
Haddock—				
Pounds.....	6,076,857	1,563,311	2,254,455	-----
Value.....	\$151,980	\$62,118	\$162,110	-----
Other salted and pickled fish—				
Pounds.....	488,144	1,008,817	26 6,030,008	-----
Value.....	\$72,570	\$60,730	\$783,353	-----
Boneless fish—				
Total pounds.....	13,711,080	20,068,184	14,472,045	(21)
Total value.....	\$2,023,855	\$2,034,000	\$2,471,062	(22)
Cod—				
Pounds.....	11,177,771	14,135,027	12,250,588	-----
Value.....	\$2,275,141	\$2,306,105	\$2,193,142	-----
Haddock—				
Pounds.....	1,730,038	1,565,690	1,615,117	-----
Value.....	\$211,380	\$134,206	\$205,160	-----
Other boneless fish—				
Pounds.....	703,380	4,366,867	508,200	-----
Value.....	\$137,328	\$493,530	\$72,760	-----

<sup>1</sup> These items are the sums of the double-underlined items below. Each of the double-underlined items is the sum of the items following in its particular class omitting those single underlined except where footnotes 3, 8, 13, and 25 are used.

<sup>2</sup> Not reported separately as to kind; included in figure for "Other canned vegetables and canned soups."

<sup>3</sup> Not reported separately; included in figure for "Beans, other than those above."

<sup>4</sup> Not reported separately; included in figure for "Beans, other."

<sup>5</sup> See also "Kraut, in bulk," under "Pickles, sauces, etc."

<sup>6</sup> See also "Tomato pulp, in bulk," under "Pickles, sauces, etc."

<sup>7</sup> Not comparable with figures for later years.

<sup>8</sup> Not reported separately.

<sup>9</sup> See also "Olives, bottled and in bulk," under "Pickles, sauces, etc."

<sup>10</sup> Not reported separately; included in figure for "Other canned fruits."

<sup>11</sup> Not reported separately; included in figure for "Other dried fruits."

<sup>12</sup> The figures for the several years are not comparable because of changes in classification.

<sup>13</sup> Not reported separately; included in total.

<sup>14</sup> See also "Olives, ripe," under "Canned fruits."

<sup>15</sup> See also "Kraut," under "Canned vegetables and soups."

<sup>16</sup> See also "Tomato pulp," under "Canned vegetables and soups."

<sup>17</sup> Compiled by the Bureau of Fisheries, Department of Commerce.

<sup>18</sup> Standard case contains 100 No. 1/4 cans.

<sup>19</sup> Standard case contains 48 1-pound cans.

<sup>20</sup> Standard case contains 48 No. 1/2 cans.

<sup>21</sup> Standard case contains 48 5/8-ounce cans for wet pack and 48 5-ounce cans for dry pack.

<sup>22</sup> Standard case contains 48 No. 1 cans.

<sup>23</sup> Not reported separately; included in figure for "Canned fish products."

<sup>24</sup> Figures for 1923 not strictly comparable with those for later years because clam chowder, etc., manufactured by cannors of vegetables and fruits were included with soups prior to 1925.

<sup>25</sup> Figures in detail for 1923 not comparable with those for later years because of enlargement of scope of canvass; included in total for "Cured fish."

<sup>26</sup> Not reported separately; included in figure for "Other salted and pickled fish."

<sup>27</sup> Includes data for canned pickled herring.

<sup>28</sup> Includes data for salmon.



CENSUS OF MANUFACTURES: 1929

TABLE 8.—PRODUCTS, BY CLASS, KIND, QUANTITY, AND VALUE, BY STATES: 1929

[The figures refer to sales (shipments or deliveries) by manufacturers. See GENERAL EXPLANATIONS—Value of Products. Figures are given for each State which can be shown separately without disclosing data for individual establishments. Certain of the States shown in groups, however, reported larger quantities and values of certain classes of products than some of the States shown separately.]

PRODUCT AND STATE	Quantity	Value	PRODUCT AND STATE	Quantity	Value
<b>CANNED VEGETABLES AND SOUPS</b>			<b>CANNED VEGETABLES AND SOUPS—continued</b>		
Asparagus, total	<i>Cases, actual number</i> 2,727,471	\$15,405,400	Beans, other, total	<i>Cases, actual number</i> 4,385,140	\$10,014,534
California	2,673,979	15,170,687	Arkansas	12,447	23,131
Illinois	18,752	130,133	Illinois	703,203	1,425,908
Groups of States:			Indiana	1,404,801	2,833,888
Del., Md., and Pa.	17,227	71,265	Maryland	117,220	273,168
Mass., N. J., and N. Y.	5,195	32,293	Michigan	120,137	230,784
Other States (Iowa, Mich., Ohio, Oreg., Tenn., Utah, and Wash.)	12,318	61,082	New York	420,154	840,722
Beans, with pork, with sauce, and baked, total	17,203,772	35,550,381	Tennessee	22,394	42,053
Illinois	1,316,037	2,830,607	Wisconsin	90,725	207,717
Maine	68,303	232,916	Groups of States:		
Maryland	616,122	1,503,543	Calif., Colo., and Utah	43,530	102,211
Ohio	153,500	400,496	Del., Ohio, and Pa.	128,420	285,375
Groups of States:			Iowa, Me., Mass., and Vt.	1,010,745	3,223,093
Calif. and Colo.	73,660	304,681	La., La., Miss., and S. C.	67,864	120,832
Ind. N. J., and Pa.	12,733,594	25,792,223	Mo., Okla., and Tex.	49,636	98,800
Iowa and Nebr.	274,238	692,300	Mont., Nebr., and Wash.	137,798	300,252
Mich. and N. Y.	1,790,760	3,350,361	Beets, total	1,911,020	4,576,884
Tex. and Utah	138,661	293,826	Colorado	43,600	91,400
Other States (Mass., Oreg., Vt., Wash., and Wis.)	32,787	88,928	Illinois	12,892	20,201
Beans, green, total	6,490,813	16,212,996	Maryland	41,354	85,018
Arkansas	200,556	336,895	Michigan	64,530	150,769
California	228,804	728,478	New Jersey	120,750	411,217
Colorado	503,811	1,154,854	New York	559,723	1,351,210
Delaware	220,425	499,830	Ohio	28,150	70,577
Illinois	32,897	82,850	Oregon	113,624	274,745
Indiana	343,604	657,941	Utah	20,722	47,430
Iowa	85,037	171,614	Washington	73,511	185,852
Kentucky	36,608	87,690	Wisconsin	670,211	1,513,378
Louisiana	124,953	278,020	Other States (Calif., Ind., La., Mo., Mass., Minn., Miss., Pa., S. C., Tenn., and Tex.)	146,792	366,170
Maine	191,800	454,800	Corn, total	16,723,516	36,797,117
Maryland	1,125,871	2,393,411	Delaware	61,074	110,271
Michigan	272,252	880,076	Illinois	3,173,044	7,321,018
Mississippi	96,268	202,872	Indiana	1,181,285	2,352,846
Missouri	71,280	132,466	Iowa	2,901,188	5,756,934
New York	958,334	3,166,675	Maine	1,566,014	3,000,031
Ohio	22,634	53,721	Maryland	1,568,538	3,236,067
Oklahoma	20,960	58,317	Michigan	73,752	225,080
Oregon	152,380	408,943	Minnesota	2,410,010	5,691,936
Pennsylvania	346,457	696,336	Nebraska	235,208	480,930
South Carolina	71,826	133,202	New Hampshire	89,711	213,823
Tennessee	195,506	451,321	New York	730,798	2,070,436
Texas	70,062	148,837	Ohio	1,555,444	2,934,668
Utah	247,278	628,697	Pennsylvania	214,742	451,932
Virginia	14,201	31,513	Vermont	160,061	379,161
Washington	168,701	485,709	Wisconsin	493,085	1,050,651
Wisconsin	538,000	1,489,091	Groups of States:		
Groups of States:			Colo., Idaho, and Mont.	133,053	321,277
Fla., Ga., and N. C.	58,601	138,148	Other States (Calif., Ky., Mass., Oreg., Tenn., Wash., and Wyo.)	175,009	374,557
Mass., N. J., and Vt.	39,785	100,795	Greens, other than spinach, total	252,830	575,622
Kans., Minn., and Nebr.	15,778	44,683	Arkansas	27,635	48,400
Idaho, Mont., and Wyo.	18,865	40,932	Maryland	8,883	16,714
Beans, wax, total	1,240,450	3,413,431	Mississippi	100,585	234,602
Colorado	112,903	244,347	South Carolina	9,672	17,818
Maine	49,840	134,734	Tennessee	9,722	31,504
Maryland	60,448	152,680	Texas	19,494	34,360
Michigan	100,002	400,667	Other States (Calif., Ga., Iowa, La., Me., N. Y., Okla., Oreg., and Va.)	78,848	192,034
New York	419,864	1,270,756	Hominy, total	1,765,324	2,531,737
Ohio	12,068	28,946	California	139,355	251,680
Pennsylvania	20,487	57,410	Illinois	90,520	131,905
Utah	10,943	49,404	Indiana	993,022	1,183,738
Wisconsin	303,832	810,052	Groups of States:		
Groups of States:			Colo., Iowa, and Nebr.	257,150	377,538
Ark., S. C., and Va.	17,156	35,542	Other States (Md., Ohio, Tenn., and Wis.)	360,208	580,876
Del., Mass., N. J., and Vt.	29,128	77,618	Kraut, total	4,224,114	8,421,666
Ill., Ind., and Iowa	26,720	62,677	Arkansas	4,691	7,837
Minn., Mont., and Wyo.	8,056	22,598	Illinois	30,571	60,532
Beans, lima, total	1,500,830	4,466,333	Indiana	388,176	686,080
Delaware	419,988	1,392,309	Maryland	8,822	20,156
Illinois	41,920	110,598	Michigan	44,162	88,745
Maryland	113,274	355,804	New York	1,365,610	2,845,860
Michigan	74,533	233,490	Ohio	414,475	781,632
New Jersey	35,198	328,006	Tennessee	223,480	378,068
Ohio	48,597	136,070	Wisconsin	1,200,820	2,498,801
Groups of States:			Groups of States:		
Calif., Colo., Utah, and Wash.	27,001	102,456	Colo., Nebr., and Utah	253,601	582,320
Ga., Tenn., and Va.	322,357	1,110,859	Fla., Ky., and N. C.	40,570	80,222
Ind. and Iowa	47,120	99,007	Iowa, Minn., and Mo.	132,842	260,778
Me., Mass., N. Y., Pa., and Vt.	295,607	494,686	La., Miss., and Pa.	11,928	22,551
Minn., Nebr., and Wis.	25,238	73,478	Calif., Mont., Oreg., Tex., and Wash.	89,396	182,995

See footnotes at end of table.

CANNING AND PRESERVING

TABLE 8.—PRODUCTS, BY CLASS, KIND, QUANTITY, AND VALUE, BY STATES: 1929—Continued

[See note at head of this table]

PRODUCT AND STATE	Quantity	Value	PRODUCT AND STATE	Quantity	Value
<b>GANNED VEGETABLES AND SOUPS—continued</b>			<b>GANNED VEGETABLES AND SOUPS—continued</b>		
Peas, total	Cases, actual number 17,546,469	\$44,507,511	Tomatoes, total	Cases, actual number 21,401,255	\$42,170,555
Delaware	306,393	656,976	Arkansas	1,380,153	2,448,401
Illinois	812,688	2,207,232	California	3,176,753	7,458,188
Indiana	364,371	827,652	Colorado	290,648	705,420
Maryland	1,273,808	2,513,723	Delaware	1,180,689	2,312,012
Michigan	542,013	1,543,256	Florida	242,613	407,324
Minnesota	816,339	2,567,672	Illinois	253,256	571,161
Montana	366,308	925,984	Indiana	1,597,795	3,318,201
New York	1,542,354	4,586,408	Iowa	166,389	316,453
Ohio	372,890	838,138	Kentucky	283,053	520,605
Pennsylvania	225,460	429,702	Maryland	6,443,876	11,895,622
Tennessee	69,631	174,055	Michigan	95,022	221,991
Utah	1,206,882	3,310,887	Missouri	1,000,157	1,768,595
Wisconsin	8,851,081	21,808,440	Nebraska	31,059	69,274
Groups of States:			New Jersey	322,708	773,088
Calif. and Wash.	254,867	725,171	New York	463,027	1,213,577
Me., Mass., and Va.	149,934	306,492	Ohio	293,000	463,867
Other States (Colo., Idaho, Iowa, N. J., Tex., and Wyo.)	390,950	1,036,693	Oklahoma	86,313	151,407
Pimientos, total	606,012	2,014,405	Oregon	28,436	67,108
California	250,061	1,030,062	Pennsylvania	173,243	383,305
Georgia	223,435	920,298	South Carolina	40,008	83,468
Other States (Colo., Iowa, Mich., Miss., S. C., and Tex.)	20,516	64,045	Tennessee	598,293	1,029,896
Pumpkin and squash, total	2,424,028	4,214,066	Texas	74,653	116,080
California	92,602	190,761	Utah	1,004,334	2,136,320
Illinois	101,003	201,169	Virginia	2,013,594	3,205,292
Indiana	1,088,005	1,802,323	West Virginia	63,060	119,630
Iowa	231,843	356,813	Groups of States:		
Maine	21,383	49,518	N. Mex., Wash., and Wis.	130,533	270,225
Michigan	88,503	171,608	Other States (Conn., Kans., Mo., Mass., Miss., and N. C.)	24,331	60,646
Minnesota	20,240	43,674	Tomato paste, total	600,140	3,840,254
New Jersey	108,513	197,200	California	298,243	2,009,538
New York	56,334	121,702	Indiana	120,594	511,373
Ohio	80,450	156,937	Groups of States:		
Oregon	208,934	391,510	Colo., Ill., and Iowa	60,301	100,242
Tennessee	32,878	61,508	Del., Mich., and N. Y.	40,776	234,512
Utah	33,437	65,537	Ky., La., Tenn., and Tex.	40,037	213,604
Washington	34,341	59,053	Md. and Va.	40,140	167,925
Groups of States:			Tomato pulp, <sup>2</sup> total	2,891,177	5,293,703
Colo., Nebr., and Wyo.	152,272	230,880	California	652,131	1,240,038
Conn., Mass., and Pa.	2,469	5,897	Delaware	173,006	354,581
Del. and Md.	51,475	84,686	Illinois	63,487	126,031
Other States (La., Mont., Okla., and Wis.)	13,166	24,521	Indiana	1,005,698	1,790,505
Spaghetti, total	4,230,075	8,320,210	Iowa	10,147	20,231
Indiana	206,086	317,870	Maryland	132,446	245,452
Groups of States:			New York	74,256	162,139
Ill. and Mich.	270,833	426,436	Ohio	31,011	80,214
Me., Md., and Ohio	13,118	31,738	Utah	275,382	394,260
N. J., N. Y., and Pa.	3,749,038	7,544,172	Groups of States:		
Spinach, total	4,815,024	12,131,823	Colo., Okla., Tex., and Wash.	35,391	57,772
Arkansas	4,656	9,484	N. J. and Pa.	378,822	700,412
California	4,234,366	10,834,856	Other States (Conn., Ky., Mich., Mo., and Tenn.)	57,731	125,478
Maryland	300,783	649,775	Tomato sauce, total	952,482	2,548,008
New York	159,678	391,840	California	770,096	2,078,384
Ohio	9,414	25,305	Indiana	8,556	11,982
Texas	55,094	107,430	Utah	98,704	181,742
Groups of States:			Groups of States:		
Ill., Ind., and Mo.	20,550	51,524	Md., N. J., and N. Y.	62,575	236,659
Iowa, Okla., Oreg., and Wash.	10,066	25,753	Other States (Ill., Iowa, Ky., Mass., Ohio, and Tenn.)	12,551	39,841
Other States (Del., La., Mass., S. C., and Va.)	18,617	35,856	Vegetables, mixed, total	824,718	1,981,055
Sweetpotash, total	289,743	770,796	California	96,144	405,198
Maine	33,144	91,007	Maryland	372,714	731,808
Maryland	62,190	156,044	Wisconsin	190,847	403,130
New York	47,685	141,420	Groups of States:		
Groups of States:			Ga., N. Y., Pa., and S. C.	15,632	35,518
Del., Mass., N. H., and Vt.	12,873	34,808	Other States (Ind., Iowa, Minn., and Utah)	149,381	405,401
Ind., Iowa, Mich., and Minn.	73,554	210,291	Other canned vegetables and canned soups: United States <sup>1</sup>	16,910,416	59,065,058
Ohio and Pa.	60,297	137,046	<b>CANNED FRUITS</b>		
Sweetpotatoes, total	368,693	847,318	Apples, total	3,592,551	7,940,087
California	46,032	177,915	Maine	144,044	320,909
Maryland	48,699	104,162	Michigan	92,122	170,011
Mississippi	30,266	86,835	New York	438,016	959,718
Virginia	149,175	289,270	Oregon	408,696	872,055
Groups of States:			Utah	21,828	43,244
Ark. and Tex.	10,467	23,014	Virginia	471,667	1,026,339
Other States (Del., Ill., Iowa, Ky., La., N. J., S. C., and Tenn.)	75,054	175,422	Washington	1,296,887	2,632,762

See footnotes at end of table.

CENSUS OF MANUFACTURES: 1929

TABLE 8.—PRODUCTS, BY CLASS, KIND, QUANTITY, AND VALUE, BY STATES: 1929—Continued

[See note at head of this table]

PRODUCT AND STATE	Quantity	Value	PRODUCT AND STATE	Quantity	Value
<b>CANNED FRUITS—continued</b>			<b>CANNED FRUITS—continued</b>		
Apples—Continued.			Grapefruit, total.....	<i>Cases, actual number</i> 1,174,823	\$4,136,893
Groups of States:	<i>Cases, actual number</i>		Florida.....	1,169,687	4,084,092
Ark., Del., and Md.....	59,468	\$116,887	Texas.....	12,497	34,191
Calif., Colo., and Idaho.....	41,577	96,711	Other States (Calif. and S. O.).....	2,739	18,610
Pa., and W. Va.....	617,656	1,102,281			
Apple sauce, total.....	908,391	2,446,796	Grapefruit juice: Florida (none reported from other States).....	115,708	490,400
New York.....	716,068	1,605,067	Olives, ripe: California, New York, Arizona, and Minnesota (none reported from other States).....	933,972	4,676,118
Groups of States:			Peaches, total.....	8,723,622	35,675,117
Del., Ky., and Md.....	14,676	37,197	California.....	8,498,434	35,148,029
Me., Va., and W. Va.....	158,600	769,095	Georgia.....	78,637	122,055
Other States (Mich., Wash., and Wis.).....	13,447	34,927	Maryland.....	4,024	8,949
Apricots, total.....	4,267,294	17,134,232	Michigan.....	66,459	202,931
California.....	4,211,504	16,973,635	New York.....	6,374	26,612
Utah.....	29,907	78,850	Utah.....	47,584	107,913
Other States (Wash., Colo., and Oreg.).....	25,793	81,747	Groups of States:		
Blackberries, total.....	844,066	2,417,674	Colo., Oreg., and Wash.....	1,605	4,441
Arkansas.....	30,405	62,895	Del., Ill., Mass., and N. J.....	18,001	47,492
Louisiana.....	7,460	16,000	Ark., Tenn., and Tex.....	3,047	6,885
Michigan.....	9,579	32,646			
Oregon.....	275,184	706,913	Pears, total.....	4,931,622	24,450,473
Texas.....	104,255	233,102	California.....	2,168,521	11,150,304
Washington.....	305,896	1,227,376	Maryland.....	25,947	70,448
Other States (Calif., Md., Mass., Miss., Mo., N. Y., N. C., and Tenn.).....	21,224	78,682	Michigan.....	305,118	1,148,219
Blueberries, total.....	228,441	1,112,005	New York.....	227,640	1,033,800
Maine.....	198,915	975,800	Oregon.....	1,082,774	5,479,461
Washington.....	19,120	40,254	Washington.....	1,087,262	5,469,695
Other States (Mass., Mich., Vt., and Wis.).....	19,406	95,891	Groups of States:		
Loganberries, total.....	358,807	1,319,463	Del., Mass., and N. J.....	24,791	73,184
Oregon.....	295,992	1,072,337	Ill., Iowa, and Utah.....	4,163	11,194
Washington.....	62,845	247,126	Ky., Miss., Pa., and Tenn.....	5,466	14,278
Raspberries, total.....	603,335	3,260,177	Plums, total.....	171,044	559,985
Michigan.....	69,883	348,541	California.....	69,832	266,813
New York.....	148,941	617,756	Michigan.....	29,289	66,355
Oregon.....	149,324	870,428	New York.....	5,971	14,611
Washington.....	229,330	1,359,909	Other States (Oreg., Utah, Mass., and Wash.).....	65,961	209,296
Other States (Calif., Ill., Md., Mass., Ohio, and Wis.).....	14,857	60,543			
Strawberries, total.....	403,204	2,418,260	Prunes, total.....	1,069,134	3,225,100
Maryland.....	8,448	33,735	California.....	199,532	827,316
Michigan.....	42,684	208,992	Oregon.....	649,994	1,684,340
New York.....	1,173	4,550	Washington.....	219,029	688,797
Oregon.....	243,907	1,476,780	Other States (Idaho, Ill., Me., Mass., and N. J.).....	9,579	24,647
Washington.....	81,349	236,025	Other canned fruits, total.....	829,526	3,128,068
Groups of States:			California.....	423,042	1,730,664
Calif. and Mo.....	71,460	441,289	Michigan.....	48,704	92,920
Other States (Idaho, Ill., Mass., Ohio, and Wis.).....	4,183	17,879	New York.....	15,799	60,201
Berries, other, total.....	73,521	222,307	Oregon.....	14,454	68,544
Michigan.....	8,890	29,262	Groups of States:		
New York.....	2,630	7,736	Colo., Wash., and Wis.....	29,470	85,296
Oregon.....	23,004	55,569	Mass., Fla., Del., and Md.....	279,840	996,035
Washington.....	23,439	63,742	La., N. J., Ohio, and Tex.....	18,607	95,348
Other States (Colo., Del., Idaho, N. J., Ohio, and Utah).....	15,658	66,088			
Cherries, sour, total.....	1,123,855	5,099,838	<b>DRIED FRUITS</b>		
Colorado.....	109,792	537,407	<i>Pounds</i>		
Michigan.....	421,268	2,198,901	Apples, total.....	44,619,712	5,299,137
New York.....	295,237	1,524,455	Arkansas.....	2,105,193	170,491
Oregon.....	29,620	128,513	California.....	20,729,760	2,504,786
Pennsylvania.....	17,711	88,753	Idaho.....	1,951,094	292,713
Utah.....	9,877	48,106	New York.....	8,830,621	991,261
Washington.....	83,125	426,850	Oregon.....	4,115,452	496,839
Groups of States:			Washington.....	6,319,758	706,999
Calif., Idaho, and Mont.....	81,262	192,696	Other States (Ill., Pa., and Va.).....	567,831	68,048
Other States (Mass., Nebr., N. J., Ohio, and Wis.).....	131,994	641,619	Apricots: California and New York (none reported from other States).....	43,089,530	7,320,041
Cherries, sweet, total.....	1,017,001	6,083,935	Figs: California, Illinois, and New York (none reported from other States).....	28,020,631	2,770,027
California.....	332,297	2,208,052	Peaches: California (none reported from other States).....	35,849,539	4,207,597
Michigan.....	31,094	191,726	Prunes, total.....	347,349,407	30,361,599
New York.....	107,336	599,494	California.....	293,451,715	26,077,290
Oregon.....	229,263	1,325,533	Oregon.....	37,725,592	3,073,289
Utah.....	56,466	239,089	Other States (Wash., Idaho, and N. Y.).....	16,172,100	1,210,990
Washington.....	222,660	1,323,759	Raisins: California and Oregon (none reported from other States).....	421,203,596	23,513,224
Other States (Colo., Idaho, Md., and Pa.).....	44,885	262,250	Other dried fruits, total.....	18,565,900	2,412,973
Fruits for salad: California and New York (none reported from other States).....	1,679,889	11,005,853	California.....	12,306,510	1,701,072
			New York.....	2,555,610	441,802
			Oregon.....	335,022	143,017
			Washington.....	1,288,069	60,665
			Other States (Idaho, Ill., Mo., Va., and W. Va.).....	1,990,689	60,417

See footnotes at end of table.

CANNING AND PRESERVING

TABLE 8.—PRODUCTS, BY CLASS, KIND, QUANTITY, AND VALUE, BY STATES: 1929—Continued

[See note at head of this table]

PRODUCT AND STATE	Quantity	Value	PRODUCT AND STATE	Quantity	Value
<b>DRIED AND DEHYDRATED VEGETABLES</b>			<b>SMOKED FISH—continued</b>		
Total	Standard cases	\$404,764	Salmon, total	Pounds 11,192,441	\$4,082,945
<b>CANNED FISH, OYSTERS, ETC.</b>			California	631,200	45,433
Clams, total	\$ 167,029	\$943,366	New York	6,048,899	2,551,168
Groups of States:			Washington	2,671,533	643,272
Me. and Fla.	99,462	491,804	Groups of States:		
Wash. and Oreg.	67,567	451,562	Conn. and Mass.	274,750	127,550
Clam chowder, total	\$ 206,543	1,230,554	Ill. and Minn.	678,750	342,572
Groups of States:			Md., N. J., and Pa.	987,300	472,941
Me., Mass., and R. I.	170,022	680,563	Other smoked fish, total	10,733,751	3,670,265
Other States (Fla., N. J., N. C., and Wash.)	126,521	540,001	Illinois	2,500,840	927,253
Mackerel: California and Massachusetts (none reported from other States)	\$ 575,344	2,320,004	Massachusetts	1,199,575	250,861
Oysters, total	\$ 454,858	2,173,639	New York	4,429,500	2,179,561
Florida	4,075	19,405	Washington	1,046,134	150,000
Georgia	13,091	51,815	Groups of States:		
Louisiana	37,351	181,803	Calif. and Minn.	705,571	71,781
Maryland	27,059	179,060	Del., Me., Pa., and Wis.	65,092	20,603
Mississippi	212,005	1,030,408	Md., Mich., and N. J.	697,120	273,146
North Carolina	11,760	53,000	<b>DRIED FISH</b>		
South Carolina	113,769	474,765	Cod, total	8,392,739	812,881
Other States (Ala., Mich., and Tex.)	34,861	182,387	Washington	1,356,206	169,364
Salmon, total	\$ 1,561,358	14,803,192	Other States (Calif., Me., Mass., Minn., and N. Y.)	7,036,443	643,517
Washington	1,215,983	9,819,464	Other dried fish, total	3,929,563	385,300
Calif. and Oreg.	345,375	4,483,648	Louisiana	631,733	175,716
Sardines, total	\$ 9,272,942	18,193,424	Groups of States:		
California (pilchard)	\$ 3,779,061	11,251,806	Conn., Me., and Mass.	2,439,252	134,471
Me. and Mass. (herring)	\$ 2,017,144	6,941,618	Other States (Calif., Ill., and Minn.)	855,578	75,113
Shrimps, total	\$ 979,953	5,535,487	<b>SALTED AND PICKLED FISH</b>		
Alabama	56,217	314,433	Cod, total	7,223,274	471,383
Florida	80,846	318,041	Maine	458,815	30,586
Georgia	123,250	703,284	Massachusetts	4,393,064	391,445
Louisiana	478,704	2,720,601	Other States (Ill., N. Y., and Wash.)	2,371,395	133,353
Mississippi	107,777	923,200	Haddock, total	6,976,857	151,989
South Carolina	27,819	141,171	Maine	1,868,641	28,033
Texas	75,335	413,707	Massachusetts	5,108,216	123,656
Tuna: California (none reported from other States)	\$ 1,540,793	10,798,274	Herring, total	14,766,291	1,428,349
Other canned fish, total	\$ 74,007	520,575	Maine	40,450	2,020
Virginia	15,398	66,988	Massachusetts	1,143,016	68,577
Washington	3,033	16,082	Virginia	1,060,283	65,057
Groups of States:			Groups of States:		
Calif. and Oreg.	14,100	60,172	Md. and Ohio	1,110,400	80,684
Md., Mass., and N. Y.	41,446	371,333	Mich., Minn., N. Y., and Pa.	8,525,000	1,109,113
Canned fish products, total	\$ 211,523	2,451,465	Wash. and Wis.	1,087,142	105,298
New York	22,428	798,252	Mackerel, total	8,151,840	884,525
Virginia	10,297	70,010	Massachusetts	6,787,195	759,418
Groups of States:			Other States (Calif., Me., and N. Y.)	1,344,675	125,107
Calif., Oreg., and Wash.	8,613	82,250	Salmon, total	5,095,192	1,518,510
Fla., Ga., and Miss.	2,646	58,212	Oregon	1,595,718	469,630
Me., Md., Mass., and Wis.	167,574	1,433,720	Washington	2,468,340	784,805
<b>SMOKED FISH</b>			Other States (Calif. and Minn.)	1,031,125	264,075
Finnan haddock, total	Pounds 4,808,375	599,183	Other salted and pickled fish: (Calif., Ga., Minn., N. Y., N. C., Wash., and Wis.)	488,144	72,570
New York	1,623,625	184,168	<b>BONELESS FISH</b>		
Groups of States:			Cod, total	11,177,771	2,275,141
Mass. and Pa.	2,090,550	240,601	Massachusetts	9,706,656	2,082,796
Other States (Me., Md., Minn., and Wash.)	1,173,290	165,424	Washington	566,839	100,934
Herring, total	7,039,193	912,054	Other States (Calif., Me., and N. Y.)	904,270	91,561
Maine	2,150,558	110,349	Haddock, total	1,739,938	211,386
Maryland	867,700	110,700	Maine	48,160	3,720
Massachusetts	1,745,814	200,144	Massachusetts	1,691,788	207,666
Groups of States:			Other boneless fish, total	793,380	137,328
N. Y. and Pa.	1,794,160	430,658	Groups of States:		
Other States (Del., D. C., Ill., and Wash.)	474,871	45,293	Me. and Oreg.	735,680	130,002
			Other States (Mass., N. Y., and Wash.)	57,709	7,326

See footnotes at end of table.

## CENSUS OF MANUFACTURES: 1929

TABLE 8.—PRODUCTS, BY CLASS, KIND, QUANTITY, AND VALUE, BY STATES: 1929—Continued

[See note at head of this table]

PRODUCT AND STATE	Value	PRODUCT AND STATE	Value
<b>MISCELLANEOUS PRODUCTS</b>		<b>MISCELLANEOUS PRODUCTS—continued</b>	
Ketchup, total.....	\$24,437,248	Prepared horseradish—Continued.	
California.....	2,907,343	Groups of States:	
Colorado.....	291,422	Conn., Mass., and R. I.....	\$37,265
Delaware.....	560,632	D. C., Md., and Ky.....	45,358
Illinois.....	956,763	Iowa, Kans., and Wis.....	88,748
Indiana.....	5,460,206	La., and Tex.....	33,180
Louisiana.....	30,521	Utah, Wash., and Wyo.....	28,815
Maryland.....	707,102	Prepared mustard, total.....	8,155,170
New Jersey.....	2,042,341	California.....	208,307
New York.....	3,416,780	Illinois.....	1,108,534
Ohio.....	2,991,879	Indiana.....	79,050
Pennsylvania.....	1,838,469	Iowa.....	141,600
Utah.....	259,993	Kentucky.....	16,003
Groups of States:		Louisiana.....	36,900
Iowa and Ky.....	2,073,558	Michigan.....	114,005
Other States (Fla., Mass., Mich., Miss., Oreg., Tenn., Tex., and Wash.).....	114,245	Minnesota.....	47,908
Kraut in bulk, <sup>11</sup> total.....	4,270,006	Missouri.....	449,700
California.....	28,201	New Jersey.....	79,025
Colorado.....	10,906	New York.....	3,181,004
Illinois.....	480,416	Ohio.....	291,002
Indiana.....	69,253	Tennessee.....	94,820
Maryland.....	70,320	Texas.....	79,131
Michigan.....	104,746	Washington.....	24,308
Minnesota.....	69,703	Groups of States:	
New Jersey.....	92,024	Conn., Me., and Mass.....	278,470
New York.....	1,900,871	Fla., Ga., Md., and Pa.....	1,694,000
Ohio.....	662,312	Kans., Okla., Oreg., and Wis.....	169,064
Oregon.....	53,501	Preserves, total.....	47,149,368
Pennsylvania.....	162,127	California.....	6,029,071
Utah.....	33,244	Colorado.....	580,888
Washington.....	58,471	Florida.....	391,079
Wisconsin.....	366,912	Georgia.....	91,177
Groups of States:		Illinois.....	5,589,700
Ky., and Mo.....	157,754	Indiana.....	179,699
Other States (Conn., Iowa, Nebr., and Tenn.).....	9,404	Kentucky.....	1,200,782
Olives, bottled, <sup>12</sup> total.....	8,244,735	Louisiana.....	72,239
California.....	10,611	Maryland.....	1,607,478
Illinois.....	1,323,875	Massachusetts.....	3,315,492
New York.....	4,455,404	Minnesota.....	911,630
Groups of States:		Missouri.....	2,418,587
Conn., Md., N. J., Ohio, and Pa.....	1,641,109	New Jersey.....	2,111,107
Ky., Minn., Mo., and Wis.....	503,831	New York.....	11,006,883
Other States (Ariz., La., Oreg., and Tex.).....	244,903	Ohio.....	2,450,336
Olives, in bulk, <sup>13</sup> total.....	1,152,961	Oklahoma.....	100,932
California.....	261,079	Oregon.....	775,891
New York.....	403,353	Pennsylvania.....	4,483,773
Groups of States:		Texas.....	620,008
Conn., Mass., N. J., and Pa.....	21,613	Washington.....	1,743,585
Ill., Minn., and Ohio.....	466,916	Groups of States:	
Pickles, total.....	34,480,925	Ala., Ark., and Tenn.....	223,445
California.....	3,075,014	Del., Me., Va., and W. Va.....	385,100
Colorado.....	229,735	Kans., Mich., and N. Dak.....	316,407
Illinois.....	6,880,478	Nebr., Utah, and Wis.....	349,319
Indiana.....	508,388	Salad dressing:	
Kentucky.....	1,313,672	Cooked, total.....	3,668,107
Louisiana.....	186,446	Ohio.....	10,638
Maryland.....	627,881	Groups of States:	
Massachusetts.....	64,450	Calif., Ind., Ky., and Tex.....	426,366
Michigan.....	2,195,982	Ill., Iowa, N. J., and Pa.....	2,993,884
Minnesota.....	1,171,723	Minn., Oreg., Wash., and Wis.....	228,289
Missouri.....	301,467	Mayonnaise, total.....	20,690,641
New Jersey.....	330,287	Georgia.....	299,614
New York.....	1,394,476	Illinois.....	3,131,072
North Carolina.....	371,264	Indiana.....	10,036
Ohio.....	2,072,077	Kentucky.....	165,725
Oregon.....	485,714	Louisiana.....	10,200
Pennsylvania.....	5,767,044	Maryland.....	583,336
Texas.....	372,895	Massachusetts.....	1,906,310
Utah.....	133,212	Minnesota.....	128,475
Virginia.....	1,043,244	New York.....	10,755,502
Washington.....	505,621	Ohio.....	1,108,314
Wisconsin.....	2,343,043	Oregon.....	70,503
Groups of States:		Pennsylvania.....	1,463,330
Conn., Del., Me., and R. I.....	363,891	Tennessee.....	484,285
Iowa, Kans., and Nebr.....	1,511,770	Texas.....	412,362
Miss., Ala., Fla., and Ga.....	1,240,381	Groups of States:	
Prepared horseradish, total.....	1,375,128	Ala., Ark., D. C., Fla., N. C., and S. C.....	815,666
California.....	50,969	Calif., Colo., and Wash.....	6,502,601
Colorado.....	37,780	Del., Conn., N. J., and R. I.....	1,035,268
Illinois.....	241,410	Iowa, Mo., and Nebr.....	88,693
Indiana.....	29,411	Mich., and Wis.....	307,428
Michigan.....	58,010	N. H., Vt., and Va.....	58,987
Minnesota.....	28,961	Okla., and Utah.....	204,665
Missouri.....	12,570	Other salad dressings, total.....	9,875,956
New Jersey.....	11,748	California.....	1,327,508
New York.....	398,406	Illinois.....	2,140,601
Ohio.....	100,592	Louisiana.....	28,799
Oregon.....	31,729	Minnesota.....	51,000
Pennsylvania.....	140,286	Missouri.....	150,437
		New Jersey.....	455,604
		Ohio.....	1,449,848
		Oregon.....	69,062
		Texas.....	720,877

See footnotes at end of table.

# CANNING AND PRESERVING

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TABLE 8.—PRODUCTS, BY CLASS, KIND, QUANTITY, AND VALUE, BY STATES: 1929—Continued

[See note at head of this table]

PRODUCT AND STATE	Value	PRODUCT AND STATE	Value
MISCELLANEOUS PRODUCTS—continued		MISCELLANEOUS PRODUCTS—continued	
Other salad dressings—Continued.		Sauces—Continued.	
Washington.....	\$30, 124	Groups of States:	
Groups of States:		Conn., Del., Mass., Pa., and R. I.....	\$2, 768, 879
Ala., Fla., Ga., Tenn., and Va.....	54, 176	Fla., La., Ala., and Tenn.....	455, 303
Colo., Nebr., and Utah.....	241, 387	Iowa, Mich., Minn., Mo., and Tex.....	483, 381
Conn., Mass., N. Y., Pa., and R. I.....	2, 110, 868	Okla., Oreg., Utah, and Wash.....	100, 000
Ind., Iowa, Kans., and Okla.....	108, 165	Tomato pulp, in bulk, <sup>13</sup> total.....	880, 140
Ky., Md., Mich., and Wis.....	836, 370	Illinois.....	50, 701
Sauces, total.....	9, 012, 864	Indiana.....	300, 506
California.....	1, 121, 073	New Jersey.....	76, 781
Illinois.....	102, 075	Ohio.....	28, 800
Indiana.....	906, 210	Texas.....	2, 580
Kentucky.....	80, 465	Groups of States:	
Maryland.....	14, 010	Calif., Colo., Utah, and Wash.....	54, 883
New Jersey.....	275, 850	Iowa, La., Mich., and Nebr.....	25, 417
New York.....	2, 185, 550	Ky., Md., and N. Y.....	280, 025
Ohio.....	330, 860		

- <sup>1</sup> See "Kraut in bulk," under "Miscellaneous products."
- <sup>2</sup> See "Tomato pulp, in bulk," under "Miscellaneous products."
- <sup>3</sup> States not shown separately, to avoid disclosing output of individual establishments.
- <sup>4</sup> See "Olives, bottled" and "Olives, in bulk," under "Miscellaneous products."
- <sup>5</sup> Standard case contains 48 No. 1 cans.
- <sup>6</sup> Standard case contains 48 1-pound cans.
- <sup>7</sup> Standard case contains 100 1/4-pound cans.
- <sup>8</sup> Standard case contains 48 1-pound oval cans.
- <sup>9</sup> Standard case contains 48 5/4-ounce cans for wet pack and 48 5-ounce cans for dry pack.
- <sup>10</sup> Standard case contains 48 1/4-pound cans.
- <sup>11</sup> See "Kraut" under "Canned vegetables and soups."
- <sup>12</sup> See "Olives, ripe" under "Canned fruits."
- <sup>13</sup> See "Tomato pulp" under "Canned vegetables and soups."

TABLE 9.—COSTS OF FRUITS AND VEGETABLES AND OF SUGAR CONSUMED IN THE "CANNING AND PRESERVING: FRUITS AND VEGETABLES; PICKLES, JELLIES, PRESERVES, AND SAUCES" INDUSTRY, BY STATES: 1929

[Costs of fruits and vegetables and of sugar were reported separately by only 2,362 of the 2,907 establishments in this industry. The combined value of products reported by these 2,362 establishments amounted to \$689,078,476, or 78.8 per cent of the aggregate value of products of the 2,907 establishments in the industry]

STATE	Fruits and vegetables and sugar, total	Fruits and vegetables	Sugar	STATE	Fruits and vegetables and sugar, total	Fruits and vegetables	Sugar
United States.....	\$222, 732, 166	\$201, 177, 205	\$21, 554, 961	Nebbraska.....	\$504, 440	\$507, 401	\$20, 058
Alabama.....	217, 678	187, 304	50, 184	New Hampshire.....	61, 605	55, 114	6, 451
Arkansas.....	700, 092	600, 400	1, 220	New Jersey.....	11, 440, 183	10, 002, 111	1, 357, 072
California.....	77, 844, 662	72, 077, 100	5, 767, 372	New York.....	24, 546, 787	22, 183, 442	2, 362, 005
Colorado.....	1, 500, 094	1, 380, 136	182, 068	North Carolina.....	70, 246	60, 387	9, 859
Dalaware.....	2, 044, 379	1, 030, 214	105, 165	Ohio.....	4, 544, 564	3, 931, 573	612, 081
Florida.....	1, 408, 878	1, 198, 015	300, 863	Oklahoma.....	182, 244	105, 427	16, 817
Georgia.....	470, 325	450, 075	22, 850	Oregon.....	10, 153, 888	9, 040, 520	1, 112, 808
Iah o.....	203, 532	240, 025	14, 507	Pennsylvania.....	10, 076, 304	8, 006, 101	1, 970, 203
Illinois.....	12, 355, 030	10, 843, 247	2, 011, 792	South Carolina.....	103, 454	103, 454	—
Indiana.....	10, 507, 080	9, 787, 220	720, 760	Tennessee.....	601, 444	678, 202	18, 152
Iowa.....	2, 402, 478	2, 120, 845	365, 033	Texas.....	631, 805	621, 503	100, 802
Kansas.....	3, 445	3, 445	—	Utah.....	2, 613, 750	2, 334, 847	179, 408
Kentucky.....	1, 177, 324	810, 081	368, 243	Vermont.....	113, 000	90, 140	13, 014
Louisiana.....	241, 514	220, 077	12, 437	Virginia.....	1, 010, 304	1, 531, 018	70, 346
Maine.....	3, 171, 100	2, 092, 551	178, 648	Washington.....	8, 450, 146	7, 193, 103	1, 206, 048
Maryland.....	8, 000, 458	8, 310, 161	380, 207	West Virginia.....	313, 004	290, 100	14, 504
Massachusetts.....	2, 614, 520	1, 903, 147	711, 373	Wisconsin.....	0, 722, 453	0, 171, 450	551, 008
Michigan.....	5, 840, 175	4, 927, 788	412, 387	Other States (Arizona, Connecticut, District of Columbia, New Mexico, North Dakota, Rhode Island, and Wyoming).....	100, 450	108, 417	22, 039
Minnesota.....	2, 833, 087	2, 470, 047	363, 040				
Mississippi.....	571, 192	601, 542	60, 650				
Missouri.....	1, 877, 000	1, 437, 505	440, 494				
Montana.....	210, 440	200, 548	9, 892				

TABLE 10.—COST OF FISH, OYSTERS, ETC., CANNED AND PRESERVED, BY STATES: 1929

[The cost of fish, oysters, etc., canned and preserved, was reported by only 234 of the 348 establishments in the "Canning and preserving: Fish, crabs, shrimps, oysters, and clams" industry. The combined value of products reported by these 234 establishments amounted to \$7,802,623, or 85.8 per cent of the aggregate value of products of the 348 establishments in the industry]

STATE	Cost	STATE	Cost
United States.....	\$25, 403, 238	Michigan.....	\$4, 000
Alabama.....	01, 820	Mississippi.....	408, 720
California.....	9, 055, 477	New York.....	2, 777, 078
Florida.....	102, 825	North Carolina.....	54, 482
Georgia.....	265, 305	Oregon.....	2, 381, 342
Illinois.....	370, 224	South Carolina.....	142, 018
Louisiana.....	032, 342	Texas.....	87, 055
Maine.....	1, 058, 862	Virginia.....	49, 129
Maryland.....	77, 004	Washington.....	4, 861, 277
Massachusetts.....	2, 417, 700	Wisconsin.....	38, 120

## CENSUS OF MANUFACTURES: 1929

TABLE 11.—PRIME MOVERS, MOTORS, GENERATORS, AND CONSUMPTION OF PURCHASED ELECTRIC ENERGY—NUMBER AND RATED CAPACITY OF PRIME MOVERS AND ELECTRIC MOTORS, 1929, 1927, 1925, 1919, AND 1914, AND OF GENERATORS, 1929, 1927, AND 1925; QUANTITY OF ELECTRIC ENERGY PURCHASED, 1929; FOR THE CANNING AND PRESERVING INDUSTRIES, IN COMBINATION AND SEPARATELY

TYPE	1929		1927		1925		1919		1914		PER CENT DISTRIBUTION OF RATED HORSEPOWER CAPACITY	
	Number	Capacity	Number	Capacity	Number	Capacity	Number	Capacity	Number	Capacity	1929	1919
<b>THE CANNING AND PRESERVING INDUSTRIES</b>												
Prime movers and electric motors driven by purchased energy, aggregate.....	20,330	Horse-power 245,780	22,482	Horse-power 208,405	18,754	Horse-power 207,017	13,538	Horse-power 180,461	7,175	Horse-power 113,348	100.0	100.0
Prime movers, total.....	2,903	102,805	2,080	96,887	3,107	107,184	4,404	124,241	4,379	100,022	41.8	68.8
Steam, total.....	2,534	95,468	2,244	90,064	2,510	100,115	3,400	114,140	3,201	90,778	38.8	63.2
Engines.....	2,459	87,481	2,198	85,204	2,471	96,106	3,318	111,395	(1)	(1)	35.6	61.7
Turbines.....	75	7,987	40	4,860	30	4,009	88	2,745	(1)	(1)	3.2	1.5
Internal-combustion engines.....	416	7,047	436	6,646	585	6,052	1,050	9,061	1,137	8,667	2.9	5.5
Water wheels and water turbines.....	13	290	6	177	12	117	8	140	41	877	0.1	0.1
Electric motors driven by purchased energy.....	20,307	142,984	19,796	111,518	15,647	90,833	0,074	56,220	2,796	18,726	58.2	31.2
Electric motors, total.....	30,645	162,518	23,311	127,424	18,608	115,953	12,000	72,674	4,849	28,438	100.0	100.0
Driven by purchased energy.....	20,307	142,984	19,796	111,518	15,647	90,833	0,074	56,220	2,796	18,726	88.0	77.4
Driven by energy generated in establishments reporting.....	4,278	19,534	3,515	15,906	3,061	10,120	2,026	16,454	1,553	9,712	12.0	22.6
Electric generators.....	187	Kilowatts 14,016 Kilowatt-hours 78,937,896	201	Kilowatts 14,528	236	Kilowatts 15,671	(2)	(2)	(2)	(2)		
Electric energy purchased <sup>1</sup> .....				(1)		(1)		(2)		(1)		
<b>FRUITS AND VEGETABLES; PICKLES, JELLIES, PRESERVES, AND SAUCES</b>												
Prime movers and electric motors driven by purchased energy, aggregate.....	27,018	Horse-power 224,097	20,601	Horse-power 189,831	17,110	Horse-power 187,400	11,799	Horse-power 154,631	6,405	Horse-power 106,487	100.0	100.0
Prime movers, total.....	2,603	95,584	2,300	88,882	2,716	97,094	3,890	100,046	3,871	80,750	42.7	69.0
Steam, total.....	2,300	88,965	1,998	82,641	2,251	92,302	3,051	90,163	2,874	82,158	39.7	64.1
Engines.....	2,238	81,084	1,950	77,879	2,212	88,293	2,974	96,870	(1)	(1)	36.2	62.6
Turbines.....	68	7,881	39	4,762	39	4,009	77	2,203	(1)	(1)	3.5	1.5
Internal-combustion engines.....	349	6,379	365	6,064	453	4,075	833	7,352	960	6,834	2.8	4.8
Water wheels and water turbines.....	8	240	6	177	12	117	6	131	37	764	0.2	0.1
Electric motors driven by purchased energy.....	24,355	128,513	18,322	100,049	14,394	90,306	7,000	47,985	2,534	16,731	57.3	31.0
Electric motors, total.....	28,404	147,269	21,078	116,090	17,251	104,823	10,661	62,967	3,976	25,844	100.0	100.0
Driven by purchased energy.....	24,355	128,513	18,322	100,049	14,394	90,306	7,000	47,985	2,534	16,731	87.3	76.2
Driven by energy generated in establishments reporting.....	4,109	18,756	3,356	15,150	2,857	14,427	2,752	14,982	1,442	9,113	12.7	23.8
Electric generators.....	154	Kilowatts 13,150 Kilowatt-hours 60,729,418	107	Kilowatts 13,384	196	Kilowatts 14,419	(2)	(2)	(2)	(2)		
Electric energy purchased <sup>1</sup> .....				(1)		(1)		(2)		(2)		
<b>FISH, CRABS, SHRIMPS, OYSTERS, AND CLAMS</b>												
Prime movers and electric motors driven by purchased energy, aggregate.....	2,312	Horse-power 21,092	1,791	Horse-power 18,574	1,644	Horse-power 19,527	1,730	Horse-power 25,830	770	Horse-power 12,851	100.0	100.0
Prime movers, total.....	300	7,221	317	8,005	301	10,090	574	17,595	508	10,800	33.3	68.1
Steam, total.....	228	6,503	246	7,423	250	7,813	355	14,977	327	8,620	30.0	58.0
Engines.....	221	6,397	239	7,325	259	7,813	344	14,525	(1)	(1)	29.5	56.2
Turbines.....	7	106	7	98			11	452	(1)	(1)	0.5	1.8
Internal-combustion engines.....	67	668	71	532	132	2,277	217	2,000	177	2,133	3.1	10.1
Water wheels and water turbines.....	5	50					2	0	4	113	0.2	(2)
Electric motors driven by purchased energy.....	2,012	14,471	1,474	10,569	1,253	9,437	1,165	8,235	262	1,995	66.7	31.9
Electric motors, total.....	2,181	15,249	1,633	11,325	1,447	11,130	1,339	9,707	373	2,594	100.0	100.0
Driven by purchased energy.....	2,012	14,471	1,474	10,569	1,253	9,437	1,165	8,235	262	1,995	94.0	84.8
Driven by energy generated in establishments reporting.....	169	778	159	766	194	1,693	174	1,472	111	599	5.1	15.2
Electric generators.....	33	Kilowatts 866 Kilowatt-hours 9,203,483	34	Kilowatts 1,144	40	Kilowatts 1,252	(2)	(2)	(2)	(2)		
Electric energy purchased <sup>1</sup> .....				(1)		(1)		(2)		(2)		

<sup>1</sup> Not called for separately on schedule.

<sup>2</sup> Not called for on schedule.

<sup>3</sup> This item covers the consumption of purchased electric energy for all purposes—power, heat, light, etc.

<sup>4</sup> Data incomplete.

<sup>5</sup> Less than one-tenth of 1 per cent.



# CANNING AND PRESERVING

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**TABLE 12.—WAGE EARNERS, BY MONTHS, FOR THE CANNING AND PRESERVING INDUSTRIES, IN COMBINATION AND SEPARATELY, FOR THE UNITED STATES, 1929, 1925, 1919, 1914, AND 1909, AND SEPARATELY, BY STATES, 1929**

[This table presents statistics for only those States for which figures can be given without disclosing data for individual establishments. The sum of the State items in any column is not, therefore, equal to the United States total at the head of the column. The month of maximum employment is indicated by bold-faced figures and that of minimum employment by *italic* figures]

STATE	Average number employed during year	NUMBER EMPLOYED ON 15TH DAY OF MONTH OR NEAREST REPRESENTATIVE DAY												Per cent minimums of maximum
		January	February	March	April	May	June	July	August	September	October	November	December	
<b>THE CANNING AND PRESERVING INDUSTRIES</b>														
<b>United States:</b>														
1929	112,478	<i>51,040</i>	51,081	58,498	74,297	82,310	97,727	155,109	214,870	240,423	104,110	103,575	07,673	20.5
1925	96,306	<i>37,473</i>	37,790	47,675	51,932	53,888	81,218	140,097	197,560	235,384	130,045	83,138	55,093	15.9
1919	89,923	<i>44,407</i>	37,044	<b>55,698</b>	41,508	45,581	77,402	122,414	160,465	198,047	101,462	87,333	57,081	18.0
1914	74,071	<i>27,917</i>	28,044	29,920	34,047	39,458	58,860	89,183	143,042	185,724	141,670	69,626	41,440	15.0
1909	59,988	<i>19,998</i>	21,208	23,015	28,300	31,139	45,270	68,510	127,741	184,800	105,267	59,727	34,536	12.0
<b>FRUITS AND VEGETABLES; PICKLES, JELLIES, PRESERVES, AND SAUCES</b>														
<b>United States:</b>														
1929	68,806	40,000	<i>39,708</i>	47,987	65,142	51,793	80,981	142,792	195,510	228,007	144,650	87,968	54,070	17.3
1925	85,806	<i>29,293</i>	29,320	30,035	43,226	44,267	72,717	120,533	182,703	220,115	122,024	71,883	46,282	13.3
1919	77,480	<i>34,098</i>	28,137	<b>27,159</b>	32,275	37,493	66,547	107,012	151,507	180,064	143,062	73,075	46,933	15.1
1914	62,915	<i>21,087</i>	21,087	21,445	23,598	28,536	40,020	77,400	127,821	169,871	125,349	59,123	32,737	12.4
Alabama	101	79	75	81	90	104	154	106	93	117	110	105	95	48.7
Arkansas	1,347	17	24	28	89	214	1,040	2,320	4,450	4,702	1,087	540	35	0.4
California	28,186	<i>9,892</i>	10,130	17,053	33,272	10,478	20,783	40,897	62,459	53,237	34,115	21,578	12,324	15.8
Colorado	820	196	194	219	226	303	985	1,453	1,929	2,310	1,410	440	239	8.4
Delaware	1,414	156	158	178	176	411	1,118	1,443	3,530	5,631	3,515	510	258	2.5
Florida	1,735	2,771	2,061	3,169	2,049	888	548	410	150	170	1,302	2,872	3,484	4.5
Georgia	491	57	40	44	93	147	652	833	1,173	1,310	921	561	90	2.8
Idaho	222	21	23	16	20	19	87	117	164	375	721	651	452	2.2
Illinois	4,475	<i>2,567</i>	2,426	2,489	2,600	3,117	3,605	4,103	7,040	11,584	5,929	4,742	3,053	20.3
Indiana	4,877	<i>1,767</i>	1,870	2,001	1,889	2,000	3,158	3,987	7,051	10,277	10,974	4,302	2,307	10.9
Iowa	1,820	<i>563</i>	622	637	735	776	801	1,533	4,100	5,211	1,071	1,002	698	6.9
Kansas	16					10	60	30	30	60	20	20	7	1.7
Kentucky	893	<i>457</i>	477	519	493	605	672	671	1,000	2,203	1,412	795	400	20.2
Louisiana	415	204	259	259	317	613	680	642	983	444	441	400	381	38.1
Maine	1,140	231	204	330	311	393	302	633	2,594	5,223	2,007	946	408	3.9
Maryland	6,059	<i>1,889</i>	1,310	1,330	1,020	2,475	4,072	7,714	10,405	20,175	10,215	3,114	1,700	6.4
Massachusetts	518	456	456	455	458	482	482	526	495	530	552	639	588	60.8
Michigan	2,617	1,250	814	893	905	1,108	1,707	4,863	6,453	5,007	3,021	2,800	1,800	12.6
Minnesota	1,707	<i>411</i>	456	541	654	728	728	1,060	3,240	5,208	5,397	1,231	500	7.6
Mississippi	387	121	108	133	325	1,011	1,470	3,222	203	307	411	330	167	0.2
Missouri	1,254	<i>824</i>	361	371	302	455	1,410	311	1,852	3,550	3,513	1,500	481	3.9
Montana	152	27	33	34	32	30	41	10	7	271	168	49	33	3.4
Nebraska	330	<i>140</i>	145	153	109	213	101	200	532	1,014	437	210	161	18.8
New Hampshire	25	9	0	3	1	7	10	7	10	216	21	9	9	0.5
New Jersey	4,718	4,310	3,888	4,358	4,160	3,750	3,801	5,245	6,308	8,044	0,058	4,490	3,713	38.0
New York	7,810	3,899	3,553	3,874	4,132	4,164	6,614	12,070	12,458	15,137	11,397	9,767	5,846	25.5
North Carolina	88	91	93	91	66	60	60	91	128	111	103	96	96	43.8
Ohio	2,480	<i>1,192</i>	1,205	1,201	1,300	1,619	2,793	2,540	3,011	7,449	3,036	2,119	1,337	10.0
Oklahoma	184	54	54	58	59	72	113	317	510	658	260	73	67	6.5
Oregon	4,101	743	787	780	748	912	5,427	7,245	5,761	6,001	8,520	5,313	3,052	7.3
Pennsylvania	3,725	<i>2,911</i>	2,931	2,933	3,039	3,310	3,110	4,405	4,814	6,608	4,252	3,780	3,274	52.9
South Carolina	179	56	51	95	145	245	344	370	337	123	103	195	98	0.5
Tennessee	860	<i>123</i>	124	128	148	128	327	539	1,050	2,040	2,787	1,391	342	12.0
Texas	597	453	383	470	472	628	707	807	855	817	657	600	458	43.3
Utah	1,859	<i>421</i>	464	547	523	615	1,070	3,007	3,850	5,154	3,033	1,449	874	8.2
Vermont	90	31	23	23	22	22	23	23	294	516	94	60	40	4.2
Virginia	1,712	<i>225</i>	230	250	333	454	1,406	1,888	4,373	6,256	3,431	1,162	472	3.6
Washington	3,720	900	748	843	688	857	2,047	4,904	5,405	8,043	10,141	6,766	2,570	6.2
West Virginia	207	17	18	23	20	73	03	143	286	601	615	376	320	2.9
Wisconsin	5,200	1,053	1,010	<i>1,595</i>	1,833	2,237	5,165	20,339	12,337	7,177	4,558	2,895	2,007	7.8
<b>FISH, CRABS, SHRIMPS, OYSTERS, AND CLAMS</b>														
<b>United States:</b>														
1929	13,612	11,040	11,378	10,511	<i>9,155</i>	10,556	10,746	12,317	10,360	20,516	10,460	15,607	12,694	44.6
1925	10,530	<i>8,180</i>	8,470	8,040	8,700	9,116	8,501	10,564	14,853	15,289	14,021	11,255	8,781	53.0
1919	12,437	10,300	8,007	<i>8,555</i>	9,233	9,288	10,015	14,502	17,048	17,883	17,500	13,358	10,748	47.0
1914	11,156	<i>6,850</i>	7,857	8,481	10,440	9,622	9,240	11,777	15,221	15,553	16,521	13,503	8,700	41.8
Alabama	180	301	247	205	175	13	88	8	315	276	228	178	237	2.5
California	4,310	5,211	5,084	3,808	<i>1,584</i>	2,712	2,792	2,804	4,036	5,810	5,713	5,825	5,845	27.1
Florida	188	290	138	82	82	80	79	148	203	202	210	203	206	20.7
Georgia	450	410	417	140	140	140	270	273	725	745	780	740	740	18.8
Illinois	34	38	38	38	34	33	32	30	30	30	30	30	30	78.0
Louisiana	1,402	594	891	1,132	1,510	1,627	1,103	418	2,330	2,441	2,205	1,669	825	17.1
Maine	2,393	<i>385</i>	513	724	1,072	1,005	3,056	4,108	4,027	4,003	4,446	1,087	846	7.7
Maryland	141	260	254	314	458	107	85	39	30	30	30	30	30	5.0
Massachusetts	907	843	861	857	875	827	740	884	931	985	1,089	1,026	996	60.6
Michigan	20	19	19	19	21	21	19	19	19	22	23	19	19	82.0
Mississippi	636	917	912	804	522	82	71	209	787	805	787	801	810	7.7
New York	236	272	268	253	208	106	105	108	104	218	270	275	275	69.0
North Carolina	67	100	134	102	61	19	22	27	9	27	137	45	120	8.0
Oregon	333	79	80	98	154	554	504	504	589	541	350	324	121	13.4
South Carolina	546	653	665	670	685	305	207	288	384	376	388	788	711	24.5
Texas	315	138	138	224	246	317	331	288	428	572	458	413	225	24.1
Virginia	139	19	19	109	390	200	128	178	158	158	158	88	19	5.3
Washington	1,122	<i>879</i>	365	709	832	1,109	943	1,690	2,542	2,085	1,475	1,026	345	11.0
Wisconsin	33	41	29	17	12	7	7	7	7	12	69	161	29	4.3

1 No data for the separate industries available for years prior to 1914.

## CEREAL PREPARATIONS

**Description of the industry.**—This industry embraces establishments engaged primarily in the manufacture of breakfast foods, prepared flour, coffee substitutes, and similar preparations from corn, oats, wheat, and other grains.

At censuses prior to that for 1927 the manufacture of cereal preparations was treated as a part of the

“Food preparations, not elsewhere classified” industry. This industry was canvassed by means of the “general schedule,” which does not call specifically for data on the quantities and values of individual kinds or classes of products manufactured. No statistics for years prior to 1927 can, therefore, be given in Table 3.

TABLE 1.—SUMMARY FOR THE UNITED STATES: 1914 TO 1929

[Data for establishments with products under \$5,000 in value included for 1919 and prior years but not for 1921 and subsequent years. See GENERAL EXPLANATIONS—Establishments Covered—Size]

YEAR OR PERIOD	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, containers for products, fuel, and purchased electric energy	Value of products <sup>1</sup>	Value added by manufacture <sup>2</sup>	Horsepower
1929	121	6,488	\$8,875,622	\$101,471,521	\$175,223,125	\$73,751,605	66,201
1927	77	6,028	8,417,246	91,748,332	155,563,280	63,814,954	50,970
1925	90	6,168	7,941,797	92,577,423	150,079,000	57,501,586	52,626
1923	92	6,410	7,878,136	84,458,127	132,745,148	48,287,021	61,312
1921	82	5,749	7,178,051	74,558,581	118,040,788	43,482,207	( <sup>3</sup> )
1919	105	7,634	8,508,879	117,838,248	159,223,405	41,385,217	46,902
1914	137	5,177	3,134,348	36,767,110	59,984,032	23,217,822	25,820
PER CENT OF INCREASE OR DECREASE (-)							
1927-1929	( <sup>4</sup> )	7.6	5.4	10.6	12.6	15.6	30.0
1925-1927	( <sup>4</sup> )	-2.3	6.0	-0.9	3.7	11.0	-3.1
1923-1925	( <sup>4</sup> )	-3.8	0.8	0.6	13.1	10.1	-14.2
1921-1923	( <sup>4</sup> )	11.5	9.6	18.3	12.5	11.1	
1919-1921	-21.9	-24.7	-15.6	-35.7	-25.9	5.1	
1919-1929	15.2	-15.0	4.3	-13.9	10.0	78.2	41.1

<sup>1</sup> For 1929, manufacturers' sales (shipments or deliveries); for earlier years, production. See GENERAL EXPLANATIONS—Value of Products.

<sup>2</sup> Value of products less cost of materials, containers for products, fuel, and purchased electric energy. See GENERAL EXPLANATIONS—Value Added by Manufacture.

<sup>3</sup> Not called for on schedule.

<sup>4</sup> No comparable figures available for earlier years.

<sup>5</sup> Per cent not computed where base is less than 100.

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**TABLE 2.—GENERAL STATISTICS, BY STATES: 1929 AND 1927**

[This table presents statistics separately for each State for which figures can be given without disclosing data for individual establishments, and for the remaining States in groups. Data for establishments with products under \$6,000 in value are included for 1919 but not for subsequent years. See GENERAL EXPLANATIONS—Establishments Covered—Size]

STATE	Census year	Number of establishments	Salaried officers and employees <sup>1</sup>	Wage earners (average for the year)	HORSEPOWER (RATED CAPACITY) OF POWER EQUIPMENT			Salaries	Wages	COST OF MATERIALS, CONTAINERS FOR PRODUCTS, FUEL, AND PURCHASED ELECTRIC ENERGY			Value of products <sup>2</sup>	Value added by manufacture <sup>3</sup>
					Total	Prime movers	Motors run by purchased energy			Total	Materials and containers	Fuel and purchased energy		
United States.....	1929	121	1,670	6,488	66,201	14,847	51,444	\$3,355,063	\$8,875,622	\$101,471,521	\$80,347,500	\$2,124,021	\$175,223,126	\$73,751,605
	1927	77	1,182	6,028	50,979	13,032	37,947	2,615,105	8,417,246	91,748,332	80,880,005	1,867,607	155,503,286	63,814,954
	1919	105	3,240	7,034	46,992	15,098	31,894	5,748,813	8,508,870	117,838,248	110,162,770	1,675,472	159,228,465	41,385,217
<b>Individual States:</b>														
California.....	1929	9	19	102	604	-----	604	55,024	133,816	655,186	639,084	16,102	1,740,115	1,093,920
Illinois.....	1929	11	62	234	1,239	200	940	158,400	313,362	2,060,410	2,584,533	81,877	4,245,130	1,573,720
Louisiana.....	1929	3	6	11	53	-----	53	4,419	6,702	48,637	47,923	1,014	90,470	41,542
	1927	3	6	12	61	-----	61	11,543	15,704	41,056	40,302	1,054	71,160	20,194
New York.....	1929	12	206	832	5,061	275	4,786	649,011	1,104,770	6,970,670	6,754,607	221,082	14,860,461	7,892,782
North Carolina.....	1929	7	33	79	1,310	110	1,200	86,330	76,213	2,380,482	2,342,185	38,297	2,892,220	511,738
Tennessee.....	1929	7	43	113	531	36	495	101,740	103,706	4,900,547	4,800,087	10,400	5,596,189	695,642
	1927	4	39	68	215	-----	215	71,475	61,462	2,845,733	2,640,496	5,237	3,241,038	395,325
Virginia.....	1929	4	3	12	257	207	50	4,220	11,202	269,078	267,316	1,762	348,175	79,097
Washington.....	1929	5	9	21	53	-----	53	19,486	20,043	144,474	142,972	1,592	312,954	168,480
<b>Groups of States:</b>														
Colo., 3 est.; Mont., 1; Utah, 2.....	1929	6	3	48	563	451	112	5,775	72,495	1,021,381	1,011,116	10,265	1,321,641	300,260
Conn., 1 est.; Mass., 3; Vt., 1; Ga., 2 est.; Md., 1; S. C., 4.....	1929	5	28	40	267	50	217	46,231	46,714	367,787	346,509	11,278	652,465	204,678
Ind., 5 est.; Mich., 6; Ohio, 5; Wis., 2.....	1929	18	855	3,041	29,577	11,578	17,999	1,190,191	4,700,097	43,333,429	42,204,849	1,128,577	82,968,209	39,064,783
Iowa, 7 est.; Kans., 2; Minn., 7; Mo., 2; Nebr., 1; N. Dak., 1.....	1929	20	313	1,670	23,823	975	22,848	737,629	1,999,010	33,140,670	32,620,424	520,246	51,082,890	18,533,210
Other States (Ala., 1 est.; Ky., 1; N. J., 1; Pa., 4).....	1929	7	51	175	1,316	75	1,241	154,228	203,686	1,668,402	1,621,781	46,021	3,308,910	1,700,517
<b>States not shown separately.....</b>	1927	70	1,137	5,048	50,793	13,032	37,071	2,532,087	8,340,080	88,800,643	86,999,807	1,860,776	152,251,078	63,390,435

<sup>1</sup> Not including proprietors and firm members, as follows: For 1929, 46; 1927, 35; 1919, 45. The total numbers of persons engaged—proprietors and firm members, salaried officers and employees, and wage earners—as reported for the industry, are as follows: For 1929, 8,204; 1927, 7,245; 1919, 10,010.

<sup>2</sup> The figures for 1929 refer to sales (shipments or deliveries) by manufacturers; those for earlier years represent production. See GENERAL EXPLANATIONS—Value of Products.

<sup>3</sup> Value of products less cost of materials, containers for products, fuel, and purchased electric energy. See GENERAL EXPLANATIONS—Value Added by Manufacture.  
<sup>4</sup> California, 6 establishments; Colorado, 2; Connecticut, 1; Georgia, 2; Illinois, 7; Indiana, 1; Iowa, 7; Kentucky, 1; Massachusetts, 1; Michigan, 6; Minnesota, 5; Missouri, 2; Montana, 1; Nebraska, 1; New Jersey, 6; New York, 8; North Carolina, 1; Ohio, 2; Oregon, 1; Pennsylvania, 3; South Carolina, 1; Vermont, 1; Washington, 4; and Wisconsin, 1.

**TABLE 3.—PRODUCTS, BY KIND, QUANTITY, AND VALUE, FOR THE UNITED STATES: 1929 AND 1927**

[The figures for 1929 refer to sales (shipments or deliveries) by manufacturers; those for 1927 represent production. See GENERAL EXPLANATIONS—Value of Products. No comparable statistics for earlier years are available. See "Description of the industry," p. 93]

KIND	1929	1927	KIND	1929	1927
1. Cereal-preparations industry, all products, total value.....	\$175,223,126	\$155,503,286	Cereal preparations, prepared flour, etc., all industries—Continued.		
2. Cereal preparations, prepared flour, etc.....	134,647,986	116,538,196	Breakfast foods—Continued.		
3. Other products (not normally belonging to the industry).....	40,575,140	39,025,091	Made from corn—		
4. Cereal preparations, prepared flour, etc., made as secondary products in other industries, value.....	37,354,310	43,400,667	Pounds.....	383,867,163	293,465,100
			Value.....	\$27,458,458	\$22,176,610
Cereal preparations, prepared flour, etc., all industries:			Made from other grains and from mixed grains—		
Total value (sum of 2 and 4).....	172,002,296	159,944,782	Pounds.....	58,365,090	( <sup>1</sup> )
Breakfast foods, total value.....	121,106,824	113,625,067	Value.....	\$9,843,347	\$9,977,770
Made from wheat—			Prepared flour—		
Pounds.....	( <sup>2</sup> )	( <sup>2</sup> )	Pounds.....	1,094,685,041	880,678,164
Value.....	\$47,385,735	\$41,511,220	Value.....	\$42,370,010	\$38,189,446
Made from oats—			Coffee substitutes—		
Pounds.....	718,382,081	843,520,520	Pounds.....	19,816,065	20,674,610
Value.....	\$36,419,309	\$39,980,039	Value.....	\$5,253,102	\$5,257,225
			Other cereal preparations—		
			Pounds.....	( <sup>3</sup> )	( <sup>3</sup> )
			Value.....	\$3,272,360	\$1,375,423

<sup>1</sup> Prepared feeds for animals and fowls, and miscellaneous food products.

<sup>2</sup> Quantity not shown because some establishments reported in number of packages and others in pounds.

<sup>3</sup> Data incomplete.

## CENSUS OF MANUFACTURES: 1929

TABLE 4.—PRODUCTS, BY KIND, QUANTITY, AND VALUE, BY STATES: 1929

[The figures refer to sales (shipments or deliveries) by manufacturers. See GENERAL EXPLANATIONS—Value of Products. Statistics are given for each State which can be shown separately without disclosing data for individual establishments, and for the remaining States in groups. In some cases, however, certain of the States for which figures are given in combination with those for others reported larger quantities and values than some of the States shown separately.]

KIND AND STATE	Pounds	Value	KIND AND STATE	Pounds	Value
<b>BREAKFAST FOODS MADE FROM WHEAT</b>			<b>BREAKFAST FOODS MADE FROM OTHER GRAINS AND FROM MIXED GRAINS</b>		
United States.....	(1)	\$47,885,785	United States.....	58,865,090	\$0,843,347
Individual States:			<b>PREPARED FLOUR</b>		
Illinois.....	(1)	240,231	United States.....	1,094,085,041	42,370,010
Indiana.....	(1)	943,988	Individual States:		
Washington.....	(1)	113,614	California.....	11,545,605	727,215
Groups of States:			Colorado.....	66,677,010	2,032,055
Calif., Idaho, Oreg.....	(2)	2,431,253	Idaho.....	22,782,455	699,166
Colo., Mont., N. Dak., Utah.....	(2)	163,549	Illinois.....	76,424,833	3,164,445
Conn., Mass., Vt.....	(1)	406,004	Indiana.....	86,127,560	3,329,482
Iowa, Kans., Mo., Nebr.....	(1)	2,050,149	Iowa.....	16,406,317	1,205,115
Mich., Minn., Ohio, Wyo.....	(1)	28,876,598	Kansas.....	119,686,261	4,023,623
N. J., N. Y., Pa., Wis.....	(1)	11,211,467	Missouri.....	62,505,800	3,307,497
Other States (Ala., Ky., N. C., S. C., S. Dak., Tex.).....	(1)	43,984	Nebraska.....	4,437,208	226,525
<b>BREAKFAST FOODS MADE FROM OATS</b>			New York.....	17,187,051	1,216,728
United States.....	718,382,081	30,419,300	North Carolina.....	75,060,824	2,690,698
Groups of States:			Pennsylvania.....	2,954,072	122,766
Calif., Oreg., Wash.....	36,106,707	1,827,476	South Carolina.....	14,341,400	497,750
Ill., Ind., Ohio.....	214,437,010	10,177,886	Tennessee.....	38,154,013	6,874,703
Iowa, Minn., Mo.....	442,086,242	22,537,161	Virginia.....	30,029,324	1,306,779
Other States (Mont., N. J., N. Y., Pa., Utah, Va.).....	25,692,122	1,870,786	Washington.....	1,445,170	80,038
<b>BREAKFAST FOODS MADE FROM CORN</b>			Wisconsin.....	1,357,270	53,172
United States.....	883,807,163	27,468,433	Groups of States:		
Groups of States:			Ala., Ga., Ky., Miss.....	190,299,104	4,514,929
Ala., Ga., Ky., Tenn.....	32,046,262	2,811,061	D. C., Md., N. J., W. Va.....	20,067,867	2,474,306
Colo., Kans., Nebr., Okla.....	5,646,820	262,775	La., Okla., Tex.....	14,540,940	473,349
Ill., Ind., Iowa, Ohio.....	51,917,816	1,105,449	Mich., Ohio.....	42,711,188	2,296,860
Mich., Minn., Wis.....	248,415,631	21,762,320	Minn., S. Dak., Wyo.....	676,080	40,071
N. J., N. Y., Pa.....	47,617,700	2,008,230	Other States (Ariz., Mass., Mont., Oreg., Utah).....	25,244,604	952,769
Other States (Calif., Del., Md., Mass., Utah, Va.).....	222,885	7,708	<b>COFFEE SUBSTITUTES</b>		
<b>BREAKFAST FOODS MADE FROM OTHER GRAINS AND FROM MIXED GRAINS</b>			United States.....	19,816,065	5,253,102
United States.....	(1)	\$47,885,785	<b>OTHER CEREAL PREPARATIONS</b>		
Individual States:			United States.....	(1)	3,272,360
Illinois.....	(1)	240,231			
Indiana.....	(1)	943,988			
Washington.....	(1)	113,614			
Groups of States:					
Calif., Idaho, Oreg.....	(2)	2,431,253			
Colo., Mont., N. Dak., Utah.....	(2)	163,549			
Conn., Mass., Vt.....	(1)	406,004			
Iowa, Kans., Mo., Nebr.....	(1)	2,050,149			
Mich., Minn., Ohio, Wyo.....	(1)	28,876,598			
N. J., N. Y., Pa., Wis.....	(1)	11,211,467			
Other States (Ala., Ky., N. C., S. C., S. Dak., Tex.).....	(1)	43,984			

<sup>1</sup> Quantity not shown because some establishments reported in number of packages and others in pounds.

<sup>2</sup> California, Iowa, Louisiana, Michigan, Minnesota, Missouri, Nebraska, New Jersey, New York, Ohio, Oregon, Pennsylvania, Utah, Washington, Wisconsin.

<sup>3</sup> California, Colorado, Illinois, Louisiana, Michigan, New York, Ohio, Pennsylvania.

<sup>4</sup> Arkansas, California, Colorado, Idaho, Illinois, Kentucky, Maryland, Michigan, New York, Ohio, Oregon, Pennsylvania, Tennessee.

<sup>5</sup> Data incomplete.

TABLE 5.—PRIME MOVERS, MOTORS, GENERATORS, AND CONSUMPTION OF PURCHASED ELECTRIC ENERGY—NUMBER AND RATED CAPACITY OF PRIME MOVERS, AND ELECTRIC MOTORS, 1929, 1927, 1925, AND 1919, AND OF GENERATORS, 1929, 1927, AND 1925; QUANTITY OF ELECTRIC ENERGY PURCHASED, 1929

TYPE	1929		1927		1925		1919		PER CENT DISTRIBUTION OF RATED HORSEPOWER CAPACITY	
	Number	Capacity	Number	Capacity	Number	Capacity	Number	Capacity	1929	1919
Prime movers and electric motors driven by purchased energy, aggregate.....	4,832	Horsepower 66,201	3,337	Horsepower 50,079	3,022	Horsepower 52,026	2,119	Horsepower 46,992	100.0	100.0
Prime movers, total.....	41	14,847	26	13,032	27	13,892	37	15,098	22.4	32.1
Steam, total.....	26	13,918	20	12,702	25	13,861	20	14,017	21.0	31.7
Engines.....	22	5,618	16	5,262	21	6,420	(1)	(1)	8.5	
Turbines.....	4	8,800	4	7,600	4	7,431	(1)	(1)	12.6	
Internal-combustion engines.....	4	200	2	40	1	6	5	104	0.4	0.2
Water wheels and water turbines.....	11	669	4	260	1	35	3	77	1.0	0.2
Electric motors driven by purchased energy.....	4,791	51,444	3,311	37,947	2,995	33,734	2,082	31,894	77.6	67.9
Electric motors, total.....	5,777	60,020	3,662	47,989	4,113	50,593	3,139	43,448	100.0	100.0
Driven by purchased energy.....	4,791	51,444	3,311	37,947	2,995	33,734	2,082	31,894	85.7	73.4
Driven by energy generated in establishments reporting.....	986	8,576	351	10,042	1,118	11,859	1,057	11,554	14.3	26.6
Electric generators.....	16	Kilowatts 9,477 Kilowatt-hours	9	Kilowatts 8,050	12	Kilowatts 8,373	(2)	(2)		
Electric energy purchased.....		103,409,944		(1)		(1)		(2)		

<sup>1</sup> Not tabulated separately.

<sup>2</sup> Not called for on schedule.

<sup>3</sup> This item covers the consumption of purchased electric energy for all purposes—power, heat, light, etc.

<sup>4</sup> Data incomplete.

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TABLE 6.—WAGE EARNERS, BY MONTHS, BY STATES: 1929

[This table presents statistics for only those States for which figures can be given without disclosing data for individual establishments. The sum of the State items in any column is not, therefore, equal to the United States total at the head of the column. The month of maximum employment is indicated by bold-faced figures and that of minimum employment by *italic* figures]

STATE	Average number employed during year	NUMBER EMPLOYED ON 15TH DAY OF MONTH OR NEAREST REPRESENTATIVE DAY												Percent minimum is of maximum
		January	February	March	April	May	June	July	August	September	October	November	December	
United States.....	6,488	6,388	6,640	6,541	6,249	6,342	6,710	6,642	6,801	6,775	6,547	6,225	6,004	88.8
California.....	102	98	104	107	107	107	105	102	111	105	102	100	78	70.8
Illinois.....	234	253	240	240	230	215	212	214	219	242	244	247	241	83.8
Louisiana.....	11	21	19	7	7	8	5	5	6	7	17	17	17	23.8
New York.....	832	931	940	901	830	847	842	833	825	838	784	733	670	71.3
North Carolina.....	70	70	70	70	70	78	70	81	70	70	81	70	80	90.3
Tennessee.....	113	114	114	111	111	115	113	114	116	117	111	111	112	94.0
Virginia.....	12	10	11	11	12	12	11	13	14	13	14	13	11	71.4
Washington.....	21	23	23	22	20	20	18	17	17	21	23	21	20	73.0

# CHEWING GUM

**Description of the industry.**—This industry embraces establishments engaged primarily in the manufacture of chewing gum from such materials as crude gum or chicle, paraffin, essential oils, flavoring extracts, etc.

**TABLE 1.—SUMMARY FOR THE UNITED STATES: 1914 TO 1929**

[Data for establishments with products under \$5,000 in value included for 1919 and prior years but not for 1921 and subsequent years. See GENERAL EXPLANATIONS—Establishments Covered—Size]

YEAR OR PERIOD	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, containers for products, fuel, and purchased electric energy	Value of products <sup>1</sup>	Value added by manufacture <sup>2</sup>	Horsepower
1929	37	2,265	\$2,732,946	\$23,231,172	\$60,160,126	\$30,028,064	10,350
1927	40	2,524	2,727,236	27,107,504	62,001,320	34,833,810	10,997
1925	41	2,180	2,637,609	17,988,033	47,838,150	20,870,117	7,712
1923	45	2,062	2,233,473	15,487,188	40,870,914	25,385,720	6,905
1921	50	1,994	2,148,675	19,908,185	33,894,925	18,956,740	(3)
1919	62	3,190	2,670,803	25,202,312	51,240,150	20,037,844	0,172
1914	74	2,043	828,467	7,322,200	17,159,007	9,837,308	3,030
PER CENT OF INCREASE OR DECREASE (—)							
1927-1929	(3)	-10.3	0.2	-14.5	-3.0	6.0	2.5
1925-1927	(3)	15.8	7.5	61.2	29.6	16.6	30.0
1923-1925	(3)	6.2	13.0	16.0	17.0	17.7	11.7
1921-1923	(3)	2.9	3.0	-22.2	6.2	33.9	-----
1919-1921	(3)	-37.5	-10.8	-21.0	-24.2	-27.2	-----
1919-1929	(3)	-29.0	2.0	-7.8	17.4	41.8	67.7

<sup>1</sup> The figures for 1929 refer to sales (shipments or deliveries) by manufacturers; those for earlier years represent production. See GENERAL EXPLANATIONS—Value of Products.

<sup>2</sup> Value of products less cost of materials, containers for products, fuel, and purchased electric energy. See GENERAL EXPLANATIONS—Value Added by Manufacture.

<sup>3</sup> Not called for on schedule.

<sup>4</sup> No comparable data for years prior to 1914.

<sup>5</sup> Per cent not computed where base is less than 100.

**TABLE 2.—GENERAL STATISTICS, BY STATES: 1929, 1927, AND 1919**

[This table presents statistics separately for each State for which figures can be given without disclosing data for individual establishments. Certain of the "Other States," however, reported larger values of products than Ohio. Data for establishments with products under \$5,000 in value are included for 1919 but not for subsequent years. See GENERAL EXPLANATIONS—Establishments Covered—Size]

STATE	Census year	Number of establishments	Salaried officers and employees <sup>1</sup>	Wage earners (average for the year)	HORSEPOWER (RATED CAPACITY) OF POWER EQUIPMENT			Salaries	Wages	COST OF MATERIALS, CONTAINERS FOR PRODUCTS, FUEL, AND PURCHASED ELECTRIC ENERGY			Value of products <sup>2</sup>	Value added by manufacture <sup>3</sup>
					Total	Prime movers	Motors run by purchased energy			Total	Materials and containers	Fuel and purchased energy		
United States	1929	37	587	2,265	10,350	3,874	6,470	\$1,462,161	\$2,732,946	\$23,231,172	\$22,098,080	\$233,092	\$60,160,126	\$30,028,064
	1927	40	733	2,524	10,097	3,992	6,105	1,686,285	2,727,236	27,107,504	26,017,635	240,869	62,001,320	34,833,810
	1919	62	843	3,190	4,617 <sup>4</sup>	2,569	3,573 <sup>4</sup>	1,847,639	2,670,803	25,202,312	24,997,529	204,783	51,240,150	26,037,844
New York	1929	10	278	1,058	4,720	1,070	3,650	693,209	1,255,007	9,933,892	9,805,661	128,201	22,887,853	12,053,091
	1927	10	360	1,011	4,839	1,090	3,740	861,571	1,165,517	11,078,615	10,934,204	144,411	23,202,132	12,123,517
	1919	15	162	1,007	1,715	14	1,701	301,513	805,160	7,570,092	7,484,935	85,127	14,496,840	6,926,778
Ohio	1929	4	43	103	449	-----	440	101,257	85,193	515,014	501,703	13,221	989,871	474,867
	1927	5	32	180	541	8	533	50,518	125,131	520,622	514,010	12,612	953,247	426,625
Other States	1929	23	266	1,104	5,181	2,804	2,377	637,685	1,392,746	12,782,296	12,690,626	91,670	30,282,402	23,500,166
	1927	25	341	1,377	4,717	2,894	1,823	774,196	1,436,588	15,562,297	15,460,421	92,846	37,845,941	22,283,674
	1919	47	681	2,183	4,403	2,685	1,878	1,546,120	1,874,043	17,632,250	17,512,594	119,656	30,743,316	19,111,066

<sup>1</sup> Not including proprietors and firm members, as follows: 1929, 7; 1927, 12; 1919, 23. The total numbers of persons engaged—proprietors and firm members, salaried officers and employees, and wage earners—are as follows: 1929, 2,859; 1927, 3,209; 1919, 4,056.

<sup>2</sup> For 1929, manufacturers' sales (shipments or deliveries); for earlier years, production. See GENERAL EXPLANATIONS—Value of Products.

<sup>3</sup> Value of products less cost of materials, containers for products, fuel, and purchased electric energy. See GENERAL EXPLANATIONS—Value Added by Manufacture.

<sup>4</sup> Data for purchased power other than electric (power transmitted into the plant by belt or shaft) are included in the State items for 1919 but not in the United States totals.

<sup>5</sup> California, 4 establishments; Illinois, 4; Indiana, 1; Maine, 1; Massachusetts, 1; Michigan, 2; Missouri, 3; New Jersey, 1; Pennsylvania, 2; Rhode Island, 1; Tennessee, 3.

<sup>6</sup> California, 3 establishments; Illinois, 6; Indiana, 1; Maine, 1; Massachusetts, 1; Michigan, 2; Missouri, 3; New Jersey, 2; Pennsylvania, 2; Tennessee, 2; Texas, 1; Virginia, 1.

<sup>7</sup> California, 4 establishments; Delaware, 1; Illinois, 6; Indiana, 1; Kentucky, 2; Maine, 2; Maryland, 1; Massachusetts, 2; Michigan, 2; Missouri, 3; Nebraska, 1; New Jersey, 8; Ohio, 6; Pennsylvania, 2; Rhode Island, 1; Tennessee, 2; Texas, 1; Virginia, 1; Wisconsin, 1.

# CHEWING GUM

**TABLE 3.—PRODUCTS, BY VALUE, FOR THE UNITED STATES: 1923 TO 1929**

[The figures for 1929 refer to sales (shipments or deliveries) by manufacturers; those for earlier years represent production. See GENERAL EXPLANATIONS—Value of Products]

	1929	1927	1925	1923
1. Chewing-gum industry, all products, total.....	\$60,160,120	\$62,001,320	\$47,838,150	\$40,870,914
2. Chewing gum.....	57,229,918	58,116,008	47,124,200	40,324,409
3. Other products.....	2,930,208	3,884,412	713,941	540,505
4. Chewing gum made as a secondary product in other industries.....	1,320,052	302,420	6,902,012	5,188,113
Chewing gum, all industries (sum of 2 and 4).....	58,558,970	58,419,328	54,117,121	45,512,522

**TABLE 4.—PRINCIPAL MATERIALS CONSUMED IN THE CHEWING-GUM INDUSTRY, BY KIND, QUANTITY, AND COST, FOR THE UNITED STATES: 1929**

[The difference between the sum of the costs of the several kinds of materials shown in this table and the total cost of materials consumed as given in Tables 1 and 2 is due to the fact that this table covers only certain specified materials, whereas the others cover all materials]

KIND	Quantity (pounds)	Cost
Total.....		\$16,072,540
Sugar.....	60,707,049	3,080,565
Corn sirup.....	17,220,007	600,213
Chicle.....	9,617,325	6,720,039
Crude gums.....	10,680,008	13,711,067
Essential oils.....		1,500,217
Flavoring extracts.....		285,623
Other materials.....		66,225

<sup>1</sup> Not including 7,007,128 pounds, valued at \$95,791, reported as used in the confectionery industry by establishments making chewing gum as a secondary product.

**TABLE 5.—PRIME MOVERS, MOTORS, GENERATORS, AND CONSUMPTION OF PURCHASED ELECTRIC ENERGY—NUMBER AND RATED CAPACITY OF PRIME MOVERS AND ELECTRIC MOTORS, 1929, 1927, 1925, 1919, AND 1914, AND OF GENERATORS, 1929, 1927, AND 1925; QUANTITY OF ELECTRIC ENERGY PURCHASED, 1929**

TYPE	1929		1927		1925		1919		1914		PER CENT DISTRIBUTION OF RATED HORSEPOWER CAPACITY	
	Number	Capacity	Number	Capacity	Number	Capacity	Number	Capacity	Number	Capacity	1929	1919
		Horse-power		Horse-power		Horse-power		Horse-power		Horse-power		
Prime movers and electric motors driven by purchased energy, aggregate.....	1,530	10,350	1,553	10,007	1,087	7,712	552	6,172	(1)	3,030	100.0	100.0
Prime movers, total.....	23	3,874	29	3,992	22	3,048	17	2,590	(1)	1,410	37.4	42.1
Steam, total.....	23	3,874	28	3,982	21	3,038	16	2,580		1,397	37.4	41.9
Engines.....	22	3,794	27	3,902	18	1,105	15	2,530	(1)	(1)	36.7	41.1
Turbines.....	1	80	1	80	6	1,933	1	60	(1)	(1)	0.7	0.8
Internal-combustion engines.....			1	10	1	10	1	10	(1)	22		0.2
Electric motors driven by purchased energy.....	1,510	6,476	1,524	6,105	1,065	4,004	535	3,573	(1)	1,011	62.6	57.9
Electric motors, total.....	1,825	8,305	1,870	8,192	1,372	6,120	832	5,125	(1)	2,297	100.0	100.0
Driven by purchased energy.....	1,510	6,476	1,524	6,105	1,065	4,004	535	3,573	(1)	1,011	78.0	69.7
Driven by energy generated in establishments reporting.....	309	1,829	346	2,087	307	1,402	297	1,552	(1)	686	22.0	30.3
Electric generators.....	4	Kilowatts 1,022	4	Kilowatts 1,470	11	Kilowatts 1,550	(1)	(1)	(1)	(1)		
Electric energy purchased <sup>4</sup> .....		Kilowatt-hours 6,859,320		(1)		(1)		(1)		(1)		

<sup>1</sup> No data.

<sup>2</sup> Not called for separately on schedule.

<sup>3</sup> Not called for on schedule.

<sup>4</sup> This item covers the consumption of purchased electric energy for all purposes—power, heat, light, etc.

<sup>5</sup> Data incomplete.

**TABLE 6.—WAGE EARNERS, BY MONTHS, FOR THE UNITED STATES, 1929, 1925, AND 1919, AND BY STATES, 1929**

[This table presents statistics for only those States for which figures can be given without disclosing data for individual establishments. The sum of the State items in any column is not, therefore, equal to the United States total at the head of the column. The month of maximum employment is indicated by bold-faced figures and that of minimum employment by italic figures]

STATE	Average number employed during year	NUMBER EMPLOYED ON 15TH DAY OF MONTH OR NEAREST REPRESENTATIVE DAY												Percent minimum is of maximum	
		January	February	March	April	May	June	July	August	September	October	November	December		
United States:															
1929.....	2,265	<i>2,018</i>	2,052	2,100	2,154	2,401	2,372	2,342	2,348	2,358	2,412	2,320	2,249	2,249	84.7
1925.....	2,180	2,124	2,271	2,262	2,251	2,271	2,235	<i>2,048</i>	2,061	2,213	2,257	2,093	2,076	2,076	90.2
1919 <sup>1</sup> .....	3,100	3,100	3,178	3,238	3,351	3,224	<i>2,695</i>	3,094	3,220	3,374	3,314	3,125	3,052	3,052	88.8
New York.....	1,058	1,007	<i>981</i>	989	1,037	1,044	1,070	1,084	1,114	1,111	1,126	1,070	1,061	1,061	87.1
Ohio.....	108	07	<i>82</i>	93	08	113	114	104	103	113	114	103	101	101	71.9

<sup>1</sup> No data for years prior to 1919.



## CHOCOLATE AND COCOA PRODUCTS

**Description of the industry.**—This industry comprises establishments engaged in the manufacture of chocolate from the cocoa bean (the beanlike seed of the cacao tree) and the further manufacture of cocoa, cocoa butter, and other chocolate products. Of the 59 establishments reporting for 1929, 19 were engaged primarily in the manufacture of confectionery but made chocolate coatings for their own use and some chocolate and cocoa products for sale. These establishments are classified for census purposes both as manufacturers of chocolate and cocoa products and as manufacturers of confectionery, but the statistics for their output of confectionery are given in the confectionery report and not in this report.

At censuses prior to that for 1927 some of the confectionery manufacturers did not make separate reports for their chocolate-manufacturing departments. Because of the increasing importance of the output of such departments in relation to the chocolate industry, a special effort was made at the 1927 census to collect complete data on this production. For this reason the statistics for 1925 and earlier years are not strictly comparable with those for 1927 and 1929, but the differences are not so great as to destroy altogether their value for purposes of comparison.

TABLE 1.—SUMMARY FOR THE UNITED STATES: 1899 TO 1929

[Data for establishments with products under \$5,000 in value included for 1919 and prior years but not for 1921 and subsequent years. See GENERAL EXPLANATIONS—Establishments Covered—Size]

YEAR OR PERIOD	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, containers for products, fuel, and purchased electric energy	Value of products <sup>1</sup>	Value added by manufacture <sup>2</sup>	Horsepower
1929	59	0,249	\$7,778,061	\$79,540,371	\$110,540,093	\$30,991,322	63,230
1927	69	6,427	7,330,405	90,422,852	122,723,229	32,300,377	62,742
1925	60	7,128	7,091,052	73,522,104	106,642,474	38,120,370	58,260
1923	58	0,876	7,729,038	60,843,057	95,531,464	34,038,407	47,197
1921	55	0,652	7,278,377	49,134,379	81,649,432	32,515,053	(3) 47,197
1919	48	9,083	9,270,077	101,754,406	139,258,290	37,503,830	33,414
1914	30	4,160	2,035,598	24,483,303	35,712,810	11,220,507	19,070
1909	27	2,820	1,298,613	15,523,030	22,390,222	6,867,162	10,578
1904	25	2,090	821,851	9,722,555	14,389,090	4,067,144	5,095
1899	24	1,314	525,875	6,870,082	9,069,192	2,780,510	2,309
PER CENT OF INCREASE OR DECREASE (-)							
1927-1929	(9)	-2.8	6.0	-12.0	-2.6	23.5	0.8
1925-1927	(9)	-9.8	-8.2	23.0	15.1	-2.6	7.7
1923-1925	(9)	8.7	3.4	20.8	11.6	-4.6	23.6
1921-1923	(9)	3.4	6.2	23.8	17.0	8.7	-----
1919-1921	(9)	-26.8	-21.5	-51.7	-41.4	-13.3	-----
1919-1929	(9)	-31.2	-13.1	-21.8	-14.2	6.6	80.3
1920-1919	(9)	221.4	630.7	655.5	522.0	446.1	215.0
1899-1909	(9)	115.1	141.2	125.7	131.0	146.2	342.4

<sup>1</sup> For 1929, manufacturers' sales (shipments or deliveries); for earlier years, production. See GENERAL EXPLANATIONS—Value of Products.

<sup>2</sup> Value of products less cost of materials, containers for products, fuel, and purchased electric energy. See GENERAL EXPLANATIONS—Value Added by Manufacture.

<sup>3</sup> Not called for on schedule.

<sup>4</sup> Per cent not computed where base is less than 100.

# CHOCOLATE AND COCOA PRODUCTS

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**TABLE 2.—GENERAL STATISTICS, BY STATES: 1929, 1927, AND 1919**

[This table presents statistics separately for each State for which figures can be given without disclosing data for individual establishments. Data for establishments with products under \$5,000 in value are included for 1919 but not for subsequent years. See GENERAL EXPLANATIONS—Establishments Covered—Size]

STATE	Cen- sus year	Num- ber of estab- lish- ments	Sal- aried offi- cers and emp- loy- ees <sup>1</sup>	Wage earn- ers (aver- age for the year)	HORSEPOWER (RATED CAPACITY) OF POWER EQUIPMENT			Salaries	Wages	COST OF MATERIALS, CONTAINERS FOR PRODUCTS, FUEL, AND PURCHASED ELECTRIC ENERGY			Value of products <sup>2</sup>	Value added by manu- facture <sup>3</sup>
					Total	Prime movers	Motors run by pur- chased energy			Total	Materials and con- tainers	Fuel and purchased energy		
United States.....	1929	59	819	0,249	63,236	32,135	31,101	\$2,408,203	\$7,778,061	\$70,549,371	\$77,045,948	\$1,603,423	\$110,540,093	\$30,991,322
	1927	69	918	6,427	62,742	36,392	26,350	2,785,682	7,330,405	90,422,852	88,645,939	1,776,913	122,723,229	32,300,377
	1919	48	1,183	0,083	33,414	17,356	10,058	4,038,456	0,270,077	101,754,406	100,347,208	1,407,258	130,258,200	37,503,830
California.....	1929	5	52	254	3,443	75	3,308	167,632	316,238	3,701,409	3,638,005	62,714	5,494,274	1,792,865
	1927	5	52	260	2,775	75	2,700	155,412	307,576	4,380,907	4,318,052	62,855	5,738,790	1,357,883
	1919	4	43	252	1,353	40	1,313	138,161	251,171	3,805,315	3,754,700	50,615	5,662,032	1,857,367
Illinois.....	1929	3	3	77	2,124	900	1,224	6,807	111,615	2,312,034	2,261,236	50,798	4,980,027	2,668,593
Massachusetts.....	1929	11	80	890	10,980	6,131	4,858	260,463	1,226,300	12,162,570	11,903,580	248,990	17,315,279	5,162,709
	1927	12	113	906	9,987	5,035	4,952	386,287	887,123	15,727,788	15,464,638	273,150	18,968,188	3,236,400
	1919	6	210	2,007	5,711	3,112	2,599	759,638	1,644,753	23,080,160	23,697,564	291,586	36,327,397	6,338,247
New Jersey.....	1929	4	43	101	1,805	150	1,655	123,581	230,755	1,850,484	1,807,369	52,115	2,782,604	923,180
	1927	(9)	(9)	(3)	(6)	(9)	(3)	(6)	(5)	(3)	(2)	(8)	(9)	(6)
	1919	8	72	489	1,046	533	1,413	302,570	501,630	9,277,121	9,178,619	98,502	10,813,228	1,536,107
New York.....	1929	17	288	1,870	15,006	4,050	11,046	815,190	2,363,610	17,845,176	17,313,668	531,508	20,805,242	8,960,066
	1927	23	247	1,891	12,709	5,200	7,419	631,603	2,336,640	23,224,729	22,684,772	539,954	31,325,994	8,101,178
	1919	14	328	2,311	10,335	3,096	6,339	1,054,305	2,063,937	22,740,180	22,362,047	387,630	30,853,238	8,123,652
Pennsylvania.....	1929	12	264	2,787	26,339	10,720	6,010	966,271	3,364,909	38,084,950	38,370,500	605,450	58,330,369	19,345,404
	1927	12	322	2,646	26,593	21,193	5,400	1,054,109	3,024,335	37,037,453	36,430,311	607,145	53,800,326	19,829,870
	1919	10	410	3,231	11,025	6,175	1,850	1,205,462	3,631,375	32,202,204	31,700,653	492,611	48,600,497	10,398,233
Wisconsin.....	1929	3	32	103	1,668	1,050	618	90,028	95,064	1,610,890	1,588,607	22,283	2,381,769	770,870
Other States.....	1929	4	21	50	1,172	50	1,122	58,451	70,290	1,082,852	1,053,293	29,559	1,450,487	307,635
	1927	17	184	718	10,078	4,700	5,879	558,271	784,526	10,051,075	9,768,100	293,899	12,834,021	2,782,946
	1919	6	114	793	3,070	500	2,570	577,951	977,211	9,680,430	9,564,025	116,406	12,931,254	3,266,824

<sup>1</sup> Not including proprietors and firm members, as follows: 1929, 4; 1927, 5; 1919, 21. The total numbers of persons engaged—proprietors and firm members, salaried officers and employees, and wage earners—are as follows: 1929, 7,072; 1927, 7,350; 1919, 10,287.

<sup>2</sup> For 1929, manufacturers' sales (shipments or deliveries); for earlier years, production. See GENERAL EXPLANATIONS—Value of Products.

<sup>3</sup> Value of products less cost of materials, containers for products, fuel, and purchased electric energy. See GENERAL EXPLANATIONS—Value Added by Manufacture.

<sup>4</sup> Data for purchased power other than electric (power transmitted into the plant by belt or shaft) are included in the State items for 1919 but not in the United States totals.

<sup>5</sup> Withheld from publication to avoid disclosing data for individual establishments.

<sup>6</sup> Maryland, 1 establishment; Ohio, 1; Virginia, 1; Washington, 1.

<sup>7</sup> Connecticut, 1 establishment; Illinois, 4; Maryland, 1; New Jersey, 3; Ohio, 1; Utah, 1; Virginia, 1; Washington, 1; Wisconsin, 4.

<sup>8</sup> Connecticut, 1 establishment; Illinois, 1; Ohio, 2; Vermont, 1; Wisconsin, 1.

**TABLE 3.—PRODUCTS, BY KIND, QUANTITY, AND VALUE, FOR THE UNITED STATES: 1925 TO 1929**

[The figures for 1929 refer to sales (shipments or deliveries) by manufacturers; those for earlier years represent production. See GENERAL EXPLANATIONS—Value of Products]

CLASS	1929		1927		1925 <sup>1</sup>	
	Pounds	Value	Pounds	Value	Pounds	Value
1. Chocolate and cocoa products industry, all products, total value.....		\$110,540,093		\$122,723,229		\$106,642,474
2. Chocolate, cocoa, etc.....		118,211,853		121,480,472		100,203,582
3. Other products.....		1,328,840		1,239,757		438,892
4. Chocolate, cocoa, etc., made as secondary products in other indus- tries, principally the confectionery industry, value.....		1,197,442		4,046,165		11,020,753
Chocolate, cocoa, etc., all industries, aggregate value (sum of 2 and 4)		119,369,295		125,531,637		117,833,335
Chocolate:						
Total value.....		97,148,605		90,082,609		66,970,103
Unsweetened.....	10,773,480	3,698,675	10,820,308	3,044,267	12,114,707	3,516,007
Sweet and milk chocolate, total.....	142,210,408	44,504,883	158,313,640	46,800,608	168,105,548	50,400,613
Sweet chocolate—						
Plain.....	17,870,826	5,018,438	20,709,701	5,122,724		
With nuts, etc.....	4,035,590	1,423,927	3,088,203	768,637		
Milk chocolate—						
Plain.....	63,663,210	18,927,556	64,652,270	19,455,882	168,105,548	50,400,613
With nuts, etc.....	51,764,861	18,120,800	53,685,323	17,705,760		
Not separately reported as to kind (sweet or milk, plain or with nuts).....	3,066,012	1,014,162	10,268,092	3,087,615		
Coatings, total.....	266,855,200	48,946,047	237,111,280	40,237,794	237,042,306	43,653,483
Sweet.....	148,195,534	25,054,543	148,300,019	29,408,053	143,024,146	24,835,302
Milk.....	93,539,153	19,252,704	63,087,226	13,042,243	68,249,523	13,077,800
Liquor.....	25,121,609	4,637,740	25,744,441	5,797,498	20,182,727	4,007,004
Not separately reported as to kind.....					1,286,000	233,227
Cocoa, powdered, total.....	105,093,970	15,053,947	91,113,650	13,820,625	85,745,610	11,176,045
In cans of 1 pound or less.....	35,767,333	8,222,497	24,859,152	6,815,385	20,748,488	7,068,097
In cans of more than 1 pound.....	3,012,105	1,380,935	6,842,653	1,711,331	3,548,480	746,377
In barrels and drums.....	61,014,541	5,444,515	59,208,845	5,241,253	51,992,132	3,224,535
Not separately reported as to size of container.....			203,600	52,626	486,500	136,226
Cocoa butter.....	10,183,691	5,428,548	22,760,336	8,555,497	25,358,586	6,817,793
Other chocolate and cocoa products, value.....		1,728,195		3,606,369		2,860,424
Not reported by kind, value.....				406,477		

<sup>1</sup> The statistics for 1925 are not strictly comparable with those for 1929 and 1927 because of the fact that some of the confectionery manufacturers did not make separate reports for their chocolate-manufacturing departments at censuses prior to that for 1927.

<sup>2</sup> Not comparable with figures for 1929, as an indeterminate amount of chocolate (solid bars) was reported for 1927 as a by-product from the "Confectionery" industry.

## CENSUS OF MANUFACTURES: 1929

TABLE 4.—PRODUCTS, BY KIND, QUANTITY, AND VALUE, BY STATES: 1929

[The figures refer to sales (shipments or deliveries) by manufacturers. See GENERAL EXPLANATIONS—Value of Products. Figures are given for each State which can be shown separately without disclosing data for individual establishments. Certain of the "Other States," however, reported larger quantities and values of certain classes of products than some of the States shown separately]

KIND AND STATE	Pounds	Value	KIND AND STATE	Pounds	Value
Aggregate value.....		\$119,359,295	Coatings—Continued.		
Chocolate:			Liquor, total.....	25,121,009	\$4,037,740
Unsweetened, total.....	10,773,480	3,698,675	California.....	946,575	181,672
California.....	15,467	10,680	Massachusetts.....	7,542,171	1,500,097
New York.....	263,388	77,221	New York.....	4,461,727	865,230
Other States (Mass., N. J., Ohio, Pa., Wis.).....	10,494,625	3,610,774	Pennsylvania.....	11,105,828	1,878,478
Sweet chocolate—			Other States (Md., N. J., Ohio, Wash., Wis.).....	1,075,308	221,364
Plain, total.....	17,879,826	5,018,438	Cocoa:		
California.....	848,788	248,664	Powdered, unsweetened—		
New York.....	6,770,293	1,921,561	In cans of not over 1 pound, total.....	31,714,738	7,023,177
Other States (Ill., Md., Mass., N. J., Ohio, Pa., Wis.).....	10,260,745	2,848,213	California.....	511,045	94,628
With nuts, etc. (Calif., Md., Mass., N. J., N. Y., Pa., Wis.).....	4,935,590	1,423,927	Massachusetts.....	8,112,740	2,024,008
Milk chocolate—			New York.....	2,553,867	513,152
Plain, total.....	63,663,210	18,927,556	Pennsylvania.....	20,235,830	3,743,600
California.....	1,116,445	340,851	Other States (N. J., Ohio, Wis.).....	301,254	47,883
Massachusetts.....	1,781,029	504,089	In cans of over 1 pound, total.....	7,035,132	878,100
New York.....	12,018,058	3,585,871	California.....	134,590	31,271
Pennsylvania.....	46,484,974	13,029,007	Massachusetts.....	178,387	34,629
Other States (Ill., Md., N. J., Ohio, Wis.).....	2,263,713	567,738	New York.....	3,015,272	434,247
With nuts, etc., total.....	51,764,861	18,120,800	Pennsylvania.....	2,065,006	352,458
California.....	687,955	248,607	Other States (N. J., Ohio, Wis.).....	141,268	25,496
Massachusetts.....	1,303,215	398,181	In barrels and drums, total.....	55,166,317	4,704,328
New York.....	6,945,356	2,470,047	California.....	1,840,381	179,043
Pennsylvania.....	42,281,416	14,862,208	Massachusetts.....	3,039,570	332,660
Other States (Md., N. J., Ohio).....	546,930	135,757	New York.....	14,828,516	1,450,271
Not reported separately as to kind (sweet or milk, plain or with nuts, etc.).....	3,966,912	1,014,162	Pennsylvania.....	20,631,006	2,207,259
Coatings:			Other States (Ill., N. J., Ohio, Wis.).....	5,817,844	534,405
Sweet, total.....	148,195,534	25,054,543	Powdered, sweetened—		
California.....	6,715,737	1,128,470	In cans of not over 1 pound (Calif., Mass., N. J., N. Y., Pa., Wis.).....	4,052,595	1,190,320
Massachusetts.....	35,532,373	5,583,535	In cans of over 1 pound (Calif., Mass., N. J., N. Y., Pa., Wis.).....	1,870,973	508,835
New York.....	44,447,359	7,702,153	In barrels and drums (Calif., Mass., N. J., N. Y., Ohio, Pa., Wis.).....	5,848,224	650,187
Pennsylvania.....	37,066,242	5,907,043	Cocoa butter, total.....	19,183,601	5,428,548
Other States (Ill., Md., N. J., Ohio, Wash., Wis.).....	24,433,773	4,042,742	Massachusetts.....	2,234,400	625,000
Milk, total.....	93,538,163	19,252,704	New York.....	4,681,863	1,322,012
California.....	5,303,354	1,097,921	Pennsylvania.....	8,092,307	2,179,397
Massachusetts.....	4,401,138	735,444	Other States (Calif., Ill., N. J., Ohio, Va., Wash., Wis.).....	4,175,001	1,302,130
New York.....	25,625,492	5,094,307	Other chocolate and cocoa products, total.....		1,728,105
Pennsylvania.....	40,082,708	9,813,700	California.....		62,726
Other States (Ill., Md., N. J., Wash., Wis.).....	9,065,401	2,511,332	Massachusetts.....		57,818
			New York.....		318,004
			Pennsylvania.....		958,421
			Other States (Ill., Ohio, Wash., Wis.).....		331,220

# CHOCOLATE AND COCOA PRODUCTS

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**TABLE 5.—PRODUCTS, BY KIND AND VALUE, CLASSIFIED AS MADE IN THE CHOCOLATE AND COCOA INDUSTRY PROPER OR IN SEPARATE CHOCOLATE AND COCOA DEPARTMENTS OPERATED BY CONFECTIONERY MANUFACTURERS: 1929**

[The figures refer to sales (shipments or deliveries) by manufacturers. See GENERAL EXPLANATIONS—Value of Products]

CLASS	Total	MADE IN CHOCOLATE DEPARTMENTS OF ESTABLISHMENTS IN THE CONFECTIONERY INDUSTRY		CLASS	Total	MADE IN CHOCOLATE DEPARTMENTS OF ESTABLISHMENTS IN THE CONFECTIONERY INDUSTRY	
		Made in chocolate and cocoa establishments	Production Per cent of total			Made in chocolate and cocoa establishments	Production Per cent of total
<b>Chocolate and cocoa products in industry:</b>				<b>Coatings—Continued.</b>			
Number of establishments.....	59	40	10	Liquor—			
Products, total value.....	\$119,540,693	\$104,077,739	\$15,402,954	Pounds.....	25,121,609	22,847,837	2,273,772
Chocolate, cocoa, etc.....	\$118,211,853	\$103,276,766	\$14,935,087	Value.....	\$4,637,740	\$4,202,744	\$434,996
Other products.....	1,328,840	800,973	527,867	Cocoa, powdered, total:			
				Pounds.....	105,220,169	97,708,069	7,512,100
				Value.....	\$15,014,875	\$13,018,267	\$1,996,608
<b>Chocolate (except coatings), total:</b>				Unsweetened—			
Pounds.....	149,016,970	142,093,544	6,923,426	In cans of 1 pound or less—			
Value.....	\$17,189,396	\$15,065,545	\$2,123,851	Pounds.....	31,714,738	31,046,425	668,313
Unsweetened—				Value.....	\$7,023,177	\$6,915,583	\$107,594
Pounds.....	10,773,480	10,701,670	71,810	In cans of more than 1 pound—			
Value.....	\$3,095,675	\$3,030,431	\$18,244	Pounds.....	7,035,132	6,851,801	183,331
Sweet chocolate—				Value.....	\$878,190	\$832,740	\$35,360
Plain—				In barrels and drums—			
Pounds.....	17,870,826	14,087,095	3,102,731	Pounds.....	54,692,607	50,597,102	4,095,405
Value.....	\$5,018,438	\$4,011,062	\$1,007,376	Value.....	\$4,755,250	\$4,273,909	\$481,347
With nuts, etc.—				Sweetened—			
Pounds.....	4,935,500	3,838,080	1,007,510	In cans of 1 pound or less—			
Value.....	\$1,423,927	\$1,104,506	\$319,361	Pounds.....	4,052,595	3,390,192	662,403
Milk chocolate—				Value.....	\$1,190,320	\$938,468	\$260,852
Plain—				In cans of more than 1 pound—			
Pounds.....	63,063,210	61,334,351	2,328,868	Pounds.....	1,876,973	1,767,020	110,053
Value.....	\$18,027,650	\$18,261,304	\$666,252	Value.....	\$508,835	\$407,130	\$141,705
With nuts, etc.—				In barrels and drums—			
Pounds.....	51,764,861	51,532,348	232,513	Pounds.....	5,848,224	4,004,629	1,783,595
Value.....	\$18,120,800	\$18,008,182	\$112,618	Value.....	\$860,187	\$480,437	\$160,750
Coatings, total:				Cocoa butter:			
Pounds.....	206,300,246	211,130,435	55,220,811	Pounds.....	19,188,691	17,595,008	1,588,683
Value.....	\$18,850,839	\$38,431,492	\$10,419,347	Value.....	\$5,428,548	\$4,881,674	\$646,874
Sweet—				Other chocolate and cocoa products, value.....	\$1,728,195	\$679,788	\$748,407
Pounds.....	147,700,484	110,092,746	37,607,738				
Value.....	\$24,900,395	\$18,684,469	\$6,375,872				
Milk—							
Pounds.....	93,538,153	78,189,852	15,348,301				
Value.....	\$19,252,764	\$15,644,285	\$3,608,479				

**TABLE 6.—PRINCIPAL MATERIALS CONSUMED<sup>1</sup> IN THE CHOCOLATE AND COCOA PRODUCTS INDUSTRY, BY KIND, QUANTITY, AND COST, BY STATES: 1929**

[Quantities and costs of the principal materials consumed were reported by only 55 of the 59 establishments in this industry. The combined value of products reported by these 55 establishments amounted to \$116,407,910, or 97.3 per cent of the aggregate value of products of the 59 establishments in the industry. The difference between the sum of the costs of the several kinds of materials shown in this table and the total cost of materials as given in Tables 1 and 2 is due mainly to the fact that this table covers only certain specified materials, whereas the others cover all materials]

KIND AND STATE	Pounds	Cost	KIND AND STATE	Pounds	Cost
Principal materials, aggregate.....		\$62,790,092	Sugar—Continued.		
Cocoa beans, total.....	305,128,402	39,430,748	Massachusetts.....	21,374,400	\$1,074,022
California.....	13,744,130	1,503,109	New Jersey.....	3,085,681	190,845
Illinois.....	6,520,840	867,752	New York.....	48,023,814	2,381,174
Massachusetts.....	68,060,311	7,814,705	Pennsylvania.....	77,068,002	3,921,082
New Jersey.....	9,251,695	1,007,920	Wisconsin.....	4,128,697	218,955
New York.....	102,523,054	9,763,233	Other States (Md., Ohio, Wash.).....	2,087,657	123,300
Pennsylvania.....	155,857,471	17,271,680	Milk and cream (Ill., Md., Mass., N. J., N. Y., Pa., Wis.).....	268,384,185	6,844,040
Wisconsin.....	5,962,567	671,480	Milk, powdered, evaporated, and condensed (Ill., Md., Mass., N. J., N. Y., Ohio, Pa., Wash., Wis.).....	22,344,315	1,573,690
Other States (Md., Ohio, Wash.).....	2,592,224	530,779	Butter (Calif., Ill., Md., Mass., N. J., N. Y., Pa., Wash., Wis.).....	5,540,928	1,488,014
Sugar, total.....	172,632,070	8,052,140	Nuts (Calif., Md., Mass., N. J., N. Y., Ohio, Pa., Wis.).....		4,807,436
California.....	9,491,326	456,185			
Illinois.....	5,271,063	286,586			

<sup>1</sup> See GENERAL EXPLANATIONS—Option in reporting materials.

## CENSUS OF MANUFACTURES: 1929

TABLE 7.—PRIME MOVERS, MOTORS, GENERATORS, AND CONSUMPTION OF PURCHASED ELECTRIC ENERGY—NUMBER AND RATED CAPACITY OF PRIME MOVERS AND ELECTRIC MOTORS, 1929, 1927, 1925, 1919, AND 1914, AND OF GENERATORS, 1929, 1927, AND 1925; QUANTITY OF ELECTRIC ENERGY PURCHASED, 1929

TYPE	1929		1927		1925		1919		1914		PER CENT DISTRIBUTION OF RATED HORSEPOWER CAPACITY	
	Number	Capacity	Number	Capacity	Number	Capacity	Number	Capacity	Number	Capacity	1929	1919
Prime movers and electric motors driven by purchased energy, aggregate.....	2,663	Horse-power 63,236	2,349	Horse-power 62,742	2,232	Horse-power 58,200	1,245	Horse-power 33,414	335	Horse-power 19,076	100.0	100.0
Prime movers, total.....	54	32,135	63	30,392	119	32,302	74	17,350	82	10,840	50.8	51.9
Steam, total.....	48	31,685	53	35,029	68	30,123	52	15,273	59	14,410	50.1	45.7
Engines.....	36	10,422	43	13,409	57	17,303	52	15,273	(1)	(1)	16.5	45.7
Turbines.....	12	21,263	10	21,620	11	12,820	(1)	(1)	(1)	(1)	33.6	
Internal-combustion engines.....			4	803	6	1,210	8	1,783	9	2,150		5.3
Water wheels and water turbines.....	6	450	6	560	45	1,029	14	300	14	280	0.7	0.9
Electric motors driven by purchased energy.....	2,609	31,101	2,286	26,350	2,113	25,904	1,171	16,058	253	2,830	40.2	48.1
Electric motors, total.....	6,082	68,308	6,045	64,527	5,562	63,535	2,230	24,552	877	12,875	100.0	100.0
Driven by purchased energy.....	2,609	31,101	2,286	26,350	2,113	25,904	1,171	16,058	253	2,830	45.5	65.4
Driven by energy generated in establishments reporting.....	3,473	37,207	3,759	38,177	3,449	37,631	1,059	8,494	624	10,039	54.5	34.6
Electric generators.....	35	Kilowatts 22,105 Kilowatt-hours	45	Kilowatts 27,072	54	Kilowatts 22,755	(?)	(?)	(?)	(?)		
Electric energy purchased <sup>1</sup> .....		42,080,917		(1)		(1)		(?)		(?)		

<sup>1</sup> Not called for separately on schedule.

<sup>2</sup> Not called for on schedule.

<sup>3</sup> This item covers the consumption of purchased electric energy for all purposes—power, heat, light, etc.

<sup>4</sup> Data incomplete.

TABLE 8.—WAGE EARNERS, BY MONTHS, FOR THE UNITED STATES, 1929, 1925, 1919, 1914, AND 1909, AND BY STATES, 1929

[This table presents statistics for only those States for which figures can be given without disclosing data for individual establishments. The sum of the State items in any column is not, therefore, equal to the United States total at the head of the column. The month of maximum employment is indicated by bold-faced figures and that of minimum employment by *italic* figures.]

STATE	Average number employed during year	NUMBER EMPLOYED ON 15TH DAY OF MONTH OR NEAREST REPRESENTATIVE DAY												Per cent minimum of maximum	
		January	February	March	April	May	June	July	August	September	October	November	December		
United States:															
1929.....	6,240	6,231	6,235	6,357	6,190	5,988	5,842	<i>5,715</i>	5,000	6,500	7,030	6,078	6,262	81.3	
1925.....	7,128	7,511	7,579	7,303	6,904	6,895	6,855	<i>6,234</i>	6,009	7,181	7,490	7,550	7,338	82.3	
1919.....	9,083	8,723	9,103	9,064	8,713	<i>8,200</i>	8,403	8,398	9,137	9,593	10,034	9,826	9,302	81.7	
1914.....	4,160	4,180	4,242	4,298	4,280	4,109	3,978	<i>3,819</i>	3,777	4,355	4,512	4,389	4,201	80.2	
1909.....	2,826	2,924	2,961	2,924	2,865	2,796	2,667	2,304	<i>2,268</i>	2,893	3,004	3,094	3,133	72.4	
California.....	254	276	268	262	254	264	246	<i>234</i>	235	255	230	261	257	84.8	
Illinois.....	77	75	70	77	77	78	77	76	78	77	78	79	79	94.9	
Massachusetts.....	399	379	332	353	380	396	314	<i>264</i>	370	337	1,056	1,003	906	71.4	
New Jersey.....	101	202	210	207	180	175	160	167	161	192	225	215	192	71.1	
New York.....	1,879	1,794	1,836	1,834	1,819	1,730	<i>1,727</i>	1,737	1,780	2,010	2,198	2,091	1,948	78.6	
Pennsylvania.....	2,787	2,743	2,748	2,800	2,817	2,732	2,665	<i>2,600</i>	2,726	2,917	3,063	2,857	2,717	84.9	
Wisconsin.....	103	103	106	101	101	96	94	<i>90</i>	97	114	112	111	109	78.0	

## COFFEE AND SPICE, ROASTING AND GRINDING

**Description of the industry.**—This industry, as defined for census purposes, covers, in general, the roasting and grinding of coffee and the grinding of spices for the trade. Some of the most important establishments are engaged exclusively or mainly in coffee roasting or in spice grinding, but these operations are also carried on largely by wholesale grocers and by jobbers, whose records in regard to their roasting and grinding activities are not, in all cases, kept separately from those for jobbing coffee and spices or for packing and labeling commodities not subjected to any manufacturing process. An effort was made to procure reports for the actual manufacturing done by the classes of establishments described, and although this effort met with considerable success, it is undoubtedly true that the census statistics cover a larger proportion of purely mercantile operations in this industry than in any other.

**Comparison with earlier census years.**—At censuses prior to that for 1927 coffee-roasting and spice-grinding establishments were canvassed by means of the "general schedule" (a schedule which does not specify the commodities for which separate data should be reported). Statistics were published for census years prior to 1925, but the data for that year were so incomplete and obviously inaccurate that no statistics for the industry were published, except in the case of San Francisco, where, because of the local importance of coffee roasting, a special canvass was made.

The unsatisfactory condition of the data for earlier years was due to two causes: (1) The fact that, as stated above, the records for coffee roasting and spice grinding were involved with those for other operations

carried on by the same establishments; (2) the use of a schedule which was not adapted specifically to this industry. At the censuses for 1927 and 1929, however, special schedules were used, and every effort was made to insure the accuracy and completeness of the figures.

**Statistics for 1927 and 1929.**—The special schedules provided for a clear distinction between the values of coffee roasted and spices ground and the income from jobbing and other activities of the establishments concerned. While it still remained necessary, owing to their methods of bookkeeping, for some of the establishments to supply estimated figures, they were no longer left in doubt as to what these figures should represent. Those establishments which owned the commodities treated reported, therefore, the selling values of the year's output, while those engaged in roasting and grinding on a contract or a custom basis gave the total amount of the year's receipts for such work. For these reasons it is believed that the statistics here presented for 1927 and 1929 are more nearly complete and accurate than those published for earlier census years.

**Consumption of green coffee and crude spices.**—Each establishment classified in this industry was called upon to report either its purchases or its consumption of green coffee and crude spices during the census year. The great majority of the establishments, 881 out of the total of 928, supplied the data called for, but the remaining 47 failed to do so. The amounts and values reported were as follows: Green coffee, 1,362,944,610 pounds, costing \$279,727,062; crude spices, \$11,325,204 (quantity not reported).

TABLE 1.—SUMMARY FOR THE UNITED STATES, 1904 TO 1929

[Data for establishments with products under \$5,000 in value included for 1910 and prior years but not for 1921 and subsequent years. See GENERAL EXPLANATIONS—Establishments Covered—Size]

YEAR OR PERIOD	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, containers for products, fuel, and purchased electric energy	Value of products <sup>1</sup>	Value added by manufacture <sup>2</sup>	Horsepower
1929.....	928	9,053	\$10,606,800	\$332,150,200	\$424,344,837	\$92,194,037	45,465
1927.....	784	8,196	9,537,473	284,652,793	384,281,306	69,028,513	42,642
1923.....	720	8,605	10,015,042	224,843,452	297,527,593	72,084,141	37,368
1921.....	712	8,882	9,372,237	166,248,705	226,050,026	59,810,321	(1) 29,706
1919.....	704	10,640	9,201,242	243,899,108	304,791,677	60,892,569	29,560
1914.....	696	8,549	4,507,692	116,619,603	156,748,756	34,220,163	22,181
1909.....	607	7,490	3,076,816	83,205,098	110,532,787	27,327,680	15,252
1904.....	421	5,969	2,830,243	65,847,335	84,188,391	18,341,066	
PER CENT OF INCREASE OR DECREASE (—)							
1927-1929.....	18.4	10.5	11.2	10.7	10.4	-7.5	6.9
1921-1923.....	2.4	8.8	0.9	35.2	31.6	21.5	-----
1919-1921.....	-10.8	-15.7	1.9	-31.8	-25.8	-1.8	-----
1910-1929.....	16.9	-14.1	15.3	36.2	39.2	51.4	53.0
1909-1910.....	30.8	40.7	150.3	193.1	175.7	122.8	33.9

<sup>1</sup> For 1929, manufacturers' sales (shipments or deliveries); for earlier years, production. See GENERAL EXPLANATIONS—Value of Products.

<sup>2</sup> Value of products less cost of materials, containers for products, fuel, and purchased electric energy. See GENERAL EXPLANATIONS—Value Added by Manufacture.

<sup>3</sup> No statistics were compiled for 1925. (See "Comparison with earlier census years," above.)

<sup>4</sup> Not called for on schedule.

CENSUS OF MANUFACTURES: 1929

TABLE 2.—GENERAL STATISTICS, BY STATES: 1929, 1927, AND 1919

[This table presents statistics separately for each State for which figures can be given without disclosing data for individual establishments. Certain of the "Other States," however, reported larger values of products than some of the States shown separately. Data for establishments with products under \$5,000 in value are included for 1919 but not for subsequent years. See GENERAL EXPLANATIONS—Establishments Covered—Size]

STATE	Cen- sus year	Num- ber of estab- lish- ments	Sala- ried officers and em- ploy- ees <sup>1</sup>	Wage earn- ers (aver- age for the year)	HORSEPOWER (RATED CAPACITY) OF POWER EQUIPMENT			Salaries	Wages	COST OF MATERIALS, CONTAINERS FOR PRODUCTS, FUEL, AND PURCHASED ELECTRIC ENERGY			Value of products <sup>2</sup>	Value added by manu- facture <sup>3</sup>
					Total	Prime mov- ers	Motors run by pur- chased energy			Total	Materials and containers	Fuel and pur- chased energy		
United States	1929	928	4,303	9,053	45,465	4,451	41,014	\$12,008,823	\$10,606,800	\$332,150,200	\$330,215,437	\$1,034,703	\$424,344,837	\$02,194,637
	1927	784	4,445	8,195	42,542	4,751	37,791	12,215,938	9,537,473	284,652,793	282,945,314	1,704,479	384,281,306	99,628,513
	1919	794	9,091	10,540	29,706	5,656	24,050	16,504,017	9,201,242	243,890,108	242,742,802	1,150,306	304,701,677	60,892,569
Alabama	1929	11	39	56	222		222	120,738	41,857	1,474,280	1,461,792	12,488	1,843,171	308,891
	1927	8	29	54	224		224	76,057	47,615	909,019	902,554	6,665	1,300,352	481,303
	1919	10	35	64	147		147	1,127,010	45,485	1,127,010	1,118,795	8,821	1,400,081	272,465
Arkansas	1929	11	23	48	230		230	54,083	48,443	1,309,742	1,302,632	7,110	1,594,740	284,098
	1927	7	21	43	208		208	49,829	48,385	970,134	963,918	6,216	1,360,673	306,530
	1919	9	28	35	183		183	61,190	29,522	1,373,138	1,368,376	4,763	1,542,441	169,803
California	1929	83	375	688	4,449	107	4,282	1,269,583	982,276	38,077,843	37,946,851	130,002	46,874,428	8,706,585
	1927	78	620	637	3,413	177	3,236	1,827,176	940,738	30,812,135	30,704,949	107,186	41,600,088	10,756,053
	1919	70	858	796	2,408	150	2,258	1,439,230	703,738	10,880,783	10,808,863	71,920	26,310,641	6,429,858
Colorado	1929	14	65	133	564		564	169,721	137,667	2,772,567	2,758,040	14,517	3,692,184	900,027
	1927	13	64	131	461		461	139,206	128,516	2,307,187	2,294,392	12,885	3,111,027	893,840
	1919	7	56	38	155		155	93,506	30,083	981,200	974,797	6,403	1,260,534	279,244
Connecticut	1929	7	11	22	123		123	40,076	26,309	680,540	680,300	6,240	841,580	155,040
	1927	5	11	18	82		82	23,746	17,013	308,284	304,190	4,094	500,156	107,872
	1919	13	23	28	87		87	29,867	18,669	650,612	644,337	6,275	738,240	82,637
District of Columbia	1929	6	19	61	222		222	98,494	59,035	2,269,800	2,262,728	16,572	2,885,723	610,423
	1927	6	24	48	165		165	102,075	64,551	1,549,456	1,537,298	12,158	2,085,943	536,487
	1919	5	20	31	111		111	85,497	30,020	756,595	749,605	6,990	924,786	198,191
Florida	1929	26	29	118	519		519	102,701	126,758	3,943,510	3,918,166	25,344	5,258,404	1,314,954
	1927	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )		( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )
	1919	18	33	68	185		185	51,176	60,424	1,299,860	1,291,928	7,922	1,602,332	302,482
Georgia	1929	13	32	44	223	15	208	69,434	32,395	664,191	656,337	7,854	684,076	229,785
	1927	8	25	32	128		128	62,320	21,110	596,593	589,637	6,920	707,446	179,883
	1919	9	10	49	142	40	102	13,386	37,738	386,083	379,058	6,125	408,820	112,797
Idaho	1929	3	5	4	25		25	9,660	5,428	112,834	111,430	1,404	153,630	40,790
Illinois	1929	50	470	911	4,885	1,350	3,535	1,281,795	1,217,411	40,011,617	39,771,277	240,340	48,721,155	8,709,538
	1927	39	569	877	4,991	1,350	3,641	1,513,681	1,131,412	35,173,343	34,990,428	182,915	44,808,842	6,695,499
	1919	32	1,426	1,205	2,389	1,000	1,389	2,073,332	1,200,826	29,692,434	29,554,410	138,024	38,188,646	8,409,212
Indiana	1929	19	36	75	407	120	287	88,212	78,236	1,888,116	1,870,515	17,601	2,530,557	642,441
	1927	17	41	104	478	75	403	102,997	95,684	1,831,228	1,813,974	17,254	2,695,082	804,754
	1919	24	122	187	595	75	520	161,959	100,228	2,796,235	2,777,798	18,437	3,711,360	916,125
Iowa	1929	13	65	144	748	125	623	141,498	162,860	3,253,114	3,234,806	18,308	4,206,797	1,013,688
	1927	16	68	139	890	65	825	131,195	149,825	3,091,506	3,060,794	24,712	4,006,421	1,304,916
	1919	16	151	173	586	110	476	145,456	145,248	4,355,241	4,339,311	15,930	5,128,536	773,295
Kansas	1929	17	40	62	296		296	81,214	70,992	1,164,570	1,154,710	9,860	1,546,145	381,875
	1927	15	15	54	323		323	16,895	68,140	1,008,007	1,000,862	7,215	1,530,670	322,603
	1919	11	12	58	149		149	10,320	49,892	856,498	851,309	5,187	1,030,525	189,020
Kentucky	1929	18	61	104	470	16	460	104,456	105,888	2,278,552	2,267,023	11,529	2,884,292	695,740
	1927	10	46	112	542	16	526	128,537	99,845	3,164,244	3,152,200	11,064	4,232,968	1,989,714
	1919	16	91	89	303	5	298	351,327	112,997	1,945,814	1,936,038	8,870	2,694,289	748,475
Louisiana	1929	36	100	249	894		894	281,019	270,829	7,826,433	7,784,702	41,731	10,359,539	2,533,106
	1927	20	155	219	783	135	648	351,010	201,620	6,263,401	6,253,102	40,299	8,461,128	2,157,007
	1919	29	785	271	631	65	566	990,321	241,376	5,798,373	5,765,498	34,875	7,935,101	2,130,728
Maryland	1929	21	135	203	1,345		1,345	396,114	237,100	7,738,541	7,690,360	48,181	10,361,275	2,622,734
	1927	17	224	234	1,307		1,307	440,719	202,483	7,401,025	7,357,943	43,082	10,571,633	3,170,088
	1919	15	140	203	575	138	437	370,120	160,393	4,691,733	4,663,938	26,695	5,884,333	1,192,600
Massachusetts	1929	26	258	467	1,980	208	1,682	839,788	597,296	14,024,593	13,921,472	103,121	18,207,941	4,183,348
	1927	24	282	430	1,926	240	1,686	962,138	548,795	13,466,686	13,350,455	80,231	18,452,687	4,969,991
	1919	23	291	512	1,377	628	749	758,907	453,470	14,004,836	13,939,589	65,247	16,977,791	2,972,955
Michigan	1929	18	45	130	679		679	120,594	179,509	4,140,841	4,111,687	35,154	5,543,939	1,307,098
	1927	19	64	105	532		532	140,837	140,615	2,932,189	2,906,127	26,062	3,944,884	1,012,395
	1919	19	53	99	461		461	86,196	78,908	2,133,433	2,117,703	15,730	2,514,184	880,751
Minnesota	1929	19	85	188	997		997	230,624	208,017	6,638,548	6,594,726	43,822	8,360,722	1,722,174
	1927	16	96	205	968		968	232,070	201,187	6,362,954	6,320,430	42,524	2,424,200	6,016,317
	1919	13	314	532	962	100	862	370,773	233,535	10,264,900	10,223,297	41,603	12,185,980	1,221,029
Mississippi	1929	12	22	37	141		141	50,837	34,695	674,234	666,498	7,736	942,403	298,167
	1927	10	18	30	114		114	37,618	24,528	628,068	621,743	6,325	866,065	237,097
	1919	7	26	28	49		49	38,952	12,850	473,581	470,700	2,821	620,137	140,556
Missouri	1929	42	282	640	3,866	185	3,681	788,437	721,877	22,458,215	22,331,295	126,920	28,838,315	6,390,100
	1927	40	353	720	3,922	35	3,887	770,700	832,055	23,526,521	23,351,152	145,369	30,141,838	6,016,317
	1919	40	768	814	2,834	50	2,784	1,494,098	875,764	23,058,025	22,954,992	103,033	30,070,206	7,011,581
Montana	1929	4	2	9	50		50	1,038	12,720	200,328	197,769	2,550	308,827	68,499
Nebraska	1929	8	73	279	668		668	154,581	232,831	4,796,894	4,773,015	23,749	5,838,207	1,041,843
	1927	10	27	188	611		611	61,026	145,357	4,801,950	4,782,119	19,837	5,708,698	906,742
	1919	9	66	160	682		682	98,856	137,826	2,049,987	2,034,434	15,553	2,637,480	587,499

See footnotes at end of table.



# COFFEE AND SPICE, ROASTING AND GRINDING

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TABLE 2.—GENERAL STATISTICS, BY STATES: 1929, 1927, AND 1919—Continued

[See note at head of this table]

STATE	Census year	Number of establishments	Salaried officers and employees <sup>1</sup>	Wage earners (average for the year)	HORSEPOWER (RATED CAPACITY) OF POWER EQUIPMENT			Salaries	Wages	COST OF MATERIALS, CONTAINERS FOR PRODUCTS, FUEL, AND PURCHASED ELECTRIC ENERGY			Value of products <sup>2</sup>	Value added by manufacture <sup>3</sup>
					Total	Prime movers	Motors run by purchased energy			Total	Materials and containers	Fuel and purchased energy		
New Jersey	1929	14	104	151	741	00	651	\$318,558	\$102,582	\$8,458,788	\$8,400,066	\$40,720	\$13,805,270	\$5,436,484
	1927	13	56	145	670	75	604	114,772	117,217	8,104,063	8,031,466	43,257	13,033,007	4,988,344
	1919	17	909	192	359	200	100	1,100,734	239,800	4,650,990	4,625,532	25,414	7,217,607	2,500,611
New York	1929	110	712	1,557	7,491	858	6,033	1,973,044	1,937,322	68,381,242	67,970,446	410,796	84,823,023	16,442,081
	1927	101	514	1,151	6,430	1,055	5,425	1,893,333	1,594,851	51,271,704	50,925,010	346,784	68,030,003	16,767,205
	1919	111	1,033	1,959	5,773	1,805	3,908	1,739,383	1,850,036	50,269,420	50,037,984	231,436	57,123,362	6,853,942
North Carolina	1929	0	15	14	120	36	84	24,336	16,094	315,072	310,320	4,743	440,405	134,333
	1927	4	4	6	67	---	67	6,100	7,740	200,702	204,123	2,000	280,817	80,025
Ohio	1929	54	291	890	3,880	456	3,424	745,713	994,862	24,978,402	24,824,062	153,440	32,387,238	7,408,836
	1927	47	255	745	4,284	658	3,626	650,103	889,218	18,569,786	18,417,610	146,167	25,647,808	7,084,022
	1919	43	706	1,088	3,105	583	2,523	1,845,251	933,610	22,870,001	22,706,144	80,767	29,271,332	6,304,431
Oklahoma	1929	14	45	69	492	---	492	133,377	75,710	2,370,920	2,363,128	13,792	3,179,368	802,448
	1927	12	23	72	320	---	320	51,058	80,224	2,259,202	2,246,502	12,700	2,416,823	856,631
	1919	7	43	105	298	---	298	82,939	132,308	1,908,017	1,958,726	9,291	2,401,791	433,774
Oregon	1929	12	36	73	540	---	540	102,094	90,035	2,680,526	2,607,302	19,221	3,473,270	780,744
	1927	6	27	58	388	---	388	79,073	74,201	2,229,845	2,217,384	12,461	2,909,006	760,161
	1919	8	68	106	420	---	420	136,692	97,524	2,978,097	2,904,540	13,557	3,590,207	612,110
Pennsylvania	1929	62	255	306	2,240	175	2,071	594,358	471,463	19,477,169	19,379,207	97,962	23,567,308	4,090,130
	1927	63	224	304	1,867	175	1,692	604,227	420,821	16,327,623	15,238,449	89,174	15,240,960	3,485,855
	1919	85	394	522	1,783	500	1,283	823,488	435,101	11,943,549	11,874,900	68,640	14,075,878	2,782,320
South Carolina	1929	7	6	12	92	---	92	0,175	12,547	269,373	264,377	4,096	342,338	72,965
	1927	4	2	8	36	---	36	2,950	0,204	251,645	246,409	5,236	251,645	73,307
	1919	4	7	9	73	---	73	7,000	8,628	91,258	88,430	2,828	128,849	37,591
South Dakota	1929	4	10	10	40	---	40	12,099	7,843	173,009	176,405	2,114	239,563	60,954
Tennessee	1929	21	107	314	1,401	---	1,401	295,280	276,102	10,021,198	9,957,652	63,516	13,171,038	3,150,470
	1927	18	113	280	1,631	300	1,331	324,094	236,410	9,022,444	8,981,238	41,206	14,042,244	5,019,817
	1919	0	136	191	471	---	471	283,255	181,186	3,783,332	3,768,074	15,258	4,998,340	1,215,008
Texas	1929	63	184	370	1,675	10	1,665	603,921	364,621	12,475,270	12,413,465	61,805	16,807,165	4,331,895
	1927	52	174	343	1,598	20	1,578	400,601	330,065	11,755,105	11,690,423	65,682	15,240,960	3,485,855
	1919	41	146	258	716	32	684	288,471	210,592	6,000,200	5,996,080	34,174	7,850,048	1,850,388
Utah	1929	4	14	11	69	---	69	23,692	13,103	295,850	293,320	2,500	343,740	77,800
	1927	(4)	(4)	(3)	(4)	---	(4)	(3)	(3)	(4)	(4)	(4)	(4)	(4)
	1919	3	10	32	46	---	46	33,400	10,098	357,000	354,902	2,098	485,477	127,487
Virginia	1929	13	52	113	802	00	742	177,642	112,850	3,003,357	3,006,885	26,472	5,462,100	1,408,743
	1927	11	62	117	685	---	685	176,074	113,139	3,744,610	3,717,051	27,555	5,612,847	1,708,231
	1919	11	83	104	360	---	360	112,319	74,746	2,642,436	2,626,086	16,350	3,223,297	685,861
Washington	1929	24	104	195	550	---	550	442,800	255,394	4,252,286	4,224,093	27,293	6,053,437	1,801,151
	1927	22	113	128	679	---	679	354,877	175,327	4,032,071	4,107,856	25,785	5,863,030	1,756,080
	1919	24	146	215	414	---	414	348,010	236,651	3,109,093	3,151,773	14,820	4,350,071	1,190,878
West Virginia	1929	5	14	37	70	---	70	41,101	35,624	703,766	700,158	3,008	1,091,798	298,032
	1927	0	17	40	112	---	112	53,704	37,510	600,923	657,791	3,132	964,437	303,514
	1919	5	6	29	81	---	81	14,700	10,761	466,955	465,545	1,412	552,653	85,078
Wisconsin	1929	16	48	99	631	240	391	130,067	108,260	3,240,211	3,214,124	26,087	4,299,438	1,050,227
	1927	14	68	168	1,008	375	633	158,826	161,021	3,411,018	3,379,101	41,814	4,370,121	1,027,210
	1919	12	35	156	500	75	491	61,171	167,392	2,855,364	2,837,430	17,934	3,463,941	608,577
Other States	1929	10	34	70	586	250	336	75,245	72,042	1,065,291	1,050,728	14,563	2,158,819	493,528
	1927	34	61	173	650	---	650	167,774	165,040	5,910,465	5,898,677	40,788	7,088,076	1,757,610
	1919	20	35	71	274	40	234	58,718	53,873	1,270,725	1,262,708	7,927	1,885,877	315,152

<sup>1</sup> Not including proprietors and firm members, as follows: For 1929, 436; 1927, 423; 1919, 550. The total numbers of persons engaged—proprietors and firm members, salaried officers and employees, and wage earners—as reported for the industry, are as follows: For 1929, 13,702; 1927, 13,063; 1919, 20,187.

<sup>2</sup> For 1929, manufacturers' sales (shipments or deliveries); for earlier years, production. See GENERAL EXPLANATIONS—Value of Products.

<sup>3</sup> Value of products less cost of materials, containers for products, fuel, and purchased electric energy. See GENERAL EXPLANATIONS—Value Added by Manufacture.

<sup>4</sup> Data for purchased power other than electric (power transmitted into the plant by belt or shaft) are included in the State items for 1919 but not in the United States totals.

<sup>5</sup> Withheld from publication in order to avoid disclosing data for individual establishments.

<sup>6</sup> Delaware, 1 establishment; Maine, 3; New Hampshire, 3; North Dakota, 1; Rhode Island, 1; Vermont, 1.

<sup>7</sup> Delaware, 1 establishment; Florida, 16; Idaho, 2; Maine, 4; Montana, 2; New Hampshire, 1; North Dakota, 1; Rhode Island, 1; South Dakota, 3; Utah, 2; Vermont, 1.

<sup>8</sup> Delaware, 1 establishment; Idaho, 2; Maine, 5; Montana, 2; New Hampshire, 2; North Carolina, 1; North Dakota, 1; Rhode Island, 2; South Dakota, 3; Vermont, 1.

TABLE 3.—PRODUCTS, BY KIND, QUANTITY, AND VALUE, FOR THE UNITED STATES: 1929 AND 1927<sup>1</sup>

[The figures for 1929 refer to sales (shipments or deliveries) by manufacturers; those for earlier years represent production. See GENERAL EXPLANATIONS—Value of Products]

KIND	1929		1927	
	Quantity	Value	Quantity	Value
1. "Coffee and spice, roasting and grinding" industry, all products, total	424,344,837	\$384,281,300	350,977,122	\$334,281,300
2. Coffee roasted and ground	388,640,237	350,977,122	17,288,077	1,064,320,483
3. Spices ground	20,021,345	17,288,077	---	---
4. Other products (not normally belonging to the industry)	15,674,255	16,016,107	---	---
5. Coffee and spice, roasted and ground, secondary products of other industries	5,030,854	6,074,018	---	---
Coffee and spices, roasted and ground, all industries: Total value (sum of 2, 3, and 5)				
	424,344,837	\$384,281,300	350,977,122	\$334,281,300
Coffee roasted and ground:				
Pounds	1,104,013,275	---	1,064,320,483	---
Value	\$390,012,102	---	\$354,533,737	---
Spices ground:				
Pounds	63,501,142	---	55,073,792	---
Value	\$23,693,244	---	\$19,805,480	---

<sup>1</sup> No comparable data available for earlier years. (See "Comparison with earlier census years," p. 109.)



CENSUS OF MANUFACTURES: 1929

TABLE 4.—PRODUCTS, BY KIND, QUANTITY, AND VALUE, BY STATES: 1929

[The figures refer to sales (shipments or deliveries) by manufacturers. See GENERAL EXPLANATIONS—Value of Products. Figures are given for each State which can be shown separately without disclosing data for individual establishments, and for the remaining States in groups. Certain of the States for which figures are given in combination with those for others, however, reported larger quantities and values than some of the States shown separately.]

KIND AND STATE	Pounds	Value	KIND AND STATE	Pounds	Value
COFFEE ROASTED AND GROUND			COFFEE ROASTED AND GROUND—continued		
United States.....	1, 164, 013, 275	\$390, 012, 192	South Carolina.....	1, 486, 134	\$332, 563
Alabama.....	5, 339, 378	1, 834, 816	South Dakota.....	712, 250	228, 063
Arkansas.....	5, 316, 003	1, 590, 783	Tennessee.....	37, 054, 215	12, 062, 637
California.....	110, 404, 272	44, 025, 197	Texas.....	47, 935, 693	10, 324, 000
Colorado.....	7, 693, 312	2, 989, 250	Utah.....	870, 838	269, 945
Connecticut.....	2, 166, 437	832, 998	Virginia.....	14, 611, 395	5, 323, 528
District of Columbia.....	9, 050, 094	2, 869, 023	Washington.....	12, 620, 889	4, 760, 672
Florida.....	13, 063, 095	5, 218, 922	West Virginia.....	3, 643, 149	995, 218
Georgia.....	3, 158, 341	875, 277	Wisconsin.....	12, 207, 715	3, 982, 551
Idaho.....	389, 304	143, 130	Del., N. H., Vt.....	521, 395	216, 833
Illinois.....	188, 692, 578	45, 208, 371	Other States (Mo., N. Dak., R. I.).....	4, 450, 125	1, 564, 164
Indiana.....	9, 546, 214	2, 090, 019	SPICES GROUND		
Iowa.....	12, 154, 065	3, 984, 240	United States.....		
Kansas.....	3, 890, 615	1, 303, 022	California.....	4, 074, 842	1, 623, 755
Kentucky.....	9, 620, 659	2, 795, 937	Illinois.....	7, 239, 799	2, 904, 181
Louisiana.....	31, 707, 897	10, 169, 905	Indiana.....	177, 164	62, 723
Maryland.....	26, 120, 093	8, 164, 420	Iowa.....	418, 740	230, 092
Massachusetts.....	48, 108, 936	19, 785, 572	Louisiana.....	502, 819	502, 792
Michigan.....	17, 155, 474	5, 412, 565	Missouri.....	7, 602, 558	2, 498, 888
Minnesota.....	22, 639, 875	8, 135, 411	Nebraska.....	231, 049	78, 520
Mississippi.....	2, 894, 897	949, 709	New York.....	19, 053, 047	6, 733, 375
Missouri.....	85, 292, 314	25, 346, 109	Ohio.....	3, 892, 204	2, 164, 408
Montana.....	678, 547	252, 331	Pennsylvania.....	4, 600, 094	1, 534, 326
Nebraska.....	13, 792, 116	5, 259, 345	Tennessee.....	1, 391, 028	755, 853
New Jersey.....	27, 800, 692	13, 877, 269	Texas.....	427, 019	253, 221
New York.....	240, 036, 974	70, 091, 703	Washington.....	672, 015	263, 597
North Carolina.....	1, 095, 907	447, 335	Ala., Ga., Ky., Miss.....	163, 116	88, 195
Ohio.....	83, 183, 205	27, 745, 389	Colo., Oreg., Utah.....	351, 493	198, 899
Oklahoma.....	10, 023, 839	3, 028, 739	Md., Mass.....	9, 019, 532	2, 960, 233
Oregon.....	9, 521, 187	3, 151, 152	Mo., N. J., Okla., Va.....	559, 369	220, 597
Pennsylvania.....	76, 877, 044	22, 473, 610	Mich., Minn., N. Dak., Wis.....	2, 232, 098	820, 370

TABLE 5.—PRIME MOVERS, MOTORS, GENERATORS, AND CONSUMPTION OF PURCHASED ELECTRIC ENERGY—NUMBER AND RATED CAPACITY OF PRIME MOVERS AND ELECTRIC MOTORS, 1929, 1927, 1919, AND 1914, AND OF GENERATORS, 1929 AND 1927; QUANTITY OF ELECTRIC ENERGY PURCHASED, 1929

[No comparable figures are available for 1925. See "Comparison with earlier census years", p. 100]

TYPE	1929		1927		1919		1914		PER CENT DISTRIBUTION OF RATED HORSEPOWER CAPACITY	
	Number	Capacity	Number	Capacity	Number	Capacity	Number	Capacity	1929	1919
Prime movers and electric motors driven by purchased energy, aggregate.....	9, 386	Horse-power 45, 405	7, 679	Horse-power 42, 542	4, 495	Horse-power 29, 706	2, 894	Horse-power 20, 550	100. 0	100. 0
Prime movers, total.....	43	4, 451	46	4, 751	94	5, 050	155	8, 653	9. 8	19. 0
Steam, total.....	33	3, 984	31	4, 092	53	4, 695	93	7, 468	8. 8	15. 5
Engines.....	33	3, 984	31	4, 092	51	4, 095	( )	( )	8. 8	13. 8
Turbines.....					2	500	( )	( )		1. 7
Internal-combustion engines.....	7	392	12	584	37	961	58	1, 085	0. 8	3. 2
Water wheels and water turbines.....	3	75	8	75	4	100	4	100	0. 2	0. 3
Electric motors driven by purchased energy.....	9, 343	41, 014	7, 633	37, 791	4, 401	24, 050	2, 739	17, 903	90. 2	81. 0
Electric motors, total.....	9, 898	44, 247	8, 478	45, 585	5, 145	28, 079	3, 360	22, 278	100. 0	100. 0
Driven by purchased energy.....	9, 343	41, 014	7, 633	37, 791	4, 401	24, 050	2, 739	17, 903	92. 7	85. 7
Driven by energy generated in establishments reporting.....	555	3, 233	845	7, 794	744	4, 029	621	4, 375	7. 3	14. 3
Electric generators.....	17	Kilowatts 2, 299	21	Kilowatts 3, 231	( )	( )	( )	( )		
Electric energy purchased <sup>1</sup> .....		Kilowatt-hours 29, 007, 855		( )		( )		( )		

<sup>1</sup> Not called for separately on schedule.  
<sup>2</sup> Not called for on schedule.  
<sup>3</sup> This item covers the consumption of purchased electric energy for all purposes—power, heat, light, etc.  
<sup>4</sup> Data incomplete.

COFFEE AND SPICE, ROASTING AND GRINDING

TABLE 6.—WAGE EARNERS, BY MONTHS, FOR THE UNITED STATES, 1929, 1919, 1914, AND 1909, AND BY STATES, 1929

[This table presents statistics for only those States for which figures can be given without disclosing data for individual establishments. The sum of the State items in any column is not, therefore, equal to the United States total at the head of the column. The month of maximum employment is indicated by bold-faced figures and that of minimum employment by *italic* figures]

STATE	Average number employed during year	NUMBER EMPLOYED ON 15TH DAY OF MONTH OR NEAREST REPRESENTATIVE DAY												Per cent minimum of maximum
		January	February	March	April	May	June	July	August	September	October	November	December	
United States:														
1929	9,053	8,905	9,073	9,070	8,885	8,881	8,857	8,907	8,957	9,218	9,559	9,272	9,161	91.7
1919	10,540	10,197	10,113	9,941	9,937	10,244	10,533	10,900	11,050	10,930	10,076	10,910	11,043	89.9
1914	8,549	8,317	8,433	8,533	8,603	8,503	8,084	8,370	8,018	8,059	8,590	8,212	8,296	91.6
1909	7,490	7,309	7,341	7,472	7,371	7,354	7,408	7,370	7,410	7,711	7,800	7,752	7,579	93.7
Alabama	56	56	56	56	56	56	56	56	56	56	56	56	56	98.2
Arkansas	48	47	47	47	47	47	47	47	47	47	47	47	47	90.2
California	688	690	688	686	685	684	680	683	690	691	692	686	687	97.8
Colorado	133	129	136	130	125	132	134	133	137	139	136	131	130	89.9
Connecticut	22	22	22	22	22	22	22	22	22	22	22	22	22	95.7
District of Columbia	61	61	61	61	61	61	61	61	61	61	61	61	61	
Florida	118	135	134	133	125	120	112	110	110	110	109	111	113	80.7
Georgia	44	39	39	39	41	41	41	45	45	48	49	48	49	75.0
Idaho	4	4	4	4	4	4	4	4	4	4	4	4	4	
Illinois	911	905	920	919	870	890	868	880	904	910	901	944	940	90.3
Indiana	75	74	75	75	75	75	75	75	75	70	70	77	77	90.1
Iowa	144	152	157	151	148	143	130	140	130	142	144	135	137	80.0
Kansas	62	61	61	61	60	58	60	60	63	69	61	74	74	78.3
Kentucky	104	110	113	108	105	98	96	96	98	108	107	107	103	84.8
Louisiana	249	260	257	256	243	243	233	233	232	243	250	260	262	88.5
Maryland	203	194	209	207	209	212	208	205	198	190	197	209	199	91.0
Massachusetts	467	468	471	471	468	462	463	473	467	459	466	468	473	97.7
Michigan	130	140	134	129	131	131	125	128	124	130	130	132	132	88.6
Minnesota	188	177	180	193	188	189	188	197	190	180	183	190	183	91.7
Mississippi	37	37	36	37	37	37	37	37	37	36	36	37	38	92.1
Missouri	640	646	643	638	638	628	628	631	630	660	663	640	639	94.7
Montana	9	9	9	9	9	9	9	9	9	9	9	9	9	
Nebraska	279	273	269	274	277	281	274	273	277	284	287	291	290	92.4
New Jersey	151	151	158	158	147	150	151	149	152	149	150	153	149	94.3
New York	1,557	1,502	1,535	1,544	1,504	1,488	1,494	1,490	1,513	1,640	1,679	1,671	1,610	88.0
North Carolina	14	14	14	14	14	13	13	13	13	14	14	14	14	92.9
Ohio	890	844	875	873	853	887	900	918	913	930	924	874	880	90.8
Oklahoma	69	69	68	68	66	66	66	66	68	71	74	75	73	86.7
Oregon	73	75	72	73	73	71	73	73	74	74	75	73	72	94.7
Pennsylvania	396	403	393	389	389	389	399	390	386	392	404	409	403	95.1
South Carolina	12	12	12	12	12	12	12	12	12	12	12	12	12	
South Dakota	10	10	10	10	10	10	10	10	10	10	10	10	10	
Tennessee	314	320	322	325	300	295	291	304	315	320	321	321	315	88.3
Texas	370	386	374	370	360	352	352	351	361	388	391	382	377	89.8
Utah	11	11	11	11	11	11	11	11	11	11	11	11	11	
Virginia	113	117	122	120	117	111	110	108	109	110	113	111	113	86.9
Washington	195	189	187	192	194	192	195	199	199	193	199	200	199	93.5
West Virginia	37	37	37	36	37	37	37	37	37	38	38	37	38	94.7
Wisconsin	99	96	96	101	97	98	97	99	99	101	101	99	100	95.0

## CONFECTIONERY

**Description of the industry.**—The establishments in this industry are engaged primarily in the manufacture of candy, confections, cake ornaments, popcorn balls and cakes, salted nuts, stuffed dates, and related products, not including chewing gum, the manufacture of which is treated as a separate industry.

Although the schedule used for this industry at the censuses for 1925, 1927, and 1929 called for detailed data on the output of the several classes of products, the establishments which supplied such detailed data were not identical from census to census. In other

words, whereas some establishments supplied detailed product figures at each of the three censuses, others did so for only one or two of the census years. Thus, although detailed figures for the products of most of the establishments were tabulated at each census, the fact that the resulting statistics for the several census years do not represent exactly the same group of establishments prevents them from being comparable. For this reason no statistics for earlier years are given in Tables 3 and 4.

**TABLE 1.—SUMMARY FOR THE UNITED STATES: 1914 TO 1929**

[Data for establishments with products under \$5,000 in value included for 1919 and prior years but not for 1921 and subsequent years. See GENERAL EXPLANATIONS—Establishments Covered—Size]

YEAR OR PERIOD	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, containers for products, fuel, and purchased electric energy	Value of products <sup>1</sup>	Value added by manufacture <sup>2</sup>	Horsepower
1929	2,021	63,501	\$56,442,674	\$215,192,474	\$393,269,849	\$178,077,375	112,644
1927	1,908	63,163	56,980,548	218,372,553	391,927,343	173,554,790	110,595
1925	1,931	63,600	55,234,527	205,432,667	379,081,441	173,648,774	100,455
1923	2,014	63,485	54,881,549	202,718,714	366,255,785	163,537,071	91,455
1921	2,254	61,004	50,210,101	174,071,963	313,997,573	139,925,610	(3) 77,036
1919	3,149	76,493	54,461,057	252,433,691	447,726,103	195,292,412	52,379
1914 <sup>4</sup>	2,317	51,610	20,643,633	93,692,626	153,635,523	59,992,997	52,379
PER CENT OF INCREASE OR DECREASE (-)							
1927-1929	5.9	0.5	-0.9	-1.5	0.3	2.6	1.9
1925-1927	-1.2	-0.7	3.2	6.3	3.4	-0.1	10.1
1923-1925	-4.1	0.2	0.6	1.3	3.5	6.2	9.8
1921-1923	-10.6	4.1	9.3	16.5	16.6	16.9	-----
1919-1921	-28.4	-20.2	-7.8	-31.0	-29.9	-28.4	-----
1919-1929	-35.8	-17.0	3.6	-14.8	-12.2	-8.8	46.2

<sup>1</sup> For 1929, manufacturers' sales (shipments or deliveries); for earlier years, production. See GENERAL EXPLANATIONS—Value of Products.

<sup>2</sup> Value of products less cost of materials, containers for products, fuel, and purchased electric energy. See GENERAL EXPLANATIONS—Value Added by Manufacture.

<sup>3</sup> Not called for on schedule.

<sup>4</sup> No data available for years prior to 1914.

TABLE 2.—GENERAL STATISTICS, BY STATES: 1929, 1927, AND 1919

[This table presents statistics separately for each State for which figures can be given without disclosing data for individual establishments, and for the remaining States in groups. Data for establishments with products under \$5,000 in value are included for 1919 but not for subsequent years. See GENERAL EXPLANATIONS—Establishments Covered—Size]

STATE	Cen- sus year	Num- ber of estab- lish- ments	Sala- ried officers and em- ploy- ees <sup>1</sup>	Wage earn- ers (aver- age for the year)	HORSEPOWER (RATED CAPACITY) OF POWER EQUIPMENT			Salaries	Wages	COST OF MATERIALS, CONTAINERS FOR PRODUCTS, FUEL, AND PURCHASED ELECTRIC ENERGY			Value of products <sup>2</sup>	Value added by manufac- ture <sup>3</sup>
					Total	Prime movers	Motors run by pur- chased energy			Total	Materials and con- tainers	Fuel and purchased energy		
United States	1929	2,021	9,217	63,501	112,644	30,375	82,269	\$23,585,475	\$56,442,674	\$215,192,474	\$210,501,318	\$4,691,156	\$393,269,849	\$178,077,375
	1927	1,908	9,979	63,163	110,595	33,518	77,077	24,504,736	56,980,548	218,372,553	213,261,813	5,110,740	391,927,343	173,554,790
	1919	3,149	14,343	76,493	177,036	32,854	44,182	31,244,470	54,461,057	252,433,691	248,264,352	4,169,939	447,726,103	195,292,412
Individual States:														
Alabama	1929	12	21	192	214	125	89	47,991	127,899	480,325	472,022	8,303	838,864	358,539
	1927	15	19	182	79	21	53	31,790	129,741	504,097	491,837	12,260	16,748,185	374,088
	1919	21	39	360	156	130	26	66,503	224,578	1,014,170	997,807	16,863	2,001,755	987,585
Arizona	1929	3	4	18	26	—	26	7,345	18,224	94,725	92,418	2,307	152,295	57,570
	1927	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )
	1919	6	1	19	16	—	16	1,950	22,109	68,392	66,415	1,977	121,085	52,698
Arkansas	1929	7	7	35	32	—	32	7,050	25,443	105,061	102,199	2,862	188,244	83,183
	1927	5	25	105	85	25	60	42,105	74,079	226,779	217,379	9,400	444,270	217,491
	1919	28	38	159	171	—	171	82,873	120,334	748,735	740,191	8,594	1,094,010	345,225
California	1929	226	380	2,815	3,991	118	3,873	957,681	2,780,567	9,380,511	9,214,573	165,938	17,625,929	8,245,418
	1927	164	400	2,567	3,535	142	3,393	974,985	2,662,477	9,177,508	9,014,368	163,140	16,748,311	7,570,803
	1919	207	606	3,300	2,817	180	2,687	1,000,305	2,418,094	9,479,402	9,317,336	162,066	16,508,123	7,028,721
Colorado	1929	40	95	508	768	177	591	211,077	394,698	1,418,674	1,369,273	49,401	2,872,664	1,453,990
	1927	45	127	515	807	120	687	296,138	452,279	1,551,170	1,504,327	46,843	3,044,635	1,493,405
	1919	58	217	686	608	123	485	442,688	463,059	1,938,775	1,901,806	30,969	3,725,588	1,786,813
Connecticut	1929	18	85	426	801	12	789	242,230	388,457	1,435,209	1,403,429	31,780	3,039,328	1,604,119
	1927	20	88	414	614	10	604	233,148	367,798	1,649,131	1,611,832	37,299	2,752,390	1,103,259
	1919	43	64	472	518	156	362	105,910	238,090	953,384	924,973	28,411	1,852,073	898,089
Delaware	1929	4	3	23	63	—	63	2,839	21,614	104,576	97,061	7,515	147,544	42,968
	1927	9	18	54	63	—	63	15,909	55,979	154,733	145,289	9,444	300,866	146,133
	1919	6	4	29	36	—	36	13,965	24,196	145,646	140,342	5,304	242,626	96,980
Dist. of Columbia	1929	10	23	138	53	—	53	62,867	116,336	337,245	327,402	9,843	654,008	316,763
	1927	7	13	137	48	—	48	64,127	136,980	364,907	349,472	15,435	627,690	262,783
	1919	16	27	104	14	—	14	24,325	105,852	455,342	445,268	10,074	758,235	302,893
Florida	1929	16	34	113	142	—	142	43,492	74,208	197,763	191,443	6,320	483,025	285,262
	1927	9	11	48	64	—	64	13,803	28,592	107,289	103,406	3,883	186,981	79,692
	1919	7	11	21	38	20	18	16,173	17,704	108,186	105,756	2,430	188,497	80,311
Georgia	1929	30	284	1,543	1,551	—	1,551	757,507	860,440	2,832,383	2,762,121	70,262	7,005,726	4,173,343
	1927	26	251	1,126	1,063	15	1,048	610,976	677,293	3,087,973	3,023,023	64,950	5,697,972	2,609,999
	1919	35	307	1,334	830	360	470	679,059	814,013	3,905,591	3,840,095	65,496	7,682,864	3,777,273
Illinois	1929	156	1,558	11,242	16,627	3,641	12,986	4,609,398	11,429,426	55,683,778	54,905,321	778,457	91,116,763	35,432,985
	1927	133	1,482	8,673	15,557	5,152	10,405	4,051,166	9,102,490	39,351,074	38,655,235	695,839	70,606,217	31,255,143
	1919	237	1,454	7,563	7,520	1,940	5,580	3,363,718	6,723,143	32,119,018	31,632,271	486,747	58,205,304	26,036,236
Indiana	1929	45	201	1,139	1,410	120	1,290	403,302	902,657	2,861,062	2,781,359	79,703	5,248,122	2,387,060
	1927	40	191	1,170	1,315	263	1,052	426,786	894,480	3,083,720	3,001,679	82,041	5,318,438	2,234,718
	1919	84	257	1,177	1,038	360	678	505,272	705,756	3,271,087	3,218,714	52,873	5,562,938	2,291,851
Iowa	1929	29	147	869	2,134	1,085	1,049	355,905	713,066	2,503,847	2,421,193	82,654	4,790,684	2,286,837
	1927	35	163	893	2,100	1,175	925	345,659	681,234	2,255,079	2,166,310	88,769	4,315,737	2,060,658
	1919	59	336	1,368	1,889	1,041	848	812,620	878,647	4,326,813	4,231,695	95,118	7,566,652	3,239,839
Kansas	1929	10	19	164	325	100	225	57,588	130,014	547,756	501,927	45,829	1,066,535	518,779
	1927	15	30	185	416	140	276	54,801	152,888	644,929	631,251	13,678	1,121,678	476,749
	1919	54	74	368	326	42	284	185,279	215,840	1,108,375	1,087,181	21,194	1,845,776	737,401
Kentucky	1929	19	57	371	691	250	441	83,436	295,416	875,068	853,952	21,116	1,672,233	797,165
	1927	18	78	431	683	250	433	80,487	282,670	1,186,894	1,163,378	28,516	1,881,521	694,627
	1919	38	116	598	423	126	297	171,623	324,300	1,762,246	1,733,116	29,130	3,506,266	1,744,020
Louisiana	1929	26	60	375	444	160	284	168,832	250,644	836,050	815,941	20,109	1,709,472	873,422
	1927	17	92	431	603	150	453	207,430	296,128	1,177,613	1,139,201	38,412	2,127,103	949,490
	1919	20	127	668	516	62	454	323,122	323,480	1,844,590	1,819,580	25,010	3,276,673	1,432,083
Maine	1929	23	27	124	692	550	142	36,341	93,958	281,494	269,224	12,270	577,859	296,365
	1927	19	21	88	119	—	119	25,084	71,124	279,137	265,055	14,082	492,576	203,439
	1919	55	50	215	238	58	180	55,742	142,850	647,527	531,556	15,971	940,253	392,726
Maryland	1929	46	174	1,187	1,756	385	1,371	385,254	846,113	3,299,459	3,221,447	78,012	6,003,174	2,703,715
	1927	53	183	1,404	1,962	370	1,592	359,288	967,288	3,822,781	3,717,501	105,280	6,888,785	3,066,004
	1919	86	320	2,521	4,100	824	3,276	651,867	1,614,983	8,764,338	8,642,869	121,469	13,940,402	5,076,064
Massachusetts	1929	144	1,186	7,471	12,668	4,214	8,454	3,133,400	6,744,576	22,821,300	22,302,536	518,764	43,932,366	21,111,066
	1927	148	1,143	8,373	11,242	3,633	7,609	2,887,542	7,243,295	28,308,227	27,797,489	510,738	49,673,740	21,365,513
	1919	180	1,685	10,753	8,419	4,938	3,581	3,334,718	7,612,037	34,874,323	34,406,967	467,356	60,556,558	25,682,235
Michigan	1929	55	167	1,223	1,614	625	989	397,480	1,031,072	4,774,325	4,676,792	97,533	8,035,587	3,261,262
	1927	56	149	1,133	1,434	252	1,182	333,368	1,245,776	4,218,164	4,118,531	99,633	7,082,371	2,864,207
	1919	92	201	1,284	1,842	508	834	511,153	866,558	3,886,242	3,810,710	75,532	7,324,503	3,438,261
Minnesota	1929	50	187	1,132	2,205	1,030	1,175	447,818	851,489	3,959,385	3,858,729	100,656	7,087,292	3,127,907
	1927	48	294	1,565	4,053	985	3,068	680,990	1,310,284	6,082,805	5,968,362	114,443	10,760,988	4,678,183
	1919	85	360	1,743	1,119	545	574	763,197	971,979	4,200,751	4,117,625	83,126	7,294,102	3,393,381
Mississippi	1929	9	22	114	106	27	79	54,269	119,651	314,743	306,366	8,377	625,770	

CENSUS OF MANUFACTURES: 1929

TABLE 2.—GENERAL STATISTICS, BY STATES: 1929, 1927, AND 1919—Continued

[See note at head of this table]

STATE	Census year	Number of establishments	Salaried officers and employees <sup>1</sup>	Wage earners (average for the year)	HORSEPOWER (RATED CAPACITY) OF POWER EQUIPMENT			Salaries	Wages	COST OF MATERIALS, CONTAINERS FOR PRODUCTS, FUEL, AND PURCHASED ELECTRIC ENERGY			Value of products <sup>2</sup>	Value added by manufacture <sup>3</sup>
					Total	Prime movers	Motors run by purchased energy			Total	Materials and containers	Fuel and purchased energy		
Individual States—														
Continued.														
Montana	1929	5	5	18	12	12	\$7,987	\$17,140	\$67,870	\$60,884	\$0,996	\$107,863	\$30,084	
	1927	5	3	8	15	15	2,100	8,430	36,650	36,743	913	50,100	22,504	
	1919	19	10	74	53	2	16,683	61,648	213,315	207,978	5,337	302,523	170,208	
Nebraska	1929	11	66	235	604	290	102,498	167,510	494,454	476,635	17,919	1,075,186	580,732	
	1927	9	70	249	515	200	123,286	180,917	772,509	755,091	17,478	1,370,487	603,018	
	1919	21	90	472	688	190	253,485	286,632	1,199,343	1,170,885	28,458	2,123,337	923,094	
New Hampshire	1929	7	5	35	00	1	7,400	23,280	73,656	69,254	4,402	177,027	103,371	
	1927	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	
	1919	6	8	15	5	5	5,916	7,403	31,277	30,722	555	62,406	31,129	
New Jersey	1929	54	110	1,248	1,008	430	340,617	1,232,840	3,271,027	3,167,445	103,582	5,027,793	2,650,736	
	1927	66	170	1,309	1,077	516	352,201	1,275,694	3,943,476	3,830,698	117,878	6,875,631	2,927,155	
	1919	98	339	2,211	1,407	807	850,299	1,532,007	6,333,966	5,214,261	119,605	9,498,006	4,104,050	
New York	1929	220	1,181	9,602	10,512	6,845	3,213,486	9,278,700	28,248,427	27,444,436	803,991	50,208,700	28,050,273	
	1927	104	1,286	10,183	23,302	8,952	3,474,930	10,140,237	32,277,130	31,289,871	987,259	62,108,480	29,831,350	
	1919	414	2,831	13,003	18,180	11,486	5,700,834	10,514,910	47,016,962	46,692,974	923,988	84,086,422	37,008,400	
North Carolina	1929	17	40	233	260	45	80,721	108,301	764,494	747,232	17,262	1,523,336	758,842	
	1927	16	56	221	326	96	152,772	160,074	763,347	747,890	15,457	1,277,884	514,537	
	1919	27	28	146	79	4	46,440	89,305	301,662	356,476	6,096	636,710	275,148	
Ohio	1929	122	437	2,078	6,107	757	1,100,799	2,711,397	11,024,657	10,776,911	248,146	18,028,428	7,904,371	
	1927	108	438	2,703	5,073	865	1,057,304	2,526,080	11,616,640	11,204,305	411,735	18,169,945	6,553,005	
	1919	185	681	4,137	5,010	1,323	1,338,153	2,986,890	13,805,160	13,587,711	217,440	25,146,428	11,341,208	
Oklahoma	1929	17	23	124	169	109	51,295	99,368	504,204	492,809	11,395	883,837	370,633	
	1927	13	11	105	103	10	10,940	86,810	299,258	299,097	9,101	549,031	250,673	
	1919	28	39	194	211	211	78,022	138,934	966,268	966,331	5,937	1,344,009	378,731	
Oregon	1929	35	84	402	595	80	135,080	360,264	1,111,227	1,086,809	24,418	2,173,233	1,062,066	
	1927	25	134	423	536	45	212,611	497,390	1,364,815	1,332,193	32,622	2,634,878	1,270,003	
	1919	30	118	346	230	204	193,336	249,548	1,318,538	1,301,555	16,983	2,433,438	624,000	
Pennsylvania	1929	206	632	7,469	14,527	3,156	2,520,560	6,381,432	20,839,254	20,318,746	520,508	41,656,102	20,816,848	
	1927	222	695	7,204	13,316	3,617	2,539,435	6,368,639	21,355,358	20,736,759	618,530	40,814,230	19,468,872	
	1919	363	994	7,886	8,399	3,277	2,070,510	5,390,444	23,576,977	23,170,763	399,214	41,395,700	17,822,822	
Rhode Island	1929	9	20	155	90	90	22,730	118,399	246,886	237,893	8,993	497,807	250,921	
	1927	11	17	159	145	145	24,939	124,571	365,208	356,102	9,109	539,342	174,134	
	1919	21	15	135	119	2	31,809	104,325	393,489	380,616	12,873	601,070	298,487	
South Carolina	1929	5	8	61	54	24	14,210	33,001	110,934	104,000	6,935	218,337	107,403	
	1927	7	9	20	90	10	14,871	17,569	11,347	65,783	5,564	134,884	63,537	
	1919	18	25	94	115	80	45,712	50,686	79,366	189,750	6,616	398,636	202,270	
Tennessee	1929	22	126	773	1,396	300	332,017	607,932	2,670,399	2,626,549	62,847	5,096,780	2,417,393	
	1927	20	167	900	1,701	450	429,231	649,261	3,206,316	3,142,093	64,222	5,263,785	1,997,714	
	1919	36	487	1,154	649	15	795,226	745,260	4,696,062	4,621,640	73,410	7,001,632	3,206,570	
Texas	1929	72	133	1,184	1,490	429	400,750	780,063	3,241,347	3,175,908	65,439	6,526,351	3,285,004	
	1927	58	192	976	1,193	459	336,067	726,830	2,978,810	2,909,150	69,659	5,734,018	2,755,208	
	1919	92	333	1,185	770	326	450,770	683,676	4,682,707	4,611,782	70,925	7,371,873	3,016,166	
Utah	1929	17	91	629	1,060	237	291,067	564,130	1,452,935	1,405,337	47,598	3,190,682	1,737,747	
	1927	21	102	617	1,341	122	474,177	476,026	1,503,530	1,461,393	42,147	3,488,050	1,997,514	
	1919	32	184	1,013	927	150	540,443	670,159	2,694,750	2,600,282	94,468	5,322,012	2,628,162	
Vermont	1929	5	14	54	110	100	37,251	35,374	96,231	91,069	5,162	254,221	157,900	
	1927	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	( <sup>4</sup> )	
	1919	11	37	313	118	100	80,014	154,772	798,503	790,204	8,299	1,248,722	460,219	
Virginia	1929	19	101	1,338	4,121	325	309,025	655,895	8,829,597	8,737,177	92,420	10,678,880	1,840,283	
	1927	20	120	1,545	3,792	200	576,467	604,907	8,160,125	8,088,851	80,274	10,777,015	2,607,800	
	1919	31	143	518	792	418	374,805	323,414	1,915,125	1,883,723	31,402	3,270,450	1,355,334	
Washington	1929	52	183	754	1,279	1,279	306,608	694,934	2,323,068	2,274,677	48,391	4,700,181	2,473,113	
	1927	61	216	771	791	791	384,927	710,316	2,610,682	2,552,674	58,108	5,133,396	2,628,714	
	1919	86	132	1,436	790	39	739,010	1,101,064	4,582,879	4,500,088	73,791	8,401,406	3,818,627	
West Virginia	1929	7	5	38	62	10	6,454	30,010	108,000	105,824	2,176	192,800	84,809	
	1927	8	10	50	83	19	17,353	30,086	117,050	114,005	3,045	217,612	96,092	
	1919	18	25	95	112	30	36,452	75,505	285,555	280,885	4,670	504,384	218,829	
Wisconsin	1929	57	311	1,020	4,694	2,644	676,936	1,529,520	5,721,901	5,695,605	116,386	10,665,003	5,243,612	
	1927	63	516	2,717	5,354	3,441	1,275,956	2,853,692	9,098,545	8,937,567	160,978	17,250,970	8,158,425	
	1919	80	500	3,736	2,789	1,497	1,536,390	2,313,698	11,430,697	11,306,105	124,592	10,900,800	8,470,193	
Groups of States:														
Idaho, 4 est.; Wyo., 1	1929	5	8	46	103	103	19,174	40,770	109,334	104,324	4,510	221,301	112,057	
Nev., 1; N. Mex., 3	1929	4	10	11	11	11	7,357	23,270	23,270	22,780	490	44,276	20,907	
N. Dak., 3; S. Dak., 3	1929	6	35	131	243	201	88,801	121,798	364,494	344,387	20,107	841,097	477,503	
States not shown separately	1927	25	70	297	501	167	158,287	270,500	886,021	846,807	40,024	1,740,845	853,024	
	1919	30	123	392	478	78	317,814	249,546	1,204,695	1,174,851	29,844	2,382,408	1,177,713	

<sup>1</sup> Not including proprietors and firm members, as follows: 1929, 1,222; 1927, 1,383; 1919, 3,146. The total numbers of persons engaged—proprietors and firm members, salaried officers and employees, and wage earners—are as follows: 1929, 73,940; 1927, 74,625; 1919, 93,982.  
<sup>2</sup> For 1929, manufacturers' sales (shipments or deliveries); for earlier years, production. See GENERAL EXPLANATIONS—Value of Products.  
<sup>3</sup> Value of products less cost of materials, containers for products, fuel, and purchased electric energy. See GENERAL EXPLANATIONS—Value Added by Manufacture.  
<sup>4</sup> Data for purchased power other than electric (power transmitted into the plant by belt or shaft) are included in the State items for 1919 but not in the United States totals.  
<sup>5</sup> Included in figures for "States not shown separately," as statistics can not be given without disclosing the data for individual establishments.  
<sup>6</sup> Arizona, 2 establishments; Idaho, 5; Nevada, 1; New Hampshire, 3; New Mexico, 1; North Dakota, 3; South Dakota, 4; Vermont, 4; Wyoming, 2.  
<sup>7</sup> Idaho, 9 establishments; Nevada, 2; North Dakota, 6; South Dakota, 9; Wyoming, 4.

# CONFECTIONERY

**TABLE 3.—PRODUCTS, BY KIND, QUANTITY, AND VALUE, FOR THE UNITED STATES: 1920**

[The figures refer to sales (shipments or deliveries) by manufacturers. See GENERAL EXPLANATIONS—Value of Products]

KIND	Quantity and value	KIND	Quantity and value
1. Confectionery industry, all products, total value.....	\$393, 269, 849	Confectionery (including salted nuts)—Continued.	
2. Confectionery (including salted nuts).....	375, 132, 530	Bars—Continued.	
3. Other products, not normally belonging to the industry.....	18, 137, 319	Chocolate-covered—	
4. Confectionery (including salted nuts) made as a secondary product in other industries.....	13, 098, 641	Pounds.....	367, 771, 569
		Value.....	\$68, 120, 516
Confectionery (including salted nuts), all industries:		Other kinds—	
Aggregate value (sum of 2 and 4).....	\$388, 231, 171	Pounds.....	80, 528, 904
Chocolates—		Value.....	\$17, 593, 755
Total pounds.....	384, 327, 440	Hard candy:	
Total value.....	\$128, 206, 527	Pounds.....	227, 797, 786
Fancy packages—		Value.....	\$33, 083, 551
Pounds.....	140, 230, 653	Caramels and chewing candy:	
Value.....	\$73, 561, 478	Pounds.....	92, 855, 430
Bulk—		Value.....	\$15, 128, 700
Pounds.....	171, 121, 300	Gum work:	
Value.....	\$43, 880, 049	Pounds.....	90, 521, 801
Count—		Value.....	\$10, 771, 279
Pounds.....	63, 906, 484	Pam work:	
Value.....	\$10, 846, 000	Pounds.....	68, 022, 453
Bars—		Value.....	\$9, 360, 288
Total pounds.....	454, 300, 560	Marshmallows:	
Total value.....	\$85, 714, 271	Pounds.....	53, 759, 880
		Value.....	\$8, 427, 853
		Lozenges:	
		Pounds.....	20, 264, 670
		Value.....	\$6, 107, 785
		Other confectionery, except salted nuts, value.....	\$15, 617, 826
		Confectionery not reported by kind, value.....	\$25, 151, 008
		Salted nuts, value.....	\$10, 602, 480

**TABLE 4.—PRODUCTS REPORTED IN DETAIL, BY KIND, QUANTITY, AND VALUE, BY STATES: 1920**

[The figures refer to sales (shipments or deliveries) by manufacturers. See GENERAL EXPLANATIONS—Value of Products. Some of the establishments failed to report quantities and values in detail. The total value of all products reported in detail, as presented in this table, amounted to \$297,859,257, or 75.7 per cent of the total value of confectionery (including salted nuts) manufactured in all industries reporting it, namely, \$393,231,171 (see Table 3). Figures are given for each State which can be shown separately without disclosing data for individual establishments. Certain of the States shown in combination with others, however, reported larger quantities and values of certain classes of products than some of the States shown separately.]

PRODUCT AND STATE	Pounds	Value	PRODUCT AND STATE	Pounds	Value	PRODUCT AND STATE	Pounds	Value
<b>CHOCOLATES—FANCY PACKAGES</b>			<b>CHOCOLATES IN BULK—CON.</b>			<b>CHOCOLATE-COVERED BARS</b>		
United States.....	149, 230, 653	\$73, 561, 478	Minnesota.....	2, 567, 123	\$907, 633	United States.....	367, 771, 569	\$68, 120, 516
California.....	5, 917, 374	3, 213, 675	Missouri.....	8, 854, 061	2, 093, 265	California.....	10, 742, 338	2, 461, 170
Colorado.....	965, 728	717, 951	Montana.....	26, 191	12, 880	Colorado.....	881, 280	225, 388
Georgia.....	2, 692, 129	2, 515, 878	Nebraska.....	300, 003	115, 083	Georgia.....	104, 133	40, 075
Illinois.....	20, 671, 416	7, 100, 935	New Jersey.....	1, 633, 081	433, 226	Illinois.....	210, 446, 840	34, 112, 394
Indiana.....	470, 095	291, 317	New York.....	17, 590, 893	4, 093, 075	Indiana.....	3, 045, 518	808, 957
Iowa.....	730, 097	414, 232	North Carolina.....	191, 043	20, 630	Indiana.....	6, 049, 735	1, 361, 995
Kansas.....	93, 877	71, 848	North Dakota.....	30, 220	14, 751	Iowa.....	680, 103	120, 870
Kentucky.....	120, 051	79, 024	Ohio.....	17, 909, 630	3, 793, 074	Maryland.....	23, 802, 524	5, 250, 340
Louisiana.....	1, 632, 961	979, 107	Oregon.....	1, 328, 158	357, 250	Massachusetts.....	2, 134, 293	541, 595
Maine.....	55, 365	55, 166	Pennsylvania.....	24, 477, 219	4, 987, 877	Michigan.....	4, 074, 028	1, 032, 221
Maryland.....	4, 331, 265	1, 550, 379	South Dakota.....	375, 702	92, 083	Minnesota.....	6, 240, 588	1, 420, 084
Massachusetts.....	32, 559, 148	10, 188, 441	Tennessee.....	3, 473, 328	730, 483	Missouri.....	1, 123, 334	286, 957
Michigan.....	6, 690, 198	2, 573, 085	Texas.....	2, 414, 655	712, 751	Nebraska.....	22, 391, 201	4, 455, 118
Minnesota.....	4, 216, 369	2, 106, 901	Utah.....	1, 268, 824	349, 044	New York.....	192, 633	26, 481
Missouri.....	7, 092, 314	2, 061, 522	Virginia.....	400, 912	100, 000	North Carolina.....	10, 142, 097	2, 053, 280
Nebraska.....	205, 705	116, 043	Washington.....	1, 516, 128	531, 094	Ohio.....	423, 667	83, 750
New Jersey.....	999, 194	472, 740	Wisconsin.....	3, 917, 603	1, 193, 266	Oklahoma.....	1, 653, 701	396, 031
New York.....	31, 309, 648	13, 020, 106	Groups of States:			Oregon.....	25, 559, 092	5, 302, 293
North Dakota.....	11, 718	7, 854	Ala., Miss., and S. C.....	118, 000	39, 475	Pennsylvania.....	1, 211, 044	299, 798
Ohio.....	3, 993, 937	1, 914, 803	Conn., N. H., R. I., Vt.....	686, 789	183, 700	Tennessee.....	1, 044, 461	512, 248
Oregon.....	491, 844	322, 122	Other States (Ariz., Del., D. C., Fla., Nev., Okla., W. Va., and Wyo.).....	1, 045, 316	547, 535	Texas.....	2, 321, 840	605, 070
Pennsylvania.....	13, 387, 330	8, 744, 388	CHOCOLATES, COUNT			Utah.....	2, 004, 062	703, 652
South Dakota.....	76, 825	48, 031	United States.....	63, 966, 484	10, 840, 000	Washington.....	15, 004, 711	2, 836, 385
Tennessee.....	572, 495	337, 204	Colorado.....	867, 902	79, 739	Wisconsin.....	80, 528, 904	17, 593, 755
Texas.....	1, 663, 792	1, 101, 127	Georgia.....	604, 247	141, 773	Arkansas.....	201, 821	44, 539
Utah.....	1, 367, 080	897, 462	Illinois.....	5, 791, 678	1, 126, 214	California.....	7, 019, 750	1, 192, 610
Washington.....	2, 118, 738	1, 426, 235	Iowa.....	362, 717	72, 400	Colorado.....	733, 185	115, 487
Wisconsin.....	4, 169, 379	2, 612, 955	Kentucky.....	156, 687	30, 475	Illinois.....	12, 891, 327	2, 632, 324
Groups of States:			Maryland.....	4, 516, 028	754, 195	Indiana.....	777, 230	237, 280
Ala., Ark., and Miss.....	59, 235	51, 505	Massachusetts.....	11, 875, 147	1, 874, 568	Iowa.....	857, 027	202, 202
Conn., N. H., R. I., Vt.....	862, 828	465, 840	Missouri.....	794, 085	240, 070	Massachusetts.....	6, 029, 144	1, 440, 702
Other States (Del., D. C., Fla., Idaho, Mont., Nev., Okla., W. Va., and Wyo.).....	513, 918	413, 042	Nebraska.....	109, 718	38, 707	Michigan.....	1, 076, 693	214, 654
CHOCOLATES IN BULK			New York.....	0, 058, 407	1, 864, 997	Minnesota.....	1, 474, 376	279, 361
United States.....	171, 121, 300	43, 880, 049	North Carolina.....	400, 982	65, 448	Mississippi.....	607, 393	94, 378
California.....	8, 039, 735	2, 536, 451	Ohio.....	5, 589, 161	901, 852	Missouri.....	2, 294, 360	420, 780
Colorado.....	1, 222, 333	376, 683	Pennsylvania.....	14, 134, 353	2, 321, 809	New York.....	15, 036, 397	2, 943, 342
Georgia.....	1, 009, 443	364, 265	Tennessee.....	904, 475	176, 285	Ohio.....	6, 271, 043	1, 124, 247
Idaho.....	121, 231	40, 180	Texas.....	374, 416	101, 323	Oregon.....	311, 510	87, 406
Illinois.....	32, 176, 949	8, 027, 223	Virginia.....	8, 731, 040	199, 695	Pennsylvania.....	2, 135, 806	514, 425
Indiana.....	3, 106, 932	908, 212	Wisconsin.....	1, 380, 757	230, 957	Tennessee.....	1, 556, 046	385, 408
Iowa.....	4, 040, 534	1, 128, 691	Groups of States:					
Kansas.....	273, 028	97, 167	Calif., Oreg., Utah, and Wash.....	1, 440, 695	359, 049			
Kentucky.....	377, 255	162, 564	Conn., Me., and N. J.....	141, 030	31, 807			
Louisiana.....	500, 894	153, 350	Ind., Mich., and Minn.....	565, 398	110, 428			
Maine.....	427, 431	155, 150	Kans., N. Dak., and Okla.....	269, 870	56, 804			
Maryland.....	3, 078, 440	1, 199, 304	Other States (Ala., D. C., La., S. C., and W. Va.).....	298, 106	51, 400			
Massachusetts.....	22, 024, 548	6, 237, 945						
Michigan.....	3, 209, 705	1, 306, 916						





# CONFECTIONERY

**TABLE 6.—SELECTED MATERIALS CONSUMED IN THE CONFECTIONERY INDUSTRY, BY KIND, QUANTITY, AND COST, BY STATES: 1929**

[See Table 5, p. 118]

KIND AND STATE	Pounds	Cost	KIND AND STATE	Pounds	Cost	KIND AND STATE	Pounds	Cost
<b>Sugar, total</b> .....	<b>713,001,634</b>	<b>\$38,802,484</b>				<b>Corn syrup—Con.</b>		
Alabama.....	4,012,099	211,033	<b>Milk and milk products—Continued.</b>			Louisiana.....	531,461	\$26,320
Arizona.....	120,000	10,230	Rhode Island.....	18,000	\$6,630	Maine.....	607,757	38,001
Arkansas.....	384,000	20,855	South Carolina.....	180,337	15,147	Maryland.....	5,680,980	297,333
California.....	31,213,478	1,580,288	Tennessee.....	203,814	19,458	Massachusetts.....	35,988,660	1,383,591
Colorado.....	4,189,128	247,204	Texas.....	448,823	53,186	Michigan.....	4,385,892	153,993
Connecticut.....	4,096,307	276,256	Utah.....	640,175	62,870	Minnesota.....	7,737,981	298,404
Delaware.....	418,001	21,011	Vermont.....	24,800	2,005	Mississippi.....	856,600	32,440
District of Columbia.....	801,280	24,946	Virginia.....	170,620	10,002	Missouri.....	36,101,994	1,083,377
Florida.....	824,062	44,730	Washington.....	325,474	38,881	Montana.....	10,583	881
Georgia.....	8,672,756	445,440	West Virginia.....	5,760	819	Nebraska.....	1,180,160	49,841
Illinois.....	151,810,552	8,385,277	Wisconsin.....	52,537	0,083	New Hampshire.....	128,400	5,185
Indiana.....	8,296,593	492,148	<b>Other States (Idaho, Nevada, New Mexico, North Dakota, South Dakota, Wyoming)</b> .....	<b>711,370</b>	<b>61,760</b>	New Jersey.....	8,007,771	312,549
Iowa.....	9,638,717	482,738				New York.....	58,301,425	2,223,131
Kansas.....	944,740	49,909	<b>Chocolate coatings, total</b> .....	<b>170,756,752</b>	<b>36,020,580</b>	North Carolina.....	28,694,033	28,022
Kentucky.....	3,797,200	194,943	Alabama.....	41,817	0,213	Ohio.....	21,844,114	840,422
Louisiana.....	1,801,621	95,101	Arizona.....	31,700	0,450	Oklahoma.....	543,075	25,167
Maine.....	781,459	44,624	Arkansas.....	50,800	0,053	Oregon.....	2,060,420	99,354
Maryland.....	13,604,850	700,605	California.....	882,228	1,404,418	Pennsylvania.....	51,505,400	1,791,829
Massachusetts.....	77,602,000	4,880,425	Colorado.....	1,187,704	245,280	Rhode Island.....	429,260	17,100
Michigan.....	12,915,485	707,045	Connecticut.....	1,241,109	205,228	South Carolina.....	267,263	11,191
Minnesota.....	14,341,603	827,081	Delaware.....	120,524	27,080	Tennessee.....	8,006,895	280,570
Mississippi.....	854,400	78,785	District of Columbia.....	227,718	35,314	Texas.....	0,710,926	283,437
Missouri.....	35,228,470	2,090,251	Florida.....	216,792	30,232	Utah.....	2,056,868	74,287
Montana.....	86,454	8,031	Georgia.....	1,014,124	350,067	Vermont.....	92,544	5,728
Nebraska.....	3,366,313	200,109	Illinois.....	70,795,252	14,451,458	Virginia.....	2,740,147	102,555
New Hampshire.....	82,800	4,490	Indiana.....	1,806,362	376,470	Washington.....	2,684,426	126,178
New Jersey.....	15,782,741	872,135	Iowa.....	2,580,305	486,484	West Virginia.....	209,928	19,402
New York.....	117,553,209	5,002,060	Kansas.....	233,090	47,300	Wisconsin.....	72,323	2,860
North Carolina.....	3,116,520	194,592	Kentucky.....	348,772	72,022	<b>Other States (Idaho, Nevada, New Mexico, North Dakota, South Dakota, Wyoming)</b> .....	<b>945,787</b>	<b>39,529</b>
Ohio.....	39,477,337	2,224,538	Louisiana.....	861,653	166,404			
Oklahoma.....	1,376,280	62,451	Maine.....	242,767	48,163	<b>Nuts, total</b> .....	<b>197,629,016</b>	<b>23,069,725</b>
Oregon.....	4,366,617	223,167	Maryland.....	3,121,401	623,373	Alabama.....	277,480	24,020
Pennsylvania.....	61,322,701	4,790,257	Massachusetts.....	30,558,706	6,288,902	Arizona.....	10,700	2,070
Rhode Island.....	1,120,714	60,300	Michigan.....	3,678,460	810,008	Arkansas.....	158,590	10,593
South Carolina.....	1,095,193	50,008	Minnesota.....	4,084,600	913,160	California.....	7,981,719	1,174,407
Tennessee.....	13,692,258	722,010	Mississippi.....	8,000	60	Colorado.....	701,637	112,260
Texas.....	16,078,317	812,229	Missouri.....	4,872,453	927,135	Connecticut.....	292,178	75,452
Utah.....	3,794,698	12,421	Montana.....	11,360	3,000	Delaware.....	61,051	19,561
Vermont.....	5,215,041	280,082	Nebraska.....	1,110,470	132,175	District of Columbia.....	141,535	28,864
Virginia.....	6,543,141	347,684	New Hampshire.....	85,000	13,230	Florida.....	285,808	31,693
Washington.....	6,543,141	347,684	New Jersey.....	566,720	123,682	Georgia.....	8,788,254	287,534
West Virginia.....	579,453	31,270	New York.....	20,293,785	3,970,713	Illinois.....	64,432,761	6,350,706
Wisconsin.....	123,280	7,486	North Carolina.....	388,202	77,433	Indiana.....	3,174,091	411,804
<b>Milk and milk products, total</b> .....	<b>82,775,535</b>	<b>8,016,405</b>	Ohio.....	9,125,618	1,563,858	Iowa.....	3,786,821	325,063
Alabama.....	571,078	13,124	Oklahoma.....	164,004	10,087	Kansas.....	600,103	49,049
Arizona.....	20,252	4,050	Oregon.....	851,843	170,210	Kentucky.....	224,925	55,244
Arkansas.....	71,560	4,481	Pennsylvania.....	10,562,812	1,969,845	Louisiana.....	235,929	54,579
California.....	1,628,865	231,009	Rhode Island.....	170,554	44,944	Maine.....	105,146	38,149
Colorado.....	714,514	74,505	South Carolina.....	694	125	Maryland.....	649,737	134,074
Connecticut.....	424,252	35,807	Tennessee.....	1,320,684	227,671	Massachusetts.....	15,624,657	2,688,638
Delaware.....	104,375	8,361	Texas.....	1,650,147	209,242	Michigan.....	1,260,252	480,819
District of Columbia.....	320,908	31,234	Utah.....	880,428	213,980	Minnesota.....	5,271,750	1,202,175
Florida.....	26,028	8,693	Vermont.....	81,660	15,420	Mississippi.....	136,420	22,915
Georgia.....	158,676	21,214	Virginia.....	244,104	38,368	Missouri.....	5,484,356	609,879
Illinois.....	37,612,070	3,448,695	Washington.....	2,101,042	409,620	Montana.....	7,515	8,088
Indiana.....	1,191,684	107,207	West Virginia.....	40,900	6,380	Nebraska.....	544,010	68,760
Iowa.....	903,426	87,603	Wisconsin.....	56,346	0,560	New Hampshire.....	6,274	1,384
Kansas.....	64,425	5,178	<b>Other States (Idaho, Nevada, New Mexico, North Dakota, South Dakota, Wyoming)</b> .....	<b>404,904</b>	<b>80,421</b>	New Jersey.....	241,320	61,422
Kentucky.....	251,666	26,225				New York.....	18,538,396	3,288,788
Louisiana.....	41,410	0,209	<b>Corn syrup, total</b> .....	<b>428,799,715</b>	<b>15,328,742</b>	North Carolina.....	1,542,893	160,465
Maryland.....	240,438	85,985	Alabama.....	1,781,381	97,875	Ohio.....	8,961,262	807,891
Massachusetts.....	976,309	63,633	Arizona.....	65,533	3,300	Oklahoma.....	277,762	24,764
Michigan.....	0,810,308	788,167	Arkansas.....	286,820	11,960	Oregon.....	590,930	84,263
Minnesota.....	1,307,394	151,327	California.....	14,274,082	627,254	Pennsylvania.....	11,752,332	1,699,803
Mississippi.....	11,000	1,100	Colorado.....	2,169,801	95,378	Rhode Island.....	278,891	58,791
Missouri.....	2,727,637	268,381	Connecticut.....	3,043,209	162,937	South Carolina.....	234,432	23,267
Montana.....	209,730	24,712	Delaware.....	87,668	1,823	Tennessee.....	1,561,686	129,793
Nebraska.....	420,055	24,225	District of Columbia.....	80,988	1,801	Texas.....	2,087,425	481,582
New Hampshire.....	20,000	2,028	Florida.....	202,653	18,202	Utah.....	963,850	145,829
New Jersey.....	186,701	86,939	Georgia.....	4,285,062	100,044	Vermont.....	182,560	13,878
New York.....	4,485,567	506,031	Illinois.....	130,771,809	4,218,382	Virginia.....	25,361,767	2,018,744
North Carolina.....	80,175	2,418	Indiana.....	3,698,441	130,164	Washington.....	1,550,136	280,166
Ohio.....	8,835,068	202,300	Iowa.....	4,078,898	179,003	West Virginia.....	47,974	10,608
Oklahoma.....	90,473	12,645	Kansas.....	4,558,754	18,168	Wisconsin.....	30,690	6,466
Oregon.....	209,407	42,003	Kentucky.....	1,621,604	60,862	<b>Other States (Idaho, Nevada, New Mexico, North Dakota, South Dakota, Wyoming)</b> .....	<b>382,191</b>	<b>58,780</b>
Pennsylvania.....	12,007,346	873,837						



CENSUS OF MANUFACTURES: 1929

TABLE 7.—PRIME MOVERS, MOTORS, GENERATORS, AND CONSUMPTION OF PURCHASED ELECTRIC ENERGY—NUMBER AND RATED CAPACITY OF PRIME MOVERS AND ELECTRIC MOTORS, 1929, 1927, 1925, 1919, AND 1914, AND OF GENERATORS, 1929, 1927, AND 1925; QUANTITY OF ELECTRIC ENERGY PURCHASED, 1929

TYPE	1929		1927		1925		1919		1914		PER CENT DISTRIBUTION OF RATED HORSE-POWER CAPACITY	
	Number	Capacity	Number	Capacity	Number	Capacity	Number	Capacity	Number	Capacity	1929	1919
		Horse-power		Horse-power		Horse-power		Horse-power		Horse-power		
Prime movers and electric motors driven by purchased energy, aggregate	23,143	112,644	19,670	110,595	10,988	100,455	10,046	77,036	4,483	52,370	100.0	100.0
Prime movers, total	335	30,375	308	33,518	359	36,439	433	32,854	519	34,708	27.0	42.0
Steam, total	327	30,147	293	32,900	347	36,112	372	31,055	408	32,948	26.8	41.5
Engines	310	27,192	283	32,030	338	35,882	367	31,090	(1)	(1)	24.2	40.4
Turbines	17	2,955	10	870	9	730	5	865	(1)	(1)	2.0	1.1
Internal-combustion engines	7	218	15	618	12	327	55	880	100	1,738	0.2	1.1
Water wheels and water turbines	1	10					0	10	5	22	(2)	(2)
Electric motors driven by purchased energy	22,808	82,269	19,362	77,077	10,629	64,016	10,213	44,182	3,964	17,671	73.0	57.4
Electric motors, total	27,136	102,334	24,146	103,299	21,831	97,437	13,281	63,619	6,514	34,644	100.0	100.0
Driven by purchased energy	22,808	82,269	19,362	77,077	10,629	64,016	10,213	44,182	3,964	17,671	80.4	69.4
Driven by energy generated in establishments reporting	4,328	20,065	4,783	26,222	5,202	33,421	3,068	19,437	2,550	16,973	19.6	30.6
Electric generators	113	Kilowatts 12,751 Kilowatt-hours	144	Kilowatts 17,797	170	Kilowatts 18,727	(3)	(3)	(3)	(3)		
Electric energy purchased <sup>4</sup>		80,084,100		(5)		(5)		(5)		(5)		

<sup>1</sup> Not called for separately on schedule.  
<sup>2</sup> Less than one-tenth of 1 per cent.  
<sup>3</sup> Not called for on schedule.

<sup>4</sup> This item covers the consumption of purchased electric energy for all purposes—power, heat, light, etc.  
<sup>5</sup> Data incomplete.

TABLE 8.—WAGE EARNERS, BY MONTHS, FOR THE UNITED STATES, 1929, 1925, 1919, AND 1914, AND BY STATES, 1929

[This table presents statistics for only those States for which figures can be given without disclosing data for individual establishments. The sum of the State items in any column is not, therefore, equal to the United States total at the head of the column. The month of maximum employment is indicated by bold-faced figures and that of minimum employment by *italic* figures]

STATE	Average number employed during year	NUMBER EMPLOYED ON 15TH DAY OF MONTH OR NEAREST REPRESENTATIVE DAY												Per cent minimum is of maximum	
		January	February	March	April	May	June	July	August	September	October	November	December		
United States:															
1929	63,501	59,234	60,305	60,248	58,095	57,092	50,280	55,140	60,878	70,488	76,926	75,501	71,030	63.4	
1925	63,600	59,833	61,118	60,606	55,648	55,829	54,722	51,809	60,676	70,501	77,830	78,711	75,013	65.8	
1919	76,493	71,801	75,123	75,212	72,808	69,267	67,100	67,064	75,292	82,840	88,218	88,150	84,035	76.0	
1914 <sup>1</sup>	51,610	49,235	49,288	50,935	48,855	47,550	46,283	45,819	49,669	50,033	59,605	58,100	57,870	76.9	
Alabama	192	107	197	190	192	195	189	185	185	194	190	198	190	93.4	
Arizona	18	19	18	17	17	13	15	14	14	16	18	24	20	60.0	
Arkansas	36	24	35	32	35	35	33	34	34	34	39	42	44	64.5	
California	2,815	2,643	2,673	2,700	2,620	2,523	2,548	2,478	2,544	2,878	3,304	3,539	3,539	70.0	
Colorado	508	408	482	480	474	489	470	459	473	519	575	591	617	74.4	
Connecticut	426	440	431	419	398	409	374	504	389	440	479	474	502	72.5	
Delaware	23	20	23	24	18	16	16	17	17	19	25	33	42	38.1	
District of Columbia	138	146	131	145	134	133	119	118	121	131	150	152	174	47.8	
Florida	113	104	105	103	120	99	96	92	92	99	146	148	148	62.2	
Georgia	1,543	1,372	1,482	1,559	1,526	1,494	1,342	1,502	1,872	1,501	1,766	1,881	1,825	69.2	
Illinois	11,242	9,899	9,870	10,529	10,460	10,370	10,245	10,110	11,040	13,264	13,449	13,151	12,208	69.1	
Indiana	1,139	1,012	885	1,034	888	875	858	852	1,227	1,426	1,646	1,554	1,411	61.8	
Iowa	809	803	855	856	845	819	821	708	770	906	1,018	996	881	69.1	
Kansas	164	157	158	149	151	149	152	146	162	183	192	182	183	76.0	
Kentucky	371	385	400	388	402	348	318	312	302	381	369	408	342	76.5	
Louisiana	375	390	391	406	361	343	330	332	335	378	430	405	404	77.2	
Maine	124	127	124	118	123	124	120	121	123	123	131	128	131	60.1	
Maryland	1,187	1,145	1,139	1,153	1,065	1,025	985	991	1,130	1,287	1,408	1,474	1,527	62.9	
Massachusetts	7,471	7,123	7,276	6,960	6,718	6,621	6,612	6,760	7,549	8,514	9,263	8,619	7,659	71.4	
Michigan	1,223	1,220	1,200	1,120	1,120	1,011	954	1,018	1,087	1,280	1,484	1,620	1,401	58.9	
Minnesota	1,132	903	1,085	1,006	991	968	955	964	1,026	1,317	1,548	1,459	1,200	61.6	
Mississippi	2,847	114	114	114	114	114	114	114	114	114	114	114	114	99.1	
Missouri	2,847	2,722	2,655	2,619	2,560	2,645	2,590	2,477	2,500	3,135	3,661	3,442	3,201	67.7	
Montana	18	18	17	18	18	17	17	17	18	19	18	18	18	89.5	
Nebraska	235	231	221	218	219	200	205	202	212	203	277	284	286	70.6	
New Hampshire	35	35	35	35	35	35	35	35	35	35	35	35	35	100.0	
New Jersey	1,243	974	986	1,057	1,186	1,308	1,148	1,221	1,368	1,408	1,629	1,575	1,065	59.8	
New York	9,692	8,875	9,212	9,040	8,550	8,723	8,567	8,282	9,202	10,670	11,788	11,607	10,744	70.3	
North Carolina	232	224	228	229	230	234	235	234	233	240	241	242	242	92.1	
Ohio	2,673	2,807	2,614	2,800	2,656	2,557	2,641	2,522	2,597	3,180	3,630	3,650	3,347	68.5	
Oklahoma	124	117	110	113	103	103	101	96	115	152	174	164	143	55.2	
Oregon	402	384	365	373	380	359	345	334	341	417	528	497	402	63.3	
Pennsylvania	7,469	7,583	7,429	7,158	6,820	6,580	6,501	6,268	6,645	7,939	8,881	8,968	8,830	70.2	
Rhode Island	155	101	156	152	148	146	146	143	143	104	173	165	165	82.7	
South Carolina	61	60	60	63	63	63	61	61	60	60	61	68	68	87.9	
Tennessee	773	738	749	745	695	658	665	660	670	878	981	911	845	67.1	
Texas	1,184	1,143	1,194	1,045	1,050	1,006	995	947	1,094	1,332	1,438	1,470	1,484	63.8	
Utah	60	550	550	585	588	586	603	603	603	637	754	775	674	71.0	
Vermont	54	45	44	41	42	43	43	43	43	43	43	43	43	100.0	
Virginia	1,338	1,535	1,504	1,223	1,344	1,418	1,150	1,102	1,323	1,343	1,848	1,404	1,308	59.4	
Washington	754	705	715	720	708	698	664	656	705	824	871	885	896	71.8	
West Virginia	38	36	36	38	38	35	36	36	36	36	43	43	43	81.4	
Wisconsin	1,920	1,958	1,950	1,800	1,755	1,736	1,700	1,594	1,824	2,163	2,267	2,131	2,083	70.3	

<sup>1</sup> No data for years prior to 1914.

# CORN SIRUP, CORN SUGAR, CORN OIL, AND STARCH

Description of the industry.—This industry embraces all establishments engaged primarily in the manufacture of corn sirup (glucose), corn sugar, corn oil, starch, and related products, such as corn-oil cake and meal, etc. The quantities and values of products,

as given in Table 3, do not include data for corn sirup made and consumed by manufacturers of sirups, jams, jellies, etc., such manufacturers being classified in the "Food preparations" and "Canning and preserving" industries.

TABLE 1.—SUMMARY FOR THE UNITED STATES: 1899 TO 1929

[Data for establishments with products under \$5,000 in value included for 1919 and prior years but not for 1921 and subsequent years. See GENERAL EXPLANATIONS—Establishments Covered—Size]

YEAR OR PERIOD	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, containers for products, fuel, and purchased electric energy	Value of products <sup>1</sup>	Value added by manufacture <sup>2</sup>	Horsepower
1929	35	6,730	\$9,872,000	\$104,284,827	\$165,983,730	\$61,698,912	81,686
1927	26	6,972	10,489,070	90,905,776	131,461,160	43,555,300	81,000
1925	30	6,492	9,378,157	93,063,575	132,897,974	39,834,309	72,617
1923	31	6,537	9,090,104	74,486,050	116,500,034	42,079,081	65,764
1921	32	7,840,098	7,840,098	50,801,124	80,010,795	24,179,941	(3)
1919	50	7,705	11,062,483	130,328,848	180,250,260	53,927,412	72,000
1914	89	4,509	3,549,665	40,207,592	72,015,461	12,447,805	41,454
1910	118	4,773	2,666,483	30,898,771	48,709,311	11,090,530	28,232
1904	140	4,670	2,611,050	25,519,870	32,049,836	7,130,000	25,080
1899	132	5,043	2,854,875	21,579,055	30,920,610	9,310,985	26,623
PER CENT OF INCREASE OR DECREASE (—)							
1927-1929	(9)	-3.5	-5.0	14.7	23.4	41.7	4.5
1925-1927	(9)	7.4	11.9	-2.3	1.2	0.3	11.5
1923-1925	(9)	-0.7	3.2	24.0	11.0	-5.3	10.4
1921-1923	(9)	6.9	16.0	46.4	45.6	33.2	...
1919-1921	(9)	-21.3	-34.5	-61.0	-57.0	-47.8	...
1919-1929	(9)	-13.7	-17.5	-29.0	-10.0	10.3	62.7
1909-1910	-52.5	63.3	318.0	253.2	281.7	370.0	84.3
1899-1909	-10.0	-19.7	-6.0	71.0	57.8	27.3	6.0

<sup>1</sup> For 1929, manufacturers' sales (shipments or deliveries); for earlier years, production. See GENERAL EXPLANATIONS—Value of Products.  
<sup>2</sup> Value of products less cost of materials, containers for products, fuel, and purchased electric energy. See GENERAL EXPLANATIONS—Value Added by Manufacture.  
<sup>3</sup> Not called for on schedule.  
<sup>4</sup> Per cent not computed where base is less than 100.

TABLE 2.—GENERAL STATISTICS, BY STATES: 1929, 1927, AND 1919

[This table presents statistics separately for each State for which figures can be given without disclosing data for individual establishments, and for the remaining States in groups. Data for establishments with products under \$5,000 in value are included for 1910 but not for subsequent years. See GENERAL EXPLANATIONS—Establishments Covered—Size]

STATE	Census year	Number of establishments	Salaries of officers and employees <sup>1</sup>	Wage earners (average for the year)	HORSEPOWER (RATED CAPACITY) OF POWER EQUIPMENT			Salaries	Wages	COST OF MATERIALS, CONTAINERS FOR PRODUCTS, FUEL, AND PURCHASED ELECTRIC ENERGY			Value of products <sup>1</sup>	Value added by manufacture <sup>2</sup>
					Total	Prime movers	Motors run by purchased energy			Total	Materials and containers	Fuel and purchased energy		
United States	1929	35	1,488	6,730	84,686	83,488	1,198	\$4,136,258	\$9,872,000	\$104,284,827	\$165,983,730	\$61,698,912		
	1927	26	1,282	6,972	81,003	79,513	1,400	3,075,505	10,489,070	90,905,776	131,461,160	43,555,300		
	1919	50	862	7,705	62,036	48,461	8,585	2,212,302	11,062,483	130,328,848	180,250,260	53,927,412		
Individual States:														
Illinois	1929	4	800	3,265	49,243	40,063	180	2,080,420	5,093,178	56,908,346	55,185,183	1,723,163	94,773,487	37,865,141
	1927	4	630	3,830	47,880	47,700	180	1,518,842	5,979,470	53,151,872	50,441,024	2,710,848	80,980,435	27,828,563
Iowa	1929	3	237	1,491	14,414	14,204	120	690,225	2,630,646	10,464,200	18,452,291	1,011,009	20,054,772	9,590,572
	1919	4	161	1,007	8,418	6,504	1,014	614,804	1,408,247	17,091,371	628,815	17,012,550	24,688,750	7,047,379
Maine	1929	17	1	76	679	131	548	1,509	64,529	230,233	222,609	7,543	403,703	263,470
	1927	8	5	34	505	240	355	14,110	54,387	201,103	208,810	23,383	434,301	143,198
	1919	26	14	255	858	618	240	23,797	207,902	1,177,854	1,005,377	82,477	1,752,068	574,214
Groups of States:														
Other States (Mass., 2 est.; Mich., 1; N. J., 1; Ohio, 1)	1929	6	319	1,288	12,967	12,700	267	968,424	1,820,466	10,837,320	10,042,213	795,107	29,106,358	9,359,038
States not shown separately	1927	14	641	3,009	32,528	31,573	955	1,542,553	4,485,822	37,462,711	35,001,045	2,460,766	53,040,370	15,583,659
	1919	26	687	6,533	43,570	41,320	2,241	1,573,701	10,160,274	111,509,628	108,518,635	2,980,988	159,815,442	48,505,819

<sup>1</sup> Not including proprietors and firm members. The total numbers of persons engaged and the numbers of proprietors and firm members, as reported for this industry, are as follows: For 1929, total, 8,227; proprietors and firm members, 9. For 1927, total, 8,257; proprietors and firm members, 3. For 1919, total, 8,694; proprietors and firm members, 37.

<sup>2</sup> For 1929, manufacturers' sales (shipments or deliveries); for earlier years, production. See GENERAL EXPLANATIONS—Value of Products.

<sup>3</sup> Value of products less cost of materials, containers for products, fuel, and purchased electric energy. See GENERAL EXPLANATIONS—Value Added by Manufacture.

<sup>4</sup> Includes \$78,871,087, the cost of 86,680,331 bushels of corn.

<sup>5</sup> Data for purchased power other than electric (power transmitted into the plant by belt or shaft) are included in the State items for 1919 but not in the United States totals.

<sup>6</sup> Indiana, 2 establishments; Iowa, 3; Massachusetts, 2; Michigan, 1; Missouri, 3; Nebraska, 1; New Jersey, 1; Ohio, 1.

<sup>7</sup> Connecticut, 1 establishment; Florida, 1; Illinois, 4; Indiana, 3; Kentucky, 1; Massachusetts, 1; Michigan, 2; Minnesota, 6; Missouri, 1; Nebraska, 1; New Jersey, 2; New York, 1; Ohio, 1; Oregon, 1.

## CENSUS OF MANUFACTURES: 1929

TABLE 3.—CORN SIRUP, CORN SUGAR, CORN OIL, AND STARCH—PRODUCTION, BY KIND, QUANTITY, AND VALUE, FOR THE UNITED STATES: 1923 TO 1929

[The figures for 1929 refer to sales (shipments or deliveries) by manufacturers; those for earlier years represent production. See GENERAL EXPLANATIONS—Value of Products]

	1929	1927	1925	1923
1. "Corn sirup, corn sugar, corn oil, and starch" industry, all products, total value <sup>1</sup> .....	\$165,983,739	\$134,461,166	\$132,897,974	\$116,500,034
2. Corn sirup, corn sugar, corn oil, starch, etc.....	183,673,267	<sup>2</sup> 108,840,150	<sup>2</sup> 111,114,985	<sup>2</sup> 95,529,240
3. Other products (not normally belonging to the industry).....	32,410,472	<sup>2</sup> 25,621,016	<sup>2</sup> 21,782,989	<sup>2</sup> 21,030,794
4. Corn sirup, corn sugar, corn oil, and starch made as secondary products in other industries.....	1,642,617	2,282,906	1,321,172	1,340,983
Corn sirup, corn sugar, corn oil, starch, etc., all industries: <sup>1</sup>				
Aggregate value (sum of 2 and 4).....	\$185,215,884	<sup>2</sup> \$111,123,056	<sup>2</sup> \$112,436,157	<sup>2</sup> \$96,870,223
Corn sirup and mixtures of corn and other sirups, total—				
Pounds.....	1,105,183,157	1,123,700,061	1,145,946,826	1,173,685,849
Value.....	\$40,553,180	\$32,518,997	\$41,314,030	\$31,067,440
Corn sirup, unmixed—				
Pounds.....	924,614,732	900,921,123	(3)	(3)
Value.....	\$27,951,363	\$22,335,555	(3)	(3)
Mixtures of corn and other sirups—				
Pounds.....	240,568,425	222,800,838	(3)	(3)
Value.....	\$12,601,817	\$10,183,442	(3)	(3)
Corn sugar—				
Pounds.....	806,121,276	904,830,682	580,370,043	527,000,513
Value.....	\$30,217,221	\$25,635,262	\$19,505,495	\$16,797,033
Corn oil, total—				
Pounds.....	176,498,780	148,280,759	110,715,900	115,752,041
Value.....	\$20,164,750	\$18,274,876	\$15,223,547	\$14,788,268
Corn oil, crude—				
Pounds.....	89,559,989	60,825,680	(3)	(3)
Value.....	\$7,172,498	\$4,921,044	(3)	(3)
Corn oil, refined—				
Pounds.....	86,941,791	87,464,079	(3)	(3)
Value.....	\$12,992,252	\$13,353,232	(3)	(3)
Starch, total <sup>4</sup> —				
Pounds.....	1,123,450,905	1,037,755,224	878,100,644	863,372,220
Value.....	\$42,830,055	\$33,897,305	\$35,076,547	\$29,000,058
Corn—				
Pounds.....	1,046,435,117	1,012,175,104	854,125,467	830,382,402
Value.....	\$39,284,004	\$32,310,879	\$33,716,307	\$28,727,841
Potato—				
Pounds.....	14,539,709	8,014,425	10,127,650	4,680,761
Value.....	\$401,555	\$434,361	\$400,214	\$182,168
Other <sup>5</sup> —				
Pounds.....	62,476,079	17,565,695	13,043,521	10,300,070
Value.....	\$8,053,890	\$1,146,065	\$951,026	\$900,619
Corn-oil cake and meal—				
Tons.....	35,990	23,558	33,321	32,300
Value.....	\$1,450,678	\$790,016	\$1,316,529	\$1,317,415

<sup>1</sup> Figures include an indeterminate amount of duplication due to the fact that starch is made by certain establishments and sold to other establishments in the industry which use it as a material in further manufacture.

<sup>2</sup> Revised.

<sup>3</sup> Not reported separately.

<sup>4</sup> Part of this starch was sold for use as material in the manufacture of other products. (See footnote 1.)

<sup>5</sup> Wheat starch and starch processed or packed from purchased stock. The processed or packed starch has decreased in amount from census to census and in 1929 was relatively unimportant.

TABLE 4.—PRIME MOVERS, MOTORS, GENERATORS, AND CONSUMPTION OF PURCHASED ELECTRIC ENERGY—NUMBER AND RATED CAPACITY OF PRIME MOVERS AND ELECTRIC MOTORS, 1929, 1927, 1925, 1919, AND 1914, AND OF GENERATORS, 1929, 1927, AND 1925; QUANTITY OF ELECTRIC ENERGY PURCHASED, 1929

TYPE	1929		1927		1925		1919		1914		PER CENT DISTRIBUTION OF RATED HORSEPOWER CAPACITY	
	Number	Capacity	Number	Capacity	Number	Capacity	Number	Capacity	Number	Capacity	1929	1919
		Horse-power		Horse-power		Horse-power		Horse-power		Horse-power		
Prime movers and electric motors driven by purchased energy, aggregate	142	84,636	144	81,003	178	72,617	283	52,030	259	41,454	100.0	100.0
Prime movers, total	70	83,488	68	79,513	59	70,879	141	48,451	167	38,998	98.6	93.1
Steam, total	70	83,488	66	78,021	58	70,859	120	47,570	151	38,003	98.6	91.4
Engines	39	18,604	39	20,227	39	20,145	101	19,285	(1)	(1)	22.0	37.1
Turbines	31	64,884	27	59,304	19	50,714	19	28,291	(1)	(1)	76.0	54.4
Internal-combustion engines			2	892			13	345	5	102		0.6
Water wheels and water turbines					1	20	8	530	11	893		1.0
Electric motors driven by purchased energy	72	1,108	76	1,400	119	1,738	142	3,585	92	2,456	1.4	6.9
Electric motors, total	6,161	99,697	6,489	103,034	5,475	80,044	2,998	47,735	2,131	20,276	100.0	100.0
Driven by purchased energy	72	1,108	76	1,400	119	1,738	142	3,585	92	2,456	1.2	7.5
Driven by energy generated in establishments reporting	6,089	98,490	6,363	101,544	5,356	84,306	2,856	44,150	2,039	26,820	98.8	92.5
Electric generators	45	Kilowatts 58,235	43	Kilowatts 66,640	40	Kilowatts 49,436	(2)	(2)	(2)	(2)		
Electric energy purchased <sup>1</sup>		Kilowatt-hours 1,747,248		(1)		(1)		(2)		(2)		

<sup>1</sup> Not called for separately on schedule.  
<sup>2</sup> Not called for on schedule.  
<sup>3</sup> This item covers the consumption of purchased electric energy for all purposes—power, heat, light, etc.  
<sup>4</sup> Data incomplete.

TABLE 5.—WAGE EARNERS, BY MONTHS, FOR THE UNITED STATES, 1929, 1925, 1919, 1914, AND 1909, AND BY STATES, 1929

[This table presents statistics for only those States for which figures can be given without disclosing data for individual establishments. The sum of the State items in any column is not, therefore, equal to the United States total at the head of the column. The month of maximum employment is indicated by bold-faced figures and that of minimum employment by *italic* figures.]

STATE	Average number employed during year	NUMBER EMPLOYED ON 15TH DAY OF MONTH OR NEAREST REPRESENTATIVE DAY												Percent minimum is of maximum
		January	February	March	April	May	June	July	August	September	October	November	December	
United States:														
1929	6,730	7,022	7,218	6,880	6,730	6,457	6,254	6,251	6,417	6,701	7,098	6,707	6,894	86.3
1925	6,492	6,016	6,000	6,884	6,191	6,148	6,164	6,815	5,882	6,608	6,857	6,660	6,837	83.2
1919	7,795	8,016	8,103	6,787	6,738	7,055	7,603	8,089	7,345	6,116	6,080	6,690	8,169	65.7
1914	4,509	4,850	4,932	4,948	4,608	4,182	4,405	4,157	4,403	4,027	4,377	4,159	4,480	83.6
1909	4,778	4,731	4,827	4,954	4,624	4,678	4,586	4,245	4,198	4,812	5,069	5,308	4,771	75.4
Illinois	3,265	3,463	3,560	3,356	3,218	3,104	3,044	3,066	3,034	3,240	3,440	3,332	3,322	85.2
Iowa	1,491	1,493	1,509	1,478	1,474	1,440	1,590	1,414	1,496	1,601	1,698	1,605	1,514	86.0
Maine	70	67	68	74	100	100	86	66	65	66	73	73	73	65.0

## FEEDS, PREPARED, FOR ANIMALS AND FOWLS

Description of the industry.—This industry embraces establishments engaged primarily in the manufacture of prepared feeds for animals and fowls. Some of these establishments grind the grain which they use, and the others purchase their materials. At censuses prior to that for 1927 the former were classified in the "Flour and other grain-mill products" industry and the

latter in the "Food preparations, not elsewhere classified" industry. The products consist chiefly of two classes, namely, prepared feeds made chiefly from grain, and prepared feeds composed principally of ingredients other than grain, such as molasses, bone meal, meat scraps, ground oyster shells, etc.

TABLE 1.—SUMMARY FOR THE UNITED STATES: 1929 AND 1927

YEAR OR PERIOD	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, containers for products, fuel, and purchased electric energy	Value of products <sup>1</sup>	Value added by manufacture <sup>2</sup>	Horsepower
1929	750	10,223	\$12,821,389	\$327,019,743	\$402,752,534	\$74,832,701	170,482
1927	447	7,632	9,702,954	244,676,705	299,702,642	55,116,937	115,856
PER CENT OF INCREASE							
1927-1929	67.8	33.9	32.1	34.0	34.3	35.8	47.2

<sup>1</sup>For 1929, manufacturers' sales (shipments or deliveries); for 1927, production. See GENERAL EXPLANATIONS—Value of Products.

<sup>2</sup>Value of products less cost of materials, containers for products, fuel, and purchased electric energy. See GENERAL EXPLANATIONS—Value Added by Manufacture.

<sup>3</sup>No statistics for this industry were tabulated separately for years prior to 1927. See "Description of the industry," above.

TABLE 2.—GENERAL STATISTICS, BY STATES: 1929 AND 1927

[This table presents statistics separately for each State for which figures can be given without disclosing data for individual establishments, and for the remaining States in groups. No statistics for this industry were tabulated separately for years prior to 1927. "See Description of the industry," above.]

STATE	Census year	Number of establishments	Salaried officers and employees	Wage earners (average for the year)	HORSEPOWER (RATED CAPACITY) OF POWER EQUIPMENT			Salaries	Wages	COST OF MATERIALS, CONTAINERS FOR PRODUCTS, FUEL, AND PURCHASED ELECTRIC ENERGY			Value of products <sup>2</sup>	Value added by manufacture <sup>1</sup>
					Total	Prime movers	Motors run by purchased energy			Total	Materials and containers	Fuel and purchased energy		
United States	1929	750	4,161	10,223	170,482	16,402	154,080	\$9,579,000	\$12,821,389	\$327,019,743	\$324,975,494	\$2,914,240	\$402,752,534	\$74,832,701
	1927	447	3,746	7,632	115,855	9,010	106,845	7,772,435	9,702,954	244,676,705	242,712,087	1,992,718	299,702,642	55,116,937
Individual States:														
Alabama	1929	10	81	205	1,427	-----	1,427	180,166	166,743	5,863,281	5,633,639	29,642	6,595,778	932,497
	1927	12	67	168	1,486	-----	1,486	120,489	123,658	3,590,876	3,571,732	19,143	4,276,878	685,003
Arizona	1929	6	17	36	759	-----	759	41,534	40,571	661,379	677,053	13,426	962,542	211,163
Arkansas	1929	7	60	132	1,415	15	1,400	172,943	126,400	3,026,893	2,998,396	22,497	3,743,571	722,078
	1927	4	34	56	400	-----	460	86,812	53,053	1,946,227	1,935,947	10,280	2,270,134	323,007
California	1929	68	343	732	10,910	107	10,803	765,382	1,051,114	24,157,414	23,988,377	169,037	29,387,296	5,229,882
	1927	57	314	698	10,788	544	10,244	570,199	963,722	23,875,521	23,732,191	143,330	28,173,002	4,207,481
Colorado	1929	24	106	273	9,293	1,953	7,340	176,655	345,517	3,677,476	3,518,155	159,321	4,677,448	900,072
	1927	20	35	239	5,426	1,542	3,884	56,120	249,907	2,000,854	1,874,514	126,340	2,517,550	518,090
Delaware	1929	4	3	9	107	100	7	2,600	7,530	144,650	144,500	150	168,800	24,150
Florida	1929	5	6	25	577	240	337	8,400	28,240	149,408	143,140	6,268	319,050	169,642
Georgia	1929	8	34	99	1,313	35	1,278	92,380	62,945	2,353,714	2,335,318	18,396	2,727,742	374,028
	1927	5	21	55	838	-----	838	36,850	40,196	1,213,704	1,203,328	10,376	1,648,726	335,022
Idaho	1929	11	7	15	780	40	740	2,678	18,324	269,444	262,898	6,546	330,677	61,133
	1927	5	1	8	211	-----	211	1,100	8,410	60,073	60,000	3,073	90,804	21,731
Illinois	1929	41	459	1,270	25,198	2,232	22,966	1,239,949	1,894,213	48,963,165	48,501,553	371,612	58,968,467	10,005,272
	1927	28	462	1,011	18,990	2,300	10,690	674,743	1,383,302	37,608,003	37,420,178	277,825	45,671,888	7,873,885
Indiana	1929	22	189	291	5,328	545	4,783	415,266	386,637	10,832,689	10,740,172	92,517	13,855,049	3,022,360
	1927	8	164	207	3,157	82	3,075	247,237	322,750	9,304,598	9,247,466	57,132	11,300,659	1,996,091
Iowa	1929	25	89	186	3,392	146	3,246	169,197	218,020	4,366,386	4,303,507	62,879	5,463,772	1,097,386
	1927	11	54	105	1,038	-----	1,038	121,164	114,609	3,078,599	3,049,108	29,401	4,041,905	963,456

See footnotes at end of table.

# FEEDS, PREPARED, FOR ANIMALS AND FOWLS

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TABLE 2.—GENERAL STATISTICS, BY STATES: 1929 AND 1927—Continued

[See note at head of this table]

STATE	Cen- sus year	Number of establish- ments	Salaried officers and em- ployees <sup>1</sup>	Wage earners (aver- age for the year)	HORSEPOWER (RATED CAPACITY) OF EQUIPMENT			Salaries	Wages	COST OF MATERIALS, CONTAINERS FOR PRODUCTS, FUEL, AND PUR- CHASED ELECTRIC ENERGY			Value of products <sup>2</sup>	Value added by man- ufacture <sup>3</sup>
					Total	Prime movers	Motors run by pur- chased energy			Total	Materials and con- tainers	Fuel and purchased energy		
<b>Individual States—Con.</b>														
Kansas.....	1929	23	87	179	3,261	287	2,074	\$172,571	\$208,872	\$5,000,144	\$4,057,301	\$51,783	\$6,309,594	\$1,300,450
	1927	0	48	76	1,107	250	047	93,570	84,221	2,018,414	1,090,234	19,180	2,524,371	505,057
Kentucky.....	1929	9	40	133	2,805	76	2,730	121,853	148,725	3,900,175	3,060,079	39,096	4,665,480	606,305
	1927	6	47	104	1,932	-----	1,932	95,056	102,350	3,202,801	3,180,121	16,680	3,085,592	432,791
Louisiana.....	1929	9	95	265	3,314	1,580	1,734	250,731	260,014	2,030,800	2,514,752	116,117	4,035,571	2,004,702
	1927	9	32	145	1,270	98	1,172	71,948	142,783	2,182,206	2,125,873	56,423	2,745,055	563,369
Maryland.....	1929	12	60	174	2,070	110	1,951	128,107	153,306	3,802,976	3,818,650	44,320	4,507,225	644,249
	1927	8	49	108	1,388	-----	1,388	100,503	98,639	1,084,587	1,055,251	20,336	2,478,378	463,791
Massachusetts.....	1929	6	34	157	1,210	125	1,091	60,894	164,341	2,031,607	2,004,800	20,807	2,679,385	647,718
	1927	7	38	114	609	125	544	79,547	132,430	1,486,430	1,462,062	23,468	1,970,707	400,337
Michigan.....	1929	15	47	86	1,155	77	1,078	120,910	111,267	2,327,900	2,208,637	29,323	3,014,202	680,242
	1927	9	42	58	793	-----	793	92,518	84,506	1,814,796	1,706,007	18,189	2,163,846	360,050
Minnesota.....	1929	20	144	224	4,811	168	4,643	365,422	268,110	8,152,080	8,006,924	85,762	10,828,368	2,075,672
	1927	10	113	199	4,113	13	4,100	210,631	265,568	7,368,713	7,272,300	90,363	8,272,484	1,903,771
Mississippi.....	1929	6	96	180	1,750	-----	1,750	213,686	150,505	5,601,800	5,018,344	43,546	6,515,557	853,667
	1927	7	56	190	2,043	-----	2,043	123,968	6,143,400	6,143,400	6,143,400	6,143,400	6,143,400	772,219
Missouri.....	1929	28	285	798	13,000	686	13,304	671,010	1,079,710	26,123,886	25,738,800	385,077	36,540,673	10,422,787
	1927	21	908	693	11,062	500	11,162	1,834,924	1,022,763	22,633,417	22,427,573	205,844	30,127,005	7,403,588
Nebraska.....	1929	13	31	98	3,050	33	3,017	56,820	117,803	2,240,931	2,213,363	27,538	2,725,407	484,476
	1927	6	14	66	2,232	-----	2,232	30,415	77,118	1,241,111	1,227,116	13,995	1,568,496	324,470
New Jersey.....	1929	10	73	148	850	470	480	162,220	198,625	1,107,223	1,070,769	36,454	1,043,360	836,137
	1927	10	65	156	888	462	436	141,257	216,430	1,057,742	1,025,009	32,733	1,755,041	698,100
New York.....	1929	61	420	1,283	17,530	704	16,826	1,056,005	1,754,108	53,326,509	53,017,610	308,899	62,772,865	9,446,340
	1927	36	367	1,006	13,389	593	12,886	973,016	1,513,793	40,178,316	39,045,929	227,680	48,305,405	8,192,090
North Carolina.....	1929	4	18	30	561	5	546	33,938	27,217	670,540	671,862	5,184	815,361	138,805
Ohio.....	1929	34	281	464	8,704	975	7,780	678,150	631,806	18,840,985	18,720,760	120,225	22,993,460	4,143,481
	1927	17	140	380	6,221	290	5,931	220,444	520,701	15,052,559	15,500,030	80,523	18,525,027	2,872,408
Oklahoma.....	1929	11	26	84	1,136	-----	1,136	51,168	95,523	1,785,500	1,758,930	26,570	2,138,790	353,200
	1927	6	30	55	930	35	895	63,544	94,480	1,047,681	1,027,245	20,436	1,182,500	234,905
Oregon.....	1929	24	140	262	3,733	224	3,509	200,083	328,846	5,563,067	5,505,115	58,552	7,023,856	1,460,180
	1927	8	17	51	713	68	645	38,170	66,354	1,431,263	1,410,034	12,220	1,610,214	184,951
Pennsylvania.....	1929	68	110	497	6,545	1,430	5,116	210,040	638,724	16,772,319	16,065,606	105,713	19,200,120	2,387,801
	1927	20	74	316	2,759	205	2,554	255,012	401,560	10,400,303	10,339,690	60,613	12,565,798	1,055,405
South Carolina.....	1929	7	12	38	1,000	145	855	18,040	28,531	820,058	800,424	11,534	927,360	106,392
Tennessee.....	1929	18	240	534	8,007	725	8,182	508,217	500,730	20,548,197	20,421,127	127,070	24,681,882	4,133,685
	1927	13	240	474	5,137	409	4,737	497,548	410,571	15,554,264	15,401,507	92,747	20,336,579	4,782,025
Texas.....	1929	43	167	373	8,311	1,201	7,020	380,001	397,583	10,062,794	10,870,150	92,644	13,005,070	2,042,285
	1927	14	66	160	2,390	150	2,240	132,108	172,400	4,503,172	4,467,379	35,793	6,120,241	1,617,069
Vermont.....	1929	13	58	224	3,807	1,020	2,847	162,706	260,191	11,074,220	11,639,479	34,741	12,581,724	907,504
	1927	6	32	148	2,467	406	1,972	62,160	105,208	7,244,492	7,220,366	24,120	8,300,155	1,055,093
Virginia.....	1929	10	14	26	631	176	456	18,472	24,134	490,005	490,867	8,198	634,032	134,967
	1927	8	14	30	734	155	579	17,222	31,792	487,806	481,510	6,386	594,440	106,544
Washington.....	1929	37	123	410	5,674	-----	5,674	242,071	531,807	13,000,401	12,912,586	87,005	15,333,076	2,352,585
	1927	33	46	207	3,830	138	3,692	98,553	296,785	7,591,292	7,543,348	47,944	8,820,739	1,229,447
West Virginia.....	1929	5	13	24	364	65	299	22,870	28,444	313,042	308,801	4,241	400,074	96,932
Wisconsin.....	1929	18	87	123	2,460	300	2,156	108,000	160,152	3,445,706	3,396,927	48,779	4,610,425	1,104,719
	1927	13	87	159	4,045	-----	4,045	183,505	228,491	4,175,058	4,116,837	59,121	5,048,269	872,301
Groups of States: Conn., 2 est.; D. C., 1; N. H., 2; R. I., 1.....	1929	6	33	72	727	35	692	63,206	94,031	1,166,441	1,148,302	18,139	1,707,469	541,058
Other States (Mont., 2 est.; Nev., 1; N. Mex., 2; N. Dak., 1; S. Dak., 1; Utah, 2)	1929	9	15	64	1,415	275	1,140	25,860	74,727	1,075,068	1,038,256	37,702	1,350,232	280,274
States not shown sep- arately.....	1927	21	69	188	2,050	665	1,394	133,093	222,147	2,602,449	2,537,095	64,451	3,502,219	899,770

<sup>1</sup> Not including proprietors and firm members, as follows: For 1929, 352; 1927, 189. The total numbers of persons engaged—proprietors and firm members, salaried officers and employees, and wage earners—as reported for the industry, are as follows: For 1929, 14,733; 1927, 11,597.

<sup>2</sup> The figures given for 1929 refer to sales (shipments or deliveries) by manufacturers; those for 1927 represent production. See GENERAL EXPLANATIONS—Value of Products.

<sup>3</sup> Value of products less cost of materials, containers for products, fuel, and purchased electric energy. See GENERAL EXPLANATIONS—Value Added by Manufacture.

<sup>4</sup> Arizona, 1 establishment; Connecticut, 6; Delaware, 2; District of Columbia, 1; Florida, 1; Montana, 1; New Hampshire, 2; New Mexico, 1; North Carolina, 1; Rhode Island, 1; West Virginia, 1; Wyoming, 3.

CENSUS OF MANUFACTURES: 1929

TABLE 3.—PRODUCTS, BY KIND, QUANTITY, AND VALUE, FOR THE UNITED STATES: 1929 AND 1927

[The figures for 1929 refer to sales (shipments or deliveries) by manufacturers; those for 1927 represent production. See GENERAL EXPLANATIONS—Value of Products]

	1929	1927		1929	1927
1. "Feeds, prepared, for animals and fowls" industry, all products, total value.....	\$402,752,534	\$209,702,642	Prepared feeds for animals and fowls, all industries: Total value (sum of 2 and 4).....	\$404,515,693	\$300,500,300
2. Prepared feeds for animals and fowls.....	\$366,672,665	\$283,823,293	Made chiefly from grain <sup>2</sup> —	7,667,318	7,153,753
3. Other products (not normally belonging to the industry) <sup>1</sup> .....	\$36,070,800	\$15,900,349	Tons.....	\$339,447,930	\$318,012,718
4. Prepared feeds for animals and fowls, made as secondary products in other industries, value.....	\$127,843,028	\$106,737,097	Value.....	\$155,097,763	\$72,547,672
			Made chiefly from ingredients other than grain, value <sup>3</sup> .....		

<sup>1</sup> Flour, corn meal, screenings, cracked corn, chops, etc.; and cereal breakfast foods.  
<sup>2</sup> Includes, for 1929, 314,074 tons of alfalfa meal, valued at \$8,227,276; and for 1927, 259,248 tons, valued at \$5,150,161.  
<sup>3</sup> Data for quantity incomplete.

TABLE 4.—PRODUCTS, BY KIND, QUANTITY, AND VALUE, BY STATES: 1929 AND 1927

[The figures for 1929 refer to sales (shipments or deliveries) by manufacturers; those for 1927 represent production. See GENERAL EXPLANATIONS—Value of Products. Statistics are given for each State which can be shown separately without disclosing data for individual establishments, and for the remaining States in groups. Certain of the States for which figures are given in combination with those for others, however, reported larger quantities and values of the specified classes of products than some of the States shown separately]

MADE CHIEFLY FROM GRAIN

STATE	1929		1927		STATE	1929		1927	
	Tons	Value	Tons	Value		Tons	Value	Tons	Value
United States <sup>1</sup> .....	7,007,318	\$339,447,930	7,153,753	\$318,012,718	Individual States—Continued.				
Individual States:					New York.....	857,327	\$39,909,208	766,067	\$30,701,702
Alabama.....	117,768	5,388,909	87,547	3,804,170	North Carolina.....	23,078	1,000,822	16,420	767,869
Arizona.....	16,500	797,745	(?)	(?)	Ohio.....	406,357	18,509,133	533,711	27,875,893
Arkansas.....	101,781	4,090,609	163,771	4,123,869	Oklahoma.....	63,272	2,210,736	38,712	1,572,806
California.....	636,472	29,724,421	670,877	30,288,659	Oregon.....	110,702	5,013,788	83,504	3,652,850
Colorado.....	183,832	4,633,241	159,330	2,832,356	Pennsylvania.....	409,729	18,837,376	347,231	15,554,961
Georgia.....	46,494	1,924,124	37,601	1,614,000	South Carolina.....	22,732	1,015,873	(?)	(?)
Idaho.....	20,207	584,657	12,745	531,008	South Dakota.....	2,380	114,060	(?)	(?)
Illinois.....	1,215,013	54,985,637	886,415	37,610,569	Tennessee.....	241,052	11,303,295	459,556	21,173,761
Indiana.....	297,810	15,100,140	178,297	9,963,597	Texas.....	108,135	9,172,705	186,342	8,312,400
Iowa.....	411,834	16,290,977	222,327	10,704,024	Utah.....	32,968	1,403,752	(?)	(?)
Kansas.....	117,788	5,515,237	67,401	2,672,638	Vermont.....	142,378	6,728,050	89,382	4,431,048
Kentucky.....	134,091	6,103,408	115,853	5,649,242	Virginia.....	22,550	1,054,801	20,245	1,218,330
Louisiana.....	86,802	3,880,209	40,027	1,800,562	Washington.....	330,255	15,551,033	325,803	14,850,248
Maine.....	1,103	49,209	(?)	(?)	West Virginia.....	17,006	823,260	27,814	1,240,560
Maryland.....	73,791	3,700,852	77,093	3,580,404	Wisconsin.....	125,540	6,044,042	112,176	4,378,383
Massachusetts.....	46,450	1,973,547	65,334	3,040,643	Groups of States:				
Michigan.....	143,525	6,200,103	98,050	3,031,613	Conn., N. H., R. I.....	14,985	805,294		
Minnesota.....	195,004	8,633,310	316,421	11,965,183	Del., D. C., Fla.....	15,004	728,342		
Mississippi.....	67,337	2,893,563	142,285	6,187,403	Other States (Mont., Nev., N. Mex., N. Dak., Wyo.).....	23,441	1,021,971		
Missouri.....	570,644	21,455,158	637,851	28,337,349	States not shown separately <sup>2</sup> .....			153,791	5,241,877
Nebraska.....	87,924	4,045,154	67,348	2,608,304					
New Jersey.....	20,008	864,121	14,814	644,172					

MADE CHIEFLY FROM INGREDIENTS OTHER THAN GRAIN

STATE	1929		1927		STATE	1929		1927	
	Value	Value	Value	Value		Value	Value	Value	Value
United States <sup>1</sup> .....	\$155,067,763	\$72,547,672			Individual States—Contd.				
Individual States:					Maine.....	\$109,275	(?)		
Alabama.....	427,234	(?)			Maryland.....	1,262,928	\$732,101		
Arizona.....	324,200	(?)			Massachusetts.....	1,292,193	1,760,706		
California.....	7,270,591	3,841,081			Michigan.....	658,200	671,832		
Colorado.....	1,222,642	285,707			Minnesota.....	7,282,835	2,414,232		
Florida.....	228,400	(?)			Missouri.....	29,201,981	1,401,952		
Georgia.....	735,210	(?)			Nebraska.....	2,533,588	2,187,488		
Idaho.....	122,189	(?)			New Hampshire.....	853,184	(?)		
Illinois.....	23,533,397	14,001,848			New Jersey.....	1,753,025	2,104,442		
Indiana.....	2,409,030	2,894,607			New York.....	19,295,305	13,008,542		
Iowa.....	3,311,865	2,744,624			Ohio.....	14,904,528	2,361,201		
Kansas.....	2,424,712	1,884,293			Oklahoma.....	774,511	(?)		
Kentucky.....	724,250	669,346			Oregon.....	1,775,739	960,623		
Louisiana.....	1,428,540	884,498			Pennsylvania.....	2,786,068	3,031,004		
					Individual States—Contd.				
					South Dakota.....		\$115,204		(?)
					Tennessee.....		13,405,014		(?)
					Texas.....		7,155,489		\$1,370,180
					Virginia.....		427,000		343,590
					Washington.....		1,775,010		1,466,170
					Wisconsin.....		2,549,608		1,871,281
					Groups of States:				
					Conn., R. I., Vt.....		6,262,551		
					Del., D. C., W. Va.....		291,614		
					Mont., Nev., Utah.....		706,714		
					N. C., S. C.....		897,051		
					Other States (Ark., Miss., N. Dak.).....		1,212,732		
					States not shown separately <sup>4</sup> .....				8,783,309

<sup>1</sup> These figures cover the output of prepared feeds in all industries in which such feeds were produced. See Table 3.

<sup>2</sup> Withheld from publication in order to avoid disclosing data for individual establishments.

<sup>3</sup> Arizona, Delaware, District of Columbia, Florida, Maine, Montana, Nevada, New Hampshire, New Mexico, North Dakota, Rhode Island, South Carolina, South Dakota, Utah, Wyoming.

<sup>4</sup> Alabama, Arizona, Arkansas, Connecticut, Delaware, District of Columbia, Florida, Georgia, Idaho, Maine, Mississippi, Montana, New Hampshire, North Carolina, North Dakota, Oklahoma, Rhode Island, South Carolina, South Dakota, Tennessee, Utah, Vermont, West Virginia.

# FEEDS, PREPARED, FOR ANIMALS AND FOWLS

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**TABLE 5.—PRIME MOVERS, MOTORS, GENERATORS, AND CONSUMPTION OF PURCHASED ELECTRIC ENERGY—NUMBER AND RATED CAPACITY OF PRIME MOVERS, ELECTRIC MOTORS, AND GENERATORS, 1929 AND 1927; QUANTITY OF ELECTRIC ENERGY PURCHASED, 1929**

TYPE	1929		1927		Per cent distribution of rated horsepower capacity, 1929	TYPE	1929		1927		Per cent distribution of rated horsepower capacity, 1929
	Number	Capacity	Number	Capacity			Number	Capacity	Number	Capacity	
Prime movers and electric motors driven by purchased energy, aggregate	8,403	Horsepower 170,482	5,552	Horsepower 115,855	100.0	Electric motors driven by purchased energy	8,103	Horsepower 154,080	5,443	Horsepower 100,845	90.4
Prime movers, total	210	16,402	100	0,010	0.6	Electric motors, total	8,408	157,684	5,577	108,694	100.0
Steam, total	81	8,818	68	0,707	5.2	Driven by purchased energy	8,103	154,080	5,443	100,845	97.7
Engines	79	8,713	67	0,632	5.1	Driven by energy generated in establishments reporting	275	3,004	134	1,849	2.3
Turbines	2	106	1	75	0.1	Electric generators	10	Kilowatts 1,718 Kilowatt-hours 115,003,089	10	Kilowatts 1,345	
Internal-combustion engines	65	5,283	23	1,725	3.1	Electric energy purchased <sup>1</sup>				(?)	
Water wheels and water turbines	64	2,301	18	578	1.3						

<sup>1</sup> This item covers the consumption of purchased electric energy for all purposes—power, heat, light, etc.  
<sup>2</sup> Data incomplete.

**TABLE 6.—WAGE EARNERS, BY MONTHS, BY STATES: 1929**

[This table presents statistics for only those States for which figures can be given without disclosing data for individual establishments. The sum of the State items in any column is not, therefore, equal to the United States total at the head of the column. The month of maximum employment is indicated by bold-faced figures and that of minimum employment by italic figures.]

STATE	Average number employed during year	NUMBER EMPLOYED ON 15TH DAY OF MONTH OR NEAREST REPRESENTATIVE DAY												Per cent minimum is of maximum
		January	February	March	April	May	June	July	August	September	October	November	December	
United States	10,223	10,133	10,056	10,185	10,017	10,050	10,164	<i>9,804</i>	10,115	10,403	10,521	10,576	10,545	93.0
Alabama	205	205	205	215	217	214	218	212	195	195	<i>193</i>	190	193	88.5
Arizona	36	38	37	38	39	39	38	33	33	32	30	37	30	82.1
Arkansas	132	134	140	143	138	135	137	136	130	125	123	122	120	83.9
California	732	707	<i>677</i>	687	695	693	721	740	765	768	707	708	755	85.1
Colorado	273	80	208	278	288	305	315	74	207	279	387	413	440	16.8
Delaware	9	9	9	9	9	9	9	9	9	9	9	9	9	
Florida	25	25	25	25	26	26	23	<i>21</i>	21	22	28	28	27	75.0
Georgia	93	102	100	98	100	101	100	100	95	94	100	104	97	89.4
Idaho	15	26	12	13	12	12	0	0	11	0	11	23	37	24.3
Illinois	1,270	1,387	1,106	1,177	<i>1,143</i>	1,227	1,267	1,207	1,200	1,303	1,293	1,311	1,333	82.8
Indiana	201	312	328	311	273	259	280	285	280	283	<i>273</i>	275	288	83.2
Iowa	186	210	203	197	191	186	183	160	162	160	181	180	191	77.1
Kansas	170	<i>169</i>	186	188	187	178	180	163	178	184	186	177	183	85.1
Kentucky	133	<i>131</i>	<i>131</i>	134	133	135	<i>131</i>	<i>131</i>	<i>131</i>	132	135	134	135	97.0
Louisiana	205	251	246	283	272	268	264	238	257	277	270	270	260	84.1
Maryland	174	175	177	179	180	<i>163</i>	173	170	171	182	183	171	<i>163</i>	88.5
Massachusetts	157	164	157	156	<i>156</i>	139	150	158	158	165	167	175	171	77.1
Michigan	86	89	92	89	85	85	83	85	84	85	84	85	85	90.2
Minnesota	224	252	236	238	205	210	208	210	208	241	243	223	<i>203</i>	80.6
Mississippi	180	171	172	180	212	200	204	105	174	170	165	161	154	71.2
Missouri	798	850	843	807	753	760	766	783	786	813	822	812	791	88.2
Nebbraska	98	96	97	95	100	99	<i>91</i>	92	94	95	102	103	116	78.4
New Jersey	148	150	151	152	145	<i>141</i>	140	144	148	147	152	149	149	92.8
New York	1,283	<i>1,187</i>	1,223	1,233	1,250	1,268	1,251	1,256	1,330	1,406	1,340	1,316	1,322	85.1
North Carolina	30	<i>20</i>	27	29	31	32	32	20	20	20	33	33	34	76.5
Ohio	464	465	456	483	449	459	455	481	<i>442</i>	446	444	500	485	87.4
Oklahoma	84	<i>81</i>	81	81	81	81	81	87	87	88	87	87	88	92.0
Oregon	262	267	267	260	267	266	<i>241</i>	252	276	288	279	247	250	85.2
Pennsylvania	497	<i>490</i>	<i>490</i>	<i>490</i>	496	495	498	490	490	501	507	502	504	96.0
South Carolina	38	46	47	40	49	36	34	34	32	50	50	31	45	61.2
Tennessee	534	580	564	564	567	560	564	553	535	474	491	480	<i>471</i>	81.2
Texas	373	352	361	361	363	370	377	359	<i>349</i>	373	393	408	405	85.5
Vermont	224	<i>215</i>	228	230	227	225	225	<i>215</i>	223	226	223	224	223	93.5
Virginia	26	20	26	26	30	<i>22</i>	23	25	25	25	30	20	20	73.3
Washington	410	382	378	413	402	377	389	397	427	448	430	440	420	84.5
West Virginia	24	24	24	24	24	24	24	24	24	24	24	24	<i>22</i>	91.7
Wisconsin	123	126	125	121	130	114	120	95	95	125	131	147	142	94.0



# FLAVORING EXTRACTS AND FLAVORING SIRUPS

Description of the industry.—The establishments classified in this industry are engaged primarily in the manufacture of flavoring extracts in liquid, paste, and powder form; sirups and fruit juices for soda-fountain use and for use as sauces for ice cream and other foods; malt sirup and other sirups used in the manufacture of soft drinks; colors for bakers' and confectioners' use; and cordials not classed as patent medicines.

A special schedule, calling for detailed data on the several classes of products, was used for this industry for the first time at the census for 1927. For this reason no comparable detailed product statistics can be given in Table 3 for earlier census years.

TABLE 1.—SUMMARY FOR THE UNITED STATES: 1899 TO 1929

[Data for establishments with products under \$5,000 in value included for 1919 and prior years but not for 1921 and subsequent years. See GENERAL EXPLANATIONS—Establishments Covered—Size]

YEAR OR PERIOD	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, containers for products, fuel, and purchased electric energy	Value of products <sup>1</sup>	Value added by manufacture <sup>2</sup>	Horsepower
1929.....	042	5,041	\$7,070,860	\$55,517,926	\$129,086,237	\$73,568,311	33,838
1927.....	500	5,011	7,134,274	51,090,727	107,219,305	56,128,608	27,063
1925.....	431	3,890	5,077,920	47,063,805	94,211,934	47,148,120	23,313
1923.....	457	3,506	4,194,406	38,177,028	74,163,326	36,976,298	17,929
1921.....	463	3,462	4,058,518	46,349,079	77,125,602	31,776,523	(3)
1919.....	602	3,586	2,962,566	50,416,804	76,923,650	26,500,846	0,553
1914.....	566	2,360	1,149,848	13,904,763	26,696,675	12,791,912	3,526
1909.....	537	2,324	1,061,191	9,790,498	18,490,210	8,690,714	2,131
1904.....	440	2,203	888,665	6,084,508	11,281,828	5,197,320	1,434
1899.....	389	1,613	594,867	4,765,666	8,415,294	3,019,598	1,183
PER CENT OF INCREASE OR DECREASE (—)							
1927-1929.....	28.4	0.6	-0.9	8.7	20.4	31.1	21.0
1925-1927.....	16.0	28.8	-0.5	8.6	13.8	19.0	19.9
1923-1925.....	-5.7	8.2	21.1	23.3	27.1	31.1	30.0
1921-1923.....	-1.3	3.9	3.3	-15.8	-3.9	13.2	-----
1919-1921.....	-23.1	-3.5	37.0	-10.1	0.3	19.9	-----
1919-1929.....	6.6	40.6	138.7	10.1	67.8	177.5	416.4
1909-1919.....	12.1	54.3	179.2	414.5	316.0	205.0	207.5
1899-1909.....	38.0	44.1	78.4	104.3	119.7	140.1	80.1

<sup>1</sup> The figures for 1929 refer to sales (shipments or deliveries) by manufacturers; those for earlier years represent production. See GENERAL EXPLANATIONS—Value of Products.  
<sup>2</sup> Value of products less cost of materials, containers for products, fuel, and purchased electric energy. See GENERAL EXPLANATIONS—Value Added by Manufacture.  
<sup>3</sup> Not called for on schedule.

TABLE 2.—GENERAL STATISTICS, BY STATES: 1929, 1927, AND 1919

[This table] presents statistics separately for each State for which figures can be given without disclosing data for individual establishments, and for the remaining States in groups. Data for establishments with products under \$5,000 in value are included for 1919 but not for subsequent years. See GENERAL EXPLANATIONS—Establishments Covered—Size]

STATE	Cen- sus year	Num- ber of estab- lish- ments	Sal- aried offi- cers and em- ploy- ees <sup>1</sup>	Wage earners (average for the year)	HORSEPOWER (RATED CAPACITY) OF POWER EQUIPMENT			Salaries	Wages	COST OF MATERIALS, CONTAINERS FOR PRODUCTS, FUEL, AND PUR- CHASED ELECTRIC ENERGY			Value of products <sup>2</sup>	Value added by manufac- ture <sup>3</sup>
					Total	Prime movers	Motors run by pur- chased energy			Total	Materials and con- tainers	Fuel and purchased energy		
United States.....	1929	642	2,504	5,041	33,838	18,603	15,235	\$7,748,504	\$7,070,860	\$55,517,926	\$52,911,826	\$1,606,100	\$129,086,237	\$73,568,311
	1927	500	2,057	5,011	27,063	16,056	11,807	7,134,274	7,134,274	51,090,727	49,414,046	1,676,681	107,219,305	56,128,608
	1919	602	2,783	3,586	6,563	2,632	3,921	5,230,933	2,962,566	50,416,804	50,187,827	228,977	76,923,650	26,500,846
Individual States:														
California.....	1929	59	145	362	1,200	230	1,039	\$61,022	509,102	2,651,168	2,618,926	32,242	0,109,084	3,458,516
	1927	48	156	322	1,235	225	1,010	361,475	401,359	2,544,608	2,508,250	36,358	0,068,073	3,523,465
	1919	29	70	165	111	3	108	160,737	115,721	1,900,164	1,895,911	5,143	2,720,667	820,513
Colorado.....	1929	4	5	5	16	-----	16	9,527	5,100	49,956	49,518	438	81,807	31,851
Connecticut.....	1929	4	1	7	107	100	7	2,600	11,977	41,700	30,923	10,777	79,157	37,457
Florida.....	1929	5	8	6	24	2	22	12,480	6,139	28,500	28,104	405	61,060	32,551
Georgia.....	1929	8	59	93	340	-----	340	102,936	62,082	2,524,961	2,515,227	9,734	8,481,460	5,056,499
	1927	8	101	134	1,426	4	1,422	262,910	148,606	3,734,194	3,720,594	13,600	7,868,299	4,134,106

See footnotes at end of table.

# FLAVORING EXTRACTS AND SIRUPS

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TABLE 2.—GENERAL STATISTICS, BY STATES: 1929, 1927, AND 1919—Continued

[See note at head of this table]

STATE	Cen- sus year	Number of estab- lish- ments	Sal- aried offi- cers and em- ploy- ees <sup>1</sup>	Wage earners (av- erage for the year)	HORSEPOWER (RATED CAPACITY) OF POWER EQUIPMENT			Salaries	Wages	COST OF MATERIALS, CONTAINERS FOR PRODUCTS, FUEL, AND PUR- CHASED ELECTRIC ENERGY			Value of products <sup>2</sup>	Value added by manufac- ture <sup>3</sup>
					Total	Prime movers	Motors run by pur- chased energy			Total	Materials and con- tainers	Fuel and purchased energy		
Individual States—Contd.														
Illinois	1929	78	308	840	5,063	2,400	3,566	\$1,474,099	\$1,271,761	\$12,170,183	\$11,949,718	\$220,405	\$27,346,826	\$15,170,043
	1927	66	370	727	5,004	3,595	1,409	1,124,673	1,059,353	8,816,516	8,653,102	312,414	17,510,417	8,703,001
	1919	34	380	302	954	625	329	492,645	260,396	5,010,574	5,001,918	8,050	7,754,738	2,744,164
Indiana	1929	5	28	40	35	—	35	64,497	77,199	447,242	445,598	1,644	1,200,890	782,627
	1927	4	28	63	640	—	143	67,419	107,083	909,162	960,804	38,358	2,197,875	1,193,713
	1919	7	31	37	38	—	38	62,160	11,566	191,987	189,967	1,120	330,765	139,678
Louisiana	1929	10	28	40	04	—	04	68,811	48,088	1,847,548	1,844,638	2,910	6,003,832	4,156,284
	1927	8	01	59	107	—	11	157,594	56,425	1,727,652	1,722,689	4,963	4,099,980	2,372,328
Maine	1929	10	27	58	40	—	40	80,846	63,245	324,390	320,648	3,742	834,650	510,260
	1927	5	24	30	124	—	40	53,955	21,690	346,386	344,808	1,578	777,070	430,684
Maryland	1929	19	47	101	804	—	354	111,793	124,829	3,634,001	3,601,810	32,191	6,293,851	5,620,850
	1927	13	33	78	116	—	2	56,801	87,785	3,115,696	3,107,485	8,211	7,033,622	5,071,920
Massachusetts	1929	27	117	153	348	—	75	365,417	170,120	1,359,663	1,346,075	13,588	3,620,368	1,660,755
	1927	21	90	165	245	—	245	269,652	107,083	1,513,506	1,498,881	14,625	2,430,887	1,417,391
	1919	35	144	182	179	—	179	541,131	156,249	1,761,194	1,751,123	10,071	3,100,062	1,348,495
Michigan	1929	20	85	264	2,340	1,078	1,262	292,338	510,024	1,890,831	1,790,931	108,900	4,047,270	2,147,430
	1927	19	83	220	2,053	1,010	1,043	264,181	430,840	1,607,011	1,415,129	91,882	2,972,794	1,466,693
Minnesota	1929	11	27	66	74	—	74	67,050	79,020	301,283	284,450	6,824	641,021	240,738
	1927	9	15	28	38	—	38	25,044	31,762	199,184	187,565	2,619	354,911	164,727
Missouri	1929	25	215	214	5,078	4,863	1,115	610,276	247,263	2,567,808	2,143,403	424,405	6,881,382	4,313,514
	1927	26	206	411	1,618	1,318	300	572,970	637,501	2,683,016	2,411,100	171,966	6,763,622	3,170,806
New Jersey	1929	21	123	179	1,061	575	486	457,901	399,343	1,021,463	1,823,274	98,189	3,209,323	1,287,960
	1927	20	82	174	1,509	1,224	345	300,172	318,317	2,173,394	1,970,257	203,137	3,458,177	1,284,783
	1919	30	64	92	218	173	45	155,855	60,482	958,106	926,860	12,246	1,509,523	671,417
New York	1929	147	519	1,191	5,735	3,095	2,730	1,808,098	1,086,190	12,057,070	11,788,252	268,818	25,166,737	13,099,067
	1927	104	568	1,035	4,148	2,362	1,780	1,523,653	1,500,943	10,300,048	10,019,883	281,265	20,023,292	9,722,554
	1919	157	662	909	2,143	628	1,515	1,186,613	829,705	10,555,050	10,486,576	68,477	15,830,070	6,275,026
Ohio	1929	45	121	299	1,201	633	508	309,456	415,525	3,487,352	3,382,816	55,696	6,814,970	3,377,618
	1927	34	133	216	736	302	344	307,038	246,703	1,824,851	1,789,068	38,783	3,554,735	1,726,884
	1919	52	230	431	508	154	354	594,771	446,603	6,203,034	6,173,893	29,141	8,086,536	2,483,502
Oregon	1929	0	18	26	72	—	62	33,000	37,307	115,432	113,985	1,447	237,417	121,685
	1927	7	19	88	126	—	120	33,007	43,132	218,319	217,150	1,169	543,177	324,858
Pennsylvania	1929	33	155	273	1,802	1,217	585	445,462	337,450	1,692,537	1,632,834	59,703	5,162,006	3,409,469
	1927	20	135	244	1,334	887	447	467,005	336,037	2,000,000	2,016,800	73,209	5,308,080	3,278,071
	1919	51	203	280	627	448	70	413,785	253,805	2,426,867	2,389,211	36,656	4,360,470	1,934,003
Rhode Island	1929	5	5	8	39	—	30	5,820	8,262	98,014	96,438	1,576	213,077	115,093
	1927	4	5	10	35	—	35	11,830	12,405	147,727	146,321	1,406	216,938	68,311
	1919	4	3	6	8	—	8	3,710	6,198	46,704	45,047	657	82,425	36,721
Tennessee	1929	5	17	18	32	—	32	40,035	17,637	189,890	188,447	1,452	416,086	226,187
	1927	6	11	30	20	—	20	30,206	22,581	242,540	240,019	1,027	485,993	232,857
	1919	14	126	179	311	—	311	292,802	101,253	1,568,324	1,561,788	6,536	2,312,334	744,010
Texas	1929	15	71	82	205	—	205	199,236	164,865	1,761,166	1,740,953	20,163	5,064,120	3,303,014
	1927	11	85	53	186	—	186	208,865	78,433	1,490,060	1,484,517	5,543	3,688,976	2,198,916
Virginia	1929	10	60	149	264	—	264	134,644	117,098	1,154,000	1,140,736	7,264	2,280,311	1,120,811
Washington	1929	3	8	26	50	—	50	18,688	36,823	278,099	277,106	993	426,825	148,726
	1927	3	21	30	54	—	54	54,025	39,027	195,808	192,114	3,694	425,510	239,711
Wisconsin	1929	37	184	473	5,848	3,056	1,802	530,050	710,411	2,489,143	2,268,056	220,187	5,280,240	2,701,097
	1927	23	334	692	6,030	4,491	2,145	764,784	1,058,381	3,628,169	3,277,800	350,369	8,712,527	5,084,368
Groups of States:														
Ala., 1 est.; Ark., 1; S. C., 1	1929	3	5	5	13	3	10	10,208	5,204	38,081	38,808	173	92,080	53,699
Iowa, 3 est.; Kans., 2; Nebr., 1	1929	6	9	16	22	—	22	34,752	24,353	196,917	196,019	898	371,039	174,122
Okla., 2 est.; Utah, 1	1929	3	4	7	19	—	19	4,525	7,330	30,875	30,200	675	71,215	40,340
Other States (Ky., 1 est.; N. C., 2; Vt., 1; W. Va., 2)	1929	6	15	13	31	0	25	25,992	10,927	118,705	117,524	1,271	287,064	169,169
States not shown separately	1927	32	107	196	499	—	499	270,623	198,052	1,792,185	1,682,250	10,935	3,255,401	1,553,216
	1919	189	834	913	1,555	601	955	1,396,748	793,529	10,817,710	10,767,216	50,494	30,217,514	10,399,894

<sup>1</sup> Not including proprietors and firm members, as follows: For 1929, 392; 1927, 219; 1919, 432. The total numbers of persons engaged—proprietors and firm members, salaried officers and employees, and wage earners—as reported for the industry, are as follows: For 1929, 7,847; 1927, 7,887; 1919, 6,771.

<sup>2</sup> The figures for 1929 refer to sales (shipments or deliveries) by manufacturers; those for earlier years represent production. See GENERAL EXPLANATIONS—Value of Products.

<sup>3</sup> Value of products less cost of materials, containers for products, fuel, and purchased electric energy. See GENERAL EXPLANATIONS—Value Added by Manufacture.

<sup>4</sup> Alabama, 1 establishment; Arkansas, 1; Colorado, 1; Connecticut, 1; Florida, 2; Iowa, 5; Kansas, 2; Kentucky, 3; Nebraska, 2; North Carolina, 1; Oklahoma, 2; South Carolina, 1; Utah, 1; Virginia, 7; West Virginia, 2.

<sup>5</sup> Alabama, 3 establishments; Arkansas, 1; Colorado, 4; Connecticut, 8; District of Columbia, 1; Florida, 2; Georgia, 11; Iowa, 8; Kansas, 4; Kentucky, 6; Louisiana, 5; Maine, 11; Maryland, 22; Michigan, 13; Minnesota, 4; Mississippi, 1; Missouri, 17; Nebraska, 4; New Hampshire, 4; North Carolina, 4; Oklahoma, 1; Oregon, 5; South Carolina, 3; South Dakota, 1; Texas, 9; Utah, 4; Vermont, 1; Virginia, 13; Washington, 8; Wisconsin, 10.

CENSUS OF MANUFACTURES: 1929

TABLE 3.—PRODUCTS, BY KIND, QUANTITY, AND VALUE, FOR THE UNITED STATES: 1929 AND 1927

(The figures for 1929 refer to sales (shipments or deliveries) by manufacturers; those for 1927 represent production. See GENERAL EXPLANATIONS—Value of Products)

KIND	1929	1927	KIND	1929	1927
1. Flavoring-extracts and flavoring-syrups industry, all products, total value.....	\$129, 086, 237	\$107, 210, 395	Flavoring extracts, flavoring syrups, and related products—Continued.		
2. Flavoring extracts, flavoring syrups, and related products.....	118, 122, 310	96, 616, 427	Fruit juices—		
3. Other products (not normally belonging to the industry).....	10, 063, 927	10, 002, 908	Gallons.....	2, 663, 968	(1)
4. Flavoring extracts, flavoring syrups, and related products, made as secondary products in other industries, value.....	24, 910, 002	22, 400, 975	Value.....	\$3, 592, 002	\$1, 878, 011
Flavoring extracts, flavoring syrups, and related products, all industries:			Colors—		
Aggregate value (sum of 2 and 4).....	\$143, 032, 402	\$119, 110, 402	Total value.....	\$2, 367, 206	\$2, 412, 172
Flavoring syrups—			Burnt-sugar—		
Gallons.....	38, 681, 120	(1)	Gallons.....	1, 450, 703	(1)
Value.....	\$50, 597, 118	\$37, 150, 054	Value.....	\$991, 882	\$919, 698
Flavoring extracts—			Powder—		
Gallons.....	4, 850, 000	(1)	Pounds.....	418, 708	(1)
Value.....	\$35, 564, 071	\$31, 237, 058	Value.....	\$941, 772	\$555, 003
Malt extracts and malt syrups—			Liquid—		
Pounds.....	426, 798, 050	(1)	Gallons.....	105, 052	(1)
Value.....	\$50, 940, 100	\$31, 527, 103	Value.....	\$270, 225	\$309, 111
Crushed fruits—			Paste—		
Gallons.....	2, 047, 267	(1)	Pounds.....	278, 550	(1)
Value.....	\$5, 581, 151	\$5, 145, 522	Value.....	\$163, 320	\$127, 200
Concentrates—			Flavoring powders—		
Pounds.....	(1)	(1)	Pounds.....	7, 022, 567	(1)
Value.....	\$4, 544, 620	\$4, 372, 572	Value.....	\$2, 240, 387	\$1, 005, 820
			Flavoring pastes—		
			Pounds.....	2, 071, 093	(1)
			Value.....	\$1, 010, 464	\$433, 510
			Cordials—		
			Gallons.....	231, 067	(1)
			Value.....	\$578, 085	\$628, 032
			Not reported by kind, value.....		\$2, 419, 942

(1) Quantities not reported.

TABLE 4.—PRODUCTS, BY KIND, QUANTITY, AND VALUE, 1929, AND BY VALUE, 1927, BY STATES

(The statistics for 1929 refer to sales (shipments or deliveries) by manufacturers; those for 1927 represent production. See GENERAL EXPLANATIONS—Value of Products. Figures are given for each State which can be shown separately without disclosing data for individual establishments. Some of the "Other States," and of the States shown in groups, however, reported larger quantities and values of certain classes of products than some of the States shown separately.)

PRODUCT AND STATE	1929		1927	PRODUCT AND STATE	1929		1927
	Quantity	Value	Value		Quantity	Value	Value
FLAVORING SYRUPS				FLAVORING EXTRACTS—CON.			
United States.....	Gallons 38, 681, 120	\$50, 597, 118	\$37, 150, 054	Wisconsin.....	Gallons 50, 967	\$365, 906	\$380, 114
California.....	1, 707, 272	2, 429, 157	2, 258, 583	Ala., Ky., Miss.....	42, 017	(1)	(1)
Colorado.....	38, 214	50, 213	(1)	Ark., Kans., Okla.....	10, 508	154, 492	(1)
Florida.....	24, 086	20, 513	(1)	Iowa, Mont., Nebr., N. Dak.,			
Illinois.....	7, 704, 235	10, 087, 434	6, 760, 415	Utah.....	85, 076	642, 156	(1)
Maine.....	124, 572	179, 092	(1)	Other States <sup>1</sup> .....	36, 206	259, 598	1, 128, 211
Massachusetts.....	520, 049	665, 455	904, 704	MALT EXTRACTS AND MALT			
Minnesota.....	52, 502	69, 213	65, 381	SYRUPS			
Missouri.....	189, 234	291, 538	219, 901	United States.....	Pounds 426, 798, 050	36, 940, 190	31, 527, 103
New Jersey.....	400, 914	543, 604	163, 232	Illinois.....	164, 014, 298	10, 382, 438	6, 428, 425
New York.....	6, 024, 179	8, 387, 207	4, 805, 402	Michigan.....	33, 272, 328	2, 695, 019	2, 206, 700
Ohio.....	1, 002, 803	1, 024, 803	645, 024	New York.....	80, 346, 122	5, 370, 940	4, 449, 915
Oregon.....	70, 375	91, 071	15, 023	Ohio.....	38, 090, 113	3, 068, 370	(1)
Pennsylvania.....	610, 865	1, 548, 612	1, 427, 531	Pennsylvania.....	12, 562, 737	908, 111	(1)
Rhode Island.....	62, 037	75, 610	(1)	Wisconsin.....	75, 768, 990	6, 090, 691	7, 221, 078
Texas.....	3, 371, 800	4, 196, 361	2, 987, 612	Other States <sup>1</sup> .....	87, 784, 062	8, 364, 620	11, 280, 079
Virginia.....	608, 349	729, 990	(1)	CRUSHED FRUITS			
Washington.....	50, 485	63, 114	123, 251	United States.....	Gallons 2, 047, 267	5, 681, 151	5, 145, 522
Wisconsin.....	60, 730	87, 721	92, 532	California.....	277, 297	545, 561	(1)
Other States <sup>1</sup> .....	16, 035, 891	20, 071, 416	17, 686, 973	Illinois.....	145, 064	376, 293	(1)
FLAVORING EXTRACTS				Maryland.....	25, 015	71, 304	(1)
United States.....	4, 850, 099	\$5, 564, 671	\$1, 237, 058	Massachusetts.....	150, 400	263, 400	(1)
California.....	235, 362	1, 578, 505	1, 063, 087	Missouri.....	251, 409	683, 445	(1)
Colorado.....	17, 744	126, 636	67, 274	New York.....	612, 811	2, 238, 730	(1)
Connecticut.....	5, 737	43, 473	(1)	Ohio.....	401, 470	1, 026, 947	(1)
Florida.....	1, 210	9, 078	4, 710	Rhode Island.....	4, 734	14, 867	(1)
Georgia.....	295, 449	2, 520, 601	30, 045	Other States <sup>1</sup> .....	178, 467	360, 652	(1)
Illinois.....	802, 926	5, 626, 033	4, 062, 213	CONCENTRATES			
Indiana.....	61, 818	359, 156	444, 567	United States.....	(1)	4, 544, 620	4, 372, 572
Louisiana.....	66, 488	381, 277	524, 702	California.....	(1)	582, 930	265, 967
Maine.....	49, 500	460, 743	386, 704	Illinois.....	(1)	1, 960, 337	640, 360
Maryland.....	78, 579	768, 560	818, 980	Maryland.....	(1)	17, 666	(1)
Massachusetts.....	305, 570	2, 424, 973	2, 648, 955	Massachusetts.....	(1)	47, 176	(1)
Michigan.....	84, 345	675, 797	575, 989	Missouri.....	(1)	67, 892	(1)
Minnesota.....	176, 501	1, 255, 051	1, 052, 132	New York.....	(1)	686, 925	592, 568
Missouri.....	272, 291	1, 798, 462	1, 846, 204	Ohio.....	(1)	10, 490	(1)
New Jersey.....	177, 110	1, 219, 890	682, 039	Pennsylvania.....	(1)	202, 093	(1)
New York.....	914, 949	6, 342, 630	5, 247, 479	Texas.....	(1)	496, 777	390, 296
Ohio.....	251, 429	1, 801, 623	2, 112, 200	Other States <sup>1</sup> .....	(1)	473, 415	2, 465, 371
Oregon.....	18, 626	134, 864	175, 544				
Pennsylvania.....	321, 171	2, 373, 148	2, 464, 078				
Rhode Island.....	11, 431	62, 502	(1)				
Tennessee.....	100, 495	1, 510, 942	1, 604, 867				
Texas.....	46, 858	393, 972	327, 680				
Virginia.....	164, 634	1, 484, 795	937, 247				
Washington.....	95, 901	737, 791	828, 047				

See footnotes at end of table.

# FLAVORING EXTRACTS AND SIRUPS

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TABLE 4.—PRODUCTS, BY KIND, QUANTITY, AND VALUE, 1929, AND BY VALUE, 1927, BY STATES—Continued

[See note at head of this table]

PRODUCT AND STATE	1929		1927	PRODUCT AND STATE	1929		1927
	Quantity	Value	Value		Quantity	Value	Value
<b>FRUIT JUICES</b>				<b>COLORS (PASTE)</b>			
United States.....	<i>Gallons</i> 2,663,008	\$3,592,002	\$1,878,011	United States.....	<i>Pounds</i> 278,550	\$163,320	\$127,260
California.....	1,260,822	1,700,386	(b)	<b>FLAVORING POWDERS</b>			
Florida.....	25,870	25,790	(b)	United States.....	7,022,567	2,240,387	1,905,820
Illinois.....	26,841	30,410	(b)	Illinois.....	1,868,900	433,980	(c)
Minnesota.....	20,776	28,047	(b)	New York.....	4,002,844	1,476,026	(c)
New York.....	641,870	842,068	(b)	Pennsylvania.....	147,078	126,900	(c)
Wisconsin.....	15,660	21,241	(b)	Calif., Colo., Mo., Nebr., Oreg., Tex.....	605,045	125,348	(c)
Conn., D. C., Me., Mass., N. J., Pa.....	107,494	212,800	(b)	Ind., Md., Mass., N. J.....	308,010	77,173	(c)
Ind., Ky., Mich., Mo., Ohio.....	453,821	666,603	(b)	<b>FLAVORING PASTES</b>			
Other States <sup>1</sup> .....	50,754	64,888	(b)	United States.....	2,071,993	1,010,464	433,516
<b>COLORS (BURNT-SUGAR)</b>				Illinois.....	183,920	95,221	(c)
United States.....	1,450,703	991,882	910,898	Massachusetts.....	3,491	2,888	(c)
Illinois.....	403,880	257,540	(c)	New York.....	1,821,133	870,675	(c)
Massachusetts.....	8,098	9,120	(c)	Other States <sup>13</sup> .....	63,440	50,680	(c)
New Jersey.....	197,466	146,811	(c)	<b>CORDIALS</b>			
New York.....	68,910	71,756	(c)	United States.....	<i>Gallons</i> 231,067	578,685	628,072
Ohio.....	602,266	388,577	(c)	California.....	27,463	66,536	(1)
Pennsylvania.....	82,060	60,791	(c)	Illinois.....	65,004	101,175	96,060
Wisconsin.....	14,421	11,305	(c)	New York.....	45,300	153,100	221,717
Other States <sup>10</sup> .....	73,506	46,964	(c)	Other States <sup>14</sup> .....	103,234	257,868	310,225
<b>COLORS (POWDER)</b>				<b>CORDIALS</b>			
United States.....	<i>Pounds</i> 418,708	941,772	555,003	<b>CORDIALS</b>			
Illinois.....	66,591	205,065	(c)	<b>CORDIALS</b>			
Massachusetts.....	2,881	9,155	(c)	<b>CORDIALS</b>			
New York.....	122,828	308,780	(c)	<b>CORDIALS</b>			
Other States <sup>11</sup> .....	226,408	358,172	(c)	<b>CORDIALS</b>			
<b>COLORS (LIQUID)</b>				<b>CORDIALS</b>			
United States.....	<i>Gallons</i> 108,052	270,225	609,111	<b>CORDIALS</b>			
California.....	4,211	16,180	(c)	<b>CORDIALS</b>			
Illinois.....	14,701	46,087	(c)	<b>CORDIALS</b>			
Massachusetts.....	2,083	12,919	(c)	<b>CORDIALS</b>			
Missouri.....	7,281	27,522	(c)	<b>CORDIALS</b>			
New York.....	56,135	95,841	(c)	<b>CORDIALS</b>			
Ohio.....	5,385	28,608	(c)	<b>CORDIALS</b>			
Pennsylvania.....	2,276	8,735	(c)	<b>CORDIALS</b>			
Other States <sup>12</sup> .....	12,280	34,333	(c)	<b>CORDIALS</b>			

<sup>1</sup> Included in item for "Other States" in order to avoid disclosing data for individual establishments.  
<sup>2</sup> For 1929: Alabama, Arkansas, Connecticut, District of Columbia, Georgia, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maryland, Michigan, Nebraska, North Carolina, North Dakota, Oklahoma, South Dakota, Tennessee, Utah, Vermont.  
<sup>3</sup> For 1929: North Carolina, South Carolina, Vermont, West Virginia.  
<sup>4</sup> For 1929: California, Colorado, Connecticut, Indiana, Iowa, Louisiana, Maryland, Massachusetts, Minnesota, Missouri, Nebraska, New Jersey, Rhode Island, Washington.  
<sup>5</sup> Not tabulated by States for 1927.  
<sup>6</sup> For 1929: Colorado, Indiana, Kentucky, Maine, Michigan, Minnesota, New Jersey, Oregon, Pennsylvania, Virginia, Washington, Wisconsin.  
<sup>7</sup> Data incomplete.  
<sup>8</sup> For 1929: Colorado, Georgia, Kansas, Minnesota, New Jersey, North Carolina, Oregon, Virginia, Wisconsin.  
<sup>9</sup> For 1929: Idaho, Iowa, Kansas, Louisiana, Nebraska, Oklahoma, Oregon, Texas, Utah, Washington.  
<sup>10</sup> For 1929: California, Connecticut, Maine, Michigan, Missouri, Rhode Island, Virginia.  
<sup>11</sup> For 1929: California, Colorado, Connecticut, Indiana, Missouri, New Jersey, Ohio, Oregon, Pennsylvania, Rhode Island, Texas, Virginia, Washington, Wisconsin.  
<sup>12</sup> For 1929: Colorado, Connecticut, Indiana, Maine, Maryland, Michigan, New Jersey, Oregon, Rhode Island, Texas, Utah, Washington, Wisconsin.  
<sup>13</sup> For 1929: California, Missouri, Ohio, Pennsylvania, Washington.  
<sup>14</sup> For 1929: Louisiana, Missouri, Nebraska, Oklahoma, Texas, Wisconsin.

CENSUS OF MANUFACTURES: 1929

TABLE 5.—PRINCIPAL MATERIALS CONSUMED IN THE FLAVORING EXTRACTS AND FLAVORING SIRUPS INDUSTRY, BY KIND, QUANTITY, AND COST, BY STATES: 1929

[Quantities and costs of the principal materials consumed were reported by only 529 of the 642 establishments in this industry. The combined value of products reported by these 529 establishments amounted to \$119,652,563, or 93 per cent of the aggregate value of products of all establishments in the industry. Another reason for the difference between the sum of the costs of the several kinds of materials shown in this table and the total cost of materials as given in Tables 1 and 2 is found in the fact that this table covers only certain specified materials, whereas the others cover all materials.]

STATE	Total cost of principal materials	SUGAR (OTHER THAN CORN)		CORN SUGAR		ESSENTIAL OILS		GLYCERINE	
		Pounds	Cost	Pounds	Cost	Pounds	Cost	Pounds	Cost
United States.....	\$36,337,234	224,317,335	\$11,890,709	20,753,451	\$748,399	622,902	\$2,153,471	1,055,263	\$200,614
California.....	1,372,659	13,322,521	674,935	1,647,989	65,911	38,758	110,531	67,176	9,771
Colorado.....	10,205	76,210	4,557	100	5	270	905	390	95
Connecticut.....	1,415	600	30			150	725	600	05
Florida.....	308	6,000	306						
Georgia.....	1,914,679	25,621,786	1,381,169			138,462	420,402	236,248	32,001
Illinois.....	6,359,425	43,113,420	2,368,011	4,187,017	138,589	135,331	441,394	234,438	42,063
Indiana.....	280,093	214,525	11,588	189	12	2,800	13,500	5,048	723
Louisiana.....	1,257,096	23,622,825	1,231,401			4,773	14,515	1,550	250
Maine.....	147,121	353,433	17,065	12,000	600	2,307	10,361	61,419	8,538
Maryland.....	2,315,874	36,275,355	1,839,566	713,877	28,918	4,612	19,060	10,855	1,647
Massachusetts.....	577,992	2,797,505	150,753	1,500	62	24,231	91,202	23,382	3,727
Michigan.....	873,440	417,015	22,107			10,702	76,074	26,973	3,965
Minnesota.....	107,473	354,200	21,548	540,500	32,451	9,437	34,974	12,800	1,835
Missouri.....	1,200,511	1,957,815	114,567	1,893,293	65,226	28,787	84,047	62,634	8,733
New Jersey.....	1,156,423	1,560,944	80,405	2,218,858	81,731	10,453	33,521	19,290	2,960
New York.....	5,578,371	36,609,673	1,800,204	2,403,716	91,799	86,347	324,446	310,144	44,610
Ohio.....	2,319,896	5,216,949	275,192	4,785,488	148,355	16,852	62,750	42,005	4,859
Oregon.....	49,868	251,150	13,693	6,030	358	2,093	7,808	8,545	1,365
Pennsylvania.....	899,368	6,166,889	319,290	923,243	34,359	29,405	119,855	58,489	10,091
Rhode Island.....	25,987	342,730	17,064			601	2,635	8,025	1,290
Tennessee.....	70,212	150,820	7,784			5,537	20,012	43,850	6,459
Texas.....	1,145,992	18,851,592	1,045,514	90	5	19,246	67,785	4,183	693
Virginia.....	727,459	3,498,437	198,362	100,000	5,700	20,739	79,395	317,449	68,475
Washington.....	238,107	1,887,360	95,150	6,300	286	2,895	9,087	5,648	891
Wisconsin.....	1,406,676	771,350	41,078	1,436,361	54,038	18,804	80,055	73,552	9,751
Other States (Ala., Ark., Iowa, Kans., Ky., Nebr., N. C., Okla., S. C., Utah, Vt., W. Va.).....	150,019	875,406	45,664			8,130	27,092	29,957	5,750

STATE	HOPS		ALCOHOL		MALT		FRUIT
	Pounds	Cost	Gallons	Cost	Bushels	Cost	Cost
United States.....	7,800,092	\$1,756,092	707,380	\$2,300,245	10,061,289	\$8,356,205	\$2,805,629
California.....	600	150	29,345	82,422			419,939
Colorado.....			1,050	3,935			1,838
Connecticut.....			202	550			
Florida.....							
Georgia.....			28,038	77,883			3,134
Illinois.....	3,992,990	873,969	196,695	470,214	2,357,700	1,841,417	176,808
Indiana.....	281,400	66,038	2,738	7,500	230,000	181,632	
Louisiana.....	6,799	1,713	3,415	9,217			
Maine.....			30,532	79,562			30,095
Maryland.....	193,800	38,960	28,181	75,204	342,000	307,829	4,600
Massachusetts.....	40	15	71,718	201,244			139,989
Michigan.....	667,772	136,891	20,207	55,344	657,431	574,404	4,655
Minnesota.....			25,820	71,765			4,909
Missouri.....	58,210	11,042	46,865	127,464	945,646	738,147	69,685
New Jersey.....	175,961	47,805	9,112	23,618	834,804	824,991	61,422
New York.....	827,691	192,116	153,851	488,588	1,547,270	1,379,140	1,107,405
Ohio.....	385,654	94,748	23,049	68,297	1,304,216	1,128,620	537,041
Oregon.....			3,754	10,840			15,705
Pennsylvania.....	219,651	53,288	26,897	73,626	861,784	272,082	28,780
Rhode Island.....			1,062	2,998			1,050
Tennessee.....	2,000	300	13,010	35,690			
Texas.....			2,856	8,017	18,022	16,220	7,753
Virginia.....	10,000	4,750	58,591	203,128			117,616
Washington.....			1,480	4,371			127,812
Wisconsin.....	1,028,250	224,934	12,325	35,034	1,328,660	1,051,786	
Other States (Ala., Ark., Iowa, Kans., Ky., Nebr., N. C., Okla., S. C., Utah, Vt., W. Va.).....	50,168	8,935	6,306	18,956	43,000	39,865	3,757

TABLE 6.—PRIME MOVERS, MOTORS, GENERATORS, AND CONSUMPTION OF PURCHASED ELECTRIC ENERGY—NUMBER AND RATED CAPACITY OF PRIME MOVERS AND ELECTRIC MOTORS, 1920, 1927, 1925, 1919, AND 1914, AND OF GENERATORS, 1929, 1927, AND 1925; QUANTITY OF ELECTRIC ENERGY PURCHASED, 1929

TYPE	1920		1927		1925		1919		1914		PER CENT DISTRIBUTION OF RATED HORSEPOWER CAPACITY	
	Number	Capacity	Number	Capacity	Number	Capacity	Number	Capacity	Number	Capacity	1929	1919
Prime movers and electric motors driven by purchased energy, aggregate.....	3,371	Horse-power 33,838	2,051	Horse-power 27,963	2,052	Horse-power 23,313	1,032	Horse-power 6,553	470	Horse-power 3,520	100.0	100.0
Prime movers, total.....	157	18,003	169	16,096	118	13,470	47	2,632	54	2,047	55.0	40.2
Steam, total.....	140	16,477	146	15,720	112	13,445	27	2,524	37	1,917	48.7	38.5
Engines.....	141	16,077	139	15,204	108	13,315	27	2,524	(1)	(1)	47.5	38.5
Turbines.....	5	400	7	516	4	130			(1)	(1)	1.2	
Internal-combustion engines.....	10	2,072	23	322	6	25	17	105	17	130	6.1	1.7
Water wheels and water turbines.....	1	54	1	54			3	3			0.2	
Electric motors driven by purchased energy.....	3,214	15,235	2,482	11,867	1,934	9,843	985	3,021	425	1,470	46.0	59.8
Electric motors, total.....	4,522	31,348	3,876	19,412	2,740	16,265	1,164	4,408	450	1,830	100.0	100.0
Driven by purchased energy.....	3,214	15,235	2,482	11,867	1,934	9,843	985	3,021	425	1,470	48.0	87.2
Driven by energy generated in establishments reporting.....	1,308	16,113	1,394	7,545	815	6,422	170	577	31	51	51.4	12.8
Electric generators.....	54	Kilowatts 8,547 Kilowatt-hours	46	Kilowatts 6,402	38	Kilowatts 4,645	(2)	(2)	(2)	(2)		
Electric energy purchased <sup>3</sup> .....		14,401,105		(4)		(4)		(2)		(2)		

<sup>1</sup> Not called for separately on schedule.  
<sup>2</sup> Not called for on schedule.  
<sup>3</sup> This item covers the consumption of purchased electric energy for all purposes—power, heat, light, etc.  
<sup>4</sup> Data incomplete.

TABLE 7.—WAGE EARNERS, BY MONTHS, FOR THE UNITED STATES, 1920, 1925, 1919, 1914, AND 1909, AND BY STATES, 1920

[This table presents statistics for only those States for which figures can be given without disclosing data for individual establishments. The sum of the State items in any column is not, therefore, equal to the United States total at the head of the column. The month of maximum employment is indicated by bold-faced figures and that of minimum employment by *italic* figures]

STATE	Average number employed during year	NUMBER EMPLOYED ON 15TH DAY OF MONTH OR NEAREST REPRESENTATIVE DAY												Per cent minimum is of maximum	
		January	February	March	April	May	June	July	August	September	October	November	December		
United States:															
1920.....	5,041	<i>4,618</i>	4,700	4,857	5,076	5,210	5,502	5,549	5,454	5,164	4,888	4,801	4,058	83.2	
1925.....	3,890	<i>3,904</i>	3,487	3,652	3,197	4,147	4,375	4,417	4,142	3,904	3,816	3,714	3,641	76.2	
1919.....	3,586	<i>3,148</i>	3,130	3,290	3,338	3,635	3,907	4,106	4,021	3,730	3,000	3,483	3,674	76.2	
1914.....	2,800	<i>2,192</i>	2,182	2,227	2,388	2,698	3,070	2,604	2,460	2,515	2,282	2,183	2,170	69.4	
1909.....	2,324	<i>1,682</i>	2,035	2,145	2,242	2,440	2,731	2,708	2,401	2,355	2,410	2,235	2,275	70.4	
California.....	362	<i>291</i>	295	300	383	413	395	405	450	306	374	338	305	64.7	
Colorado.....	5	<i>4</i>	4	4	4	4	7	7	6	6	5	5	5	57.1	
Connecticut.....	7	<i>5</i>	5	5	5	10	10	10	10	6	5	5	5	50.0	
Florida.....	6	<i>3</i>	3	3	6	6	6	6	6	6	6	6	6	60.0	
Georgia.....	93	<i>88</i>	87	94	93	92	93	111	107	93	87	87	80	77.5	
Illinois.....	849	<i>787</i>	800	819	840	857	897	930	896	898	811	816	801	84.6	
Indiana.....	49	<i>35</i>	36	38	40	43	45	50	50	71	42	38	34	42.5	
Louisiana.....	40	<i>48</i>	47	47	48	48	48	51	50	53	52	49	48	88.7	
Maine.....	58	<i>50</i>	57	58	64	65	70	73	57	44	44	52	53	60.3	
Maryland.....	101	<i>90</i>	100	102	103	100	105	112	107	103	98	95	93	83.0	
Massachusetts.....	153	<i>147</i>	149	150	152	152	157	161	156	153	153	153	151	90.7	
Michigan.....	294	<i>274</i>	231	244	264	272	304	307	314	290	243	242	238	71.3	
Minnesota.....	66	<i>55</i>	56	63	73	79	84	78	57	59	50	50	50	65.5	
Missouri.....	214	<i>207</i>	218	223	246	208	221	217	210	214	208	197	188	76.4	
New Jersey.....	179	<i>175</i>	171	173	177	180	180	192	189	188	175	175	167	87.0	
New York.....	1,191	<i>1,136</i>	1,196	1,197	1,157	1,211	1,289	1,233	1,236	1,200	1,166	1,156	1,121	87.0	
Ohio.....	299	<i>274</i>	275	285	285	325	337	288	295	308	305	303	310	81.3	
Oregon.....	26	<i>25</i>	25	26	26	26	28	28	28	26	25	25	25	86.2	
Pennsylvania.....	273	<i>236</i>	229	271	290	298	340	357	287	250	255	250	235	68.0	
Rhode Island.....	8	<i>7</i>	7	7	7	8	8	10	10	10	8	7	7	70.0	
Tennessee.....	18	<i>18</i>	19	17	17	17	17	17	25	22	21	18	18	52.0	
Texas.....	82	<i>72</i>	74	75	81	80	92	94	86	86	83	77	77	76.6	
Virginia.....	140	<i>147</i>	142	150	153	151	152	153	145	145	151	152	147	92.8	
Washington.....	26	<i>25</i>	25	25	25	25	25	26	26	26	31	27	26	80.6	
Wisconsin.....	473	<i>416</i>	417	438	484	485	538	557	550	482	440	434	428	74.7	

## FLOUR AND OTHER GRAIN-MILL PRODUCTS

**Description of the industry.**—The establishments classified in this industry are those engaged primarily in the manufacture of flour and meal from wheat, corn, and other grains. Mills whose principal products are the result of further manufacturing processes are classified elsewhere. For example: Those making cereal breakfast foods are classified in the "Cereal preparations" industry, and those making prepared feeds for livestock and poultry in the "Feeds, prepared, for animals and fowls" industry. Although some manufacturers of cereal preparations and prepared feeds purchase certain grain-mill products and put them through further manufacturing processes, others use grain as their basic raw material and perform all the processes necessary to convert it into the finished product. The "Flour and other grain-mill products" industry does not, therefore, embrace all mills which use grain as material.

**Restriction of canvass to merchant mills.**—At the censuses for 1921 and subsequent years, and also at those for 1904 and 1914, the canvasses have been

restricted to merchant mills—that is, establishments which mill purchased grain and sell the products made therefrom. At the censuses for 1899, 1909, and 1919 the canvasses covered both merchant mills and custom mills (grist mills), but the figures for those years as given in this report refer to merchant mills only. Some mills reported both merchant and custom business, but all such mills have been treated as merchant mills, even though their custom work constituted more than half their total business. The total value of products of such mills, of which the value of flour, meal, etc., ground on a custom basis forms a part, is included in the value of products for the industry, which thus represents slightly more than the value of the strictly merchant products.

An indication of the relative importance of merchant mills and custom mills is afforded by the fact that the products of the latter, as reported for 1919, contributed only 4.4 per cent of the total value of products of both merchant and custom mills.

TABLE 1.—SUMMARY FOR THE UNITED STATES: 1899 TO 1929

[Data for establishments with products under \$5,000 in value included for 1919 and prior years but not for 1921 and subsequent years. See GENERAL EXPLANATIONS—Establishments Covered—Size]

YEAR OR PERIOD	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, containers for products, fuel, and purchased electric energy	Value of products <sup>1</sup>	Value added by manufacture <sup>2</sup>	Horsepower
1929.....	4,022	27,028	\$35,072,386	\$868,872,599	\$1,000,209,418	\$191,300,849	641,466
1927.....	4,035	29,982	37,550,472	972,711,040	1,148,700,360	176,049,320	641,608
1925.....	4,413	31,938	39,700,230	1,125,878,941	1,208,014,788	172,635,847	630,910
1923.....	5,282	35,194	41,704,297	885,071,543	1,048,877,459	162,005,016	700,866
1921.....	6,485	35,378	43,142,734	903,909,720	1,179,740,131	185,030,411	(3)
1919.....	10,708	45,431	50,888,383	1,799,180,987	2,052,434,385	253,253,398	875,404
1914.....	10,788	39,718	24,593,162	752,270,021	877,670,700	125,409,688	821,406
1909.....	11,891	39,453	21,464,380	767,576,479	853,584,405	110,007,026	860,284
1904.....	10,051	30,110	19,822,193	619,971,101	713,033,396	93,062,234	774,380
1899.....	9,470	32,226	16,285,163	428,116,757	501,396,304	73,279,547	670,710
PER CENT OF INCREASE OR DECREASE (—)							
1927-1929.....	-0.3	-9.9	-6.6	-10.7	-7.7	8.7	(4)
1925-1927.....	-8.6	-6.3	-5.4	-13.6	-11.5	2.0	-4.2
1923-1925.....	-15.7	-0.1	-4.8	27.0	23.8	6.2	-5.6
1921-1923.....	-19.3	-0.5	-3.3	-10.0	-11.1	-12.5	-----
1919-1921.....	-39.4	-22.2	-15.2	-44.8	-42.5	-26.6	-----
1919-1929.....	-62.4	-32.0	-31.1	-51.7	-48.3	-24.4	-26.7
1909-1919.....	-8.4	15.3	137.1	134.4	132.3	118.3	3.0
1899-1909.....	23.4	2.4	31.8	79.3	76.2	58.3	20.8

<sup>1</sup> For 1929, manufacturers' sales (shipments or deliveries); for earlier years, production. See GENERAL EXPLANATIONS—Value of Products.

<sup>2</sup> Value of products less cost of materials, containers for products, fuel, and purchased electric energy. See GENERAL EXPLANATIONS—Value Added by Manufacture.

<sup>3</sup> Not called for on schedule.

<sup>4</sup> Less than one-tenth of 1 per cent.

# FLOUR AND OTHER GRAIN-MILL PRODUCTS

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TABLE 2.—GENERAL STATISTICS, BY STATES: 1929, 1927, AND 1919

[This table presents statistics separately for each State for which figures can be given without disclosing data for individual establishments. Certain of the "Other States" however, reported larger values of products than some of the States shown separately. Data for establishments with products under \$5,000 in value are included for 1919 but not for subsequent years. See GENERAL EXPLANATIONS—Establishments Covered—Size]

STATE	Census year	Number of establishments	Salad oil and employees	Wage earners (average for the year)	HORSEPOWER (RATED CAPACITY) OF POWER EQUIPMENT			Salaries	Wages	COST OF MATERIALS, CONTAINERS FOR PRODUCTS, FUEL, AND PURCHASED ELECTRIC ENERGY			Value of products <sup>1</sup>	Value added by manufacture <sup>1</sup>
					Total	Prime movers	Motors run by purchased energy			Total	Materials and containers	Fuel and purchased energy		
United States	1929	4,022	8,764	27,028	641,456	308,022	333,434	\$20,594,955	\$35,072,380	\$868,872,500	\$858,624,157	\$10,248,412	\$1,060,209,418	\$101,506,840
	1927	4,035	10,140	29,982	641,608	331,828	300,780	22,231,064	37,550,472	972,711,040	960,879,104	11,831,936	1,148,760,360	170,049,320
	1919	10,708	18,361	45,481	875,404	611,067	263,407	32,013,030	50,888,363	1,790,180,987	1,783,901,111	16,270,870	2,052,434,385	253,253,398
Alabama	1929	70	14	69	2,383	947	1,436	49,400	60,230	1,549,900	1,535,251	14,058	1,825,234	275,325
	1927	21	8	41	1,290	379	917	33,041	30,200	811,005	798,634	12,981	981,571	169,090
	1919	143	50	152	4,994	2,833	2,171	96,750	132,981	3,847,940	3,793,876	51,066	4,595,179	717,439
Arkansas	1929	30	57	147	2,647	1,067	1,580	120,775	137,055	4,325,215	4,285,809	39,419	4,848,007	624,082
	1927	27	45	208	4,185	2,223	1,062	103,283	203,300	4,580,023	4,533,244	52,779	5,802,005	1,240,672
	1919	166	100	267	7,005	4,624	2,381	188,577	243,463	7,072,981	6,960,056	122,326	8,045,500	1,672,588
California	1929	54	845	719	11,628	315	11,313	707,747	1,113,207	27,792,080	27,514,001	247,089	32,804,863	5,102,213
	1927	65	347	881	11,644	708	10,936	1,074,811	1,202,313	26,522,313	26,286,613	235,700	30,580,325	1,240,672
	1919	134	736	1,770	16,800	4,273	12,593	1,167,971	2,220,241	56,883,700	56,370,659	400,050	65,448,362	8,595,646
Colorado	1929	59	63	460	6,046	3,793	2,343	114,855	614,344	10,927,590	10,788,822	138,768	13,701,730	2,834,143
	1927	66	124	437	7,609	4,563	2,880	200,050	633,730	11,234,450	11,083,408	150,042	13,207,581	2,683,131
	1919	120	207	490	9,074	6,102	2,072	437,688	660,327	17,506,621	17,429,570	107,050	19,954,149	2,567,400
Connecticut	1929	8	12	13	700	245	455	16,211	10,612	293,800	197,879	4,926	258,707	55,812
	1927	11	7	21	630	300	330	17,000	27,052	280,000	280,000	5,005	365,433	65,803
	1919	64	24	80	2,351	1,421	630	27,654	84,620	2,083,085	2,007,213	15,872	2,595,144	424,029
Delaware	1929	28	11	66	1,760	1,343	417	14,770	62,000	734,487	724,508	9,989	960,397	225,810
	1927	28	14	72	1,477	1,197	280	15,207	67,000	814,281	801,134	13,147	1,030,780	252,400
	1919	56	16	95	2,736	2,006	130	15,352	95,341	1,665,392	1,643,870	21,522	2,055,735	398,433
Florida	1929	4	1	5	161	70	75	1,300	3,404	31,085	29,917	1,088	42,400	11,455
	1927	5	6	14	375	---	375	12,240	10,978	179,671	165,334	5,337	210,246	39,525
	1919	27	12	52	1,093	807	286	15,304	33,087	479,430	461,421	9,009	508,023	97,569
Georgia	1929	140	68	244	7,780	4,220	3,599	204,724	191,715	5,409,073	5,364,984	54,989	6,654,404	1,244,401
	1927	41	57	239	6,193	3,572	2,621	237,626	263,430	6,126,771	6,065,630	61,141	7,160,394	1,680,621
	1919	161	117	371	9,927	6,618	3,399	278,687	313,679	16,548,785	16,439,109	109,686	11,991,420	1,442,644
Idaho	1929	41	49	227	5,031	347	4,684	75,193	294,564	5,264,055	5,155,462	108,593	6,880,112	1,425,057
	1927	47	59	207	4,163	282	3,871	124,718	277,847	5,043,340	4,980,233	113,047	6,001,867	958,557
	1919	78	112	304	5,603	1,867	4,206	206,081	360,053	11,827,918	11,716,339	111,589	13,501,086	1,673,170
Illinois	1929	81	318	1,144	23,923	14,021	9,002	817,190	1,621,014	37,625,781	37,005,004	459,877	44,282,154	6,759,373
	1927	105	376	1,405	28,146	18,940	9,107	952,000	1,865,007	42,270,439	41,700,387	510,040	41,490,461	7,374,628
	1919	322	989	2,740	37,118	20,400	7,718	2,080,124	2,635,744	103,166,452	102,417,204	748,168	116,602,918	13,397,493
Indiana	1929	165	332	603	23,502	11,787	11,715	760,742	1,208,917	25,008,045	24,748,024	320,921	30,116,049	5,047,104
	1927	201	464	1,304	25,878	15,125	10,753	972,642	1,546,022	35,366,771	34,837,508	519,173	34,490,843	6,623,812
	1919	450	702	2,280	39,341	30,411	8,930	1,265,368	2,272,638	65,740,035	64,684,283	755,752	76,111,435	9,371,400
Iowa	1929	63	109	349	11,475	3,947	7,528	211,702	439,279	11,478,583	11,307,347	171,236	13,078,431	2,190,848
	1927	68	95	315	9,122	3,067	6,055	178,800	420,360	11,187,483	11,080,287	107,196	12,288,322	2,100,500
	1919	189	200	500	13,729	9,970	8,860	341,371	678,181	18,013,062	18,372,812	240,750	21,824,078	2,711,616
Kansas	1929	140	818	2,401	48,605	21,701	26,004	2,105,618	3,257,559	90,945,265	90,772,051	1,173,214	121,405,753	24,420,458
	1927	159	1,113	2,723	61,317	24,470	26,841	2,307,310	3,407,334	114,518,424	113,126,260	1,392,164	133,025,083	19,107,250
	1919	385	1,454	3,493	69,529	30,299	20,630	3,099,601	4,140,056	182,283,476	180,761,636	1,521,842	200,881,300	24,547,523
Kentucky	1929	205	281	856	18,321	9,198	9,123	620,241	899,511	17,790,070	17,690,761	200,209	22,617,153	4,826,183
	1927	163	379	987	17,861	9,100	9,790	753,250	1,070,757	20,680,051	20,782,736	207,343	24,094,636	4,014,755
	1919	533	565	1,584	26,852	22,454	4,398	935,014	1,422,801	39,580,901	39,114,643	466,258	45,773,709	6,192,837
Louisiana	1929	( <sup>b</sup> )	( <sup>c</sup> )	( <sup>d</sup> )	823	150	673	88,004	59,822	2,841,504	2,826,810	14,764	3,469,218	618,654
	1927	( <sup>b</sup> )	( <sup>c</sup> )	( <sup>d</sup> )	( <sup>e</sup> )	( <sup>f</sup> )	( <sup>g</sup> )	( <sup>h</sup> )	( <sup>i</sup> )	( <sup>j</sup> )	( <sup>k</sup> )	( <sup>l</sup> )	( <sup>m</sup> )	( <sup>n</sup> )
	1919	17	16	48	600	205	335	24,075	43,134	1,187,944	1,179,363	8,591	1,384,074	169,130
Maine	1929	37	29	61	1,750	260	1,490	80,813	58,394	1,412,070	1,397,634	15,441	1,669,707	254,692
	1927	42	24	76	2,216	442	1,774	29,941	71,247	2,004,287	1,989,117	21,170	2,230,315	329,078
	1919	118	41	144	4,744	2,405	2,240	62,065	147,074	4,709,172	4,677,570	31,602	5,442,728	733,550
Maryland	1929	90	83	250	6,672	3,207	3,465	140,258	275,443	6,674,108	6,475,741	98,367	8,194,194	1,020,080
	1927	84	89	320	6,829	3,675	3,154	142,065	350,370	8,380,211	8,265,730	114,481	9,013,980	1,533,760
	1919	247	167	478	11,851	8,055	2,690	258,703	440,132	16,867,471	16,108,388	180,083	19,004,169	2,646,698
Massachusetts	1929	20	13	65	1,817	425	1,392	17,079	71,376	1,825,307	1,801,674	23,633	2,055,520	230,129
	1927	32	30	135	3,005	687	2,318	66,204	175,040	3,745,994	3,716,013	29,981	4,350,041	634,647
	1919	75	30	123	4,013	1,516	2,497	48,033	120,900	4,249,530	4,214,481	35,056	4,878,212	628,676
Michigan	1929	134	219	609	18,001	10,884	7,117	477,582	802,673	14,575,800	14,365,520	210,280	18,808,507	4,232,617
	1927	144	254	728	18,838	11,077	7,250	502,553	1,008,290	18,282,360	18,090,802	271,708	21,611,639	8,229,270
	1919	345	419	1,128	20,928	22,216	7,712	666,538	1,266,772	38,185,095	37,776,280	408,815	44,144,434	5,695,310
Minnesota	1929	108	454	3,535	111,697	73,289	38,448	1,474,140	5,100,732	131,330,365	129,000,012	1,331,353	158,063,156	27,632,701
	1927	115	1,027	3,617	109,080	73,017	36,072	2,004,801	4,651,749	158,301,365	156,733,574	1,567,791	185,140,050	26,839,585
	1919	248	4,457	6,049	114,764	84,344	30,420	5,891,574	7,780,555	337,872,512	335,082,145	2,190,307	381,248,891	43,376,379
Mississippi	1929	15	5	19	674	284	440	7,000	18,150	404,755	399,153	5,002	531,423	120,668
	1927	( <sup>b</sup> )	( <sup>c</sup> )	( <sup>d</sup> )	( <sup>e</sup> )	( <sup>f</sup> )	( <sup>g</sup> )	( <sup>h</sup> )	( <sup>i</sup> )					



## CENSUS OF MANUFACTURES: 1929

TABLE 2.—GENERAL STATISTICS, BY STATES: 1929, 1927, AND 1919—Continued

(See note at head of this table)

STATE	Census year	Number of establishments	Salaried officers and employees <sup>1</sup>	Wage earners (average for the year)	HORSEPOWER (RATED CAPACITY) OF POWER EQUIPMENT			Salaries	Wages	COST OF MATERIALS, CONTAINERS FOR PRODUCTS, FUEL, AND PURCHASED ELECTRIC ENERGY			Value of products <sup>2</sup>	Value added by manufacture <sup>3</sup>
					Total	Prime movers	Motors run by purchased energy			Total	Materials and containers	Fuel and purchased energy		
New Hampshire	1929	12	16	31	1,327	1,012	215	\$26,669	\$33,183	\$855,730	\$840,820	\$5,919	\$1,004,925	\$149,186
	1927	13	20	38	1,603	1,360	333	24,653	36,253	848,227	842,227	6,400	1,020,857	181,230
	1919	48	17	33	2,042	2,268	674	48,606	95,539	2,926,314	2,914,725	11,569	3,301,340	466,932
New Jersey	1929	40	51	168	3,559	1,910	1,643	125,034	194,332	3,019,307	2,972,640	46,751	3,815,150	795,759
	1927	35	40	129	2,883	1,623	1,200	84,541	171,776	2,302,842	2,294,847	37,995	2,879,073	579,231
	1919	150	68	232	6,631	6,100	525	85,117	210,895	5,035,688	4,992,500	43,188	6,040,161	1,004,463
New Mexico	1929	13	8	31	627	342	285	14,279	40,811	341,500	328,274	13,220	446,830	105,330
	1927	9	7	17	446	220	220	14,135	18,473	341,715	330,308	11,407	419,937	77,922
	1919	30	26	66	1,631	1,307	324	23,333	44,551	1,002,395	1,000,505	31,890	1,321,340	231,945
New York	1929	180	842	2,056	48,305	13,734	34,631	2,291,715	\$ 150,069	90,873,391	90,074,725	798,666	108,765,010	17,891,625
	1927	252	989	2,513	52,938	18,712	34,276	1,637,666	3,424,980	100,212,836	99,324,685	838,151	118,065,857	18,393,371
	1919	716	1,045	3,012	67,326	43,569	23,767	2,059,548	3,300,791	135,633,729	134,849,794	783,934	155,272,104	10,638,376
North Carolina	1929	201	175	469	13,691	4,376	9,315	303,063	444,937	10,007,963	10,714,871	103,092	14,240,105	3,332,142
	1927	153	201	506	13,523	4,084	9,439	424,488	518,594	15,052,802	14,799,089	283,722	17,853,055	2,800,253
	1919	374	175	629	17,148	10,706	6,442	273,550	503,406	21,045,589	20,765,483	280,109	24,288,213	3,212,624
North Dakota	1929	24	100	226	8,025	7,449	579	203,301	331,227	8,030,122	7,928,960	110,162	9,812,250	1,773,128
	1927	27	100	231	8,245	7,807	378	204,724	350,074	8,882,236	8,750,094	132,141	11,042,358	2,100,123
	1919	87	127	668	9,664	8,804	860	215,575	479,496	26,223,005	25,901,190	321,906	29,282,036	3,058,961
Ohio	1929	200	347	1,062	29,079	15,131	13,945	823,606	1,461,486	33,279,449	32,793,250	486,199	41,280,508	8,010,059
	1927	273	415	1,344	31,189	19,239	11,950	923,610	1,771,749	35,088,834	35,185,443	553,391	41,697,413	6,008,579
	1919	577	724	2,122	47,830	30,516	8,314	1,380,587	2,430,110	77,102,031	76,334,609	767,422	89,396,610	12,294,538
Oklahoma	1929	71	321	740	16,133	7,781	8,352	735,002	858,397	23,821,837	23,541,750	280,087	24,692,038	4,780,201
	1927	94	341	546	11,452	6,556	4,800	689,953	682,630	22,328,016	22,039,798	289,118	25,950,079	3,021,163
	1919	227	448	958	16,573	12,874	3,699	795,521	1,021,617	44,180,005	43,812,330	367,766	49,843,809	5,663,766
Oregon	1929	43	172	514	9,780	1,802	7,888	337,123	724,496	17,851,749	17,089,470	162,273	21,145,298	3,293,540
	1927	46	194	603	10,459	2,083	8,376	431,309	805,792	18,800,007	18,624,462	175,545	21,201,465	2,401,398
	1919	116	311	822	13,314	3,996	9,318	601,343	1,165,868	37,801,748	37,550,277	242,471	42,540,987	4,748,239
Pennsylvania	1929	410	197	831	28,606	18,149	10,457	413,472	1,011,647	17,545,136	17,206,436	338,703	21,593,705	4,048,569
	1927	529	296	1,219	34,372	22,359	12,013	552,700	1,440,242	25,800,115	25,369,578	430,537	30,000,988	4,890,873
	1919	1,138	513	2,198	55,928	40,340	9,588	809,992	2,259,132	59,984,787	59,440,485	544,302	69,440,449	6,461,662
Rhode Island	1929	8	15	36	628	119	509	15,708	24,271	569,078	563,432	5,646	630,282	70,204
	1927	8	16	18	602	93	539	19,320	21,139	514,396	508,486	5,910	581,080	67,284
	1919	25	16	29	1,253	632	621	18,239	33,790	977,819	963,405	14,414	1,132,723	154,904
South Carolina	1929	23	26	77	1,774	331	1,443	64,000	63,024	1,664,131	1,632,004	22,067	1,930,928	335,797
	1927	19	37	101	1,515	40	1,475	58,581	70,734	2,100,446	2,073,308	27,138	2,420,386	319,934
	1919	30	24	70	1,352	717	635	45,711	44,147	1,805,057	1,778,350	26,701	2,147,210	342,169
South Dakota	1929	19	32	46	2,007	923	1,084	74,925	58,074	1,206,207	1,167,741	38,466	1,636,626	430,419
	1927	21	41	88	2,735	1,094	741	88,526	116,305	2,008,588	1,955,455	53,133	2,083,520	674,922
	1919	80	86	221	5,369	4,053	1,316	153,057	282,601	7,891,098	7,751,928	139,170	8,873,263	982,105
Tennessee	1929	223	322	931	18,467	11,665	6,802	726,774	897,364	22,538,132	22,298,001	239,471	28,600,464	6,062,332
	1927	167	339	1,066	17,080	10,384	7,296	720,036	1,094,688	24,559,566	24,242,232	317,328	29,533,305	4,773,745
	1919	601	469	1,472	27,633	23,719	3,914	707,693	1,281,533	44,176,347	44,763,314	423,033	51,012,531	6,136,184
Texas	1929	107	617	1,326	27,825	12,102	15,723	1,524,227	1,031,279	41,510,040	41,107,356	402,684	51,378,284	9,808,244
	1927	96	535	1,337	22,851	11,303	11,548	1,380,360	1,610,330	40,860,412	40,451,107	409,305	49,229,898	8,369,486
	1919	222	607	1,507	23,854	14,818	9,036	1,254,917	1,080,663	63,399,071	62,884,014	515,057	73,064,361	9,064,900
Utah	1929	55	135	431	6,412	1,007	5,315	213,606	563,528	8,259,012	8,127,111	131,901	9,001,834	1,642,822
	1927	65	116	277	7,186	1,654	5,532	194,501	343,612	8,722,435	8,610,049	111,486	10,104,127	1,381,602
	1919	77	91	240	5,030	2,544	2,486	120,460	268,764	6,552,227	6,483,856	68,371	7,560,434	1,017,207
Vermont	1929	13	11	41	724	235	489	20,162	40,094	436,168	426,366	9,802	574,523	138,355
	1927	31	27	126	2,350	970	1,380	31,302	141,607	2,653,753	2,617,269	36,484	2,920,108	275,355
	1919	108	40	169	8,051	5,474	2,577	46,704	158,210	5,332,296	5,310,823	21,473	6,143,940	811,644
Virginia	1929	321	219	685	17,980	12,009	5,977	406,096	677,115	14,659,977	14,501,906	158,071	18,865,489	4,206,612
	1927	198	193	629	13,745	8,625	5,117	374,804	632,807	14,683,500	14,482,218	201,342	17,635,601	2,952,131
	1919	537	305	937	22,632	18,091	4,541	481,740	825,687	30,927,842	30,691,269	236,582	36,154,106	6,229,263
Washington	1929	47	85	1,024	15,592	919	14,673	790,060	1,413,290	39,190,055	38,908,809	290,186	45,563,800	6,364,811
	1927	58	441	1,091	16,284	835	15,449	934,141	1,416,833	39,737,249	39,490,123	297,126	44,904,285	5,117,036
	1919	119	560	20,785	4,939	15,846	1,060,748	2,144,047	73,154,942	72,763,382	401,560	81,141,020	7,986,078	
West Virginia	1929	60	105	237	4,664	2,081	2,583	213,350	275,237	3,833,970	3,770,462	54,508	5,004,029	1,260,059
	1927	70	111	310	4,024	2,280	2,644	238,461	363,719	5,527,981	5,460,350	77,631	6,816,664	1,288,583
	1919	203	132	371	8,704	7,202	1,502	253,866	377,800	10,530,426	10,417,008	112,461	13,070,542	2,540,113
Wisconsin	1929	79	154	506	13,474	8,196	5,278	318,801	630,442	12,354,218	12,100,492	193,726	14,504,212	2,149,994
	1927	98	192	527	12,010	6,009	6,001	263,733	637,623	13,467,617	13,247,701	219,816	15,792,027	2,234,610
	1919	221	504	1,348	30,245	18,430	11,815	962,408	1,560,828	51,736,884	51,249,920	486,955	65,304,432	6,567,548
Wyoming	1929	10	24	38	605	528	149	42,065	50,606	575,183	562,584	12,599	830,336	255,153
	1927	8	12	36	722	573	167	22,536	67,042	562,799	548,698	14,101	795,812	203,913
	1919	28	25	37	1,381	978	408	20,283	48,648	1,182,920	1,165,393	17,557	1,411,284	228,301
Other States	1929	10	46	111	1,157	170	1,017	166,999	144,558	2,836,822	2,803,806	33,016		

# FLOUR AND OTHER GRAIN-MILL PRODUCTS

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**TABLE 3.—PRODUCTS, BY KIND, QUANTITY, AND VALUE, FOR THE UNITED STATES: 1923 TO 1929**

[The figures for 1929 refer to sales (shipments or deliveries) by manufacturers; those for earlier years represent production. See GENERAL EXPLANATIONS—Value of Products]

KIND	1929	1927	1925	1923
1. Flour and other grain-mill products industry, all products, total value.....	\$1,000,260,418	\$1,148,700,300	\$1,298,014,788	\$1,048,577,469
2. Flour, meal, feed, etc.....	905,910,661	1,080,318,514	1,211,360,334	977,520,096
3. Other products (not normally belonging to the industry) <sup>1</sup> .....	64,358,757	68,441,840	86,648,464	71,048,363
4. Flour, meal, feed, etc., made as secondary products in other industries.....	44,274,587	35,170,036	24,624,080	5,907,780
Flour, meal, feed, etc., all industries: Aggregate value (sum of 2 and 4).....	\$1,010,185,248	\$1,115,408,440	\$1,235,001,320	\$983,520,885
Wheat flour— Total barrels.....	120,030,073	118,132,027	114,689,930	114,438,544
Total value.....	\$737,308,563	\$820,273,380	\$910,160,949	\$903,302,341
White flour— Barrels.....	113,034,325	113,405,022	(2)	(2)
Value.....	\$601,242,527	\$783,000,393	(2)	(2)
Graham and whole-wheat— Barrels.....	1,361,895	762,034	(2)	(2)
Value.....	\$8,415,715	\$5,155,698	(2)	(2)
Semolina— Barrels.....	2,950,322	(2)	(2)	(2)
Value.....	\$16,895,342	(2)	(2)	(2)
Prepared flour— Barrels.....	2,084,131	3,874,071	2,520,383	(2)
Value.....	\$20,754,070	\$32,018,328	\$22,810,561	(2)
Rye flour— Barrels.....	1,678,822	1,724,420	1,598,058	1,634,726
Value.....	\$9,170,272	\$9,200,370	\$9,152,040	\$6,713,087
Corn flour— Barrels.....	580,073	307,830	(2)	(2)
Value.....	\$3,120,580	\$1,620,075	(2)	(2)
Buckwheat flour— Pounds.....	38,452,020	44,550,407	47,872,509	40,180,591
Value.....	\$1,600,923	\$1,673,778	\$1,913,003	\$1,910,785
Other flour— Pounds.....	21,000,675	2,303,602	(2)	(2)
Value.....	\$781,708	\$205,734	(2)	(2)
Corn meal— Barrels (200 pounds).....	10,488,083	6,400,208	6,707,135	6,125,140
Value.....	\$52,300,787	\$42,012,000	\$48,252,855	\$52,011,228
Bran and middlings— Tons (2,000 pounds).....	4,081,802	4,038,332	4,520,730	4,187,811
Value.....	\$141,985,187	\$142,103,600	\$187,897,345	\$118,011,378
Feed, screenings, etc.— Tons.....	2,471,001	2,748,516	3,430,057	3,022,309
Value.....	\$63,840,228	\$67,012,907	\$128,600,110	\$135,570,377
Undistributed, value.....	(2)	(2)	(2)	\$6,907,780

<sup>1</sup> Cereal breakfast preparations, prepared feeds for animals and fowls, corn oil, etc.

<sup>2</sup> Not reported separately.

<sup>3</sup> Not reported separately; included in item for "white flour."

<sup>4</sup> The figures shown in the table refer only to prepared flour made in the "Flour and other grain-mill products" industry. In addition, prepared flour is produced to some extent by establishments in other industries, principally "Cereal preparations." The total production of prepared flour in all industries was as follows: For 1920, 5,473,425 barrels, valued at \$12,370,010; for 1927, 4,463,250 barrels, valued at \$33,180,440; for 1925, 3,439,107 barrels, valued at \$32,077,350.

<sup>5</sup> Included in item for "Corn meal."

<sup>6</sup> Includes data for "Corn flour."

<sup>7</sup> Value of secondary products of other industries (item 4), which can not be distributed by class or kind.

**TABLE 4.—PREPARED FLOUR, CEREAL PREPARATIONS, AND PREPARED FEEDS, PRODUCED IN FLOUR AND FEED MILLS AND IN PLANTS CLASSIFIED IN OTHER INDUSTRIES, BY KIND, QUANTITY, AND VALUE, FOR THE UNITED STATES: 1929**

KIND	Total	MADE IN—			KIND	Total	MADE IN—		
		Flour and other grain-mill products industry	"Cereal preparations" <sup>1</sup> and "Feeds, prepared, for animals and fowls" industries	Other industries			Flour and other grain-mill products industry	"Cereal preparations" <sup>1</sup> and "Feeds, prepared, for animals and fowls" industries	Other industries
Prepared flour: Pounds.....	1,094,685,041	630,826,191	550,835,716	7,023,134	Cereal breakfast preparations— Continued. Other cereal preparations except coffee substitutes, <sup>2</sup> value.....	\$3,272,360	\$405,021	\$377,369	\$2,420,970
Value.....	\$42,370,010	\$20,754,070	\$21,203,272	\$411,769					
Cereal breakfast preparations: Made from corn— Pounds.....	883,867,163	86,585,808	297,281,355	(2)	Prepared feeds for animals and fowls: Made chiefly of grain— Tons.....	7,697,818	990,596	5,985,208	661,514
Value.....	\$27,458,433	\$3,730,806	\$23,727,027	(2)					
Made from wheat, <sup>3</sup> value.....	\$47,385,735	\$5,100,013	\$42,279,722	(2)	Value.....	\$330,447,030	\$40,028,043	\$271,938,140	\$20,581,147
Made from oats— Pounds.....	718,382,081	11,587,115	706,794,960	(2)	Made chiefly of ingredients other than grain, <sup>4</sup> value.....	\$155,067,763	\$11,084,590	\$116,351,759	\$27,031,406
Value.....	\$36,419,309	\$470,325	\$35,942,984	(2)					
Made from other grains— Pounds.....	58,365,090	4,573,308	53,791,782	(2)					
Value.....	\$9,843,847	\$225,264	\$9,618,583	(2)					

<sup>1</sup> Embraces establishments engaged primarily in the manufacture of preparations, such as oatmeal, hominy, cereal breakfast foods, etc.

<sup>2</sup> Quantity not shown because some establishments reported in pounds and others reported in number of packages.

<sup>3</sup> For figures on coffee substitutes, see Table 3 of "Cereal preparations" report.

<sup>4</sup> Includes 314,074 tons of alfalfa meal, valued at \$8,227,270.

CENSUS OF MANUFACTURES: 1929

TABLE 5.—PRINCIPAL PRODUCTS, BY KIND, QUANTITY, AND VALUE, BY STATES: 1929 AND 1927

[The figures refer to sales (shipments or deliveries) by manufacturers. See GENERAL EXPLANATIONS—Value of Products. Statistics are given for each State which can be shown separately without disclosing data for individual establishments, and for the remaining States in groups. In some cases, however, certain States for which figures are given in combination with those for others reported larger quantities and values than some of the States shown separately.]

STATE	1929		1927		STATE	1929		1927	
	Quantity	Value	Quantity	Value		Quantity	Value	Quantity	Value
<b>WHEAT FLOUR</b>					<b>CORN MEAL—continued</b>				
United States.....	Barrels 120,039,673	\$737,808,563	Barrels 118,132,027	\$820,273,330	Lowa.....	Barrels 319,852	\$1,039,400	Barrels 332,732	\$1,008,093
Arkansas.....	134,533	905,843	117,094	880,541	Kansas.....	251,039	1,140,703	210,037	667,522
California.....	2,155,255	14,609,582	1,040,760	14,125,021	Kentucky.....	503,038	2,434,928	646,969	2,501,094
Colorado.....	1,677,038	9,554,029	1,027,060	9,800,716	Louisiana.....	235,070	1,040,550	(1)	(1)
Delaware.....	90,375	554,155	63,185	452,428	Maine.....	64,549	311,045	204,335	848,488
Georgia.....	348,411	2,542,138	511,920	4,128,750	Maryland.....	82,582	439,100	67,074	333,188
Idaho.....	868,704	4,890,038	772,901	4,525,075	Massachusetts.....	261,914	1,391,050	242,300	904,235
Illinois.....	4,004,193	30,543,462	5,092,721	35,095,155	Michigan.....	93,247	445,065	88,630	268,162
Indiana.....	2,037,243	18,808,770	3,700,760	29,731,171	Minnesota.....	51,435	235,987	14,008	74,619
Iowa.....	1,085,308	11,848,200	1,714,729	12,180,045	Mississippi.....	145,803	810,687	101,135	405,295
Kansas.....	17,203,261	99,773,625	17,567,841	111,551,053	Missouri.....	951,337	4,278,837	748,671	3,354,113
Kentucky.....	1,858,270	13,475,038	2,022,519	16,008,413	Nebraska.....	226,869	1,162,350	422,477	1,029,890
Maryland.....	874,750	5,398,410	877,443	6,783,834	New Hampshire.....	21,842	110,768	28,085	106,252
Michigan.....	2,117,812	13,829,336	2,245,086	16,424,883	New Jersey.....	66,164	317,049	6,580	30,420
Minnesota.....	20,302,115	121,112,560	20,796,627	151,066,286	New York.....	542,415	2,513,206	462,214	1,962,386
Missouri.....	10,846,341	65,700,105	9,692,800	66,886,881	North Carolina.....	406,245	2,117,991	350,987	1,544,032
Montana.....	1,910,186	11,843,273	1,920,718	12,042,187	Ohio.....	537,120	2,991,930	510,044	2,637,048
Nebraska.....	3,252,300	20,093,942	3,326,228	22,482,193	Oklahoma.....	322,240	1,275,008	208,926	1,210,250
New Jersey.....	219,326	1,472,831	160,360	1,200,610	Pennsylvania.....	127,304	650,947	87,000	442,203
New Mexico.....	51,668	325,361	35,535	270,504	Rhode Island.....	20,047	103,184	19,505	77,087
New York.....	12,739,261	80,447,254	12,318,986	89,779,003	South Carolina.....	89,005	442,815	35,050	121,344
North Carolina.....	1,339,592	9,191,242	1,715,168	12,581,410	South Dakota.....	2,854	14,658	(1)	(1)
Ohio.....	1,298,562	8,350,508	1,295,392	9,542,538	Tennessee.....	912,192	4,612,639	835,332	3,566,087
Oklahoma.....	4,431,633	28,578,339	4,448,054	28,243,004	Texas.....	762,279	3,566,303	625,731	2,777,155
Oregon.....	2,810,510	16,293,437	2,386,781	14,772,372	Vermont.....	67,271	290,002	150,750	601,901
Pennsylvania.....	1,804,848	11,484,295	2,130,688	14,240,801	Virginia.....	509,747	2,990,148	425,730	2,021,744
South Carolina.....	118,789	815,480	128,183	933,189	Washington.....	0,451	42,195	(1)	(1)
South Dakota.....	184,252	1,259,721	328,816	2,161,030	West Virginia.....	201,624	1,038,227	205,404	900,700
Tennessee.....	2,463,117	17,705,518	2,344,762	18,046,016	Wisconsin.....	66,780	349,353	(1)	(1)
Texas.....	5,204,123	33,745,820	4,701,007	33,995,703	Groups of States:				
Utah.....	1,209,358	7,183,692	1,280,085	7,772,070	Artz., Idaho, N. Mex.,				
Virginia.....	1,570,906	10,087,230	1,673,151	11,501,799	Utah, Wyo.....	6,840	43,001		
Washington.....	5,597,076	32,515,463	4,605,377	28,872,585	Other States (D. C., N.				
West Virginia.....	198,172	1,360,204	280,596	2,018,568	Dak., Oreg.).....	43,593	233,021		
Wisconsin.....	1,803,658	7,215,702	1,053,199	7,741,586	States not shown separately.....			302,187	1,280,612
Wyoming.....	99,078	563,716	111,277	660,985					
Groups of States:									
Mo., Mass., N. H., R. I.,									
Vt.....	64,422	391,465							
Other States (Ala., Ariz.,									
D. C., Miss., Nev.).....	331,858	2,355,885							
States not shown separately.....			321,825	2,448,470					
<b>CORN MEAL</b>					<b>RYE FLOUR</b>				
United States.....	10,488,083	\$52,399,787	9,400,208	\$42,912,000	United States.....	1,678,822	\$9,179,272	1,724,420	\$9,200,876
Alabama.....	398,360	1,952,355	214,842	1,010,504	Iowa.....	5,555	33,873	6,530	88,100
Arkansas.....	305,217	1,539,219	285,571	1,200,240	Michigan.....	15,000	93,030	29,367	168,251
California.....	84,121	523,721	81,700	543,061	Minnesota.....	779,427	4,094,920	828,222	4,328,989
Colorado.....	0,008	40,015	14,038	80,377	Nebraska.....	7,541	45,864	5,850	49,000
Connecticut.....	20,119	136,284	73,957	294,316	New York.....	149,038	920,059	108,840	659,002
Delaware.....	30,281	160,206	33,722	133,407	Ohio.....	2,492	13,944	2,026	10,038
Florida.....	18,860	95,614	37,388	161,003	Oregon.....	1,611	9,340	(1)	(1)
Georgia.....	960,599	3,485,553	393,009	1,811,420	Pennsylvania.....	50,137	324,602	48,224	270,603
Illinois.....	664,503	2,513,001	271,174	1,103,628	Texas.....	1,020	7,192	(1)	(1)
Indiana.....	464,942	1,952,461	794,160	3,379,976	Wisconsin.....	423,925	2,342,996	383,734	2,133,654
					Groups of States:				
					Ala., Tenn.....	285	2,130		
					Calif., Wash.....	10,100	59,874		
					Colo., Idaho, Nev., Wyo.	547	2,981		
					Kans., Mo., N. Dak., S.				
					Dak.....	1,368	7,908		
					Other States (D. C., Ill.,				
					Ind., Md., Mass., N. J.,				
					N. C., R. I., Va.).....	233,083	1,220,320		
					States not shown separately.....			310,682	1,634,631

FLOUR AND OTHER GRAIN-MILL PRODUCTS

TABLE 5.—PRINCIPAL PRODUCTS, BY KIND, QUANTITY, AND VALUE, BY STATES: 1929 AND 1927—Continued

[See note at head of this table]

STATE	1929		1927		STATE	1929		1927	
	Quantity	Value	Quantity	Value		Quantity	Value	Quantity	Value
BUCKWHEAT FLOUR					BRAN AND MIDDINGS—continued				
United States.....	Pounds 38,452,920	\$1,509,023	Pounds 44,550,407	\$1,073,778	Groups of States:	Tons		Tons	
Illinois.....	690,630	20,445	177,330	7,510	Ala., Miss.....	7,593	\$297,518		
Indiana.....	817,693	39,497	402,070	17,084	Conn., Me., Mass., N. H.	7,192	271,240		
Iowa.....	282,695	11,802	507,086	28,514	D. C., S. C.....	3,894	240,851		
Michigan.....	2,713,881	103,242	3,235,939	151,472	Other States (Ariz. La., Nev.).....	8,434	323,850		
New York.....	14,123,757	535,170	15,363,876	593,394	States not shown separately.....			16,745	\$680,079
Ohio.....	1,218,087	66,354	1,039,055	41,234	FERD, SCREENINGS, ETC. (Ton, 2,000 pounds)				
Pennsylvania.....	7,340,217	297,136	12,169,780	418,228	United States.....	2,471,001	\$93,840,228	2,748,510	\$97,012,097
Virginia.....	310,600	11,200	199,000	7,710	Alabama.....	8,083	314,538	9,250	362,100
West Virginia.....	1,183,000	44,173	681,820	27,911	Arkansas.....	48,459	1,570,495	40,087	1,447,092
Wisconsin.....	7,434,658	328,309	( <sup>1</sup> )	( <sup>1</sup> )	California.....	188,083	7,753,597	190,323	8,131,792
Other States (Ariz., Del., Md., Minn., Nebr., N. J., Oreg., S. Dak., Tenn., Wyo.) States not shown separately.....	2,331,011	113,595	10,001,061	380,136	Colorado.....	64,120	2,335,002	52,770	1,740,293
BRAN AND MIDDINGS (Ton, 2,000 pounds)					Connecticut.....	3,694	105,653	4,830	188,917
United States.....	Tons 4,681,802	\$141,085,187	Tons 4,638,332	\$142,193,600	Delaware.....	2,000	122,850	5,684	229,102
Arkansas.....	7,058	173,283	1,004	58,117	Georgia.....	18,486	828,407	8,586	318,070
California.....	83,031	2,648,109	77,436	2,440,806	Idaho.....	21,781	764,140	8,771	251,557
Colorado.....	64,813	1,642,491	59,129	1,247,038	Illinois.....	101,931	3,877,463	80,353	2,058,332
Delaware.....	3,075	120,138	2,042	120,558	Indiana.....	112,587	4,037,128	94,552	3,384,082
Georgia.....	23,147	849,380	21,891	836,712	Iowa.....	90,134	3,102,023	343,223	9,028,213
Idaho.....	30,084	817,170	28,599	763,442	Kansas.....	130,168	4,407,715	75,407	2,384,019
Illinois.....	184,225	6,184,730	209,989	6,622,045	Kentucky.....	29,278	1,104,033	20,627	817,400
Indiana.....	90,302	3,888,302	149,167	5,218,081	Louisiana.....	26,078	1,040,330	( <sup>1</sup> )	( <sup>1</sup> )
Iowa.....	80,780	2,400,121	67,973	2,043,851	Maine.....	31,200	1,247,747	32,082	1,250,053
Kansas.....	698,741	17,801,219	699,073	18,520,835	Maryland.....	22,270	905,803	16,380	697,423
Kentucky.....	78,057	2,812,000	87,672	3,158,116	Massachusetts.....	17,225	704,350	37,220	1,540,120
Maryland.....	28,766	1,050,983	37,006	1,445,151	Michigan.....	27,944	1,100,808	133,935	4,270,355
Michigan.....	121,482	3,840,201	91,696	3,330,243	Minnesota.....	101,722	4,755,980	104,371	3,121,402
Minnesota.....	788,420	22,835,458	803,081	23,632,293	Mississippi.....	36,375	1,522,587	( <sup>1</sup> )	( <sup>1</sup> )
Missouri.....	419,494	12,211,183	385,491	12,023,891	Missouri.....	117,870	4,200,720	159,187	5,402,990
Montana.....	60,608	1,770,709	70,041	1,574,574	Montana.....	6,465	265,014	6,427	178,230
Nebraska.....	124,852	3,805,288	134,014	4,239,238	Nebraska.....	36,583	1,370,714	23,091	823,180
New Jersey.....	6,684	251,592	5,578	208,483	New Hampshire.....	6,049	253,301	8,362	333,084
New Mexico.....	2,220	78,342	1,331	51,335	New Jersey.....	32,113	1,267,308	23,086	1,047,780
New York.....	527,793	15,942,758	473,920	14,398,700	New York.....	336,140	13,012,870	270,382	10,862,588
North Carolina.....	62,902	2,590,058	70,253	2,810,623	North Carolina.....	13,630	545,300	9,400	373,987
North Dakota.....	49,069	1,815,599	48,830	1,841,391	North Dakota.....	5,250	199,878	6,149	160,934
Ohio.....	101,943	6,275,143	171,056	6,090,040	Ohio.....	109,328	4,422,074	205,451	7,057,481
Oklahoma.....	140,860	4,190,323	112,419	3,277,696	Oklahoma.....	64,327	2,272,931	55,296	1,772,804
Oregon.....	90,080	2,708,794	80,700	2,493,185	Oregon.....	30,000	1,009,381	39,350	1,418,014
Pennsylvania.....	85,825	3,164,681	97,001	3,733,453	Pennsylvania.....	101,021	4,443,047	157,793	6,747,210
South Dakota.....	7,001	239,478	14,019	457,863	Rhode Island.....	13,207	551,858	11,877	477,501
Tennessee.....	71,120	2,642,235	67,436	3,047,274	South Carolina.....	3,805	130,776	( <sup>1</sup> )	( <sup>1</sup> )
Texas.....	217,650	7,008,743	188,887	5,993,191	South Dakota.....	2,120	75,462	1,024	32,055
Utah.....	30,894	1,213,597	52,983	1,370,000	Tennessee.....	59,685	2,721,178	47,372	1,773,654
Virginia.....	71,089	2,723,710	69,700	2,524,054	Texas.....	108,667	4,487,888	95,427	3,487,675
Washington.....	193,523	5,405,800	199,330	4,470,178	Utah.....	6,892	270,193	7,431	287,980
West Virginia.....	10,570	385,751	15,024	532,260	Utah.....	6,474	283,185	58,849	2,317,079
Wisconsin.....	69,801	1,790,777	48,134	1,324,329	Vermont.....	50,313	2,030,534	16,484	658,603
Wyoming.....	3,789	90,851	3,553	87,460	Washington.....	109,044	3,790,185	84,327	3,337,057
					West Virginia.....	41,198	1,735,545	53,958	1,985,193
					Wisconsin.....	50,290	1,800,815	97,374	3,386,486
					Wyoming.....	3,610	152,501	401	14,813
					Groups of States:				
					Ariz., Nev., N. Mex.....	5,065	203,840		
					D. C., Fla.....	1,000	40,703		
					States not shown separately.....			47,308	1,444,026

<sup>1</sup> Withheld from publication to avoid disclosing data for individual establishments.

CENSUS OF MANUFACTURES: 1929

TABLE 6.—FLOUR MILLS GROUPED ACCORDING TO AMOUNT OF WHEAT FLOUR PRODUCED—NUMBER, BY STATES: 1929, 1927, AND 1925

STATE	Cen- sus year	Total num- ber of mills	Number producing—					STATE	Cen- sus year	Total num- ber of mills	Number producing—				
			Less than 1,000 barrels	1,000 to 4,999 barrels	5,000 to 19,999 barrels	20,000 to 99,999 barrels	100,000 barrels or more				Less than 1,000 barrels	1,000 to 4,999 barrels	5,000 to 19,999 barrels	20,000 to 99,999 barrels	100,000 barrels or more
United States.....	1929	2,693	385	1,231	552	285	240	New Jersey.....	1929	19	3	12	2	1	1
	1927	3,146	622	1,275	642	352	255		1927	16	6	6	2	1	1
	1925	3,249	643	1,841	607	351	247		1925	21	10	7	3	1	1
Alabama.....	1929	7	5	1	1			New Mexico.....	1929	13	1	8	4		
Arkansas.....	1929	7		4	1	2		New York.....	1929	81	10	24	24	11	12
	1927	16	5	7	2	2			1927	106	30	22	31	12	11
	1925	16	5	8	2	1			1925	103	25	27	32	9	10
California.....	1929	25	1	13	1	5	5	North Carolina.....	1929	142	22	78	31	10	1
	1927	33	5	14	3	7	4		1927	137	23	63	36	11	4
	1925	29	1	12	3	8	5		1925	106	15	49	31	7	4
Colorado.....	1929	42	2	20	5	9	6	North Dakota.....	1929	24	2	7	7	3	5
	1927	45	7	15	7	10	6		1927	25	3	6	6	5	5
	1925	41	4	10	9	12	6		1925	28	4	7	6	6	6
Delaware.....	1929	26	5	15	6			Ohio.....	1929	170	18	80	45	13	8
	1927	24	7	13	4				1927	256	43	121	60	19	7
	1925	21	6	11	4				1925	269	36	141	63	18	11
Georgia.....	1929	27	9	13	3	1	1	Oklahoma.....	1929	37	3	5	5	12	12
	1927	17	5	6	2	2	2		1927	42	7	6	8	9	12
	1925	18	7	6	2	3	2		1925	39	4	8	5	11	11
Idaho.....	1929	35	4	11	6	14		Oregon.....	1929	36	6	6	12	3	9
	1927	37	5	11	5	15	1		1927	44	6	15	12	3	8
	1925	32	5	7	6	13	1		1925	50	8	15	14	6	8
Illinois.....	1929	87	8	18	12	21	8	Pennsylvania.....	1929	316	64	181	59	9	3
	1927	87	15	18	20	23	11		1927	389	103	160	67	21	2
	1925	113	20	33	27	22	11		1925	391	113	188	70	19	1
Indiana.....	1929	135	14	80	25	11	5	South Carolina.....	1929	12	2	7	2	1	
	1927	184	23	99	36	17	9		1927	18	1	10	4	3	1
	1925	193	32	95	43	15	8		1925	21	1	13	4	2	1
Iowa.....	1929	38	8	18	6	2	4	Tennessee.....	1929	145	12	83	36	8	0
	1927	52	10	19	7	4	3		1927	146	24	87	35	13	7
	1925	60	23	23	8	3	3		1925	100	35	77	28	15	5
Kansas.....	1929	115	5	17	18	26	40	Texas.....	1929	67	4	13	10	13	17
	1927	129	11	21	10	36	51		1927	65	10	20	5	18	16
	1925	132	5	16	18	52	41		1925	65	7	21	4	16	17
Kentucky.....	1929	105	22	96	40	4	3	Utah.....	1929	51	5	23	16	4	3
	1927	100	26	80	45	5	4		1927	65	6	35	18	3	3
	1925	165	28	92	37	4	4		1925	40	1	23	21	1	3
Maryland.....	1929	88	10	49	19	3	2	Virginia.....	1929	180	27	96	45	10	2
	1927	78	19	34	16	7	2		1927	181	33	81	61	13	3
	1925	86	28	30	21	6	1		1925	210	53	107	47	7	5
Michigan.....	1929	122	20	63	22	13	4	Washington.....	1929	31	2	7	4	7	11
	1927	138	30	57	26	20	5		1927	37	5	7	5	10	10
	1925	144	32	60	27	20	5		1925	61	10	15	8	9	9
Minnesota.....	1929	87	5	23	15	10	34	West Virginia.....	1929	41	15	20	3	3	
	1927	107	12	29	21	11	34		1927	54	22	22	6	4	
	1925	112	7	29	28	12	30		1925	53	18	23	9	3	
Missouri.....	1929	142	28	56	18	20	14	Wisconsin.....	1929	51	24	15	9	2	1
	1927	175	39	68	28	22	18		1927	73	38	25	7	2	1
	1925	195	34	87	30	31	13		1925	74	31	30	9	2	4
Montana.....	1929	30	2	12	4	6	6	Wyoming.....	1929	7	2		3	2	
	1927	36	4	14	6	5	7		1927	8	1	2	4	1	
	1925	27	2	10	4	5	6		1925	19	5	6	2	5	1
Nebraska.....	1929	90	9	35	27	12	7	Other States.....	1929	50	13	17	11	9	
	1927	110	16	46	30	10	8		1927	50	13	17	11	9	
	1925	110	13	50	30	8	9		1925	55	18	10	14	7	

<sup>1</sup> Arizona, 6 mills; District of Columbia, 1; Maine, 2; Massachusetts, 3; Nevada, 3; New Hampshire, 2; Rhode Island, 1; Vermont, 1.

TABLE 7.—GRAIN GROUND OR MILLED, BY KIND AND QUANTITY (BUSHEL), FOR THE UNITED STATES: 1929, 1927, AND 1925

[This table covers all grain milled in the "Flour and other grain-mill products" industry, including that milled in the manufacture of the "Other products," for which figures are given in line 3, Table 3]

KIND	1929	1927	1925	KIND	1929	1927	1925
Wheat.....	546,242,311	544,053,688	530,502,597	Barley.....	9,499,020	8,180,430	(1)
Corn.....	87,453,269	92,698,486	105,354,062	Buckwheat.....	2,026,610	2,760,600	2,408,360
Oats.....	29,006,409	27,760,799	45,817,858	Other and mixed grains.....	1,939,312	3,804,030	15,058,139
Rye.....	9,670,804	9,254,712	8,126,301				

<sup>1</sup> Not reported separately; included in item for "Other and mixed grains."

<sup>2</sup> See footnote 1.

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**TABLE 8.—GRAIN GROUND OR MILLED, BY KIND AND QUANTITY (BUSHELS), BY STATES: 1929 AND 1927**

[This table covers all grain milled in the "Flour and other grain-mill products" industry, including that milled in the manufacture of the "Other products" for which figures are given in line 3, Table 3. Statistics are presented for all States for which separate figures can be given without disclosing data for individual establishments. Certain of the States for which figures are given in combination with those for others, however, reported larger quantities of grain ground than some of the States shown separately.]

KIND AND STATE	1929	1927	KIND AND STATE	1929	1927	KIND AND STATE	1929	1927
<b>WHEAT</b>			<b>CORN—continued</b>			<b>BARLEY</b>		
United States.....	546, 242, 311	544, 053, 688	West Virginia.....	2, 292, 817	2, 741, 470	United States.....	9, 499, 020	8, 180, 480
Alabama.....	40, 691	7, 250	Wisconsin.....	1, 102, 477	1, 496, 712	California.....	3, 779, 418	3, 787, 386
Arkansas.....	711, 433	694, 279	Wyoming.....	40, 205	(1)	Colorado.....	768, 898	249, 380
California.....	10, 343, 070	9, 347, 360	Other States (Ariz., D. C.,			Idaho.....	492, 271	401, 244
Colorado.....	7, 802, 100	7, 163, 833	Nev., N. Mex., and N.			Indiana.....	35, 556	32, 485
Delaware.....	402, 041	610, 432	Dak.).....	472, 020		Iowa.....	36, 018	63, 334
Georgia.....	1, 274, 687	2, 421, 752	States not shown separately.....		2, 408, 769	Kansas.....	180, 706	6, 823
Idaho.....	3, 894, 833	3, 447, 466				Maryland.....	42, 110	100, 552
Illinois.....	23, 307, 059	23, 610, 911	<b>OATS</b>			Michigan.....	77, 543	86, 024
Indiana.....	12, 324, 335	17, 073, 000	United States.....	20, 006, 409	27, 700, 700	Minnesota.....	400, 452	191, 094
Iowa.....	7, 616, 709	6, 289, 050	Alabama.....			Missouri.....	280, 347	(1)
Kansas.....	77, 626, 809	79, 747, 705	Arkansas.....	10, 440	(1)	Montana.....	7, 757	30, 125
Kentucky.....	8, 357, 740	9, 683, 451	California.....	1, 907, 465	655, 200	Nebraska.....	38, 383	7, 816
Maine.....	49, 036	10, 787	Colorado.....	745, 232	304, 607	New Jersey.....	124, 575	(1)
Maryland.....	3, 735, 381	4, 193, 400	Connecticut.....	433, 801	410, 015	New York.....	481, 452	302, 898
Massachusetts.....	23, 129	(1)	Idaho.....	129, 162	54, 580	North Carolina.....	22, 000	(1)
Michigan.....	9, 001, 250	10, 660, 975	Illinois.....	375, 063	109, 011	Ohio.....	81, 083	87, 315
Minnesota.....	93, 912, 274	95, 652, 006	Indiana.....	637, 502	457, 123	Oklahoma.....	103, 001	42, 083
Missouri.....	48, 263, 778	43, 434, 118	Iowa.....	300, 826	738, 018	Oregon.....	385, 094	331, 094
Montana.....	8, 533, 515	8, 488, 856	Kansas.....	2, 521, 388	670, 665	Pennsylvania.....	130, 372	67, 647
Nebraska.....	15, 504, 686	15, 308, 697	Kentucky.....	413, 801	222, 660	South Dakota.....	29, 180	(1)
New Jersey.....	1, 204, 005	742, 820	Louisiana.....	420, 337	227, 001	Tennessee.....	3, 881	1, 715
New Mexico.....	216, 409	191, 828	Maine.....	215, 420	530, 016	Texas.....	214, 383	141, 774
New York.....	59, 730, 636	59, 882, 980	Maryland.....	201, 843	184, 733	Utah.....	107, 147	147, 925
North Carolina.....	6, 845, 279	6, 998, 118	Massachusetts.....	125, 209	323, 137	Virginia.....	58, 125	25, 755
North Dakota.....	5, 940, 328	20, 384, 117	Michigan.....	1, 058, 032	1, 042, 327	Washington.....	783, 352	1, 180, 924
Ohio.....	10, 932, 209	13, 101, 717	Minnesota.....	169, 735	1, 617, 087	Wisconsin.....	190, 708	443, 950
Oklahoma.....	15, 035, 246	10, 646, 439	Mississippi.....	842, 006	747, 009	Wyoming.....	15, 168	(1)
Oregon.....	12, 248, 865	687, 580	Montana.....	122, 807	622, 277	Groups of States:		
Pennsylvania.....	8, 893, 371	1, 550, 805	Nebraska.....	172, 463	109, 078	Ariz., Nev., N. Mex.	101, 225	
South Carolina.....	526, 998	11, 098, 830	New Hampshire.....	40, 420	73, 595	Ark. and La.	220, 056	
South Dakota.....	877, 094	21, 388, 419	New Jersey.....	857, 170	172, 573	Conn., Mo., Miss.,		
Tennessee.....	10, 159, 163	2, 107, 500	New York.....	4, 573, 066	3, 338, 150	N. H. and R. I.	21, 168	
Texas.....	24, 090, 804	7, 641, 080	North Carolina.....	50, 451	21, 629	Ga. and S. C.	9, 353	
Utah.....	5, 548, 191	22, 547, 741	Ohio.....	1, 028, 288	1, 600, 050	Ky. and Miss.	59, 240	
Virginia.....	7, 350, 976	1, 345, 100	Oklahoma.....	720, 936	242, 482	Other States (Ill. and N.	106, 357	
Washington.....	25, 704, 366	4, 886, 450	Oregon.....	1, 034, 770	1, 208, 421	Dak.).....		391, 200
West Virginia.....	1, 014, 899	516, 340	Pennsylvania.....	1, 820, 760	3, 266, 271	States not shown separately.....		
Wisconsin.....	6, 150, 654	1, 377, 572	Rhode Island.....	67, 445	76, 074	<b>BUCKWHEAT</b>		
Wyoming.....	436, 365		Tennessee.....	1, 026, 037	90, 482	United States.....	2, 026, 010	2, 760, 609
Other States (Ariz., Conn.,	1, 435, 743		Texas.....	1, 175, 711	1, 400, 590	Illinois.....	3, 900	47, 199
D. C., Miss., Nev., N.			Utah.....	131, 955	120, 354	Indiana.....	30, 021	41, 844
H., R. I., and Vt.).....			Vermont.....	220, 401	980, 100	Iowa.....	9, 091	32, 697
States not shown separately.....			Virginia.....	430, 112	192, 719	Maryland.....	8, 076	18, 337
<b>CORN</b>			Washington.....	1, 143, 185	1, 708, 355	Michigan.....	85, 982	131, 917
United States.....	87, 453, 259	92, 093, 480	West Virginia.....	546, 990	897, 011	Minnesota.....	70, 060	110, 283
Alabama.....	1, 031, 631	638, 093	Wisconsin.....	1, 052, 799	2, 890, 859	New York.....	680, 165	810, 717
Arkansas.....	2, 193, 230	1, 796, 248	Other States (Ariz., Ga.,	1, 480, 070		Ohio.....	80, 338	64, 848
California.....	4, 017, 275	2, 831, 218	La., Nev., N. Dak., S.			Pennsylvania.....	336, 612	710, 858
Colorado.....	1, 129, 734	1, 488, 438	C., S. Dak., and Wyo.).....			Virginia.....	13, 382	16, 853
Connecticut.....	128, 011	143, 783	States not shown separately.....		342, 000	West Virginia.....	8, 404	47, 288
Delaware.....	204, 870	325, 972	<b>RYE</b>			Groups of States:		
Florida.....	28, 844	182, 510	United States.....	9, 670, 804	9, 254, 712	Ariz., Utah, and Wyo.	1, 040	
Georgia.....	2, 020, 064	1, 637, 124	Indiana.....	87, 443	22, 543	Calif. and Oreg.	4, 131	
Idaho.....	170, 006	71, 333	Iowa.....	32, 175	20, 365	Del. and S. C.	3, 000	
Illinois.....	4, 608, 597	4, 541, 015	Kansas.....	14, 761	8, 480	Kans., Mo., Nebr., N.		
Indiana.....	5, 914, 432	6, 076, 270	Maryland.....	54, 593	11, 292	Dak., and S. C.	14, 627	
Iowa.....	420, 934	1, 111, 592	Massachusetts.....	10, 704	18, 202	Ky. and Penn.	12, 268	
Kansas.....	2, 097, 125	2, 787, 026	Michigan.....	118, 058	182, 100	Other States (N. J., Tex.,		
Kentucky.....	4, 424, 331	3, 787, 308	Minnesota.....	4, 087, 711	3, 944, 039	and Wis.).....	653, 447	
Louisiana.....	1, 851, 010	(1)	Missouri.....	31, 510	(1)	States not shown separately.....		719, 766
Maine.....	1, 822, 480	1, 822, 501	Nebraska.....	61, 095	35, 133	<b>OTHER AND MIXED GRAINS</b>		
Maryland.....	911, 008	1, 240, 703	New Jersey.....	40, 294	22, 845	United States.....	1, 930, 312	3, 804, 639
Massachusetts.....	1, 626, 914	2, 132, 980	New York.....	894, 392	638, 120	California.....	168, 271	523, 374
Michigan.....	770, 883	1, 018, 342	North Carolina.....	7, 399	15, 770	Indiana.....	45, 228	111, 807
Minnesota.....	2, 221, 635	2, 066, 725	Ohio.....	18, 632	38, 730	Kansas.....	86, 074	76, 896
Mississippi.....	230, 637	(1)	Oregon.....	84, 747	21, 182	Minnesota.....	310, 768	355, 491
Missouri.....	8, 431, 733	7, 425, 554	Pennsylvania.....	400, 059	424, 375	Nebraska.....	2, 061	28, 800
Montana.....	70, 327	28, 979	South Dakota.....	2, 776	2, 310	Ohio.....	38, 541	92, 111
Nebraska.....	2, 843, 540	1, 960, 681	Virginia.....	30, 818	36, 000	Oklahoma.....	136, 538	92, 130
New Hampshire.....	234, 685	382, 041	Washington.....	12, 688	73, 480	Pennsylvania.....	46, 818	303, 582
New Jersey.....	832, 404	657, 403	West Virginia.....	6, 375	8, 098	Tennessee.....	154, 592	618, 446
New York.....	4, 161, 250	0, 365, 418	Wisconsin.....	2, 335, 541	2, 267, 872	Texas.....	370, 473	293, 271
North Carolina.....	1, 060, 958	1, 613, 147	Groups of States:			Ariz., Colo., N. Mex.,		
Ohio.....	3, 517, 489	4, 033, 068	Ariz., Colo., Idaho,			and Utah.....	60, 642	
Oklahoma.....	2, 854, 883	2, 060, 285	Mont., Nev., N.			Ga., Md., N. C., S. O.		
Oregon.....	403, 252	634, 732	Dak., and Utah.....	342, 640		Va. and W. Va.		
Pennsylvania.....	2, 778, 784	5, 550, 318	D. C., Ga., and S. O.	10, 428		Ill., Mich., and Wis.		
Rhode Island.....	486, 055	481, 003	Other States (Calif., Ill.,	1, 021, 127		Iowa and Mo.	231, 742	
South Carolina.....	360, 053	410, 728	Miss., R. I., Tenn.,			Other States (Ky., N. Y.,		
South Dakota.....	94, 447	10, 030	and Tex.).....			and Oreg.).....	180, 408	
Tennessee.....	4, 630, 988	4, 511, 438	States not shown separately.....			States not shown separately.....		1, 214, 731
Texas.....	5, 855, 905	6, 341, 622			1, 453, 832			
Utah.....	346, 948	323, 672						
Vermont.....	325, 874	1, 490, 471						
Virginia.....	2, 817, 938	2, 080, 198						
Washington.....	2, 020, 793	2, 041, 925						

(1) Withheld from publication in order to avoid disclosing data for individual establishments.

CENSUS OF MANUFACTURES: 1929

TABLE 9.—QUANTITY OF WHEAT MILLED AND QUANTITY AND VALUE OF WHEAT FLOUR PRODUCED BY MILLS REPORTING 1,000 BARRELS OR MORE OF FLOUR, BY STATES: 1929, 1927, AND 1925

[This table presents statistics for all States, ranked according to quantities of flour produced, for which separate figures can be given without disclosing data for individual establishments. Certain of "Other States," however, produced larger quantities of flour than some of the States shown separately.]

STATE	Cen- sus year	Num- ber of mills	Wheat milled <sup>1</sup>	FLOUR PRODUCED		STATE	Cen- sus year	Num- ber of mills	Wheat milled <sup>1</sup>	FLOUR PRODUCED	
				Quantity	Value					Quantity	Value
United States	1929	2,308	<i>Bushels</i> 543,813,036	<i>Barrels</i> 115,574,330	\$705,246,802	Iowa	1929	30	<i>Bushels</i> 7,000,581	<i>Barrels</i> 1,624,520	\$0,508,074
	1927	2,524	540,102,519	117,300,323	814,501,948		1927	33	6,235,029	1,325,587	0,457,643
	1925	2,000	520,475,115	113,700,815	902,215,493		1925	37	6,333,230	1,310,717	10,448,380
Minnesota	1929	82	93,893,698	20,290,045	121,000,161	Kentucky	1929	143	8,328,280	1,542,306	11,046,019
	1927	95	95,479,832	20,785,077	150,084,405		1927	134	9,600,880	2,008,648	15,942,688
	1925	105	104,855,784	22,627,702	170,163,920		1925	137	9,723,305	2,008,103	19,780,005
Kansas	1929	110	77,571,810	16,961,423	98,654,883	Virginia	1929	153	7,260,559	1,360,485	0,364,729
	1927	118	70,699,925	17,551,201	111,503,617		1927	148	7,827,608	1,454,297	11,452,578
	1925	127	60,755,718	15,206,251	114,030,819		1925	166	7,451,685	1,568,117	13,210,022
New York	1929	71	58,557,803	12,718,256	80,223,360	Colorado	1929	40	7,002,012	1,362,494	7,702,185
	1927	76	56,064,618	12,306,489	80,672,826		1927	38	7,128,750	1,423,176	0,771,951
	1925	78	57,330,305	12,623,391	103,890,083		1925	37	7,078,453	1,742,041	11,000,090
Missouri	1929	114	48,077,350	10,400,964	61,630,680	North Dakota	1929	22	5,926,650	1,290,752	8,345,457
	1927	136	43,322,745	9,613,240	86,135,491		1927	22	5,956,951	1,292,901	9,542,688
	1925	161	36,362,811	7,899,181	62,068,164		1925	24	7,019,370	1,695,607	14,000,735
Washington	1929	29	25,609,599	5,501,300	32,460,561	Wisconsin	1929	27	6,095,078	1,287,161	7,006,628
	1927	32	22,206,799	4,602,935	28,854,320		1927	35	4,769,713	1,035,325	7,607,406
	1925	41	16,504,053	3,704,480	25,450,805		1925	43	7,187,290	1,570,476	12,146,558
Texas	1929	53	24,535,775	5,248,435	33,442,550	North Carolina	1929	120	5,706,770	1,146,616	7,867,141
	1927	58	20,186,487	4,607,596	33,973,220		1927	114	7,083,254	1,701,921	12,483,960
	1925	58	20,584,943	4,472,016	38,780,422		1925	91	7,123,430	1,667,352	13,420,196
Illinois	1929	50	23,249,362	4,527,606	27,724,881	Utah	1929	46	5,532,082	1,085,294	0,468,428
	1927	72	23,508,714	5,087,891	35,652,592		1927	59	6,045,794	1,270,329	7,744,570
	1925	93	23,920,812	5,164,650	42,258,207		1925	48	4,838,545	1,038,691	7,551,563
Ohio	1929	152	19,890,611	4,301,745	27,731,783	Maryland	1929	73	3,751,098	802,975	4,940,357
	1927	213	20,204,227	4,416,549	28,027,637		1927	59	4,140,433	860,556	5,707,360
	1925	233	20,308,123	4,330,531	34,499,514		1925	58	3,438,845	725,250	5,550,300
Oklahoma	1929	34	15,686,042	3,467,107	20,461,181	Idaho	1929	31	3,782,080	751,187	4,154,720
	1927	35	13,040,579	2,861,423	10,043,380		1927	32	3,434,188	769,503	4,504,064
	1925	35	11,844,090	2,366,707	18,207,261		1925	27	3,625,780	782,827	5,057,708
Nebraska	1929	31	15,520,854	3,220,795	19,915,584	Georgia	1929	18	1,234,345	261,750	1,881,116
	1927	94	15,317,307	3,316,328	22,409,258		1927	12	2,418,102	511,109	4,124,100
	1925	97	13,127,930	2,830,447	22,437,777		1925	11	2,718,150	575,990	5,278,342
Oregon	1929	30	12,210,463	2,698,593	15,589,595	New Jersey	1929	16	923,331	213,002	1,413,308
	1927	38	10,680,658	2,315,002	14,624,610		1927	10	702,093	157,737	1,185,529
	1925	42	11,668,587	2,546,106	18,068,019		1925	11	663,396	137,093	1,202,021
Indiana	1929	121	12,581,936	2,601,905	16,398,185	West Virginia	1929	26	912,372	188,526	1,207,591
	1927	161	17,912,468	3,680,803	29,653,171		1927	32	1,284,633	270,568	1,946,460
	1925	161	16,466,188	3,549,155	28,823,570		1925	35	1,303,886	270,063	2,374,637
California	1929	24	10,105,680	2,101,313	13,991,463	South Dakota	1929	17	887,194	182,340	1,240,361
	1927	28	9,274,185	1,984,320	14,104,748		1927	20	1,555,700	327,054	2,135,387
	1925	28	7,747,003	1,614,604	13,025,592		1925	19	1,600,750	330,312	2,642,421
Michigan	1929	102	9,598,486	1,961,227	12,777,660	Arkansas	1929	7	702,805	134,543	905,843
	1927	108	10,877,675	2,225,698	15,307,282		1927	11	681,835	116,213	860,757
	1925	112	10,811,075	2,253,000	10,529,052		1925	11	595,260	121,140	892,198
Tennessee	1929	133	9,975,020	1,912,704	13,533,845	Wyoming	1929	5	470,685	95,311	534,306
	1927	122	10,769,053	2,335,602	18,638,594		1927	7	510,600	110,534	655,785
	1925	125	10,588,905	2,227,944	20,772,367		1925	8	653,775	133,025	1,085,291
Montana	1929	23	8,525,875	1,608,401	11,329,190	Delaware	1929	21	421,745	87,037	581,891
	1927	32	8,478,639	1,618,623	12,927,100		1929	10	541,855	84,388	580,341
	1925	25	8,048,772	1,603,222	14,076,331		1929	12	244,129	50,598	318,250
Pennsylvania	1929	252	8,622,887	1,735,727	11,016,011	New Mexico	1929	16	1,494,468	300,380	2,128,707
	1927	283	10,357,009	2,092,440	13,952,777		1927	54	2,540,238	543,467	4,065,475
	1925	278	10,241,079	2,036,955	16,352,145		1925	44	2,253,363	478,163	4,163,073
Other States	1929	16	1,494,468	300,380	2,128,707	Other States	1929	16	1,494,468	300,380	2,128,707
	1927	54	2,540,238	543,467	4,065,475		1927	54	2,540,238	543,467	4,065,475
	1925	44	2,253,363	478,163	4,163,073		1925	44	2,253,363	478,163	4,163,073

<sup>1</sup> Data for a small amount of wheat ground in the manufacture of cereal preparations, etc., by mills engaged primarily in the production of flour are included.  
<sup>2</sup> Alabama, 2 mills; Arizona, 6; District of Columbia, 1; Maine, 1; Massachusetts, 1; Nevada, 3; New Hampshire, 2.



FLOUR AND OTHER GRAIN-MILL PRODUCTS

TABLE 10.—QUANTITY OF WHEAT MILLED AND QUANTITY AND VALUE OF WHEAT FLOUR PRODUCED BY MILLS REPORTING 100,000 BARRELS OR MORE OF FLOUR, BY STATES: 1929, 1927, 1925, AND 1923

[This table presents statistics for all States for which separate figures can be given without disclosing data for individual establishments. Certain of the States shown in groups, however, produced larger quantities and values of flour than some of the States shown separately]

STATE	Cen- sus year	Num- ber of mills	Average produc- tion per mill	Wheat milled	Flour produced		STATE	Cen- sus year	Num- ber of mills	Average produc- tion per mill	Wheat milled	Flour produced		
					Quantity	Value						Quantity	Value	
United States	1929	240	388,643	434,083,008	93,274,398	\$561,764,178	United States—Con.							
	1927	255	368,712	410,000,521	91,471,494	636,544,476		Nebraska	1920	7	319,133	10,769,508	2,233,932	\$13,940,087
	1925	247	351,443	399,693,751	86,806,475	687,431,456		1927	8	301,173	11,041,550	2,409,387	10,654,051	
	1923	247	343,468	392,635,051	84,075,038	493,767,773		1925	9	233,087	9,729,064	2,105,867	10,673,054	
California	1929	5	303,886	8,381,088	1,819,428	12,053,438	1923	6	281,401	8,027,034	1,088,408	0,650,068		
	1927	(?)	(?)	(?)	(?)	(?)	New York	1920	12	999,768	55,257,374	11,907,091	75,205,987	
	1925	(?)	(?)	(?)	(?)	(?)	1927	11	1,031,625	52,143,440	11,340,770	82,618,238		
	1923	7	304,717	10,128,530	2,133,019	13,002,593	1925	10	1,167,851	53,371,806	11,678,513	90,314,525		
Colorado	1920	6	140,030	4,800,200	804,283	5,005,300	1923	10	788,007	35,271,027	7,880,072	47,840,950		
Illinois	1929	0	374,079	17,285,720	3,374,813	20,075,050	North Dakota	1920	5	218,006	4,076,864	1,000,331	7,010,374	
	1927	11	320,740	10,750,033	3,627,204	25,008,065	Ohio	1920	8	385,180	14,204,878	3,081,515	19,870,084	
	1925	11	335,541	17,045,724	3,690,955	29,618,314	1927	7	371,599	11,040,073	2,001,191	15,817,312		
	1923	11	320,170	16,571,078	3,587,937	21,264,546	1925	11	246,399	12,565,496	2,710,395	21,256,444		
Indiana	1929	5	323,240	7,647,613	1,016,231	10,004,425	1923	9	202,527	10,710,767	2,302,747	13,275,401		
	1927	9	247,053	10,953,357	2,223,473	18,820,310	Oklahoma	1920	12	226,098	12,522,835	2,720,378	15,029,457	
	1925	8	274,338	10,076,200	2,164,703	17,580,062	1927	12	192,156	10,508,249	2,305,093	15,240,120		
	1923	8	220,359	8,613,704	1,834,870	9,094,481	1925	11	168,221	8,454,090	1,860,426	14,127,275		
Iowa	1929	4	360,410	6,097,087	1,441,039	8,380,500	1923	8	199,680	7,310,588	1,500,639	8,793,401		
Kansas	1929	40	308,858	99,040,079	15,134,047	87,371,950	Oregon	1920	9	271,054	10,988,128	2,439,480	14,077,177	
	1927	51	290,128	69,104,794	15,255,509	96,004,102	1927	8	250,627	9,128,228	2,005,017	12,075,778		
	1925	41	296,591	55,405,068	12,160,233	99,543,911	1925	8	260,340	9,040,485	2,130,717	15,170,547		
	1923	43	285,830	50,212,226	12,200,690	65,721,615	1923	7	355,096	11,580,101	2,485,674	13,281,533		
Kentucky	1929	3	242,705	4,395,620	728,115	5,175,674	Pennsylvania	1920	3	122,301	2,001,848	360,065	2,317,033	
	1927	4	298,821	5,500,889	1,195,283	6,308,023	Tennessee	1920	6	157,374	4,820,073	944,240	6,795,778	
	1925	4	330,289	6,093,255	1,321,155	12,495,062	1927	7	191,618	6,230,310	1,341,323	10,638,474		
	1923	4	364,628	6,700,327	1,458,512	9,462,112	1925	5	219,734	5,115,042	1,098,660	10,447,914		
Michigan	1929	4	254,780	4,898,369	1,010,156	6,419,958	1923	5	271,103	6,340,539	1,355,517	8,823,050		
	1927	5	216,821	5,200,807	1,084,107	7,698,039	Texas	1920	17	254,783	20,211,510	4,331,310	27,583,081	
	1925	5	194,349	4,623,461	971,747	6,021,551	1927	16	239,805	16,335,469	3,597,983	20,089,600		
	1923	4	210,679	3,980,207	842,715	5,035,214	1925	17	206,770	16,184,236	3,515,094	30,550,956		
Minnesota	1929	34	573,012	90,843,830	19,052,422	110,799,549	1923	15	201,723	14,060,027	3,025,847	19,205,966		
	1927	34	588,188	91,831,888	19,008,391	145,430,598	Utah	1920	3	240,801	3,838,820	749,402	4,408,680	
	1925	36	599,577	99,088,291	21,584,766	170,799,822	1927	3	289,466	4,030,641	808,399	5,250,426		
	1923	37	612,661	106,941,879	22,008,465	134,573,052	1925	3	237,363	3,229,057	712,058	5,165,652		
Missouri	1929	14	636,474	40,477,458	8,010,639	51,094,192	Washington	1920	11	460,580	23,086,107	5,060,378	20,322,706	
	1927	18	448,340	36,068,577	8,070,112	55,800,346	1927	10	397,719	18,071,891	3,977,191	25,050,459		
	1925	13	463,144	27,583,401	6,020,875	40,768,238	1925	9	309,583	13,085,699	2,780,247	20,431,512		
	1923	10	338,690	24,341,432	5,419,187	31,261,625	1923	10	411,311	19,274,751	4,113,113	21,521,793		
Montana	1929	0	240,585	0,549,428	1,470,512	8,807,456	Other States	1929	* 8	272,897	10,288,044	2,183,177	13,095,430	
	1927	7	223,039	0,836,071	1,561,483	10,481,048	1927	35	228,048	30,572,745	8,002,678	56,080,575		
	1925	6	204,084	7,217,315	1,580,905	11,203,153	1925	40	217,164	40,094,998	8,684,146	69,396,584		
	1923	6	206,738	7,025,303	1,606,427	8,809,538	1923	41	210,532	39,530,571	8,631,790	51,604,739		

\* Data for a small amount of wheat ground in the manufacture of cereal preparations, etc., by mills engaged primarily in the production of flour are included.

† Withheld from publication to avoid disclosing data for individual establishments.

‡ Georgia, 1 mill; Maryland, 2; New Jersey, 1; North Carolina, 1; Virginia, 2; Wisconsin, 1.



## CENSUS OF MANUFACTURES: 1929

TABLE 11.—PRIME MOVERS, MOTORS, GENERATORS, AND CONSUMPTION OF PURCHASED ELECTRIC ENERGY—NUMBER AND RATED CAPACITY OF PRIME MOVERS AND ELECTRIC MOTORS, 1929, 1927, 1925, 1919, AND 1914, AND OF GENERATORS, 1929, 1927, AND 1925; QUANTITY OF ELECTRIC ENERGY PURCHASED, 1929

TYPE	1929		1927		1925		1919		1914		PER CENT DISTRIBUTION OF RATED HORSE-POWER CAPACITY	
	Number	Capacity	Number	Capacity	Number	Capacity	Number	Capacity	Number	Capacity	1929	1919
Prime movers and electric motors driven by purchased energy, aggregate.....	16,238	Horse-power 641,456	14,533	Horse-power 641,608	14,841	Horse-power 609,910	20,766	Horse-power 876,404	18,048	Horse-power 821,406	100.0	100.0
Prime movers, total.....	3,521	308,022	3,754	331,828	4,202	367,058	11,009	611,067	14,136	708,965	48.0	69.9
Steam, total.....	1,556	177,008	903	170,055	1,127	108,083	2,982	329,680	4,580	403,180	27.0	37.6
Engines.....	1,511	146,856	866	142,558	1,089	160,284	2,916	302,826	(1)	(1)	22.9	34.6
Turbines.....	45	30,152	38	27,497	38	20,699	66	26,763	(1)	(1)	4.7	3.0
Internal-combustion engines.....	727	51,015	1,094	62,227	1,175	65,047	3,427	66,291	2,022	76,451	8.0	11.0
Water wheels and water turbines.....	1,238	79,999	1,757	99,546	1,900	103,028	4,600	186,087	6,634	229,328	12.4	21.3
Electric motors driven by purchased energy.....	12,717	333,434	10,779	309,780	10,639	302,852	9,667	263,467	3,912	112,441	52.0	30.1
Electric motors, total.....	14,328	366,836	12,761	343,275	12,406	345,387	11,403	309,610	4,910	150,248	100.0	100.0
Driven by purchased energy.....	12,717	333,434	10,779	309,780	10,639	302,852	9,667	263,467	3,912	112,441	99.9	85.1
Driven by energy generated in establishments reporting.....	1,611	33,401	1,982	33,495	1,867	42,535	1,826	46,143	1,007	37,807	0.1	14.9
Electric generators.....	275	Kilowatts 46,083 Kilowatt-hours	300	Kilowatts 46,070	391	Kilowatts 46,500	(?)	(?)	(?)	(?)	-----	-----
Electric energy purchased <sup>3</sup> .....	-----	531,215,721	-----	( <sup>4</sup> )	-----	( <sup>4</sup> )	-----	( <sup>4</sup> )	-----	( <sup>4</sup> )	-----	-----

<sup>1</sup> Not called for separately on schedule.

<sup>2</sup> Not called for on schedule.

<sup>3</sup> This item covers the consumption of purchased electric energy for all purposes—power, heat, light, etc.

<sup>4</sup> Data incomplete.

FLOUR AND OTHER GRAIN-MILL PRODUCTS

TABLE 12.—WAGE EARNERS, BY MONTHS, FOR THE UNITED STATES, 1929, 1925, 1919, 1914, AND 1909, AND BY STATES, 1929

[This table presents statistics for only those States for which figures can be given without disclosing data for individual establishments. The sum of the State items in any column is not, therefore, equal to the United States total at the head of the column. The month of maximum employment is indicated by bold-faced figures and that of minimum employment by *italic* figures]

STATE	Average number employed during year	NUMBER EMPLOYED ON 15TH DAY OF MONTH OR NEAREST REPRESENTATIVE DAY												Per cent minimum is of maximum	
		January	February	March	April	May	June	July	August	September	October	November	December		
United States:															
1929	27,028	<i>25,177</i>	26,803	27,002	26,337	26,408	26,699	25,444	27,090	28,446	28,483	28,068	27,684	88.4	
1925	31,088	32,443	32,276	31,523	30,289	<i>29,891</i>	30,107	31,869	32,450	33,300	33,698	33,245	32,709	89.0	
1919	45,481	45,123	42,837	<i>42,779</i>	43,056	43,018	42,201	43,434	46,041	48,822	49,378	49,330	49,393	85.4	
1914	39,718	39,284	39,140	39,058	38,324	<i>37,927</i>	38,114	39,660	40,526	41,684	41,234	41,028	40,743	91.0	
1909	39,453	39,120	39,281	39,154	37,776	37,460	<i>36,911</i>	38,021	39,029	40,887	41,702	41,898	41,600	88.1	
Alabama	69	<i>68</i>	<i>68</i>	70	69	67	73	<i>68</i>	71	60	69	69	69	93.2	
Arkansas	147	<i>156</i>	140	143	137	152	152	150	153	159	153	144	144	85.5	
California	719	711	710	704	717	<i>696</i>	708	735	741	732	724	731	718	93.9	
Colorado	409	458	452	452	425	<i>417</i>	423	481	515	530	504	478	487	78.7	
Connecticut	13	13	13	13	13	13	13	13	13	13	13	13	13		
Delaware	66	<i>64</i>	<i>64</i>	<i>64</i>	65	65	67	<i>68</i>	68	67	66	65	65	94.1	
Florida	5	5	5	5	5	5	5	5	5	5	5	5	5		
Georgia	244	243	240	242	244	242	256	<i>256</i>	251	248	237	<i>223</i>	239	89.1	
Idaho	227	223	227	223	218	212	198	220	250	272	241	223	217	72.8	
Illinois	1,144	1,101	1,161	1,130	<i>1,109</i>	1,133	1,146	1,146	1,174	1,182	1,145	1,123	1,110	93.8	
Indiana	963	950	960	961	950	962	964	<i>947</i>	975	985	978	985	978	96.1	
Iowa	349	340	343	341	328	<i>317</i>	330	340	345	350	372	368	360	85.4	
Kansas	2,401	2,324	2,364	2,316	<i>2,260</i>	2,272	2,350	2,644	2,539	2,473	2,510	2,385	2,360	85.1	
Kentucky	856	798	825	854	808	805	878	844	825	847	892	872	880	89.5	
Louisiana	70	70	70	70	70	70	70	70	70	70	70	70	70		
Maine	61	60	60	60	61	63	63	<i>59</i>	<i>59</i>	<i>59</i>	<i>59</i>	61	62	93.7	
Maryland	259	222	203	205	208	271	260	<i>203</i>	261	270	273	271	270	72.4	
Massachusetts	65	66	65	64	65	65	61	66	65	65	65	66	62	92.4	
Michigan	699	690	622	687	<i>667</i>	673	688	687	625	630	661	646	620	85.8	
Minnesota	3,535	3,432	3,509	3,725	3,369	3,381	3,316	<i>2,994</i>	3,609	3,852	3,700	3,781	3,610	77.7	
Mississippi	10	10	10	10	10	10	10	10	10	10	10	10	10		
Missouri	2,181	<i>1,894</i>	2,188	2,188	2,032	2,094	2,144	1,976	2,220	2,385	2,419	2,300	2,322	78.3	
Montana	264	<i>191</i>	264	271	260	265	253	210	287	317	303	300	282	60.8	
Nebraska	687	681	677	695	696	697	695	<i>674</i>	687	695	692	681	678	90.7	
New Hampshire	31	32	32	33	33	31	31	30	30	32	30	31	32	87.0	
New Jersey	158	<i>158</i>	154	156	157	159	150	100	100	160	162	158	156	93.8	
New Mexico	31	26	30	31	33	33	28	<i>23</i>	31	33	35	35	35	92.0	
New York	2,055	1,920	2,201	2,186	2,150	2,180	2,198	<i>1,511</i>	2,168	2,065	2,113	2,110	2,102	98.7	
North Carolina	469	<i>480</i>	460	472	477	470	479	<i>480</i>	462	480	498	493	487	84.3	
North Dakota	226	<i>185</i>	213	214	208	209	212	217	233	260	275	266	222	66.5	
Ohio	1,062	1,068	1,057	1,065	1,042	<i>1,054</i>	1,047	1,068	1,085	1,098	1,084	1,057	1,042	94.0	
Oklahoma	746	711	684	678	<i>667</i>	676	722	788	775	778	840	827	808	70.4	
Oregon	514	465	471	482	450	<i>444</i>	453	465	521	611	613	598	584	72.4	
Pennsylvania	831	841	820	817	<i>804</i>	805	810	810	832	850	870	857	850	92.4	
Rhode Island	36	35	35	36	<i>34</i>	36	37	38	38	38	38	37	36	89.5	
South Carolina	77	<i>67</i>	62	70	79	78	78	68	70	79	79	79	78	81.7	
South Dakota	46	<i>35</i>	42	40	46	47	47	37	45	46	53	60	59	55.0	
Tennessee	931	689	691	1,004	990	989	991	<i>680</i>	943	985	991	988	988	97.7	
Texas	1,320	<i>1,134</i>	1,200	1,311	1,322	1,320	1,320	1,377	1,349	1,330	1,399	1,368	1,385	81.0	
Utah	431	377	373	<i>367</i>	370	380	413	433	507	533	478	459	462	68.9	
Vermont	41	43	44	41	<i>40</i>	<i>40</i>	<i>40</i>	<i>40</i>	41	41	42	43	43	90.9	
Virginia	685	<i>676</i>	678	680	687	692	688	684	689	683	682	684	677	96.8	
Washington	1,024	1,019	1,055	1,070	1,030	981	<i>955</i>	957	1,023	1,098	1,046	1,052	998	87.4	
West Virginia	237	<i>235</i>	235	236	237	235	238	235	236	236	238	240	240	97.1	
Wisconsin	600	506	505	<i>469</i>	491	487	497	484	490	503	525	523	510	89.3	
Wyoming	38	38	39	37	<i>33</i>	<i>33</i>	36	39	42	47	39	39	35	70.2	

## FOOD PREPARATIONS, NOT ELSEWHERE CLASSIFIED

Description of the industry.—This industry consists in the manufacture of a large group of food preparations which do not belong to any of the other classifications. These include, among others, the following: Meat products other than those made in the meat-packing industry, peanut butter, blended and compounded sirups, mincemeat, potato chips, ice-cream cones, malted milk and malted-milk products, etc. The "Food preparations" classification also covers the pulverizing of sugar, the slicing of meats, and similar operations when carried on in large establishments for the purpose of preparing foods for the trade. At the census for 1925 the classification also covered the manufacture of cereal preparations, alimentary

pastes (macaroni, spaghetti, etc.), shortenings (other than lard) and vegetable cooking oils, and prepared feeds for animals and fowls, and the processing of nuts other than peanuts. At the census for 1927 the first four of these activities were treated as separate industries, while the processing of nuts was combined with the treating of peanuts as an industry under the designation "Peanuts, walnuts, and other nuts, processed." As the data for establishments engaged in the processing of nuts in 1925 and earlier years can not be segregated, it is impossible to give, for those years, figures which would be strictly comparable with the statistics for 1927 and 1929.

TABLE 1.—GENERAL STATISTICS, BY STATES: 1929 AND 1927

[This table presents statistics separately for each State for which figures can be given without disclosing data for individual establishments, and for the remaining States in groups. No comparable figures are available for years prior to 1927]

STATE	Cen- sus year	Num- ber of estab- lish- ments	Sala- ried offi- cers and em- ploy- ees <sup>1</sup>	Wage earn- ers (av- erage for the year)	HORSEPOWER (RATED CAPACITY) OF POWER EQUIPMENT			Salaries	Wages	COST OF MATERIALS, CONTAINERS FOR PRODUCTS, FUEL, AND PUR- CHASED ELECTRIC ENERGY			Value of products <sup>2</sup>	Value added by manufac- ture <sup>3</sup>
					Total	Prime movers	Motors run by pur- chased energy			Total	Materials and con- tainers	Fuel and purchased energy		
United States.....	1929	862	3,189	10,016	36,716	12,900	23,756	\$8,792,802	\$11,057,726	\$98,337,639	\$94,743,190	\$1,044,449	\$171,860,987	\$75,473,348
Per cent of increase or decrease (-).....	1927	674	3,192	10,294	34,773	14,208	20,565	7,785,067	11,336,630	98,248,740	96,503,048	1,745,692	166,964,672	68,715,932
		27.0	-0.1	3.1	5.6	-8.8	15.5	12.9	2.4	-1.0	-1.6	-5.8	2.0	0.8
Individual States:														
Alabama.....	1929	14	30	123	138	30	108	101,297	66,114	1,324,734	1,315,092	9,042	2,159,767	835,023
Arizona.....	1929	3		5	12		12		2,607	12,614	12,614		25,017	12,463
Arkansas.....	1929	4	9	22	701	450	251	14,551	17,347	133,497	127,767	5,730	194,070	61,182
California.....	1929	138	208	936	1,680		1,630	472,523	982,679	5,764,098	5,679,760	85,238	9,660,987	3,805,930
	1927	86	162	557	1,638	469	1,164	306,918	607,800	3,054,069	2,900,438	63,631	5,481,216	2,427,140
Colorado.....	1929	16	31	143	624	406	218	90,629	131,888	888,212	863,524	24,688	1,040,814	768,602
	1927	12	46	117	427	305	122	104,031	120,220	936,877	920,719	19,158	1,323,681	863,704
Connecticut.....	1929	7	10	34	58		58	17,460	38,418	204,231	199,380	4,851	326,018	122,087
	1927	6	30	78	66		66	30,304	76,284	310,528	305,710	4,812	628,231	317,703
Georgia.....	1929	12	57	140	420	30	300	62,234	92,735	1,054,044	1,042,635	11,409	1,484,615	430,571
	1927	7	29	74	467	390	77	43,338	51,852	870,817	857,462	13,365	1,076,295	295,478
Idaho.....	1929	3	4	19	82		82	6,086	17,789	46,881	42,511	4,370	96,917	50,030
Illinois.....	1929	66	338	1,350	4,177	970	3,207	977,648	1,621,624	15,145,279	14,981,253	214,026	23,213,627	8,008,348
	1927	53	260	866	2,903	800	2,603	807,559	1,028,366	9,213,356	9,044,741	168,615	18,905,288	4,691,932
Iowa.....	1929	9	12	48	483	300	183	23,727	51,043	283,225	271,120	12,096	462,030	170,714
	1927	5	14	47	438	314	124	30,898	36,197	276,206	262,504	13,792	436,381	160,085
Kansas.....	1929	6	6	24	34		34	8,100	25,411	123,369	121,523	1,840	194,140	70,771
Kentucky.....	1929	7	14	100	168		168	48,665	80,054	353,220	340,054	7,166	660,615	207,305
Louisiana.....	1929	14	70	228	1,166	1,050	116	178,877	186,422	3,196,300	3,160,879	20,520	5,380,031	2,184,282
Maryland.....	1929	19	72	190	208	23	185	205,779	164,865	1,467,726	1,430,236	37,490	2,513,074	1,045,348
	1927	25	82	242	370	117	453	200,301	242,283	3,265,300	3,210,151	55,239	4,487,715	1,622,325
Massachusetts.....	1929	43	172	488	1,101	164	937	574,754	676,977	2,770,371	2,668,934	120,437	8,064,274	4,184,003
	1927	45	242	633	1,274	234	990	682,156	708,330	3,877,217	3,752,675	124,542	8,502,040	4,714,832
Michigan.....	1929	36	125	575	2,509	187	2,322	391,791	590,060	4,545,993	4,417,704	128,289	8,421,086	3,875,093
	1927	24	167	428	2,104	228	1,936	336,973	483,390	3,582,953	3,443,105	139,848	6,715,167	3,132,204
Minnesota.....	1929	9	22	121	735	215	520	114,760	122,029	1,117,234	1,080,541	27,693	1,610,983	502,740

See footnotes at end of table.

# FOOD PREPARATIONS, NOT ELSEWHERE CLASSIFIED

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TABLE 1.—GENERAL STATISTICS, BY STATES: 1929 AND 1927—Continued

[This table presents statistics separately for each State for which figures can be given without disclosing data for individual establishments, and for the remaining States in groups. No comparable figures are available for years prior to 1927]

STATE	Cen- sus year	Num- ber of estab- lish- ments	Salar- ied offi- cers and em- ployees <sup>1</sup>	Wage earners (aver- age for the year)	HORSEPOWER (RATED CAPACITY) OF POWER EQUIPMENT			Salaries	Wages	COST OF MATERIALS, CONTAINERS FOR PRODUCTS, FUEL, AND PUR- CHASED ELECTRIC ENERGY			Value of products <sup>2</sup>	Value added by manufac- ture <sup>3</sup>
					Total	Primo movers	Motors run by pur- chased energy			Total	Materials and con- tainers	Fuel and purchased energy		
Individual States—Con.														
Missouri.....	1929	36	71	202	1,489	58	1,431	\$170,052	\$227,044	\$2,104,701	\$2,085,208	\$44,403	\$3,200,020	\$1,180,328
	1927	32	80	204	509	-----	509	164,782	194,683	1,004,187	1,502,049	44,138	2,611,769	1,005,682
Nebraska.....	1929	7	7	26	50	-----	50	18,015	20,537	240,220	230,287	3,902	360,001	125,772
New Jersey.....	1929	22	131	564	1,378	50	1,328	402,597	721,087	5,255,102	5,210,523	44,570	10,820,502	5,574,460
	1927	17	215	620	1,441	60	1,381	408,043	676,130	5,245,250	5,135,720	109,521	7,034,280	2,059,030
New York.....	1929	120	870	2,225	6,132	1,225	4,007	2,700,255	2,830,511	22,770,800	22,467,583	302,983	46,886,483	24,100,917
	1927	93	717	2,584	6,057	1,088	4,009	1,038,200	3,172,115	25,200,004	24,888,858	320,206	40,070,455	24,707,301
Ohio.....	1929	43	85	404	1,003	108	895	191,043	430,879	2,872,507	2,812,302	60,205	4,377,200	1,504,792
	1927	32	96	413	1,158	380	778	191,511	386,320	2,956,021	2,808,907	66,084	4,400,714	1,540,703
Oklahoma.....	1929	4	1	10	5	-----	5	3,600	12,730	33,612	31,917	1,695	64,077	31,105
	1927	5	4	14	12	-----	12	8,300	14,947	70,485	67,848	2,637	110,518	40,033
Oregon.....	1929	15	20	56	154	-----	154	59,816	57,611	514,064	497,433	15,631	802,115	379,051
	1927	11	19	62	176	-----	170	42,584	63,318	880,182	873,365	12,827	878,143	291,001
Pennsylvania.....	1929	62	130	360	1,185	44	1,141	348,520	393,205	3,330,254	3,207,303	71,051	5,050,045	1,740,791
	1927	50	170	606	1,308	45	1,323	357,013	790,255	6,714,212	6,583,587	130,625	8,011,804	1,807,182
Tennessee.....	1929	0	22	99	201	71	100	44,704	61,004	1,098,053	1,088,262	10,001	1,454,024	355,071
	1927	11	24	113	310	65	245	45,750	80,353	1,508,336	1,556,742	12,504	2,010,601	448,205
Texas.....	1929	46	60	406	784	220	564	172,005	283,432	2,413,106	2,372,208	40,898	4,084,783	1,071,077
	1927	20	115	300	559	270	289	258,043	200,924	1,051,514	1,018,381	33,133	3,192,707	1,541,283
Utah.....	1929	5	1	17	9	2	7	1,000	20,310	40,785	40,543	3,242	80,311	30,526
Virginia.....	1929	3	10	114	985	14	891	55,292	87,179	715,090	697,053	17,740	947,077	231,978
	1927	12	18	120	655	-----	655	47,205	78,555	926,706	905,648	20,148	1,206,175	280,370
Washington.....	1929	20	40	85	340	10	339	86,744	94,238	941,608	920,065	15,033	1,331,404	380,706
	1927	19	45	85	197	-----	197	87,240	95,787	637,894	615,008	22,880	1,015,551	377,657
Wisconsin.....	1929	20	325	821	6,741	5,705	976	812,158	1,129,544	11,830,744	11,007,207	232,537	18,813,790	6,974,055
	1927	18	320	867	7,530	6,411	1,128	759,982	1,000,705	10,453,825	10,230,106	233,710	17,030,447	7,176,622
Groups of States:														
Me., 1 est.; N. H., 4; R. I., 2; Vt., 3.....	1929	10	31	139	270	-----	270	89,224	148,064	2,272,005	2,255,343	17,502	3,723,762	1,450,847
D. C., 4 est.; Fla., 3; N. C., 2.....	1929	9	17	87	111	40	71	50,985	70,434	306,823	388,344	8,482	688,278	291,452
Mont., 1 est.; Nev., 1; Wyo., 1.....	1929	3	-----	5	9	-----	0	-----	7,117	21,040	10,812	1,237	30,528	18,479
Other States (Ind., 14; Miss., 3).....	1929	17	140	345	1,675	1,468	107	297,182	237,004	1,062,012	1,032,081	30,881	3,006,137	2,003,225
States not shown sepa- rately.....	1927	70	322	1,191	4,250	2,882	1,368	897,410	1,120,705	15,233,571	15,000,200	143,302	24,637,010	9,404,330

<sup>1</sup> Not including proprietors and firm members, as follows: For 1929, 671; 1927, 456. The total numbers of persons engaged—proprietors and firm members, salaried officers and employees, and wage earners—as reported for the industry, are as follows: For 1929, 14,376; 1927, 13,942.

<sup>2</sup> The figures for 1929 refer to sales (shipments or deliveries) by manufacturers; those for 1927 represent production. See GENERAL EXPLANATIONS—Value of Products.

<sup>3</sup> Value of products less cost of materials, containers for products, fuel, and purchased electric energy. See GENERAL EXPLANATIONS—Value Added by Manufacture.

<sup>4</sup> Alabama, 7 establishments; Arkansas, 2; Delaware, 3; District of Columbia, 4; Florida, 2; Idaho, 3; Indiana, 10; Kansas, 4; Kentucky, 3; Louisiana, 6; Maine, 1; Minnesota, 9; Montana, 1; Nebraska, 4; Nevada, 1; New Hampshire, 1; North Carolina, 4; Rhode Island, 3; Utah, 3; Vermont, 4; Wyoming, 1.

## CENSUS OF MANUFACTURES: 1929

TABLE 2.—PRODUCTS, BY KIND, QUANTITY, AND VALUE, 1929, AND BY KIND AND VALUE, 1927, FOR THE UNITED STATES

[The figures for 1929 refer to sales (shipments or deliveries) by manufacturers; those for 1927 represent production. See GENERAL EXPLANATIONS—Value of Products. No comparable figures are available for years prior to 1927]

KIND	1929		1927	KIND	1929		1927
	Quantity	Value	Value		Quantity	Value	Value
1. "Food preparations, not elsewhere classified" industry, all products, total	<i>Pounds</i>	\$171, 860, 987	\$166, 064, 672	Food preparations—Continued.	<i>Pounds</i>		
2. Food preparations made in the industry		160, 301, 847	156, 599, 572	Desserts, ready to mix, total		\$24, 373, 473	\$10, 706, 003
3. Other products (not normally belonging to the industry)		11, 559, 140	10, 365, 100	Gelatin, "Jell-O," tapioca, etc.		21, 451, 179	(?)
4. Food preparations, normally belonging to the industry, made as secondary products in other industries		20, 901, 083	31, 687, 896	Plum and fig puddings		470, 780	(?)
Food preparations, not elsewhere classified, all industries, total (sum of 2 and 4)		187, 202, 930	188, 287, 468	Other desserts		2, 451, 508	(?)
Meat products, such as sliced and packed bacon, dried beef, pickled pigs' feet, boiled and boneless ham, calves' heads, canned meats (not including poultry), brains, tongue, tripe, etc.		16, 379, 080	120, 453, 330	"Health foods"		10, 613, 899	8, 871, 630
Peanut products, total		17, 906, 920	15, 344, 406	Ice-cream cones		5, 127, 350	5, 113, 587
Peanut butter	97, 356, 633	15, 861, 354	13, 953, 702	Italian, Spanish, and Mexican preparations other than cakes, total		6, 319, 190	4, 157, 708
Peanut oil	17, 288, 250	1, 113, 070	883, 640	Chili con carne		2, 825, 918	(?)
Peanut cake and meal	23, 237, 650	710, 618	331, 376	Tamales		2, 020, 194	(?)
Other peanut products		305, 878	375, 679	Other preparations		1, 467, 078	(?)
Sweetening sirups and molasses, total		26, 690, 842	25, 700, 486	Malted milk and malted-milk products		6, 531, 051	6, 922, 045
Sirups, mixed or blended, including sirup-and-molasses mixtures	307, 066, 501	23, 168, 120	(?)	Mince-meat	37, 620, 850	4, 202, 417	4, 131, 822
Molasses, mixed or blended	36, 220, 840	2, 277, 212	(?)	Potato chips		6, 797, 734	4, 153, 874
Other sweetening preparations		1, 245, 501	(?)	Bakers', confectioners', and household supplies, total		10, 467, 016	14, 196, 020
Blended cheese and cheese spread	51, 376, 823	15, 655, 634	(?)	Coconut, desiccated or shredded		6, 807, 963	7, 268, 111
Chicory root (dried)	30, 905, 867	1, 554, 145	(?)	Chili pepper or powder (ground or whole)	7, 117, 818	1, 017, 438	
				Eggs, whole, dehydrated	2, 173, 088	1, 051, 491	
				Marshmallow crème		840, 806	
				Pie and cake fillings	10, 050, 748	2, 171, 116	6, 927, 909
				Prepared dessert powders		3, 008, 541	
				Other preparations		3, 063, 601	
				Other food products:			
				Baked beans, bouillon cubes, cakes (bean, fish, rice, and other), chocolate and cocoa (instant), eggs processed and canned, meat pies, peanut-butter sandwiches, sandwich spread, chop suey, etc., total		25, 497, 476	59, 734, 952

<sup>1</sup> Includes \$2,990,614, value of poultry products (boned and canned chicken, etc.). Products of this character are now classified in the "Poultry killing and dressing" industry.

<sup>2</sup> Withheld from publication in order to avoid disclosing data for individual establishments.

TABLE 3.—PRIME MOVERS, MOTORS, GENERATORS, AND CONSUMPTION OF PURCHASED ELECTRIC ENERGY—NUMBER AND RATED CAPACITY OF PRIME MOVERS, ELECTRIC MOTORS, AND GENERATORS, 1929 AND 1927; QUANTITY OF ELECTRIC ENERGY PURCHASED, 1929

[No comparable figures are available for years prior to 1927]

TYPE	1929		1927		Percent distribution of rated horse-power capacity, 1929	TYPE	1929		1927		Percent distribution of rated horse-power capacity, 1929
	Number	Capacity	Number	Capacity			Number	Capacity	Number	Capacity	
Prime movers and electric motors driven by purchased energy, aggregate	6, 146	<i>Horse-power</i> 36, 716	4, 025	<i>Horse-power</i> 34, 773	100. 0	Electric motors, total	7, 086	<i>Horse-power</i> 23, 829	5, 538	<i>Horse-power</i> 20, 371	100. 0
Prime movers, total	111	12, 960	140	14, 208	35. 3	Driven by purchased energy	6, 035	23, 756	4, 770	20, 565	82. 4
Steam, total	102	12, 544	127	13, 695	34. 2	Driven by energy generated in establishments reporting	1, 051	5, 073	769	5, 806	17. 0
Engines	96	10, 746	110	11, 736	29. 3	Electric generators	23	<i>Kilowatts</i> 4, 240	30	<i>Kilowatts</i> 4, 023	
Turbines	6	1, 798	8	1, 059	4. 9	Electric energy purchased <sup>1</sup>		<i>Kilowatt-hours</i> 10, 233, 165		(?)	
Internal-combustion engines	8	66	17	178	0. 1						
Water wheels and water turbines	1	350	2	335	1. 0						
Electric motors driven by purchased energy	6, 035	23, 756	4, 770	20, 565	64. 7						

<sup>1</sup> This item covers the consumption of purchased electric energy for all purposes—power, heat, light, etc.

<sup>2</sup> Data incomplete.

# FOOD PREPARATIONS, NOT ELSEWHERE CLASSIFIED

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TABLE 4.—WAGE EARNERS, BY MONTHS, BY STATES: 1929

[This table presents statistics for only those States for which figures can be given without disclosing data for individual establishments. The sum of the State items in any column is not, therefore, equal to the United States total at the head of the column. The month of maximum employment is indicated by bold-faced figures and that of minimum employment by *italic* figures]

STATE	Average number employed during year	NUMBER EMPLOYED ON 15TH DAY OF MONTH OR NEAREST REPRESENTATIVE DAY												Per cent minimum is of maximum
		January	February	March	April	May	June	July	August	September	October	November	December	
United States: 1929 <sup>1</sup>	10,616	10,077	10,314	10,653	10,563	10,573	10,605	10,450	10,502	10,780	11,355	11,074	10,372	88.0
Alabama	123	119	122	120	114	114	111	<i>109</i>	112	129	135	149	143	73.2
Arizona	5	5	5	5	5	5	5	5	5	5	5	5	5	-----
Arkansas	22	8	8	8	8	8	8	8	84	64	64	8	8	12.5
California	930	880	891	905	937	894	895	901	888	932	1,010	1,049	1,044	84.7
Colorado	143	<i>115</i>	120	128	143	150	180	174	104	155	135	128	123	83.9
Connecticut	34	34	34	34	34	34	34	34	34	34	34	34	34	-----
Georgia	140	<i>125</i>	128	132	138	141	148	148	148	159	177	175	169	70.6
Idaho	19	21	22	30	23	13	22	19	12	<i>10</i>	17	22	13	33.3
Illinois	1,350	<i>1,222</i>	1,309	1,339	1,360	1,420	1,447	1,387	1,410	1,384	1,370	1,300	1,241	84.5
Iowa	48	24	24	25	30	29	29	32	112	110	115	26	29	20.0
Kansas	24	24	24	25	25	24	<i>22</i>	<i>22</i>	23	27	26	26	26	81.5
Kentucky	100	<i>80</i>	99	100	105	108	114	107	110	100	100	81	82	70.2
Louisiana	228	251	240	244	237	230	212	204	<i>199</i>	230	235	247	199	78.1
Maryland	190	190	191	191	193	193	205	205	193	195	182	171	179	82.0
Massachusetts	488	550	539	545	475	473	502	408	433	<i>421</i>	470	483	477	78.4
Michigan	575	<i>489</i>	497	556	559	590	599	608	589	550	687	604	508	71.2
Minnesota	121	94	96	94	<i>93</i>	102	114	104	111	183	182	173	103	50.8
Missouri	202	200	203	211	228	210	191	<i>165</i>	184	204	210	206	209	72.4
Nabraska	26	<i>21</i>	26	27	27	28	22	22	24	27	30	29	28	70.0
New Jersey	564	562	545	<i>541</i>	553	<i>541</i>	543	545	550	611	609	593	575	88.5
New York	2,225	2,225	2,221	2,327	2,217	2,175	2,163	<i>2,089</i>	2,121	2,100	2,396	2,385	2,218	87.2
Ohio	494	<i>497</i>	448	475	505	530	584	581	598	552	479	415	431	69.7
Oklahoma	10	10	10	10	10	10	10	10	10	10	10	10	10	-----
Oregon	56	<i>48</i>	62	63	62	69	60	62	62	53	49	<i>48</i>	<i>48</i>	76.2
Pennsylvania	360	<i>337</i>	343	351	347	373	358	358	370	373	416	395	368	81.0
Tennessee	99	104	101	117	98	100	95	94	103	95	88	98	99	75.2
Texas	409	477	448	439	411	389	353	<i>292</i>	325	347	475	504	418	57.9
Utah	17	15	15	10	17	17	20	24	22	17	16	<i>14</i>	<i>14</i>	68.3
Virginia	114	109	114	109	<i>101</i>	112	112	108	104	121	127	130	128	77.7
Washington	85	79	75	75	80	84	74	87	91	88	97	102	99	68.0
Wisconsin	821	<i>721</i>	817	800	892	842	808	891	833	785	760	785	784	79.4

<sup>1</sup> No comparable figures available for years prior to 1929.

## ICE CREAM

Description of the industry.—This industry embraces establishments engaged primarily in the manufacture of ice cream, water ices, sherbets, and frozen custards. It does not, therefore, cover the manufacture of these products by hotels and restaurants or by retailers for use in their soda fountains.

TABLE 1.—SUMMARY FOR THE UNITED STATES: 1914 TO 1929

[Data for establishments with products under \$5,000 in value included for 1919 and prior years but not for 1921 and subsequent years. See GENERAL EXPLANATIONS—Establishments Covered—Size]

YEAR OR PERIOD	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, containers for products, fuel, and purchased electric energy	Value of products <sup>1</sup>	Value added by manufacture <sup>2</sup>	Horsepower
1929.....	3,150	22,390	\$33,803,014	\$155,964,386	\$328,413,011	\$172,449,525	230,882
1927.....	2,961	21,927	33,107,015	150,602,020	301,644,091	151,042,062	206,315
1925.....	2,790	23,043	33,459,757	140,863,762	286,175,686	145,311,924	189,328
1923.....	2,762	23,132	32,434,770	145,307,036	259,066,987	114,659,951	169,730
1921.....	2,523	20,209	28,236,752	131,160,927	213,261,743	92,001,816	( <sup>3</sup> )
1919.....	3,475	19,155	21,698,809	116,375,470	180,483,065	73,107,586	102,640
1914.....	2,437	10,370	6,844,615	32,771,716	55,083,133	23,211,417	45,408
PER CENT OF INCREASE OR DECREASE (—)							
1927-1929.....	6.4	2.2	2.1	3.0	8.0	14.2	11.0
1925-1927.....	6.1	-4.8	-1.0	6.9	5.4	3.9	0.0
1923-1925.....	1.0	-0.4	3.2	-3.1	10.1	26.7	11.5
1921-1923.....	6.3	14.5	11.9	19.9	21.9	24.5	-----
1919-1921.....	-27.3	5.5	30.1	-1.1	12.5	20.0	-----
1910-1929.....	-0.4	16.0	55.8	34.0	73.3	135.9	121.0

<sup>1</sup> For 1929, manufacturers' sales (shipments or deliveries); for earlier years, production. See GENERAL EXPLANATIONS—Value of Products.

<sup>2</sup> Value of products less cost of materials, containers for products, fuel, and purchased electric energy. See GENERAL EXPLANATIONS—Value Added by Manufacture.

<sup>3</sup> Not called for on schedule.

# ICE CREAM

**TABLE 2.—GENERAL STATISTICS, BY STATES: 1929, 1927, AND 1919**

[Data for establishments with products under \$5,000 in value are included for 1919 but not for subsequent years. See GENERAL EXPLANATIONS—Establishments Covered—Size]

STATE	Census year	Number of establishments	Salaried officers and employees <sup>1</sup>	Wage earners (average for the year)	HORSEPOWER (RATED CAPACITY) OF POWER EQUIPMENT			Salaries	Wages	COST OF MATERIALS, CONTAINERS FOR PRODUCTS, FUEL, AND PURCHASED ELECTRIC ENERGY			Value of products <sup>2</sup>	Value added by manufacture <sup>3</sup>
					Total	Prime movers	Motors run by purchased energy			Total	Materials and containers	Fuel and purchased energy		
United States	1929	3,150	7,032	22,309	230,882	22,580	203,302	\$17,144,814	\$33,803,044	\$165,964,386	\$148,148,807	\$7,815,510	\$328,413,011	\$172,440,525
	1927	2,001	6,776	21,027	206,315	20,479	185,836	15,467,225	33,107,018	150,002,020	143,041,022	7,561,007	301,644,001	151,042,962
	1919	3,476	4,080	10,155	402,040	31,750	170,887	8,551,550	21,008,809	110,375,479	112,253,228	4,122,251	180,483,005	73,107,586
Alabama	1929	35	02	218	2,787	338	2,449	238,063	230,043	1,188,393	1,107,105	81,198	2,206,907	1,077,004
	1927	28	04	225	1,080	50	1,030	146,076	245,505	1,208,520	1,205,010	62,871	2,227,318	959,708
	1919	18	30	120	658	50	608	06,470	100,874	745,938	721,535	24,403	1,247,350	501,412
Arizona	1929	19	25	78	474	14	460	69,001	102,712	475,200	447,110	28,150	904,377	480,007
	1927	14	21	58	303	303	44,004	83,615	307,509	367,509	350,970	16,530	600,670	299,147
	1919	13	13	63	105	105	10,954	07,354	10,874	265,112	265,220	0,892	303,401	128,340
Arkansas	1929	33	52	122	1,633	396	1,237	60,010	161,158	770,906	702,201	74,615	1,540,174	703,268
	1927	36	49	124	1,560	380	1,180	63,200	154,888	839,987	790,565	49,422	1,452,545	613,558
	1919	30	00	232	1,077	347	730	140,701	177,107	810,087	781,380	84,608	1,408,983	682,806
California	1929	194	317	1,050	10,183	97	10,086	712,207	1,650,856	8,580,150	8,288,430	300,726	18,070,000	10,380,004
	1927	133	316	1,050	9,307	28	9,279	676,633	1,524,250	6,709,944	6,501,004	207,950	14,830,738	8,060,794
	1919	91	289	783	2,040	310	2,030	340,014	839,772	4,013,000	3,872,445	141,455	6,717,552	2,703,652
Colorado	1929	29	54	163	1,533	155	1,378	138,656	215,277	1,122,303	1,052,418	69,876	2,480,453	1,568,000
	1927	24	45	114	720	82	647	76,627	169,601	875,447	833,700	42,648	1,540,173	670,726
	1919	33	33	97	328	97	231	49,700	106,463	768,281	730,788	18,493	1,278,401	520,120
Connecticut	1929	43	130	421	3,400	165	3,234	207,337	674,003	2,415,484	2,200,080	116,404	5,315,173	2,800,680
	1927	40	149	440	4,254	250	4,004	262,804	619,836	2,414,902	2,286,428	128,504	6,005,533	2,080,541
	1919	73	95	377	1,858	286	1,572	138,357	492,924	2,103,485	2,013,742	89,743	3,307,808	1,301,323
Delaware	1929	9	23	74	705	05	640	68,009	104,581	395,913	370,932	15,901	870,075	483,132
	1927	11	23	71	546	80	466	46,380	103,027	414,040	393,052	20,388	676,024	500,984
	1919	18	3	69	132	57	75	5,120	63,893	284,540	278,160	6,386	423,854	130,308
District of Columbia	1929	19	78	316	5,003	1,000	4,003	226,076	500,457	1,583,301	1,487,504	96,857	3,003,072	2,070,972
	1927	19	95	347	4,415	2,325	2,090	218,234	622,015	1,040,117	1,523,185	125,932	3,804,104	2,218,047
	1919	7	100	513	3,464	1,020	1,844	301,054	665,780	1,401,862	1,262,220	139,582	4,100,893	2,090,061
Florida	1929	59	120	270	3,072	200	2,872	234,000	365,091	1,716,039	1,602,808	113,231	3,208,108	1,582,120
	1927	62	113	325	3,203	240	2,963	246,231	441,729	2,000,405	1,914,378	104,027	3,839,000	1,775,004
	1919	20	28	84	357	108	240	40,824	50,350	653,953	623,728	30,225	923,163	260,210
Georgia	1929	32	92	238	2,579	25	2,554	187,117	292,500	1,263,155	1,172,903	90,252	2,584,242	1,321,087
	1927	25	72	220	2,032	35	1,997	180,892	232,328	1,376,000	1,288,004	88,000	2,681,180	1,005,130
	1919	25	70	219	1,073	-----	1,073	104,794	188,727	1,347,455	1,307,595	39,860	1,907,158	640,708
Idaho	1929	8	11	27	216	45	171	27,040	34,488	141,327	133,560	7,768	206,175	154,848
	1927	8	4	24	117	-----	117	4,000	30,908	132,705	126,608	6,267	177,408	83,608
	1919	11	8	18	65	-----	65	9,785	20,000	139,145	136,420	3,725	188,988	40,843
Illinois	1929	186	565	1,491	16,179	307	15,872	1,030,501	2,773,327	12,480,408	11,880,122	607,370	28,227,075	15,741,477
	1927	182	611	1,513	14,226	372	13,854	1,500,291	3,054,330	13,023,301	12,400,067	567,234	25,501,026	13,977,725
	1919	225	335	1,216	6,850	733	6,120	706,700	1,044,283	8,976,503	8,681,170	295,324	14,801,586	5,915,083
Indiana	1929	120	219	641	7,423	708	6,715	489,180	910,117	4,200,523	3,931,003	269,460	7,902,002	3,702,160
	1927	108	169	602	6,067	338	5,729	346,035	855,292	3,050,559	3,438,816	211,743	6,706,403	3,055,844
	1919	151	148	530	3,015	910	2,105	250,904	590,830	3,941,987	3,828,998	112,989	5,631,751	1,080,764
Iowa	1929	100	99	294	3,108	301	2,807	217,453	415,334	2,262,223	2,123,359	128,864	4,600,208	2,348,045
	1927	106	91	849	3,178	121	3,057	183,962	407,756	2,080,235	2,544,345	135,890	4,885,403	2,205,108
	1919	123	150	371	2,294	750	1,535	206,012	400,743	2,544,000	2,460,143	83,907	3,907,070	1,423,886
Kansas	1929	65	112	281	2,960	615	2,345	226,007	360,603	1,743,009	1,640,041	102,968	3,013,004	1,860,605
	1927	52	04	225	2,240	493	1,747	110,560	282,751	1,423,301	1,323,002	100,299	2,620,867	1,107,566
	1919	61	47	216	937	270	667	63,400	230,363	1,285,204	1,222,270	62,935	2,040,500	755,306
Kentucky	1929	51	54	184	1,813	243	1,570	117,027	230,223	955,935	802,530	63,300	2,165,421	1,200,486
	1927	51	97	240	1,027	524	1,493	180,503	282,253	1,417,010	1,338,144	78,872	2,780,005	1,303,040
	1919	49	03	109	621	225	396	97,042	308,251	1,152,781	1,124,770	28,011	1,749,024	606,243
Louisiana	1929	50	71	180	1,241	54	1,187	146,700	214,301	904,523	907,054	57,469	2,038,519	1,073,000
	1927	22	03	171	609	189	780	116,937	172,055	780,500	741,183	43,317	1,086,709	807,209
	1919	21	56	150	316	45	271	82,309	119,907	1,231,690	1,211,997	19,702	1,819,800	688,101
Maine	1929	10	58	164	1,567	-----	1,567	133,148	217,481	948,501	915,700	32,702	2,172,053	1,223,552
	1927	20	86	103	1,312	35	1,277	221,555	218,146	1,411,204	1,329,719	81,485	2,498,570	1,087,806
	1919	32	31	98	335	30	305	56,135	101,890	717,820	707,180	10,649	1,092,256	374,427
Maryland	1929	51	100	333	5,011	121	4,890	320,024	453,151	2,730,734	2,590,144	134,590	6,017,606	3,286,872
	1927	49	126	480	4,707	377	4,330	334,013	614,750	2,006,820	2,841,011	155,218	6,133,349	3,136,520
	1919	34	94	487	2,240	406	1,833	152,028	508,856	2,672,078	2,468,217	103,861	4,154,070	1,532,001
Massachusetts	1929	149	241	675	8,425	15	8,410	680,060	1,481,570	7,304,332	6,987,760	307,566	14,095,007	7,330,705
	1927	162	374	1,026	10,352	118	10,234	825,222	1,652,235	8,214,821	7,847,024	367,797	15,278,850	7,064,029
	1919	148	172	832	2,817	200	2,617	280,039	1,011,283	5,479,086	5,321,434	153,252	8,340,327	2,860,041
Michigan	1929	107	152	730	5,443	430	5,013	354,502	1,105,007	7,363,183	7,104,118	264,065	14,890,063	7,530,880
	1927	109	230	632	7,128	160	6,968	492,932	961,437	5,376,005	5,120,055	250,550	11,703,010	6,332,014
	1919	92	122	462	2,396	21	2,375	185,962	595,570	3,282,154	3,205,274	76,880	5,301,998	2,010,844
Minnesota	1929	49	132	417	3,352	250	3,102	407,673	595,737	2,820,502	2,674,527	154,975	6,157,504	3,323,002
	1927	46	137	409	2,943	250	2,							



## CENSUS OF MANUFACTURES: 1929

TABLE 2.—GENERAL STATISTICS, BY STATES: 1929, 1927, AND 1919—Continued

(See note at head of this table)

STATE	Cen- sus year	Num- ber of estab- lish- ments	Sala- ried offi- cers and em- ploy- ees <sup>1</sup>	Wage earn- ers (av- erage for the year)	HORSEPOWER (RATED CAPACITY) OF POWER EQUIPMENT			Salaries	Wages	COST OF MATERIALS, CONTAINERS FOR PRODUCTS, FUEL, AND PURCHASED ELECTRIC ENERGY			Value of products <sup>2</sup>	Value added by manu- facture <sup>3</sup>
					Total	Prime movers	Motors run by pur- chased energy			Total	Materials and containers	Fuel and purchased energy		
Montana	1929	5	1	10	83		83	\$2,452	\$13,895	\$31,412	\$56,801	\$4,611	\$118,181	\$56,769
	1927	12	4	23	128		128	4,082	29,967	137,640	127,895	9,745	241,138	103,498
	1919	18	11	60	165	3	162	19,870	68,042	238,887	227,172	11,715	417,427	178,840
Nebraska	1929	41	95	224	3,270	317	2,953	197,812	295,861	1,680,844	1,584,014	96,830	3,516,149	1,835,305
	1927	38	58	199	1,971	241	1,730	147,368	274,492	1,341,992	1,256,887	85,105	2,448,029	1,106,037
	1919	32	50	135	808	70	738	73,688	138,560	1,051,428	1,009,750	41,678	1,542,412	490,984
New Hampshire	1929	20	16	78	760	25	741	48,410	101,311	619,341	589,393	29,948	1,218,363	590,022
	1927	20	19	91	623	40	583	33,098	127,070	613,457	584,228	29,229	1,156,787	543,330
	1919	16	10	45	127	15	112	9,420	41,324	220,276	214,877	5,399	348,393	128,117
New Jersey	1929	136	280	1,166	12,032	2,093	9,939	616,397	1,857,665	9,966,227	6,600,438	365,789	15,220,030	8,262,803
	1927	139	220	1,000	9,747	2,061	7,686	570,721	1,574,574	6,676,312	6,364,270	312,033	14,167,842	7,491,530
	1919	147	169	744	2,783	1,198	1,585	358,008	762,243	4,842,973	4,665,108	177,865	7,400,347	2,557,374
New Mexico	1929	10	10	19	167		167	15,180	22,943	119,163	120,655	10,492	240,510	110,855
	1927	10	2	24	161		161	2,403	26,167	140,184	129,268	10,226	232,622	92,338
	1919	12	5	26	45		45	6,742	28,622	122,505	120,366	2,199	198,787	76,202
New York	1929	337	919	2,940	28,056	2,071	25,985	2,390,588	4,044,357	22,124,393	21,221,137	909,256	45,784,354	23,450,961
	1927	364	702	3,045	21,615	2,128	19,487	1,949,978	5,205,971	19,372,531	18,491,602	880,939	41,751,468	22,378,937
	1919	516	524	2,622	12,842	6,450	6,392	807,208	3,063,839	14,808,336	14,423,286	385,550	25,383,530	10,575,200
North Carolina	1929	27	80	271	3,305	25	3,270	174,788	326,627	1,520,493	1,415,679	113,814	3,014,681	1,485,188
	1927	43	87	325	2,832	85	2,747	171,278	338,144	1,888,085	1,780,361	107,724	3,890,407	2,002,412
	1919	39	26	170	932	517	415	50,392	150,107	784,310	740,024	44,286	1,308,007	614,297
North Dakota	1929	11	10	50	333	16	317	25,030	61,677	327,666	309,577	18,089	707,405	379,739
	1927	9	11	32	288		288	13,457	38,606	352,844	334,023	18,221	584,267	231,413
	1919	14	9	40	109	39	70	11,400	32,617	256,626	249,684	6,942	362,395	105,769
Ohio	1929	174	500	1,432	18,065	4,360	13,645	1,188,015	2,272,028	9,828,057	9,285,598	542,459	20,775,800	10,947,743
	1927	165	427	1,421	10,454	3,779	12,675	1,049,757	2,244,088	10,567,637	9,975,605	592,132	19,310,610	8,721,973
	1919	195	390	1,314	9,375	2,319	7,056	597,344	1,584,239	8,016,619	7,724,595	292,054	14,038,656	6,022,037
Oklahoma	1929	52	98	288	2,709	17	2,752	214,160	363,628	1,866,937	1,761,415	105,522	3,707,464	1,840,527
	1927	41	85	230	2,744	725	2,019	168,721	296,605	1,536,358	1,431,329	105,029	3,071,877	1,535,619
	1919	45	64	187	1,863	1,353	510	118,044	223,410	1,325,171	1,246,162	79,009	2,245,715	920,544
Oregon	1929	19	36	145	1,298		1,298	57,565	213,187	846,957	797,400	40,557	1,771,874	924,017
	1927	8	31	153	1,097		1,097	71,742	237,659	652,930	652,930	47,786	1,578,312	877,696
	1919	7	31	164	642	75	567	70,093	142,036	901,379	875,442	25,937	1,232,371	320,992
Pennsylvania	1929	290	867	3,091	33,559	5,263	28,296	2,224,133	4,597,170	21,490,368	20,448,874	1,050,494	47,010,703	25,511,935
	1927	270	908	2,656	32,397	4,155	28,242	2,045,093	4,480,861	21,831,192	20,770,217	1,060,975	45,268,732	23,427,569
	1919	476	757	3,125	18,343	8,111	10,232	1,217,498	3,573,039	18,953,914	18,234,526	719,388	29,721,245	10,767,331
Rhode Island	1929	32	43	154	1,690		1,690	102,568	225,089	1,133,002	54,600	2,489,281	1,321,679	
	1927	30	37	143	1,827		1,827	80,591	208,546	1,203,369	1,150,175	53,194	2,316,035	1,113,260
	1919	66	29	157	940	118	822	41,066	172,374	1,067,291	1,034,065	32,226	1,070,514	600,223
South Carolina	1929	18	55	169	960		960	114,802	127,497	732,589	687,048	44,941	1,458,896	726,397
	1927	12	35	68	753		753	75,620	83,230	520,961	483,489	37,472	1,067,410	546,440
	1919	24	27	110	1,704		1,704	62,126	89,894	693,521	672,700	20,812	1,037,444	343,023
South Dakota	1929	13	10	65	550	100	450	29,348	82,214	480,442	462,504	23,878	905,332	418,890
	1927	10	16	38	344		344	28,122	45,820	328,361	309,574	18,787	597,081	268,720
	1919	10	3	24	152	76	76	2,990	20,646	210,020	200,544	6,476	293,455	77,435
Tennessee	1929	48	90	258	2,607	109	2,498	232,968	394,270	1,574,730	1,489,022	85,708	3,304,841	1,730,111
	1927	44	93	259	2,573	165	2,418	190,581	393,901	1,095,240	1,069,939	85,301	3,128,525	1,433,285
	1919	32	80	243	1,336	301	1,036	172,694	168,112	1,280,460	1,220,671	59,779	2,115,550	829,109
Texas	1929	126	192	681	6,154	412	5,742	421,578	875,091	4,031,014	3,795,132	236,882	7,990,224	3,958,100
	1927	103	213	575	5,138	201	4,932	418,260	688,603	3,114,417	2,911,452	202,965	6,291,352	3,176,008
	1919	101	152	705	3,592	1,108	2,489	280,934	722,923	3,546,187	3,346,481	5,677,526	2,031,375	
Utah	1929	18	33	125	766	10	756	49,159	144,747	799,222	678,916	35,306	1,334,864	625,642
	1927	10	20	79	483		483	40,852	80,836	610,476	593,231	23,245	1,078,343	401,867
	1919	17	43	110	182		182	54,965	99,328	604,167	589,593	14,574	915,463	311,266
Vermont	1929	12	10	50	550		550	42,804	74,568	505,509	484,270	21,230	1,000,110	404,601
	1927	12	22	46	734		734	34,428	70,892	530,000	507,652	23,038	1,053,770	523,080
	1919	14	10	37	123		123	24,645	36,480	281,536	270,907	4,539	507,538	226,302
Virginia	1929	38	107	306	3,731	494	3,237	237,374	369,496	1,933,638	1,818,887	114,751	3,649,819	1,716,181
	1927	33	84	316	3,008	40	2,968	156,985	394,333	2,045,117	1,946,530	98,587	3,781,962	1,736,845
	1919	45	97	337	1,480	102	1,318	208,136	386,707	2,095,070	2,010,364	84,706	3,421,190	1,326,120
Washington	1929	54	66	403	2,202	35	2,167	168,950	671,411	2,277,937	2,179,888	106,149	4,517,128	2,240,091
	1927	45	110	293	2,123	63	2,060	299,656	507,919	2,043,763	1,957,650	86,113	3,720,142	1,085,379
	1919	33	52	160	701	50	651	100,325	237,517	1,100,841	1,073,271	27,570	1,990,518	799,077
West Virginia	1929	38	122	310	3,768	617	3,151	251,891	448,138	1,594,666	1,476,564	118,072	3,469,023	1,865,357
	1927	40	116	373	4,277	1,402	2,785	299,780	501,440	1,763,350	1,644,287	119,069	3,849,678	2,088,322
	1919	57	99	247	2,706	1,457	1,248	137,841	318,938	1,574,658	1,510,095	64,563	2,673,554	1,098,896
Wisconsin	1929	67	233	680	6,094	467	5,627	532,003	975,261	4,538,547	4,323,231	215,316	8,747,668	4,206,121
	1927	66	218	589	6,939	617	6,322	404,374	876,556	4,304,275	4,106,692	198,583	7,943,707	3,630,432
	1919	70	104	387	3,121	245	2,876	226,188	430,070	2,988,861				

# ICE CREAM

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**TABLE 3.—PRODUCTS, BY KIND, QUANTITY, AND VALUE, FOR THE UNITED STATES: 1923 TO 1929**

[The figures given for 1920 refer to sales (shipments or deliveries) by manufacturers; those for earlier years represent production. See GENERAL EXPLANATIONS—Value of Products]

	1920	1927	1925	1923
1. Ice-cream industry, all products, total value.....	\$323, 413, 911	\$301, 044, 091	\$286, 175, 086	\$250, 006, 087
2. Ice cream, ices, and specialties.....	\$305, 738, 711	\$282, 720, 209	\$208, 120, 819	\$238, 191, 785
3. Other products (not normally belonging to the industry).....	\$22, 675, 200	\$18, 024, 782	\$18, 045, 867	\$21, 775, 202
4. Ice cream, etc., made as secondary products in other industries.....	\$26, 341, 089	\$20, 653, 080	\$31, 378, 093	\$32, 232, 364
Ice cream, ices, and specialties, all industries (sum of 2 and 4):				
Total gallons.....	270, 776, 992	252, 338, 285	243, 007, 788	222, 104, 773
Total value.....	\$332, 079, 800	\$312, 374, 198	\$209, 508, 422	\$270, 424, 140
Ice cream—				
Gallons.....	267, 274, 485			
Value.....	\$314, 916, 795			
Ices—				
Gallons.....	5, 163, 370	248, 196, 727	240, 825, 303	222, 104, 773
Value.....	\$5, 971, 138	\$305, 120, 900	\$294, 582, 148	\$270, 424, 140
Specialties (cups, sticks, etc., reported in ice-cream equivalent)—				
Gallons.....	7, 339, 137	4, 141, 558	3, 082, 485	(1)
Value.....	\$11, 191, 897	\$7, 253, 238	\$4, 026, 274	(1)

1 "Other products," as reported for 1923, included "Specialties."

**TABLE 4.—PRODUCTS, BY KIND, QUANTITY, AND VALUE, BY STATES: 1929 AND 1927**

[The figures for 1920 refer to sales (shipments or deliveries) by manufacturers; those for 1927 represent production. See GENERAL EXPLANATIONS—Value of Products]

STATE	1920						1927			
	ICE CREAM		ICES		SPECIALTIES		ICE CREAM AND ICES <sup>1</sup>		SPECIALTIES	
	Gallons	Value	Gallons	Value	Gallons	Value	Gallons	Value	Gallons	Value
United States.....	267, 274, 485	\$314, 916, 795	5, 163, 370	\$5, 971, 138	7, 339, 137	\$11, 191, 897	248, 196, 727	\$305, 120, 900	4, 141, 558	\$7, 253, 238
Alabama.....	1, 888, 317	2, 103, 334	20, 916	30, 031	29, 374	55, 134	1, 092, 973	2, 213, 740	19, 380	32, 268
Arizona.....	698, 263	832, 048	3, 000	3, 827	11, 757	16, 740	480, 781	584, 374	680	960
Arkansas.....	1, 190, 791	1, 310, 511	21, 010	24, 309	19, 420	31, 882	1, 056, 987	1, 150, 178	14, 814	20, 028
California.....	14, 744, 416	16, 888, 097	530, 887	775, 020	515, 737	997, 784	11, 209, 682	14, 540, 586	105, 308	433, 806
Colorado.....	2, 838, 976	2, 921, 540	85, 519	89, 511	13, 833	29, 606	2, 309, 331	2, 463, 312	1, 660	3, 803
Connecticut.....	3, 996, 031	5, 145, 824	17, 063	28, 475	170, 835	308, 072	3, 180, 479	4, 698, 405	157, 550	358, 088
Delaware.....	654, 920	802, 651	12, 255	22, 181	27, 725	44, 063	741, 900	995, 738	1, 000	1, 500
District of Columbia.....	2, 493, 237	3, 258, 658	23, 016	61, 058	74, 642	128, 924	2, 552, 299	3, 550, 460	38, 701	88, 450
Florida.....	2, 358, 120	2, 801, 008	122, 364	133, 398	47, 694	132, 560	2, 950, 123	3, 456, 063	124, 587	269, 020
Georgia.....	1, 940, 127	2, 411, 381	27, 930	22, 681	18, 200	26, 128	2, 078, 030	2, 472, 038	20, 491	60, 737
Idaho.....	699, 450	675, 967	19, 753	21, 193	10, 365	9, 698	519, 345	572, 243		
Illinois.....	23, 043, 627	26, 608, 501	498, 425	506, 905	442, 844	606, 428	21, 606, 285	24, 026, 360	316, 008	550, 507
Indiana.....	7, 640, 747	8, 095, 394	81, 574	81, 850	55, 287	96, 206	7, 104, 911	7, 588, 592	128, 877	144, 765
Iowa.....	5, 789, 441	6, 234, 048	33, 580	47, 629	9, 784	22, 427	5, 455, 672	5, 946, 283	19, 713	27, 860
Kansas.....	3, 874, 553	3, 956, 088	99, 464	64, 457	19, 008	35, 507	3, 309, 991	3, 396, 013	10, 615	10, 571
Kentucky.....	1, 707, 270	2, 020, 922	66, 468	107, 491	41, 439	61, 628	2, 541, 350	2, 813, 472	23, 006	60, 367
Louisiana.....	1, 400, 786	1, 735, 183	51, 480	65, 044	157, 522	237, 002	1, 392, 208	1, 632, 464	61, 882	98, 287
Maine.....	1, 593, 265	2, 140, 478	6, 902	11, 405	13, 906	34, 407	1, 591, 628	2, 076, 481	12, 024	24, 730
Maryland.....	4, 480, 371	5, 071, 291	39, 494	64, 333	27, 991	131, 672	4, 530, 570	5, 886, 715	55, 474	142, 755
Massachusetts.....	11, 409, 842	14, 412, 766	193, 376	187, 805	144, 563	209, 759	11, 241, 672	14, 134, 215	712, 774	929, 311
Michigan.....	11, 640, 845	13, 588, 792	22, 281	27, 405	193, 876	183, 466	10, 241, 040	12, 009, 133	80, 997	154, 828
Minnesota.....	5, 879, 380	6, 377, 746	65, 986	123, 334	82, 696	171, 132	5, 720, 640	6, 328, 235	36, 818	70, 940
Mississippi.....	1, 494, 375	1, 747, 730	49, 617	49, 312	45, 027	80, 015	1, 583, 230	1, 774, 236	11, 050	12, 935
Missouri.....	8, 486, 980	9, 087, 440	84, 787	98, 475	110, 352	200, 126	8, 240, 143	9, 393, 837	91, 974	167, 527
Montana.....	726, 183	710, 311	33, 540	37, 108			691, 569	742, 941		
Nebraska.....	3, 177, 854	3, 607, 424	45, 070	52, 677	17, 480	36, 317	2, 682, 521	3, 014, 200	15, 829	28, 935
New Hampshire.....	947, 303	1, 163, 792	4, 410	9, 808	23, 598	50, 809	818, 771	1, 046, 432	24, 413	31, 716
New Jersey.....	10, 424, 559	14, 257, 312	32, 716	50, 099	431, 113	628, 406	10, 012, 197	13, 795, 236	140, 811	242, 585
New Mexico.....	279, 650	293, 527	4, 200	4, 610			194, 895	220, 441		
New York.....	32, 818, 828	40, 154, 367	1, 515, 698	1, 345, 228	2, 765, 124	3, 297, 628	29, 255, 507	40, 880, 045	595, 910	877, 512
North Carolina.....	2, 519, 277	2, 551, 321	122, 409	144, 428	173, 749	234, 248	3, 032, 921	3, 578, 516	111, 413	212, 763
North Dakota.....	1, 147, 453	1, 222, 221	20, 365	22, 870	6, 439	8, 874	896, 922	935, 422	5, 550	10, 339
Ohio.....	17, 134, 844	20, 248, 592	312, 293	357, 935	189, 297	299, 269	17, 090, 167	19, 128, 079	121, 395	208, 287
Oklahoma.....	3, 082, 334	3, 099, 125	59, 874	64, 156	136, 154	210, 183	2, 799, 095	2, 843, 316	41, 183	94, 426
Oregon.....	2, 097, 588	2, 330, 072	10, 604	15, 660	5, 474	9, 463	1, 790, 135	2, 191, 895	5, 342	5, 342
Pennsylvania.....	36, 582, 846	44, 905, 634	396, 357	630, 189	673, 698	1, 087, 088	33, 558, 757	44, 880, 895	499, 765	1, 043, 418
Rhode Island.....	1, 958, 023	2, 317, 394	11, 434	23, 045	45, 897	71, 739	1, 783, 394	2, 197, 556	50, 880	89, 664
South Carolina.....	1, 165, 092	1, 343, 250	15, 646	16, 645	9, 435	13, 799	936, 084	1, 051, 149	8, 089	16, 666
South Dakota.....	1, 241, 246	1, 358, 101	6, 519	7, 576	9, 941	21, 141	987, 859	1, 090, 593	13, 587	17, 090
Tennessee.....	3, 059, 392	3, 293, 124	83, 273	109, 952	68, 292	90, 096	2, 929, 311	3, 292, 184	31, 319	50, 500
Texas.....	7, 255, 480	8, 013, 578	126, 965	150, 919	145, 963	297, 496	6, 434, 976	7, 197, 834	199, 886	249, 297
Utah.....	1, 025, 681	1, 158, 304	28, 124	34, 891	39, 690	78, 443	678, 354	776, 917	77, 099	87, 093
Vermont.....	897, 184	995, 479			10, 957	21, 914	695, 700	929, 013	10, 237	35, 928
Virginia.....	2, 899, 994	3, 557, 704	32, 382	44, 922	45, 494	77, 445	2, 932, 098	3, 590, 495	88, 680	191, 753
Washington.....	3, 997, 148	4, 499, 860	55, 836	66, 083	29, 155	51, 688	3, 651, 651	4, 111, 674	20, 037	36, 480
West Virginia.....	2, 543, 631	3, 292, 078	14, 106	21, 342	39, 065	62, 550	2, 894, 912	3, 684, 896	10, 212	15, 599
Wisconsin.....	7, 885, 088	8, 574, 180	65, 480	80, 810	288, 073	417, 557	7, 754, 729	8, 311, 980	31, 787	38, 893
Wyoming and Nevada.....	579, 797	623, 070	22, 286	25, 076	705	1, 497	494, 969	496, 508		

<sup>1</sup> Reported as a single item for 1927.

<sup>2</sup> Combined to avoid disclosing data for individual establishments.

CENSUS OF MANUFACTURES: 1929

TABLE 5.—PRINCIPAL MATERIALS CONSUMED IN THE ICE-CREAM INDUSTRY, BY KIND, QUANTITY, AND COST, BY STATES: 1929

[Quantities and costs of principal materials consumed were reported by only 1,476 of the 3,150 establishments in this industry. The combined value of products reported by these 1,476 establishments amounted to \$216,311,437, or 65.9 per cent of the aggregate value of products of the 3,150 establishments in the industry. Another reason for the difference between the sum of the costs of the several kinds of materials shown in this table and the total cost of materials consumed, as given in Tables 1 and 2, is found in the fact that this table covers only certain specified materials, whereas Tables 1 and 2 cover all materials consumed.]

STATE	Total cost	MILK						CREAM		SUGAR		EGGS
		Fluid		Powdered		Condensed and evaporated		Pounds	Cost	Pounds	Cost	
		Pounds	Cost	Pounds	Cost	Pounds	Cost					
United States.....	\$70,091,526	393,603,127	\$14,312,863	14,415,776	\$1,402,434	136,255,769	\$9,970,330	215,070,719	\$40,269,055	133,840,548	\$7,167,525	\$800,318
Alabama.....	575,712	6,074,593	192,434	377,145	41,219	475,147	41,463	1,358,079	252,083	811,355	45,814	2,690
Arizona.....	142,001	1,840,859	50,985	0,000	16,540	320,135	29,447	217,535	45,364	259,005	15,140	525
Arkansas.....	377,515	3,812,933	138,535	141,574	16,189	189,887	15,031	653,104	140,127	922,739	50,310	12,303
California.....	5,171,888	18,286,310	696,384	1,432,700	156,338	4,800,681	201,131	16,536,226	3,551,269	8,472,742	434,027	72,139
Colorado.....	550,537	3,753,835	86,474	186,153	10,376	115,026	10,543	1,782,369	351,163	1,076,242	62,502	0,479
Connecticut.....	678,498	4,391,432	177,707	175,939	9,868	871,183	72,785	1,010,654	342,145	1,381,070	71,127	4,866
Delaware.....	271,018	713,328	27,033	-----	-----	105,048	12,553	344,431	152,854	601,073	42,643	5,035
District of Columbia.....	988,011	1,633,059	60,671	-----	-----	2,077,027	92,037	2,900,329	710,690	1,808,646	92,333	31,700
Florida.....	774,714	4,773,223	231,506	349,304	37,974	335,463	41,127	1,061,714	338,076	1,292,002	70,548	4,583
Georgia.....	418,480	2,322,343	174,495	254,780	31,071	199,291	16,004	762,892	159,400	690,902	36,893	617
Idaho.....	90,200	797,050	19,038	121,335	10,889	4,100	351	315,301	51,034	206,321	12,172	2,125
Illinois.....	5,348,006	15,312,299	493,543	149,682	15,171	10,824,098	564,073	18,055,010	3,075,210	6,271,184	595,745	94,324
Indiana.....	1,122,770	11,030,051	339,038	38,344	4,250	1,918,073	143,919	2,715,369	508,240	2,133,692	113,237	10,077
Iowa.....	802,984	1,753,684	59,907	392,049	30,410	325,221	27,329	3,065,224	594,002	1,507,024	78,808	2,638
Kansas.....	406,480	2,440,302	93,102	66,677	0,501	183,206	14,850	1,307,055	257,020	629,314	31,906	95
Kentucky.....	380,023	2,711,117	75,239	129,400	13,522	226,848	12,844	1,116,360	243,360	506,117	33,429	2,529
Louisiana.....	326,815	2,257,309	90,131	79,109	0,196	596,551	51,873	750,419	140,598	524,737	26,601	8,416
Maine.....	678,177	3,247,789	118,334	78,214	8,274	388,800	15,552	2,728,051	461,034	1,126,315	59,907	16,476
Maryland.....	1,446,320	4,610,198	180,432	67,048	14,728	2,635,133	192,793	4,456,687	1,008,584	2,599,423	133,607	6,092
Massachusetts.....	3,052,535	9,373,080	381,548	2,832,166	302,170	4,406,444	384,801	11,553,799	2,458,421	7,263,129	363,505	62,000
Michigan.....	912,575	1,499,501	49,422	94,785	6,615	2,052,260	115,630	4,380,072	632,985	1,801,077	99,425	5,492
Minnesota.....	811,903	1,820,852	52,241	19,580	2,246	1,768,683	117,894	3,175,172	554,735	1,417,920	75,470	0,308
Mississippi.....	395,454	2,064,580	81,780	148,730	14,766	562,703	28,646	1,093,230	225,221	553,989	40,490	4,552
Missouri.....	1,834,823	11,801,251	417,704	212,587	21,898	3,173,897	193,882	4,605,890	1,024,605	2,997,381	153,446	23,188
Montana.....	39,028	23,392	1,075	7,200	800	30,036	2,133	166,360	30,527	63,100	3,793	700
Nebraska.....	641,334	3,700,158	120,588	106,782	10,028	196,473	16,740	2,114,182	415,511	1,175,527	65,180	3,687
New Hampshire.....	240,499	1,023,350	4,487	404,800	41,172	84,814	8,310	715,060	158,482	432,418	22,424	5,024
New Jersey.....	4,633,389	13,886,767	583,774	116,716	11,272	7,621,195	612,656	13,943,567	2,959,928	7,840,795	418,221	47,538
New Mexico.....	0,500	64,000	2,500	-----	-----	-----	32,000	-----	0,000	23,000	1,000	-----
New York.....	12,550,073	28,971,067	884,305	690,383	82,433	35,106,911	3,398,087	28,718,258	7,099,742	17,373,458	891,743	102,763
North Carolina.....	848,598	6,438,934	257,304	400,820	53,834	855,740	66,139	1,513,013	367,458	1,737,516	93,231	11,082
North Dakota.....	161,796	1,101,342	43,398	8,800	964	150,836	16,355	335,985	70,055	319,586	18,283	0,741
Ohio.....	6,691,565	59,594,408	2,626,552	122,277	11,056	8,269,082	584,270	14,436,183	2,800,908	10,007,964	563,299	45,483
Oklahoma.....	1,066,263	0,235,613	357,046	875,030	42,090	1,014,831	79,622	2,501,331	507,031	1,802,809	96,817	13,057
Oregon.....	342,002	8,004,137	199,654	17,931	1,703	1,525,864	48,977	339,517	54,421	740,991	37,042	295
Pennsylvania.....	14,528,804	64,320,820	2,382,564	1,614,990	50,148	32,466,875	2,105,486	37,715,004	8,537,870	25,741,359	1,362,292	60,624
Rhode Island.....	760,517	2,820,404	113,107	699,803	69,975	1,591,607	116,798	346,288	1,593,231	63,830	29,137	20,469
South Carolina.....	268,883	1,973,130	71,278	394,863	47,375	-----	-----	612,000	116,033	428,838	22,137	1,160
South Dakota.....	140,789	422,221	12,100	8,421	880	194,003	15,943	549,581	102,756	155,433	7,783	1,298
Tennessee.....	757,433	0,062,988	207,289	320,455	51,820	245,905	13,018	1,800,282	386,839	1,475,545	82,091	16,513
Texas.....	1,347,609	9,140,706	333,319	337,074	33,065	738,080	44,231	4,482,671	797,167	2,070,993	110,607	23,540
Utah.....	314,374	1,576,910	64,201	121,417	13,172	23,672	2,130	980,122	197,763	701,777	35,834	1,184
Vermont.....	41,751	105,960	4,408	-----	-----	13,520	952	136,892	26,511	136,400	7,395	2,485
Virginia.....	1,190,789	7,314,464	298,949	483,424	100,967	1,727,560	113,708	2,922,866	584,806	2,207,001	117,010	5,337
Washington.....	1,420,263	21,840,501	551,409	534,502	32,443	1,627,202	139,675	2,087,928	570,192	2,006,189	115,381	11,073
West Virginia.....	851,689	6,874,414	220,712	93,650	10,371	1,526,984	62,965	2,153,292	466,447	1,472,396	82,137	0,067
Wisconsin.....	2,447,710	21,875,030	597,104	108,170	11,010	2,543,525	150,781	7,584,450	1,485,272	4,621,470	217,956	15,587
Wyoming and Nevada.....	216,680	860,468	34,977	39,298	3,446	48,673	7,134	704,403	146,839	347,783	19,157	5,123

<sup>1</sup> Combined to avoid disclosing data for individual establishments.

# ICE CREAM

**TABLE 6.—DELIVERY VEHICLES IN USE, BY KIND AND NUMBER, BY STATES: 1929**

[The number of establishments reporting delivery vehicles formed 78.5 per cent of the total number of establishments in the industry, and their combined value of products formed 90.2 per cent of the total value of products for the industry]

STATE	NUMBER OF ESTABLISHMENTS		VALUE OF PRODUCTS		NUMBERS OF DELIVERY VEHICLES REPORTED			STATE	NUMBER OF ESTABLISHMENTS		VALUE OF PRODUCTS		NUMBERS OF DELIVERY VEHICLES REPORTED		
	In the industry	Reporting vehicles	Total for the industry	Total for establishments reporting vehicles	Horse-drawn	Gasoline	Electric		In the industry	Reporting vehicles	Total for the industry	Total for establishments reporting vehicles	Horse-drawn	Gasoline	Electric
United States	3,150	2,472	\$328,413,911	\$296,296,183	1,201	13,536	473	Nebraska	41	33	\$3,516,149	\$2,763,900	5	115	3
Alabama	35	32	2,265,997	2,150,795	10	130	14	New Hampshire	20	11	1,218,363	600,418	3	48	1
Arizona	19	18	964,357	959,357	39	39	2	New Jersey	136	88	15,220,030	14,538,510	1	434	25
Arkansas	33	28	1,540,174	1,487,067	81	81	1	New Mexico	10	9	240,510	220,510	1	16	1
California	194	155	18,979,060	17,824,246	8	923	12	New York	337	228	45,784,354	43,828,031	234	1,606	40
Colorado	20	25	2,480,453	2,430,743	38	119	---	North Carolina	37	31	3,014,681	2,867,881	17	109	14
Connecticut	43	34	5,315,173	4,929,408	1	241	2	North Dakota	11	10	707,405	600,505	4	32	---
Delaware	9	9	879,075	870,075	35	2	2	Ohio	174	139	20,775,800	18,016,770	164	1,192	20
District of Columbia	19	18	3,063,333	3,657,727	96	43	---	Oklahoma	52	42	3,707,464	2,963,519	30	204	---
Florida	59	50	3,208,168	3,127,097	5	220	2	Oregon	19	16	1,771,874	1,584,022	---	107	---
Georgia	32	28	2,584,242	2,524,142	20	136	2	Pennsylvania	200	232	47,010,763	43,952,565	184	1,518	71
Idaho	8	7	290,175	225,262	15	---	---	Rhode Island	32	21	2,480,281	1,612,061	2	80	---
Illinois	186	168	28,227,975	27,046,162	81	1,052	121	South Carolina	18	17	1,458,806	1,453,806	---	50	---
Indiana	120	107	7,902,692	7,650,522	59	492	1	South Dakota	13	11	905,332	800,203	---	30	---
Iowa	100	88	4,600,268	4,385,785	7	271	---	Tennessee	48	33	3,304,841	3,013,697	10	129	---
Kansas	65	42	3,613,604	3,124,763	24	183	1	Texas	126	77	7,960,224	5,330,568	7	310	---
Kentucky	51	35	2,165,421	1,876,904	4	104	---	Utah	18	15	1,334,861	1,287,150	5	72	---
Louisiana	50	25	2,038,519	1,575,825	7	69	8	Vermont	12	11	1,090,110	981,834	---	28	---
Maine	19	17	2,172,053	1,883,155	2	75	---	Virginia	38	33	3,640,810	3,507,119	20	181	21
Maryland	51	38	6,017,606	5,792,191	1	227	13	Washington	54	37	4,517,128	2,198,686	3	138	---
Massachusetts	140	129	14,995,097	11,361,246	33	555	7	West Virginia	38	35	3,460,023	3,410,463	11	260	---
Michigan	107	87	14,800,063	9,792,045	66	519	5	Wisconsin	67	55	8,747,668	8,222,059	60	344	20
Minnesota	49	38	6,157,504	5,168,077	8	228	1	Wyoming and Nevada	0	0	517,223	472,223	---	18	---
Mississippi	44	37	2,005,211	1,664,453	90	10	10								
Missouri	74	62	8,873,768	8,368,220	22	430	---								
Montana	5	5	118,181	118,181	---	5	---								

<sup>1</sup> Combined in order to avoid disclosing data for individual establishments.

**TABLE 7.—PRIME MOVERS, MOTORS, GENERATORS, AND CONSUMPTION OF PURCHASED ELECTRIC ENERGY—NUMBER AND RATED CAPACITY OF PRIME MOVERS AND ELECTRIC MOTORS, 1929, 1927, 1925, 1919, AND 1914, AND OF GENERATORS, 1929, 1927, AND 1925; QUANTITY OF ELECTRIC ENERGY PURCHASED, 1929**

TYPE	1929		1927		1925		1919		1914		PER CENT DISTRIBUTION OF RATED HORSEPOWER CAPACITY	
	Number	Capacity	Number	Capacity	Number	Capacity	Number	Capacity	Number	Capacity	1929	1919
		Horse-power		Horse-power		Horse-power		Horse-power		Horse-power		
Prime movers and electric motors driven by purchased energy, aggregate	29,360	230,882	25,402	206,315	22,079	189,328	10,447	102,640	4,701	45,408	100.0	100.0
Prime movers, total	343	22,580	314	20,479	440	23,122	873	31,759	895	21,243	9.8	36.9
Steam, total	238	16,373	178	13,101	200	15,282	373	20,808	366	12,159	7.1	20.3
Engines	221	15,813	168	12,802	252	15,145	357	20,161	(1)	(1)	6.9	19.6
Turbines	17	500	10	350	14	137	16	647	(1)	(1)	0.2	0.7
Internal-combustion engines	105	6,207	136	7,318	171	7,435	488	10,920	524	9,643	2.7	10.6
Water wheels and water turbines	---	---	---	---	9	405	12	31	15	41	---	(?)
Electric motors driven by purchased energy	29,017	208,302	25,088	185,830	21,633	166,206	9,574	70,887	3,896	24,165	98.2	69.1
Electric motors, total	29,888	212,150	25,934	191,248	22,274	169,708	10,148	74,725	4,421	27,806	100.0	100.0
Driven by purchased energy	29,017	208,302	25,088	185,830	21,633	166,206	9,574	70,887	3,896	24,165	98.2	94.9
Driven by energy generated in establishments reporting	871	3,848	846	5,412	641	3,502	574	3,838	525	3,731	1.8	5.1
Electric generators	44	Kilowatts 4,538 Kilowatt-hours	37	Kilowatts 3,153	30	Kilowatts 1,781	(?)	(?)	(?)	(?)	---	---
Electric energy purchased <sup>1</sup>	---	258,918,809	---	(?)	---	(?)	---	(?)	---	(?)	---	---

<sup>1</sup> Not called for separately on schedule.

<sup>2</sup> Less than one-tenth of 1 per cent.

<sup>3</sup> Not called for on schedule.

<sup>4</sup> This item covers the consumption of purchased electric energy for all purposes—power, heat, light, etc.

<sup>5</sup> Data incomplete.

## CENSUS OF MANUFACTURES: 1929

TABLE 8.—WAGE EARNERS, BY MONTHS, FOR THE UNITED STATES, 1929, 1925, 1919, AND 1914, AND BY STATES, 1929

[This table presents statistics for only those States for which figures can be given without disclosing data for individual establishments. The sum of the State items in any column is not, therefore, equal to the United States total at the head of the column. The month of maximum employment is indicated by bold-faced figures and that of minimum employment by *italic* figures.]

STATE	Average number employed during year	NUMBER EMPLOYED ON 15TH DAY OF MONTH OR NEAREST REPRESENTATIVE DAY												Per cent minimum is of maximum		
		January	February	March	April	May	June	July	August	September	October	November	December			
United States:																
1929	22,399	<i>18,570</i>	18,597	19,524	21,893	23,741	26,745	27,778	27,060	24,681	21,336	10,795	19,071	66.9		
1925	23,043	<i>18,326</i>	18,502	19,748	21,804	24,717	28,589	29,406	28,070	25,966	22,132	19,892	19,320	62.0		
1919	10,155	<i>7,600</i>	14,855	15,849	18,051	20,186	23,340	24,838	24,090	21,708	18,788	17,093	10,444	58.8		
1914	10,376	<i>7,859</i>	7,015	8,374	9,850	11,400	13,022	13,480	13,342	11,971	9,800	8,793	8,607	58.3		
Alabama	218	<i>176</i>	181	192	221	235	253	250	251	237	220	196	197	68.8		
Arizona	78	<i>66</i>	67	77	83	90	85	84	79	85	73	73	73	73.3		
Arkansas	122	<i>92</i>	94	100	110	132	146	160	160	140	120	105	99	57.5		
California	1,050	<i>886</i>	910	976	1,010	1,106	1,175	1,228	1,214	1,157	1,038	977	921	72.1		
Colorado	163	<i>144</i>	144	147	157	158	107	204	104	177	156	138	156	66.7		
Connecticut	421	<i>327</i>	327	333	382	408	520	584	541	495	419	399	351	56.0		
Delaware	74	<i>64</i>	62	66	77	80	95	87	87	75	65	66	65	65.3		
District of Columbia	316	<i>319</i>	321	315	332	323	328	321	318	310	301	300	298	89.8		
Florida	279	<i>279</i>	281	280	291	288	276	284	284	281	274	271	265	91.1		
Georgia	238	<i>247</i>	244	245	241	230	237	245	249	240	229	229	224	89.2		
Idaho	27	<i>18</i>	18	18	24	26	34	36	34	33	30	29	25	50.0		
Illinois	1,491	<i>1,277</i>	1,260	1,320	1,408	1,600	1,751	1,820	1,785	1,625	1,399	1,285	1,282	89.0		
Indiana	641	<i>551</i>	541	552	628	679	753	769	774	718	627	576	545	68.6		
Iowa	294	<i>222</i>	224	237	275	316	382	405	397	349	266	233	225	54.8		
Kansas	281	<i>231</i>	231	250	290	310	348	333	333	305	256	241	239	66.4		
Kentucky	184	<i>160</i>	158	167	180	196	202	213	209	201	183	167	160	74.2		
Louisiana	189	<i>155</i>	157	164	197	213	218	223	223	212	181	165	162	69.5		
Maine	104	<i>137</i>	134	141	158	163	197	212	214	184	156	143	131	61.2		
Maryland	333	<i>276</i>	270	282	351	359	382	385	387	368	329	299	280	89.0		
Massachusetts	975	<i>738</i>	796	858	944	1,031	1,103	1,237	1,191	1,065	955	856	811	63.7		
Michigan	789	<i>609</i>	611	649	747	844	1,001	1,055	1,001	880	741	680	652	57.7		
Minnesota	417	<i>356</i>	357	369	402	433	475	489	489	459	403	388	383	72.8		
Mississippi	107	<i>138</i>	143	150	166	177	188	197	196	187	164	148	147	70.1		
Missouri	621	<i>523</i>	518	533	611	674	741	758	766	687	578	535	524	67.0		
Montana	10	<i>9</i>	9	9	9	10	10	12	12	10	10	10	10	75.0		
Nebraska	224	<i>190</i>	192	191	211	226	257	268	272	248	225	209	203	69.0		
New Hampshire	78	<i>53</i>	54	55	62	74	99	107	106	101	81	70	68	48.0		
New Jersey	1,166	<i>922</i>	938	997	1,120	1,239	1,425	1,482	1,403	1,293	1,107	1,047	1,006	62.2		
New Mexico	19	<i>16</i>	15	10	18	20	23	23	23	20	18	19	19	65.2		
New York	2,940	<i>2,208</i>	2,231	2,423	2,818	3,118	3,857	3,985	3,722	3,209	2,673	2,614	2,350	55.8		
North Carolina	271	<i>229</i>	229	250	293	317	303	322	315	286	252	230	227	70.5		
North Dakota	50	<i>41</i>	42	43	45	49	59	55	59	54	48	48	48	69.5		
Ohio	1,432	<i>1,240</i>	1,239	1,286	1,441	1,514	1,691	1,713	1,684	1,594	1,333	1,242	1,212	70.8		
Oklahoma	288	<i>229</i>	234	237	270	307	352	360	377	334	277	234	226	57.4		
Oregon	145	<i>109</i>	110	123	130	165	172	202	197	161	133	123	119	54.0		
Pennsylvania	3,091	<i>2,678</i>	2,673	2,780	3,010	3,240	3,696	3,772	3,641	3,205	2,918	2,749	2,642	70.0		
Rhode Island	154	<i>121</i>	122	128	143	166	191	200	200	178	144	131	127	60.5		
South Carolina	169	<i>95</i>	96	105	116	116	120	121	124	113	110	99	97	76.0		
South Dakota	65	<i>55</i>	54	58	62	66	75	81	83	72	60	62	58	65.1		
Tennessee	258	<i>227</i>	226	230	260	278	292	302	292	277	251	236	229	74.8		
Texas	681	<i>563</i>	563	601	684	745	774	789	790	755	700	603	594	71.3		
Utah	125	<i>71</i>	71	83	124	148	173	193	192	164	108	100	83	36.8		
Vermont	50	<i>33</i>	32	31	38	46	68	89	89	61	46	36	35	34.8		
Virginia	306	<i>258</i>	260	267	290	348	343	377	383	323	285	268	265	67.4		
Washington	403	<i>324</i>	338	356	381	428	459	495	493	448	381	383	358	65.7		
West Virginia	310	<i>230</i>	232	248	292	330	368	393	396	370	326	273	263	68.1		
Wisconsin	660	<i>560</i>	566	600	640	671	758	774	791	730	657	617	605	70.3		

## ICE, MANUFACTURED

**Description of the industry.**—This industry embraces establishments engaged primarily in the manufacture of ice for sale. (The cutting and storage of natural ice is not treated as a manufacturing operation.)

**Consumption of calcium chloride, sodium chloride, and ammonia (Table 9).**—At the census for 1929, 2,872 establishments, or 69.9 per cent of the total number in the industry, reported the consumption of either calcium chloride or sodium chloride for making brine; 274, or 6.7 per cent, reported that they used both; 449, or 10.9 per cent, reported that they used neither; and 789, or 19.2 per cent, failed to answer the inquiry. Also, 3,155 establishments, or 76.8 per cent, reported the use of ammonia. The statistics in Table

9 are therefore incomplete, but, as they represent by far the greater part of the industry, they are believed to possess sufficient value to justify their presentation.

**Delivery vehicles.**—At the census for 1929, 2,404 establishments, or 58.5 per cent, of the total number in the industry as classified, reported the use of vehicles; 644 establishments, or 15.7 per cent, reported none used; and 1,062, or 25.8 per cent, failed to answer this inquiry. Of the 2,404 establishments reporting the use of vehicles, 173 reported horse-drawn vehicles only; 1,265, gasoline vehicles only; 5, electric vehicles only; 933, both horse-drawn and gasoline; 1, horse-drawn and electric; and 17, gasoline and electric; and 10 establishments reported the use of all three types.

TABLE 1.—SUMMARY FOR THE UNITED STATES: 1899 TO 1929

[Data for establishments with products under \$5,000 in value included for 1910 and prior years but not for 1921 and subsequent years. See GENERAL EXPLANATIONS—Establishments Covered—Size]

YEAR OR PERIOD	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, fuel, and purchased electric energy	Value of products <sup>1</sup>	Value added by manufacture <sup>2</sup>	Horsepower
1929	4,110	32,184	\$42,309,205	\$30,808,164	\$210,952,264	\$171,144,100	1,077,295
1927	3,159	22,120	32,611,118	40,815,512	184,704,985	143,979,476	905,400
1925	3,077	24,915	35,045,829	44,725,272	186,065,030	142,243,704	923,134
1923	3,097	20,852	35,039,686	40,004,017	194,602,187	117,098,170	845,012
1921	2,715	24,066	32,030,180	51,174,441	158,889,173	107,714,732	(3)
1919	2,807	30,247	34,001,837	42,877,539	187,004,708	94,127,289	500,925
1914	2,543	23,011	14,840,591	17,755,094	60,886,207	42,681,293	458,938
1909	2,004	10,114	9,778,970	11,817,498	42,953,055	31,635,557	315,625
1904	1,320	10,101	5,649,162	6,011,325	23,790,045	17,778,720	180,310
1899	775	6,880	3,402,745	3,812,393	13,780,976	10,408,585	100,111
PER CENT OF INCREASE OR DECREASE (—)							
1927-1929	30.1	45.5	30.0	-2.5	14.2	18.9	11.0
1925-1927	2.7	-11.2	-0.9	-8.7	-1.2	1.2	4.6
1923-1925	-0.6	-7.2	(4)	-4.2	13.5	20.5	9.2
1921-1923	14.1	11.0	7.4	-8.8	3.0	9.5	-----
1919-1921	-5.3	-20.4	-4.0	10.4	16.0	14.4	-----
1919-1929	43.4	6.4	24.7	-7.2	54.0	81.8	89.0
1909-1919	43.1	87.7	247.7	278.9	219.0	197.5	80.6
1899-1909	158.6	134.2	187.4	241.7	211.7	202.2	215.3

<sup>1</sup> For 1929, manufacturers' sales (shipments or deliveries); for earlier years, production. See GENERAL EXPLANATIONS—Establishments Covered—Size.

<sup>2</sup> Value of products less cost of materials, fuel, and purchased electric energy. See GENERAL EXPLANATIONS—Value Added by Manufacture.

<sup>3</sup> Not called for on schedule.

<sup>4</sup> Less than one-tenth of 1 per cent.

CENSUS OF MANUFACTURES: 1929

TABLE 2.—GENERAL STATISTICS, BY STATES: 1929, 1927, AND 1919

[This table presents statistics separately for each State for which figures can be given without disclosing data for individual establishments. Data for establishments with products under \$5,000 in value are included for 1919 but not for subsequent years. See GENERAL EXPLANATIONS—Establishments Covered—Size]

STATE	Census year	Number of establishments	Salaried officers and employees <sup>1</sup>	Wage earners (average for the year)	HORSEPOWER (RATED CAPACITY) OF POWER EQUIPMENT			Salaries	Wages	COST OF MATERIALS, FUEL, AND PURCHASED ELECTRIC ENERGY			Value of products <sup>2</sup>	Value added by manufacture <sup>3</sup>
					Total	Prime movers	Motors run by purchased energy			Total	Materials	Fuel and purchased energy		
United States	1929	4,110	7,865	32,184	1,077,295	334,141	743,154	\$16,820,375	\$42,399,205	\$30,808,164	\$10,250,435	\$20,557,729	\$210,952,204	\$171,144,100
	1927	3,169	7,035	22,120	965,405	354,285	611,121	14,671,605	32,611,118	40,816,512	11,532,532	20,282,980	184,794,088	143,073,470
	1919	2,867	6,792	20,247	569,025	437,487	132,438	10,952,131	34,001,837	42,877,509	17,271,245	25,600,264	137,004,798	94,127,289
Alabama	1929	139	194	832	19,860	4,905	14,865	375,314	732,236	701,209	204,529	496,740	3,530,101	2,828,832
	1927	113	204	567	10,831	6,484	13,347	387,425	604,522	908,267	277,489	630,778	4,238,026	3,320,750
	1919	59	110	553	9,658	7,809	1,849	202,331	475,817	770,749	302,378	477,371	2,085,976	1,806,220
Arizona	1929	30	77	399	10,072	0,372	3,700	217,172	579,978	474,504	147,408	327,156	2,170,742	1,702,178
	1927	32	120	320	10,001	7,267	2,824	160,225	460,908	613,006	260,098	347,808	2,236,395	1,622,489
	1919	31	65	272	4,557	3,380	1,177	114,062	371,838	612,238	294,028	347,630	1,420,148	797,910
Arkansas	1929	128	168	627	10,346	9,010	10,336	252,680	583,151	649,012	233,151	419,761	3,188,900	2,539,078
	1927	80	168	388	15,400	8,975	6,515	234,145	306,357	676,849	141,837	435,012	2,540,272	1,903,423
	1919	71	107	525	13,516	12,641	875	164,088	400,260	764,497	306,117	448,380	2,132,331	1,377,884
California	1929	223	363	1,842	81,419	9,881	71,538	967,654	2,875,231	2,428,469	477,052	1,950,517	14,448,732	12,020,263
	1927	175	349	1,805	69,976	9,816	60,160	802,921	2,628,018	2,684,935	750,043	1,825,887	11,205,600	8,620,739
	1919	117	275	1,535	32,113	11,463	20,660	628,753	1,955,055	2,201,095	840,072	1,354,723	7,112,470	4,910,775
Colorado	1929	28	70	243	6,769	4,948	1,821	168,708	307,937	294,577	65,112	220,465	1,485,832	1,191,255
	1927	27	65	220	7,691	4,409	3,282	121,223	323,523	310,770	50,412	254,367	1,350,014	1,000,255
	1919	27	62	242	5,025	4,809	216	80,600	274,403	243,330	54,160	189,173	1,045,477	802,138
Connecticut	1929	10	16	63	3,096	000	2,490	30,475	112,906	144,331	90,170	114,156	588,049	404,318
	1927	4	20	43	2,538	1,908	570	64,740	53,104	61,442	11,075	60,307	327,110	205,008
	1919	9	28	67	1,640	1,300	340	51,447	90,983	189,711	73,778	115,693	465,620	306,106
Delaware	1929	16	14	85	2,825	1,584	1,241	101,840	101,840	120,480	44,143	70,337	827,530	707,050
	1927	16	26	62	2,537	1,338	1,199	41,102	88,998	114,739	25,712	89,077	678,851	604,042
	1919	17	24	131	1,597	1,232	365	37,570	193,847	270,406	177,765	101,641	759,583	350,177
District of Columbia	1929	9	32	119	9,771	675	9,096	82,297	178,876	230,877	28,328	208,549	1,760,688	1,532,811
	1927	9	35	108	8,616	300	8,316	95,108	179,930	243,202	40,370	196,832	1,308,571	1,155,000
	1919	10	57	238	6,268	3,820	2,448	100,315	209,524	418,018	180,429	237,589	1,080,068	602,648
Florida	1929	168	362	1,461	42,218	16,982	26,236	635,406	1,723,106	1,968,676	616,762	1,347,914	8,745,720	6,782,041
	1927	132	338	824	37,822	19,092	18,730	600,229	1,078,026	1,994,763	483,173	1,511,580	6,704,168	4,988,288
	1919	95	239	1,412	18,011	17,410	601	317,640	1,153,136	1,523,850	618,540	910,304	2,527,698	1,847,415
Georgia	1929	136	263	1,195	29,733	12,675	17,103	500,243	1,068,786	1,105,240	275,851	829,389	4,088,288	3,447,040
	1927	128	328	753	20,447	13,321	13,126	514,451	812,236	1,284,120	387,577	895,543	5,731,130	4,847,040
	1919	70	269	1,115	14,249	12,822	1,427	414,953	1,059,093	1,579,093	671,000	907,493	4,440,229	3,841,136
Idaho	1929	16	20	81	2,001	2,001	2,001	47,534	109,201	77,861	20,558	57,363	373,011	300,129
	1927	11	15	69	2,071	50	2,021	41,740	99,378	72,921	28,255	44,673	272,221	224,582
	1919	15	17	56	1,263	1,133	130	20,172	69,755	67,699	15,281	52,418	373,011	300,129
Illinois	1929	216	426	1,879	81,683	10,874	70,769	1,178,250	3,332,097	2,040,219	645,825	2,103,394	14,820,113	12,170,894
	1927	173	524	1,479	78,668	15,398	63,270	1,120,835	2,876,492	2,898,219	801,671	2,093,548	14,302,634	11,404,815
	1919	164	417	1,681	41,110	18,337	22,773	979,748	2,220,295	2,514,513	608,532	1,545,986	10,063,263	7,578,745
Indiana	1929	121	270	1,016	23,252	11,659	11,593	597,253	1,345,538	990,220	256,127	735,093	5,270,246	4,380,025
	1927	106	267	673	23,220	13,443	9,777	600,366	964,420	1,076,850	286,680	790,161	4,089,300	3,721,348
	1919	107	273	855	12,075	10,475	1,600	391,993	898,498	1,413,205	608,170	745,125	2,670,005	2,170,005
Iowa	1929	45	97	399	10,190	2,825	7,311	228,924	504,179	500,413	120,653	380,760	2,178,760	1,780,377
	1927	43	100	246	10,711	3,950	6,761	152,099	346,781	424,394	85,227	330,167	1,704,458	1,280,004
	1919	46	124	504	5,850	4,585	1,274	203,805	539,277	582,477	180,727	395,750	1,841,012	1,308,535
Kansas	1929	118	184	824	22,998	16,176	7,823	350,172	1,042,186	889,264	207,664	681,700	3,304,737	2,908,533
	1927	107	160	555	20,555	14,877	5,688	208,172	792,924	997,408	318,823	648,677	3,304,737	2,908,533
	1919	137	163	822	16,506	14,707	1,799	247,251	937,639	1,119,025	410,631	702,077	3,304,737	2,908,533
Kentucky	1929	87	131	591	16,057	6,534	9,523	269,910	642,812	661,819	182,193	469,716	3,267,087	2,615,268
	1927	86	103	452	13,016	6,211	6,805	210,469	563,217	763,984	200,191	547,855	3,380,769	2,627,697
	1919	99	172	754	12,548	11,586	1,212	310,499	662,482	913,884	398,513	575,361	2,680,182	1,775,536
Louisiana	1929	128	296	1,700	27,566	15,694	12,462	473,073	1,201,445	1,181,619	361,015	770,601	5,890,082	4,769,073
	1927	87	212	700	23,006	15,094	8,002	460,767	840,002	1,101,627	322,628	868,990	5,035,903	4,003,073
	1919	70	218	785	14,730	12,660	2,069	364,895	782,099	1,322,647	538,073	784,574	3,099,394	2,067,697
Maryland	1929	67	107	397	17,185	4,742	12,393	241,936	528,147	605,971	164,133	441,838	3,713,646	3,137,676
	1927	62	105	354	10,225	5,659	10,565	212,337	539,681	600,908	176,234	514,088	3,610,607	2,819,056
	1919	61	102	432	11,612	5,659	10,565	139,474	708,762	976,780	402,306	574,454	3,610,607	2,819,056
Massachusetts	1929	26	103	288	14,002	4,417	9,585	196,098	541,852	658,707	198,206	469,501	3,124,638	2,465,831
	1927	12	43	211	6,832	3,646	2,986	98,012	349,134	319,550	90,007	220,543	1,278,124	1,028,100
	1919	12	25	153	3,995	3,974	21	38,011	201,847	182,092	30,006	152,086	745,088	598,100
Michigan	1929	72	129	507	23,284	1,460	21,824	317,781	910,015	819,655	119,674	699,981	4,460,040	3,639,391
	1927	83	146	294	22,767	2,425	20,342	389,453	504,174	803,508	291,078	602,430	4,600,110	3,708,008
	1919	18	112	742	6,137	1,328	6,809	233,222	504,174	600,908	176,234	514,088	3,610,607	2,819,056
Minnesota	1929	10	72	83	3,626	1,929	3,327	172,528	327,901	318,145	42,067	204,790	2,821,088	2,104,252
	1927	10	17	49	2,993	220	2,773	127,628	277,961	247,196	21,897	125,420	722,070	574,874
	1919	6	29	93	1,671	100	1,571	36,855	97,634	139,026	16,832	116,194	492,490	402,22



# ICE, MANUFACTURED

TABLE 2.—GENERAL STATISTICS, BY STATES: 1929, 1927, AND 1919—Continued

[See note at head of this table]

STATE	Cen- sus year	Num- ber of estab- lish- ments	Salar- ied offi- cers and em- ploy- ees <sup>1</sup>	Wage earners (aver- age for the year)	HORSEPOWER (RATED CA- PACITY) OF POWER EQUIP- MENT			Salaries	Wages	COST OF MATERIALS, FUEL, AND PUR- CHASED ELECTRIC ENERGY			Value of products <sup>2</sup>	Value added by manufac- ture <sup>3</sup>
					Total	Prime movers	Motors run by pur- chased energy			Total	Materials	Fuel and purchased energy		
North Carolina	1929	143	205	1,107	22,874	7,496	15,378	\$411,377	\$1,120,166	\$774,002	\$214,204	\$500,308	\$4,237,939	\$3,403,337
	1927	92	208	540	18,552	6,419	12,133	412,210	601,588	874,113	243,519	330,000	3,806,567	2,932,454
	1919	63	140	757	7,415	6,841	774	212,951	646,201	761,142	322,201	495,941	2,365,122	1,603,980
Ohio	1929	178	332	1,281	56,907	13,275	42,732	921,752	2,027,418	2,602,503	890,007	1,611,806	13,331,584	10,820,061
	1927	153	316	1,014	54,265	15,153	39,112	787,051	1,747,644	2,167,335	461,012	1,005,723	9,210,521	7,002,186
	1919	141	507	1,052	34,930	22,110	6,820	754,295	2,017,070	2,808,061	1,394,755	1,504,000	7,310,000	7,310,000
Oklahoma	1929	137	253	650	30,933	17,100	13,824	642,616	1,158,261	1,158,261	115,498	350,227	6,364,386	4,448,048
	1927	110	182	664	24,558	15,201	9,357	418,175	1,044,075	1,130,385	370,480	604,580	5,836,280	4,402,001
	1919	115	270	831	18,394	17,200	1,128	336,250	714,215	1,044,075	36,261	95,320	2,530,356	2,530,356
Oregon	1929	26	48	126	4,816	308	4,418	135,439	205,770	131,571	37,480	64,820	819,312	701,840
	1927	21	35	87	4,260	112	4,148	89,278	151,872	117,463	32,534	84,920	556,926	464,844
	1919	30	27	108	2,440	310	2,130	68,048	157,943	104,658	20,927	33,731	550,002	464,844
Pennsylvania	1929	267	556	1,904	85,020	23,622	61,398	1,474,462	3,113,010	2,748,938	617,228	2,131,710	15,777,097	12,020,040
	1927	224	450	1,522	78,031	24,672	53,359	1,130,230	2,670,470	3,006,262	806,303	2,199,890	13,000,635	10,603,873
	1919	226	617	2,733	51,616	44,306	7,210	808,047	3,201,013	4,138,175	1,870,057	2,268,215	12,686,200	8,548,127
Rhode Island	1929	7	11	63	2,518	160	2,358	10,680	94,754	89,066	10,081	70,585	552,321	402,655
	1927	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )
	1919	4	4	20	410	415	4	2,070	23,888	32,084	17,411	14,673	100,552	68,468
South Carolina	1929	82	157	624	11,854	2,508	9,346	281,965	490,717	522,068	170,501	343,077	2,643,870	2,121,211
	1927	40	113	270	9,151	2,500	6,651	200,279	240,485	342,657	76,434	260,223	2,075,210	1,732,553
	1919	54	120	584	8,954	7,884	1,069	170,990	466,240	712,068	312,090	309,090	2,012,380	1,380,712
South Dakota	1929	6	7	16	500	120	380	17,300	15,910	10,768	3,587	10,181	103,352	83,584
	1927	4	5	7	288	100	188	11,100	13,820	13,101	2,107	10,004	45,433	32,272
	1919	3	1	8	158	12	146	1,600	12,027	10,887	1,024	8,003	31,034	20,147
Tennessee	1929	122	247	949	20,207	12,755	7,452	461,984	918,210	773,452	206,330	567,113	4,323,450	3,549,098
	1927	80	197	555	17,638	13,801	3,837	411,718	641,521	815,208	213,225	602,973	3,914,051	3,090,053
	1919	73	190	1,063	11,087	10,774	313	202,850	887,257	1,158,058	537,012	615,740	3,774,291	2,620,633
Texas	1929	439	591	2,040	98,014	44,306	53,706	1,268,459	3,308,148	3,254,731	704,270	2,550,452	19,192,105	15,937,374
	1927	226	679	1,873	80,880	40,166	40,714	1,317,808	2,193,248	3,403,076	804,408	2,598,478	16,508,402	13,104,516
	1919	205	666	2,362	55,870	50,501	5,378	984,446	2,232,030	3,144,015	1,250,185	1,504,730	9,811,091	6,066,140
Utah	1929	10	17	111	3,540	1,205	2,245	30,471	60,472	61,936	16,402	76,534	506,498	504,472
	1927	9	23	104	3,341	1,431	1,910	44,003	107,782	108,874	92,534	76,340	424,768	455,884
	1919	17	9	105	2,152	1,690	462	11,000	124,209	80,335	23,751	65,584	305,855	800,520
Virginia	1929	111	229	807	31,242	5,003	25,639	400,581	927,302	901,887	200,215	701,972	4,042,862	3,140,975
	1927	95	184	559	24,806	6,335	17,071	357,885	609,080	855,983	237,417	658,566	3,980,071	3,000,588
	1919	160	200	969	18,070	16,561	2,109	310,700	975,667	1,108,081	458,512	739,590	3,904,039	2,760,558
Washington	1929	38	72	276	8,339	1,158	7,181	185,081	400,213	368,422	101,843	204,579	1,500,488	1,284,066
	1927	37	79	211	7,938	485	7,453	207,614	343,404	345,730	110,101	226,675	1,650,735	1,304,999
	1919	42	55	181	4,318	769	3,549	74,730	271,300	170,838	70,400	106,342	819,065	639,827
West Virginia	1929	59	109	408	11,074	5,609	6,365	227,651	530,172	431,323	112,035	310,288	1,005,884	1,504,501
	1927	54	103	267	11,514	5,677	5,937	182,730	402,133	480,867	153,470	327,397	1,768,270	1,287,403
	1919	54	70	373	8,100	7,114	980	117,400	410,807	483,211	244,319	238,922	1,514,801	1,031,500
Wisconsin	1929	11	74	104	4,371	437	3,934	244,098	161,502	104,436	40,219	146,217	1,180,802	902,366
	1927	8	50	43	2,503	200	2,303	137,127	82,045	142,482	42,288	100,194	500,545	477,063
	1919	7	9	24	760	420	340	27,518	38,973	37,803	10,820	26,537	152,733	115,370
Wyoming	1929	3	1	13	155	90	65	1,800	17,008	10,800	4,039	6,870	44,082	33,873
Other States	1929	8	14	27	1,028	785	1,143	35,470	48,285	93,708	25,141	5,027	370,112	285,344
	1927	3	1	13	155	90	65	1,800	17,008	10,800	4,039	6,870	44,082	33,873
	1919	7	17	52	866	793	73	27,880	71,330	78,507	17,740	60,768	222,652	144,145

<sup>1</sup> Not including proprietors and firm members. The total numbers of persons engaged and the numbers of proprietors and firm members, as reported for this industry, are as follows: For 1929, total, 40,710; proprietors and firm members, 1,161. For 1927, total, 30,092; proprietors and firm members, 937. For 1919, total, 38,603; proprietors and firm members, 1,506.

<sup>2</sup> The figures for 1929 refer to sales (shipments or deliveries) by manufacturers; those for earlier years represent production. See GENERAL EXPLANATIONS—Value of Products.

<sup>3</sup> Value of products less cost of materials, fuel, and purchased electric energy. See GENERAL EXPLANATIONS—Value Added by Manufacture.

<sup>4</sup> Data for purchased power other than electric (power transmitted into the plant by belt or shaft) are included in the State items for 1919 but not in the United States totals.

<sup>5</sup> No figures for this State can be given for 1927 without disclosing data for individual establishments.

<sup>6</sup> Maine, 1 establishment; North Dakota, 2.

<sup>7</sup> Maine, 1 establishment; North Dakota, 1; Rhode Island, 3; Wyoming, 3.

<sup>8</sup> Maine, 2 establishments; Nevada, 2; North Dakota, 1; Wisconsin, 1; Wyoming, 1.

TABLE 3.—MANUFACTURED ICE—PRODUCTION, BY KIND, QUANTITY, AND VALUE, FOR THE UNITED STATES: 1923 TO 1929

[The figures for 1929 refer to sales by manufacturers; those for earlier years represent production. See GENERAL EXPLANATIONS—Value of Products]

PRODUCT	1929	1927	1925	1923	PRODUCT	1929	1927	1925	1923
1. Manufactured-ice industry, all products:					Manufactured ice, all industries (sum of 2 and 5):				
Total value.....	\$210,052,204	\$184,704,988	\$180,909,030	\$164,602,187	Total tons (2,000 pounds).....	145,468,401	140,287,027	140,103,864	35,376,552
					Total value.....	\$200,007,933	\$184,399,944	\$187,080,276	\$164,522,824
2. Ice made in the industry—					Ice, by kind, for the ice industry only:				
Tons (2,000 pounds).....	44,477,213	89,057,862	38,813,734	34,031,612	Can ice—				
Value.....	\$204,422,001	\$178,630,308	\$180,782,136	\$158,592,744	Tons (2,000 pounds).....	44,359,941	88,804,577	38,228,561	33,168,610
3. Receipts for cold storage.....	\$5,440,463	\$4,710,784	\$4,180,000	\$4,720,873	Value.....	\$203,915,435	\$177,705,021	\$178,157,280	\$154,408,910
4. Other products, not normally belonging to the industry.....	\$1,083,800	\$1,435,800	\$2,009,810	\$1,348,570	Plato ice—				
5. Ice made as a secondary product in other industries:					Tons (2,000 pounds).....	120,272	193,285	585,173	802,993
Tons (2,000 pounds).....	991,188	1,229,165	1,350,130	1,845,340	Value.....	\$599,566	\$374,287	\$2,624,856	\$4,093,828
Value.....	\$4,585,932	\$5,760,636	\$6,298,139	\$5,930,080					

<sup>1</sup> In addition, establishments engaged primarily in the manufacture of ice cream reported 740,146 tons of ice made and consumed in 1929, 1,300,328 tons in 1927, and 860,450 tons in 1925. The data in regard to ice production and consumption by such establishments are, however, incomplete, and therefore the figures here given do not represent the total consumption by ice-cream manufacturers of ice made in their own plants.

<sup>2</sup> Includes data for a small amount of plato ice. (See footnote 2, Table 5.)



CENSUS OF MANUFACTURES: 1929

TABLE 4.—MANUFACTURED ICE, BY QUANTITY AND VALUE, AND NUMBER OF ESTABLISHMENTS REPORTING, BY STATES: 1929 AND 1927

STATE	1929			1927			STATE	1929			1927		
	Estab-lishments re- port- ing	Tons (2,000 pounds)	Value	Estab-lishments re- port- ing	Tons (2,000 pounds)	Value		Estab-lishments re- port- ing	Tons (2,000 pounds)	Value	Estab-lishments re- port- ing	Tons (2,000 pounds)	Value
<i>United States</i>						<i>States—Continued</i>							
Total	4,438	45,468,401	\$200,007,033	3,563	40,287,027	\$184,309,944	Missouri	154	1,516,155	\$8,112,397	140	1,739,347	\$7,515,055
Ice industry	4,110	44,477,213	204,422,001	3,150	39,057,862	178,039,808	Montana	8	31,694	131,251	8	42,732	130,018
Other industries	328	991,188	4,585,932	404	1,229,165	5,760,636	Nebraska	62	385,377	1,678,028	55	349,720	1,602,607
<i>States</i>						<i>States—Continued</i>							
Alabama	141	648,776	3,469,200	116	696,417	4,274,115	Nevada	7	75,878	278,350	(?)	(?)	(?)
Arizona	33	463,133	2,158,535	32	468,581	2,150,064	New Jersey	122	1,768,990	6,729,400	97	1,301,936	5,646,371
Arkansas	133	533,707	3,150,693	86	432,769	2,587,509	New Mexico	17	98,852	655,868	15	107,276	627,982
California	243	3,700,921	14,012,130	189	3,237,052	10,830,212	New York	220	7,149,714	24,322,718	177	5,139,279	18,009,489
Colorado	29	273,976	1,318,522	27	288,368	1,168,073	North Carolina	150	973,250	4,248,998	97	632,234	3,831,607
Connecticut	13	165,068	580,081	4	85,017	327,110	Ohio	196	2,530,206	13,210,947	187	2,280,026	9,263,547
Delaware	17	133,778	827,119	17	128,770	705,731	Oklahoma	141	686,880	5,250,449	116	722,237	5,735,384
District of Columbia	11	467,807	1,838,332	12	333,490	1,518,555	Oregon	39	138,264	731,607	41	146,444	784,238
Florida	163	1,726,498	8,561,050	135	1,628,057	8,588,630	Pennsylvania	311	3,220,066	15,817,138	301	3,275,700	13,004,411
Georgia	139	909,945	4,968,765	131	1,118,207	5,852,062	Rhode Island	9	125,680	568,269	(?)	(?)	(?)
Idaho	21	96,924	417,477	20	82,191	377,210	South Carolina	83	431,058	2,034,484	44	298,300	2,100,782
Illinois	231	3,835,260	15,114,895	195	3,028,487	14,707,796	South Dakota	9	18,004	105,242	7	9,077	46,565
Indiana	139	1,039,394	5,282,220	120	1,013,895	4,870,482	Tennessee	128	728,009	4,362,144	93	766,005	4,009,329
Iowa	53	596,944	2,150,207	54	418,313	1,671,656	Texas	455	3,297,475	18,956,300	242	2,904,659	16,338,730
Kansas	125	904,070	3,744,433	118	710,955	3,023,807	Utah	12	138,756	534,680	12	163,950	870,400
Kentucky	103	615,495	3,274,803	93	658,750	3,287,529	Virginia	119	823,391	3,826,891	102	746,805	3,768,089
Louisiana	130	1,040,209	5,837,931	91	928,811	5,150,728	Washington	63	424,067	1,610,940	58	410,449	1,628,975
Maryland	73	737,284	3,776,435	71	733,489	3,646,617	West Virginia	64	336,077	1,892,896	67	352,100	1,804,455
Massachusetts	27	837,029	2,746,960	12	359,577	1,187,830	Wisconsin	17	293,854	1,294,128	18	191,826	653,285
Michigan	76	1,086,614	4,550,654	37	881,840	4,633,324	Wyoming	7	21,511	135,002	(?)	(?)	(?)
Minnesota	13	217,944	750,603	14	244,637	825,244	Other States (Me. 1 est.; N. Dak. 2)	3	10,050	44,082			
Mississippi	124	502,762	3,308,449	89	476,678	3,192,371	States not shown separately				18	163,447	663,211

1 Represents 3,800 plants. See GENERAL EXPLANATIONS—Definition of Establishment.  
 2 Combined to avoid disclosing the output of individual establishments.  
 3 Maine, 3 establishments; Nevada, 8; North Dakota, 1; Rhode Island, 3; Wyoming, 3.

TABLE 5.—MANUFACTURED ICE<sup>1</sup>—QUANTITY, BY KIND OF WATER USED, FOR THE UNITED STATES, 1929, 1927, 1925, AND 1923, AND BY STATES, 1929

(Ton, 2,000 pounds)

	Total	Distilled water, can ice	RAW WATER		Total	Distilled water, can ice	RAW WATER	
			Can ice	Plate ice			Can ice	Plate ice
<i>United States</i>								
1929	44,477,213	6,239,805	38,117,136	120,272				
1927	39,057,862	7,897,536	31,467,041	193,285				
1925	38,813,734	11,238,440	27,013,487	561,807				
1923	34,031,612	13,103,204	20,185,786	742,622				
<i>States</i>								
Alabama	644,063	51,607	592,456					
Arizona	441,632	24,362	417,270					
Arkansas	526,807	76,243	450,064					
California	3,658,178	127,284	3,506,376	19,518				
Colorado	272,388	187,810	84,578					
Connecticut	156,087		156,087					
Delaware	133,658		133,658					
District of Columbia	450,640		443,774	6,872				
Florida	1,726,498	197,740	1,528,758					
Georgia	980,812	245,591	735,221					
Idaho	89,570		89,570					
Illinois	3,711,346	266,267	3,445,079					
Indiana	992,510	424,548	567,962					
Iowa	487,772	26,462	461,310					
Kansas	887,908	372,160	515,748					
Kentucky	593,103	259,497	333,606					
Louisiana	1,044,217	337,593	706,624					
Maine and North Dakota	10,956		10,956					
Maryland	700,629	40,806	624,452	35,371				
Massachusetts	822,278	96,965	712,863	12,460				
Michigan	1,047,540	24,925	1,022,615					
<i>States—Continued</i>								
Minnesota	206,120	27,783	178,337					
Mississippi	499,410	201,265	298,154					
Missouri	1,485,662	479,019	1,006,643					
Montana	26,936	3,500	23,436					
Nebraska	329,657	29,017	300,640					
Nevada	74,992	9,078	65,914					
New Jersey	1,768,788	64,136	1,704,652					
New Mexico	68,662	28,112	40,550					
New York	7,097,020	406,860	6,690,160	30,411				
North Carolina	665,050	59,107	605,943					
Ohio	2,478,741	251,471	2,227,270					
Oklahoma	681,136	297,161	383,975					
Oregon	126,687		126,687					
Pennsylvania	3,132,100	444,995	2,687,105					
Rhode Island	124,340		124,340					
South Carolina	419,275	8,966	410,309					
South Dakota	17,217	650	16,567					
Tennessee	710,281	291,891	418,480					
Texas	3,232,239	706,488	2,525,751					
Utah	133,312	46,860	86,452					
Virginia	891,179	33,095	858,084					
Washington	370,229	3,078	367,151	15,650				
West Virginia	318,867	79,127	239,740					
Wisconsin	276,764	2,500	274,264					
Wyoming	21,511	4,276	17,235					

1 The figures in this table represent the production of establishments in the ice industry only and therefore differ somewhat from those given in Table 4.  
 2 Includes tonnage of a small amount of plate ice, not shown separately to avoid disclosing production of individual establishments.  
 3 Includes 23,366 tons reported as plate ice.  
 4 Includes 120,371 tons reported as plate ice.  
 5 Combined to avoid disclosing data for individual establishments.

# ICE, MANUFACTURED

**TABLE 6.—ICE-MAKING SYSTEMS USED, BY NUMBER OF ESTABLISHMENTS, BY STATES: 1929, 1927, 1925, AND 1923**

STATE	TOTAL				COMPRESSION SYSTEM ONLY				ABSORPTION SYSTEM ONLY				BOTH SYSTEMS			
	1929	1927	1925	1923	1929	1927	1925	1923	1929	1927	1925	1923	1929	1927	1925	1923
<b>Total</b> .....	3,580	3,159	3,077	3,097	3,380	2,893	2,758	2,680	142	100	240	313	67	70	70	98
Alabama.....	106	113	84	74	90	102	69	56	5	7	11	13	2	4	4	5
Arizona.....	27	32	30	30	27	32	30	28								1
Arkansas.....	113	80	84	81	113	78	70	73		2	5	5				3
California.....	206	175	108	142	203	174	165	141	3	1	2				1	1
Colorado.....	25	27	20	28	21	24	26	25	3	2	2	3	1		1	
Connecticut.....	6	4	10	7	6	3	0	7		1	1					
Delaware.....	10	16	14	14	10	16	14	14								
District of Columbia.....	9	0	0	0	9	8	8	0						1		1
Florida.....	148	132	102	103	140	117	81	65	6	11	13	30	2	4	8	5
Georgia.....	101	128	94	92	91	120	83	74	0	0	0	17	4	2	2	1
Idaho.....	14	11	11	13	14	11	11	13								
Illinois.....	198	173	188	190	180	158	171	168	7	11	13	10	2	4	4	5
Indiana.....	109	106	107	107	62	64	52	51	30	35	45	45	8	7	10	11
Iowa.....	42	43	49	50	38	38	45	51	2	3	2	2	2	2	2	3
Kansas.....	103	107	121	121	93	95	105	107	5	5	8	7	5	7	8	7
Kentucky.....	77	80	91	101	47	53	52	47	18	26	31	42	12	7	8	12
Louisiana.....	118	87	84	87	113	77	69	67	5	9	15	18		1		2
Maine.....	1		(?)	(?)	1	1	(?)	(?)			(?)	(?)			(?)	(?)
Maryland.....	53	62	62	63	53	62	60	62			1	1			1	
Massachusetts.....	26	12	12	11	24	11	12	10	2	1		1				
Michigan.....	66	33	34	32	63	30	32	30	2	1	1	1	1	2	1	1
Minnesota.....	10	10	7	8	10	9	6	8		1	1	1				
Mississippi.....	90	88	80	63	80	81	74	56	2	3	5	7	2	4	4	1
Missouri.....	106	131	132	129	100	125	128	121	1	4	3	6	5	2	1	2
Montana.....	5	7	9	9	5	7	9	9								
Nebraska.....	43	40	34	33	41	30	33	32	1			1	1	1	1	
Nevada.....	6	7	(?)	(?)	6	7	(?)	(?)			(?)	(?)			(?)	(?)
New Jersey.....	113	93	88	90	107	86	83	78	2	5	3	8	4	2	2	4
New Mexico.....	15	15	15	14	13	14	14	12	1	1	1	1				1
New York.....	108	163	151	156	103	152	142	141	4	0	8	11	1	2	1	4
North Carolina.....	104	92	81	76	103	87	75	68	1	4	6	5		1		3
North Dakota.....	1	(?)	(?)	(?)	1	(?)	(?)	(?)			(?)	(?)			(?)	(?)
Ohio.....	156	153	156	150	148	138	139	137	3	8	10	14	5	7	7	8
Oklahoma.....	122	110	105	110	119	108	109	105	3	2	5	3	3			2
Oregon.....	25	21	26	24	25	21	25	23							1	1
Pennsylvania.....	252	224	223	222	241	212	213	208	6	9	8	7	6	3	2	7
Rhode Island.....	6	3	(?)	(?)	6	3	(?)	(?)			(?)	(?)			(?)	(?)
South Carolina.....	65	40	50	60	63	37	48	55	2	2	2	3		1		2
South Dakota.....	5	4	4	0	5	4	4	6								
Tennessee.....	97	80	77	89	88	70	54	60	8	16	17	26	1	3	6	3
Texas.....	408	225	233	275	401	219	227	207	3	3	3	5	1	3	3	3
Utah.....	10	9	7	8	10	0	7	8								
Virginia.....	92	95	104	101	93	91	97	92		1	6	8	2	3	2	1
Washington.....	36	37	34	35	36	37	34	35								
West Virginia.....	52	54	57	49	51	52	55	47			1	2	1	2	1	
Wisconsin.....	10	8	7	9	10	8	6	9			1					
Wyoming.....	5	3	(?)	(?)	4	2	(?)	(?)	1	1	(?)	(?)			(?)	(?)
States not shown separately.....			14	11			12	10			2	1				

1 Does not represent the total number of establishments in the industry, as 521 failed to answer the inquiry.  
 2 Included in figure for "States not shown separately."

**TABLE 7.—ICE-MAKING MACHINES IN USE IN THE ICE INDUSTRY, BY NUMBER AND CAPACITY, FOR THE UNITED STATES, 1929, 1927, 1925, AND 1923, AND BY STATES, 1929**

[Ice-making machines were reported by only 3,580 establishments, as 521 failed to answer the inquiry]

STATE	Number	Aggregate capacity (tons per 24 hours)	STATE	Number	Aggregate capacity (tons per 24 hours)	STATE	Number	Aggregate capacity (tons per 24 hours)	STATE	Number	Aggregate capacity (tons per 24 hours)
<i>United States</i>			<i>States—Continued</i>			<i>States—Continued</i>			<i>States—Continued</i>		
1929.....	7,545	375,000	Idaho.....	33	784	Nevada.....	10	615	South Carolina.....	103	3,573
1927.....	6,400	310,804	Illinois.....	610	32,102	New Jersey.....	241	14,780	South Dakota.....	8	165
1925.....	6,854	308,804	Indiana.....	177	9,320	New Mexico.....	28	1,158	Tennessee.....	150	6,804
1923.....	5,737	286,093	Iowa.....	83	3,905	North Carolina.....	617	44,568	Texas.....	858	29,661
<i>States</i>			Kansas.....	192	9,030	North Dakota.....	186	5,931	Utah.....	17	1,016
Alabama.....	174	5,157	Kentucky.....	130	5,068	Ohio.....	374	17,810	Virginia.....	220	9,382
Arizona.....	50	2,408	Louisiana.....	202	8,368	Oklahoma.....	266	8,075	Washington.....	84	3,026
Arkansas.....	193	5,380	Maryland.....	106	4,731	Oregon.....	62	2,409	West Virginia.....	91	3,048
California.....	498	31,613	Massachusetts.....	54	4,172	Pennsylvania.....	524	31,700	Wisconsin.....	28	1,430
Colorado.....	54	2,692	Michigan.....	116	8,304	Rhode Island.....	12	744	Other States (Maine and Wyoming).....	8	136
Connecticut.....	21	1,282	Minnesota.....	18	1,241						
Delaware.....	18	861	Mississippi.....	140	4,418						
District of Columbia.....	22	3,595	Missouri.....	282	14,237						
Florida.....	202	13,771	Montana.....	10	215						
Georgia.....	194	10,765	Nebraska.....	80	2,443						

## CENSUS OF MANUFACTURES: 1929

TABLE 8.—ICE-MAKING MACHINES IN USE IN THE ICE INDUSTRY, BY NUMBER, CAPACITY, AND SYSTEM, FOR THE UNITED STATES: 1929, 1927, 1925, AND 1923

[See headnote to Table 7]

CAPACITY (per day of 24 hours)	TOTAL				COMPRESSION SYSTEM				ABSORPTION SYSTEM			
	1929	1927	1925	1923	1929	1927	1925	1923	1929	1927	1925	1923
Total.....	7,545	6,409	5,854	5,737	7,278	6,079	5,456	5,210	267	330	398	518
Less than 10 tons.....	769	617	460	504	742	608	432	453	17	14	28	51
10 but less than 20 tons.....	1,417	1,171	1,122	1,065	1,375	1,060	1,037	940	42	72	55	125
20 but less than 30 tons.....	1,224	1,004	921	924	1,171	944	854	819	53	60	67	105
30 but less than 50 tons.....	1,429	1,176	1,071	1,003	1,374	1,107	988	915	55	68	83	88
50 but less than 100 tons.....	1,407	1,363	1,249	1,229	1,430	1,276	1,165	1,135	61	82	84	94
100 tons or more.....	1,219	1,084	1,031	1,012	1,180	1,050	980	957	39	34	51	56

TABLE 9.—PRINCIPAL MATERIALS CONSUMED BY ICE MANUFACTURERS, BY KIND AND COST, BY STATES: 1929

[The cost of the principal materials consumed was reported by only 3,323 of the 4,110 establishments in this industry. The combined value of products reported by these 3,323 establishments amounted to \$103,874,037, or 91.9 per cent of the aggregate value of products of the 4,110 establishments in the industry. Another reason for the difference between the sum of the costs of the several kinds of materials shown in this table and the total cost of materials as given in Tables 1 and 2 is found in the fact that this table does not include data on the cost of water.]

STATE	Number of establishments reporting	CALCIUM CHLORIDE		SODIUM CHLORIDE		AMMONIA		STATE	Number of establishments reporting	CALCIUM CHLORIDE		SODIUM CHLORIDE		AMMONIA	
		Number of establishments	Cost	Number of establishments	Cost	Number of establishments	Cost			Number of establishments	Cost	Number of establishments	Cost	Number of establishments	Cost
United States.....	3,323	924	\$335,740	2,222	\$643,701	8,165	\$1,311,244	Missouri.....	90	24	\$5,010	65	\$18,300	93	\$20,578
Alabama.....	102	38	8,383	61	9,277	94	23,461	Montana.....	4	1	(?)	2	(?)	4	1,382
Arizona.....	26	3	(?)	18	8,930	23	13,023	Nebraska.....	36	8	0,931	26	3,350	32	8,432
Arkansas.....	107	17	1,563	78	14,548	103	48,791	Nevada.....	6	2	144	3	794	5	1,033
California.....	195	27	7,175	147	34,595	189	79,039	New Jersey.....	105	38	10,937	68	33,708	96	38,802
Colorado.....	24	7	0,617	17	3,954	21	9,708	New Mexico.....	11	4	955	6	649	9	2,084
Connecticut.....	9	4	1,170	3	776	9	5,132	New York.....	192	54	25,388	149	90,803	182	135,769
Delaware.....	9	7	2,134	5	315	7	2,256	North Carolina.....	99	4	336	73	14,001	91	20,090
District of Columbia.....	9	0	0,028	4	2,163	0	7,569	Ohio.....	148	71	24,723	79	40,315	136	68,990
Florida.....	137	52	20,685	82	23,852	132	50,708	Oklahoma.....	116	15	3,757	92	10,900	112	30,345
Georgia.....	76	14	3,917	49	12,539	72	27,578	Oregon.....	24	4	502	22	5,441	24	9,140
Idaho.....	12	4	102	7	992	12	1,553	Pennsylvania.....	238	86	40,836	142	30,381	228	103,213
Illinois.....	102	71	23,791	128	71,463	181	72,531	Rhode Island.....	4	3	2,074	2	(?)	4	4,823
Indiana.....	105	54	19,474	53	17,521	102	38,001	South Carolina.....	60	10	2,285	43	8,145	57	15,069
Iowa.....	36	13	5,494	24	8,372	33	17,657	South Dakota.....	4	4	.....	3	101	3	398
Kansas.....	98	11	3,588	66	14,165	93	34,112	Tennessee.....	80	31	7,792	47	11,001	80	42,772
Kentucky.....	72	33	11,023	37	7,300	60	20,053	Texas.....	367	40	16,018	207	58,204	367	129,232
Louisiana.....	107	31	8,650	76	14,080	104	48,496	Utah.....	10	7	1,103	7	1,103	10	2,390
Maine.....	1	1	(?)	1	(?)	1	(?)	Virginia.....	86	18	5,309	60	10,443	80	33,626
Maryland.....	50	7	2,501	32	11,045	46	17,471	Washington.....	34	12	5,776	19	3,729	32	10,830
Massachusetts.....	22	16	12,317	5	3,513	10	12,030	West Virginia.....	51	23	3,667	27	0,288	50	19,388
Michigan.....	63	34	10,452	28	7,355	61	21,063	Wisconsin.....	9	4	1,659	8	0,210	9	8,651
Minnesota.....	9	7	1,469	2	(?)	9	1,677	Wyoming.....	3	2	(?)	1	(?)	3	(?)
Mississippi.....	44	4	1,006	59	12,628	60	21,898	Undistributed <sup>3</sup> .....	.....	.....	1,404	.....	1,770	.....	735

<sup>1</sup> The difference between the "Number of establishments reporting" and the combined total of those reporting calcium, sodium, and ammonia, is due to the fact that some establishments report more than one kind of material.

<sup>2</sup> Included in figure for "Undistributed" to avoid disclosing data for individual establishments.

<sup>3</sup> States not shown separately. See footnote 2.

# ICE, MANUFACTURED

**TABLE 10.—DELIVERY VEHICLES USED, BY TYPE AND NUMBER, AND NUMBER OF ESTABLISHMENTS REPORTING VEHICLES, BY STATES: 1929 AND 1927**

[In addition to the establishments for which statistics are given in this table, 1,062 failed to answer the inquiry on the schedule. The statistics are therefore incomplete. See "Delivery vehicles," p. 1.]

STATE	Number of establishments reporting vehicles, 1929	HORSE-DRAWN VEHICLES				GASOLINE VEHICLES				ELECTRIC VEHICLES			
		1929		1927		1929		1927		1929		1927	
		Number of establishments reporting	Number of vehicles reported	Number of establishments reporting	Number of vehicles reported	Number of establishments reporting	Number of vehicles reported	Number of establishments reporting	Number of vehicles reported	Number of establishments reporting	Number of vehicles reported	Number of establishments reporting	Number of vehicles reported
United States.....	1 2, 404	1, 117	6, 799	1, 147	7, 281	2, 225	12, 550	1, 804	0, 002	33	100	35	120
Alabama.....	80	53	314	58	374	76	221	75	208				
Arizona.....	10			1	(?)	10	171	22	110				
Arkansas.....	78	47	124	41	160	66	161	41	110			2	(?)
California.....	101	5	22	5	20	101	949	96	1, 050	2	(?)		
Colorado.....	19	3	6	7	18	10	147	21	90				
Connecticut.....	3	1	(?)	1	(?)	3	27	3	(?)				
Delaware.....	5	3	32	3	(?)	5	31	9	19				
District of Columbia.....	5			4	101	4	101	2	(?)	2	(?)		
Florida.....	114	53	418	54	444	113	561	103	480	2	(?)	1	(?)
Georgia.....	79	62	551	87	607	68	280	76	212			2	(?)
Idaho.....	11	1	(?)	2	(?)	10	30	8	16				
Illinois.....	118	51	290	74	507	117	630	104	445	5	20	7	30
Indiana.....	79	41	301	45	319	76	430	68	322	1	(?)	1	(?)
Iowa.....	32	21	104	23	116	30	216	29	110				
Kansas.....	70	32	136	49	182	68	221	77	196				
Kentucky.....	63	35	114	37	108	59	215	50	169	1	(?)		
Louisiana.....	85	45	167	17	58	77	244	34	144				
Maryland.....	33	7	28	14	36	20	165	34	123			1	(?)
Massachusetts.....	16	8	165	3	(?)	16	140	6	51	3	(?)	1	(?)
Michigan.....	42	11	222	10	403	12	445	27	450				
Minnesota.....	8	3	130	4	41	8	86	7	40				
Mississippi.....	66	40	196	48	224	61	232	58	175			1	(?)
Missouri.....	69	30	611	28	202	55	525	54	242	1	(?)	2	(?)
Montana.....	5			2	(?)	5	14	7	21				
Nebraska.....	34	12	44	12	44	33	117	26	71				
Nevada.....	2					2	(?)	5	22				
New Jersey.....	51	0	39	14	54	50	263	38	134			2	(?)
New Mexico.....	11	2	(?)	4	10	11	43	12	47				
New York.....	114	18	185	18	165	111	1, 082	50	502	5	36	5	12
North Carolina.....	87	60	431	53	304	87	374	67	255				
North Dakota.....	111	35	102	52	266	108	1, 180	1	(?)	90	700	3	(?)
Ohio.....	90	77	330	83	367	84	342	82	270	2	(?)	1	(?)
Oklahoma.....	14			1	(?)	14	40	10	77				
Oregon.....	130	27	122	42	187	125	636	108	436	3	25	2	(?)
Pennsylvania.....	5	2	(?)	2	(?)	5	11	3	(?)				
Rhode Island.....	54	45	231	20	160	49	187	33	117				
South Carolina.....	3	2	(?)	1	(?)	3	(?)	1	(?)				
South Dakota.....	69	55	384	51	452	50	244	55	213				
Tennessee.....	290	166	643	124	776	233	927	153	733	3	3	4	4
Texas.....	4	1	(?)	2	(?)	4	30	5	26				
Virginia.....	64	29	172	24	158	50	205	57	187	1	(?)		
Washington.....	15			1	(?)	15	85	18	96				
West Virginia.....	36	0	65	10	80	35	179	30	134				
Wisconsin.....	10	6	73	4	90	10	257	6	123				
Wyoming.....	4	1	(?)	1	(?)	4	12	3	(?)				
Undistributed <sup>3</sup> .....			47		218		27		92		97		65

<sup>1</sup> The difference between the number of establishments reporting and the combined total of those reporting horse-drawn, gasoline, and electric vehicles, is due to the fact that some establishments report more than 1 type.

<sup>2</sup> Included in figure for "Undistributed" to avoid disclosing data for individual establishments.

<sup>3</sup> See footnote 2.

CENSUS OF MANUFACTURES: 1929

TABLE 11.—PRIME MOVERS, MOTORS, GENERATORS, AND CONSUMPTION OF PURCHASED ELECTRIC ENERGY—NUMBER AND RATED CAPACITY OF PRIME MOVERS AND ELECTRIC MOTORS, 1929, 1927, 1925, 1919, AND 1914, AND OF GENERATORS, 1929, 1927, AND 1925; QUANTITY OF ELECTRIC ENERGY PURCHASED, 1929

TYPE	1929		1927		1925		1919		1914		PER CENT DISTRIBUTION OF RATED HORSEPOWER CAPACITY	
	Number	Capacity	Number	Capacity	Number	Capacity	Number	Capacity	Number	Capacity	1929	1919
											Horsepower	Horsepower
Prime movers and electric motors driven by purchased energy, aggregate	38,285	1,077,295	28,142	965,406	22,945	823,134	10,585	569,025	7,200	458,038	100.0	100.0
Prime movers, total	3,705	334,141	3,652	354,285	4,326	437,133	4,927	437,487	5,317	429,947	31.0	76.8
Steam, total	2,644	234,311	2,690	260,270	3,505	304,852	4,434	406,942	5,013	414,685	21.7	71.5
Engines	2,564	220,753	2,610	261,190	3,379	343,386	4,324	393,312	(1)	(1)	21.0	69.1
Turbines	80	7,558	80	8,071	126	21,466	110	13,630	(1)	(1)	0.7	2.4
Internal-combustion engines	1,023	96,493	941	83,978	784	70,551	435	28,003	244	12,636	0.0	4.0
Water wheels and water turbines	38	3,337	21	1,037	37	1,780	58	2,542	60	2,727	0.3	0.4
Electric motors driven by purchased energy	34,580	743,154	24,400	611,121	18,610	486,001	5,658	132,438	1,943	28,991	60.0	23.2
Electric motors, total	38,861	782,655	28,908	654,124	22,713	520,416	8,190	158,552	4,204	50,546	100.0	100.0
Driven by purchased energy	34,580	743,154	24,400	611,121	18,610	486,001	5,658	132,438	1,943	28,991	65.0	83.5
Driven by energy generated in establishments reporting	4,281	39,501	4,478	43,003	4,094	40,415	2,511	20,114	2,261	21,555	5.0	16.5
Electric generators	752	Kilowatts 47,846	741	Kilowatts 45,281	923	Kilowatts 59,622	(?)	(?)	(?)	(?)		
Electric energy purchased <sup>1</sup>		Kilowatt-hours 1,000,018,072		(?)		(?)		(?)		(?)		

<sup>1</sup> Not called for separately on schedule.  
<sup>2</sup> Not called for on schedule.  
<sup>3</sup> This item covers the consumption of purchased electric energy for all purposes—power, heat, light, etc.  
<sup>4</sup> Data incomplete.

TABLE 12.—WAGE EARNERS, BY MONTHS, FOR THE UNITED STATES, 1929, 1925, 1919, 1914, AND 1909, AND BY STATES, 1929

[This table presents statistics for only those States for which figures can be given without disclosing data for individual establishments. The sum of the State items in any column is not, therefore, equal to the United States total at the head of the column. The month of maximum employment is indicated by bold-faced figures and that of minimum employment by *italic* figures]

STATE	Average number employed during year	NUMBER EMPLOYED ON 15TH DAY OF MONTH OR NEAREST REPRESENTATIVE DAY												Per cent minimum is of maximum		
		January	February	March	April	May	June	July	August	September	October	November	December			
United States:																
1929	32,184	<i>23,077</i>	23,282	25,308	30,709	34,245	40,049	43,093	43,184	40,280	32,342	26,403	24,080	53.4		
1925	24,015	<i>17,070</i>	17,642	19,650	23,275	27,061	31,496	33,426	33,145	32,290	26,257	19,698	17,974	51.1		
1919	30,247	<i>20,796</i>	21,408	23,275	27,310	31,644	37,788	41,078	40,977	37,999	31,534	25,031	23,224	50.6		
1914	23,011	<i>15,144</i>	15,660	17,128	21,023	25,086	30,825	32,526	32,104	28,890	23,065	18,085	15,990	46.6		
1909	16,114	<i>9,847</i>	10,008	11,803	14,929	18,061	20,875	22,872	22,644	21,403	16,526	13,020	11,392	43.1		
Alabama	832	624	<i>616</i>	654	778	868	1,060	1,104	1,107	1,035	797	687	658	55.0		
Arizona	309	290	<i>273</i>	309	414	436	522	627	468	428	397	331	291	43.5		
Arkansas	627	428	<i>426</i>	465	604	735	802	912	879	790	670	460	450	46.7		
California	1,842	<i>1,315</i>	1,331	1,491	1,548	1,779	1,987	2,222	2,339	2,598	2,396	1,650	1,395	50.6		
Colorado	243	<i>169</i>	178	206	229	239	270	305	380	332	235	198	177	44.5		
Connecticut	63	53	<i>53</i>	58	61	66	79	75	69	72	65	58	40	62.0		
Delaware	86	58	<i>58</i>	64	73	90	104	103	187	94	72	64	63	34.7		
District of Columbia	119	108	<i>104</i>	102	117	123	144	147	146	120	113	103	102	69.4		
Florida	1,461	<i>1,367</i>	1,406	1,465	1,564	1,545	1,477	1,444	1,450	1,499	1,468	1,410	1,430	87.4		
Georgia	1,196	<i>837</i>	873	921	1,001	1,234	1,458	1,644	1,612	1,476	1,083	1,022	946	53.1		
Idaho	81	<i>54</i>	58	60	60	67	78	82	110	162	120	63	60	35.5		
Illinois	1,879	<i>1,181</i>	1,229	1,359	1,817	2,102	2,445	2,630	2,708	2,418	1,945	1,456	1,263	43.6		
Indiana	1,016	<i>700</i>	703	785	991	1,107	1,309	1,307	1,414	1,253	985	823	727	49.5		
Iowa	309	<i>274</i>	280	296	340	390	453	507	592	620	334	324	321	40.3		
Kansas	824	<i>495</i>	502	546	698	807	1,120	1,317	1,286	1,118	766	654	573	37.6		
Kentucky	591	<i>407</i>	411	457	585	650	704	803	803	724	583	478	422	67.0		
Louisiana	1,111	<i>810</i>	822	889	1,053	1,181	1,350	1,412	1,430	1,372	1,102	983	914	57.1		
Maryland	397	<i>314</i>	306	314	363	388	453	482	512	481	450	369	331	60.8		
Massachusetts	288	<i>217</i>	232	232	263	302	352	359	358	335	308	260	242	60.4		
Michigan	537	<i>360</i>	360	319	436	554	740	818	810	752	492	351	288	21.7		
Minnesota	53	<i>101</i>	102	108	118	114	121	65	65	50	55	40	42	34.7		
Mississippi	1,034	<i>716</i>	744	893	1,142	1,222	1,312	1,285	1,203	1,203	1,085	821	786	54.6		
Missouri	1,150	<i>854</i>	873	995	1,120	1,213	1,374	1,491	1,507	1,414	1,140	932	885	50.7		
Montana	23	<i>17</i>	17	22	27	25	29	29	29	29	21	21	21	58.0		
Nebraska	246	<i>170</i>	161	175	227	245	268	323	363	359	276	172	174	44.4		
Nevada	58	<i>27</i>	35	44	44	54	75	70	86	104	89	42	20	20.0		
New Jersey	905	<i>764</i>	751	773	979	1,045	1,214	1,306	1,298	1,272	980	832	780	55.9		
New Mexico	123	<i>83</i>	80	93	108	125	143	180	170	100	160	118	80	40.1		
New York	2,554	<i>1,894</i>	1,941	2,140	2,523	2,776	3,271	3,529	3,397	3,010	2,316	2,012	1,855	61.9		
North Carolina	1,197	<i>892</i>	900	924	1,125	1,400	1,483	1,581	1,585	1,449	1,094	1,002	913	55.9		
Ohio	1,281	<i>832</i>	838	933	1,281	1,397	1,650	1,783	1,793	1,668	1,393	982	843	46.4		
Oklahoma	650	<i>575</i>	571	628	891	1,012	1,355	1,463	1,519	1,267	900	641	572	37.6		
Oregon	126	<i>83</i>	90	98	102	110	145	168	192	185	128	97	66	46.8		
Pennsylvania	1,994	<i>1,581</i>	1,671	1,957	2,090	2,004	2,404	2,595	2,574	2,372	1,977	1,704	1,529	60.4		
Rhode Island	63	<i>41</i>	36	31	36	61	75	96	96	94	80	69	63	32.3		
South Carolina	624	<i>490</i>	493	520	637	708	778	812	770	738	589	493	467	57.5		
South Dakota	16	<i>8</i>	11	16	17	10	22	10	18	17	13	13	13	36.4		
Tennessee	949	<i>597</i>	613	683	911	1,026	1,209	1,403	1,329	1,204	884	758	681	42.6		
Texas	2,946	<i>2,140</i>	2,129	2,367	2,845	3,120	3,664	3,908	3,932	3,642	2,886	2,439	2,279	64.1		
Utah	111	<i>76</i>	66	72	78	106	124	135	169	159	101	66	66	34.2		
Virginia	867	<i>560</i>	575	642	827	918	1,008	1,275	1,197	1,104	804	715	602	43.9		
Washington	276	<i>157</i>	165	183	217	244	333	375	386	433	340	294	183	36.3		
West Virginia	408	<i>284</i>	271	292	366	407	505	566	555	548	430	325	310	46.2		
Wisconsin	104	<i>67</i>	72	73	121	126	135	136	136	136	101	74	76	49.3		
Wyoming	28	<i>18</i>	18	20	25	33	39	42	42	30	25	20	18	42.0		

## MACARONI, SPAGHETTI, VERMICELLI, AND NOODLES

Description of the industry.—The establishments in this industry are engaged primarily in the manufacture of macaroni, spaghetti, vermicelli, noodles, and other alimentary pastes.

Comparison with earlier census years.—At the censuses for 1925 and earlier years no detailed data in

regard to quantities and values of products were collected from manufacturers of alimentary pastes, and consequently it is impossible to give comparative statistics in Table 3 for years prior to 1927.

TABLE 1.—SUMMARY FOR THE UNITED STATES: 1914 TO 1929

[Data for establishments with products under \$5,000 in value included for 1910 and 1914 but not for 1921 and subsequent years. See GENERAL EXPLANATIONS—Establishments Covered—Size. No comparable data are available for years prior to 1914]

YEAR OR PERIOD	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, containers for products, fuel, and purchased electric energy	Value of products <sup>1</sup>	Value added by manufacture <sup>2</sup>	Horsepower
1929.....	353	5,072	\$5,384,353	\$27,336,126	\$47,074,230	\$10,738,104	24,448
1927.....	353	4,587	5,070,036	27,433,792	45,353,200	17,019,408	21,406
1925.....	327	4,560	5,025,025	27,401,142	43,480,344	15,068,262	19,873
1923.....	343	4,098	4,332,312	16,046,400	29,550,501	12,010,101	18,101
1921.....	400	3,865	3,748,043	19,064,054	31,012,787	11,048,733	(3) 16,603
1919.....	557	4,513	4,168,009	25,100,051	37,057,198	11,947,247	8,502
1914.....	373	3,534	1,637,700	7,038,181	12,883,570	4,045,308	
PER CENT OF INCREASE OR DECREASE (—)							
1927-1929.....		10.6	0.2	-0.4	3.8	10.1	14.2
1925-1927.....	8.0	0.6	0.9	-0.2	4.3	12.0	7.7
1923-1925.....	-4.7	11.3	16.0	65.1	47.1	23.9	9.2
1921-1923.....	-16.1	6.0	15.6	-16.6	-3.7	16.8	
1919-1921.....	-26.6	-14.9	-10.1	-20.5	-16.3	-7.5	
1910-1929.....	-30.6	11.6	29.2	8.9	27.0	65.2	46.5

<sup>1</sup> The figures for 1929 refer to sales (shipments or deliveries) by manufacturers; those for earlier years represent production. See GENERAL EXPLANATIONS—Value of Products.

<sup>2</sup> Value of products less cost of materials, containers for products, fuel, and purchased electric energy. See GENERAL EXPLANATIONS—Value Added by Manufacture.

<sup>3</sup> Not called for on schedule.

## CENSUS OF MANUFACTURES: 1929

TABLE 2.—GENERAL STATISTICS, BY STATES: 1929 AND 1927

[This table presents statistics separately for each State for which figures can be given without disclosing data for individual establishments, and for the remaining States in groups. Data for establishments with products under \$5,000 in value are included for 1919 but not for subsequent years. See GENERAL EXPLANATIONS—Establishments Covered—Size]

STATE	Cen- sus year	Num- ber of es- tab- lish- ments	Sala- ried officers and em- ploy- ees <sup>1</sup>	Wage earn- ers (aver- age for the year)	HORSEPOWER (RATED CAPACITY) OF POWER EQUIPMENT			Salaries	Wages	COST OF MATERIALS, CONTAINERS FOR PRODUCTS, FUEL, AND PUR- CHASED ELECTRIC ENERGY			Value of products <sup>2</sup>	Value added by manufac- ture <sup>3</sup>
					Total	Prime movers	Motors run by pur- chased energy			Total	Materials and con- tainers	Fuel and purchased energy		
United States.....	1929	353	892	5,072	24,448	4,233	20,215	\$2,302,756	\$5,384,355	\$27,336,125	\$26,327,010	\$1,008,216	\$47,674,230	\$10,738,104
	1927	353	872	4,587	21,406	4,422	16,984	2,006,202	5,070,936	27,433,792	26,469,336	904,456	45,351,200	17,010,408
	1919	557	996	4,543	16,693	6,336	10,357	1,707,351	4,108,009	25,109,951	24,898,318	711,633	37,057,198	11,947,247
Individual States:														
California.....	1929	57	98	361	2,436	06	2,370	217,290	461,126	1,053,655	1,878,732	74,923	3,547,060	1,503,414
	1927	53	91	326	1,817	5	1,812	175,041	416,716	1,920,480	1,848,545	71,935	3,344,291	1,423,811
Connecticut.....	1929	12	14	67	328	-----	328	30,161	82,948	388,538	365,942	22,506	611,543	223,005
	1927	11	11	81	344	-----	344	20,500	84,953	397,967	373,827	24,140	618,186	220,210
Florida.....	1929	4	-----	15	72	-----	72	-----	11,570	43,928	41,312	2,616	84,266	40,338
	1927	3	2	17	61	-----	61	2,080	17,013	57,010	56,120	1,700	94,860	36,041
Illinois.....	1929	30	94	688	3,501	1,213	2,348	288,621	717,517	3,987,876	3,854,152	133,724	6,403,120	2,115,244
	1927	27	82	559	2,592	625	1,907	237,120	660,504	3,515,035	3,406,970	100,069	6,139,893	2,024,868
Louisiana.....	1929	12	26	114	690	70	629	50,631	121,085	703,480	673,502	29,987	1,068,362	364,873
	1927	10	40	146	682	-----	682	59,985	101,787	840,919	800,296	34,623	1,246,458	405,530
Maryland.....	1929	6	6	38	149	-----	149	9,266	42,497	173,905	167,345	6,560	327,188	153,283
	1927	5	10	46	173	-----	173	15,348	53,734	298,334	290,162	8,172	436,786	138,462
Massachusetts.....	1929	10	32	192	887	100	787	82,213	195,561	878,218	834,273	43,945	1,382,148	503,030
	1927	12	37	164	818	100	718	83,051	186,367	948,222	901,110	47,112	1,450,950	502,728
Minnesota.....	1929	6	35	111	482	-----	482	93,274	106,755	582,801	550,332	23,469	1,271,162	688,301
	1927	5	41	137	463	-----	463	95,503	131,710	630,481	607,115	23,366	1,246,315	616,834
Missouri.....	1929	10	42	273	797	-----	797	133,966	245,200	1,404,000	1,458,230	35,770	2,224,577	730,577
	1927	11	62	278	817	75	742	104,567	269,395	1,476,000	1,440,423	35,667	2,403,232	927,142
New Jersey.....	1929	17	64	330	2,136	1,588	548	185,552	320,518	2,176,548	2,118,412	57,136	4,709,793	2,534,245
New York.....	1929	96	208	1,357	6,079	590	6,383	565,979	1,792,075	8,125,843	7,803,847	321,096	13,012,095	5,780,252
	1927	101	156	1,035	5,337	960	4,391	562,422	1,307,684	7,202,834	6,904,118	298,710	11,145,691	3,942,857
Ohio.....	1929	15	28	179	504	35	520	76,860	100,131	669,576	645,466	24,110	1,242,166	572,590
	1927	12	30	159	861	250	611	53,967	178,377	861,270	820,595	31,681	1,633,775	772,499
Pennsylvania.....	1929	21	76	710	2,305	70	2,235	162,750	585,080	3,195,434	3,091,221	104,213	5,145,646	1,950,212
	1927	21	67	600	2,197	330	1,867	146,617	586,367	3,456,769	3,363,336	93,433	4,969,048	1,512,270
Rhode Island.....	1929	12	10	43	215	-----	215	10,413	45,390	266,811	252,806	14,005	413,127	140,310
	1927	12	7	58	207	-----	207	17,469	57,183	360,707	346,458	14,249	471,609	120,002
Texas.....	1929	10	28	97	310	-----	310	50,613	50,497	284,025	270,380	14,236	521,186	230,561
	1927	12	24	80	365	6	369	36,013	59,440	316,876	302,598	14,278	472,286	155,410
Washington.....	1929	11	23	35	340	-----	340	45,842	37,970	248,267	236,337	11,930	449,108	200,901
	1927	9	22	41	311	-----	311	46,392	51,900	284,852	273,005	11,847	460,150	176,307
Groups of States:														
Ala., 2 est.; D. C., 1; Ky., 1; W. Va., 1.....	1929	5	14	63	245	-----	245	20,740	50,030	338,500	328,542	10,048	430,611	92,021
Ind., 2 est.; Mich., 4; Wis., 3.....	1929	9	41	185	807	245	562	138,439	204,143	1,020,921	983,795	46,126	1,765,088	735,107
Colo., 2 est.; Nebr., 2; Okla., 1.....	1929	5	41	172	895	250	645	102,630	155,299	577,365	556,557	20,808	1,188,800	611,335
Oreg., 4 est.; Utah, 1.....	1929	5	12	42	241	-----	241	22,701	64,566	217,736	207,718	10,018	377,175	159,439
States not shown sepa- rately.....	1927	40	166	800	4,341	2,105	2,236	430,587	907,401	4,805,031	4,720,643	144,388	9,219,601	4,354,630

<sup>1</sup> Not including proprietors and firm members, as follows: For 1929, 377; 1927, 425; 1919, 687. The total numbers of persons engaged—proprietors and firm members, salaried officers and employees, and wage earners—as reported for the industry, are as follows: For 1929, 6,341; 1927, 5,884; 1919, 6,225.

<sup>2</sup> The figures for 1929 refer to sales (shipments or deliveries) by manufacturers; those for earlier years represent production. See GENERAL EXPLANATIONS—Value of Products.

<sup>3</sup> Value of products less cost of materials, containers for products, fuel, and purchased electric energy. See GENERAL EXPLANATIONS—Value Added by Manufacture.

<sup>4</sup> Data for purchased power other than electric (power transmitted into the plant by belt or shaft) are included in the State items for 1919 but not in the United States totals.

<sup>5</sup> Alabama, 2 establishments; Colorado, 5; District of Columbia, 1; Indiana, 1; Kansas, 2; Michigan, 4; Nebraska, 1; Nevada, 1; New Jersey, 21; Oklahoma, 1; Oregon, 3; Utah, 2; West Virginia, 1; Wisconsin, 4.

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**TABLE 3.—PRODUCTS, BY KIND, QUANTITY, AND VALUE, FOR THE UNITED STATES: 1929 AND 1927**

[The figures for 1929 refer to sales (shipments or deliveries) by manufacturers; those for 1927 represent production. See GENERAL EXPLANATIONS—Value of Products]

KIND	1929		1927	
	Quantity (pounds)	Value	Quantity (pounds)	Value
1. "Macaroni, spaghetti, vermicelli, and noodles" industry, all products, total value.....		\$47,074,230		\$45,353,200
2. Macaroni, spaghetti, vermicelli, noodles, and ravioli, value.....		40,243,104		41,270,544
3. Other products (not normally belonging to the industry), value.....		831,000		1,073,650
4. Macaroni, spaghetti, vermicelli, noodles, and ravioli, made as secondary products in other industries, value.....		1,117,670		1,070,117
Macaroni, spaghetti, vermicelli, noodles, and ravioli, all industries: Total value (sum of 2 and 4).....		47,300,843		46,258,501
Macaroni, spaghetti, and vermicelli.....	482,802,400	37,424,702	450,078,022	436,070,821
Egg noodles and other egg products.....	55,010,212	8,100,105	31,805,188	5,487,503
Noodles, plain or water.....	15,313,767	1,250,020	(3)	(3)
Ravioli.....	2,425,230	488,000	(3)	240,275
Pastes not reported by kind.....			(3)	8,850,002

1 Includes data for plain or water noodles.

2 Not reported separately. See footnote 1.

3 Data incomplete.

**TABLE 4.—PRODUCTS, BY KIND, QUANTITY, AND VALUE, BY STATES: 1929 AND 1927**

[The figures for 1929 refer to sales (shipments or deliveries) by manufacturers; those for 1927 represent production. See GENERAL EXPLANATIONS—Value of Products. Figures are given for each State which can be shown separately without disclosing data for individual establishments, and for the remaining States in groups]

KIND AND STATE	1929		1927		KIND AND STATE	1929		1927	
	Pounds	Value	Pounds	Value		Pounds	Value	Pounds	Value
MACARONI, SPAGHETTI, AND VERMICELLI					EGG NOODLES AND OTHER EGG PRODUCTS—contd.				
United States.....	482,802,400	\$37,424,702	450,078,022	\$36,070,821	Individual States—Con.				
Individual States:					New York.....	13,000,808	\$2,138,651	0,185,514	\$1,604,741
California.....	31,950,070	2,623,807	30,510,288	2,027,087	Ohio.....	4,836,115	722,052	(3)	(3)
Connecticut.....	7,740,374	608,427	6,807,200	617,690	Pennsylvania.....	2,880,811	427,573	1,421,800	190,210
Florida.....	1,141,871	84,260	1,242,000	94,860	Washington.....	411,940	54,314	(3)	(3)
Illinois.....	59,431,510	4,234,903	50,470,158	5,377,158	Groups of States:				
Louisiana.....	13,462,007	1,040,007	10,073,160	1,224,058	Conn., D. C., Md.,	0,704,370	1,513,205		
Maryland.....	4,110,025	314,083	1,745,037	130,177	Mass., N. J.				
Massachusetts.....	16,578,135	1,342,207	17,208,053	1,435,918	Ind., Iowa, Ky., Mich.,	4,180,708	301,522	(3)	(3)
Minnesota.....	10,704,010	1,090,108	9,508,031	1,040,334	Wis.	135,726	23,501		
Missouri.....	30,050,021	1,810,353	33,122,857	2,131,040	La., Tex.				
New Jersey.....	28,520,744	3,244,346	(3)	(3)	Colo., Nebr., Oreg.,	1,184,173	160,548		
New York.....	149,090,557	11,295,339	121,583,874	9,245,017	Utah.....				
Ohio.....	6,842,401	512,700	11,050,831	1,005,017	States not shown separately 1.....			12,503,037	2,452,400
Pennsylvania.....	67,021,068	4,000,080	60,150,415	4,693,143	NOODLES, PLAIN OR WATER				
Rhode Island.....	4,485,082	413,127	6,452,073	471,609	United States.....	15,313,767	1,250,020	(3)	(3)
Texas.....	7,385,980	527,406	5,802,108	450,748	Individual States:				
Washington.....	4,790,013	324,010	6,110,830	404,531	California.....	2,230,825	150,244		
Groups of States:					Illinois.....	220,300	30,018		
Ala., Ky., W. Va.....	0,771,211	408,361			Indiana.....	2,958,490	200,524	(3)	(3)
Colo., Okla., Oreg.,			(3)	(3)	New York.....	1,037,758	153,018		
Utah.....	7,000,971	620,458			Pennsylvania.....	824,087	62,222		
Iowa, Mich., Nebr.,					Washington.....				
Wis.....	25,620,038	2,200,035			Groups of States:				
States not shown separately 1.....			54,032,827	5,647,040	Md., Mass., Ohio.....	100,500	23,724		
EGG NOODLES AND OTHER EGG PRODUCTS					Ind., Mich., Minn.,	0,537,150	470,323	(3)	(3)
United States.....	55,010,212	8,100,105	31,805,188	5,487,503	Mo., Wis.				
Individual States:					Colo., Okla., Oreg.,	605,075	41,953		
California.....	2,554,800	363,007	1,772,001	210,128	Tex., Utah.....				
Illinois.....	15,385,804	2,054,025	5,705,223	700,080	RAVIOLI				
Minnesota.....	1,182,534	100,205	696,363	105,179	United States.....	2,425,230	488,000	(3)	240,275
Missouri.....	1,530,851	171,072	510,000	74,000	California.....	2,100,010	438,751	(3)	(3)
					Other States 2.....	225,820	50,200	(3)	240,275

1 Includes data for plain or water noodles.

2 Included in item for the States not shown separately to avoid disclosing data for individual establishments.

3 Alabama, Colorado, Kansas, Michigan, Nevada, New Jersey, Oklahoma, Oregon, Utah, West Virginia, and Wisconsin.

4 Colorado, Connecticut, District of Columbia, Indiana, Maryland, Massachusetts, Michigan, New Jersey, Texas, and Wisconsin.

5 Included in item for macaroni, spaghetti, and vermicelli.

6 Data incomplete.

7 For 1929, New York, Pennsylvania, and Washington; for 1927, California and New York.



## CENSUS OF MANUFACTURES: 1929

TABLE 5.—PRINCIPAL MATERIALS CONSUMED IN THE INDUSTRY, BY KIND, QUANTITY, AND COST, BY STATES: 1929

[The figures given in this table represent returns from 309 establishments, which reported products having a combined value of \$40,599,266, or 99 per cent of the total for the industry. Statistics are presented for all States for which separate figures can be given without disclosing data for individual establishments, and for the remaining States in groups. The difference between the sum of the costs of the several kinds of materials shown in this table and the total cost of materials as given in Tables 1 and 2 is due mainly to the fact that this table covers only certain specified materials, whereas the others cover all materials.]

STATE	Value of products of establishments reporting	FLOUR				EGGS, FRESH, DRIED, AND FROZEN
		Wheat (other than durum, semolina, etc.)		Durum, semolina, etc.		
		Barrels	Cost	Barrels	Cost	
United States.....	\$46,599,266	375,479	\$2,386,980	2,313,140	\$16,849,032	\$1,704,242
Individual States:						
California.....	3,489,183	83,662	535,308	101,908	878,288	102,867
Connecticut.....	606,043	2,280	15,760	35,652	269,445	676
Florida.....	71,266			4,781	32,589	
Illinois.....	6,372,520	22,417	152,476	322,816	2,321,725	385,074
Louisiana.....	1,050,262	21,475	125,871	46,618	314,632	536
Maryland.....	287,988	3,396	20,374	15,044	100,856	4,040
Massachusetts.....	1,382,148	770	4,904	92,047	692,282	10,719
Minnesota.....	1,269,102	3,127	23,516	69,416	363,424	35,894
Missouri.....	2,224,577	18,450	130,398	159,112	1,130,557	70,139
New Jersey.....	4,683,893	41,005	267,424	141,323	1,001,012	355,804
New York.....	13,724,302	87,975	553,192	690,333	5,229,087	629,602
Ohio.....	1,205,386	4,956	20,994	48,687	323,893	99,150
Pennsylvania.....	5,130,046	14,463	93,481	351,610	2,434,893	109,319
Rhode Island.....	332,927	5,550	33,900	21,373	164,994	2,593
Texas.....	521,186	20,929	116,348	14,738	98,207	1,659
Washington.....	441,608	20,040	155,373	4,815	39,405	5,402
Groups of States:						
Ala., D. C., Ky., Okla., W. Va.....	509,256			37,486	267,025	8,062
Ind., Mich., Nebr., Wis.....	2,693,276	1,089	5,995	144,395	986,844	41,758
Colo., Oreg., Utah.....	658,142	17,795	122,606	21,087	139,074	30,497

TABLE 6.—PRIME MOVERS, MOTORS, GENERATORS, AND CONSUMPTION OF PURCHASED ELECTRIC ENERGY—NUMBER AND RATED CAPACITY OF PRIME MOVERS AND ELECTRIC MOTORS, 1929, 1927, 1925, AND 1919, AND OF GENERATORS, 1929, 1927, AND 1925; QUANTITY OF ELECTRIC ENERGY PURCHASED, 1929

TYPE	1929		1927		1925		1919		PER CENT DISTRIBUTION OF RATED HORSEPOWER CAPACITY	
	Number	Capacity	Number	Capacity	Number	Capacity	Number	Capacity	1929	1919
Prime movers and electric motors driven by purchased energy, aggregate.....	5,574	Horsepower 24,448	4,670	Horsepower 21,406	3,812	Horsepower 19,873	2,410	Horsepower 16,693	100.0	100.0
Prime movers, total.....	48	4,233	53	4,462	95	4,903	207	6,330	17.3	38.0
Steam engines.....	27	3,859	21	3,925	24	3,783	32	3,500	15.8	21.0
Internal-combustion engines.....	16	324	32	537	56	1,062	169	2,566	1.3	15.4
Water wheels and water turbines.....	5	50			15	58	6	270	0.2	1.6
Electric motors driven by purchased energy.....	5,526	20,215	4,617	16,944	3,717	14,970	2,203	10,367	82.7	62.0
Electric motors, total.....	5,973	22,067	5,236	19,499	4,309	17,482	2,530	12,400	100.0	100.0
Driven by purchased energy.....	5,526	20,215	4,617	16,944	3,717	14,970	2,203	10,367	91.6	83.5
Driven by energy generated in establishments reporting.....	447	1,852	619	2,555	592	2,512	327	2,043	8.4	16.5
Electric generators.....	7	Kilowatts 1,683	9	Kilowatts 1,947	11	Kilowatts 1,683	(1)	(1)		
Electric energy purchased <sup>1</sup> .....		Kilowatt-hours 27,727,541		(1)		(1)		(1)		

<sup>1</sup> Not called for on schedule.

<sup>2</sup> This item covers the consumption of purchased electric energy for all purposes—power, heat, light, etc.

<sup>3</sup> Data incomplete.

MACARONI, SPAGHETTI, VERMICELLI, AND NOODLES

TABLE 7.—WAGE EARNERS, BY MONTHS, BY STATES: 1929

[This table presents statistics for only those States for which figures can be given without disclosing data for individual establishments. The sum of the State items in any column is not, therefore, equal to the United States total at the head of the column. The month of maximum employment is indicated by bold-faced figures and that of minimum employment by *italic* figures. No statistics for earlier years are available]

STATE	Average number employed during year	NUMBER EMPLOYED ON 16TH DAY OF MONTH OR NEAREST REPRESENTATIVE DAY												Per cent minimum of maximum
		January	February	March	April	May	June	July	August	September	October	November	December	
United States.....	5, 072	5, 141	5, 286	5, 304	4, 804	4, 833	4, 788	<i>4, 612</i>	4, 822	5, 175	5, 425	5, 330	5, 272	85. 0
California.....	361	307	306	365	363	360	356	<i>305</i>	358	356	380	370	378	80. 3
Connecticut.....	67	71	70	69	69	<i>63</i>	64	<i>63</i>	65	66	68	68	68	88. 7
Florida.....	15	<i>13</i>	<i>13</i>	<i>13</i>	<i>13</i>	<i>13</i>	<i>13</i>	18	18	18	18	18	18	72. 2
Illinois.....	688	625	628	682	630	<i>612</i>	661	673	730	817	785	748	669	74. 9
Louisiana.....	114	119	110	117	<i>100</i>	112	110	103	112	116	119	121	119	82. 6
Maryland.....	38	40	38	38	<i>37</i>	<i>37</i>	<i>37</i>	<i>37</i>	<i>37</i>	<i>37</i>	39	39	39	92. 5
Massachusetts.....	192	201	201	200	195	191	180	<i>178</i>	179	181	196	196	201	88. 6
Minnesota.....	111	122	133	128	166	162	163	<i>161</i>	166	110	112	110	103	75. 9
Missouri.....	273	283	297	270	266	263	261	<i>254</i>	267	278	285	284	277	89. 1
New Jersey.....	330	328	354	327	316	309	312	<i>292</i>	330	339	352	355	345	82. 3
New York.....	1, 357	1, 328	1, 477	1, 440	1, 271	1, 266	1, 283	1, 251	<i>1, 213</i>	1, 336	1, 430	1, 429	1, 446	82. 1
Ohio.....	179	170	198	194	173	167	161	<i>156</i>	170	177	167	161	184	78. 8
Pennsylvania.....	710	725	750	<i>704</i>	677	709	683	<i>630</i>	650	714	767	717	726	82. 1
Rhode Island.....	43	38	38	47	47	47	45	<i>36</i>	<i>36</i>	47	47	47	47	76. 6
Texas.....	97	97	96	94	95	94	95	<i>95</i>	96	101	101	99	99	92. 1
Washington.....	35	38	38	30	35	35	31	<i>30</i>	32	35	34	36	35	78. 9

# MALT

Description of the industry.—This industry embraces establishments engaged primarily in the manufacture of malt, chiefly from barley but to some extent from other grains.

TABLE 1.—SUMMARY FOR THE UNITED STATES: 1899 TO 1929

[Data for establishments with products under \$5,000 in value included for 1910 and prior years but not for 1921 and subsequent years. See GENERAL EXPLANATIONS—Establishments Covered—Size]

YEAR OR PERIOD	Number of establishments	Wage earners (average for this year)	Wages	Cost of materials, containers for products, fuel, and purchased electric energy	Value of products <sup>1</sup>	Value added by manufacture <sup>2</sup>	Horsepower
1929	28	500	\$1,056,750	\$18,923,749	\$23,602,938	\$4,670,180	18,098
1927	23	500	904,420	17,186,750	20,274,172	3,087,422	15,390
1925	23	568	902,830	19,980,251	24,069,238	4,082,987	15,250
1923	22	487	741,656	13,153,900	16,431,052	3,277,152	14,805
1921	26	616	923,834	17,458,265	21,004,649	3,540,384	( <sup>3</sup> ) 27,483
1919	55	1,352	1,845,210	31,612,707	30,340,414	7,727,707	27,483
1914	97	1,989	1,827,520	30,108,031	48,132,833	8,933,002	32,494
1909	114	1,760	1,348,007	30,464,209	38,252,233	7,787,934	26,121
1904	141	2,054	1,456,908	23,620,984	30,288,084	6,668,000	20,103
1899	146	1,090	1,182,613	14,816,741	19,373,000	4,566,850	13,710
PER CENT OF INCREASE OR DECREASE (—)							
1927-1929	( <sup>4</sup> )	18.0	16.8	10.1	16.4	51.6	17.0
1925-1927	( <sup>4</sup> )	-12.0	0.2	-14.0	-15.8	-24.4	0.0
1923-1925	( <sup>4</sup> )	16.0	21.7	51.9	40.5	24.0	3.1
1921-1923	( <sup>4</sup> )	-20.9	-19.7	-24.7	-21.8	-7.0	—
1919-1921	( <sup>4</sup> )	-53.4	-49.9	-44.8	-46.6	-64.1	—
1919-1929	( <sup>4</sup> )	-54.4	-42.7	-40.1	-40.0	-30.5	-34.1
1909-1919	( <sup>4</sup> )	-51.8	-23.2	36.9	3.8	-0.5	6.2
1899-1909	( <sup>4</sup> )	-21.9	-11.6	14.0	105.0	97.4	90.4

<sup>1</sup> For 1929, manufacturers' sales (shipments or deliveries); for earlier years, production. See GENERAL EXPLANATIONS—Value of Products.  
<sup>2</sup> Value of products less cost of materials, containers for products, fuel, and purchased electric energy. See GENERAL EXPLANATIONS—Value Added by Manufacture.  
<sup>3</sup> Not called for on schedule.  
<sup>4</sup> Per cent not computed where base is less than 100.

TABLE 2.—GENERAL STATISTICS, BY STATES: 1929, 1927, AND 1919

[This table presents statistics separately for each State for which figures can be given without disclosing data for individual establishments. Data for establishments with products under \$5,000 in value are included for 1919 but not for subsequent years. See GENERAL EXPLANATIONS—Establishments Covered—Size]

STATE	Census year	Number of establishments	Salaried officers and employees <sup>1</sup>	Wage earners (average for the year)	HORSEPOWER (RATED CAPACITY) OF POWER EQUIPMENT			Salaries	Wages	COST OF MATERIALS, CONTAINERS FOR PRODUCTS, FUEL, AND PURCHASED ELECTRIC ENERGY			Value of products <sup>2</sup>	Value added by manufacture <sup>3</sup>
					Total	Primo movers	Motors run by purchased energy			Total	Materials and containers	Fuel and purchased energy		
United States	1929	28	151	500	18,098	10,056	8,042	\$613,682	\$1,056,750	\$18,923,749	\$18,083,835	\$830,914	\$23,602,938	\$4,670,180
	1927	23	124	500	15,390	9,750	5,040	451,886	904,420	17,186,750	16,632,001	554,680	20,274,172	3,087,422
	1919	55	353	1,352	27,483	18,722	8,761	1,017,501	1,845,210	31,612,707	30,468,591	1,144,116	30,340,414	7,727,707
Illinois	1929	4	24	125	3,844	3,000	844	94,364	248,960	2,940,802	2,792,610	154,183	3,868,244	921,442
	1927	3	22	97	3,931	3,500	431	91,023	172,854	2,548,780	2,450,770	97,951	3,180,756	641,025
	1919	10	57	378	7,211	6,615	596	233,813	540,680	6,288,262	5,885,320	352,933	8,019,944	1,781,682
New York	1929	4	14	61	2,371	60	2,311	84,304	124,687	2,190,355	2,122,688	67,667	2,923,088	733,633
	1927	4	18	68	2,371	60	2,311	90,080	117,592	2,422,033	2,350,241	52,792	2,807,177	475,144
	1919	10	77	336	6,824	615	6,209	218,556	448,483	6,807,914	6,686,101	121,813	8,492,816	1,684,002
Wisconsin	1929	10	73	264	6,547	5,611	936	315,865	426,525	8,765,634	8,402,193	363,441	10,606,476	1,840,842
	1927	8	50	219	4,940	4,755	185	173,026	402,902	7,908,376	7,625,257	283,119	9,097,849	1,180,473
	1919	20	147	484	8,946	8,080	866	408,485	650,280	14,798,229	14,288,493	509,736	18,064,108	3,295,879
Other States	<sup>4</sup> 1929	10	40	140	5,336	1,385	3,951	119,149	256,587	5,020,955	4,766,335	254,623	6,204,230	1,183,272
	<sup>5</sup> 1927	8	34	116	4,148	1,435	2,713	91,148	211,042	4,307,611	4,180,784	126,827	5,089,391	781,780
	<sup>6</sup> 1919	15	62	154	4,502	3,412	1,090	156,647	199,761	3,768,302	3,608,668	159,634	4,763,516	995,244

<sup>1</sup> Not including proprietors and firm members, as follows: For 1929, 1; 1927, 4; 1919, 8. The total numbers of persons engaged—proprietors and firm members, salaried officers and employees, and wage earners—as reported for the industry, are as follows: For 1929, 742; 1927, 628; 1919, 1,713.  
<sup>2</sup> The figures given for 1929 refer to sales (shipments or deliveries) by manufacturers; those for earlier years represent production. See GENERAL EXPLANATIONS—Value of Products.  
<sup>3</sup> Value of products less cost of materials, containers for products, fuel, and purchased electric energy. See GENERAL EXPLANATIONS—Value Added by Manufacture.  
<sup>4</sup> California, 2 establishments; Iowa, 1; Michigan, 2; Minnesota, 5. The last-named State reported a larger value of products than Illinois. (See headnote)  
<sup>5</sup> California, 2 establishments; Iowa, 1; Michigan, 1; Minnesota, 4.  
<sup>6</sup> California, 2 establishments; Iowa, 1; Kentucky, 1; Michigan, 2; Minnesota, 7; Ohio, 1; Pennsylvania, 1.

TABLE 3.—PRODUCTS, BY KIND, QUANTITY, AND VALUE, FOR THE UNITED STATES: 1925 TO 1929

[The figures given for 1920 refer to sales (shipments or deliveries) by manufacturers; those for earlier years represent production. See GENERAL EXPLANATIONS—Value of Products]

KIND	1929	1927	1925
1. Malt industry, all products, total value..	\$23,602,938	\$20,274,172	\$24,069,238
2. Malt products.....	23,470,244	20,224,403	23,811,154
3. Other products (not normally belonging to the industry).....	132,694	49,769	258,084
4. Malt products, secondary products of other industries, value.....	171,705	(1)	(1)
Malt products, all industries: Total value (sum of 2 and 4).....	\$23,642,000	\$20,224,403	\$23,811,154
Barley malt— Bushels.....	25,905,500	21,591,808	22,007,019
Value.....	\$20,822,000	\$18,611,908	\$21,716,563
Rye and wheat malt and roasted malt— Bushels.....	127,004	220,835	138,719
Value.....	\$103,791	\$200,591	\$232,312
Cleaned barley, sprouts, and screenings, value.....	\$2,655,618	\$1,442,844	\$1,802,280

<sup>1</sup> No data. <sup>2</sup> No roasted malt reported.

TABLE 4.—PRODUCTS, BY KIND, QUANTITY, AND VALUE, BY STATES: 1929

[The figures refer to sales (shipments or deliveries) by manufacturers. See GENERAL EXPLANATIONS—Value of Products. Figures are given for each State which can be shown separately without disclosing data for individual establishments]

STATE	BARLEY MALT		RYE AND WHEAT MALT		CLEANED BARLEY, SPROUTS, ETC.
	Bushels	Value	Bushels	Value	
United States.....	25,905,500	\$20,822,000	127,004	\$103,791	\$2,655,618
Illinois.....	4,001,054	3,321,229			510,004
New York.....	3,014,040	2,650,436			247,005
Wisconsin.....	12,382,432	9,600,007			737,510
Other States (Ariz., Calif., Idaho, Iowa, Md., Mich., Minn., <sup>2</sup> Mo., Nebr., Ohio, Okla., Pa., R. I., Tex., Va.).....	6,507,083	5,142,238	127,004	1163,791	1,121,100

<sup>1</sup> Combined to avoid disclosing output of individual establishments. <sup>2</sup> Minnesota reported a larger production than Illinois. (See heading)

TABLE 5.—PRIME MOVERS, MOTORS, GENERATORS, AND CONSUMPTION OF PURCHASED ELECTRIC ENERGY—NUMBER AND RATED CAPACITY OF PRIME MOVERS AND ELECTRIC MOTORS, 1929, 1927, 1925, 1919 AND 1914, AND OF GENERATORS, 1929, 1927, AND 1925; QUANTITY OF ELECTRIC ENERGY PURCHASED, 1929

TYPE	1929		1927		1925		1919		1914		PER CENT DISTRIBUTION OF RATED HORSE-POWER CAPACITY	
	Number	Capacity	Number	Capacity	Number	Capacity	Number	Capacity	Number	Capacity	1929	1919
											Horse-power	Horse-power
Prime movers and electric motors driven by purchased energy, aggregate.....	461	18,008	309	15,300	317	15,250	512	27,483	515	32,491	100.0	100.0
Prime movers, total.....	36	10,050	33	9,760	27	9,213	102	18,722	153	21,758	55.6	68.1
Steam, total.....	35	10,051	32	9,745	27	9,213	99	18,272	140	21,318	55.6	66.5
Engines.....	32	8,901	31	8,095	26	8,403	96	10,272	(1)	(1)	49.2	50.2
Turbines.....	3	1,150	1	750	1	750	3	2,000	(1)	(1)	6.4	7.3
Internal-combustion engines.....	1	5	1	5					0	65	(2)	
Water wheels and water turbines.....							3	450	7	378		1.0
Electric motors driven by purchased energy.....	425	8,042	276	5,010	290	6,040	410	8,701	362	7,730	44.4	31.9
Electric motors, total.....	850	17,575	658	13,680	542	12,352	909	21,870	917	21,155	100.0	100.0
Driven by purchased energy.....	425	8,042	276	5,010	290	6,040	410	8,701	362	7,730	45.8	41.0
Driven by energy generated in establishments reporting.....	425	0,533	382	7,010	252	6,306	550	12,618	685	13,410	54.2	59.0
Electric generators.....	25	Kilowatts 7,167 Kilowatt-hours	23	Kilowatts 7,007	19	Kilowatts 4,540	(3)	(3)	(3)	(3)		
Electric energy purchased <sup>4</sup> .....		11,039,480		(5)		(5)		(5)		(3)		

<sup>1</sup> Not called for separately on schedule. <sup>2</sup> Less than one-tenth of 1 per cent. <sup>3</sup> Not called for on schedule. <sup>4</sup> This item covers the consumption of purchased electric energy for all purposes—power, heat, light, etc. <sup>5</sup> Data incomplete.

TABLE 6.—WAGE EARNERS, BY MONTHS, FOR THE UNITED STATES, 1929, 1925, 1919, 1914, AND 1909, AND BY STATES, 1929

[This table presents statistics for only those States for which figures can be given without disclosing data for individual establishments. The sum of the State items in any column is not, therefore, equal to the United States total at the head of the column. The month of maximum employment is indicated by bold-faced figures and that of minimum employment by *italic* figures]

STATE	Average number employed during year	NUMBER EMPLOYED ON 15TH DAY OF MONTH OR NEAREST REPRESENTATIVE DAY												Percent minimum is of maximum
		January	February	March	April	May	June	July	August	September	October	November	December	
United States:														
1929.....	600	674	658	657	620	571	616	488	533	617	638	588	580	71.5
1925.....	568	503	507	600	503	558	557	532	549	501	587	507	579	88.7
1919.....	1,352	1,045	1,147	1,240	1,343	1,608	1,664	1,628	1,677	1,387	1,266	1,215	1,098	62.3
1914.....	1,989	2,350	2,389	2,320	2,209	1,683	1,816	1,650	1,510	1,629	1,911	1,974	2,094	64.5
1909.....	1,700	2,086	2,019	1,906	1,724	1,630	1,406	1,312	1,289	1,549	1,927	2,004	2,122	60.7
Illinois.....	125	146	140	141	142	133	112	84	109	110	127	129	133	57.5
New York.....	61	72	74	73	65	60	54	53	63	55	52	60	60	70.3
Wisconsin.....	264	202	282	281	276	256	234	239	241	313	261	256	240	74.4

## MEAT PACKING

**Description of the industry.**—This industry classification covers establishments engaged in wholesale slaughtering and meat packing, including abattoirs engaged wholly or chiefly in custom slaughtering. Plants that slaughter for the retail trade but also wholesale considerable quantities of meats are included, and the reports made by such establishments generally cover both branches of their operations. Establishments slaughtering for the retail trade only do not come within the scope of the census. Those engaged exclusively or principally in the manufacture of sausage, meat puddings, headcheese, etc., and sausage casings are not classified in this industry but are grouped under separate designations. Establishments treated as belonging to the meat-packing industry at one census may, because of changes in the character of their business, be otherwise classified at another. The statistics, however, cover practically all important establishments engaged wholly or chiefly in slaughtering or in meat packing, or both, for the wholesale trade.

**Duplication in cost of materials and value of products.**—In this industry there is a considerable amount of duplication in the figures for cost of materials and value of products, resulting from the use of the products of some establishments as materials by others. For example, plants which are engaged only in packing purchase as their materials the fresh meats produced by slaughterhouses. Thus the total cost of materials reported for the industry includes not only the cost of the live animals slaughtered but also the value of a part of the fresh meat produced, while the total value of products includes not only the value of the products actually sold in the form in which they reach consumers but also the value of fresh meats produced by certain establishments and cured by other establishments.

**Detailed statistics of products (Table 3).**—This table does not include data for meat products reported by establishments assigned to other industries—for example, "Sausage, meat puddings, headcheese, etc., and sausage casings, not made in meat-packing establishments," "Food preparations, not elsewhere classified," etc.

The output of the meat-packing industry includes certain products, such as glue, grease, tallow, lard substitutes, sausage, meat puddings, headcheese, etc., and sausage casings, oleomargarine, and complete fertilizers, which are made to a large extent by estab-

lishments engaged primarily in the manufacture of these commodities, such establishments being classified separately for census purposes. These products, except sausage, meat puddings, headcheese, etc., and sausage casings, are not shown separately in Table 3, but their value is included in that for the item "Miscellaneous products." The values of such products reported by establishments in all industries are shown in Table 4.

**Miscellaneous products (Table 3).**—The value shown for this item covers, in addition to the values of the products specified in the preceding paragraph, that of a miscellaneous group of commodities for which the schedule did not provide for separate data. This figure also includes the values of certain products, such as manufactured ice, food preparations, druggists' preparations, butter, cheese, etc., which normally belong to other industries but which are made to some extent as minor products by establishments in the meat-packing industry. In addition, the value of the by-products resulting from slaughtering and meat-packing operations, such as tails, beef heads and feet, horns, horntips, stock feed, etc., and the revenue derived from the sale of livestock, purchased fresh meat, and produce are also included.

**Number and weights of animals slaughtered (Tables 6, 7, and 8).**—Inasmuch as the census canvass does not cover the slaughter of animals on farms and ranges and by retail butchers, the numbers of animals killed in slaughtering and meat-packing establishments do not represent the total numbers slaughtered. Moreover, as explained below (see "Custom slaughtering"), the numbers slaughtered on a custom basis are not included in the totals given in the tables. As a rule, the net or dressed weight does not include that of edible organs, but the net weights of many of the calves and a few of the sheep and lambs include the weights of the skins and pelts.

**Hides, skins, sheep and lamb slats, and pelts.**—The numbers of cattle hides given in Table 3 differ from the numbers of beeves slaughtered, as shown in Tables 6 and 7, for the reason that custom slaughterers frequently receive hides in exchange for work performed, such hides being included in the total number reported while the numbers of animals slaughtered on a custom basis are not included in the total numbers of animals slaughtered as given in Tables 6 and 7. This difference is also due to some extent to the fact that some establishments included data for hides which were

purchased green and cured by them in addition to those of their own slaughter. In the case of calfskins, the difference is due to the fact that in some instances skins are sold with the carcasses when they are intended for shipment. The difference in regard to pelts results from the inclusion of sheep and lamb slats or pickled sheep and lamb skins among the products of some establishments. The numbers of pickled sheep and lamb skins reported include some which were purchased green and cured.

Custom slaughtering.—As explained in "Description of the industry," establishments engaged wholly or chiefly in custom slaughtering are classified in this industry. Some custom slaughtering is also done by establishments engaged primarily in wholesale slaughtering. The amounts received for custom slaughtering are included in Table 3 and in the total values of products as shown in Tables 1, 2, and 3. Table 6 gives figures for the numbers and the weight of animals slaughtered on a custom basis, for 1929 only.

TABLE 1.—SUMMARY FOR THE UNITED STATES: 1899 TO 1929

[Data for establishments with products under \$5,000 in value included for 1910 and prior years but not for 1921 and subsequent years. See GENERAL EXPLANATIONS—Establishments Covered—Size]

YEAR OR PERIOD	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, containers for products, fuel, and purchased electric energy	Value of products <sup>1</sup>	Value added by manufacture <sup>2</sup>	Horsepower
1929.....	1,277	122,605	\$165,867,420	\$2,974,127,757	\$9,434,654,008	\$400,526,341	524,080
1927.....	1,250	119,005	161,583,827	2,663,740,403	3,057,215,718	393,475,315	489,570
1925.....	1,209	120,422	159,355,189	2,625,192,435	3,050,280,291	425,003,850	441,510
1923.....	1,397	132,792	167,569,100	2,170,010,241	2,585,804,140	400,703,890	392,127
1921.....	1,184	117,042	152,902,033	1,808,108,392	2,200,492,072	332,743,770	(3)
1919.....	1,304	100,900	203,489,263	3,783,920,533	4,210,200,014	468,301,081	358,522
1914.....	1,279	98,832	92,135,722	1,441,662,658	1,651,905,424	210,302,706	252,979
1909.....	1,221	87,813	50,404,454	1,101,438,070	1,355,594,431	164,100,355	202,432
1904.....	920	74,134	40,326,072	805,856,990	913,014,634	108,057,655	115,831
1899.....	882	68,386	33,392,253	682,006,839	783,770,101	101,682,332	85,008
PER CENT OF INCREASE OR DECREASE (—)							
1927-1929.....	2.2	2.0	2.7	11.7	12.3	17.0	7.2
1925-1927.....	-1.5	-1.1	1.4	1.5	0.2	-7.4	10.9
1923-1925.....	-0.2	-0.3	-4.9	20.0	18.0	3.7	15.6
1921-1923.....	18.0	13.5	9.6	16.5	17.5	23.2	-----
1919-1921.....	-0.2	-27.3	-27.0	-50.0	-48.2	-28.2	-----
1910-1929.....	-2.1	-23.0	-20.8	-21.4	-10.1	-0.6	46.4
1909-1919.....	6.8	83.3	315.0	217.5	213.3	182.4	77.1
1899-1909.....	38.4	28.4	50.0	74.7	72.0	61.4	138.1

<sup>1</sup> The figures for all census years refer to production, not sales. See GENERAL EXPLANATIONS—Value of Products.  
<sup>2</sup> Value of products less cost of materials, containers for products, fuel, and purchased electric energy. See GENERAL EXPLANATIONS—Value Added by Manufacture.  
<sup>3</sup> Not called for on schedule.

## CENSUS OF MANUFACTURES: 1929

TABLE 2.—GENERAL STATISTICS, BY STATES: 1929, 1927, AND 1919

[This table presents statistics separately for each State for which figures can be given without disclosing data for individual establishments, and for the remaining States in groups. Data for establishments with products under \$5,000 in value are included for 1919 but not for subsequent years. See GENERAL EXPLANATIONS—Establishments covered—Size]

STATE	Census year	Number of establishments	Salaried officers and employes <sup>1</sup>	Wage earners (average for the year)	HORSEPOWER (RATED CAPACITY) OF POWER EQUIPMENT			Salaries	Wages	COST OF MATERIALS, CONTAINERS FOR PRODUCTS, FUEL, AND PURCHASED ELECTRIC ENERGY			Value of products <sup>2</sup>	Value added by manufacture <sup>3</sup>
					Total	Prime movers	Motors run by purchased energy			Total	Materials and containers	Fuel and purchased energy		
United States	1929	1,277	23,340	122,505	524,989	235,980	289,009	\$54,733,864	\$105,807,420	\$2,974,127,767	\$2,953,978,509	\$20,149,248	\$3,434,654,008	\$460,526,341
	1927	1,259	24,244	119,095	489,576	235,764	253,812	54,641,992	161,533,827	2,663,740,403	2,640,319,602	23,420,801	3,057,215,718	393,475,315
	1919	1,304	35,325	160,000	358,522	240,609	117,913	59,685,965	209,480,263	3,782,929,533	3,768,839,744	24,089,780	4,246,200,614	463,361,081
Individual States:														
Alabama	1929	10	66	201	1,878	530	1,348	173,020	328,770	4,800,194	4,735,647	64,547	5,833,443	1,033,249
	1927	8	62	327	1,434	340	1,094	145,675	401,993	4,316,451	4,254,042	61,809	5,413,430	1,000,979
	1919	9	111	549	1,548	1,035	513	170,066	481,839	4,888,547	4,801,400	87,057	6,125,251	1,230,704
Arizona	1929	6	45	277	773	50	723	110,532	350,305	5,094,545	5,030,519	64,025	5,933,612	838,467
	1927	8	54	282	1,022	15	1,007	114,041	373,226	3,858,119	3,765,403	92,656	4,629,110	770,691
	1919	4	10	57	88	1	87	34,600	72,484	1,179,513	1,169,184	10,320	1,405,808	226,295
Arkansas	1929	7	15	49	324	75	240	43,730	63,600	1,160,118	1,143,929	10,189	1,387,651	226,933
	1927	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)
	1919	7	19	59	337	25	312	45,785	47,298	975,419	966,579	8,840	1,218,191	242,772
California	1929	94	1,066	3,858	14,011	2,582	12,029	3,074,935	6,084,433	119,871,904	119,327,851	544,143	139,049,822	19,177,828
	1927	94	991	3,447	13,898	2,395	11,593	2,569,206	5,795,544	105,602,420	105,010,941	591,488	124,540,033	18,943,604
	1919	91	1,038	3,405	13,325	2,135	11,190	1,920,048	4,158,193	77,410,321	76,877,625	538,096	92,554,164	15,137,843
Colorado	1929	25	407	1,497	5,297	3,895	1,402	839,167	1,832,894	31,765,422	31,518,245	247,177	36,719,567	4,954,145
	1927	25	439	1,240	4,384	3,006	1,378	847,315	1,552,897	27,061,019	26,047,070	264,070	30,533,016	3,212,018
	1919	21	405	1,848	4,036	3,463	573	768,330	2,148,745	35,785,304	35,501,638	283,726	41,007,531	5,222,107
District of Columbia	1929	8	85	330	1,368	375	993	179,814	569,992	6,470,100	6,422,662	56,438	7,585,831	1,100,731
	1927	8	60	356	1,239	375	864	168,430	464,004	6,533,179	6,417,562	115,617	7,730,792	1,197,613
	1919	6	65	203	917	415	502	129,970	245,725	4,227,839	4,165,209	62,630	5,012,294	784,455
Florida	1929	6	31	107	798	100	638	73,950	107,280	1,080,395	1,062,194	27,201	2,538,888	549,493
	1927	6	31	141	711	160	551	65,568	147,831	1,593,338	1,580,498	12,840	2,028,092	435,654
	1919	8	69	348	918	292	626	110,075	278,499	4,816,230	4,746,323	69,907	5,316,180	490,050
Georgia	1929	12	145	612	3,426	2,195	1,231	248,992	588,302	10,063,650	9,922,087	141,563	12,550,986	2,487,330
	1927	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)
	1919	7	179	869	3,291	2,635	450	290,621	697,369	6,763,875	6,635,328	128,547	8,142,101	1,378,286
Idaho	1929	14	21	111	483	25	458	40,551	154,175	1,843,574	1,814,339	29,235	2,274,431	430,857
	1927	14	24	94	737	38	699	47,284	162,830	1,504,420	1,469,556	34,864	1,876,384	371,994
	1919	12	29	80	474	31	443	43,747	117,321	1,441,195	1,417,038	24,167	1,791,176	340,980
Illinois	1929	70	3,341	20,618	130,740	64,298	66,442	8,504,522	40,382,248	664,518,288	660,141,105	4,377,183	760,872,847	90,354,550
	1927	81	4,333	20,609	111,554	57,399	54,185	10,023,265	41,246,907	575,096,503	569,547,739	6,148,764	693,054,316	87,357,813
	1919	72	8,780	54,179	80,030	01,052	24,084	15,154,861	79,082,535	1,142,950,492	1,136,100,748	6,843,744	1,284,103,010	141,152,524
Indiana	1929	57	904	4,976	22,253	0,023	13,230	1,899,384	5,756,224	85,082,038	84,880,030	801,108	99,906,829	14,224,791
	1927	58	775	5,109	20,391	9,056	11,335	1,021,057	5,767,634	83,184,544	82,142,160	1,042,378	93,169,867	9,985,323
	1919	57	897	5,691	11,395	8,727	2,068	1,514,291	5,470,261	121,680,694	121,003,378	809,310	131,028,720	12,330,032
Iowa	1929	24	1,117	8,603	28,134	8,286	19,848	2,583,155	10,453,050	219,895,483	215,454,804	1,440,689	244,725,776	27,830,293
	1927	21	1,256	7,979	27,769	7,178	20,591	2,377,320	9,227,211	189,726,192	188,188,256	1,537,936	212,353,210	32,627,018
	1919	21	1,820	7,134	15,527	11,385	4,142	2,934,024	8,738,195	204,420,686	203,215,931	1,204,765	226,361,698	21,941,012
Kansas	1929	28	1,933	9,068	38,876	18,633	20,243	3,916,735	11,822,936	240,486,981	239,003,342	1,483,630	273,586,689	33,099,708
	1927	29	1,990	8,783	34,618	15,663	19,055	3,872,180	11,297,040	218,841,924	217,095,664	1,346,200	249,465,685	30,623,761
	1919	28	4,797	17,805	34,063	22,621	12,042	7,245,098	20,862,627	387,858,711	385,173,268	2,685,593	427,661,145	39,801,434
Kentucky	1929	25	234	892	3,348	1,355	1,993	504,634	1,110,310	16,668,746	16,528,393	140,553	20,161,905	3,493,159
	1927	21	244	826	3,184	955	2,229	443,169	1,045,181	15,735,605	15,600,607	134,908	18,475,818	2,640,213
	1919	26	88	450	1,441	1,217	224	170,227	437,072	10,658,904	10,580,180	78,715	12,933,986	2,295,082
Louisiana	1929	6	42	281	1,495	670	825	113,330	348,037	2,490,056	2,438,170	51,890	3,480,857	990,791
	1927	9	49	330	2,112	1,360	752	130,633	357,308	2,311,304	2,264,140	77,158	3,425,195	1,683,891
	1919	3	28	248	1,391	1,276	115	42,375	223,095	445,884	375,908	69,916	849,326	463,442
Maine	1929	8	21	114	410		410	43,341	130,555	1,602,597	1,587,576	15,021	1,991,311	388,717
	1927	11	21	140	468		468	45,135	167,008	1,652,309	1,634,914	17,395	2,011,526	359,217
	1919	17	16	123	325	49	270	43,751	132,943	1,647,168	1,634,788	12,380	2,042,660	395,492
Maryland	1929	44	489	1,753	6,713	1,859	4,854	932,448	2,356,573	39,058,917	38,815,840	243,071	46,215,184	7,156,267
	1927	40	587	1,389	5,448	1,912	3,506	1,178,037	1,722,139	30,377,229	30,141,092	235,237	45,166,219	4,788,990
	1919	47	380	1,563	5,076	3,600	1,480	834,495	1,972,514	33,520,233	33,171,745	348,488	41,439,448	7,919,215
Massachusetts	1929	33	687	2,694	9,851	4,301	5,550	1,298,014	3,572,432	56,599,409	56,066,143	503,206	64,354,688	7,755,279
	1927	40	584	3,191	10,090	4,748	5,348	1,237,856	4,127,491	51,139,522	50,532,205	607,227	58,799,596	7,654,984
	1919	40	586	4,307	8,050	3,769	4,281	1,037,112	5,391,094	101,235,340	100,653,710	681,630	110,258,038	9,002,098
Michigan	1929	47	900	2,280	7,515	2,430	5,085	1,549,420	3,421,330	59,105,375	58,782,900	352,475	65,025,621	8,920,216
	1927	45	470	1,935	8,084	3,240	4,844	1,088,490	2,861,488	45,471,699	45,155,481	316,118	53,142,114	7,670,515
	1919	24	353	1,712	4,746	3,235	1,511	661,831	2,277,400	49,774,348	49,581,110	93,220	59,584,740	9,810,392
Minnesota	1929	16	1,274	6,036	29,355	10,205	13,150	2,423,375	9,058,252	174,267,531	173,040,261	1,227,250	201,155,942	29,888,411
	1927	12	1,323	6,159	28,298	17,912	10,386	2,540,872	8,202,955	152,805,361	152,209,150	680,202	173,785,796	29,890,435
	1919	13	1,394	5,231	11,223	6,548	4,075	2,126,666	6,448,530	128,505,977	127,856,193	619,784	146,361,046	17,855,069

See footnotes at end of table.

MEAT PACKING

TABLE 2.—GENERAL STATISTICS, BY STATES: 1929, 1927, AND 1919—Continued

[See note at head of this table]

STATE	Census year	Number of establishments	Salaried officers and employees <sup>1</sup>	Wage earners (average for the year)	HORSEPOWER (RATED CAPACITY) OF POWER EQUIPMENT			Salaries	Wages	COST OF MATERIALS, CONTAINERS FOR PRODUCTS, FUEL, AND PURCHASED ELECTRIC ENERGY			Value of products <sup>2</sup>	Value added by manufacture <sup>3</sup>
					Total	Prime movers	Motors run by purchased energy			Total	Materials and containers	Fuel and purchased energy		
Individual States—Continued.														
Missouri	1929	49	1,242	5,614	34,400	21,159	13,241	\$3,005,575	\$7,504,512	\$58,854,572	\$67,807,567	\$67,005,005	\$180,400,514	\$22,084,972
	1927	45	1,321	5,005	31,132	21,828	14,828	3,040,813	7,140,378	151,475,970	160,298,510	1,217,400	168,359,550	16,884,560
	1919	40	1,063	8,290	10,066	17,207	2,060	3,205,120	10,377,515	228,000,370	220,404,731	1,514,042	216,610,195	18,000,810
Montana	1929	10	50	247	977	20	957	100,230	401,000	5,440,700	5,303,400	47,304	7,020,750	1,585,000
	1927	17	46	241	923	50	813	108,124	329,834	4,405,003	4,358,533	47,300	5,322,417	1,000,250
	1919	12	92	210	1,714	345	1,360	103,110	273,055	5,824,144	5,774,600	49,554	6,829,703	1,044,520
Nebraska	1929	15	1,138	6,037	32,082	12,004	20,078	2,232,208	7,857,173	180,001,272	188,700,081	1,200,580	208,101,805	22,001,503
	1927	14	1,080	5,940	29,431	14,571	14,800	2,140,233	8,021,000	161,672,555	162,023,762	1,048,704	184,227,414	10,208,800
	1919	10	2,857	10,122	20,367	12,807	7,500	3,512,514	13,914,188	271,461,814	260,804,045	1,300,800	367,818,003	32,387,500
New Jersey	1929	34	580	2,817	11,110	6,480	4,630	1,432,005	4,005,828	75,042,240	75,458,571	483,048	88,945,411	12,301,192
	1927	35	561	2,673	11,044	7,050	3,904	1,380,050	4,200,444	68,204,112	67,632,453	671,050	77,537,055	9,432,003
	1919	46	911	3,560	9,500	8,072	1,488	1,465,851	4,647,400	100,404,261	99,802,500	601,095	110,224,328	9,817,007
New York	1929	122	1,758	7,278	24,730	10,100	14,633	4,507,011	11,822,718	207,048,005	200,242,665	1,370,300	247,425,054	30,880,000
	1927	117	2,034	7,443	28,209	11,568	16,741	5,124,410	13,300,004	200,385,603	201,080,618	1,401,945	244,450,680	32,705,087
	1919	130	2,020	6,040	18,700	11,898	6,011	3,831,720	8,908,272	230,048,514	228,842,205	1,200,210	250,408,304	28,000,570
Ohio	1929	120	1,370	5,825	24,434	12,006	11,438	3,550,541	8,265,090	130,042,100	130,114,492	827,008	163,155,787	23,210,687
	1927	120	1,194	4,995	23,000	12,084	11,012	2,008,774	7,577,850	110,312,285	118,456,531	355,751	137,081,128	17,700,000
	1919	141	1,135	5,330	10,020	11,707	8,210	2,211,830	6,050,371	150,608,430	140,650,070	941,760	170,847,802	19,700,450
Oregon	1929	20	197	646	4,078	540	4,120	470,100	933,045	15,695,201	15,445,373	140,828	18,745,444	3,150,242
	1927	17	158	658	3,373	728	2,045	368,058	612,224	12,877,329	12,760,368	110,071	15,310,560	2,430,247
	1919	21	263	772	3,048	535	2,513	420,263	657,074	13,749,333	13,625,001	124,320	15,868,100	2,118,830
Pennsylvania	1929	132	1,120	5,232	10,340	9,305	9,075	3,223,205	8,883,080	110,743,117	100,057,080	785,428	132,783,110	22,000,000
	1927	162	1,370	5,443	21,063	13,505	8,458	3,713,036	8,170,002	100,003,721	108,752,401	1,401,350	131,450,680	21,800,700
	1919	170	1,140	4,438	16,325	12,593	2,732	2,488,220	6,340,125	107,281,010	106,608,357	772,050	122,863,240	15,511,774
Rhode Island	1929	7	33	102	411	---	411	85,575	350,521	3,453,000	3,430,100	23,500	4,102,320	730,000
	1927	6	53	185	382	---	382	107,400	240,350	4,116,010	4,090,700	20,210	4,775,040	630,000
	1919	22	41	204	555	121	434	40,040	250,800	6,007,057	6,038,034	10,023	6,907,195	830,248
South Dakota	1929	4	200	1,700	7,405	2,182	5,313	404,814	2,035,298	47,577,441	47,204,412	313,032	53,173,330	8,505,805
Tennessee	1929	18	100	607	3,550	2,016	1,543	402,335	823,334	14,140,084	14,018,003	122,021	16,823,103	2,730,200
	1927	13	153	728	3,283	1,700	1,577	308,450	800,530	12,512,020	12,300,070	110,850	14,612,420	2,000,500
	1919	16	82	331	837	545	292	142,370	270,000	4,905,401	4,800,085	68,710	5,705,845	740,444
Texas	1929	41	805	3,650	23,208	8,240	14,050	1,851,717	4,131,724	70,342,200	70,550,450	685,744	88,223,001	12,001,791
	1927	24	791	3,670	21,030	6,448	12,491	1,503,712	4,167,054	72,300,007	71,043,625	722,442	84,785,133	12,210,000
	1919	10	1,484	5,072	14,055	9,057	4,398	2,350,009	6,767,314	106,751,017	105,874,192	877,425	125,130,873	18,140,756
Utah	1929	0	77	272	2,780	775	2,014	173,001	380,081	7,531,531	7,475,005	50,520	8,036,040	1,401,400
	1927	0	50	272	2,730	775	1,901	105,160	372,591	6,288,182	6,210,188	63,004	7,071,743	785,504
	1919	11	140	446	1,104	25	1,070	231,867	470,341	10,032,063	9,081,862	50,201	11,124,341	1,092,278
Virginia	1929	20	73	548	2,237	685	1,552	197,527	500,540	8,110,070	8,051,630	65,040	9,641,180	1,524,504
	1927	26	58	559	1,005	85	1,010	158,493	552,307	8,080,501	8,000,247	80,314	9,343,104	1,140,534
	1919	25	108	602	3,073	2,170	903	153,513	455,701	6,227,507	6,130,374	88,103	7,580,320	1,004,733
Washington	1929	34	331	1,283	5,203	308	4,805	788,708	1,750,187	30,543,401	29,338,427	204,074	34,412,037	4,800,500
	1927	30	308	1,377	6,318	627	4,691	811,078	1,844,207	28,121,805	27,010,400	211,456	32,840,654	4,691,780
	1919	29	250	1,222	3,821	830	2,001	425,424	1,526,762	20,124,462	20,072,511	151,011	24,058,504	5,204,152
Wisconsin	1929	22	600	2,803	8,538	3,131	5,407	1,502,364	4,121,345	80,034,003	80,421,000	513,027	93,312,000	12,377,016
	1927	19	489	2,630	10,005	5,182	6,483	1,232,032	3,014,409	70,120,536	69,645,205	485,331	75,700,012	5,073,356
	1919	21	805	3,218	7,712	6,330	1,373	1,238,404	3,705,908	89,003,030	89,401,380	502,550	102,182,171	12,228,252
Wyoming	1929	4	13	52	303	100	197	55,403	83,916	965,050	954,077	10,370	1,227,100	312,110
Groups of States:														
Conn., 4 est.; N. H., 2; Vt., 1	1929	7	113	305	302	225	77	160,140	545,000	6,100,660	6,052,015	57,645	7,181,010	1,072,250
Del., 7 est.; W. Va., 7	1929	14	107	602	1,800	1,054	806	200,002	807,045	13,833,358	13,763,150	70,100	16,448,500	2,015,200
Miss., 3 est.; N. Mex., 1; Nev., 5	1929	9	23	74	570	100	470	58,858	117,020	1,881,244	1,850,422	21,822	2,315,878	481,611
N. C., 5 est.; S. C., 4	1929	9	26	156	1,012	45	907	92,693	163,628	2,103,232	2,132,001	30,331	2,728,178	501,000
N. Dak., 2 est.; Okla., 13	1929	15	575	1,857	8,034	7,328	706	1,146,052	2,317,081	43,302,650	43,042,675	310,975	52,622,308	9,150,708
States not shown separately	1927	70	1,213	5,117	18,550	10,915	7,635	2,312,541	6,008,012	108,330,700	107,220,862	1,100,898	125,013,542	17,573,782
	1919	57	895	4,691	13,043	11,317	2,626	1,958,400	5,710,003	102,377,870	101,452,344	925,526	112,480,872	10,070,002

<sup>1</sup> Not including proprietors and firm members. The total numbers of persons engaged and the numbers of proprietors and firm members, as reported for this industry, are as follows: For 1929, total, 140,717; proprietors and firm members, 863. For 1927, total, 144,224; proprietors and firm members, 885. For 1919, total, 167,302; proprietors and firm members, 1,071.

<sup>2</sup> The figures for all census years refer to production, not sales. See GENERAL EXPLANATIONS—Value of Products.

<sup>3</sup> Value of products less cost of materials, containers for products, fuel, and purchased electric energy. See GENERAL EXPLANATIONS—Value Added by Manufacture.

<sup>4</sup> Data for purchased power other than electric (power transmitted into the plant by belt or shaft) are included in the State items for 1919 but not in the United States totals.

<sup>5</sup> Statistics can not be given without disclosing data for individual establishments.

<sup>6</sup> Arkansas, 2 establishments; Connecticut, 4; Delaware, 0; Georgia, 8; Mississippi, 3; Nevada, 3; New Hampshire, 2; New Mexico, 1; North Carolina, 7; North Dakota, 2; Oklahoma, 5; South Carolina, 4; South Dakota, 5; West Virginia, 0; Wyoming, 4.

<sup>7</sup> Connecticut, 5 establishments; Delaware, 15; Mississippi, 1; Nevada, 4; North Carolina, 4; North Dakota, 1; Oklahoma, 5; South Carolina, 4; South Dakota, 4; Vermont, 2; West Virginia, 10; Wyoming, 2.



## CENSUS OF MANUFACTURES: 1929

TABLE 3.—PRODUCTS, BY KIND, QUANTITY, AND VALUE, FOR THE UNITED STATES: 1923 TO 1929

[The figures for all census years refer to production, not sales. See GENERAL EXPLANATIONS—Value of Products]

KIND	1929	1927	1925	1923
Aggregate value <sup>1</sup> .....	\$3,434,654,098	\$3,057,215,718	\$3,050,286,201	\$2,585,804,140
Fresh meat:				
Total value.....	\$1,780,842,559	\$1,564,232,313	\$1,443,038,739	\$1,201,140,882
Beef—				
Pounds.....	4,575,491,900	5,069,610,297	5,064,507,621	4,834,720,580
Value.....	\$859,802,873	\$762,014,133	\$661,103,013	\$607,468,503
Veal—				
Pounds.....	511,102,745	540,684,678	575,902,620	498,907,810
Value.....	\$107,190,896	\$98,480,512	\$87,188,927	\$71,081,481
Mutton and lamb—				
Pounds.....	601,718,832	547,473,380	521,993,006	519,903,661
Value.....	\$145,416,001	\$130,282,541	\$128,212,547	\$113,741,915
Pork—				
Pounds.....	3,571,276,745	3,110,253,120	2,827,020,362	3,265,684,201
Value.....	\$603,537,342	\$517,862,935	\$516,408,750	\$429,104,562
Edible organs, tripe, etc.—				
Pounds.....	568,686,957	509,307,286	487,205,159	517,810,276
Value.....	\$63,020,655	\$47,880,960	\$44,105,387	\$30,144,301
Other fresh meat—				
Pounds.....	16,382,573	59,193,916	53,085,806	( )
Value.....	\$1,859,792	\$7,102,182	\$6,800,115	( )
Cured meat:				
Total value.....	\$748,418,110	\$674,752,087	\$769,714,607	\$624,087,908
Beef, pickled and other cured—				
Pounds.....	71,593,184	102,738,345	94,190,641	75,054,200
Value.....	\$21,748,085	\$22,905,385	\$17,011,103	\$15,503,020
Pork, pickled and dry-cured, smoked—				
Pounds.....	1,295,187,024	1,221,117,072	<sup>2</sup> 1,236,004,732	<sup>2</sup> 1,258,003,037
Value.....	\$302,925,443	\$201,426,090	<sup>2</sup> \$336,121,817	<sup>2</sup> \$255,104,505
Pork, dry-salted, smoked—				
Pounds.....	101,778,955	20,642,253	( )	( )
Value.....	\$231,241,113	\$1,013,054,049	2,059,932,717	2,642,031,796
Pork, pickled and dry-cured, not smoked—				
Pounds.....	800,147,550	\$311,300,294	\$415,681,687	\$353,900,323
Value.....	\$113,887,890	( )	( )	( )
Cooked hams—				
Pounds.....	<sup>3</sup> 152,188,017	<sup>3</sup> 133,525,070	( )	( )
Value.....	<sup>3</sup> \$57,972,432	<sup>3</sup> \$40,120,313	( )	( )
Canned meat:				
Pounds.....	149,582,361	144,198,130	118,576,431	<sup>4</sup> 95,133,635
Value.....	\$38,114,158	\$27,823,077	\$24,334,005	<sup>4</sup> \$19,703,137
Canned sausage:				
Pounds.....	19,551,009	118,035,732	903,752,718	808,722,352
Value.....	\$4,404,404	\$180,789,924	\$178,074,806	\$139,054,311
Sausage (not canned), meat puddings, headcheese, scrapple, etc.: <sup>5</sup>				
Pounds.....	928,573,434	018,035,732	903,752,718	808,722,352
Value.....	\$201,023,004	\$180,789,924	\$178,074,806	\$139,054,311
Sausage casings: <sup>6</sup>				
Total value.....	\$21,847,525	\$22,335,917	\$18,608,150	\$13,747,000
Beef casings—				
Pounds.....	42,878,150	114,049,408	91,525,107	96,274,168
Value.....	\$8,007,081	\$22,335,917	\$18,608,150	\$13,747,000
Sheep and lamb—				
Pounds.....	25,271,420	( )	( )	( )
Value.....	\$5,124,636	( )	( )	( )
Hog—				
Pounds.....	48,212,414	( )	( )	( )
Value.....	\$8,053,809	( )	( )	( )
Lard:				
Pounds.....	2,041,210,887	1,704,635,025	1,672,334,129	2,131,003,455
Value.....	\$248,007,033	\$234,863,633	\$270,624,570	\$203,887,257
Oleo oil and stock:				
Pounds.....	113,230,036	120,963,340	147,827,785	170,186,517
Value.....	\$12,403,313	\$14,874,994	\$18,200,402	\$10,637,745
Stearin (oleo and other):				
Pounds.....	38,542,096	44,212,399	54,133,051	34,922,022
Value.....	\$3,819,386	\$4,155,572	\$6,387,927	\$3,420,403
Fertilizer materials:				
Tons.....	134,850	175,845	181,047	( )
Value.....	\$0,230,004	\$7,767,841	\$0,895,735	( )

<sup>1</sup> These aggregates are the sums of all items in the columns beneath except those which are underscored.<sup>2</sup> Includes data for a small amount of "Cooked hams." (See footnote 4.)<sup>3</sup> In addition, cooked hams produced in other industries were reported for 1929 to the amount of 13,124,067 pounds, valued at \$4,769,102. No corresponding figures for 1927.<sup>4</sup> Not reported separately. Data included in part in figure for "Pork, smoked" and in part in that for "Miscellaneous products."<sup>5</sup> Data for a small amount of canned goods other than meat and sausage included to avoid disclosing the output of individual establishments.<sup>6</sup> Production by meat-packing establishments only. For total production of sausage and sausage casings so far as reported separately to the Bureau of the Census, and the classes of establishments in which produced, see Table 4.<sup>7</sup> No data.

# MEAT PACKING

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TABLE 3.—PRODUCTS, BY KIND, QUANTITY, AND VALUE, FOR THE UNITED STATES: 1923 TO 1929—Con.

[See note at head of this table]

KIND	1926	1927	1928	1929
Hides, skins, and pelts (not including sheep and lamb slats or pickled sheep and lamb skins): <sup>1</sup>				
Total value.....	\$109,022,804	\$126,065,027	\$114,520,261	\$91,226,683
Cattle hides, cured—				
Number.....	7,430,908			
Pounds.....	399,682,332			
Value.....	\$62,707,050	10,940,890	11,052,863	10,350,338
Cattle hides, uncured—				
Number.....	2,401,488	016,714,165	621,380,780	579,544,304
Pounds.....	133,513,512	\$90,217,530	\$80,797,328	\$66,066,635
Value.....	\$17,206,701			
Calfskins, cured—				
Number.....	2,707,414			
Pounds.....	36,638,823			
Value.....	\$7,006,821	4,204,730	4,304,427	3,753,361
Calfskins, uncured—				
Number.....	1,282,882	53,580,824	60,092,473	47,005,334
Pounds.....	14,934,822	\$11,156,730	\$11,069,114	\$7,269,109
Value.....	\$2,682,050			
Sheep and lamb pelts, cured—				
Number.....	7,522,070			
Value.....	\$13,003,600	8,900,953	10,832,040	10,895,410
Sheep and lamb pelts, uncured—				
Number.....	2,035,450	\$15,963,083	\$22,562,770	\$17,898,449
Value.....	\$4,714,100			
Other hides and skins, cured and uncured—				
Number.....	346,382	215,602	(9)	(9)
Pounds.....	5,861,097	3,241,876	1,053,926	536,576
Value.....	\$442,016	\$324,060	\$101,040	\$52,430
Sheep and lamb slats:				
Number.....	3,838,094	2,043,951	(10)	(10)
Pounds.....	11,094,120	6,868,497	(10)	(10)
Value.....	\$2,554,771	\$1,771,794	(10)	(10)
Pickled sheep and lamb skins:				
Number.....	5,048,450	6,527,820	(10)	(10)
Pounds.....	13,156,092	16,062,270	(10)	(10)
Value.....	\$4,000,007	\$4,267,078	(10)	(10)
Wool: <sup>11</sup>				
Pounds.....	35,000,025	30,439,806	32,235,482	30,946,024
Value.....	\$10,874,410	\$18,478,449	\$23,428,648	\$19,097,117
Hair, hog and other:				
Pounds.....	25,946,634	29,677,663	27,278,442	26,420,386
Value.....	\$1,154,232	\$2,721,860	\$2,111,079	\$1,800,044
Miscellaneous products, value <sup>12</sup> .....	\$230,540,090	\$169,130,855	\$161,803,594	\$134,501,404
Amount received for custom and contract work.....	\$1,784,086	\$2,683,797	\$2,517,618	

<sup>1</sup> See "Hides, skins, sheep and lamb slats, and pelts," p. 172.

<sup>9</sup> Not called for on schedule.

<sup>10</sup> Number and weight not called for on the schedule. Value included in that of "Miscellaneous products."

<sup>11</sup> The figures refer solely to wool detached from sheepskins in meat-packing establishments. Total value of products of establishments engaged primarily in pulling wool amounted in 1920 to \$13,648,064 and in 1927 to \$14,640,401. No data for prior years.

<sup>12</sup> See "Miscellaneous products," p. 172.

TABLE 4.—PRODUCTS OF BOTH MEAT-PACKING AND OTHER INDUSTRIES, BY VALUE: 1929

PRODUCT	Total value	PRODUCTS OF ESTABLISHMENTS—			PRODUCT	Total value	PRODUCTS OF ESTABLISHMENTS—		
		Engaged primarily in manufacturing products specified	In meat-packing industry	In other industries			Engaged primarily in manufacturing products specified	In meat-packing industry	In other industries
Sausage, meat puddings, head-cheese, scrapple, etc.....	\$290,479,400	\$87,707,443	\$201,623,004	\$1,149,019	(Grease (including soap stock) and tallow.....	\$97,872,446	\$32,018,525	\$31,812,176	\$3,441,745
Sausage casings.....	32,616,034	10,373,441	21,847,525	305,068	Glue.....	21,138,673	19,784,574	2,444,150	1,909,049
Oleomargarine.....	60,415,400	35,517,810	16,521,785	8,375,850	Fertilizers.....	222,731,118	201,751,371	3,474,484	17,505,261
Shortenings (not including lard and vegetable cooking oils).....	147,651,407	98,340,592	46,938,020	2,372,795	Soap.....	288,756,875	274,839,304	1,500,086	10,417,485

<sup>1</sup> Does not include value of canned sausage.

CENSUS OF MANUFACTURES: 1929

TABLE 5.—PRINCIPAL PRODUCTS, BY KIND, QUANTITY, AND VALUE, BY STATES: 1929 AND 1927

[Figures are given for each State for which it is possible to present separate statistics without disclosing data for individual establishments, and for the remaining States in groups. It follows, therefore, that separate figures are given for certain States which reported considerably smaller quantities and values of specified products than some of the States which can not be shown separately.]

KIND AND STATE	1929		1927		KIND AND STATE	1929		1927	
	Pounds	Value	Pounds	Value		Pounds	Value	Pounds	Value
<b>BEEF, FRESH</b>					<b>MUTTON AND LAMB, FRESH</b>				
United States.....	4,575,491,080	\$859,802,873	5,060,610,297	\$762,614,133	United States.....	601,718,832	\$145,416,001	547,473,380	\$130,282,541
<b>Individual States:</b>					<b>Individual States:</b>				
Alabama.....	7,421,071	1,118,693	13,210,641	1,488,050	California.....	58,569,460	14,034,869	58,228,050	13,478,330
Arizona.....	12,510,382	2,302,468	13,123,610	1,592,159	Colorado.....	8,978,126	1,955,944	8,597,342	1,886,807
Arkansas.....	1,375,135	268,457	(1)	(1)	Idaho.....	235,091	42,727	208,753	47,145
California.....	293,551,791	52,307,589	307,285,411	44,101,209	Illinois.....	118,028,784	28,270,891	121,064,018	28,755,075
Colorado.....	61,330,220	10,666,207	59,069,660	8,201,374	Indiana.....	3,520,666	861,798	2,709,651	608,234
Florida.....	4,431,996	585,072	6,308,878	632,506	Iowa.....	25,080,650	5,838,220	14,521,998	3,343,363
Georgia.....	11,439,057	1,841,993	(1)	(1)	Kansas.....	55,844,387	13,189,475	46,943,671	10,688,012
Idaho.....	3,037,652	481,144	5,191,518	680,800	Kentucky.....	769,738	169,659	537,968	111,966
Illinois.....	1,054,959,113	195,197,050	1,192,085,214	178,070,721	Maine.....	23,840	5,148	51,053	9,620
Indiana.....	125,123,448	23,607,224	133,849,785	20,881,419	Maryland.....	2,953,427	769,157	2,428,159	619,267
Iowa.....	285,735,850	64,010,856	266,204,034	38,470,035	Michigan.....	10,617,977	2,304,918	9,283,734	2,050,596
Kansas.....	440,130,873	83,080,921	573,463,940	85,777,430	Minnesota.....	23,633,835	5,296,479	(1)	(1)
Kentucky.....	23,020,369	3,996,192	20,059,834	3,710,269	Missouri.....	50,649,040	12,121,893	44,377,218	10,439,382
Maine.....	1,313,000	230,981	1,299,877	156,507	Montana.....	645,894	113,161	471,589	80,954
Maryland.....	47,662,542	9,634,168	44,952,815	7,756,660	Nebraska.....	68,685,552	16,365,683	50,440,607	13,902,873
Massachusetts.....	38,889,324	6,931,027	37,282,713	6,446,571	New Jersey.....	20,185,872	2,304,918	17,003,417	1,515,653
Michigan.....	42,688,771	11,078,560	70,060,378	10,089,724	New York.....	88,876,143	24,129,269	83,893,613	22,542,527
Minnesota.....	223,651,791	36,367,151	211,422,738	27,441,176	Ohio.....	10,009,192	2,301,746	9,388,621	2,210,941
Missouri.....	260,118,670	49,442,692	300,906,112	45,392,705	Oregon.....	3,187,463	673,383	3,312,599	679,065
Montana.....	10,042,331	1,806,690	11,830,669	1,711,901	Pennsylvania.....	12,805,659	3,379,267	12,778,843	3,224,274
Nebraska.....	443,293,554	84,822,010	476,937,063	70,194,284	Tennessee.....	499,590	98,250	361,622	71,030
New Jersey.....	64,592,210	15,044,330	65,137,482	12,700,529	Texas.....	12,269,175	2,271,605	9,121,440	1,701,440
New York.....	312,833,546	70,930,272	346,774,752	66,060,456	Utah.....	2,193,990	462,476	1,897,511	403,200
Ohio.....	162,012,169	31,594,195	170,160,047	27,046,376	Virginia.....	102,877	22,445	88,528	28,620
Oregon.....	32,651,114	5,378,340	31,466,000	3,509,423	Washington.....	6,886,268	1,458,648	7,840,662	1,564,393
Pennsylvania.....	121,251,513	24,516,886	147,584,168	25,890,422	Wisconsin.....	3,344,560	730,203	2,719,840	653,887
Tennessee.....	17,755,174	2,647,885	17,364,654	2,385,400	<b>Groups of States:</b>				
Texas.....	126,597,303	20,814,527	168,426,358	20,765,401	Ala., Fla., Miss.....	24,258	5,823	-----	-----
Utah.....	10,100,218	3,329,351	19,077,310	2,662,135	Ariz., Nev.....	871,600	216,724	-----	-----
Virginia.....	3,148,935	524,850	4,886,867	693,203	Del., D. C.....	370,167	106,643	-----	-----
Washington.....	59,000,976	10,954,335	76,839,623	10,728,050	Ga., N. C., S. C.....	117,694	20,164	-----	-----
Wisconsin.....	76,683,842	13,078,650	81,094,476	10,822,326	N. Dak., Okla., S. Dak., Wyo.....	3,682,705	830,233	-----	-----
<b>Groups of States:</b>					<b>Other States (Mass., N. H., R. I., Vt., W. Va.).....</b>				
Conn., N. H., R. I., Vt.....	6,166,910	1,069,867	-----	-----	-----	2,071,900	-----	-----	-----
Del., D. C.....	7,597,527	1,493,006	-----	-----	<b>States not shown separately.....</b>				
N. C., S. C., W. Va.....	12,336,525	2,204,437	-----	-----	-----	-----	30,607,946	6,656,737	-----
N. Dak., S. Dak., Wyo.....	71,185,349	13,070,586	-----	-----	<b>PORK, FRESH</b>				
Other States (La., Miss., Nev., Okla.).....	68,537,331	11,409,413	-----	-----	<b>United States.....</b>				
<b>States not shown separately.....</b>					-----	-----	-----	-----	-----
-----	-----	-----	183,703,590	25,236,413	-----	3,571,276,745	693,537,342	3,110,253,120	517,862,085
<b>VEAL, FRESH</b>					<b>Individual States:</b>				
United States.....	511,102,745	107,196,896	549,684,678	98,489,512	Alabama.....	8,273,008	1,491,984	6,997,530	1,170,910
<b>Individual States:</b>					Arizona.....	4,170,364	823,721	2,771,028	570,504
Alabama.....	554,395	93,952	410,073	58,601	California.....	120,559,603	21,230,604	83,830,636	15,346,327
Arizona.....	868,521	170,072	1,548,134	232,451	Colorado.....	30,474,167	5,071,999	26,521,436	4,276,695
Arkansas.....	602,540	117,293	(1)	(1)	Florida.....	3,417,150	514,604	1,531,993	357,893
California.....	19,887,495	4,054,441	25,048,364	4,394,767	Idaho.....	2,292,968	396,116	2,250,604	362,493
Colorado.....	3,011,274	1,758,259	4,201,732	657,571	Illinois.....	662,021,043	106,877,660	492,589,845	77,615,527
District of Columbia.....	2,150,111	503,675	(1)	(1)	Indiana.....	113,215,460	19,405,926	111,548,529	18,740,115
Idaho.....	392,380	94,200	730,457	108,162	Iowa.....	338,884,093	52,492,635	323,317,282	49,997,043
Illinois.....	65,076,125	13,381,981	62,775,190	11,229,681	Kansas.....	249,035,634	40,160,140	189,993,743	30,146,862
Indiana.....	10,403,062	2,184,442	8,605,026	1,603,368	Kentucky.....	22,205,422	4,003,726	31,177,162	6,063,430
Iowa.....	8,736,380	1,753,875	11,619,902	1,816,303	Maine.....	3,125,356	660,297	4,205,545	728,772
Kansas.....	29,008,014	5,324,287	40,455,767	6,148,429	Maryland.....	34,254,504	6,840,603	35,465,691	7,103,572
Kentucky.....	3,211,966	626,781	2,882,798	561,595	Massachusetts.....	40,773,466	9,926,955	41,276,828	8,492,682
Maine.....	153,165	20,209	301,323	57,332	Michigan.....	100,430,050	20,361,132	81,921,286	15,150,017
Maryland.....	5,610,912	1,352,382	4,738,713	1,088,099	Minnesota.....	324,277,897	50,134,654	287,126,424	44,927,600
Massachusetts.....	5,442,135	1,141,968	7,200,654	1,407,870	Missouri.....	225,700,048	36,690,078	198,496,105	31,151,911
Michigan.....	14,051,944	3,239,015	14,470,675	3,038,232	Montana.....	6,065,230	949,617	4,978,183	695,678
Minnesota.....	61,823,327	13,117,576	64,471,513	10,603,534	Nebraska.....	157,894,972	26,466,632	138,730,091	22,480,843
Missouri.....	21,378,182	4,236,751	18,272,482	3,076,372	New Jersey.....	167,846,681	19,860,639	110,320,053	19,356,124
Montana.....	678,566	122,435	880,324	126,867	New York.....	141,751,001	27,682,221	151,667,152	28,351,124
Nebraska.....	11,389,252	2,145,026	12,867,351	1,904,351	Ohio.....	223,582,273	41,290,403	195,771,337	34,077,877
New Jersey.....	10,233,789	2,550,526	11,350,638	2,720,055	Oregon.....	15,089,905	2,682,707	10,675,310	1,701,037
New York.....	64,273,659	16,377,357	71,954,153	16,783,311	Pennsylvania.....	186,015,389	27,379,652	124,512,588	25,605,970
Ohio.....	23,872,598	5,544,233	24,724,374	5,076,755	South Dakota.....	102,752,659	16,762,612	(1)	(1)
Oregon.....	1,412,438	249,372	1,817,064	278,771	Tennessee.....	26,783,981	4,661,185	27,377,054	3,903,285
Pennsylvania.....	19,144,562	4,865,007	22,807,602	5,260,972	Texas.....	30,601,920	6,648,054	30,768,117	5,276,378
Tennessee.....	3,627,568	551,801	2,842,147	414,212	Utah.....	6,193,457	990,295	4,542,538	731,948
Texas.....	97,663,325	9,832,970	64,278,497	8,607,469	Virginia.....	9,588,075	1,770,345	9,046,200	1,860,704
Utah.....	1,119,909	220,644	549,457	95,316	Washington.....	40,473,194	7,425,517	28,014,875	5,064,970
Virginia.....	651,416	128,531	790,990	140,568	Wisconsin.....	125,140,574	21,233,434	118,110,517	19,411,403
Washington.....	2,193,124	426,357	3,073,352	604,790	<b>Groups of States:</b>				
Wisconsin.....	30,020,295	7,361,734	30,597,588	6,777,275	Ark., La., Miss.....	3,370,589	615,463	-----	-----
<b>Groups of States:</b>					Conn., R. I., Vt.....	12,307,624	2,404,312	-----	-----
Conn., N. H., R. I., Vt.....	1,253,813	237,704	-----	-----	Del., D. C., W. Va.....	27,061,840	4,078,181	-----	-----
Del., N. C., S. C., W. Va.....	3,627,568	309,034	-----	-----	Ga., N. C., S. C.....	24,533,727	4,324,447	-----	-----
N. Dak., S. Dak., Wyo.....	1,090,662	309,034	-----	-----	Nev., N. Dak., Okla., Wyo.....	67,234,650	10,022,046	-----	-----
Other States (Fla., Ga., Miss., Nev., Okla.).....	17,979,980	3,262,153	-----	-----	<b>States not shown separately.....</b>				
<b>States not shown separately.....</b>					-----	-----	-----	-----	-----
-----	-----	-----	24,305,423	3,643,327	<b>States not shown separately.....</b>				
-----	-----	-----	-----	-----	-----	-----	234,630,422	38,260,045	-----

1 Included in figure for "States not shown separately."

# MEAT PACKING

TABLE 5.—PRINCIPAL PRODUCTS, BY KIND, QUANTITY, AND VALUE, BY STATES: 1929 AND 1927—Continued

[See note at head of this table]

KIND AND STATE	1929		1927		KIND AND STATE	1929		1927	
	Pounds	Value	Pounds	Value		Pounds	Value	Pounds	Value
<b>PORK, CURED</b>					<b>SAUSAGE, ETC.—continued</b>				
United States.....	3,528,180,534	\$668,000,690	3,134,172,021	\$602,720,384	Individual States—Contd.				
Individual States:					Georgia.....	8,020,835	\$1,364,300	4,000,000	\$702,080
Arkansas.....	1,534,283	321,040	(1)	(1)	Idaho.....	1,010,040	177,081	652,450	148,511
California.....	52,865,088	13,238,008	40,104,267	13,144,112	Illinois.....	153,861,033	36,093,190	107,300,704	33,370,587
Colorado.....	33,050,004	7,232,122	30,633,652	6,130,487	Indiana.....	28,458,947	5,601,817	24,490,558	4,315,533
Idaho.....	1,410,441	284,371	1,212,886	280,002	Iowa.....	41,740,640	8,408,022	32,048,811	5,692,117
Illinois.....	860,525,873	153,397,888	708,685,043	127,775,706	Kansas.....	47,600,734	9,112,232	42,731,634	7,050,836
Indiana.....	124,300,994	24,176,713	123,700,440	24,400,804	Kentucky.....	10,683,338	2,057,100	12,367,033	2,065,246
Iowa.....	360,870,485	65,000,500	344,715,322	63,184,737	Louisiana.....	2,710,320	484,000	2,807,497	523,279
Kansas.....	337,108,011	69,310,305	260,623,126	48,749,054	Maine.....	1,437,930	254,226	1,114,104	232,747
Kentucky.....	27,002,811	5,021,800	17,057,827	3,623,807	Maryland.....	23,020,042	4,002,050	10,894,024	3,201,555
Maryland.....	45,456,861	9,700,951	32,084,605	6,828,093	Massachusetts.....	35,000,314	6,081,300	34,648,346	7,562,300
Massachusetts.....	110,410,367	21,832,543	92,883,864	18,148,738	Michigan.....	20,210,801	4,314,540	17,140,433	3,158,206
Michigan.....	57,407,042	11,102,900	40,630,330	8,804,144	Minnesota.....	41,008,252	8,265,401	30,750,705	6,032,006
Minnesota.....	236,302,700	40,770,983	228,604,824	41,062,830	Montana.....	37,020,292	7,100,140	30,044,630	7,637,000
Missouri.....	180,051,718	34,082,548	203,271,782	36,605,424	Nebraska.....	37,186,230	432,558	2,228,203	360,071
Montana.....	8,863,612	1,300,531	(1)	(1)	Nevada.....	33,156,107	7,708,698	35,321,784	7,137,702
Nebraska.....	187,180,152	31,739,531	182,788,002	30,317,017	New Jersey.....	30,728,034	7,290,008	25,947,057	5,000,374
New Jersey.....	38,034,545	8,482,821	38,204,431	8,007,248	New York.....	72,003,293	18,100,735	90,554,101	21,022,300
New York.....	120,008,985	20,024,084	133,073,004	31,047,165	Ohio.....	75,070,740	16,450,865	63,357,305	11,481,602
Ohio.....	172,097,880	34,550,240	147,337,057	29,150,105	Oregon.....	4,330,005	801,804	4,265,718	700,417
Oregon.....	13,403,071	3,530,678	14,428,241	3,593,415	Pennsylvania.....	100,050,737	23,708,084	108,755,928	23,093,004
Pennsylvania.....	97,010,002	23,004,552	80,388,850	21,561,035	Rhode Island.....	634,518	155,650	(1)	(1)
Tennessee.....	13,913,020	2,934,853	13,640,788	3,020,533	Tennessee.....	6,983,039	1,281,075	8,080,202	1,388,212
Texas.....	60,876,002	12,141,105	50,373,670	11,605,302	Texas.....	24,003,854	4,548,283	23,301,471	4,030,812
Virginia.....	18,705,360	3,703,800	10,006,414	3,680,448	Virginia.....	7,447,384	1,210,658	8,008,411	1,099,436
Washington.....	23,905,000	5,006,940	27,000,071	6,104,708	Washington.....	10,444,203	2,008,658	10,038,703	1,028,459
Wisconsin.....	143,007,542	26,033,557	101,051,837	19,802,525	Wisconsin.....	17,300,400	3,880,050	13,011,012	3,068,052
Groups of States:					States not shown separately.....				
Ala., La., Miss.....	0,040,071	1,805,125	-----	-----	LARD				
Ariz., Nev., Utah, Wyo.....	10,841,320	2,466,760	-----	-----	United States.....				
Conn., Me., N. H., R. I., D. C., W. Va.....	18,708,075	4,128,858	-----	-----	2,011,210,887	248,007,033	1,704,635,025	234,803,033	
Fla., Ga., N. C., S. C.....	34,103,606	6,817,390	-----	-----	Individual States:				
N. Dak., Okla., S. Dak.....	14,920,010	2,717,500	-----	-----	Alabama.....	2,234,743	302,212	2,018,050	417,071
States not shown separately.....	100,510,225	18,808,494	-----	-----	California.....	20,148,363	3,641,014	20,138,402	2,908,806
<b>COOKED HAMS<sup>1</sup></b>					Colorado.....	21,493,301	2,948,001	20,548,433	2,804,932
United States.....	152,188,017	57,072,432	133,525,070	49,120,318	District of Columbia.....	2,073,588	360,511	(1)	(1)
Individual States:					Illinois.....	682,327	72,422	470,310	70,600
California.....	5,823,205	2,234,423	5,502,095	2,414,883	Indiana.....	402,163,265	60,701,023	433,035,250	57,444,300
Colorado.....	1,075,080	703,304	1,005,817	608,000	Iowa.....	82,770,715	10,400,319	86,038,501	11,415,800
Idaho.....	72,108	26,147	75,351	25,200	Kansas.....	215,742,181	25,705,981	194,318,100	24,812,041
Illinois.....	26,101,830	9,822,507	25,865,503	9,198,374	Kentucky.....	177,040,283	21,256,072	129,040,724	16,842,088
Indiana.....	4,080,320	1,548,400	3,740,180	1,320,137	Maine.....	11,211,732	1,374,750	8,053,405	1,180,807
Iowa.....	10,785,784	3,000,702	8,437,827	2,058,437	Maryland.....	1,300,531	140,321	1,075,718	147,019
Kansas.....	7,030,130	2,730,077	6,301,115	2,338,080	Massachusetts.....	18,227,026	2,272,075	14,652,056	1,967,220
Kentucky.....	930,107	338,466	910,400	305,632	Michigan.....	42,782,231	5,209,880	43,005,075	5,720,004
Maryland.....	5,104,947	2,157,403	4,504,370	1,783,030	Minnesota.....	40,547,008	6,170,384	33,443,080	4,504,016
Massachusetts.....	4,225,577	1,758,077	4,504,370	1,783,030	Missouri.....	120,137,387	14,046,773	122,043,267	15,841,167
Michigan.....	1,511,133	660,192	2,051,380	889,338	Montana.....	114,734,753	13,118,639	119,071,345	14,022,152
Minnesota.....	6,204,608	2,118,024	7,540,035	2,575,778	Nebraska.....	1,031,251	200,820	1,230,013	155,234
Missouri.....	7,028,200	2,663,834	6,637,351	2,107,161	Nevada.....	101,021,698	11,012,284	84,650,209	10,727,433
Nebraska.....	3,025,202	1,075,202	2,580,211	922,303	New Jersey.....	80,783,024	11,850,000	60,842,542	8,865,300
New Jersey.....	5,140,400	2,058,903	2,008,025	776,208	New York.....	02,241,250	7,650,000	4,070,481	8,370,255
New York.....	21,063,052	8,480,979	17,050,985	6,680,381	Ohio.....	120,525,465	14,020,228	90,297,718	12,712,318
Ohio.....	8,480,983	3,255,286	7,088,284	2,506,221	Oregon.....	3,930,398	506,562	4,300,288	667,147
Oregon.....	061,407	278,206	684,113	341,005	Pennsylvania.....	01,084,526	7,016,730	08,100,301	0,104,856
Pennsylvania.....	10,050,017	4,484,500	9,741,034	3,895,300	Rhode Island.....	2,323,123	203,403	4,620,546	589,565
Tennessee.....	1,025,016	360,054	927,036	341,005	Tennessee.....	10,363,715	1,206,133	7,323,212	1,030,430
Texas.....	3,805,080	1,437,221	3,107,318	1,228,770	Texas.....	20,421,270	2,004,141	18,138,285	2,620,530
Washington.....	331,552	139,351	802,034	330,147	Washington.....	13,213,530	1,721,106	12,001,541	2,609,050
Wisconsin.....	4,180,775	1,544,932	3,334,412	1,202,330	Wisconsin.....	05,040,100	8,220,500	47,184,000	6,223,000
Groups of States:					States not shown separately.....				
Ala., Fla., Miss.....	280,203	105,239	-----	-----	CATTLE HIDES AND CALF-SKINS				
Ariz., Nev., Okla., Utah.....	3,018,835	1,280,332	-----	-----	United States.....				
Conn., Me., R. I.....	950,267	378,081	-----	-----	583,774,480	90,202,282	670,204,089	110,377,275	
Del., D. C., Va., W. Va.....	2,014,187	803,832	-----	-----	Individual States:				
Fla., Ga., N. C., S. C.....	107,470	65,287	-----	-----	Alabama.....	1,103,034	141,064	1,040,461	343,507
Mont., N. Dak., S. Dak., Wyo.....	4,390,080	1,440,415	-----	-----	Arizona.....	1,076,225	194,873	1,077,082	271,660
States not shown separately.....	-----	-----	10,404,314	3,436,067	Arkansas.....	271,338	23,804	(1)	(1)
<b>SAUSAGE (NOT INCLUDING CANNED SAUSAGE), MEAT PUDDINGS, HEADCHEESE, SCRAPPLE, ETC.<sup>1</sup></b>					States not shown separately.....				
United States.....	628,573,434	201,623,004	018,935,732	180,789,924	CATTLE HIDES AND CALF-SKINS				
Individual States:					United States.....				
Alabama.....	3,134,693	545,870	3,397,573	509,452	583,774,480	90,202,282	670,204,089	110,377,275	
Arkansas.....	900,507	165,250	(1)	(1)	Individual States:				
California.....	24,351,184	5,127,414	24,345,794	4,867,041	Alabama.....	1,103,034	141,064	1,040,461	343,507
Colorado.....	13,178,510	2,618,010	10,872,430	1,840,820	Arizona.....	1,076,225	194,873	1,077,082	271,660
Florida.....	1,420,387	264,777	2,818,924	410,700	Arkansas.....	271,338	23,804	(1)	(1)

<sup>1</sup> Included in figure for "States not shown separately."

<sup>2</sup> See footnote 3, Table 3.

<sup>3</sup> See footnote 6, Table 3.

CENSUS OF MANUFACTURES: 1929

TABLE 5.—PRINCIPAL PRODUCTS, BY KIND, QUANTITY, AND VALUE, BY STATES: 1929 AND 1927—Continued

[See note at head of this table]

KIND AND STATE	1929		1927		KIND AND STATE	1929		1927	
	Pounds	Value	Pounds	Value		Number	Value	Number	Value
<b>CATTLE HIDES AND CALF-SKINS—continued</b>					<b>SHEEP AND LAMB PELTS</b>				
Individual States—Contd.					United States.....				
California	35,243,578	\$4,307,154	38,119,767	\$5,946,243	10,458,126	\$18,377,696	8,960,953	\$15,063,683	
Colorado	8,125,547	1,097,561	8,195,789	1,172,318	Individual States:				
Florida	680,690	58,141	1,151,534	114,311	California	1,004,011	1,320,665	1,040,040	1,650,441
Georgia	2,840,438	303,370	(1)	(1)	Colorado	227,576	441,271	206,435	394,422
Idaho	387,444	33,082	657,842	72,210	Illinois	1,342,634	1,918,768	1,070,594	1,689,567
Illinois	119,258,896	19,140,324	146,782,361	25,222,719	Indiana	95,931	104,768	73,958	136,116
Indiana	15,709,085	2,623,264	17,948,720	2,885,076	Iowa	616,319	1,359,880	357,650	810,769
Iowa	31,510,261	5,020,719	33,672,229	5,265,999	Kansas	1,061,584	1,092,800	889,717	1,651,157
Kansas	53,666,957	8,198,301	69,821,712	11,632,354	Kentucky	19,782	16,700	14,438	21,647
Kentucky	3,854,387	612,608	3,704,339	623,887	Maryland	71,919	98,894	62,350	103,697
Maine	286,683	28,057	347,520	81,930	Michigan	295,201	481,673	265,702	517,024
Maryland	5,797,561	906,116	5,093,877	990,053	Minnesota	637,452	1,192,719	(1)	(1)
Massachusetts	4,791,674	774,686	5,408,416	916,444	Missouri	603,641	1,104,074	586,427	880,701
Michigan	8,319,511	1,204,018	9,275,674	1,514,772	Montana	14,364	24,134	12,308	10,083
Minnesota	30,221,586	4,973,155	31,537,945	5,424,404	Nebraska	1,691,468	3,585,791	1,450,375	2,782,702
Missouri	33,679,693	5,185,243	37,984,478	6,342,990	New Jersey	265,891	432,450	204,934	391,044
Montana	1,400,410	139,540	1,465,176	199,942	New York	1,016,002	2,127,263	927,261	1,003,805
Nebraska	48,736,554	8,542,396	57,113,830	8,683,738	Ohio	294,629	438,202	276,746	468,020
New Jersey	7,748,370	1,270,130	8,224,328	1,420,862	Oregon	30,940	26,000	18,524	22,335
New York	44,176,838	7,891,560	40,558,257	8,690,980	Pennsylvania	333,750	492,665	335,288	604,370
Ohio	24,123,589	3,543,527	26,151,020	4,202,755	Tennessee	27,212	17,227	16,635	13,876
Oregon	3,943,385	482,776	3,642,460	659,569	Texas	295,164	380,068	210,230	235,042
Pennsylvania	19,832,629	2,828,698	24,135,996	4,012,847	Utah	50,548	73,548	46,455	80,578
Tennessee	3,460,125	462,220	3,327,795	461,672	Virginia	10,536	9,182	4,574	5,392
Texas	25,793,093	4,024,656	30,597,636	5,162,317	Washington	158,179	237,769	170,666	282,773
Utah	2,336,590	300,233	2,499,408	361,055	Wisconsin	81,581	124,992	53,871	100,230
Virginia	1,228,136	182,290	1,123,804	191,670	Groups of States:				
Washington	6,950,630	765,722	9,413,341	1,347,810	Ala., Fla., Ga., La.,				
Wisconsin	11,913,534	1,908,376	11,349,827	1,861,046	Miss., S. C.	4,964	4,866		
Groups of States:					Ariz., Idaho, Nev.,				
Conn., N. H., R. I., Vt.	765,943	87,196			Okl.	41,688	49,900		
Del., D. C., W. Va.	2,526,134	374,403			Del., D. C., N. C.	14,132	17,891		
N. C., S. C.	296,080	32,248			N. Dak., S. Dak., Wyo.	70,853	154,517		
N. Dak., S. Dak., Wyo.	8,120,701	1,192,556			Other States (Me.,				
Other States (La., Miss.,					Mass., N. H., R. I.,	75,815	88,020		
Nev., Okla.)	12,835,542	1,947,416			Vt., W. Va.)				
States not shown separately			28,082,465	4,286,745	States not shown separately			643,395	1,240,926

<sup>1</sup> Included in figure for "States not shown separately."

TABLE 6.—ANIMALS SLAUGHTERED—NUMBER AND WEIGHTS,<sup>1</sup> BY KIND, FOR OWN ACCOUNT, 1923 TO 1929, AND FOR OTHERS, 1929, FOR THE UNITED STATES

[See "Hides, skins, sheep and lamb slats, and pelts," p. 172]

KIND	FOR OWN ACCOUNT				FOR OTHERS ON CUSTOM OR CO-OPERATIVE BASIS
	1929	1927	1925	1923	
<b>CATTLE</b>					
Number	9,547,636	10,724,823	10,853,021	10,178,490	585,697
Weight on hoof	9,021,803,216	10,098,812,218	10,301,234,510	9,069,634,463	483,060,072
Weight dressed	4,840,424,442	5,372,699,078	5,434,422,717	5,161,427,557	
Average weight on hoof	945	942	949	950	826
Average weight dressed	508	501	501	506	
<b>CALVES</b>					
Number	5,208,732	5,476,707	5,775,640	5,160,012	360,243
Weight on hoof	913,788,355	932,876,313	1,006,789,101	864,962,137	65,192,671
Weight dressed	540,487,419	587,903,702	623,572,609	535,654,373	
Average weight on hoof	175	174	174	170	181
Average weight dressed	104	107	108	105	
<b>SHEEP AND LAMBS</b>					
Number	15,688,943	14,388,643	13,616,405	13,193,856	330,325
Weight on hoof	1,293,842,966	1,168,070,425	1,106,770,374	1,060,268,890	26,018,201
Weight dressed	611,229,015	566,623,920	531,814,053	515,021,945	
Average weight on hoof	82	81	81	80	79
Average weight dressed	39	39	39	39	
<b>HOGS</b>					
Number	53,702,372	47,402,392	48,072,511	57,018,292	1,309,139
Weight on hoof	12,809,851,570	10,875,736,486	10,603,099,357	12,031,831,880	242,345,707
Weight dressed	6,154,007,960	8,098,943,551	7,864,740,885	9,439,144,711	
Average weight on hoof	229	229	221	211	185
Average weight dressed	170	171	164	166	
<b>OTHER ANIMALS</b>					
Number	101,673	(2)	(2)	(2)	5,670
Weight on hoof	61,240,671	(2)	(2)	(2)	337,230
Weight dressed	31,245,999	(2)	(2)	(2)	

<sup>1</sup> Dressed weight does not include weight of edible organs.  
<sup>2</sup> Not called for on schedule.

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**TABLE 7.—ANIMALS SLAUGHTERED FOR OWN ACCOUNT—NUMBER, BY KIND, BY STATES: 1923 TO 1929**

[Figures are given for each State for which it is possible to present separate statistics without disclosing data for individual establishments, and for the remaining States in groups. It follows, therefore, that separate figures are given for certain States which reported considerably smaller numbers of the specified kinds of animals slaughtered than some of the States which can not be shown separately. See "Hides, skins, sheep and lamb skins, and pelts," p. 172.]

KIND AND STATE	1929	1927	1925	1923	KIND AND STATE	1929	1927	1925	1923
<b>CATTLE</b>					<b>SHEEP AND LAMBS</b>				
United States.....	9,547,030	10,724,823	10,853,921	10,178,406	United States.....	15,088,043	14,388,643	13,616,405	13,103,850
<b>Individual States:</b>					<b>Individual States:</b>				
Alabama.....	35,980	51,084	(1)	(1)	California.....	1,510,768	1,517,838	1,558,488	1,607,538
Arizona.....	28,870	31,019	(1)	(1)	Colorado.....	228,160	205,900	198,342	154,404
Arkansas.....	3,950	(1)	(1)	(1)	Idaho.....	5,702	5,001	(1)	(1)
California.....	570,701	594,227	597,931	649,155	Illinois.....	3,004,023	3,160,000	3,131,130	2,870,624
Colorado.....	145,415	141,336	153,206	120,753	Indiana.....	67,307	74,103	(1)	(1)
Florida.....	17,606	29,563	(1)	(1)	Iowa.....	625,627	570,077	369,049	140,971
Georgia.....	45,394	(1)	(1)	(1)	Kansas.....	1,440,885	1,245,431	1,212,076	1,146,361
Idaho.....	8,343	10,375	(1)	(1)	Kentucky.....	20,637	14,707	(1)	(1)
Illinois.....	2,050,998	2,436,555	2,568,822	2,573,721	Maine.....	727	1,551	(1)	(1)
Indiana.....	202,506	317,652	208,736	285,616	Maryland.....	70,770	60,632	70,478	83,205
Iowa.....	584,580	578,734	557,981	456,804	Michigan.....	302,071	200,303	187,650	202,035
Kansas.....	957,124	1,202,603	1,380,120	1,227,130	Minnesota.....	637,830	(1)	380,171	250,482
Kentucky.....	68,337	70,649	(1)	(1)	Missouri.....	1,204,149	1,105,127	907,055	837,471
Maine.....	2,379	4,073	(1)	(1)	Montana.....	13,018	9,871	(1)	(1)
Maryland.....	99,000	98,607	100,498	102,624	Nebraska.....	1,602,045	1,450,235	1,564,733	1,054,143
Massachusetts.....	59,778	71,004	87,274	77,132	New Jersey.....	518,527	401,768	400,470	404,222
Michigan.....	142,505	101,253	134,005	135,804	New York.....	2,472,480	2,350,060	2,550,218	1,988,143
Minnesota.....	491,871	401,732	477,224	340,849	Ohio.....	204,070	282,403	233,508	235,500
Missouri.....	558,987	638,804	630,739	583,837	Oregon.....	84,301	89,845	88,811	111,010
Montana.....	22,776	22,776	(1)	(1)	Pennsylvania.....	303,604	302,439	314,245	409,806
Nebraska.....	843,102	930,201	957,064	948,916	Tennessee.....	14,605	10,723	(1)	(1)
New Jersey.....	98,260	97,949	112,819	107,098	Texas.....	207,744	210,728	144,223	158,073
New York.....	521,896	509,810	571,561	581,751	Utah.....	39,227	40,207	(1)	(1)
Ohio.....	401,120	410,979	382,652	304,317	Virginia.....	3,030	3,532	(1)	(1)
Oregon.....	68,908	64,928	85,391	73,787	Washington.....	167,538	178,410	189,234	207,110
Pennsylvania.....	240,811	201,152	289,402	310,920	Wisconsin.....	84,407	70,838	63,280	62,591
Tennessee.....	63,805	57,301	(1)	(1)	<b>Groups of States:</b>				
Texas.....	355,050	459,879	531,040	420,342	Ala., Fla., Miss.....	1,004			
Utah.....	44,566	44,106	(1)	(1)	Ariz., Nev.....	33,500			
Virginia.....	14,721	19,104	(1)	(1)	Cal., D. C.....	13,745			
Washington.....	123,280	151,874	134,707	132,973	Ga., N. C., S. C.....	3,036			
Wisconsin.....	103,180	206,110	167,000	148,371	N. Dak., Okla., S. Dak., Wyo.....	93,147			
<b>Groups of States:</b>					<b>Other States (Mass., N. I., R. I., Vt., W. Va.).....</b>				
Conn., N. H., R. I., Vt.....	12,422				254,873				
Del., D. C.....	17,047				<b>States not shown separately.....</b>				
N. C., S. C., W. Va.....	39,715					824,921	482,058	555,307	
N. Dak., S. Dak., Wyo.....	143,873				<b>HOGS</b>				
Other States (La., Miss., Nev., Okla.).....	172,810				<b>United States.....</b>				
<b>States not shown separately.....</b>						53,702,372	47,492,302	48,072,511	57,018,292
<b>CALVES</b>					<b>Individual States:</b>				
United States.....	5,208,732	5,470,707	5,775,640	5,100,012	Alabama.....	105,980	97,728	(1)	(1)
<b>Individual States:</b>					Arizona.....	53,379	42,865	(1)	(1)
Alabama.....	0,214	6,461	(1)	(1)	Arkansas.....	18,959	(1)	(1)	(1)
Arizona.....	6,572	10,514	(1)	(1)	California.....	1,382,590	1,011,552	981,665	1,187,767
Arkansas.....	5,228	(1)	(1)	(1)	Colorado.....	511,000	450,734	445,997	481,085
California.....	150,849	159,901	190,050	175,410	Florida.....	28,729	22,924	(1)	(1)
Colorado.....	20,507	29,883	30,843	22,000	Idaho.....	20,263	22,836	(1)	(1)
District of Columbia.....	23,470	(1)	(1)	(1)	Illinois.....	8,895,005	7,648,307	7,943,369	10,500,112
Idaho.....	4,167	5,572	(1)	(1)	Indiana.....	2,007,088	1,801,190	1,982,724	2,009,333
Illinois.....	787,071	721,017	805,484	739,505	Iowa.....	5,415,212	4,057,027	4,833,664	4,540,847
Indiana.....	113,061	95,626	99,988	71,511	Kansas.....	4,939,254	3,141,223	3,290,467	5,140,800
Iowa.....	82,680	108,192	93,197	43,375	Kentucky.....	351,881	301,047	341,423	433,700
Kansas.....	246,760	333,049	457,300	428,829	Maine.....	33,654	34,721	(1)	(1)
Kentucky.....	41,044	37,468	40,673	38,039	Maryland.....	820,082	740,126	796,508	1,003,077
Maine.....	1,903	4,998	(1)	(1)	Massachusetts.....	908,705	886,380	935,113	1,347,552
Maryland.....	67,421	66,878	31,384	79,842	Michigan.....	1,420,071	1,070,205	1,109,230	1,344,472
Massachusetts.....	99,047	124,485	132,907	100,223	Minnesota.....	4,200,062	4,055,722	4,457,702	4,105,800
Michigan.....	160,945	133,948	120,352	104,002	Missouri.....	3,200,302	3,154,086	3,236,695	4,330,047
Minnesota.....	727,981	762,149	701,726	607,061	Montana.....	90,538	46,607	(1)	(1)
Missouri.....	217,061	180,600	190,220	148,810	Nebraska.....	2,584,800	2,292,002	2,804,365	3,052,681
Montana.....	5,823	5,794	(1)	(1)	New Jersey.....	1,419,094	1,435,853	1,552,037	1,593,570
Nebraska.....	82,809	90,448	123,020	78,344	New York.....	2,352,039	2,453,200	2,484,410	2,455,570
New Jersey.....	123,984	128,163	139,487	154,074	Ohio.....	3,404,980	2,907,080	2,002,123	3,030,238
New York.....	621,908	679,899	677,777	644,764	Oregon.....	215,714	174,508	(1)	(1)
Ohio.....	268,146	275,051	288,011	253,000	Pennsylvania.....	2,373,467	2,348,197	2,243,038	2,905,410
Oregon.....	11,740	15,106	(1)	(1)	South Dakota.....	1,483,003	(1)	(1)	(1)
Pennsylvania.....	218,708	248,561	238,803	282,131	Tennessee.....	378,004	324,305	310,022	321,090
Tennessee.....	39,040	29,307	(1)	(1)	Texas.....	642,580	571,932	590,365	648,286
Texas.....	375,672	410,059	524,691	389,500	Utah.....	110,058	98,323	(1)	(1)
Utah.....	10,438	5,220	(1)	(1)	Virginia.....	245,584	234,858	(1)	(1)
Virginia.....	8,090	10,598	(1)	(1)	Washington.....	537,440	503,307	559,211	543,404
Washington.....	17,776	22,330	(1)	(1)	Wisconsin.....	2,060,309	1,688,696	1,551,033	2,037,082
Wisconsin.....	500,213	539,032	524,280	441,785	<b>Groups of States:</b>				
<b>Groups of States:</b>					Conn., R. I., Vt.....	204,199			
Conn., N. H., R. I., Vt.....	15,212				Del., D. C., W. Va.....	489,334			
Del., N. C., S. C., W. Va.....	21,788				Ga., N. C., S. C.....	391,644			
N. Dak., S. Dak., Wyo.....	33,588				N. Dak., Okla., Wyo.....	756,385			
Other States (Fla., Ga., Miss., Nev., Okla.).....	127,077				Other States (La., Miss., Nev.).....	31,474			
<b>States not shown separately.....</b>					<b>States not shown separately.....</b>				
		219,433	322,674	270,508			2,947,642	2,078,611	3,246,883
<b>OTHER ANIMALS</b>					<b>TOTAL FOR ALL STATES.....</b>				
<b>Total for all States.....</b>						101,673	(1)	(1)	(1)

<sup>1</sup> Included in figure for "States not shown separately."

<sup>2</sup> Not called for on schedule.

CENSUS OF MANUFACTURES: 1929

TABLE 8.—ANIMALS SLAUGHTERED—WEIGHTS (POUNDS), BY KIND, FOR OWN ACCOUNT, BY STATES: 1929 AND 1927

[Figures are given for each State for which it is possible to present separate statistics without disclosing data for individual establishments, and for the remaining States in groups. It follows, therefore, that separate figures are given for certain States which reported considerably smaller numbers of the specified kinds of animals slaughtered than some of the States which can not be shown separately.]

KIND AND STATE	1929		1927		KIND AND STATE	1929		1927	
	Weight on hoof Pounds	Weight dressed <sup>1</sup> Pounds	Weight on hoof Pounds	Weight dressed <sup>1</sup> Pounds		Weight on hoof Pounds	Weight dressed <sup>1</sup> Pounds	Weight on hoof Pounds	Weight dressed <sup>1</sup> Pounds
<b>CATTLE</b>					<b>SHEEP AND LAMBS</b>				
United States.....	9, 021, 803, 216	4, 849, 424, 442	10, 098, 812, 218	5, 372, 699, 078	United States.....	1, 293, 842, 906	611, 229, 015	1, 168, 070, 425	556, 623, 920
Individual States:					Individual States:				
Alabama.....	21, 608, 000	10, 805, 724	34, 226, 535	15, 742, 301	California.....	121, 007, 131	59, 477, 554	118, 704, 842	58, 871, 805
Arizona.....	25, 078, 177	13, 448, 124	26, 076, 404	14, 141, 749	Colorado.....	19, 777, 943	9, 861, 060	18, 049, 892	8, 052, 732
Arkansas.....	3, 143, 280	1, 628, 874	(?)	(?)	Idaho.....	510, 835	259, 904	435, 263	214, 237
California.....	565, 884, 808	305, 581, 422	580, 813, 377	317, 714, 735	Illinois.....	251, 899, 335	110, 092, 785	259, 899, 106	123, 979, 510
Colorado.....	129, 173, 874	67, 332, 923	127, 555, 498	66, 758, 704	Indiana.....	7, 555, 429	3, 581, 678	5, 840, 654	2, 768, 519
Florida.....	10, 021, 230	4, 469, 940	15, 094, 926	6, 938, 500	Iowa.....	5, 734, 805	25, 405, 688	30, 742, 868	14, 538, 839
Georgia.....	24, 681, 121	12, 115, 916	(?)	(?)	Kansas.....	120, 483, 377	50, 432, 477	100, 015, 264	47, 812, 240
Idaho.....	7, 789, 190	4, 000, 695	10, 525, 590	5, 457, 421	Kentucky.....	1, 626, 868	789, 744	1, 085, 586	516, 007
Illinois.....	2, 008, 577, 680	1, 087, 221, 805	2, 357, 835, 500	1, 268, 892, 437	Maine.....	1, 40, 020	23, 840	112, 552	61, 484
Indiana.....	292, 041, 883	136, 944, 799	289, 482, 845	148, 950, 382	Maryland.....	6, 125, 358	2, 973, 314	5, 032, 302	2, 476, 432
Iowa.....	533, 044, 267	292, 176, 595	619, 950, 973	278, 177, 134	Michigan.....	23, 483, 285	10, 700, 023	21, 241, 609	9, 741, 414
Kansas.....	869, 043, 588	474, 732, 442	1, 098, 363, 985	505, 648, 857	Minnesota.....	53, 060, 626	24, 969, 711	(?)	(?)
Kentucky.....	51, 639, 418	26, 064, 655	55, 651, 673	28, 417, 222	Missouri.....	106, 478, 158	51, 058, 220	91, 037, 802	44, 481, 145
Maine.....	2, 659, 022	1, 334, 400	4, 531, 508	2, 220, 778	Montana.....	1, 135, 201	553, 264	920, 526	470, 019
Maryland.....	100, 256, 697	51, 004, 392	65, 195, 756	48, 156, 817	Nebraska.....	145, 003, 722	69, 501, 283	123, 383, 015	56, 081, 002
Massachusetts.....	64, 504, 893	35, 689, 938	76, 647, 903	39, 910, 139	New Jersey.....	48, 094, 602	20, 201, 263	36, 583, 395	17, 147, 777
Michigan.....	131, 198, 073	67, 800, 747	146, 257, 909	74, 100, 944	New York.....	196, 087, 320	90, 310, 934	185, 990, 204	89, 064, 047
Minnesota.....	469, 957, 868	240, 873, 374	460, 301, 428	235, 933, 250	Ohio.....	21, 913, 092	10, 208, 292	20, 583, 352	9, 500, 743
Missouri.....	492, 643, 536	272, 367, 082	574, 711, 119	315, 079, 674	Oregon.....	7, 001, 060	3, 280, 261	7, 004, 597	3, 320, 403
Montana.....	20, 097, 070	10, 624, 845	22, 738, 594	11, 965, 339	Pennsylvania.....	27, 890, 283	13, 074, 391	29, 670, 021	12, 807, 129
Nebraska.....	816, 517, 008	455, 217, 904	894, 185, 522	402, 760, 793	Tennessee.....	1, 092, 198	581, 480	706, 550	379, 754
New Jersey.....	117, 954, 730	67, 474, 219	117, 865, 409	66, 492, 991	Texas.....	25, 771, 807	12, 465, 450	18, 707, 093	9, 280, 082
New York.....	577, 071, 600	323, 077, 870	637, 909, 911	351, 270, 061	Utah.....	4, 568, 150	2, 148, 894	3, 905, 962	1, 889, 506
Ohio.....	354, 609, 363	184, 359, 595	364, 995, 290	188, 390, 910	Virginia.....	219, 757	107, 877	246, 718	122, 690
Oregon.....	67, 428, 970	35, 040, 887	62, 779, 136	32, 589, 764	Washington.....	14, 703, 589	7, 237, 247	16, 233, 701	7, 058, 286
Pennsylvania.....	268, 816, 883	142, 922, 256	311, 675, 057	165, 350, 112	Wisconsin.....	7, 128, 302	3, 418, 645	5, 812, 372	2, 766, 548
Tennessee.....	48, 102, 842	22, 763, 833	43, 150, 490	21, 410, 806	Groups of States:				
Texas.....	289, 267, 735	144, 870, 435	365, 607, 886	185, 525, 921	Ala., Fla., Miss.....	78, 525	38, 888		
Utah.....	39, 992, 058	20, 422, 113	41, 530, 520	20, 866, 891	Ariz., Nev.....	1, 911, 184	895, 686		
Virginia.....	12, 591, 368	6, 273, 518	16, 380, 508	7, 916, 154	Del., D. C.....	1, 010, 850	483, 531		
Washington.....	122, 245, 153	64, 035, 517	153, 448, 190	81, 514, 504	Ga., N. C., S. C.....	242, 100	110, 604		
Wisconsin.....	181, 354, 769	91, 303, 955	190, 076, 546	93, 744, 337	N. Dak., Okla., S. Dak., Wyo.....	7, 803, 225	3, 700, 392		
Groups of States:					Other States (La., Miss., Nev., R. I., Va., W. Va.)	20, 399, 369	8, 853, 448		
Conn., N. H., R. I., Vt.....	11, 869, 900	6, 383, 803			States not shown separately.....			87, 252, 079	31, 108, 911
Del., D. C.....	18, 430, 418	9, 595, 279			United States.....	12, 309, 851, 570	9, 154, 007, 900	10, 875, 730, 466	8, 008, 948, 551
N. C., S. C., W. Va.....	24, 056, 805	12, 928, 043			Individual States:				
N. Dak., S. Dak., Wyo.....	186, 950, 300	73, 113, 048			Alabama.....	21, 201, 999	16, 107, 442	19, 371, 042	14, 770, 513
Other States (La., Miss., Nev., Okla.)	144, 444, 144	72, 921, 436			Arizona.....	12, 271, 809	9, 006, 707	9, 316, 050	6, 704, 121
States not shown separately.....			391, 240, 806	200, 701, 501	Arkansas.....	4, 077, 118	2, 819, 632	(?)	(?)
<b>CALVES</b>					California.....	256, 706, 218	188, 033, 070	185, 316, 698	137, 111, 770
United States.....	913, 788, 355	540, 487, 419	952, 376, 313	587, 903, 702	Colorado.....	123, 731, 640	88, 635, 393	111, 087, 071	81, 718, 376
Individual States:					Florida.....	5, 209, 541	3, 656, 493	2, 898, 319	2, 080, 650
Alabama.....	1, 204, 600	670, 855	793, 798	416, 973	Idaho.....	6, 001, 195	4, 292, 315	4, 882, 572	3, 584, 138
Arizona.....	1, 638, 965	937, 960	2, 485, 244	1, 548, 134	Illinois.....	2, 206, 491, 770	1, 052, 039, 081	1, 016, 070, 874	1, 443, 071, 142
Arkansas.....	1, 095, 260	602, 540	(?)	(?)	Indiana.....	475, 352, 100	302, 798, 002	447, 318, 150	360, 482, 355
California.....	34, 386, 810	20, 710, 960	39, 476, 984	25, 300, 532	Iowa.....	1, 870, 110, 835	1, 019, 025, 470	1, 255, 988, 424	937, 988, 501
Colorado.....	7, 089, 615	4, 020, 204	7, 245, 263	4, 698, 573	Kansas.....	1, 058, 598, 567	778, 790, 858	708, 924, 652	595, 130, 987
District of Columbia.....	3, 717, 650	2, 150, 111	(?)	(?)	Kentucky.....	75, 753, 948	55, 532, 270	62, 153, 883	45, 240, 456
Idaho.....	109, 359, 284	67, 581, 529	1, 192, 372	756, 831	Maine.....	8, 393, 114	6, 505, 755	8, 840, 094	7, 088, 780
Illinois.....	18, 002, 127	10, 957, 797	10, 709, 024	70, 145, 295	Maryland.....	135, 911, 659	95, 911, 728	122, 056, 651	85, 897, 300
Indiana.....	15, 099, 829	9, 168, 440	15, 686, 410	9, 307, 440	Massachusetts.....	230, 178, 792	172, 127, 839	230, 639, 859	175, 484, 300
Iowa.....	16, 999, 989	9, 168, 940	21, 015, 221	12, 544, 911	Minnesota.....	613, 343, 117	234, 503, 457	234, 814, 207	174, 816, 160
Kansas.....	57, 459, 897	31, 479, 045	74, 095, 199	43, 059, 208	Missouri.....	1, 008, 084, 171	701, 673, 149	948, 907, 265	698, 572, 457
Kentucky.....	6, 799, 902	3, 289, 443	5, 040, 386	2, 893, 409	Montana.....	701, 270, 769	575, 031, 218	721, 353, 307	540, 572, 232
Maine.....	235, 249	153, 155	697, 487	405, 916	Nebraska.....	14, 066, 029	10, 458, 139	9, 304, 607	7, 088, 670
Maryland.....	9, 297, 094	5, 744, 633	9, 199, 708	5, 020, 983	New Jersey.....	652, 802, 203	485, 700, 052	602, 955, 315	434, 050, 340
Massachusetts.....	10, 228, 231	5, 897, 051	12, 700, 107	7, 257, 816	New York.....	221, 158, 230	159, 521, 823	228, 555, 123	162, 718, 078
Michigan.....	21, 828, 308	14, 277, 494	31, 036, 791	18, 834, 008	Ohio.....	450, 018, 898	331, 835, 406	472, 039, 530	349, 200, 010
Minnesota.....	108, 304, 380	63, 700, 122	108, 574, 789	68, 924, 608	Oregon.....	785, 376, 516	577, 026, 516	648, 547, 734	437, 124, 398
Missouri.....	38, 992, 792	23, 220, 724	41, 400, 169	25, 300, 125	Pennsylvania.....	43, 047, 200	31, 459, 039	34, 158, 749	25, 884, 957
Montana.....	1, 203, 055	710, 869	1, 490, 169	834, 008	South Dakota.....	369, 866, 234	327, 647, 708	430, 017, 184	324, 025, 083
Nebraska.....	21, 150, 385	12, 204, 815	24, 354, 420	13, 793, 047	Tennessee.....	305, 170, 955	262, 756, 369	(?)	(?)
New Jersey.....	19, 024, 961	11, 228, 412	19, 598, 568	12, 085, 810	Texas.....	75, 373, 177	55, 386, 253	63, 753, 008	40, 386, 588
New York.....	113, 827, 280	67, 538, 377	118, 353, 029	75, 519, 138	Utah.....	132, 717, 727	97, 841, 171	100, 498, 190	77, 942, 423
Ohio.....	43, 069, 063	24, 176, 850	42, 561, 338	25, 300, 125	Virginia.....	25, 787, 297	19, 420, 140	20, 560, 315	15, 368, 324
Oregon.....	2, 624, 082	1, 585, 168	3, 811, 833	1, 693, 756	Washington.....	45, 172, 497	33, 783, 645	43, 679, 936	33, 822, 823
Pennsylvania.....	34, 973, 006	20, 369, 788	39, 190, 677	22, 830, 371	Wisconsin.....	107, 493, 058	78, 608, 750	98, 644, 174	70, 835, 710
Tennessee.....	7, 144, 175	3, 907, 680	4, 975, 666	2, 928, 608	Groups of States:				
Texas.....	117, 537, 161	62, 614, 723	126, 185, 703	71, 141, 361	Conn., R. I., Vt.....	52, 030, 257	39, 766, 243		
Utah.....	1, 994, 319	1, 200, 855	959, 332	587, 342	Del., D. C., W. Va.....	98, 888, 537	73, 686, 028		
Virginia.....	1, 060, 384	688, 416	1, 453, 956	823, 450	Ga., N. C., S. C.....	74, 698, 888	56, 087, 073		
Washington.....	3, 738, 304	2, 215, 646	4, 843, 042	3, 088, 523	N. Dak., Okla., Wyo.....	170, 058, 557	122, 634, 314		
Wisconsin.....	56, 707, 385	30, 020, 295	59, 476, 047	40, 930, 900	Other States (La., Miss., Nev.)	5, 980, 766	4, 502, 534		
Groups of States:					States not shown separately.....			683, 998, 093	513, 370, 279
Conn., N. H., R. I., Vt.....	2, 077, 780	1, 254, 355			OTHER ANIMALS				



# MEAT PACKING

**TABLE 9.—PRINCIPAL MATERIALS CONSUMED, BY KIND, QUANTITY, AND COST: 1929**

[The difference between the sum of the costs of the several kinds of materials shown in this table, \$2,744,724,433, and the cost of materials as given in other tables in this report is accounted for by the fact that the other tables cover all materials consumed whereas this table covers only the principal materials as specified. Statistics are given for each State for which it is possible to present separate figures without disclosing data for individual establishments, and for the remaining States in groups]

KIND AND STATE	Pounds (live weight)	Cost	KIND AND STATE	Pounds (live weight)	Cost	KIND AND STATE	Pounds (live weight)	Cost
<b>CATTLE</b>			<b>CALVES—continued</b>			<b>SHEEP AND LAMBS—continued</b>		
United States.....	9,021,803,216	\$937,837,193	Individual States—Continued.			Groups of States—Con.		
Individual States:			Maryland.....	9,207,094	\$1,187,570	Del., D. C.....	1,010,850	\$130,253
Alabama.....	21,008,000	2,123,473	Massachusetts.....	10,225,231	1,228,785	Ga., N. C., S. C.....	212,160	24,400
Arizona.....	25,078,177	2,407,039	Michigan.....	21,828,308	3,140,433	N. Dak., Okla., S. Dak., Wyo.....	7,803,225	895,800
Arkansas.....	3,143,280	264,258	Minnesota.....	106,304,380	13,244,004	Other States (Mass., N. H., R. I., Vt., W. Va.).....	20,309,350	2,301,450
California.....	565,384,300	54,342,106	Missouri.....	38,092,702	4,501,394	<b>HOGS</b>		
Colorado.....	129,173,874	11,920,619	Montana.....	1,208,055	111,254	United States.....	12,300,351,570	1,227,509,453
Florida.....	10,021,230	632,399	Nebraska.....	21,150,357	2,365,728	Individual States:		
Georgia.....	24,061,121	2,122,070	New Jersey.....	113,827,280	15,074,490	Alabama.....	21,261,999	1,992,261
Idaho.....	7,709,199	642,957	New York.....	43,060,063	5,080,433	Arizona.....	12,271,869	1,302,100
Illinois.....	2,008,577,080	213,338,085	Ohio.....	2,024,082	272,559	Arkansas.....	4,077,118	382,488
Indiana.....	262,041,383	26,795,144	Oregon.....	34,073,060	5,030,492	California.....	250,706,218	27,067,506
Iowa.....	533,944,207	58,097,000	Pennsylvania.....	7,144,175	510,363	Colorado.....	123,731,610	11,807,629
Kansas.....	869,043,058	90,305,045	Texas.....	117,537,101	11,113,312	Florida.....	6,209,511	373,044
Kentucky.....	51,639,413	4,750,618	Utah.....	1,094,310	211,229	Georgia.....	8,001,195	594,663
Maine.....	2,059,022	204,478	Virginia.....	1,000,384	119,173	Idaho.....	2,206,461,770	230,095,363
Maryland.....	100,256,697	10,382,084	Washington.....	3,738,304	380,300	Illinois.....	475,352,100	47,334,833
Massachusetts.....	64,504,803	7,201,851	Wisconsin.....	56,707,385	7,700,749	Iowa.....	1,370,110,835	132,271,000
Michigan.....	131,198,073	12,918,001	<b>Groups of States:</b>			Kansas.....	1,058,508,567	102,009,088
Minnesota.....	469,957,808	40,059,351	Conn., N. H., R. I., Vt.....	2,077,730	221,220	Kentucky.....	75,753,618	7,309,801
Missouri.....	492,543,530	54,100,938	Del., N. C., S. C., W. Va.....	3,205,070	300,331	Maine.....	8,333,114	901,002
Montana.....	20,007,073	1,765,376	N. Dak., S. Dak., Wyo.....	6,204,030	600,703	Maryland.....	135,911,650	13,809,610
Nebraska.....	815,517,608	92,829,603	Other States (Fla., Ga., Miss., Nev., Okla.).....	36,063,025	3,250,730	Massachusetts.....	230,178,792	21,130,054
New Jersey.....	117,954,730	10,260,878	<b>SHEEP AND LAMBS</b>			Michigan.....	313,843,117	32,313,004
New York.....	577,071,500	72,880,987	United States.....	1,203,842,909	108,000,692	Minnesota.....	1,008,684,171	90,775,652
Ohio.....	354,505,353	35,309,700	Individual States:			Missouri.....	701,270,760	74,132,374
Oregon.....	67,428,970	6,191,620	California.....	121,007,131	14,084,308	Montana.....	14,000,029	1,200,397
Pennsylvania.....	268,816,883	28,557,722	Colorado.....	10,777,943	2,318,125	Nebraska.....	662,802,293	61,439,431
Tennessee.....	48,102,842	3,334,631	Idaho.....	510,835	45,065	New Jersey.....	221,188,230	24,044,790
Texas.....	280,267,735	24,880,612	Illinois.....	251,899,335	34,039,762	New York.....	450,010,898	48,250,059
Utah.....	30,992,058	3,517,355	Indiana.....	7,555,420	1,018,244	Ohio.....	705,353,810	79,451,094
Virginia.....	12,591,396	972,700	Iowa.....	58,731,305	7,151,008	Oregon.....	43,047,200	4,549,344
Washington.....	122,240,153	12,276,830	Kansas.....	120,483,377	16,220,129	Pennsylvania.....	430,865,213	47,129,376
Wisconsin.....	181,354,759	15,590,089	Kentucky.....	1,620,868	101,810	South Dakota.....	305,170,065	34,819,653
<b>Groups of States:</b>			Maine.....	49,020	3,954	Tennessee.....	75,373,177	7,069,340
Conn., N. H., R. I., Vt.....	11,869,900	1,010,721	Maryland.....	0,125,358	717,290	Texas.....	132,717,727	12,883,739
Del., D. C.....	18,430,418	1,968,764	Michigan.....	23,483,285	2,600,529	Utah.....	25,787,270	2,551,093
N. C., S. C., W. Va.....	24,956,305	1,902,950	Minnesota.....	53,060,020	6,252,418	Virginia.....	45,172,497	4,765,741
N. Dak., S. Dak., Wyo.....	130,950,300	13,449,114	Missouri.....	109,478,168	14,458,317	Washington.....	107,403,068	11,183,734
Other States (La., Miss., Nev., Okla.).....	144,444,144	11,781,353	Montana.....	1,135,291	116,721	Wisconsin.....	470,067,959	47,730,836
<b>CALVES</b>			Nebraska.....	145,003,722	19,090,619	<b>Groups of States:</b>		
United States.....	913,788,855	110,848,175	New Jersey.....	43,694,602	6,117,712	Conn., R. I., Vt.....	52,030,257	5,406,006
Individual States:			New York.....	190,087,320	26,978,000	Del., D. C., W. Va.....	98,888,637	9,441,142
Alabama.....	1,204,000	105,714	Ohio.....	21,913,002	2,473,148	Ga., N. C., S. C.....	74,698,388	7,015,706
Arizona.....	1,635,905	181,734	Oregon.....	7,001,060	774,870	N. Dak., Okla., Wyo.....	170,068,557	10,035,858
Arkansas.....	1,095,200	83,997	Pennsylvania.....	27,390,283	3,018,202	Other States (La., Miss., Nev.).....	5,089,766	591,051
California.....	34,380,310	4,033,504	Tennessee.....	1,092,198	101,340	<b>OTHER ANIMALS</b>		
Colorado.....	7,080,615	820,720	Texas.....	25,771,807	2,651,078	United States.....	61,210,071	1,210,802
District of Columbia.....	3,717,656	487,574	Utah.....	4,508,150	483,228	<b>MEATS PURCHASED (INCLUDING INTERMEDIATE TRANSFERS)</b>		
Idaho.....	807,822	73,091	Virginia.....	219,787	23,051	United States.....	1,938,395,765	230,132,118
Illinois.....	109,358,284	14,220,177	Washington.....	14,703,689	1,755,501			
Indiana.....	18,002,127	2,359,629	Wisconsin.....	7,128,302	811,050			
Iowa.....	15,099,089	1,781,777	<b>Groups of States:</b>					
Kansas.....	57,460,897	6,207,043	Ala., Fla., Miss.....	78,525	7,884			
Kentucky.....	5,700,902	666,343	Ariz., Nev.....	1,911,181	220,910			
Maine.....	235,243	22,164						



CENSUS OF MANUFACTURES: 1929

TABLE 10.—PRIME MOVERS, MOTORS, GENERATORS, AND CONSUMPTION OF PURCHASED ELECTRIC ENERGY—NUMBER AND RATED CAPACITY OF PRIME MOVERS AND ELECTRIC MOTORS, 1929, 1927, 1925, 1919, AND 1914, AND OF GENERATORS, 1929, 1927, AND 1925; QUANTITY OF ELECTRIC ENERGY PURCHASED, 1929

TYPE	1929		1927		1925		1919		1914		PER CENT DISTRIBUTION OF RATED HORSE-POWER CAPACITY	
	Number	Capacity	Number	Capacity	Number	Capacity	Number	Capacity	Number	Capacity	1929	1919
Prime movers and electric motors driven by purchased energy, aggregate.....	26,405	Horse-power 524,089	21,781	Horse-power 489,576	16,850	Horse-power 441,516	10,766	Horse-power 358,522	5,095	Horse-power 252,070	100.0	100.0
Prime movers, total.....	1,862	235,980	1,844	235,704	1,411	233,108	1,812	240,609	1,655	212,093	44.9	67.1
Steam, total.....	1,308	233,833	1,293	232,222	1,350	230,056	1,711	238,017	1,556	210,536	44.5	66.4
Engines.....	1,116	195,026	1,000	191,380	1,170	188,126	1,563	210,348	(1)	(1)	37.3	58.7
Turbines.....	192	37,007	194	40,842	180	41,930	148	27,669	(1)	(1)	7.2	7.7
Internal-combustion engines.....	48	1,677	45	2,987	51	2,242	92	2,018	96	2,412	0.3	0.6
Water wheels and water turbines.....	0	570	6	555	10	810	9	574	3	15	0.1	0.1
Electric motors driven by purchased energy.....	25,043	289,009	20,437	253,812	15,439	208,408	8,954	117,913	3,440	39,116	55.1	32.9
Electric motors, total.....	33,384	372,581	28,035	340,985	23,532	312,706	16,491	213,548	9,843	117,810	100.0	100.0
Driven by purchased energy.....	25,043	289,009	20,437	253,812	15,439	208,408	8,954	117,913	3,440	39,116	77.0	55.2
Driven by energy generated in establishments reporting.....	8,341	83,572	8,198	87,173	8,093	104,298	7,537	95,635	6,403	78,694	22.4	44.8
Electric generators.....	278	Kilowatts 57,894 Kilowatt-hours	202	Kilowatts 98,056	325	Kilowatts 64,080	(?)	(?)	(?)	(?)		
Electric energy purchased <sup>3</sup> .....		475,382,995		(1)		(1)		(?)		(?)		

<sup>1</sup> Not called for separately on schedule.

<sup>2</sup> Not called for on schedule.

<sup>3</sup> This item covers the consumption of purchased electric energy for all purposes—power, heat, light, etc.

<sup>4</sup> Data incomplete.

TABLE 11.—WAGE EARNERS, BY MONTHS, FOR THE UNITED STATES, 1929, 1925, 1919, 1914, AND 1909, AND BY STATES, 1929

[This table presents statistics for only those States for which figures can be given without disclosing data for individual establishments. The sum of the State items in any column is not, therefore, equal to the United States total at the head of the column. The month of maximum employment is indicated by bold-faced figures and that of minimum employment by *italic* figures.]

STATE	Average number employed during year	NUMBER EMPLOYED ON 15TH DAY OF MONTH OR NEAREST REPRESENTATIVE DAY												Per cent minimum is of maximum
		January	February	March	April	May	June	July	August	September	October	November	December	
United States:														
1929.....	122,505	128,556	125,107	118,731	<i>116,612</i>	118,030	121,259	122,444	120,580	122,077	123,500	134,769	127,821	90.7
1925.....	120,422	131,970	125,822	110,033	<i>118,193</i>	114,710	118,053	118,835	116,957	117,631	119,698	123,988	126,501	85.8
1919.....	160,996	187,609	171,452	163,025	<i>160,809</i>	151,252	157,358	157,938	150,304	154,147	155,398	168,859	167,804	80.4
1914.....	98,832	106,618	103,062	99,633	<i>94,090</i>	91,973	95,108	94,848	<i>87,292</i>	95,128	101,688	103,859	108,440	84.2
1909.....	87,813	92,804	90,332	86,032	<i>82,708</i>	82,882	84,989	84,800	84,562	87,626	90,517	92,447	94,192	87.8
Alabama.....	201	208	204	288	208	278	208	<i>265</i>	278	204	333	317	323	82.0
Arizona.....	277	281	270	273	278	274	202	<i>255</i>	258	278	284	303	304	83.0
Arkansas.....	49	49	49	49	49	49	49	49	49	49	49	49	49	
California.....	3,868	3,842	3,834	3,834	3,804	3,837	3,873	3,828	3,843	3,896	3,868	3,856	3,931	97.2
Colorado.....	1,407	1,680	1,601	1,544	<i>1,409</i>	1,432	1,449	1,454	1,440	1,482	1,458	1,520	1,511	88.0
District of Columbia.....	389	392	393	391	387	385	386	<i>384</i>	384	386	386	396	394	97.2
Florida.....	107	126	122	110	104	101	103	111	102	97	106	103	104	77.0
Georgia.....	612	707	732	611	568	536	<i>529</i>	648	540	639	632	637	669	72.3
Idaho.....	111	112	<i>109</i>	<i>109</i>	<i>109</i>	110	110	112	112	111	111	119	111	97.3
Illinois.....	29,618	30,709	29,862	28,603	<i>27,643</i>	28,406	29,206	29,476	29,534	30,309	30,366	30,728	30,579	90.0
Indiana.....	4,970	5,331	4,958	4,686	<i>4,634</i>	4,737	4,928	5,000	4,940	4,936	4,913	5,112	5,533	83.8
Iowa.....	8,663	9,731	9,595	8,430	8,293	8,272	<i>8,151</i>	8,728	8,221	8,233	8,184	8,557	9,012	83.6
Kansas.....	9,068	9,602	9,397	8,497	8,671	8,624	9,361	9,065	8,979	9,191	9,090	8,826	9,224	88.5
Kentucky.....	892	902	904	877	<i>868</i>	870	883	891	893	905	917	904	890	94.7
Louisiana.....	281	287	282	277	282	276	274	<i>273</i>	278	282	288	287	284	94.8
Maine.....	114	113	112	<i>109</i>	111	113	113	116	116	118	116	115	118	92.4
Maryland.....	1,753	1,788	1,809	1,770	1,765	1,745	1,720	<i>1,671</i>	1,681	1,730	1,702	1,797	1,794	92.4
Massachusetts.....	2,594	2,807	2,684	2,533	2,418	<i>2,407</i>	2,427	2,526	2,556	2,601	2,523	2,660	2,877	83.7
Michigan.....	2,286	2,300	2,442	2,327	2,197	2,236	2,285	2,247	<i>2,188</i>	2,263	2,301	2,253	2,296	89.6
Minnesota.....	6,936	7,882	7,373	6,939	<i>6,313</i>	6,233	6,430	6,668	6,401	6,493	7,142	7,727	8,022	77.5
Missouri.....	5,614	5,645	5,507	<i>5,362</i>	5,405	5,541	5,725	5,673	5,682	5,838	5,744	5,627	5,617	91.0
Montana.....	247	224	<i>217</i>	225	235	251	252	274	288	262	253	245	232	75.3
Nebraska.....	6,037	6,348	5,972	5,704	6,117	6,105	6,523	6,519	5,979	5,964	5,807	5,406	5,937	82.9
New Jersey.....	2,817	2,955	2,970	2,833	2,749	2,768	2,783	2,786	<i>2,712</i>	2,740	2,788	2,834	2,886	91.3
New York.....	7,273	7,441	7,300	7,103	7,107	7,093	7,244	7,304	7,266	7,778	7,730	7,372	7,390	96.3
Ohio.....	5,825	6,019	5,971	5,765	<i>5,641</i>	5,647	5,819	5,887	5,729	5,773	5,839	5,994	5,840	93.7
Oregon.....	646	644	<i>620</i>	629	624	631	670	679	648	656	657	649	645	91.3
Pennsylvania.....	5,232	5,338	5,239	5,198	5,101	<i>5,100</i>	5,136	5,140	5,134	5,212	5,360	5,413	5,412	94.2
Rhode Island.....	162	184	177	168	163	159	159	160	160	166	166	164	163	81.5
South Dakota.....	1,796	2,027	1,966	1,796	1,683	1,653	1,776	1,835	1,760	1,674	<i>1,643</i>	1,765	1,993	81.3
Tennessee.....	697	<i>674</i>	679	681	678	687	690	695	716	702	721	700	700	91.7
Texas.....	3,650	3,501	3,539	3,480	<i>3,470</i>	3,503	3,683	3,729	3,833	3,974	3,855	3,691	3,511	87.3
Utah.....	272	268	268	266	<i>262</i>	262	262	280	278	278	276	274	274	93.6
Virginia.....	648	579	557	523	509	<i>492</i>	505	544	544	551	600	573	603	81.6
Washington.....	1,283	1,303	1,290	1,242	1,236	<i>1,219</i>	1,252	1,282	1,290	1,299	1,293	1,309	1,370	89.0
Wisconsin.....	2,893	3,161	2,927	2,621	<i>2,620</i>	2,764	2,891	2,865	2,799	2,805	2,998	3,124	3,140	82.9
Wyoming.....	52		<i>50</i>		51		54		56		53		52	89.3

# OLEOMARGARINE

(NOT MADE IN MEAT-PACKING ESTABLISHMENTS)

Description of the industry.—The establishments classified in this industry are those engaged primarily in the manufacture, under the general designation "Oleomargarine," of the commodities known as "oleomargarine," "butterine," "nut margarine," "nut butter," etc. The materials used in their manufacture include both vegetable and animal substances,

such as coconut oil, peanut oil, cottonseed oil, oleo oil, milk, butter, neutral lard, etc. Secondary products such as shortenings, salad dressing, refined oils, acid oils, butter, etc., were reported by a few of the establishments. A large amount of oleomargarine is also made by establishments in the meat-packing industry. (See Table 3.)

TABLE 1.—SUMMARY FOR THE UNITED STATES: 1899 TO 1929

[Data for establishments with products under \$5,000 in value included for 1910 and prior years but not for 1921 and subsequent years. See GENERAL EXPLANATIONS—Establishments Covered—Size]

YEAR OR PERIOD	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, containers for products, fuel, and purchased electric energy	Value of products <sup>1</sup>	Value added by manufacture <sup>2</sup>	Horsepower
1929.....	41	1,534	\$2,263,700	\$30,800,075	\$46,621,823	\$15,031,743	6,070
1927.....	36	1,502	2,258,464	27,145,141	39,282,304	12,137,223	8,748
1925.....	38	1,039	2,278,102	28,384,433	39,856,034	11,471,001	6,740
1923.....	31	1,484	1,021,448	25,772,271	35,952,721	10,180,450	5,022
1921.....	45	2,041	2,728,058	28,662,134	39,176,577	11,114,443	( <sup>3</sup> )
1919.....	42	2,851	3,184,118	66,042,792	79,815,680	13,772,783	9,435
1914.....	17	917	583,602	10,257,480	15,079,784	4,822,304	3,431
1909.....	12	609	413,284	6,406,632	8,147,629	1,659,997	2,398
1904.....	14	522	315,730	4,397,538	5,678,725	1,176,137	1,530
1899.....	24	1,084	534,444	7,639,501	12,469,512	4,860,311	1,350
PER CENT OF INCREASE OR DECREASE (—)							
1927-1929.....	( <sup>4</sup> )	2.1	0.2	13.8	18.4	28.8	-23.7
1925-1927.....	( <sup>4</sup> )	-8.4	-0.9	-4.4	-1.4	5.8	29.8
1923-1925.....	( <sup>4</sup> )	10.4	18.6	10.1	10.0	12.7	13.8
1921-1923.....	( <sup>4</sup> )	-27.3	-20.6	-8.2	-8.2	-8.4	-----
1919-1921.....	( <sup>4</sup> )	-28.4	-14.3	-57.5	-50.0	-19.3	-----
1919-1929.....	( <sup>4</sup> )	-40.2	-28.0	-53.2	-41.7	13.5	-20.3
1909-1919.....	( <sup>4</sup> )	370.5	670.4	916.6	876.6	734.2	203.5
1899-1909.....	( <sup>4</sup> )	-44.1	-22.7	-15.0	-34.8	-66.0	77.0

<sup>1</sup> The figures for 1929 refer to sales (shipments or deliveries) by manufacturers; those for earlier years represent production. See GENERAL EXPLANATIONS—Value of Products.

<sup>2</sup> Value of products less cost of materials, containers for products, fuel, and purchased electric energy. See GENERAL EXPLANATIONS—Value Added by Manufacture.

<sup>3</sup> Not called for on schedule.

<sup>4</sup> Per cent not computed where base is less than 100.

CENSUS OF MANUFACTURES: 1929

TABLE 2.—GENERAL STATISTICS, BY STATES: 1929, 1927, AND 1919

[This table presents statistics separately for each State for which figures can be given without disclosing data for individual establishments, and for the remaining States in groups. Data for establishments with products under \$5,000 in value are included for 1919 but not for subsequent years. See GENERAL EXPLANATIONS—Establishments Covered—Size]

STATE	Cen- sus year	Num- ber of estab- lish- ments	Salaried officers and em- ployees <sup>1</sup>	Wage earners (aver- age for the year)	HORSEPOWER (RATED CAPACITY) OF POWER EQUIPMENT			Salaries	Wages	COST OF MATERIALS, CONTAINERS FOR PRODUCTS, FUEL, AND PURCHASED ELECTRIC ENERGY			Value of products <sup>2</sup>	Value added by manufac- ture <sup>3</sup>
					Total	Prime movers	Motors run by pur- chased energy			Total	Materials and con- tainers	Fuel and pur- chased energy		
United States	1929	41	582	1,534	6,070	2,510	4,100	\$1,390,078	\$2,263,700	\$30,800,075	\$30,559,930	\$330,145	\$40,521,823	\$15,031,748
	1927	36	500	1,502	8,746	3,407	5,339	1,281,700	2,258,404	27,145,141	26,784,874	360,267	39,282,304	12,137,223
	1919	42	1,016	2,851	0,435	6,188	4,247	1,983,566	3,184,118	66,042,792	65,626,330	416,462	79,815,680	13,772,788
Individual States:														
California	1929	8	35	103	383	---	383	62,624	183,448	1,583,780	1,565,798	17,987	2,350,006	772,226
	1927	6	53	36	392	---	392	104,626	45,043	508,129	493,037	15,002	803,032	354,003
	1919	6	260	508	1,804	---	1,190	613,083	977,337	13,171,850	13,037,068	134,782	19,630,149	6,404,203
Illinois	1929	5	279	623	1,630	---	1,352	637,973	1,111,555	12,349,293	12,216,058	133,635	17,441,076	5,002,383
	1927	5	279	623	1,630	---	1,352	637,973	1,111,555	12,349,293	12,216,058	133,635	17,441,076	5,002,383
	1919	9	382	1,311	3,049	---	2,080	849,110	1,035,234	37,242,513	37,059,295	183,218	44,255,812	7,013,269
Ohio	1929	5	85	202	1,821	---	1,250	215,631	430,692	7,209,240	7,202,324	69,022	9,744,145	2,474,869
Groups of States:														
Colo., 1 est.; La., 1; Tenn., 1; Tex., 1	1929	4	31	47	142	---	142	100,656	57,856	545,624	538,695	6,920	1,046,006	501,342
Ind., 1 est.; Md., 3	1929	4	75	115	792	---	442	202,738	160,610	1,425,852	1,407,701	18,151	3,103,829	1,737,077
Kans., 1 est.; Mo., 2	1929	3	13	64	104	---	104	36,284	62,076	993,878	987,474	6,404	1,638,425	544,547
Mass., 1 est.; N. J., 1; N. Y., 1; R. I., 2	1929	5	57	221	1,245	---	300	98,993	309,273	4,422,452	4,365,420	57,026	6,947,077	2,525,225
Mich., 1 est.; Wis., 2	1929	3	27	84	277	---	277	48,882	76,717	1,852,648	1,336,428	10,220	1,930,319	577,071
Utah., 1 est.; Wash., 2	1929	3	9	10	100	---	100	11,182	15,641	124,730	119,021	5,718	158,007	33,868
States not shown separately	1927	25	234	838	6,415	---	3,615	539,101	1,102,086	14,287,719	14,076,149	211,570	20,977,056	6,080,037
	1919	33	634	1,540	5,780	---	2,568	1,134,456	1,545,884	28,800,270	28,567,035	233,244	35,559,768	6,750,480

<sup>1</sup> Not including proprietors and firm members. The total numbers of persons engaged and the numbers of proprietors and firm members, as reported for this industry, are as follows: For 1929, total, 2,120; proprietors and firm members, 4. For 1927, total, 2,071; proprietors and firm members, 3. For 1919, total, 3,808; proprietors and firm members, 1.  
<sup>2</sup> The figures for 1929 refer to sales (shipments or deliveries) by manufacturers; those for earlier years represent production. See GENERAL EXPLANATIONS—Value of Products.  
<sup>3</sup> Value of products less cost of materials, containers for products, fuel, and purchased electric energy. See GENERAL EXPLANATIONS—Value Added by Manufacture.  
<sup>4</sup> Florida, 1 establishment; Indiana, 1; Kansas, 1; Louisiana, 1; Maryland, 3; Massachusetts, 1; Missouri, 2; New Jersey, 3; Ohio, 3; Rhode Island, 4; Tennessee, 1; Texas, 1; Washington, 1; Wisconsin, 2.  
<sup>5</sup> California, 3 establishments; Maryland, 2; Massachusetts, 2; Michigan, 1; Minnesota, 1; Missouri, 4; New Jersey, 5; New York, 3; Ohio, 5; Rhode Island, 4; Wisconsin, 3.

TABLE 3.—PRODUCTS, BY KIND, QUANTITY, AND VALUE, FOR THE UNITED STATES: 1925 TO 1929

[The figures for 1929, except those for oleomargarine made as a secondary product in the meat-packing industry, refer to sales (shipments or deliveries) by manufacturers; the figures for earlier years, and those for oleomargarine made as a secondary product in the meat-packing industry for all years, represent production. See GENERAL EXPLANATIONS—Value of Products]

PRODUCT	1929		1927		1925	
	Pounds	Value	Pounds	Value	Pounds	Value
1. Oleomargarine industry, all products, total value		\$40,521,823		\$30,282,364		\$39,860,034
2. Oleomargarine		35,517,819		33,024,810		34,407,000
3. Other products (not normally belonging to the industry)		11,004,004		6,257,545		5,449,028
4. Oleomargarine made as a secondary product in meat-packing and other industries, value		24,897,641		18,726,938		13,931,447
Oleomargarine, all industries, total (sum of 2 and 4)	370,299,746	60,415,460	294,066,722	51,751,757	241,040,005	48,338,453
Made in the oleomargarine industry	206,367,352	35,517,819	180,103,026	33,024,810	168,050,795	34,407,000
Made as a secondary product in the meat-packing industry	108,173,643	16,521,785	86,651,746	14,501,799	67,300,307	13,005,735
Made as a secondary product in other industries	55,758,751	8,375,856	27,311,950	4,225,139	5,088,373	975,712
Reported according to material used:						
Composed solely of vegetable oils and fats	183,668,093	28,741,241	134,481,800	22,109,478	93,816,312	18,297,844
Composed of a mixture of animal and vegetable oils and fats	78,458,010	15,152,434	72,033,077	15,080,480	79,922,850	17,084,874
Not reported according to material used (made in meat-packing industry)	108,173,643	16,521,785	86,651,746	14,501,799	67,300,897	13,005,735

TABLE 4.—PRODUCTS, BY QUANTITY AND VALUE, BY STATES: 1929 AND 1927

[Figures are given for each State which can be shown separately without disclosing data for individual establishments. Certain of the "Other States," however, reported larger quantities and values than some of the States shown separately. See headnote to Table 3]

STATE	1929		1927		STATE	1929		1927	
	Pounds	Value	Pounds	Value		Pounds	Value	Pounds	Value
United States.....	370, 299, 740	\$60, 415, 460	294, 006, 722	\$51, 751, 767	Kansas.....	19, 488, 508	\$3, 045, 923	20, 210, 557	\$3, 010, 090
California.....	49, 917, 112	7, 306, 584	( <sup>1</sup> )	( <sup>1</sup> )	Missouri.....	16, 008, 236	2, 653, 404	( <sup>1</sup> )	( <sup>1</sup> )
Illinois.....	159, 101, 322	26, 840, 124	127, 367, 800	22, 881, 130	Ohio.....	32, 161, 845	5, 168, 016	21, 090, 078	4, 182, 031
					Other States.....	93, 723, 224	16, 500, 740	125, 397, 381	21, 008, 900

<sup>1</sup> Included in figure for "Other States" to avoid disclosing data for individual establishments.

<sup>2</sup> For 1929: Colorado, Florida, Indiana, Iowa, Louisiana, Maryland, Massachusetts, Michigan, Minnesota, Nebraska, New Jersey, New York, Oklahoma, Oregon, Rhode Island, Tennessee, Texas, Utah, Washington, Wisconsin. For 1927: California, Colorado, Connecticut, Florida, Indiana, Iowa, Louisiana, Maryland, Massachusetts, Minnesota, Missouri, Nebraska, New Jersey, Oregon, Rhode Island, South Dakota, Tennessee, Texas, Washington, Wisconsin.

TABLE 5.—PRIME MOVERS, MOTORS, GENERATORS, AND CONSUMPTION OF PURCHASED ELECTRIC ENERGY—NUMBER AND RATED CAPACITY OF PRIME MOVERS AND ELECTRIC MOTORS, 1929, 1927, 1925, 1919, AND 1914, AND OF GENERATORS, 1929, 1927, AND 1925; QUANTITY OF ELECTRIC ENERGY PURCHASED, 1929

TYPE	1929		1927		1925		1919		1914		PER CENT DIS- TRIBUTION OF RATED HORSE- POWER CAPACITY	
	Num- ber	Capac- ity	Num- ber	Capac- ity	Num- ber	Capac- ity	Num- ber	Capac- ity	Num- ber	Capac- ity	1929	1919
		Horse- power		Horse- power		Horse- power		Horse- power		Horse- power		
Prime movers and electric motors driven by purchased energy, aggregate.....	722	6, 670	740	8, 746	668	6, 740	430	9, 435	109	3, 431	100. 0	100. 0
Prime movers, total.....	21	2, 510	23	3, 407	24	2, 292	44	5, 188	21	2, 250	37. 0	55. 0
Steam, total.....	18	2, 435	20	3, 332	21	2, 217	42	5, 151	20	2, 245	36. 5	54. 0
Engines.....	18	2, 435	20	3, 332	21	2, 217	42	5, 151	( <sup>1</sup> )	( <sup>1</sup> )	36. 5	54. 6
Turbines.....									( <sup>1</sup> )	( <sup>1</sup> )		
Internal-combustion engines.....							1	12	1	5		0. 1
Water wheels and water turbines.....	3	75	3	75	3	75	1	25			1. 1	0. 3
Electric motors driven by purchased energy.....	701	4, 160	717	5, 339	544	4, 448	392	4, 247	79	1, 181	62. 4	45. 0
Electric motors, total.....	1, 082	5, 569	909	6, 009	710	5, 703	591	6, 350	213	2, 261	100. 0	100. 0
Driven by purchased energy.....	701	4, 160	717	5, 339	544	4, 448	392	4, 247	79	1, 181	74. 7	66. 9
Driven by energy generated in establishments reporting.....	381	1, 409	192	1, 270	172	1, 255	199	2, 103	134	1, 080	25. 3	33. 1
Electric generators.....	6	Kilo- watts 975	10	Kilo- watts 1, 150	11	Kilo- watts 1, 180	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )		
Electric energy purchased <sup>3</sup> .....		5, 069, 529		( <sup>4</sup> )		( <sup>4</sup> )		( <sup>4</sup> )		( <sup>4</sup> )		

<sup>1</sup> Not called for separately on schedule.

<sup>2</sup> Not called for on schedule.

<sup>3</sup> This item covers the consumption of purchased electric energy for all purposes—power, heat, light, etc.

<sup>4</sup> Data incomplete.

TABLE 6.—WAGE EARNERS, BY MONTHS, FOR THE UNITED STATES, 1929, 1925, 1919, AND 1914, AND BY STATES, 1929

[This table presents statistics for only those States for which figures can be given without disclosing data for individual establishments. The sum of the State items in any column is not, therefore, equal to the United States total at the head of the column. The month of maximum employment is indicated by bold-faced figures and that of minimum employment by *italic* figures]

STATE	Average number employed during year	NUMBER EMPLOYED ON 15TH DAY OF MONTH OR NEAREST REPRESENTATIVE DAY												Per cent minimum is of maximum		
		January	February	March	April	May	June	July	August	September	October	November	December			
United States:																
1929.....	1, 534	1, 506	1, 535	1, 594	1, 540	1, 502	1, 474	1, 438	1, 425	1, 442	1, 586	1, 614	1, 607	88. 3		
1925.....	1, 639	1, 620	1, 578	1, 671	1, 608	1, 575	1, 550	1, 552	1, 505	1, 612	1, 721	1, 885	1, 868	83. 1		
1919.....	2, 851	3, 389	2, 783	2, 678	2, 812	2, 801	2, 543	2, 530	2, 549	2, 664	2, 899	3, 359	3, 405	98. 8		
1914.....	917	1, 007	1, 016	1, 039	897	762	744	801	821	901	985	951	1, 029	72. 9		
California.....	103	115	118	118	103	94	93	91	80	91	98	111	111	76. 3		
Illinois.....	593	621	607	598	594	599	586	590	574	578	613	613	611	92. 4		
Ohio.....	292	271	278	284	298	284	290	280	295	292	311	311	298	87. 1		

# PEANUTS, WALNUTS, AND OTHER NUTS, PROCESSED OR SHELLED

Description of the industry.—The establishments in this industry are engaged primarily in bleaching and shelling English walnuts and almonds; polishing and shelling pecans; grading, cleaning, and shelling peanuts; and similar activities, partly on a custom basis. The industry does not cover the operations of wholesale grocery and commercial establishments in which the processing of nuts is incidental to other lines of business.

Comparison with earlier census years.—At the censuses for 1925 and prior years establishments

engaged in the activities now covered by this industry classification were assigned to the "Peanuts: Grading, roasting, cleaning, and shelling" and the "Food preparations, not elsewhere classified" industries; but at the census for 1927 they were transferred to the new classification, "Peanuts, walnuts, and other nuts, processed or shelled." For this reason, and also because detailed data on the several classes of products were collected for the first time at the census for 1927, comparable figures for prior census years can not be given.

TABLE 1.—GENERAL STATISTICS, BY STATES: 1929 AND 1927

This table presents statistics separately for each State for which figures can be given without disclosing data for individual establishments, and for the remaining States in groups. Certain of the States for which figures are given in combination with those for others, however, reported larger values of products than some of the States shown separately]

STATE	Census year	Number of establishments	Salaried officers and employ-ees <sup>1</sup>	Wage earners (average for the year)	HORSEPOWER (RATED CAPACITY) OF POWER EQUIPMENT			Salaries	Wages	COST OF MATERIALS, CONTAINERS FOR PRODUCTS, FUEL, AND PURCHASED ELECTRIC ENERGY			Value of products <sup>2</sup>	Value added by manufacture <sup>3</sup>
					Total	Prime movers	Motors run by purchased energy			Total	Materials and containers	Fuel and purchased energy		
United States.....	1929	100	564	7,933	16,193	7,954	8,230	\$1,137,676	\$3,070,740	\$30,529,486	\$39,317,074	\$212,412	\$40,008,894	\$10,070,408
	1927	144	620	7,376	13,956	7,600	6,200	1,063,808	3,287,114	45,800,488	45,709,822	180,666	55,040,802	10,050,814
Per cent of increase or decrease (—)		17.4	8.5	7.6	10.0	3.4	31.5	6.0	-0.3	-13.0	-14.0	17.6	-11.3	0.2
Individual States:														
Alabama.....	1929	11	31	297	1,662	675	687	43,715	92,972	1,751,651	1,720,139	31,512	1,693,174	241,523
	1927	10	26	265	1,371	782	580	34,958	83,736	1,021,554	1,008,738	12,816	2,001,667	170,113
California.....	1929	43	112	673	2,156	7	2,149	181,653	646,997	9,601,483	9,574,062	26,621	12,177,938	2,570,455
	1927	40	121	802	2,152	7	2,145	147,740	709,180	15,153,029	15,124,003	29,326	17,865,189	2,701,209
Florida.....	1929	3	11	73	402	245	157	17,748	31,193	657,498	655,853	1,645	703,841	100,343
Georgia.....	1929	23	76	877	3,973	2,698	1,275	137,512	267,004	5,526,596	5,490,276	36,320	6,331,231	864,635
	1927	22	77	622	3,170	2,265	906	129,700	205,411	5,137,444	5,117,814	20,130	5,835,907	698,553
Louisiana.....	1929	3	9	253	61	8	53	17,770	90,567	258,828	255,608	3,220	418,744	159,916
North Carolina.....	1929	10	37	469	1,410	675	735	75,936	132,495	2,964,312	2,949,272	15,040	3,440,373	476,061
	1927	9	39	372	1,163	425	738	90,519	127,078	3,335,637	3,321,625	14,112	3,833,073	495,036
Oklahoma.....	1929	4	9	77	440		440	34,189	49,459	641,843	634,778	7,065	814,833	172,990
Texas.....	1929	23	78	1,835	1,639	761	878	145,813	555,594	4,337,764	4,336,860	30,904	6,417,560	2,049,796
	1927	13	55	709	1,176	551	625	70,323	367,497	2,530,826	2,522,143	17,678	3,423,165	863,339
Virginia.....	1929	22	93	1,050	3,253	2,225	1,028	208,771	400,020	8,800,019	8,768,416	31,603	9,077,907	1,177,948
	1927	24	93	1,215	2,933	2,190	793	267,691	595,142	12,102,651	12,059,727	42,924	14,232,445	2,129,704
Groups of States:														
Ill., 5 est.; Ohio, 1.....	1929	6	11	146	56		56	40,886	98,440	733,367	729,481	3,886	1,017,258	283,891
Mass., 1 est.; N. Y., 3; Pa., 4.....	1929	8	31	171	320	225	95	47,945	150,706	1,687,164	1,673,048	14,116	2,079,405	302,241
Other States (Ark., 2 est.; D. C., 1; Ky., 1; Minn., 1; Mo., 3; Oreg., 1; S. C., 1; Tenn., 2; Utah, 1).....	1929	13	66	2,012	821	435	386	185,738	564,194	2,538,961	2,528,381	10,580	4,126,570	1,587,609
States not shown separately.....	1927	26	109	3,301	1,041	1,470	471	332,377	1,199,070	5,699,447	5,655,767	43,680	8,677,003	2,078,219

<sup>1</sup> Not including proprietors and firm members, as follows: For 1929, 49; 1927, 55. The total numbers of persons engaged—proprietors and firm members, salaried officers and employees, and wage earners—as reported for the industry, are as follows: For 1929, 3,548; 1927, 7,051.

<sup>2</sup> For 1929, manufacturers' sales (shipments or deliveries); for 1927, production. See GENERAL EXPLANATIONS—Value of Products.

<sup>3</sup> Value of products less cost of materials, containers for products, fuel, and purchased electric energy. See GENERAL EXPLANATIONS—Value Added by Manufacture.

<sup>4</sup> District of Columbia, 3 establishments; Florida, 3; Illinois, 1; Kentucky, 1; Louisiana, 2; Massachusetts, 1; Minnesota, 2; Missouri, 3; New York, 2; Ohio, 1; Pennsylvania, 5; South Carolina, 1; Utah, 1.

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**TABLE 2.—PRODUCTS, BY KIND, QUANTITY, AND VALUE, FOR THE UNITED STATES: 1929 AND 1927**

(The figures for 1929 refer to sales (shipments or deliveries) by manufacturers; those for 1927 represent production. See GENERAL EXPLANATIONS—Value of Products)

KIND	1929		1927	
	Pounds	Value	Pounds	Value
1. The "Peanuts, walnuts, and other nuts, processed or shelled" industry, all products, total value.....		\$40,608,894		\$55,940,802
2. Nuts, bleached, polished, shelled, cleaned, graded, etc.....		40,500,008		52,451,193
3. Other products (not normally belonging to the industry).....		3,102,280		3,498,600
4. Nuts, bleached, polished, shelled, cleaned, graded, etc., secondary products of other industries, value.....		5,233,132		8,161,072
Nuts, bleached, polished, shelled, cleaned, graded, etc., all industries: Aggregate value (sum of 2 and 4).....		51,730,740		60,612,898
Peanuts, total value.....		32,137,778		34,050,341
Shelled (raw).....	342,713,420	24,400,036	287,010,339	23,354,756
Cleaned and graded (not shelled).....	104,786,830	7,040,842	134,445,202	10,695,585
English walnuts, total.....	50,577,930	9,854,618	88,115,031	14,971,200
Bleached or polished.....	52,042,577	8,367,561	80,972,009	14,020,170
Shelled <sup>1</sup> .....	4,535,362	1,487,067	7,143,022	951,030
Other nuts (pecans, almonds, Brazil nuts, etc.), total.....	24,304,904	9,747,344	41,064,395	11,591,327
Bleached or polished.....	9,224,807	2,000,491	25,730,245	4,474,140
Shelled.....	15,170,127	7,656,863	15,934,150	7,117,181

<sup>1</sup> Weight and value of nuts prior to shelling, as reported by growers' associations.

**TABLE 3.—PRODUCTS, BY KIND, QUANTITY, AND VALUE, BY STATES: 1929**

(The figures refer to sales (shipments or deliveries) by manufacturers. See GENERAL EXPLANATIONS—Value of Products. Figures are given for each State which can be shown separately without disclosing data for individual establishments. In some cases, however, certain of the "Other States" reported larger quantities and values than some of the States shown separately)

Kind and State	Pounds	Value	Kind and State	Pounds	Value
Peanuts, shelled (raw), total.....	342,713,420	\$24,400,036	English walnuts, bleached or polished and shelled (Calif., Oreg., Tex., and Utah) <sup>1</sup> .....	50,577,930	\$9,854,618
Alabama.....	31,668,022	1,865,204	Other nuts (pecans, almonds, Brazil nuts, etc.), shelled or cleaned, total.....	24,304,904	9,747,344
Florida.....	14,013,110	728,381	California.....	9,825,715	2,038,088
Georgia.....	86,354,756	6,071,970	Other States (Ark., Ga., Ill., La., Minn., Mo., N. Y., Okla., Oreg., Tenn., Tex., and Utah).....	14,500,279	6,800,256
North Carolina.....	32,052,100	2,720,167			
Texas.....	55,051,736	3,794,022			
Virginia.....	101,478,478	7,714,605			
Other States (Ark., Calif., Ill., Mass., Okla., Pa., S. C., and Tenn.).....	20,294,318	1,505,078			
Peanuts, cleaned and graded (not shelled), total.....	104,786,830	7,040,842			
North Carolina.....	12,315,792	711,072			
Virginia.....	84,898,268	5,901,922			
Other States (Ala., Calif., D. C., Ga., Mich., Minn., Mo., Nehr., Ohio, Okla., Oreg., Pa., Tenn., and Tex.).....	7,572,770	1,027,848			

<sup>1</sup> Combined to avoid disclosing data for individual establishments. Only small amounts reported from Oregon, Texas, and Utah.

**TABLE 4.—PRIME MOVERS, MOTORS, GENERATORS, AND CONSUMPTION OF PURCHASED ELECTRIC ENERGY—NUMBER AND RATED CAPACITY OF PRIME MOVERS, ELECTRIC MOTORS, AND GENERATORS, 1929 AND 1927; QUANTITY OF ELECTRIC ENERGY PURCHASED, 1929**

TYPE	1929		1927		Per cent distribution of rated horsepower capacity, 1929	TYPE	1929		1927		Per cent distribution of rated horsepower capacity, 1929
	Number	Capacity	Number	Capacity			Number	Capacity	Number	Capacity	
Prime movers and electric motors driven by purchased energy, aggregate.....	1,348	Horse-power 10,193	1,117	Horse-power 13,956	100.0	Electric motors, total.....	1,342	Horse-power 8,918	1,077	Horse-power 6,939	100.0
Prime movers, total.....	70	7,054	74	7,090	49.1	Driven by purchased energy.....	1,278	8,239	1,043	6,266	92.4
Steam, total.....	64	7,502	64	7,042	46.8	Driven by energy generated in establishments reporting.....	64	679	34	673	7.6
Engines.....	63	7,402	64	7,042	45.7	Electric generators.....	27	Kilowatts 3,701	12	Kilowatts 730	-----
Turbines.....	1	100	-----	-----	2.8	Electric energy purchased <sup>1</sup> .....	-----	Kilowatt-hours 4,700,771	-----	(?)	-----
Internal-combustion engines.....	0	452	10	648	-----						
Electric motors driven by purchased energy.....	1,278	8,239	1,043	6,266	50.9						

<sup>1</sup> This item covers the consumption of purchased electric energy for all purposes—power, heat, light, etc.

<sup>2</sup> Data incomplete.

CENSUS OF MANUFACTURES: 1929

TABLE 5.—WAGE EARNERS, BY MONTHS, BY STATES: 1929

[This table presents statistics for only those States for which figures can be given without disclosing data for individual establishments. The sum of the State items in any column is not, therefore, equal to the United States total at the head of the column. The month of maximum employment is indicated by bold-faced figures and that of minimum employment by *italic* figures]

STATE	Average number employed during year	NUMBER EMPLOYED ON 15TH DAY OF MONTH OR NEAREST REPRESENTATIVE DAY												Percent minimum is of maximum
		January	February	March	April	May	June	July	August	September	October	November	December	
United States.....	7,933	9,223	9,005	8,078	7,622	6,950	6,447	<i>4,791</i>	5,344	6,690	9,789	10,657	10,506	45.0
Alabama.....	297	447	485	370	317	208	178	170	<i>111</i>	248	280	374	320	29.1
California.....	673	938	778	240	98	100	117	<i>69</i>	138	408	1,044	2,004	1,238	3.4
Florida.....	73	62	105	9	0	7	8	8	125	176	179	174	174	3.9
Georgia.....	877	1,138	1,075	881	839	778	533	<i>395</i>	623	814	1,185	1,167	1,167	33.9
Louisiana.....	253	358	262	245	261	247	217	227	<i>28</i>	118	322	356	403	7.0
North Carolina.....	469	454	549	574	520	469	443	399	377	<i>558</i>	337	594	578	50.1
Oklahoma.....	77	147	153	114	31	<i>25</i>	45	48	57	63	80	77	84	16.3
Texas.....	1,835	2,292	2,255	2,151	2,146	1,958	1,722	<i>538</i>	1,248	1,540	1,845	1,959	2,355	22.9
Virginia.....	1,050	1,141	1,079	964	979	976	938	<i>332</i>	956	1,053	1,058	1,108	1,351	65.3