TABLE 3.—PAPER AND PAPERBOARDS—PRODUCTION, BY KIND, QUANTITY, AND VALUE, FOR THE UNITED STATES: 1931 AND 1929

KIND	1931		1929	
	Tons (2,000 pounds)	Value	Tons (2,000 pounds)	Value
1. Paper industry, all products, total	----------	$684,971,197	----------	$967,186,026
Paper and paperboard:				
2. Produced for sale	6,939,706	498,202,661	8,331,297	715,145,798
3. Produced for transfer to other plants of same company	1,259,025	65,118,228	1,612,554	101,878,865
4. Products other than paper and paperboard (not normally belonging to the industry)	----------	121,650,308	----------	150,161,363
5. Paper and paperboard produced for use in same plant	1,183,109	67,785,320	1,196,384	86,276,477
Paper and paperboard, aggregate (sum of 2, 3, and 5) [1]	9,381,840	631,106,209	11,140,235	903,301,140
Newsprint and similar papers, total	1,514,543	86,143,284	1,772,591	109,315,125
Standard newsprint:				
In rolls	1,174,532	61,953,541	1,373,612	78,388,893
In sheets	28,731	1,700,835	35,557	2,318,006
Hanging	85,974	5,800,106	101,002	7,293,931
Catalog	89,382	7,064,325	111,771	9,570,858
Poster, novel, news-tablet, lining, etc	135,924	9,624,477	150,649	11,743,437
Book paper, total	1,208,674	120,282,799	1,497,912	168,271,655
Machine-finished, sized, and supercalendered	952,142	94,977,883	1,176,596	131,852,168
Body stock for coated paper	199,946	18,345,062	250,234	26,755,587
Lithograph	10,036	1,081,260	19,877	2,417,196
Offset	23,454	3,146,490	26,304	3,847,128
Other book paper	[2] 23,096	[2] 2,732,104	24,901	3,399,576
Cover paper	23,520	4,371,668	28,072	6,429,856
Writing paper (fine), total	487,598	77,865,416	607,590	113,223,595
100 percent rag	11,614	7,088,021	17,397	11,143,620
50 percent or more but less than 100 percent rag	25,130	9,651,320	40,416	15,972,906
Less than 50 percent rag	42,974	10,220,045	60,806	15,536,771
Sulphite bond	246,971	31,304,209	284,609	41,724,237
Other chemical wood-pulp writing papers	160,909	19,601,821	204,362	28,846,061
Wrapping paper, total	1,401,667	110,885,376	1,605,783	163,442,382
Unbleached sulphite wrapping	156,701	13,239,803	143,568	13,564,762
Bleached sulphite wrapping	28,473	3,070,984	25,207	3,101,407
Sulphite for bags	14,606	1,294,033	47,002	4,308,885
Kraft:				
For bags	346,629	22,480,058	[3] 846,468	[3] 79,911,121
Other	521,114	36,234,510		
Bogus and screenings	25,701	1,151,299	38,529	2,086,111
Greaseproof	10,774	1,755,817	7,965	1,607,935
Glassine	37,666	6,684,742	47,438	9,736,951
Heavy (mill wrappers, etc.)	41,336	1,865,479	63,238	3,423,428
Rope, jute, etc	33,850	5,443,834	62,270	12,075,511
Ground wood and chemical manila	29,664	2,276,119	54,893	4,600,729
Tag board, light manila board, and pattern	35,200	3,270,206	30,616	3,503,586
Other wrapping paper [4]	119,953	12,118,492	238,589	25,521,956
Tissue paper, total	394,623	45,041,174	387,811	53,300,059
High-grade	57,409	10,155,353	63,834	15,307,089
Manila and No. 2 white	44,950	5,306,032	40,691	5,543,375
Napkin	22,610	2,974,738	29,536	4,138,515
Toilet	150,652	14,319,971	142,725	15,102,952
Towel	53,521	4,679,913	52,283	4,903,065
Waxing	65,481	7,605,167	58,742	8,305,063

Footnotes at end of table.

TABLE 3.—PAPER AND PAPERBOARDS—PRODUCTION, BY KIND, QUANTITY, AND VALUE, FOR THE UNITED STATES: 1931 AND 1929—Continued

KIND	1931		1929	
	Tons (2,000 pounds)	Value	Tons (2,000 pounds)	Value
Absorbent paper, total	76, 592	$14, 774, 037	90, 800	$16, 972, 984
Blotting	9, 565	1, 775, 628	14, 125	2, 828, 427
Matrix board	3, 230	1, 372, 269	4, 281	1, 516, 233
Matrix paper	876	179, 407		
For vulcanized fiber	10, 484	1, 519, 628	25, 928	4, 106, 713
Filter	972	274, 845	46, 466	8, 521, 611
For parchmentizing	22, 007	3, 080, 249		
Other absorbent paper	29, 458	6, 572, 011		
Building papers, total	395, 359	18, 129, 372	659, 178	39, 375, 990
Sheathing papers	26, 341	791, 407	52, 205	2, 214, 947
Felts	318, 827	14, 003, 836	540, 166	32, 544, 935
Asbestos-filled and asbestos paper	44, 002	3, 010, 647	66, 807	4, 616, 108
Other building papers	6, 189	323, 482	39, 311	5, 227, 977
Other paper	31, 441	4, 500, 770		
Paperboards, total	3, 847, 823	149, 112, 313	4, 451, 187	227, 741, 517
Container boards:				
Liners:				
Kraft	495, 766	18, 498, 067	1, 108, 852	55, 212, 515
Other	574, 391	19, 979, 789		
Chip (plain and test)	552, 016	14, 828, 307	785, 199	27, 865, 152
Straw (for corrugated-container use)	281, 619	8, 848, 911	361, 486	16, 685, 279
Folding box boards (bending):				
Manila-lined (all lined boards)	604, 469	24, 476, 622	590, 523	30, 869, 321
Patent-coated	179, 464	8, 865, 286	182, 831	11, 195, 066
Other folding box boards (including shell and unlined boards)	121, 786	4, 604, 892	217, 931	11, 085, 633
Set-up box boards (nonbending):				
Chip and straw	260, 833	7, 192, 992	325, 111	11, 753, 491
News board	216, 806	5, 818, 053	189, 028	7, 430, 954
Other (including tube, egg-case filler, pasted news and pasted chip boards)	84, 537	3, 044, 396	85, 526	3, 859, 432
Binders' board	32, 703	2, 177, 414	64, 165	4, 675, 097
Cardboard:				
Bristol board	36, 424	4, 471, 381	47, 233	4, 921, 699
Other cardboard	37, 678	3, 574, 517		
Leatherboard	26, 715	2, 581, 467	24, 228	2, 042, 498
Pressboard	4, 000	822, 828	11, 901	2, 480, 486
Other boards	338, 625	19, 327, 391	457, 173	37, 364, 873

[1] Includes data for paper and paperboard used in the manufacture of converted paper products in the plants which produced the paper and paperboard, as follows: For 1931, 1,183,109 tons, valued at $67,785,320; for 1929, 1,196,384 tons, valued at $86,276,477.

[2] Includes data for "text paper," not shown separately to avoid disclosing approximations of data for individual establishments.

[3] Reported as follows: Sulphate for bags, 134,234 tons, valued at $11,411,650; kraft, 712,234 tons, valued at $68,499,471.

[4] Includes data for "vegetable and other imitation parchment," not shown separately to avoid disclosing approximations of data for individual establishments.

TABLE 4.—PAPER AND PAPERBOARDS—PRODUCTION, BY QUANTITY AND VALUE, BY STATES: 1931 AND 1929

[Statistics are given for all States for which separate figures can be published without disclosing, exactly or approximately, the data reported by individual establishments. Certain of the "Other States," however, are more important in the industry than some of the States shown separately]

STATE	1931		1929	
	Quantity (ton, 2,000 pounds)	Value	Quantity (ton, 2,000 pounds)	Value
United States	9,381,840	$631,106,209	11,140,235	$903,301,140
California	192,273	9,724,409	253,800	15,140,414
Connecticut	153,391	8,049,394	197,060	15,656,533
Delaware	20,873	2,315,857	39,366	4,817,327
Illinois	485,725	16,766,088	596,577	29,748,082
Indiana	234,422	10,089,448	348,769	18,120,354
Louisiana	295,005	13,613,164	273,574	18,041,807
Maine	956,385	65,481,800	1,061,384	87,021,341
Maryland	87,099	6,138,613	109,348	9,453,897
Massachusetts	405,861	55,388,300	562,462	91,044,282
Michigan	902,561	54,473,879	1,092,111	82,016,379
Minnesota	240,785	13,013,682	318,387	21,647,522
New Hampshire	130,027	13,259,242	195,547	22,206,610
New Jersey	498,301	23,986,027	604,940	37,074,136
New York	1,160,037	86,884,126	1,512,855	124,711,686
Ohio	788,912	50,667,907	936,572	72,284,788
Oregon	200,065	13,492,637	222,731	16,158,578
Pennsylvania	607,830	47,255,241	748,960	67,117,895
Tennessee	94,569	3,914,554	83,564	4,407,312
Vermont	65,676	4,835,673	72,677	6,763,124
Virginia	275,523	16,691,393	242,455	20,296,766
Washington	374,765	25,575,133	382,253	27,679,043
West Virginia	43,579	3,739,969	51,889	5,016,561
Wisconsin	727,032	63,727,147	886,146	85,240,423
Other States [1]	441,144	22,022 526	346,808	21,636,280

[1] See footnote 4, table 1, p. 489.

TABLE 5.—PAPER MACHINES, BY TYPE, NUMBER, AND CAPACITY, BY KIND OF PAPER MADE: 1931, 1930, AND 1929

KIND	Total capacity per year of 310 days (tons, 2,000 pounds)	FOURDRINIER		CYLINDER	
		Number	Capacity per 24 hours (tons, 2,000 pounds)	Number	Capacity per 24 hours (tons, 2,000 pounds)
Total:					
1931	13,971,760	928	23,295	744	21,775
1930	13,643,100	934	22,557	708	21,453
1929	13,704,480	937	22,131	738	22,077
Newsprint:					
1931	1,636,490	105	5,279		
1930	1,712,130	121	5,523		
1929	1,695,080	126	5,461	1	7
Book paper:					
1931	1,774,130	228	5,723		
1930	1,762,970	234	5,685	1	2
1929	1,774,750	239	5,691	4	34
Cover paper:					
1931	42,780	13	135	1	3
1930	106,330	19	313	4	30
1929	46,810	13	132	3	19
Writing paper:					
1931	803,830	168	2,587	1	6
1930	650,380	143	2,091	1	7
1929	623,410	143	1,984	2	27
Wrapping paper:					
1931	1,944,320	193	5,520	56	752
1930	2,058,400	222	5,970	64	670
1929	2,039,800	206	5,597	69	983
Tissue paper:					
1931	535,370	113	1,297	89	430
1930	437,410	109	979	87	432
1929	442,680	102	952	94	476
Absorbent paper:					
1931	139,810	36	404	22	47
1930	118,420	35	349	17	33
1929	148,800	36	369	10	111
Building papers:					
1931	884,740	5	245	68	2,609
1930	789,880	4	194	66	2,354
1929	911,090	5	230	72	2,709
Other:					
1931	414,780	52	1,278	8	60
1930	270,010	26	656	15	215
1929	325,190	38	973	7	76
Boards:					
1931	5,795,450	15	827	499	17,868
1930	5,737,170	21	797	453	17,710
1929	5,696,870	29	742	470	17,635

CONVERTED PAPER PRODUCTS

[Preliminary reports for these industries were published on June 29, 1932, and subsequent dates]

Description of the industries.—The industries included in the Converted Paper Products subgroup are engaged *primarily* in the conversion of paper and paperboards into containers and other commodities. These industries are as follows:

Bags, paper, exclusive of those made in paper mills.—The establishments classified in this industry are engaged primarily in the manufacture, from purchased paper, of bags for groceries and other merchandise, shopping bags, and garment bags. Some establishments in certain other industries manufacture the paper bags in which their products are shipped, but their production of such bags is not separately reported and consequently is not covered by this report.

Boxes, paper, not elsewhere classified.—The principal products of the establishments in this industry are shipping containers; cartons and folding boxes; set-up paper boxes; paper cans; decorated, lithographed, lacquered, and fancy-covered paper boxes; and other paper boxes and containers.

Cardboard, not made in paper mills.—The establishments in this industry are engaged primarily in surface coating and glazing paper, box board, fiber board, and the like. The principal products are printers' cardboard, display cut-outs, lithographic mounts, etc.

Card cutting and designing.—The leading products of this industry are index, library, and record cards; guides, etc; stencil cards for addressing machines; photograph mats, mounts, and folders; pattern cards for weaving; and related products.

Envelopes.—This classification covers all manufacturers whose products of chief value are envelopes of any description, including those used for filing, wrapping, etc.

Wall paper.—The establishments in this industry are engaged primarily in designing and printing wall paper, using as their principal material "hanging paper" manufactured in paper mills.

Paper goods not elsewhere classified.—The establishments in this industry are engaged primarily in the manufacture, from purchased paper stock, of waxed paper; glazed and fancy paper; toilet paper; coated book paper; gummed tape; paper cups, dishes, spoons, etc.; paper napkins; water-proof wrapping paper; paper towels; crepe and lace paper; bottle caps; playing cards; paper cores and tubes; egg-case fillers; bag, barrel, and trunk linings; adding-machine and cash-register paper; soda straws; stencil paper; etc.

Statistics of products.—The differences between the values of the several classes of products as given in table 3 and the values of the products of the corresponding industries as given in table 1 are due to the fact that the statistics in table 3 cover the entire output of the items, regardless of the industries reporting them, whereas the figures in table 1 relate to the establishments whose principal products are those from which the industries derive their titles.

To illustrate: The total value of paper bags given in table 3, $61,575,890, is made up of $50,120,652, representing the value of bags manufactured in the Paper-Bag industry, and $11,455,238, representing the value of paper bags made as secondary products in other industries; whereas the total value of products for the Paper-Bag industry, $54,290,800 (table 1), comprises the value of paper bags manufactured in the industry, $50,120,652, the value of secondary products normally belonging to other industries, $4,166,301, and receipts for contract work, $3,847.

TABLE 1.—CONVERTED PAPER PRODUCTS INDUSTRIES—SUMMARY FOR THE SUBGROUP, FOR THE UNITED STATES, AND FOR EACH INDUSTRY, BY STATES: 1931

[Statistics are given for all States for which separate figures can be published without disclosing, exactly or approximately, the data reported by individual establishments. Certain of the "Other States," however, are more important in the respective industries than some of the States shown separately. For United States totals for years prior to 1931, see table beginning on p. 482]

INDUSTRY AND STATE	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, fuel, and purchased electric energy	Value of products	Value added by manufacture [1]
All industries, aggregate	2,029	86,679	$87,451,700	$262,921,418	$506,051,774	$243,130,356
BAGS, PAPER, EXCLUSIVE OF THOSE MADE IN PAPER MILLS						
United States	95	6,836	6,422,669	33,426,725	54,290,800	20,864,075
Illinois	6	374	382,208	1,865,604	3,219,358	1,353,754
Louisiana	5	591	432,222	2,587,275	4,561,032	1,973,757
Maryland	3	123	98,595	526,723	716,659	189,936
Massachusetts	4	249	239,421	1,396,724	2,064,948	668,224
New Jersey	3	35	41,208	157,141	338,040	180,899
New York	32	1,891	1,862,993	10,537,096	16,740,203	6,203,107
Ohio	14	1,134	1,035,489	6,076,480	9,636,953	3,560,473
Pennsylvania	10	593	721,870	3,062,883	5,499,141	2,436,258
Other States [2]	18	1,846	1,608,663	7,216,799	11,514,466	4,297,667
BOXES, PAPER, NOT ELSEWHERE CLASSIFIED						
United States	1,214	46,722	44,085,214	113,251,004	217,871,622	104,620,618
Arkansas	3	41	25,646	55,114	118,196	63,082
California	36	1,125	1,216,435	3,935,713	6,916,065	2,980,352
Colorado	3	135	114,169	233,279	510,858	277,579
Connecticut	46	1,851	1,812,596	3,061,702	6,675,710	3,614,008
Georgia	10	390	251,494	766,088	1,482,443	716,355
Illinois	106	4,206	4,530,764	11,670,046	22,680,096	11,010,050
Indiana	23	1,731	1,617,332	6,055,681	10,186,846	4,131,165
Iowa	9	218	180,603	481,529	881,338	399,809
Louisiana	8	267	186,245	1,014,202	1,658,180	643,978
Maine	11	164	126,750	193,491	428,628	235,137
Maryland	26	949	697,256	1,943,157	3,709,958	1,766,801
Massachusetts	101	4,499	4,346,894	10,131,097	19,241,732	9,110,635
Michigan	23	1,074	1,026,679	3,700,658	5,738,704	2,038,046
Minnesota	16	589	584,842	2,009,078	3,529,859	1,520,781
Missouri	49	2,534	2,126,762	5,884,886	10,692,661	4,807,775
New Hampshire	8	107	88,593	189,051	383,199	194,148
New Jersey	64	2,829	2,747,446	8,337,357	14,493,164	6,155,807
New York	333	16,425	10,387,854	21,251,628	47,576,651	26,325,023
North Carolina	9	417	308,472	841,299	1,756,418	915,119
Ohio	68	3,373	3,274,776	9,228,164	16,882,934	7,654,770
Oregon	8	158	146,438	259,225	565,396	306,171
Pennsylvania	139	5,001	4,233,187	9,084,389	18,779,628	9,695,239
Rhode Island	12	414	317,792	364,974	1,096,376	731,402
Tennessee	11	446	333,668	866,999	1,709,224	842,225
Texas	10	312	223,300	634,616	1,236,620	602,004

Footnotes at end of table.

TABLE 1.—CONVERTED PAPER PRODUCTS INDUSTRIES—SUMMARY FOR THE SUBGROUP, FOR THE UNITED STATES, AND FOR EACH INDUSTRY, BY STATES: 1931—Continued.

[See note at head of table]

INDUSTRY AND STATE	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, fuel, and purchased electric energy	Value of products	Value added by manufacture [1]
BOXES, PAPER, NOT ELSEWHERE CLASSIFIED—continued						
Virginia	11	501	$380,035	$1,238,977	$2,166,031	$927,054
Washington	14	333	318,966	989,758	1,712,993	723,235
West Virginia	9	290	257,629	1,298,437	2,050,006	751,569
Wisconsin	28	1,467	1,370,065	4,089,162	7,433,823	3,344,661
Other States [3]	20	876	852,526	3,441,247	5,577,885	2,136,638
CARDBOARD, NOT MADE IN PAPER MILLS						
United States	12	520	598,742	1,656,009	3,593,766	1,937,757
Pennsylvania	3	202	209,874	528,185	1,289,769	761,584
Other States [4]	9	318	388,868	1,127,824	2,303,997	1,176,173
CARD CUTTING AND DESIGNING						
United States	72	2,041	2,407,951	6,673,843	15,953,282	9,279,439
Massachusetts	6	194	195,593	547,555	1,315,810	768,255
Michigan	4	488	671,944	2,442,405	4,344,915	1,902,510
New Jersey	6	51	74,847	83,288	206,302	123,014
New York	25	485	577,012	1,842,635	4,992,842	3,150,207
Ohio	6	224	211,179	304,884	970,938	666,054
Pennsylvania	12	214	245,894	310,710	803,756	493,046
Other States [5]	13	385	431,482	1,142,366	3,318,719	2,176,353
ENVELOPES						
United States	162	8,924	9,658,173	22,452,160	46,943,261	24,491,101
California	10	366	442,683	839,030	2,023,655	1,184,625
Illinois	20	1,201	1,501,352	3,219,070	7,303,551	4,084,481
Maryland	4	91	88,216	243,523	543,784	300,261
Massachusetts	18	1,975	1,932,090	5,207,748	10,087,564	4,879,816
Michigan	5	165	194,426	457,923	1,059,798	601,875
Minnesota	8	238	219,895	457,493	1,024,035	566,542
Missouri	10	411	489,606	1,027,042	2,351,966	1,324,924
New York	35	1,378	1,656,337	3,319,931	6,974,189	3,654,258
Ohio	10	1,251	1,257,104	3,774,225	6,655,944	2,881,719
Pennsylvania	15	599	616,513	1,231,128	2,914,430	1,683,302
Texas	3	70	68,236	147,667	366,508	218,841
Wisconsin	4	150	154,004	360,034	893,456	533,422
Other States [6]	20	1,029	1,037,711	2,167,346	4,744,381	2,577,035
WALL PAPER						
United States	50	3,734	3,993,949	9,150,312	20,194,112	11,043,800
Illinois	12	1,153	1,140,186	3,300,580	7,334,714	4,034,134
New Jersey	6	222	282,379	529,091	1,257,965	728,874
New York	12	988	1,058,278	2,036,902	4,813,334	2,776,432
Ohio	3	109	151,954	328,243	719,183	390,940
Pennsylvania	11	930	924,279	1,882,527	3,934,336	2,051,809
Other States [7]	6	332	436,873	1,072,969	2,134,580	1,061,611

Footnotes at end of table.

TABLE 1.—CONVERTED PAPER PRODUCTS INDUSTRIES—SUMMARY FOR THE SUBGROUP, FOR THE UNITED STATES, AND FOR EACH INDUSTRY, BY STATES: 1931—Continued.

[See note at head of table]

INDUSTRY AND STATE	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, fuel, and purchased electric energy	Value of products	Value added by manufacture [1]
PAPER GOODS NOT ELSEWHERE CLASSIFIED						
United States	424	17,902	$20,285,002	$76,311,365	$147,204,931	$70,893,566
California	14	211	291,392	1,710,821	3,113,315	1,402,494
Connecticut	6	61	72,775	196,064	385,821	189,757
Georgia	4	79	64,687	444,417	731,528	287,111
Illinois	38	1,514	2,052,368	7,577,422	18,225,558	10,648,136
Indiana	11	411	282,876	1,395,347	2,274,346	878,999
Maryland	3	22	17,670	19,050	48,500	29,450
Massachusetts	59	3,218	3,795,246	10,960,569	19,232,858	8,272,289
Michigan	18	412	495,832	2,136,032	3,584,407	1,448,375
Minnesota	3	144	155,429	800,810	1,351,527	550,717
Missouri	7	329	406,210	1,875,415	2,833,598	958,183
New Jersey	31	1,534	1,855,607	6,988,271	14,583,173	7,594,902
New York	104	3,593	3,907,743	13,613,135	27,839,130	14,225,995
Ohio	25	1,854	2,103,491	6,401,311	14,679,676	8,278,365
Oregon	5	154	168,911	984,201	1,411,447	427,246
Pennsylvania	33	1,332	1,339,576	3,720,423	9,252,819	5,532,396
Rhode Island	11	278	320,374	728,294	1,545,703	817,409
Vermont	3	181	167,293	1,161,779	1,702,640	540,861
Washington	5	40	48,488	362,043	516,889	154,846
Wisconsin	19	1,133	1,171,282	6,943,783	10,701,148	3,757,365
Other States [3]	25	1,402	1,567,752	8,292,178	13,190,848	4,898,670

[1] Value of products less cost of materials, fuel, and purchased electric energy. See sec. 20, p. II.

[2] Alabama, 2 establishments; California, 2; Connecticut, 1; Indiana, 3; Maine, 2; Michigan, 1; Texas, 2; Virginia, 1; Washington, 3; Wisconsin, 1.

[3] Alabama, 1 establishment; Delaware, 1; District of Columbia, 2; Florida, 1; Kansas, 4; Kentucky, 4; Nebraska, 1; Oklahoma, 2; South Dakota, 1; Utah, 2; Vermont, 1.

[4] Illinois, 3 establishments; Indiana, 1; Massachusetts, 1; Nebraska, 1; New York, 2; Rhode Island, 1.

[5] California, 2 establishments; District of Columbia, 1; Illinois, 3; Maryland, 1; Missouri, 2; North Carolina, 1; Rhode Island, 1; Wisconsin, 2.

[6] Colorado, 2 establishments; Connecticut, 2; District of Columbia, 1; Georgia, 1; Indiana, 2; Iowa, 1; Kentucky, 1; Louisiana, 1; Nebraska, 2; New Jersey, 1; Oklahoma, 1; Oregon, 1; Virginia, 2; Washington, 2.

[7] Connecticut, 1 establishment; Indiana, 2; Massachusetts, 2; Wisconsin, 1.

[8] Alabama, 1 establishment; Arizona, 1; Colorado, 1; Delaware, 1; District of Columbia, 3; Iowa, 2; Louisiana, 1; Maine, 1; Nebraska, 2; New Hampshire, 3; Tennessee, 3; Texas, 3; Virginia, 3.

TABLE 2.—WAGE EARNERS, BY MONTHS, FOR THE CONVERTED PAPER PRODUCTS INDUSTRIES, FOR THE UNITED STATES, 1931, 1929, 1925, 1919, 1914, AND 1909, AND FOR STATES, 1931

[This table presents statistics for only those States for which figures can be given without disclosing, exactly or approximately, 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. See sec. 13, p. 8]

	Average number employed during year	NUMBER REPORTED FOR—											
		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
BAGS, PAPER, EXCLUSIVE OF THOSE MADE IN PAPER MILLS													
United States													
1931	6,836	6,651	6,703	6,750	6,886	6,848	6,823	7,051	6,974	6,784	6,947	6,990	*6,625*
1929	6,970	*6,550*	6,840	7,136	7,295	7,098	7,072	6,998	6,979	6,930	7,125	6,931	6,687
1925	5,585	5,656	5,734	5,682	5,544	5,488	5,346	5,502	*5,273*	5,669	5,773	5,732	5,617
1919	4,168	4,124	3,833	3,785	3,591	*3,266*	3,895	4,205	4,404	4,588	4,721	4,754	4,850
1914	3,505	3,443	3,457	3,470	3,432	3,420	*3,342*	3,374	3,489	3,701	3,796	3,666	3,470
1909	3,212	3,157	3,215	3,230	3,135	*3,110*	3,132	3,147	3,234	3,278	3,279	3,328	3,294
States, 1931													
Illinois	374	*356*	379	370	369	381	374	**392**	391	387	360	360	367
Louisiana	591	503	*495*	558	651	617	596	**669**	650	570	612	603	564
Maryland	123	118	123	115	127	135	143	**143**	133	109	112	*107*	110
Massachusetts	249	231	*228*	240	244	246	245	254	259	258	259	259	**261**
New Jersey	35	35	43	52	44	49	45	32	20	*18*	26	30	31
New York	1,891	1,908	1,876	1,895	1,909	1,876	*1,821*	1,847	1,887	1,921	1,928	1,948	1,881
Ohio	1,134	1,049	1,151	1,167	1,179	1,225	1,194	1,187	1,119	1,129	1,079	1,106	*1,017*
Pennsylvania	593	*524*	529	540	547	568	609	617	633	647	651	673	579
BOXES, PAPER, NOT ELSEWHERE CLASSIFIED													
United States													
1931	46,722	46,041	46,222	46,620	46,485	46,169	46,033	*45,580*	46,101	47,701	48,840	48,177	46,697
1929	55,654	*53,289*	54,088	54,651	54,552	53,967	53,972	54,047	55,436	57,316	59,770	59,813	56,941
1925	57,148	55,852	56,103	56,413	55,745	55,080	*54,417*	54,681	55,712	58,160	60,965	62,083	60,570
1919	55,862	53,373	52,850	52,932	53,106	*52,776*	53,888	56,193	56,845	55,982	59,616	61,455	61,328
1914	45,311	46,512	46,213	46,583	45,996	45,311	44,619	*43,824*	43,857	45,227	46,126	45,283	44,181
1909	39,514	*37,864*	37,888	38,669	38,596	38,264	38,108	37,884	38,442	40,157	42,126	43,123	43,039
States, 1931													
Arkansas	41	34	*33*	*33*	39	42	39	36	43	51	52	55	41
California	1,125	1,184	1,151	1,131	1,122	1,097	1,118	1,102	1,092	*1,080*	1,122	1,158	1,143
Colorado	135	127	125	124	*122*	126	155	142	148	140	136	135	139
Connecticut	1,851	1,909	1,871	1,869	1,840	1,837	1,946	1,876	1,858	1,813	1,814	1,831	*1,751*
Georgia	390	*372*	382	384	395	387	377	*372*	375	402	422	402	409

TABLE 2.—WAGE EARNERS, BY MONTHS, FOR THE CONVERTED PAPER PRODUCTS INDUSTRIES, FOR THE UNITED STATES, 1931, 1929, 1925, 1919, 1914, AND 1909, AND FOR STATES, 1931—Continued

[See note at head of table]

	Average number employed during year	NUMBER REPORTED FOR—											
		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
BOXES, PAPER, NOT ELSEWHERE CLASSIFIED—continued													
States, 1931—Continued													
Illinois	4,206	4,185	4,143	4,167	4,129	4,097	4,083	*4,037*	4,063	4,331	4,550	4,427	4,264
Indiana	1,731	1,656	1,751	1,711	1,712	1,689	1,683	*1,644*	1,662	1,724	1,784	1,860	1,888
Iowa	218	245	202	227	224	231	203	*197*	218	221	221	230	200
Louisiana	267	284	285	282	*249*	258	256	253	270	271	269	266	263
Maine	164	*150*	160	167	169	169	172	160	163	165	163	162	163
Maryland	949	995	981	973	956	933	*917*	926	933	923	927	935	984
Massachusetts	4,499	4,361	4,356	4,417	4,425	4,456	4,446	4,388	4,691	4,738	4,791	4,569	*4,347*
Michigan	1,074	1,056	1,033	*1,031*	1,069	1,081	1,082	1,066	1,061	1,113	1,152	1,077	1,055
Minnesota	589	602	597	576	567	582	*551*	558	581	608	641	625	586
Missouri	2,534	2,587	2,557	2,572	2,541	2,526	2,523	2,540	2,488	2,558	2,546	2,509	*2,463*
New Hampshire	107	101	105	103	107	114	111	108	108	112	108	111	*98*
New Jersey	2,829	*2,601*	2,665	2,716	2,795	2,775	2,803	2,870	2,854	2,917	2,982	3,046	2,925
New York	10,425	10,255	10,424	10,579	10,464	10,325	10,131	*10,044*	10,123	10,670	11,036	10,701	10,348
North Carolina	417	430	423	419	424	421	410	*405*	413	416	419	415	412
Ohio	3,373	3,370	3,394	3,354	3,376	3,325	*3,278*	3,306	3,331	3,387	3,413	3,535	3,406
Oregon	158	169	166	167	169	162	157	*146*	149	*146*	155	156	160
Pennsylvania	5,001	*4,752*	4,814	4,941	4,922	4,914	5,020	4,904	4,937	5,192	5,257	5,259	5,101
Rhode Island	414	420	406	401	392	392	385	383	*382*	415	468	471	451
Tennessee	446	*415*	425	441	454	465	469	438	444	462	465	440	430
Texas	312	309	306	306	298	294	295	291	*290*	317	337	357	339
Virginia	501	494	507	508	513	501	497	498	492	505	501	506	*485*
Washington	333	*309*	316	338	339	335	323	338	362	348	345	325	313
West Virginia	290	267	280	305	315	274	291	289	282	279	369	277	*253*
Wisconsin	1,467	1,500	1,494	1,509	1,503	1,477	1,458	1,413	*1,406*	1,471	1,489	1,465	1,424
CARDBOARD, NOT MADE IN PAPER MILLS													
United States													
1931	520	523	541	543	525	521	506	*499*	509	538	522	516	501
1929	609	593	604	605	590	*588*	597	605	614	627	623	629	622
1925	978	982	960	983	982	964	961	1,053	1,006	961	1,024	1,000	*856*
1919	1,425	*1,355*	1,405	1,403	1,370	1,364	1,377	1,450	1,450	1,473	1,476	1,498	1,479
1914 [1]	1,159	1,116	1,120	1,164	1,157	*1,092*	1,167	1,169	1,178	1,215	1,210	1,207	1,113

State, 1931													
Pennsylvania	202	207	211	212	210	204	203	197	198	200	194	197	*193*
CARD CUTTING AND DESIGNING													
United States													
1931	2,041	2,133	2,148	2,245	2,202	2,129	1,994	1,971	*1,874*	1,895	2,011	1,923	1,971
1929	2,338	*2,195*	2,323	2,385	2,377	2,322	2,297	2,300	2,321	2,376	2,392	2,397	2,369
1925	1,086	1,045	1,075	*1,088*	1,066	1,061	1,058	1,052	1,060	1,120	1,150	1,164	1,140
1919	1,148	*1,015*	1,053	1,117	1,092	1,142	1,147	1,167	1,201	1,172	1,178	1,231	1,261
1914	517	*436*	450	497	477	478	466	483	486	552	583	643	653
1909	525	534	539	539	530	522	508	*506*	519	533	520	525	543
States, 1931													
Massachusetts	194	215	214	222	219	224	207	194	185	163	169	*159*	161
Michigan	488	511	509	571	568	532	469	471	432	*490*	471	444	451
New Jersey	51	*49*	*49*	*49*	*49*	50	50	*49*	*49*	56	56	56	56
New York	485	501	512	517	508	491	462	484	*455*	457	487	466	483
Ohio	224	220	252	241	235	231	250	220	205	*202*	210	211	217
Pennsylvania	214	217	215	224	228	222	218	205	202	209	218	*200*	208
ENVELOPES													
United States													
1931	8,924	9,139	9,147	9,124	9,162	9,066	8,922	8,830	8,794	8,753	8,755	8,706	*8,692*
1929	10,367	*10,031*	10,177	10,291	10,404	10,363	10,350	10,299	10,320	10,461	10,598	10,573	10,536
1925	9,052	9,081	9,226	9,374	9,292	9,170	8,930	8,771	*8,641*	8,883	8,947	9,145	9,168
1919	8,129	7,934	7,891	7,901	*7,845*	7,858	7,852	8,100	8,100	8,274	8,461	8,565	8,767
1914 [1]	6,970	7,007	6,995	7,129	7,174	7,085	6,968	6,813	*6,771*	6,954	6,986	6,908	6,850
States, 1931													
California	366	371	386	383	386	386	370	360	355	366	349	*331*	343
Illinois	1,201	1,200	1,198	1,193	1,196	1,224	1,208	1,205	1,204	1,214	1,206	1,187	*1,178*
Maryland	91	95	96	96	92	88	*86*	87	88	91	92	90	92
Massachusetts	1,975	1,972	1,965	1,964	2,049	2,034	2,007	1,998	1,978	1,929	1,945	1,939	*1,915*
Michigan	165	165	171	169	163	156	*155*	164	164	164	162	164	185
Minnesota	238	267	264	246	238	229	230	224	*223*	227	243	234	234
Missouri	411	422	436	422	418	414	411	403	404	405	*397*	402	405
New York	1,378	1,396	1,412	1,430	1,432	1,412	1,378	1,353	1,323	*1,317*	1,351	1,364	1,372
Ohio	1,251	1,327	1,308	1,301	1,288	1,277	1,255	1,240	1,237	1,226	1,197	1,190	*1,174*
Pennsylvania	599	633	627	630	612	583	588	*580*	598	587	587	585	584
Texas	70	82	74	73	70	73	67	*66*	*66*	68	67	69	69
Wisconsin	150	154	155	159	163	156	142	149	143	151	149	143	*133*

[1] No data available for 1909.

TABLE 2.—WAGE EARNERS, BY MONTHS, FOR THE CONVERTED PAPER PRODUCTS INDUSTRIES, FOR THE UNITED STATES, 1931, 1929, 1925, 1919, 1914, AND 1909 AND FOR STATES, 1931—Continued

[See note at head of table]

	Average number employed during year	NUMBER REPORTED FOR—											
		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
WALL PAPER													
United States													
1931	3,734	4,392	3,957	3,600	3,527	3,745	3,494	3,490	*3,253*	3,667	3,864	3,940	3,883
1929	4,705	5,209	4,709	4,446	4,445	4,417	4,228	*4,077*	4,223	4,811	5,112	5,354	5,427
1925	5,069	5,714	5,504	5,110	4,821	4,539	4,457	*4,239*	4,442	5,139	5,430	5,617	5,813
1919	4,262	4,606	4,597	4,410	4,214	4,084	3,965	3,834	*3,567*	4,129	4,371	4,572	4,795
1914	4,738	5,517	5,466	5,202	4,864	4,448	4,007	3,945	*3,176*	4,633	5,064	5,234	5,300
1909	4,037	4,395	4,392	4,337	4,126	3,810	3,546	3,484	*2,828*	3,904	4,414	4,535	4,661
States, 1931													
Illinois	1,153	1,204	1,204	1,171	*1,084*	1,100	1,096	1,115	1,129	1,144	1,193	1,207	1,192
New Jersey	222	568	569	373	348	318	64	*63*	64	69	75	78	75
New York	988	1,140	809	776	*763*	994	977	1,063	995	1,031	1,075	1,134	1,101
Ohio	109	125	120	113	111	104	108	79	*49*	127	123	122	130
Pennsylvania	930	1,016	953	885	939	947	952	848	*685*	930	1,008	1,005	986
PAPER GOODS NOT ELSEWHERE CLASSIFIED													
United States													
1931	17,902	17,743	17,882	18,309	18,333	18,421	18,384	18,085	17,894	17,704	17,563	17,376	*17,132*
1929	20,227	*19,395*	19,858	20,085	20,132	20,337	20,469	20,590	20,582	20,665	20,515	20,365	19,726
1925	13,386	*13,066*	13,273	13,484	13,527	13,452	13,372	13,330	13,189	13,202	13,301	13,730	13,711
1919	14,135	13,862	13,395	13,376	13,353	*13,305*	13,621	14,180	14,657	14,647	14,866	14,984	15,374
1914	13,495	13,544	13,665	13,901	14,158	14,277	13,846	13,399	13,135	13,180	13,207	12,929	*12,699*
1909	19,211	*18,554*	18,791	19,022	19,170	19,061	18,969	18,727	18,721	19,193	19,794	20,218	20,309
States, 1931													
California	211	200	*189*	200	*189*	210	218	222	227	219	223	216	214
Connecticut	61	61	61	61	60	62	61	60	62	62	60	60	*59*
Georgia	79	*72*	*72*	79	77	75	77	73	78	83	88	90	83
Illinois	1,514	1,556	1,554	1,588	1,544	1,517	1,498	1,482	*1,457*	1,459	1,498	1,493	1,518
Indiana	411	*284*	379	468	486	538	536	451	396	395	354	354	286
Maryland	22	53	53	51	13	13	13	13	*12*	*12*	*12*	*12*	*12*
Massachusetts	3,218	3,324	3,228	3,269	3,200	3,255	3,184	3,213	3,220	3,198	3,208	3,144	*3,082*
Michigan	412	385	367	393	416	442	467	439	466	461	*353*	359	390
Minnesota	144	146	139	148	152	140	146	167	143	137	142	138	*135*
Missouri	329	305	311	*299*	366	350	351	338	306	331	345	330	320

New Jersey	1,534	1,473	1,535	1,601	1,580	1,601	1,624	1,626	1,598	1,519	1,437	1,413	*1,400*
New York	3,593	*3,461*	3,575	3,663	3,667	3,715	3,649	3,588	3,524	3,549	3,640	3,594	3,495
Ohio	1,854	2,030	1,928	1,991	2,009	1,972	1,953	1,752	1,751	1,717	*1,706*	1,723	1,712
Oregon	154	143	146	*136*	139	147	158	166	169	168	166	157	154
Pennsylvania	1,332	*1,262*	1,206	1,323	1,304	1,333	1,395	1,400	1,396	1,353	1,322	1,310	1,296
Rhode Island	278	277	300	285	*264*	277	280	278	276	275	290	266	268
Vermont	181	171	162	156	*152*	180	170	216	209	200	177	178	198
Washington	40	*37*	38	40	40	41	41	40	40	39	46	40	39
Wisconsin	1,133	*1,098*	1,137	1,149	1,176	1,154	1,148	1,130	1,131	1,126	1,106	1,127	1,112

TABLE 3.—CONVERTED PAPER PRODUCTS—PRODUCTION, BY KIND AND VALUE, FOR THE UNITED STATES: 1931 AND 1929

KIND	VALUE	
	1931	1929
1. Converted Paper Products industries, all products, total value	$506,051,774	[1] $658,094,518
2. Converted paper products	493,963,255	[1] 638,889,650
3. Other products (not normally belonging to the industries)	11,070,720	[1] 18,466,224
4. Receipts for custom (or contract) work	1,017,799	[1] 738,644
5. Converted paper products made as secondary products by establishments in other industries (principally paper mills)	140,703,650	178,835,397
Converted paper products, all industries: Aggregate value (sum of 2 and 5)	634,666,905	[1] 817,725,047
Bags, paper, total	61,575,890	79,124,252
Kraft	46,271,015	63,884,477
Other	15,304,875	15,239,775
Bottle caps, paper	6,889,745	5,523,765
Boxes and containers, paper and paperboard, total	259,807,139	346,446,958
Shipping containers, corrugated	78,321,379	97,959,464
Shipping containers, solid-fiber	27,300,406	42,035,357
Cartons and folding boxes	75,344,721	95,726,976
Set-up paper boxes	60,519,780	85,382,513
Paper cans	11,179,183	13,023,526
Decorated, lithographed, lacquered, and fancy-covered boxes	2,919,006	6,600,125
Other boxes and containers	4,222,664	5,718,997
Cards cut and designed, total	15,197,373	16,104,053
Index, library, etc., cards, plain	3,831,789	3,640,527
Jacquard cards for textile-fabric machines	495,325	476,304
Photograph mats, mounts, folders, etc	3,371,370	5,222,592
Other	7,498,889	6,764,630
Cardboard (converted)	4,205,291	6,937,388
Coated book paper	33,398,853	49,514,438
Confetti	77,615	61,016
Crepe paper	3,031,488	5,063,664
Cups, paper	12,117,287	10,713,637
Dishes, spoons, etc., paper	3,851,952	6,113,115
Envelopes	45,270,347	57,657,514
File folders	1,171,460	(2)
Glazed and fancy paper	7,053,074	10,575,168
Gummed paper and tape, total	8,778,886	13,025,734
Gummed flat paper	1,787,290	2,247,730
Gummed paper tape	3,831,579	6,125,077
Gummed cloth tape	3,160,017	4,652,927
Lace, paper	2,127,989	2,152,334
Napkins, paper	6,337,307	6,899,617
Papeteries [3]	6,186,691	17,459,242
Rolls, paper (for adding machines, etc.)	1,885,299	1,768,206
Tablets	6,900,588	9,446,543
Toilet paper	25,444,227	25,323,220
Towels, paper	7,857,541	8,035,657
Tubes, paperboard	3,412,348	6,087,149
Twisted paper (cord, twine, etc.)	148,857	424,782
Wall paper [4]	20,189,360	30,004,881
Waterproof wrapping paper	3,213,439	3,259,295
Waxed paper	34,034,660	35,464,098
Other converted paper and paperboard products [5]	54,502,199	64,599,400

[1] Revised.
[2] Not called for separately on schedule.
[3] Papeteries are primary products of the Stationery Goods Not Elsewhere Classified industry but are made to some extent also as secondary products by establishments classified in certain of the Converted Paper Products industries. The items here given represent the total production in all industries.
[4] Number of rolls reported: For 1931, 301,398,613; 1929, 373,893,950.
[5] Includes: (1) For 1931 and 1929, cigarette paper, playing cards, and roofing paper; also, for 1931, paper patterns other than printed or lithographed, and unprinted tags; and (2) miscellaneous paper products not specifically reported by kind.

PULPWOOD CONSUMPTION AND WOOD-PULP PRODUCTION: 1931

This report is one of a series of annual reports on pulpwood consumption and wood-pulp production in the United States, published by the Bureau of the Census in cooperation with the Forest Service, Department of Agriculture.

TABLE 1.—PULPWOOD CONSUMPTION, BY QUANTITY AND COST, FOR THE UNITED STATES: 1931, 1930, AND 1929

YEAR	Quantity (cords)	COST (F.O.B. MILL)	
		Total	Average per cord
1931	[1] 6,722,766	$73,524,059	$10.94
1930	[1] 7,195,524	88,683,502	12.32
1929	7,645,011	100,054,139	13.09

[1] Includes data for a small quantity of spent licorice root of no market value.

TABLE 2.—PULPWOOD CONSUMPTION—QUANTITY, BY KIND OF WOOD, FOR THE UNITED STATES: 1931, 1930, AND 1929

KIND OF WOOD	CORDS		
	1931	1930	1929
Total	[1] 6,722,766	[1] 7,195,524	7,645,011
Spruce:			
Domestic	1,651,051	1,844,937	2,074,267
Imported	676,339	888,255	1,029,913
Yellow pine, Southern	1,294,503	1,030,273	1,036,272
Hemlock:			
Domestic	1,185,272	1,222,961	1,309,170
Imported	5,776		15,379
Balsam fir:			
Domestic	338,790	330,548	317,552
Imported	55,601	48,935	45,412
Poplar:			
Domestic	266,603	291,897	329,466
Imported	94,238	159,092	157,829
Jack pine [2]	159,273	200,970	[3] 205,760
White fir [4]	109,277	90,652	111,054
Yellow poplar [4]	73,504	107,795	129,697
Beech, birch, and maple [4]	69,681	68,848	76,950
Tamarack (larch) [4]	35,433	40,054	51,835
Gum [4]	22,440	41,825	39,685
Other woods [5]	126,942	232,980	[3] 153,485
Slabs and mill waste	[1] 558,043	[1] 595,502	561,285

[1] Includes data for a small quantity of spent licorice root of no market value.
[2] For 1931 and 1929, includes data for small quantities of imported jack pine; for 1930, domestic only.
[3] Revised.
[4] Domestic only.
[5] Domestic cedar, chestnut, cottonwood, Douglas fir, white pine, and willow, and domestic and imported basswood, for all 3 years; in addition, imported cottonwood for 1930.

TABLE 3.—PULPWOOD CONSUMPTION—QUANTITY (CORDS), BY KIND OF WOOD AND PROCESS OF MANUFACTURE, FOR THE UNITED STATES: 1931

KIND OF WOOD	PROCESS OF MANUFACTURE					
	Total	Mechanical (ground)	Chemical and semichemical			
			Total	Sulphite	Sulphate	Soda and semichemical
Total	[1] 6,722,766	1,371,389	[1] 5,351,377	2,781,685	1,770,940	[1] 798,752
Spruce:						
Domestic	1,651,051	813,933	837,118	800,294	(2)	(2)
Imported	676,339	249,790	426,549	[3] 426,549	----------	(3)
Yellow pine, Southern	1,294,503	(4)	[4] 1,294,503	[4] 52,640	1,154,691	87,172
Hemlock [5]	1,191,048	113,186	1,077,862	904,070	(2)	(2)
Balsam fir:						
Domestic	338,790	96,061	242,729	201,641	41,088	----------
Imported	55,601	(4)	[4] 55,601	[4] 55,601	----------	----------
Poplar:						
Domestic	266,603	31,224	235,379	13,918	729	220,732
Imported	94,238	----------	94,238	----------	----------	94,238
Jack pine [6]	159,273	(7)	[7] 159,273	(7)	[7] 159,273	----------
Yellow poplar [8]	73,504	----------	73,504	----------	(9)	[9] 73,504
Beech, birch, and maple [8]	69,681	----------	69,681	(3)	----------	(3)
Tamarack (larch) [8]	35,433	----------	35,433	(10)	[10] 35,433	----------
Gum [8]	22,440	----------	22,440	----------	----------	22,440
White fir [8]	109,277	[11] 34,401	[11] 201,818	[11] 84,358	[11] 5,695	----------
Other woods [12]	126,942					111,765
Slabs and mill waste	[1] 558,043	15,657	[1] 542,386	263,341	169,918	[1] 109,127

[1] Includes data for a small quantity of spent licorice root of no market value.
[2] Included in total for "Chemical and semichemical" to avoid disclosing quantity consumed by an individual establishment.
[3] Data for a small amount of "Soda and semichemical" included with "Sulphite" to avoid disclosing quantity consumed by an individual establishment.
[4] Data for a small amount of "Mechanical" included with "Sulphite" to avoid disclosing quantities consumed by individual establishments.
[5] Principally domestic, but includes a small quantity of imported hemlock. See table 2.
[6] Principally domestic, but includes a small quantity of imported jack pine.
[7] Data for small amounts of "Mechanical" and "Sulphite" included with "Sulphate" to avoid disclosing, exactly or approximately, quantities consumed by individual establishments.
[8] Domestic only.
[9] Data for a small amount of "Sulphate" included with "Soda and semichemical" to avoid disclosing quantity consumed by an individual establishment.
[10] Data for a small amount of "Sulphite" included with "Sulphate" to avoid disclosing quantity consumed by an individual establishment.
[11] Combined to avoid disclosing, exactly or approximately, quantities consumed by individual establishments.
[12] Domestic chestnut, cottonwood, Douglas fir, willow, white pine, and cedar, in order of importance, and domestic and imported basswood.

TABLE 4.—PULPWOOD CONSUMPTION—PERCENT REDUCED BY EACH PROCESS, FOR THE UNITED STATES: 1931, 1930, AND 1929

YEAR	Total pulpwood consumed (cords)	PERCENT OF TOTAL REDUCED BY SPECIFIED PROCESS				
		Mechanical	Sulphite	Sulphate	Soda	Semi-chemical
1931	6,722,766	20.4	41.4	26.3	10.2	1.7
1930	7,195,524	20.4	43.6	23.5	11.8	.7
1929	7,645,011	20.4	44.5	22.3	12.1	.7

TABLE 5.—PULPWOOD CONSUMPTION—QUANTITY AND COST, BY KIND OF WOOD AND BY CONDITION IN WHICH PURCHASED, FOR THE UNITED STATES: 1931

KIND OF WOOD	TOTAL		ROUGH		PEELED AND ROSSED	
	Cords	Cost	Cords	Cost	Cords	Cost
Total	[1] 6,722,766	$73,524,059	[1] 2,917,212	$24,470,793	3,805,554	$49,053,266
Spruce:						
Domestic	1,651,051	24,993,928	570,178	7,280,864	1,080,873	17,713,064
Imported	676,339	12,084,537	168,564	2,833,862	507,775	9,250,675
Yellow pine, Southern	1,294,503	7,818,012	843,527	4,035,485	450,976	3,782,527
Hemlock:						
Domestic	1,185,272	9,992,168	510,605	4,431,901	674,667	5,560,267
Imported	5,776	62,848	----------	----------	5,776	62,848
Balsam fir:						
Domestic	338,790	4,267,573	180,616	1,930,782	158,174	2,336,791
Imported	55,601	942,072	7,372	117,504	48,229	824,568
Poplar:						
Domestic	266,603	3,386,649	19,480	126,227	247,123	3,260,422
Imported	94,238	1,568,214	----------	----------	94,238	1,568,214
Jack pine	[2] 159,273	[2] 1,473,808	81,750	749,427	[2] 77,523	[2] 724,471
Yellow poplar [3]	73,504	628,283	----------	----------	73,504	628,283
Beech, birch, and maple [3]	69,681	942,077	----------	----------	69,681	942,077
White fir [3]	109,277	798,791	[4] 47,811	[4] 396,314	[4] 246,281	[4] 1,937,148
Tamarack (larch) [3]	35,433	398,605				
Gum [3]	22,440	235,580				
Other woods [5]	126,942	900,486				
Slabs and mill waste	[1] 558,043	3,030,338	[1] 487,309	2,568,427	70,734	461,911

[1] Includes data for a small quantity of spent licorice root of no market value.
[2] Includes data for a small quantity of imported jack pine.
[3] Domestic only.
[4] Combined to avoid disclosing, exactly or approximately, the quantity consumed by individual establishments.
[5] Domestic chestnut, cottonwood, Douglas fir, willow, white pine, and cedar, in the order of their importance, and domestic and imported basswood.

TABLE 6.—PULPWOOD CONSUMPTION, BY KINDS OF WOOD, BY STATES: 1931

[This table presents statistics for all States for which separate figures can be published without disclosing, exactly or approximately, the data reported by individual establishments. Certain of the "Other States," however, reported the consumption of larger quantities of pulpwood than some of the States shown separately]

STATE	Number of mills reporting	PULPWOOD CONSUMED, CORDS																	
		Total	Spruce		Yellow pine, Southern	Hemlock		Balsam fir		Poplar		Jack pine [1]	White fir	Yellow poplar	Beech, birch, and maple	Tamarack (larch)	Gum	Other [2]	Slabs and mill waste
			Domestic	Imported		Domestic	Imported	Domestic	Imported	Domestic	Imported								
United States	197	[3] 6,722,766	1,651,051	676,339	1,294,503	1,185,272	5,776	338,790	55,601	266,663	94,238	159,273	109,277	73,504	69,681	35,433	22,440	126,942	[3] 558,043
Louisiana	6	431,425			(4)														(4)
Maine	27	1,112,368	678,421	156,646		38,483	(4)	73,604	21,836	87,364	16,118				(4)			1,835	(4)
Massachusetts	3	33,438	(4)	(4)						(4)									
Michigan	10	251,197	71,719	64,682		(4)		32,126	5,552	(4)		(4)				(4)			(4)
Minnesota	6	197,587	127,185					(4)		(4)		(4)							(4)
New York	47	583,370	213,061	234,520		15,143		47,430	(4)	43,034	(4)							(4)	
Oregon	7	319,876	49,138			165,477				(4)			(4)						(4)
Pennsylvania	9	292,615	(4)	74,981	49,852	(4)		(4)	(4)	20,981	(4)				32,712				(4)
Vermont	3	24,633	20,059	(4)				(4)	(4)										
Virginia	7	368,030	(4)	(4)	(4)	(4)				(4)				(4)	(4)		(4)		(4)
Washington	17	1,025,878	49,468	(4)		543,900	(4)			(4)			(4)					(4)	370,659
Wisconsin	28	956,659	220,536	123,349		302,195		153,999		18,555		96,568				(4)		(4)	(4)
Other States [5]	[6] 27	[3] 1,125,690	221,464	22,161	1,244,651	120,074	5,776	31,631	28,213	96,669	78,120	62,705	109,277	73,504	36,969	35,433	22,440	125,107	[3] 187,384

[1] Principally domestic, but includes a small quantity of imported jack pine.
[2] Domestic chestnut, cottonwood, Douglas fir, willow, white pine, and cedar, and domestic and imported basswood.
[3] Includes data for a small quantity of spent licorice root of no market value.
[4] Included in corresponding item for "Other States," to avoid disclosing, exactly or approximately, the quantities consumed by individual establishments. Not included in total for "Other States."
[5] See footnote 4.
[6] Alabama, 2 establishments; Arkansas, 1; Delaware, 1; Florida, 1; Maryland, 2; Mississippi, 2; New Hampshire, 6; New Jersey, 1; North Carolina, 3; Ohio, 1; South Carolina, 1; Tennessee, 4; West Virginia, 2.

TABLE 7.—WOOD-PULP PRODUCTION, BY PROCESS, FOR THE UNITED STATES: 1931, 1930, AND 1929

[Tons, 2,000 pounds]

YEAR	TOTAL [1]	MECHANICAL [1]	SULPHITE [1]	SULPHATE [1]	SODA	SEMICHEMICAL
1931	4,409,344	1,459,355	1,453,194	1,036,113	374,054	[2] 86,628
1930	4,630,308	1,566,832	[3] 1,604,991	[3] 952,501	[3] 475,771	30,213
1929	4,862,885	1,649,112	1,737,085	915,478	520,729	40,481

[1] Includes, for all years, data for screenings. Amounts reported for 1931 are as follows: Total, 48,460 tons; Mechanical, 10,115; Sulphite, 35,671; Sulphate, 2,674.
[2] Includes data for a small quantity of low-grade wood pulp not reported by process.
[3] Revised.

TABLE 8.—WOOD-PULP PRODUCTION—PERCENT PRODUCED BY EACH PROCESS, FOR THE UNITED STATES: 1931, 1930, AND 1929

YEAR	Total wood pulp produced, tons (2,000 pounds)	PERCENT OF TOTAL PRODUCED BY SPECIFIED PROCESS [1]					Percent of screenings in total
		Mechanical [2]	Sulphite [2]	Sulphate [2]	Soda	Semichemical	
1931	4,409,344	32.9	32.1	23.4	8.5	2.0	1.1
1930	4,630,308	33.7	33.8	20.6	10.2	.6	1.1
1929	4,862,885	33.7	34.6	18.8	10.7	.8	1.4

[1] Based on figures in table 7.
[2] Based on figures in table 7, excluding data for screenings.

TABLE 9.—WOOD-PULP PRODUCTION—AVERAGE VALUE PER TON, FOR THE UNITED STATES: 1931, 1930, AND 1929

[The average values of pulp as given in this table are based on the total quantities and total values reported. They are not strictly comparable, however, because in some cases the actual production costs were reported instead of the estimated market values of the pulp f.o.b. mill. The questionnaire used for collecting the data for 1930 carried the following note: "Where pulp is consumed at mill and not sold, please state production cost or price charged to paper plant." The questionnaires used for 1929 and 1931 called only for the estimated market value f.o.b. mill]

YEAR	MECHANICAL		SULPHITE		SULPHATE		SODA		Semichemical
	Not steamed	Steamed	Unbleached	Bleached	Unbleached	Bleached	Unbleached	Bleached	
1931	$23.24	$28.21	$41.46	$57.11	$26.81	$47.73	(1)	(1)	$14.09
1930	25.28	35.06	44.71	66.65	34.68	66.25	$55.43	$60.44	16.67
1929	27.55	40.46	48.39	73.99	(2)	(2)	(1)	(1)	19.70

[1] Not shown separately to avoid disclosing approximations of data for individual establishments. Average value per ton: 1931, $56.04; 1929, $65.41.
[2] Not shown separately to avoid disclosing approximations of data for individual establishments. Average value per ton, $40.51.

TABLE 10.—WOOD-PULP PRODUCTION, BY QUANTITY, PROCESS, AND CONDITION, FOR THE UNITED STATES: 1931, 1930, AND 1929

[Tons, 2,000 pounds]

PROCESS AND CONDITION	1931	1930	1929
Total	[1] 4,409,344	[1] 4,630,308	4,862,885
Mechanical, total	1,449,240	1,560,221	1,637,653
Not steamed	1,363,726	1,414,820	1,474,415
Steamed	85,514	145,401	163,238
Sulphite, total	1,417,523	[2] 1,567,063	1,688,707
Unbleached	676,711	[2] 815,897	848,754
Bleached	740,812	751,166	839,953
Sulphate, total	1,033,439	[2] 949,513	910,888
Unbleached	979,500	882,794	(3)
Bleached	53,939	[2] 66,719	(3)
Soda, total	374,054	[2] 474,230	520,729
Unbleached	(3)	[2] 18,171	(3)
Bleached	(3)	[2] 456,059	(3)
Semichemical	[4] 86,628	30,213	[4] 40,481
Screenings, total	48,460	49,068	64,427
Mechanical	10,115	6,611	11,459
Chemical	38,345	42,457	52,968

[1] Exclusive of data for small quantities of cotton pulp, cottonseed-hull-shavings pulp, rag pulp, and reclaimed paper pulp.
[2] Revised.
[3] Not shown separately to avoid disclosing approximations of amounts produced by individual establishments.
[4] Includes data for a small quantity of pulp not covered by items specified.

TABLE 11.—PULPWOOD CONSUMPTION, BY QUANTITY AND COST, AND WOOD-PULP PRODUCTION, BY QUANTITY AND VALUE, BY STATES: 1931

[Statistics are given for all States for which separate figures can be published without disclosing, exactly or approximately, the data reported by individual establishments. Certain of the "Other States," however, consumed larger quantities of wood and produced larger quantities of pulp than some of the States shown separately]

STATE	WOOD CONSUMED		PULP PRODUCED	
	Cords	Cost	Tons (2,000 pounds)	Value
United States	[1] 6,722,766	$73,524,059	[2] 4,409,344	$156,174,967
Louisiana	431,425	2,047,236	260,765	5,834,427
Maine	1,112,368	17,326,636	889,416	28,811,078
Massachusetts	33,438	535,918	23,785	1,189,597
Michigan	251,197	2,937,046	150,111	6,146,172
Minnesota	197,587	2,118,058	148,369	4,899,751
New York	583,370	10,388,934	[2] 466,510	18,626,039
Oregon	319,876	2,584,712	237,532	5,739,859
Pennsylvania	292,615	4,602,606	160,023	10,103,403
Vermont	24,633	326,546	25,601	534,442
Virginia	368,030	3,049,937	[2] 223,417	8,181,624
Washington	1,025,878	7,252,770	[2] 580,016	17,688,046
Wisconsin	956,659	11,319,105	586,271	25,125,596
Other States [3]	[1] 1,125,690	8,974,555	[2] 657,528	23,294,933

[1] Includes data for a small quantity of spent licorice root of no market value.
[2] Exclusive of data for small quantities of cotton pulp, cottonseed-hull-shavings pulp, rag pulp, and reclaimed paper pulp.
[3] Alabama, Arkansas, Delaware, Florida, Maryland, Mississippi, New Hampshire, New Jersey, North Carolina, Ohio, South Carolina, Tennessee, and West Virginia.

Group 5.—PRINTING, PUBLISHING, AND ALLIED INDUSTRIES

THE GROUP AS A WHOLE

For census purposes, printing and publishing and the several allied activities specified below are classified together as one of the 16 major groups of industries covered by the Census of Manufactures, and the group is divided into two subgroups, namely, (1) Printing and publishing and (2) Allied industries. Summary statistics for the group, the two subgroups, and the individual industries are given in the table below.

Relationship of the industries.—The printing and publishing industries embrace all establishments engaged either in printing or in publishing. (See "Description of the industries," p. 515) More or less closely allied to these industries are a number of others, namely, (1) Bookbinding and Blank-Book Making; (2) Engravers' Materials; (3) Engraving (Other Than Steel, Copperplate, or Wood), Chasing, Etching, and Diesinking; (4) Engraving, Steel, Copperplate, and Wood, and Plate Printing; (5) Lithographing; (6) Photo-Engraving, not Done in Printing Establishments; (7) Printing Materials, Not Including Type or Ink; (8) Stereotyping and Electrotyping, not Done in Printing Establishments; and (9) Type Founding. Statistics for these allied industries are presented on pages 535 to 549, and combined statistics for printing and publishing and these allied industries are given in the table below.

Duplication in value of products and value added by manufacture.—The statistics for this group of industries include some duplication both in the value of products and in the value added by manufacture, as given in the table below and in table 1. This duplication results from the fact that some publishers employ other establishments to do all or a part of their engraving, lithographing, printing, and bookbinding. The amounts paid for such work, which are reported by the publishing establishments under the head "Paid for contract work," appear as "Value of products" in the returns made by lithographing, engraving, commercial-printing, and bookbinding establishments. The duplication appears not only in the total value of products but also in the value added by manufacture, which is calculated by subtracting the cost of materials, fuel, and purchased electric energy (not including amounts paid for contract work) from the total value of products. If the combined amount paid in 1931 for contract work by all establishments in these industries, $141,572,228, be subtracted from the combined value of products, $2,497,214,143, the remainder, $2,355,641,915, with a further slight reduction for duplication due to the sale of products of certain establishments to others within the industry group, represents the net value of products; and the deduction of the contract-work item from the value added by manufacture, $1,916,193,553, leaves $1,774,621,325 as the net value added by manufacture. Similarly, the deduction of the amount paid for contract work by establishments in the printing and publishing industries alone, $134,662,209, from the total value of products for these industries, $2,206,977,077, leaves $2,072,314,868, which amount approximates the net value of products for the industries; and the deduction of the contract-work item from the value added by manufacture, $1,695,758,481, leaves $1,561,096,272 as the net value added by manufacture.

Summary for Group 5.—Printing, Publishing, and Allied Industries: 1921 to 1931

Industry	Census year	Number of establishments	Wage earners (average for the year)	Wages	Paid for contract work	Cost of materials, fuel, and purchased electric energy	Value of products	Value added by manufacture [1]
Aggregate [2]	1931	24,918	316,769	$538,010,826	$141,572,228	$581,020,590	$2,497,214,143	$1,916,193,553
	1929	27,522	357,988	636,371,372	(3)	766,483,548	3,170,139,651	2,403,656,103
	1927	25,433	328,603	586,183,261	(3)	755,037,668	2,859,860,389	2,104,822,721
	1925	23,826	315,264	542,418,876	146,111,499	694,576,980	2,596,870,775	1,902,293,795
	1923	23,114	307,993	492,905,953	123,599,695	665,654,236	2,315,318,106	1,649,663,870
	1921	22,777	282,500	434,727,594	111,047,457	663,300,138	2,078,763,839	1,415,463,701
Printing and publishing, total [2]	1931	21,970	254,461	437,424,717	134,662,209	511,218,596	2,206,977,077	1,695,758,481
	1929	24,360	281,119	506,290,168	169,898,605	660,029,112	2,760,195,928	2,100,166,816
	1927	22,558	262,740	474,638,841	173,237,581	664,528,306	2,521,208,269	1,856,679,963
	1925	21,072	252,515	440,427,479	139,698,819	612,059,699	2,283,303,640	1,671,243,941
	1923	20,471	247,384	400,485,636	117,959,774	587,109,283	2,030,614,695	1,443,505,412
	1921	20,336	230,305	357,515,067	106,915,035	590,616,672	1,838,339,928	1,247,723,256
Book and job [2]	1931	11,656	134,302	210,755,433	47,031,590	210,972,971	787,825,362	576,852,391
	1929	12,712	150,649	251,576,692	61,895,926	266,749,365	1,006,656,768	739,907,403
	1927	11,466	142,347	241,810,478	62,696,328	253,056,059	920,251,123	667,195,064
	1925	10,338	134,559	221,424,851	51,357,820	230,690,867	820,552,827	589,861,960
	1923	10,094	130,819	202,314,555	39,135,286	221,376,622	747,486,319	526,109,697
	1921	9,776	121,871	181,909,679	38,602,303	217,476,068	700,605,428	483,129,360
Music	1931	103	656	970,358	1,921,290	965,429	10,903,247	9,937,818
	1929	124	810	1,314,401	2,729,134	1,542,042	15,240,268	13,698,226
	1927	119	994	1,677,680	2,819,352	1,658,367	15,881,634	14,223,267
	1925	109	955	1,461,661	2,763,429	1,828,230	15,089,636	13,261,406
	1923	110	919	1,366,756	3,050,499	2,252,830	14,626,810	12,373,980
	1921	107	900	1,246,863	3,055,930	2,016,311	14,024,672	12,008,361
Newspaper and periodical	1931	10,211	119,503	225,698,926	85,709,329	299,280,196	1,408,248,468	1,108,968,272
	1929	11,524	129,660	253,399,075	105,273,545	391,737,705	1,738,298,892	1,346,561,187
	1927	10,973	119,399	231,150,683	107,721,901	409,813,880	1,585,075,512	1,175,261,632
	1925	10,625	117,001	217,540,967	85,577,570	379,540,602	1,447,661,177	1,068,120,575
	1923	10,267	115,646	196,804,325	75,773,989	363,479,831	1,268,501,566	905,021,735
	1921	10,453	107,534	174,358,525	65,256,802	371,124,293	1,123,709,828	752,585,535

Allied industries, total	1931	2,948	62,308	100,586,109	6,910,019	69,801,994	290,237,066	220,435,072
	1929	3,162	76,869	130,081,204	(4)	106,454,436	409,943,723	303,489,287
	1927	2,875	65,863	111,544,420	(4)	99,509,362	338,652,120	248,142,758
	1925	2,754	62,749	101,991,397	6,412,680	82,517,281	313,567,135	231,049,854
	1923	2,643	60,609	92,420,317	5,639,921	78,544,953	284,703,411	206,158,458
	1921	2,441	52,195	77,212,527	4,132,422	72,683,466	240,423,911	167,740,445
Bookbinding and blank-book making	1931	1,050	21,216	25,356,304	1,112,481	21,391,592	79,779,955	58,388,363
	1929	1,108	24,754	31,779,037	(4)	30,754,777	102,783,405	72,028,628
	1927	1,063	21,909	28,281,066	(4)	25,875,185	87,327,392	61,452,207
	1925	970	20,836	26,005,621	1,088,428	24,127,012	81,600,302	57,473,290
	1923	965	20,728	25,216,055	914,583	23,073,048	76,959,420	53,886,372
	1921	869	17,465	20,317,877	620,063	19,886,243	63,854,402	43,968,159
Engravers' materials	1931	21	275	443,677	----------	1,165,724	2,319,223	1,153,499
	1929	19	313	448,385	(4)	1,794,804	3,129,483	1,334,679
	1927	17	178	293,962	(4)	1,289,261	2,168,737	879,476
	1925	16	177	276,204	----------	1,202,203	2,014,036	811,833
	1923	24	224	391,557	6,724	1,359,350	2,302,627	943,277
	1921	22	184	302,206	----------	1,046,403	1,816,873	770,470
Engraving (other than steel, copperplate, or wood) chasing, etching, and diesinking	1931	133	1,467	2,047,611	28,149	1,439,812	5,607,496	4,167,684
	1929	189	2,240	3,211,743	(4)	2,583,039	10,933,741	8,350,702
	1927	173	1,805	2,612,434	(4)	2,078,160	7,930,688	5,852,528
	1925	188	1,827	2,690,803	76,150	2,177,251	8,622,823	6,445,572
	1923	210	1,887	2,853,125	59,531	2,820,179	9,121,446	6,301,267
	1921	193	1,276	1,760,335	51,556	1,397,020	4,849,882	3,452,862
Engraving, steel, copperplate, and wood, and plate printing [1]	1931	432	6,995	9,503,497	468,570	6,424,732	27,425,476	21,000,744
	1929	483	10,272	14,812,941	(4)	11,947,014	47,900,592	35,953,578
	1927	416	8,681	12,176,514	(4)	10,312,570	39,712,542	29,399,972
	1925	390	7,376	10,402,449	561,232	7,674,810	32,631,390	24,956,580
	1923	401	7,670	10,399,217	582,296	7,999,855	33,074,961	25,075,106
	1921	391	7,287	9,831,239	514,925	7,747,511	29,407,033	21,659,522
Lithographing	1931	364	16,215	25,722,990	4,081,642	26,606,611	87,433,164	60,826,553
	1929	376	18,979	32,021,919	(4)	38,992,142	121,014,321	82,022,179
	1927	309	16,348	27,465,552	(4)	32,703,772	97,050,124	64,346,352
	1925	331	16,957	27,106,883	3,488,872	32,171,152	98,721,268	66,550,116
	1923	328	16,317	25,067,427	3,312,264	31,008,765	91,670,752	60,661,987
	1921	296	13,971	21,085,435	2,312,388	30,522,209	79,472,260	48,950,051
Photo-engraving, not done in printing establishments	1931	617	10,095	24,990,256	1,044,766	7,408,475	56,019,675	48,611,200
	1929	654	12,353	31,831,176	(4)	11,003,121	77,382,259	66,379,138
	1927	611	11,033	23,381,480	(4)	10,790,128	69,207,376	58,417,248
	1925	577	9,868	24,320,884	1,140,480	8,392,623	58,640,247	50,247,624
	1923	450	8,521	18,668,866	557,150	6,606,207	43,660,021	37,053,814
	1921	421	6,971	15,046,323	543,616	5,928,493	36,215,570	30,287,077

See footnotes at end of table.

SUMMARY FOR GROUP 5.—PRINTING, PUBLISHING, AND ALLIED INDUSTRIES: 1921 TO 1931—Continued

INDUSTRY	Census year	Number of establishments	Wage earners (average for the year)	Wages	Paid for contract work	Cost of materials, fuel and purchased electric energy	Value of products	Value added by manufacture [1]
Printing materials, not including type or ink	1931	90	781	$1,201,403	$1,413	$1,465,742	$5,795,071	$4,329,329
	1929	84	1,094	1,649,276	(4)	2,184,544	8,579,006	6,394,462
	1927	70	882	1,402,256	(4)	2,034,348	7,022,343	4,987,995
	1925	71	888	1,378,748	12,279	1,786,570	6,525,379	4,738,809
	1923	68	560	843,963	622	1,162,531	4,805,648	3,643,117
	1921	74	816	1,153,276	6,429	1,713,736	5,319,261	3,605,525
Stereotyping and electrotyping, not done in printing establishments	1931	223	4,857	10,916,883	170,503	3,590,480	24,581,941	20,991,461
	1929	230	6,487	13,770,676	(4)	6,546,881	35,617,297	29,070,416
	1927	197	4,502	10,272,775	(4)	4,676,853	25,549,214	20,872,361
	1925	193	4,283	9,206,642	44,883	4,280,244	22,361,187	18,080,943
	1923	179	4,096	8,333,721	206,264	3,805,550	20,596,208	16,790,658
	1921	157	3,617	7,081,705	83,445	3,745,595	17,358,994	13,613,399
Type founding	1931	18	407	403,488	2,495	308,826	1,275,065	966,239
	1929	19	467	556,051	(4)	648,114	2,603,619	1,955,505
	1927	19	525	658,381	(4)	749,085	2,683,704	1,934,619
	1925	18	537	603,163	356	705,416	2,450,503	1,745,087
	1923	18	606	646,386	487	709,468	2,512,328	1,802,860
	1921	18	608	634,131	----------	696,256	2,129,636	1,433,380

[1] Value of products, less cost of materials, fuel, and purchased electric energy.

[2] The figures for 1929 and earlier years are not strictly comparable with those for 1931 because of inclusion for 1931, but not for prior years, of data for establishments engaged primarily in the production of labels and tags. (See second paragraph, "Description of the Industries," p. 515.) The figures for 1927 and earlier years differ from those published prior to 1929 because of the inclusion of data for establishments engaged primarily in the production of paper patterns and fashion plates. The Paper Patterns industry (group 4) was abandoned as a separate classification at the census for 1929.

[3] Data incomplete.

[4] No data.

[5] These figures represent combined statistics for the industries "Engraving, Steel and Copperplate, and Plate Printing" and "Engraving, Wood," which were abandoned as separate industries at the census for 1931.

PRINTING AND PUBLISHING

[A preliminary report for these industries was issued under date of Dec. 17, 1932]

Description of the industries.—The printing and publishing subgroup comprises three industries, namely, (1) Newspaper and Periodical, (2) Book and Job, and (3) Music. Establishments classified in the first industry are engaged primarily in printing and publishing, or publishing only, newspapers and periodicals; those in the second industry, in commercial printing, machine composition for other establishments, book printing and publishing, or book publishing only; and those in the third industry, in music printing and publishing, or music publishing only. An exception to the general rule of classification on the basis of products of chief value (see sec. 11, p. 7) is made in the case of establishments engaged in publishing newspapers and periodicals, all of which, including those whose income is derived mainly from other sources, are classified in the Newspaper and Periodical industry.

Some of the establishments in the Book and Job Printing industry manufacture, either as major or minor products, cut and stamped paper patterns for garments, embroidery, etc., transfer patterns, fashion plates, labels, and tags. At former censuses, establishments engaged primarily in the production of labels and tags were given a separate industry classification in the Paper and Allied Products group; but, since a large part of the production is reported by printing establishments, the Labels and Tags industry was abandoned and establishments reporting production of printed labels or tags were classified in the Book and Job Printing industry, the Lithographing industry, or in other industries according to the character of the labels or tags produced. The figures for prior years have not, however, been revised.

Some of the establishments are engaged solely in the publication of books, music, or periodicals printed by others, and perform no printing or other manufacturing processes of any kind. It has been necessary, however, to treat such establishments as within the industry in order to make a complete statistical presentation for it. This necessity arises because commercial printers are not in a position to report the selling value of books and other publications printed for others, this information being obtainable only from the publishers for whom the commercial printing is done.

Value of products.—The term "Value of products," as applied to the printing and publishing industries, covers revenue from subscriptions and sales, advertising, and work done for others.

Secondary products.—As explained elsewhere (see sec. 16, p. 9), the output of each industry includes certain minor products different from those covered by the industry designation, but does not include products which normally belong to the industry but are made by establishments engaged primarily in other lines of production. To illustrate: An establishment engaged primarily in book and job (com-

mercial) printing may also publish considerable music, and one whose chief business is printing and publishing newspapers and periodicals may also do commercial printing. Thus considerable overlapping occurs among the several industries of the subgroup, and for this reason the total values of the several classes of products as given in tables 3, 4, and 5 are not identical with the total values of all products shown for the corresponding industries, as given in table 1. The figures in tables 3 to 12, inclusive, relate in most cases to the subgroup as a whole and not to the separate industries.

Number of publications and aggregate circulation per issue.—In calculating the number of newspapers, as shown in table 7 and elsewhere, morning, evening, and Sunday editions of the same newspaper are counted separately. Thus every daily paper which publishes a Sunday edition counts as two in the total, and every daily which publishes morning, evening, and Sunday editions counts as three. The "Aggregate circulation per issue" is calculated, for each class of publications, by totalizing the returns for average circulation per issue as made for individual publications.

TABLE 1.—SUMMARY FOR THE PRINTING AND PUBLISHING INDUSTRIES, FOR THE UNITED STATES, 1899 TO 1931, AND FOR STATES, 1931

[Data for establishments with products under $5,000 in value are included for 1919 and prior years but not for 1921 and subsequent years. See sec. 3d, p. 4]

	Number of establishments	Wage earners (average for the year)	Wages	Paid for contract work	Cost of materials, fuel, and purchased electric energy	Value of products	Value added by manufacture [1]
THE PRINTING AND PUBLISHING INDUSTRIES AS A GROUP [2]							
United States							
1931	21,970	254,461	$437,424,717	$134,662,209	$511,218,596	$2,206,977,077	$1,695,758,481
1929	24,360	281,119	506,290,168	169,898,605	660,029,112	2,760,195,928	2,100,166,816
1927	22,558	262,740	474,638,841	173,237,581	664,528,306	2,521,208,269	1,856,679,963
1925	21,072	252,515	440,427,479	139,698,819	612,059,699	2,283,303,640	1,671,243,941
1923	20,471	247,384	400,485,636	117,959,774	587,109,283	2,030,614,695	1,443,505,412
1921	20,336	230,305	357,515,067	106,915,035	590,616,672	1,838,339,928	1,247,723,256
1919	30,630	244,688	287,125,883	85,744,942	513,893,032	1,537,936,665	1,024,043,633
1914	31,637	229,442	168,125,218	40,192,950	227,208,391	813,534,097	586,325,706
1909	29,784	219,018	141,768,720	35,737,172	176,642,324	665,202,673	488,560,349
1904	26,448	186,262	109,327,177	28,414,451	123,807,826	498,326,482	374,518,656
1899	22,326	163,827	84,512,213	18,804,125	86,980,964	347,616,783	260,635,819
Percent of increase or decrease (—):							
1929-31 [1]							
1927-29	8.0	7.0	6.7	—1.9	—0.7	9.5	13.1
1925-27	7.1	4.0	7.8	24.0	8.6	10.4	11.1
1923-25	2.9	2.1	10.0	18.4	4.2	12.4	15.8
1921-23	0.7	7.4	12.0	10.3	—0.6	10.5	15.7
1919-21	—33.6	—5.9	24.5	24.7	14.9	19.5	21.8
1921-31 [1]							
1919-29	—20.5	14.9	76.3	98.1	28.4	79.5	105.1
1909-19	2.8	11.7	102.5	139.9	190.9	131.2	109.6
1899-1909	33.4	33.7	67.7	90.0	103.1	91.4	87.4

See footnotes at end of table.

TABLE 1.—SUMMARY FOR THE PRINTING AND PUBLISHING INDUSTRIES, FOR THE UNITED STATES, 1899 TO 1931, AND FOR STATES, 1931—Continued

[See note at head of table]

	Number of establishments	Wage earners (average for the year)	Wages	Paid for contract work	Cost of materials, fuel, and purchased electric energy	Value of products	Value added by manufacture [1]
NEWSPAPER AND PERIODICAL							
United States							
1931	10,211	119,503	$225,698,926	$85,709,329	$299,280,196	$1,408,248,468	$1,108,968,272
1929	11,524	129,660	253,399,075	105,273,545	391,737,705	1,738,298,892	1,346,561,187
1927	10,973	119,399	231,150,683	107,721,901	409,813,880	1,585,075,512	1,175,261,632
1925	10,625	117,001	217,540,967	85,577,570	379,540,602	1,447,661,177	1,068,120,575
1923	10,267	115,646	196,804,325	75,773,989	363,479,831	1,268,501,566	905,021,735
1921	10,453	107,534	174,358,525	65,256,802	371,124,293	1,123,709,828	752,585,535
1919	17,362	120,381	144,348,173	50,776,049	300,385,187	924,152,878	623,767,691
1914	19,317	114,375	88,561,248	20,960,716	129,082,218	495,905,948	366,823,730
1909	18,871	108,672	74,401,593	22,531,356	97,359,605	406,090,122	308,730,517
1904	18,033	96,857	59,821,488	16,219,081	70,354,474	309,301,854	238,947,380
1899	15,305	94,604	50,333,051	11,066,587	50,214,904	222,983,569	172,768,665
Percent of increase or decrease (−):							
1929-31	−11.4	−7.8	−10.9	−18.6	−23.4	−19.0	−17.6
1927-29	5.0	8.6	9.6	−2.3	−4.4	9.7	14.6
1925-27	3.3	2.0	6.3	25.9	8.0	9.5	10.0
1923-25	3.5	1.2	10.5	12.9	4.4	14.1	18.0
1921-23	−1.8	7.5	12.9	16.1	−2.1	12.9	20.3
1919-21	−39.8	−10.7	20.8	28.5	23.5	21.6	20.7
1921-31	−2.3	11.1	29.4	31.4	−19.4	25.3	47.4
1919-29	−33.6	7.7	75.5	107.3	30.4	88.1	115.9
1909-19	−8.0	10.8	94.0	125.4	208.5	127.6	102.0
1899-1909	23.3	14.9	47.8	103.6	93.9	82.1	78.7
States, 1931							
Alabama	98	835	$1,298,767	$423,594	$1,541,176	$7,299,155	$5,757,979
Arizona	42	323	581,583	51,366	485,108	2,777,517	2,292,409
Arkansas	99	583	800,936	16,325	730,900	3,402,929	2,732,029
California	703	6,822	13,223,594	3,169,887	16,752,742	81,555,208	64,802,466
Colorado	143	1,046	1,822,982	229,633	2,469,243	10,707,745	8,238,502
Connecticut	90	2,187	3,865,685	416,447	3,237,810	20,639,992	17,402,182
Delaware	18	247	406,935	38,430	339,330	1,642,681	1,303,351
District of Columbia	93	1,111	2,487,166	3,711,816	4,794,665	22,828,010	18,033,345
Florida	137	1,177	2,171,928	93,785	1,856,835	10,020,174	8,163,339
Georgia	143	1,165	2,010,958	612,379	2,308,165	10,622,728	8,314,563
Idaho	68	342	547,465	13,091	350,261	1,974,594	1,624,333
Illinois	863	9,182	18,871,683	9,902,689	27,675,671	134,203,347	106,527,676
Indiana	307	3,100	4,990,674	1,216,622	5,265,150	25,798,189	20,533,039
Iowa	359	2,798	4,331,148	369,092	4,745,487	24,330,647	19,585,160
Kansas	257	1,926	2,887,916	139,550	3,204,435	14,733,905	11,529,470
Kentucky	132	1,115	1,615,014	336,778	2,053,885	9,437,585	7,383,700
Louisiana	86	874	1,403,345	110,376	1,843,112	8,494,053	6,650,941
Maine	51	884	1,146,555	34,809	1,123,187	5,621,845	4,498,658
Maryland	95	1,507	2,558,986	755,351	3,329,853	14,466,297	11,136,444
Massachusetts	299	5,530	12,240,747	2,749,153	15,937,162	63,208,141	47,270,979
Michigan	359	3,564	6,934,156	1,532,274	9,085,650	44,157,152	35,071,502
Minnesota	376	2,840	4,853,579	1,398,052	6,192,701	26,263,523	20,070,822
Mississippi	79	425	665,429	14,831	460,518	2,364,076	1,903,558
Missouri	346	4,010	7,158,241	1,376,662	9,593,369	39,092,248	29,498,879
Montana	81	563	1,054,927	74,716	656,083	3,492,642	2,836,559
Nebraska	219	1,417	2,210,465	363,546	2,260,335	11,410,090	9,149,755
Nevada	20	89	181,281	4,958	94,585	674,557	579,972
New Hampshire	51	362	616,129	107,250	334,890	2,201,151	1,866,261
New Jersey	233	3,011	6,648,677	821,284	5,184,356	26,875,714	21,691,358
New Mexico	32	189	309,421	395	230,017	1,080,749	850,732
New York	1,168	20,617	47,466,739	44,862,090	70,428,564	359,937,966	289,509,402
North Carolina	131	1,075	1,620,286	119,137	1,489,388	7,975,516	6,486,128
North Dakota	80	415	703,630	4,299	438,204	2,562,272	2,124,068
Ohio	496	10,049	17,042,699	3,477,620	27,253,226	108,310,169	81,056,943
Oklahoma	176	1,493	2,484,745	172,778	2,482,257	12,430,795	9,948,538

See footnotes at end of table.

TABLE 1.—SUMMARY FOR THE PRINTING AND PUBLISHING INDUSTRIES, FOR THE UNITED STATES, 1899 TO 1931, AND FOR STATES, 1931—Continued

[See note at head of table]

	Number of establishments	Wage earners (average for the year)	Wages	Paid for contract work	Cost of materials, fuel, and purchased electric energy	Value of products	Value added by manufacture [1]
NEWSPAPER AND PERIODICAL—Con.							
States, 1931—Con.							
Oregon	132	1,031	$1,805,295	$182,504	$1,756,905	$8,622,195	$6,865,290
Pennsylvania	619	11,969	21,155,363	3,052,460	37,854,364	157,957,394	120,103,030
Rhode Island	28	728	1,531,548	134,156	1,319,591	6,211,109	4,891,518
South Carolina	62	509	787,804	21,002	532,824	3,334,349	2,801,525
South Dakota	106	430	660,462	8,104	530,249	2,808,526	2,278,277
Tennessee	117	1,685	2,645,065	748,605	3,346,801	14,291,732	10,944,931
Texas	409	3,170	5,600,002	529,548	6,226,464	29,620,690	23,394,226
Utah	43	363	575,037	116,440	794,349	3,470,899	2,676,550
Vermont	33	258	390,585	11,924	237,020	1,480,712	1,243,692
Virginia	109	960	1,549,008	317,616	1,725,151	9,122,018	7,396,867
Washington	195	1,635	2,892,411	1,215,642	2,629,022	17,103,074	14,474,052
West Virginia	105	876	1,337,280	37,579	971,888	5,669,284	4,697,396
Wisconsin	284	2,852	5,118,708	607,335	4,951,061	24,762,604	19,811,543
Wyoming	30	164	335,887	5,349	176,187	1,140,520	964,333
BOOK AND JOB [2]							
United States							
1931	11,656	134,302	210,755,433	47,031,590	210,972,971	787,825,362	576,852,391
1929	12,712	150,649	251,576,692	61,895,926	266,749,365	1,006,656,768	739,907,403
1927	11,460	142,347	241,810,478	62,696,328	253,056,059	920,251,123	667,195,064
1925	10,338	134,559	221,424,851	51,357,820	230,690,867	820,552,827	589,861,960
1923	10,094	130,819	202,314,555	39,135,286	221,376,622	747,486,319	526,109,697
1921	9,776	121,871	181,909,679	38,602,303	217,476,068	700,605,428	483,129,360
1919	13,108	123,498	141,850,722	32,254,994	211,384,064	599,191,610	387,807,546
1914	12,140	114,194	78,990,985	17,670,422	97,079,543	310,356,883	213,277,340
1909	10,735	109,608	66,928,199	12,312,464	78,296,517	253,536,648	175,240,131
1904	8,270	88,828	49,165,513	11,372,455	52,912,132	184,876,845	131,964,713
1899	6,934	68,445	33,803,960	7,400,177	36,316,386	122,360,829	86,044,443
Percent of increase of decrease (−):							
1929–31 [2]							
1927–29	10.9	5.8	4.0	−1.3	5.4	9.4	10.9
1925–27	10.9	5.8	9.2	22.1	9.7	12.2	13.1
1923–25	2.4	2.9	9.4	31.2	4.2	9.8	12.1
1921–23	3.3	7.3	11.2	1.4	1.8	6.7	8.9
1919–21	−25.4	−1.2	28.2	19.7	2.9	16.9	24.6
1921–31 [2]							
1919–29	−3.0	22.1	77.4	91.9	26.2	68.0	90.8
1909–19	22.1	12.6	111.9	162.0	170.0	136.3	121.3
1899–1909	54.8	60.1	98.0	66.4	115.6	107.2	103.7
States, 1931							
Alabama	64	461	$581,794	$38,709	$575,992	$2,014,852	$1,438,860
Arizona	14	128	186,098	20,240	155,387	564,177	408,790
Arkansas	37	330	452,275	20,950	454,850	1,637,328	1,182,478
California	850	5,697	9,857,066	1,479,966	11,437,637	36,896,545	25,458,908
Colorado	98	760	1,155,788	163,034	1,325,216	3,892,399	2,567,183
Connecticut	190	1,842	2,696,583	386,614	2,988,004	9,249,774	6,261,770
Delaware	14	147	167,671	1,500	176,107	537,952	361,845
District of Columbia	78	1,146	1,839,281	254,056	1,341,101	5,466,992	4,125,891
Florida	88	474	611,662	41,683	1,062,566	2,675,183	1,612,617
Georgia	113	1,167	1,586,035	104,451	1,522,017	5,089,367	3,567,350
Idaho	13	93	129,000	6,888	90,190	375,549	285,359
Illinois	1,116	21,546	37,350,370	7,885,594	35,099,355	131,994,540	96,895,185
Indiana	236	3,031	4,220,701	824,842	3,968,184	14,687,479	10,719,295
Iowa	165	1,095	1,525,346	126,090	1,369,101	4,926,643	3,557,542
Kansas	95	538	722,154	32,818	766,834	2,520,938	1,754,104

See footnotes at end of table.

TABLE 1.—SUMMARY FOR THE PRINTING AND PUBLISHING INDUSTRIES, FOR THE UNITED STATES, 1899 TO 1931, AND FOR STATES, 1931—Continued

[See note at head of table]

	Number of establishments	Wage earners (average for the year)	Wages	Paid for contract work	Cost of materials, fuel, and purchased electric energy	Value of products	Value added by manufacture [1]
BOOK AND JOB [2]—con.							
States, 1931—Contd.							
Kentucky	83	1,134	$1,368,376	$41,986	$1,401,578	$4,467,791	$3,066,213
Louisiana	93	790	1,043,004	92,156	1,174,332	3,588,934	2,414,602
Maine	61	408	538,236	45,885	438,394	1,586,113	1,147,719
Maryland	177	2,464	3,421,541	242,631	3,845,975	11,682,842	7,836,867
Massachusetts	656	7,634	11,122,794	3,626,839	10,415,511	47,086,681	36,671,170
Michigan	449	4,908	7,557,365	1,246,620	7,552,324	25,867,776	18,315,452
Minnesota	239	4,235	5,301,811	454,916	5,788,031	20,839,495	15,051,464
Mississippi	30	192	222,062	487	300,130	876,997	576,867
Missouri	414	4,759	7,158,607	1,092,654	8,265,781	25,649,420	17,383,639
Montana	20	146	275,187	8,398	248,283	772,638	524,355
Nebraska	94	842	1,173,330	53,069	1,610,686	4,683,254	3,072,568
Nevada	5	32	67,663	5,478	67,310	241,205	173,895
New Hampshire	35	840	1,210,180	49,609	550,565	2,412,470	1,861,905
New Jersey	371	4,937	8,306,553	1,082,729	6,655,279	24,995,212	18,339,933
New Mexico	7	38	57,734	150	55,852	183,146	127,294
New York	2,572	29,326	51,644,547	22,229,008	48,052,219	216,384,026	168,331,807
North Carolina	84	738	917,663	16,003	1,207,591	3,419,929	2,212,338
North Dakota	18	114	169,797	6,025	166,706	582,727	416,021
Ohio	731	9,466	13,837,612	2,234,107	16,252,118	57,039,373	40,787,257
Oklahoma	91	436	634,515	38,502	725,353	2,449,800	1,724,447
Oregon	114	556	901,614	99,719	897,257	3,095,073	2,197,816
Pennsylvania	948	11,162	15,735,377	1,469,019	15,731,563	52,949,971	37,218,408
Rhode Island	75	915	1,195,787	138,062	1,216,671	4,088,103	2,871,432
South Carolina	36	271	315,916	4,827	310,674	1,063,955	753,281
South Dakota	21	117	184,816	4,371	169,397	597,248	427,851
Tennessee	106	1,147	1,483,413	242,435	1,750,529	5,549,203	3,798,674
Texas	301	1,970	2,848,210	260,939	2,978,837	10,671,379	7,692,542
Utah	45	274	394,983	87,426	386,908	1,309,809	922,901
Vermont	25	306	411,654	29,051	280,817	1,049,415	768,598
Virginia	116	1,593	1,972,910	280,477	2,237,423	7,364,601	5,127,178
Washington	177	856	1,447,063	162,828	1,382,407	4,900,578	3,518,171
West Virginia	51	306	467,356	7,975	372,087	1,406,951	1,034,864
Wisconsin	232	2,889	4,188,408	283,889	6,090,346	16,184,966	10,094,620
Wyoming	8	46	97,525	5,885	61,496	254,561	193,065
MUSIC							
United States							
1931	103	656	970,358	1,921,290	965,429	10,903,247	9,937,818
1929	124	810	1,314,401	2,729,134	1,542,042	15,240,268	13,698,226
1927	119	994	1,677,680	2,819,352	1,658,367	15,881,634	14,223,267
1925	109	955	1,461,661	2,763,429	1,828,230	15,089,636	13,261,406
1923	110	919	1,366,756	3,050,499	2,252,830	14,626,810	12,373,980
1921	107	900	1,246,863	3,055,930	2,016,311	14,024,672	12,008,361
1919	160	899	926,988	2,713,899	2,123,781	14,592,177	12,468,396
1914	180	873	572,985	1,561,812	1,046,630	7,271,266	6,224,636
1909	178	738	438,928	893,352	986,202	5,575,903	4,589,701
1904	145	577	340,176	822,915	541,220	4,147,783	3,606,563
1899	87	778	375,202	337,361	449,674	2,272,385	1,822,711
Percent of increase or decrease (−):							
1929–31	−16.9	−19.0	−26.2	−29.6	−37.4	−28.5	−27.5
1927–29	4.2	−18.5	−21.7	−3.2	−7.0	−4.0	−3.7
1925–27	9.2	4.1	14.8	2.0	−9.3	5.2	7.3
1923–25	−.9	3.9	6.9	−9.4	−18.8	3.2	7.2
1921–23	2.8	2.1	9.6	−.2	11.7	4.3	3.0
1919–21	−33.1	.1	34.5	12.6	−5.1	−3.9	−3.7

See footnotes at end of table.

TABLE 1.—SUMMARY FOR THE PRINTING AND PUBLISHING INDUSTRIES, FOR THE UNITED STATES, 1899 TO 1931, AND FOR STATES, 1931—Continued

[See note at head of table]

	Number of establishments	Wage earners (average for the year)	Wages	Paid for contract work	Cost of materials, fuel, and purchased electric energy	Value of products	Value added by manufacture [1]
MUSIC—continued							
United States—Con.							
Percent of increase or decrease (—)—Con.							
1921-31	—3.7	—27.1	—22.2	—37.1	—52.1	—22.3	—17.2
1919-29	—22.5	—9.9	41.8	.6	—27.4	4.4	9.9
1909-19	—10.1	21.8	111.2	203.8	115.3	161.7	171.7
1899-1909	(3)	—5.1	17.0	164.8	119.3	145.4	151.8
States, 1931							
California	4	18	$29,917	$25,265	$13,722	$127,001	$113,279
Illinois	20	72	100,685	181,633	153,510	992,081	838,571
Massachusetts	8	60	92,638	246,585	63,400	1,100,359	1,036,959
New York	53	418	642,546	1,255,803	631,479	7,527,977	6,896,498
Ohio	5	8	12,993	99,138	1,476	422,742	421,266
Pennsylvania	4	6	3,732	57,622	15,005	200,021	185,016
Other States [4]	9	74	87,847	55,244	86,837	533,066	446,229

[1] Value of products less cost of materials, fuel, and purchased electric energy. See sec. 20, p. II.

[2] The figures for 1929 and earlier years are not strictly comparable with those for 1931 because of the inclusion for 1931, but not for prior years, of data for establishments engaged primarily in the production of labels and tags. (See second paragraph, "Description of the industries," p. 515.)

[3] Not computed where base is less than 100.

[4] Iowa, 1 establishment; Kentucky, 1; Maryland, 1; Missouri, 1; Nebraska, 2; North Carolina, 1; Texas, 1; Virginia, 1. Figures combined to avoid disclosing data for individual establishments. Missouri reported a larger value of products than California for which separate figures are given.

TABLE 2.—WAGE EARNERS, BY MONTHS, FOR THE PRINTING AND PUBLISHING INDUSTRIES, FOR THE UNITED STATES, 1931, 1929, 1925, 1919, AND 1914, AND FOR STATES, 1931

[The month of maximum employment is indicated by **bold-faced** figures and that of minimum employment by *italic* figures. See sec. 13, p. 8]

	Average number employed during year	NUMBER REPORTED FOR—											
		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
PRINTING AND PUBLISHING INDUSTRIES AS A GROUP [1]													
United States													
1931	254,461	**260,781**	260,451	260,042	259,297	258,342	253,245	249,696	*248,358*	249,697	250,879	250,950	251,789
1929	281,119	279,024	280,676	281,804	278,406	279,086	278,431	*277,784*	279,802	283,094	283,723	285,412	**286,185**
1925	252,515	252,788	252,494	252,574	251,332	251,424	248,390	*247,956*	248,908	251,408	254,827	257,434	260,657
1919	244,688	*236,264*	238,164	240,114	240,303	241,631	243,216	245,157	247,917	250,040	243,532	248,863	261,055
1914 [2]	229,442	231,266	231,637	**233,303**	230,790	229,994	228,329	224,982	*224,951*	227,672	229,840	229,912	230,628
NEWSPAPER AND PERIODICAL													
United States													
1931	119,503	120,301	119,923	**121,063**	120,770	120,876	119,367	117,705	*117,124*	118,324	119,104	119,509	119,965
1929	129,660	128,233	128,618	129,539	129,204	129,225	128,759	*127,919*	128,216	129,885	131,640	132,209	132,474
1925	117,001	115,690	115,522	116,226	116,212	116,654	115,829	*114,950*	114,973	117,007	119,026	120,289	121,839
1919	120,381	*115,926*	116,902	118,549	118,724	119,798	120,078	120,617	121,511	122,279	121,215	123,006	125,967
1914 [2]	114,375	114,492	114,495	114,838	114,812	114,842	114,145	112,555	*112,504*	113,694	115,041	115,248	115,834
States, 1931													
Alabama	835	867	850	862	**869**	847	818	816	816	*813*	820	820	824
Arizona	323	326	328	**338**	326	333	324	313	*309*	*309*	323	323	321
Arkansas	583	582	581	*573*	577	589	589	586	583	579	581	587	593
California	6,822	6,816	6,791	6,802	6,841	6,864	6,770	*6,717*	6,725	6,759	6,830	6,897	7,046
Colorado	1,046	1,053	1,054	1,042	1,052	1,061	1,047	1,040	*1,038*	1,039	1,039	1,040	1,046
Connecticut	2,187	2,208	2,211	**2,256**	2,222	2,206	2,176	2,151	*2,132*	2,145	2,193	2,185	2,159
Delaware	247	249	249	**251**	248	245	248	249	248	246	246	*242*	*242*
District of Columbia	1,111	1,128	1,119	1,131	1,111	1,103	1,098	*1,079*	1,081	1,102	1,110	1,127	1,140
Florida	1,177	1,251	1,271	1,243	1,193	1,140	1,130	1,132	1,109	*1,105*	1,148	1,188	1,219
Georgia	1,165	1,182	1,182	1,185	1,183	1,178	1,169	1,159	1,145	*1,143*	1,154	1,148	1,151
Idaho	342	345	346	349	**353**	351	351	329	*325*	333	343	339	334
Illinois	9,182	9,276	9,320	9,351	9,358	**9,366**	9,241	9,049	*8,980*	9,003	8,985	9,116	9,136
Indiana	3,100	3,080	3,072	**3,147**	3,144	3,124	3,099	3,085	*3,069*	3,079	3,099	3,090	3,116
Iowa	2,798	2,889	**2,926**	2,870	2,817	2,806	2,743	*2,715*	2,755	2,775	2,760	2,772	2,748
Kansas	1,926	1,984	1,975	1,959	1,953	1,954	1,926	1,906	*1,885*	*1,885*	1,892	1,890	1,904

See footnotes at end of table.

TABLE 2.—WAGE EARNERS, BY MONTHS, FOR THE PRINTING AND PUBLISHING INDUSTRIES, FOR THE UNITED STATES, 1931, 1929, 1925, 1919, AND 1914, AND FOR STATES, 1931—Continued

[See note at head of table]

	Average number employed during year	NUMBER REPORTED FOR—											
		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
NEWSPAPER AND PERIODICAL—contd.													
States, 1931—Continued													
Kentucky	1,115	1,139	1,124	1,132	1,131	1,150	1,125	1,116	*1,090*	*1,090*	1,095	1,093	1,098
Louisiana	874	882	*864*	871	869	*864*	866	871	*864*	872	869	889	904
Maine	884	928	934	921	909	866	862	858	855	*853*	869	879	870
Maryland	1,507	1,485	1,506	1,496	1,500	1,488	1,491	*1,470*	1,473	1,520	1,550	1,550	1,557
Massachusetts	5,530	5,578	5,480	5,547	5,588	5,594	5,578	5,386	*5,350*	5,465	5,571	5,590	5,637
Michigan	3,564	3,604	3,567	3,564	3,596	3,587	3,590	3,509	*3,496*	3,571	3,580	3,567	3,539
Minnesota	2,840	2,865	2,845	2,850	2,842	2,879	2,837	2,816	*2,810*	2,832	2,830	2,822	2,851
Mississippi	425	435	431	426	427	424	432	426	429	422	421	415	*414*
Missouri	4,010	3,994	4,043	4,058	4,103	4,073	4,027	3,938	*3,918*	3,970	4,026	4,004	3,965
Montana	563	573	563	566	571	558	560	566	552	*551*	558	563	569
Nebraska	1,417	1,428	1,428	1,421	1,432	1,410	1,410	1,418	1,422	1,405	1,406	*1,404*	1,408
Nevada	89	90	90	*88*	*88*	*88*	89	*88*	89	89	*88*	90	91
New Hampshire	362	366	367	363	361	363	361	*359*	360	361	363	362	362
New Jersey	3,011	3,025	3,009	3,028	3,030	3,021	3,019	2,996	*2,970*	2,993	3,009	3,011	3,023
New Mexico	189	189	189	190	192	189	192	189	189	189	187	186	*185*
New York	20,617	20,386	20,281	20,973	20,845	21,045	20,605	20,373	*20,019*	20,429	20,536	20,901	21,014
North Carolina	1,075	1,073	1,072	1,074	1,082	1,072	1,074	1,069	1,069	*1,068*	1,073	1,080	1,088
North Dakota	415	410	415	421	420	421	424	417	414	408	411	*407*	408
Ohio	10,049	10,286	10,192	10,218	10,108	10,090	9,967	*9,755*	9,858	10,072	10,094	9,982	9,971
Oklahoma	1,493	1,556	1,535	1,544	1,501	1,525	1,491	1,460	*1,450*	1,471	1,471	1,455	1,456
Oregon	1,031	1,005	1,008	*1,004*	1,015	1,065	1,046	1,022	1,022	1,023	1,049	1,046	1,062
Pennsylvania	11,969	12,089	12,063	12,188	12,139	12,100	11,977	11,794	*11,778*	11,865	11,865	11,891	11,884
Rhode Island	728	719	717	723	721	724	734	738	*718*	729	741	735	738
South Carolina	509	508	510	509	510	508	507	505	508	*504*	510	512	512
South Dakota	430	433	430	434	437	434	431	427	*425*	*425*	431	427	431
Tennessee	1,685	1,675	1,685	1,682	1,682	1,725	1,688	1,692	1,686	1,677	*1,655*	1,680	1,693
Texas	3,170	3,255	3,196	3,258	3,236	3,213	3,164	3,133	*3,098*	3,115	3,137	3,108	3,131
Utah	363	363	*359*	361	365	364	361	363	364	365	361	367	366
Vermont	258	260	261	260	258	*254*	256	258	260	*254*	259	260	258
Virginia	960	960	959	958	959	960	*948*	949	*948*	962	972	968	977

Washington	1,635	1,640	1,639	1,606	1,674	1,709	1,595	1,584	1,598	1,615	1,616	1,632	1,618
West Virginia	876	880	880	875	878	882	877	871	874	874	876	869	877
Wisconsin	2,852	2,822	2,842	2,842	2,891	2,894	2,889	2,798	2,814	2,804	2,935	2,834	2,863
Wyoming	164	164	164	163	163	161	165	165	164	166	167	166	166
BOOK AND JOB [1]													
United States													
1931	134,302	139,756	139,805	138,253	137,833	136,837	133,258	131,386	130,611	130,735	131,153	130,807	131,195
1929	150,649	149,949	151,215	151,429	148,387	149,068	148,892	149,103	150,803	152,413	151,269	152,375	152,889
1925	134,559	136,133	136,005	135,378	134,167	133,824	131,657	132,081	133,003	133,454	134,829	136,172	138,033
1919	123,408	119,498	120,399	120,715	120,689	120,924	122,218	123,643	125,514	126,859	121,398	124,907	134,132
1914 [2]	114,194	115,881	116,253	117,564	115,091	114,276	113,334	111,582	111,598	113,105	113,922	113,780	113,942
States, 1931													
Alabama	461	475	469	467	473	470	463	453	451	452	454	459	451
Arizona	128	143	134	134	128	132	124	125	130	126	123	121	121
Arkansas	330	331	343	337	346	338	330	323	323	333	316	315	326
California	5,697	5,810	5,758	5,849	5,940	5,841	5,619	5,491	5,451	5,544	5,643	5,713	5,729
Colorado	760	805	809	809	787	780	756	733	723	719	734	723	742
Connecticut	1,842	1,876	1,890	1,887	1,884	1,856	1,847	1,807	1,777	1,803	1,838	1,822	1,817
Delaware	147	150	158	156	151	149	145	147	145	140	136	144	140
District of Columbia	1,146	1,157	1,196	1,243	1,250	1,092	1,144	1,110	1,107	1,134	1,073	1,131	1,114
Florida	474	537	521	519	475	448	444	419	417	445	471	483	504
Georgia	1,167	1,172	1,178	1,190	1,201	1,185	1,179	1,171	1,148	1,154	1,148	1,141	1,187
Idaho	93	93	92	93	95	94	90	89	95	100	92	92	92
Illinois	21,546	23,394	23,878	22,037	21,646	21,859	20,941	21,748	21,897	20,324	20,138	20,090	20,604
Indiana	3,031	3,138	3,179	3,170	3,127	3,111	2,999	2,977	2,970	2,948	2,965	2,902	2,884
Iowa	1,095	1,153	1,179	1,159	1,151	1,135	1,048	1,034	1,041	1,060	1,068	1,047	1,059
Kansas	538	566	564	569	559	569	527	518	510	515	527	520	515
Kentucky	1,134	1,154	1,137	1,141	1,128	1,118	1,120	1,107	1,123	1,141	1,150	1,140	1,150
Louisiana	790	787	794	799	803	793	795	786	777	781	793	790	785
Maine	408	430	433	434	425	428	416	399	390	387	374	384	391
Maryland	2,464	2,511	2,496	2,518	2,543	2,534	2,471	2,454	2,433	2,439	2,385	2,389	2,396
Massachusetts	7,634	7,951	7,945	7,886	7,837	7,887	7,586	7,378	7,306	7,478	7,399	7,486	7,472
Michigan	4,908	5,249	5,127	5,163	5,087	5,060	5,028	4,839	4,688	4,653	4,633	4,657	4,712
Minnesota	4,235	4,359	4,268	4,203	4,146	4,123	4,122	4,135	4,178	4,182	4,306	4,385	4,414
Mississippi	192	200	194	196	197	193	188	194	193	194	189	185	183
Missouri	4,759	4,801	4,819	4,907	4,902	4,821	4,709	4,688	4,692	4,713	4,690	4,677	4,685
Montana	146	163	155	147	148	153	149	147	145	142	138	131	139

See footnotes at end of table.

TABLE 2.—WAGE EARNERS, BY MONTHS, FOR THE PRINTING AND PUBLISHING INDUSTRIES, FOR THE UNITED STATES, 1931, 1929, 1925, 1919, AND 1914, AND FOR STATES, 1931—Continued

[See note at head of table]

	Average number employed during year	NUMBER REPORTED FOR—											
		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
BOOK AND JOB [1]—continued													
States, 1931—Continued													
Nebraska	842	858	858	875	856	863	839	821	*816*	836	832	820	825
Nevada	32	32	32	32	31	32	35	39	*29*	*29*	35	31	30
New Hampshire	840	860	860	860	856	846	851	830	829	*820*	824	*820*	824
New Jersey	4,937	5,035	4,778	4,803	5,021	4,978	4,939	4,661	*4,615*	4,798	5,137	5,179	5,298
New Mexico	38	40	40	*56*	38	41	*36*	*56*	*36*	39	*36*	40	40
New York	29,326	30,541	30,576	30,634	30,560	30,034	29,047	28,123	*28,029*	28,581	28,871	28,560	28,355
North Carolina	738	730	735	736	757	764	723	712	*709*	751	736	753	750
North Dakota	114	118	119	116	115	121	117	110	111	112	109	109	*108*
Ohio	9,466	9,639	9,633	9,685	9,701	9,646	9,608	9,480	9,224	9,340	9,298	9,184	*9,156*
Oklahoma	436	472	452	452	453	449	430	429	425	417	416	*414*	420
Oregon	556	585	588	570	572	578	558	541	*521*	546	549	533	531
Pennsylvania	11,162	11,528	11,463	11,434	11,455	11,341	11,145	10,927	*10,800*	11,018	10,989	10,976	10,866
Rhode Island	915	921	918	923	928	922	917	902	*895*	910	905	914	922
South Carolina	271	288	294	293	287	268	265	263	260	262	263	262	*245*
South Dakota	117	118	120	122	122	124	115	114	128	112	*108*	110	110
Tennessee	1,147	1,163	1,178	1,175	1,193	1,188	1,166	1,129	1,128	1,136	1,111	1,106	*1,093*
Texas	1,970	2,062	2,088	2,056	2,031	2,011	1,938	1,926	1,893	1,938	1,925	1,898	*1,871*
Utah	274	271	268	282	290	296	274	275	269	275	264	*258*	270
Vermont	306	309	311	316	314	320	309	296	304	303	302	*291*	293
Virginia	1,593	1,629	1,608	1,624	1,624	1,646	1,609	1,584	*1,527*	1,563	1,549	1,572	1,583
Washington	856	901	889	888	876	900	853	827	814	841	826	*811*	849
West Virginia	306	327	327	330	321	306	296	*291*	*291*	303	298	293	293
Wisconsin	2,889	2,881	2,913	2,951	2,957	2,945	2,905	*2,752*	2,824	2,848	2,937	2,901	2,857
Wyoming	46	43	*41*	47	46	49	43	46	44	50	50	45	46

MUSIC													
United States													
1931 [3]	656	724	723	726	694	629	620	*605*	623	638	622	634	629
1929	810	842	843	836	815	793	780	*762*	783	796	814	828	822
1925	955	965	967	970	953	946	*924*	925	932	947	972	973	985
1919	899	*840*	863	850	890	909	920	897	892	902	919	950	956
1914 [2]	873	893	889	901	887	876	850	*845*	849	873	877	884	852
States, 1931													
California	18	20	20	20	20	19	19	19	19	19	17	*14*	*14*
Illinois	72	74	78	79	75	72	72	68	75	75	72	*63*	65
Massachusetts	60	76	75	74	59	*49*	52	52	51	50	55	59	61
New York	418	461	457	463	450	404	402	389	392	400	*386*	403	404
Ohio	8	8	8	8	8	8	8	8	8	8	8	8	8
Pennsylvania	6	6	6	6	6	6	6	6	6	6	6	6	6

[1] The figures for 1929 and earlier years are not strictly comparable with those for 1931 because of the inclusion, for 1931 but not for prior years, of data for establishments engaged primarily in the production of labels and tags. See second paragraph, "Description of the industries," p. 515.

[2] No corresponding data for years prior to 1914.

[3] The United States totals for the Music Printing and Publishing industry include items for States for which separate figures cannot be given without disclosing, exactly or approximately, data for individual establishments (see footnote 4, table 1), and therefore exceed the sums of the State items in the respective columns.

TABLE 3.—PRODUCTS, BY CLASS AND VALUE, FOR THE PRINTING AND PUBLISHING INDUSTRIES, FOR THE UNITED STATES: 1925 TO 1931

CLASS	1931	1929	1927	1925
1. The printing and publishing industries, all products, total value [1]	$2,206,977,077	$2,760,195,928	$2,521,208,269	$2,283,303,640
2. Printing and publishing	2,162,231,922	2,704,700,980	2,468,361,620	2,231,647,511
3. Products normally belonging to industries allied to printing and publishing [2]	40,655,122	51,546,262	47,171,258	45,895,374
4. Products not normally belonging either to printing and publishing or to allied industries	4,090,033	3,948,686	5,675,391	5,760,755
5. Printing reported as a secondary product by establishments engaged primarily in industries other than printing and publishing	[3] 17,291,350	[4] 6,905,647	[5] 5,540,792	[6] 9,447,963
Printing and publishing, all industries: Aggregate value (sum of 2 and 5) [7]	2,179,523,272	2,711,606,627	2,473,902,412	2,241,095,474
Newspapers and periodicals printed and published or published only, total	1,293,776,880	1,580,564,823	1,459,688,163	1,321,610,733
Subscriptions and sales	425,266,867	460,326,428	429,467,144	398,338,060
Advertising	868,510,013	1,120,238,395	1,030,221,019	923,272,673
Newspapers, total	886,522,801	1,073,119,362	977,648,187	892,094,122
Subscriptions and sales	261,568,832	275,781,131	252,811,104	230,580,880
Advertising	624,953,969	797,338,231	724,837,083	661,513,242
Periodicals other than newspapers, total	407,254,079	507,445,461	482,039,976	429,516,611
Subscriptions and sales	163,698,035	184,545,297	176,656,040	167,757,180
Advertising	243,556,044	322,900,164	305,383,936	261,759,431
Books and pamphlets printed and published or published only	146,437,985	199,014,700	178,162,753	154,991,493
Sheet music and books of music	12,203,657	16,537,747	17,146,715	14,133,306
Paper patterns	11,622,243	12,965,867	13,782,356	13,712,855
Composition sold to the trade	25,475,957	30,647,365	26,336,549	19,072,482
Commercial printing, total [7]	690,006,550	871,876,125	778,785,876	717,574,605
Newspapers and periodicals printed for publication by others [7]	70,639,957	71,520,971	54,974,959	56,488,175
Books and pamphlets printed for publication by others [7]	86,097,303	57,997,516	54,756,859	46,716,345
Ready prints	3,482,319	4,111,532	3,761,382	4,275,851
Other commercial printing	529,786,971	738,246,106	[8] 665,292,676	[8] 610,094,234
Labels	[9] 26,582,723	738,246,106	665,292,676	610,094,234
Tags	[10] 10,134,493			
Cards, greeting	[11] 15,477,178			
Railroad tariff	8,035,450			
Legal	6,525,648			
Direct mail	35,925,374			
General commercial printing	427,106,105			

[1] The figures for 1929 and earlier years are not strictly comparable with those for 1931. (See second paragraph, "Description of the industries," p. 515.)

[2] Receipts for bookbinding, electrotyping, engraving, lithographing, photo-engraving, etc., done in establishments engaged primarily in printing and publishing.

[3] Commercial printing, $15,941,042; paper patterns, $1,222,534; music, $127,774.

[4] Commercial printing, $6,020,215; paper patterns, $885,432.

[5] Commercial printing.

[6] Commercial printing, $9,400,518; paper patterns, $47,445.

[7] The inclusion of the items for "Newspapers and periodicals printed for publication by others" and "Books and pamphlets printed for publication by others" results in duplication in the 1931 aggregate value of products to the amount of $156,737,260; in the 1929 aggregate, $129,518,487; in the 1927 aggregate, $109,731,818; in the 1925 aggregate, $103,204,520. These items represent amounts received by commercial printers for work done by them for publishers, and consequently enter twice into the aggregate value of products.

[8] The "Other commercial printing" items for 1927 and 1925 as published in the report for 1927 did not include receipts for other commercial printing reported by establishments outside the Printing and Publishing industries (see item 5 for the respective years, and footnotes 5 and 6), but did include data for "Ready prints" and "Composition sold to the trade," which are shown separately in this table.

[9] In addition, lithographed labels valued at $14,690,752 were reported by establishments classified in the lithographing industry.

[10] In addition, lithographed and blank tags were reported by establishments classified in other industries, as follows: Lithographed, $268,264; blank, $594,102.

[11] In addition, greeting cards, valued as follows, were reported by establishments classified in other industries: Lithographed, $3,049,468; engraved, $5,619,062; other than printed, lithographed, or engraved, $5,053,085. The total value of greeting cards, as reported for 1931, amounted to $29,198,793.

TABLE 4.—PRODUCTS, BY CLASS AND VALUE, BY STATES: 1931

	NEWSPAPERS PRINTED AND PUBLISHED OR PUBLISHED ONLY		PERIODICALS PRINTED AND PUBLISHED OR PUBLISHED ONLY		Books and pamphlets printed and published or published only	Sheet music and books of music	Paper patterns	Composition sold to trade	COMMERCIAL PRINTING			
	Subscriptions and sales	Advertising	Subscriptions and sales	Advertising					Newspapers and periodicals printed for publication by others	Books and pamphlets printed for publication by others	Ready prints	Other commercial printing [1]
United States	$261,568,832	$624,953,969	$163,698,035	$243,556,044	$146,437,985	$12,203,657	$11,622,243	$25,475,957	$70,639,957	$86,097,303	$3,482,319	$529,786,971
Alabama	1,457,980	4,013,199	439,216	1,102,247	50,645	----------	----------	90,535	159,620	285,302	(2)	1,497,139
Arizona	517,505	1,799,590	25,690	78,756	----------	----------	----------	15,000	85,443	6,319	----------	744,982
Arkansas	816,473	2,211,578	27,342	53,173	8,500	(2)	----------	6,446	58,510	100,913	(2)	1,760,656
California	18,269,187	48,498,229	2,313,184	6,816,902	2,075,394	129,794	(2)	1,255,580	2,830,393	2,819,646	22,356	31,947,405
Colorado	2,913,042	6,403,660	179,952	413,134	113,651	----------	----------	73,963	449,909	287,913	(2)	3,204,430
Connecticut	3,145,490	9,196,850	1,815,031	3,848,761	404,750	(2)	(2)	172,848	1,229,562	1,333,305	(2)	7,646,621
Delaware	289,160	1,107,740	32,908	19,820	----------	----------	----------	633	83,360	18,959	----------	603,891
District of Columbia	2,552,288	7,619,614	7,635,443	3,909,429	883,812	----------	----------	23,043	1,890,679	427,887	----------	3,320,523
Florida	1,881,288	6,524,005	79,790	326,855	62,808	----------	----------	16,177	100,471	150,879	(2)	3,343,875
Georgia	2,882,964	5,840,830	177,867	1,016,944	124,499	(2)	----------	111,056	663,644	526,117	(2)	4,135,065
Idaho	414,962	1,123,832	6,704	10,811	18,522	----------	----------	----------	30,060	44,401	----------	678,666
Illinois	29,013,734	53,605,515	18,059,385	21,964,850	21,243,548	1,008,181	----------	4,470,743	19,065,483	18,209,579	108,234	77,063,953
Indiana	5,276,778	13,971,340	2,410,445	1,688,470	1,703,593	(2)	----------	607,434	1,357,276	2,374,492	57,339	10,254,755
Iowa	4,596,541	11,085,048	1,011,682	4,700,990	432,837	(2)	----------	148,164	536,162	879,120	67,796	5,414,725
Kansas	2,139,478	6,727,415	1,019,326	2,697,202	475,580	----------	----------	59,081	174,986	227,025	(2)	3,865,891
Kentucky	2,205,084	5,697,442	358,999	421,977	96,058	(2)	----------	248,072	493,856	88,082	----------	3,884,174
Louisiana	1,953,895	5,684,806	198,704	225,409	50,756	----------	----------	45,581	147,160	120,299	(2)	3,353,569
Maine	1,132,517	2,783,916	576,596	675,846	40,851	----------	----------	78,934	83,779	234,629	(2)	1,545,116
Maryland	3,215,332	8,976,298	633,107	734,019	636,489	(2)	----------	338,304	1,235,619	1,394,158	(2)	8,849,916
Massachusetts	15,830,268	33,517,986	6,119,441	3,779,365	18,783,015	1,112,415	----------	1,895,231	1,879,198	4,905,258	42,401	25,865,674
Michigan	11,237,723	26,462,675	1,121,459	2,716,251	1,098,803	(2)	----------	1,435,503	1,219,293	2,992,377	(2)	21,002,100
Minnesota	4,352,390	12,842,674	2,918,339	2,912,444	3,725,227	(2)	----------	368,815	1,003,578	1,249,832	(2)	15,164,583
Mississippi	461,460	1,515,481	20,377	6,146	----------	----------	----------	283	49,926	60,448	----------	1,003,039
Missouri	7,506,152	23,498,300	3,000,443	2,525,984	1,914,269	211,029	(2)	1,214,908	1,432,221	1,652,844	(2)	21,217,376
Montana	757,320	1,956,577	26,783	76,223	25,784	----------	----------	870	27,020	42,941	(2)	1,178,929

See footnotes at end of table.

TABLE 4.—PRODUCTS, BY CLASS AND VALUE, BY STATES: 1931—Continued

	NEWSPAPERS PRINTED AND PUBLISHED OR PUBLISHED ONLY		PERIODICALS PRINTED AND PUBLISHED OR PUBLISHED ONLY		Books and pamphlets printed and published or published only	Sheet music and books of music	Paper patterns	Composition sold to trade	COMMERCIAL PRINTING			
	Subscriptions and sales	Advertising	Subscriptions and sales	Advertising					Newspapers and periodicals printed for publication by others	Books and pamphlets printed for publication by others	Ready prints	Other commercial printing [1]
Nebraska	$2,547,816	$5,980,237	$458,666	$512,292	$438,094	(2)		$103,582	$206,968	$344,772	(2)	$5,047,309
Nevada	136,722	452,745	2,000	4,320					8,652	1,100		294,228
New Hampshire	386,822	1,219,858	82,835	99,553	30,000			2,969	1,472,567	60,710		1,506,693
New Jersey	4,852,154	18,350,491	409,023	707,592	1,873,875	(2)	(2)	1,040,140	2,232,551	4,144,421	$19,000	15,031,139
New Mexico	175,419	692,504	1,590						23,720	16,920		352,692
New York	58,394,874	109,376,560	72,445,099	90,132,422	73,390,759	$7,677,757	$7,538,140	7,568,872	16,365,560	24,182,503	477,571	110,766,686
North Carolina	2,041,260	5,023,321	125,983	137,442	105,636	(2)		3,249	167,804	270,013		3,328,054
North Dakota	585,919	1,437,893	5,332	2,780				500	53,505	39,469	(2)	893,147
Ohio	15,797,604	41,371,424	17,420,151	25,175,308	5,596,016	610,668	(2)	1,436,406	4,357,346	3,768,325	2,016,483	42,798,066
Oklahoma	2,132,079	7,695,586	350,205	1,140,039	86,624			50,980	217,579	178,718	(2)	2,828,535
Oregon	1,887,041	5,458,177	175,674	522,348	92,388			108,323	281,995	199,851	(2)	2,782,288
Pennsylvania	22,094,976	54,163,207	16,916,953	55,834,942	7,996,204	918,467	(2)	1,316,806	3,622,543	6,962,480	30,071	39,856,430
Rhode Island	1,383,493	4,574,322	38,006	41,378	8,885			110,911	28,917	409,431		3,517,002
South Carolina	929,062	1,941,698	61,905	12,140					41,283	55,448	(2)	1,196,833
South Dakota	524,518	1,484,286	79,814	187,820	13,295	(2)			63,010	82,328	(2)	787,473
Tennessee	2,736,378	6,986,031	2,465,304	729,281	808,670	73,665		132,413	1,230,567	372,560	(2)	4,058,486
Texas	5,616,586	19,334,985	638,777	2,060,033	494,123	(2)		277,744	624,688	469,896	35,842	9,626,061
Utah	737,845	2,052,788	151,331	57,231	71,197			26,529	139,658	171,364	(2)	1,249,822
Vermont	326,583	1,007,573						5,000	182,874	233,570		757,834
Virginia	1,927,887	6,088,443	442,791	225,260	737,301	(2)		130,941	354,870	522,463		5,176,742
Washington	3,755,675	10,521,081	198,819	1,369,441	145,101			226,879	816,943	236,866		4,570,564
West Virginia	1,474,306	3,752,755	16,191	27,214	10,000			1,822	81,835	68,159		1,582,168
Wisconsin	6,155,980	12,576,752	995,425	1,838,513	570,426	(2)		254,687	1,759,736	2,831,153	(2)	12,836,403
Wyoming	148,816	746,652	7,948	16,687					17,578	42,058		395,263
Undistributed						461,681	4,084,103				605,226	

[1] For detail, see table 5, p. 529.
[2] Combined in "Undistributed" item to avoid disclosing data for individual printers or publishers.

TABLE 5.—"OTHER COMMERCIAL PRINTING,"[1] BY CLASS AND VALUE, BY STATES: 1931

STATE	Total	Labels [2]	Tags [3]	Cards, greeting [4]	Railroad tariff and legal	Direct mail	General commercial printing
United States	$529,786,971	$26,582,723	$10,134,493	$15,477,178	[5]$14,561,098	$35,925,374	$427,106,105
Alabama	1,497,139	20,228	6,153	9,860	12,252	33,461	1,415,185
Arizona	744,982	----------	----------	4,433	74,515	----------	666,034
Arkansas	1,760,656	3,100	3,800	4,100	4,876	3,900	1,740,880
California	31,947,405	958,955	967,095	593,737	593,675	929,383	27,904,560
Colorado	3,204,430	69,987	8,549	23,249	87,930	110,689	2,904,026
Connecticut	7,646,621	191,098	15,408	14,618	130,236	438,510	6,856,751
Delaware	603,891	3,430	100	4,000	----------	11,000	585,361
District of Columbia	3,320,523	6,904	----------	29,545	438,097	139,384	2,706,593
Florida	3,343,875	123,096	1,767	14,202	3,198	17,348	3,184,264
Georgia	4,135,065	11,805	10,411	9,089	233,664	58,338	3,811,758
Idaho	678,666	3,741	618	----------	3,301	9,252	661,754
Illinois	77,063,953	3,380,205	1,741,077	1,618,493	3,855,506	7,381,187	59,087,485
Indiana	10,254,755	85,336	213,474	90,183	80,783	1,030,774	8,754,205
Iowa	5,414,725	75,616	12,904	26,481	114,341	383,208	4,802,175
Kansas	3,865,891	4,968	4,296	13,896	46,340	80,444	3,715,947
Kentucky	3,884,174	46,737	4,072	6,003	198,675	19,816	3,608,871
Louisiana	3,353,569	29,750	8,774	5,465	211,227	31,884	3,066,469
Maine	1,545,116	13,710	18,643	3,895	6,280	46,800	1,455,788
Maryland	8,849,916	2,391,129	29,117	14,318	178,869	504,612	5,731,871
Massachusetts	25,865,674	1,238,057	1,129,466	3,362,696	686,887	2,013,109	17,435,459
Michigan	21,002,100	766,378	130,808	142,720	199,885	3,186,243	16,576,066
Minnesota	15,164,583	268,847	135,232	1,246,813	372,572	1,264,662	11,876,457
Mississippi	1,003,039	3,760	1,775	----------	8,323	15,950	973,231
Missouri	21,217,376	1,600,445	319,061	785,189	1,194,822	300,166	17,017,693
Montana	1,178,929	899	2,887	----------	43,755	----------	1,131,388
Nebraska	5,047,309	4,754	18,014	10,913	57,894	73,639	4,882,095
Nevada	294,228	----------	----------	----------	875	----------	293,353
New Hampshire	1,506,693	177,634	1,300	----------	6,895	----------	1,320,864
New Jersey	15,031,139	800,682	288,264	66,298	62,642	459,673	13,353,580
New Mexico	352,692	1,100	----------	1,000	437	5,320	344,835
New York	110,766,686	5,917,257	1,896,742	2,559,061	3,858,747	9,226,272	87,308,607
North Carolina	3,328,054	635,143	32,988	1,456	31,181	133,332	2,493,954
North Dakota	893,147	1,500	500	1,183	250	15,222	874,492
Ohio	42,798,066	4,251,070	1,133,403	3,628,221	298,726	3,254,884	30,231,762
Oklahoma	2,828,535	11,600	13,321	1,000	48,427	68,833	2,685,354
Oregon	2,782,288	106,236	23,264	19,816	68,969	103,382	2,460,621
Pennsylvania	39,856,430	2,097,083	1,494,146	764,344	651,741	2,997,455	31,851,661
Rhode Island	3,517,002	438,180	311,798	57,321	24,157	45,468	2,640,078
South Carolina	1,196,833	28,567	7,356	3,970	21,000	16,300	1,119,640
South Dakota	787,473	7,475	3,360	1,834	18,111	8,862	747,831
Tennessee	4,058,486	209,482	16,524	11,077	72,990	94,594	3,653,819
Texas	9,626,061	86,765	38,294	28,337	139,496	278,663	9,054,506
Utah	1,249,822	8,053	3,850	19,000	10,435	14,995	1,193,489
Vermont	757,834	1,816	5,795	----------	4,407	6,403	739,413
Virginia	5,176,742	170,191	13,163	5,300	269,482	109,672	4,608,934
Washington	4,570,564	23,469	5,511	55,430	46,449	156,461	4,283,244
West Virginia	1,582,168	2,300	1,850	8,963	45,715	14,500	1,508,840
Wisconsin	12,836,403	303,985	59,563	208,458	39,463	830,324	11,394,610
Wyoming	395,263	200	----------	1,211	2,600	1,000	390,252

[1] See table 4, p. 527.
[2] See footnote 9, table 3, p. 526.
[3] See footnote 10, table 3, p. 526.
[4] See footnote 11, table 3, p. 526.
[5] Railroad tariff, $8,035,450; legal, $6,525,648.

TABLE 6.—BOOKS AND PAMPHLETS—NUMBER OF COPIES PUBLISHED, BY CLASSES, FOR THE UNITED STATES: 1931 AND 1929

CLASS	NUMBER OF COPIES	
	1931	1929
Aggregate	370,515,790	435,199,433
BOOKS		
Total	154,461,622	235,363,632
Textbooks (for school use)	65,292,430	80,189,935
Juvenile	22,615,648	36,885,167
Agriculture	276,929	688,810
Biography	2,175,864	2,714,090
Fiction	19,248,703	45,880,062
Fine arts	723,735	1,133,855
History	1,192,929	3,979,704
Law	1,962,901	2,942,176
Medicine	1,440,958	1,932,909
Poetry and drama	2,589,831	4,048,227
BOOKS—continued		
Bibles and testaments	4,676,680	17,625,949
Religion and philosophy	11,803,951	
Science and technology	1,818,585	2,294,660
Sociology and economics	620,451	1,052,049
Travel	2,575,919	1,725,561
Bluebooks, directories, catalogs, etc	4,276,765	32,270,478
All other	11,169,343	
PAMPHLETS		
Total	216,054,168	199,835,801
Texts (for school use)	24,706,253	39,696,158
Juvenile	7,692,942	8,273,065
General literature	183,654,973	151,866,578

TABLE 7.—NEWSPAPERS AND PERIODICALS PUBLISHED, BY CLASS, NUMBER, AND CIRCULATION, FOR THE UNITED STATES: 1931, 1929, 1927, AND 1925

CLASS	1931	1929	1927	1925	PERCENT OF INCREASE OR DECREASE (—)		
					1929–31	1927–29	1925–27
All classes, number	14,186	15,333	14,352	14,065	−7.5	6.8	2.0
Aggregate circulation	269,984,869	293,799,628	278,617,025	259,986,457	−8.1	5.4	7.2
Daily (excluding Sunday), total:							
Number	2,248	2,293	2,265	2,280	−2.0	1.2	−0.7
Circulation [1]	42,124,651	42,947,824	42,343,210	38,039,682	−1.9	1.4	11.3
Newspapers:							
Number	2,044	2,086	2,091	2,116	−2.0	−0.2	−1.2
Circulation [1]	41,293,659	42,015,461	41,368,320	37,406,615	−1.7	1.6	10.6
Periodicals:							
Number	204	207	174	164	−1.4	19.0	6.1
Circulation [1]	830,992	932,363	974,890	633,067	−10.9	−4.4	54.0
Sunday:							
Number	555	578	511	597	−4.0	13.1	−14.4
Circulation [1]	27,453,465	29,011,648	27,695,859	25,630,056	−5.4	4.8	8.1
Triweekly:							
Number	57	64	71	74	(2)	(2)	(2)
Circulation [1]	215,694	311,777	468,534	400,730	−30.8	−33.5	16.9
Semiweekly:							
Number	377	408	395	383	−7.6	3.3	3.1
Circulation [1]	2,637,126	2,982,184	2,026,760	1,934,095	−11.6	47.1	4.8
Weekly, total:							
Number	7,379	8,233	7,760	7,568	−10.4	6.1	2.5
Circulation [1]	46,954,782	53,378,350	55,985,413	50,815,443	−12.0	−4.7	10.2
Newspapers:							
Number	6,313	7,075	6,661	6,435	−10.8	6.2	3.5
Circulation [1]	16,173,234	18,883,551	16,878,783	15,989,700	−14.4	11.9	5.6
Periodicals:							
Number	1,066	1,158	1,099	1,133	−7.9	5.4	−3.0
Circulation [1]	30,781,548	34,494,799	39,106,630	34,825,743	−10.8	−11.8	12.3
Semimonthly: [3]							
Number	205	224	238	232	−8.5	−5.9	2.6
Circulation [1]	6,375,456	9,168,458	5,955,858	6,773,105	−30.5	53.9	−12.1
Monthly:							
Number	2,552	2,799	2,522	2,271	−8.8	11.0	11.1
Circulation [1]	122,670,528	133,048,488	120,693,490	111,875,957	−7.8	10.2	7.9
Quarterly:							
Number	629	562	477	553	11.9	17.8	−13.7
Circulation [1]	19,575,617	20,605,002	21,247,360	22,840,186	−5.0	−3.0	−7.0
Other classes:							
Number	184	172	113	107	7.0	52.2	5.6
Circulation [1]	1,977,550	2,345,897	2,200,541	1,677,203	−15.7	6.6	31.2

[1] Aggregate circulation per issue, averaged for the year.
[2] Percentage not computed where base is less than 100.
[3] Includes data for publications reported as biweekly.

TABLE 8.—DAILY AND SUNDAY NEWSPAPERS—NUMBER BY STATES: 1931 AND 1929

	NUMBER [1]							
	Total		Morning		Evening		Sunday	
	1931	1929	1931	1929	1931	1929	1931	1929
United States	2,599	2,664	455	459	1,589	1,627	555	578
Alabama	30	31	3	3	18	18	9	10
Arizona	19	26	6	7	8	10	5	9
Arkansas	41	42	5	5	27	28	9	9
California	205	217	47	52	111	117	47	48
Colorado	39	37	6	5	24	24	9	8
Connecticut	37	36	6	6	26	26	5	4
Delaware	4	3	1	1	3	2	----	----
District of Columbia	11	11	4	4	4	4	3	3
Florida	59	59	12	10	28	30	19	19
Georgia	40	44	5	5	20	20	15	19
Idaho	25	22	5	6	14	10	6	6
Illinois	141	146	24	22	91	98	26	26
Indiana	116	122	13	16	88	89	15	17
Iowa	55	51	4	5	43	38	8	8
Kansas	63	68	6	7	48	52	9	9
Kentucky	41	42	9	8	22	22	10	12
Louisiana	21	21	5	5	10	10	6	6
Maine	12	12	5	5	6	6	1	1
Maryland	17	18	4	5	10	10	3	3
Massachusetts	85	88	12	14	60	60	13	14
Michigan	78	79	7	6	55	58	16	15
Minnesota	43	45	6	4	30	34	7	7
Mississippi	19	20	2	3	13	11	4	6
Missouri	75	74	10	10	51	51	14	13
Montana	30	30	10	11	10	9	10	10
Nebraska	32	33	6	7	17	17	9	9
Nevada	11	11	2	2	7	7	2	2
New Hampshire	12	11	2	1	10	10	----	----
New Jersey	43	47	9	7	28	31	6	9
New Mexico	12	11	2	2	8	7	2	2
New York	195	202	50	51	103	107	42	44
North Carolina	48	51	9	10	28	27	11	14
North Dakota	14	13	2	3	10	8	2	2
Ohio	163	168	18	20	116	114	29	34
Oklahoma	91	86	12	10	45	48	34	28
Oregon	33	37	6	7	19	21	8	9
Pennsylvania	164	170	36	35	113	120	15	15
Rhode Island	12	15	2	2	8	9	2	4
South Carolina	22	23	6	6	8	10	8	7
South Dakota	18	17	3	2	12	12	3	3
Tennessee	34	31	5	5	20	17	9	9
Texas	173	173	32	26	86	91	55	56
Utah	12	13	1	1	6	7	5	5
Vermont	9	9	2	2	7	7	----	----
Virginia	40	40	10	8	19	21	11	11
Washington	48	48	10	10	26	26	12	12
West Virginia	41	41	10	10	22	21	9	10
Wisconsin	57	62	2	6	46	47	9	9
Wyoming	9	8	1	1	5	5	3	2

[1] See "Number of publications and aggregate circulation per issue," p. 516.

TABLE 9.—DAILY AND SUNDAY NEWSPAPERS—CIRCULATION, BY STATES: 1931 AND 1929

[This table presents statistics for all States for which separate figures can be given without disclosing, exactly or approximately, the data reported by individual publishers]

	AGGREGATE CIRCULATION PER ISSUE [1]							
	Total		Morning		Evening		Sunday	
	1931	1929	1931	1929	1931	1929	1931	1929
United States	68,747,124	71,027,109	15,480,287	15,741,769	25,813,372	26,273,692	27,453,465	29,011,648
Alabama	654,658	592,997	84,610	92,000	264,159	261,092	305,889	239,905
Arizona [2]	141,740	162,335	52,723	53,906	34,451	45,823	54,566	62,606
Arkansas	307,840	313,725	70,720	74,041	101,405	98,317	135,715	141,367
California	4,203,427	4,302,390	1,068,453	1,076,417	1,443,607	1,488,391	1,691,367	1,737,582
Colorado	716,681	699,441	58,808	64,887	241,181	233,641	416,632	400,913
Connecticut	646,296	627,829	110,955	112,522	359,697	352,309	175,644	162,998
District of Columbia	820,146	777,690	185,861	171,985	291,028	272,264	343,257	333,441
Florida	631,645	678,765	184,067	158,124	180,620	236,337	266,958	284,304
Georgia	948,938	1,014,636	161,272	170,206	267,829	266,596	519,837	577,834
Idaho [2]	134,368	139,498	32,709	45,307	49,516	37,878	52,143	56,313
Illinois	6,231,808	6,677,901	1,605,280	1,715,456	1,946,585	2,057,614	2,679,943	2,904,831
Indiana	1,457,705	1,549,137	296,704	334,439	756,282	767,300	404,719	447,398
Iowa	1,128,505	1,118,107	178,416	193,978	559,827	540,845	390,262	383,284
Kansas	679,875	676,889	119,912	126,093	317,162	310,743	242,801	240,053
Kentucky	683,837	825,069	141,871	148,384	267,529	307,675	274,437	369,010
Louisiana	730,511	760,372	189,376	193,882	170,454	182,721	370,681	383,769
Maine [2]	185,729	192,643	101,149	109,546	84,580	83,097	----------	----------
Maryland	994,175	679,510	165,518	167,936	419,832	126,915	408,825	384,659
Massachusetts	4,127,504	4,202,461	1,116,943	1,091,665	1,458,189	1,445,793	1,552,372	1,665,003
Michigan	2,770,468	3,004,053	347,693	308,150	1,158,800	1,334,504	1,263,975	1,361,399
Minnesota	1,370,065	1,357,805	184,074	188,690	607,837	590,979	578,154	578,135
Missouri	2,756,959	2,874,957	644,479	635,893	1,049,187	1,091,155	1,063,293	1,147,909
Montana [2]	181,415	196,250	62,459	70,678	38,316	37,976	80,640	87,596
Nebraska	676,848	750,776	137,324	168,316	234,438	245,003	305,086	337,457
New Jersey	1,027,917	1,119,393	187,724	183,214	702,546	714,484	137,647	221,695
New York	14,215,670	14,757,858	4,058,793	4,122,395	3,865,400	3,990,177	6,291,477	6,645,286
North Carolina	585,361	649,826	176,836	197,773	175,498	185,858	233,027	266,195
Ohio	4,107,237	4,396,634	533,887	608,867	2,210,973	2,299,927	1,362,377	1,487,840
Oklahoma	989,416	899,384	236,174	154,389	352,720	355,874	400,522	389,121
Oregon	711,422	755,566	125,670	136,858	254,232	281,111	331,520	337,597
Pennsylvania	5,414,629	5,592,188	1,166,472	1,237,360	2,380,742	2,398,292	1,867,415	1,956,536
Rhode Island [2]	331,191	386,707	47,339	47,875	185,669	200,219	98,183	138,613
South Carolina [2]	269,378	287,343	92,039	92,495	62,910	85,998	114,429	108,850
South Dakota [2]	130,002	125,255	11,825	8,844	73,027	69,721	45,150	46,690
Tennessee	1,043,258	989,665	237,302	229,826	410,550	372,020	395,406	387,819
Texas	2,317,372	2,371,675	528,182	467,124	787,382	852,264	1,001,808	1,052,287
Virginia	608,717	609,835	181,534	128,091	217,930	270,986	209,253	210,758
Washington	1,093,328	1,124,991	208,605	212,444	453,520	457,673	431,203	454,874
West Virginia	449,747	455,942	115,371	121,567	186,231	149,691	148,145	184,684
Wisconsin	1,364,874	1,441,925	89,571	130,557	750,032	766,973	525,271	544,395
Other States [3]	906,462	887,686	181,527	189,589	441,499	407,456	283,436	290,641

[1] See "Number of publications and aggregate circulation per issue," p. 516.
[2] This State is outranked, with reference to circulation in 1931, by one or more of the "Other States."
[3] For 1931; Delaware, Mississippi, Nevada, New Hampshire, New Mexico, North Dakota, Utah, Vermont, and Wyoming.

TABLE 10.—DAILY NEWSPAPERS PRINTED IN FOREIGN LANGUAGES—NUMBER AND CIRCULATION, FOR PRINCIPAL LANGUAGES, FOR THE UNITED STATES: 1931 AND 1929

[This table presents statistics for all daily newspapers printed in foreign languages, including those printed in both foreign languages and English. Figures are given for all languages which can be shown separately without disclosing, exactly or approximately, the data reported by individual publishers]

LANGUAGE	NUMBER [1]		AGGREGATE CIRCULATION PER ISSUE, EXCLUSIVE OF SUNDAY EDITIONS [1]	
	1931	1929	1931	1929
United States	122	127	2,036,426	2,325,490
Bohemian	5	6	98,000	152,531
Chinese	9	6	53,750	37,950
Finnish	3	4	27,135	27,802
French	8	8	30,215	44,360
German	18	20	253,495	328,151
Greek	3	3	29,300	58,000
Hungarian	2	3	66,931	89,500
Italian	8	7	265,657	273,400
Japanese	7	10	44,400	68,975
Lithuanian	3	3	15,252	90,917
Polish	14	14	289,918	351,984
Russian	4	4	51,818	39,856
Slovak	2	3	39,790	30,341
Slovenian	4	3	27,700	19,750
Spanish	5	8	60,500	73,876
Yiddish	9	10	524,739	550,317
Other languages [2]	18	15	157,826	87,780

[1] See "Number of publications and aggregate circulation per issue," p. 516.
[2] For 1931, Arabic, Armenian, Croatian, Danish-Norwegian, Norwegian, Portuguese, Rumanian, Ruthenian, and Serbian.

TABLE 11.—WEEKLY NEWSPAPERS AND PERIODICALS PRINTED IN FOREIGN LANGUAGES—NUMBER AND CIRCULATION, FOR PRINCIPAL LANGUAGES, FOR THE UNITED STATES: 1931 AND 1929

[This table presents statistics for all languages for which separate figures can be given without disclosing, exactly or approximately, the circulation reported by individual publishers. Data are included for publications in both foreign languages and English]

LANGUAGE	NUMBER [1]		AGGREGATE CIRCULATION PER ISSUE [1]	
	1931	1929	1931	1929
United States	332	383	2,395,362	3,486,652
Bohemian (Czech) [2]	14	19	46,970	89,193
Danish [3]	10	10	55,251	67,176
Dutch [4]	7	11	30,200	38,015
Finnish	4	5	6,400	24,800
French	10	16	30,414	59,081
German	75	84	433,321	534,181
Greek	6	8	32,700	52,350
Hungarian	22	23	127,905	81,451
Italian	33	42	107,770	158,815
Lithuanian	5	5	53,672	79,493
Norwegian [5]	16	14	78,246	102,149
Polish	36	45	481,227	1,004,707
Russian	5	8	35,800	44,153
Slovak	10	9	124,287	182,474
Slovenian	9	7	98,084	59,100
Spanish	15	18	169,200	248,860
Swedish	25	28	303,185	488,331
Yiddish	12	11	81,107	111,600
Other languages [6]	18	20	99,623	60,723

[1] See "Number of publications and aggregate circulation per issue," p. 516.
[2] Includes, for 1931, 3 publications reported as Czechoslovak.
[3] Includes, for 1931, 7 publications, with an aggregate circulation of 38,161, reported as Danish-Norwegian.
[4] Includes, for 1931, 2 publications reported as Flemish.
[5] See footnote 3.
[6] For 1931, Arabic, Armenian, Chinese, Croatian, Japanese, Ladino, Portuguese, Rumanian, Ruthenian, Serbian, and Welsh.

TABLE 12.—PERIODICALS—NUMBER AND CIRCULATION, BY CLASS, FOR THE UNITED STATES: 1931

CLASS OF PUBLICATION	NUMBER	AGGREGATE CIRCULATION PER ISSUE	CLASS OF PUBLICATION	NUMBER	AGGREGATE CIRCULATION PER ISSUE
United States	4,882	183,518,736	Medicine, surgery, and dentistry	138	1,232,238
Agricultural, stock raising, etc.	234	21,580,895	Motion pictures	43	4,434,338
Art, music, and drama	61	888,484	News summaries, general literature, and fiction	262	62,338,928
Automobiles, motor boats, etc.	96	2,057,208	Religion (denominational)	1,450	36,580,090
College and school periodicals	242	879,358	Science and technology	167	3,579,461
Commerce, finance, and insurance	226	2,045,736	Society, fashion, beauty culture, etc.	57	13,651,729
Educational	184	4,415,965	Sports, games, and amusements	124	2,376,035
Fraternal	162	8,453,426	Trade journals (not elsewhere classified)	885	8,414,795
Labor (by labor organizations)	164	3,146,095	Miscellaneous	280	7,238,010
Legal	107	206,005			

BOOKBINDING AND BLANK-BOOK MAKING

Description of the industry.—This industry embraces establishments engaged primarily in the binding of books and pamphlets; the manufacture of blank books, such as ledgers, account books, sales books, receipts, checks, loose-leaf devices, inventory and similar blanks, and indexes; and related work, such as paper ruling and cutting, embossing, paper and card etching, map and sample mounting, etc. The work done in binderies operated by publishers for their own publications is not included.

SUMMARY FOR THE UNITED STATES, 1899 TO 1931, AND FOR STATES, 1931

[Data for establishments with products under $5,000 in value are included for 1919 and prior years but not for 1921 and subsequent years. See sec. 3d, p. 4. Statistics are given for all States for which separate figures can be published without disclosing, exactly or approximately, the data reported by individual establishments. Certain of the "Other States," however, are more important in the industry than some of the States shown separately]

	Number of establishments	Wage earners (average for the year)	Wages	Paid for contract work	Cost of materials, fuel, and purchased electric energy	Value of products [1]	Value added by manufacture [2]
United States							
1931	1,050	21,216	$25,356,304	$1,112,481	$21,391,592	$79,779,955	$58,388,363
1929	1,108	24,754	31,779,037	(3)	30,754,777	102,783,405	72,028,628
1927	1,063	21,909	28,281,066	(3)	25,875,185	87,327,392	61,452,207
1925	970	20,836	26,005,621	1,088,428	24,127,012	81,600,302	57,473,290
1923	965	20,728	25,216,055	914,583	23,073,048	76,959,420	53,886,372
1921	869	17,465	20,317,877	620,063	19,886,243	63,854,402	43,968,159
1919	1,113	20,361	18,658,821	452,225	23,235,171	66,020,677	42,785,506
1914	1,124	21,693	11,574,723	381,087	13,334,207	38,104,368	24,770,161
1909	1,054	19,938	9,676,270	(3)	11,629,906	31,742,416	20,112,510
1904	908	17,713	7,886,945	160,735	9,139,937	25,223,650	16,083,713
1899	954	15,971	6,671,666	183,954	7,702,543	20,790,858	13,088,315
Percent of increase or decrease (−):							
1929–31	−5.2	−14.3	−20.2	(3)	−30.4	−22.4	−18.9
1927–29	4.2	13.0	12.4	(3)	18.9	17.7	17.2
1925–27	9.6	5.1	8.7	(3)	7.2	7.0	6.9
1923–25	0.5	0.5	3.1	19.0	4.6	6.0	6.7
1921–23	11.0	18.7	24.1	47.5	16.0	20.5	22.6
1919–21	−21.9	−14.2	8.9	37.1	−14.4	−3.3	2.8
1921–31	20.8	21.5	24.8	79.4	7.6	24.9	32.8
1919–29	−0.4	21.6	70.3	(3)	32.4	55.7	68.3
1909–19	5.6	2.1	92.8	(3)	99.8	108.0	112.7
1899–1909	10.5	24.8	45.0	(3)	51.0	52.7	53.7
States, 1931							
California	58	941	$1,361,527	$54,841	$1,400,925	$5,305,643	$3,904,718
Colorado	8	58	66,085	2,365	40,326	193,443	153,117
Connecticut	8	29	32,786	5,147	18,000	99,127	81,127
District of Columbia	5	57	74,979	4,238	16,545	145,918	129,373
Georgia	6	35	34,865	----------	18,723	97,367	78,644
Illinois	112	2,433	2,928,085	114,429	2,869,904	10,130,523	7,260,619
Indiana	13	105	124,492	487	136,881	411,675	274,794
Iowa	9	118	156,321	40,327	149,817	535,353	385,536
Kentucky	3	32	24,287	1,432	9,728	53,380	43,652
Louisiana	6	32	39,996	1,476	12,736	87,319	74,583
Maine	4	28	31,167	1,780	48,070	116,244	68,174
Maryland	11	324	336,846	232,908	427,061	1,505,898	1,078,837
Massachusetts	84	3,022	3,560,219	49,618	2,377,170	9,348,630	6,971,460
Michigan	27	861	1,081,159	26,760	1,141,327	3,774,745	2,633,418
Minnesota	14	135	147,231	----------	175,729	641,158	465,429

See footnotes at end of table.

SUMMARY FOR THE UNITED STATES, 1899 TO 1931, AND FOR STATES, 1931—Cont.

[See note at head of table]

	Number of establishments	Wage earners (average for the year)	Wages	Paid for contract work	Cost of materials, fuel, and purchased electric energy	Value of products [1]	Value added by manufacture [2]
States, 1931—Contd.							
Missouri	40	648	$780,272	$4,913	$718,589	$2,678,237	$1,959,648
Nebraska	6	23	26,236	35,662	29,612	237,935	208,323
New Jersey	22	399	482,647	7,412	537,681	1,559,521	1,021,840
New York	397	8,243	10,090,393	386,113	7,611,006	29,856,752	22,245,746
Ohio	56	927	1,049,601	35,555	1,042,425	3,783,378	2,740,953
Oklahoma	7	60	51,923	1,400	29,223	215,470	186,247
Oregon	6	36	49,220	10,268	34,830	151,752	116,922
Pennsylvania	80	1,300	1,294,287	16,927	1,096,173	3,814,497	2,718,324
Texas	9	90	78,439	38,753	70,551	361,859	291,308
Utah	5	16	20,643	9,739	12,443	65,669	53,226
Virginia	4	43	43,422	1,882	17,540	91,405	73,865
Washington	14	107	122,626	5,854	150,221	487,649	337,428
Wisconsin	18	389	430,839	21,762	671,958	1,553,733	881,775
Other States [4]	18	725	835,711	433	526,398	2,475,675	1,949,277

[1] For detail, see table on p. 548.
[2] Value of products less cost of materials, fuel, and purchased electric energy. See sec. 20, p. 11.
[3] No data.
[4] Alabama, 1 establishment; Arizona, 1; Delaware, 1; Florida, 2; Kansas, 1; New Hampshire, 3; North Carolina, 1; Rhode Island, 1; South Carolina, 1; South Dakota, 1; Tennessee, 5.

ENGRAVERS' MATERIALS

Description of the industry.—The establishments classified in this industry are engaged primarily in the preparation of boxwood for engravers' use, of cherry and maple for photo-engravers' mounts, and of steel, brass, copper, and zinc plates for the use of engravers, photo-engravers, and etchers; and in the grinding, finishing, and polishing of lithographic stone for the use of lithographers.

SUMMARY FOR THE UNITED STATES, 1899 TO 1931, AND FOR STATES, 1931

[Data for establishments with products under $5,000 in value are included for 1919 and prior years but not for 1921 and subsequent years. See sec. 3d, p. 4. Statistics are given for all States for which separate figures can be published without disclosing, exactly or approximately, the data reported by individual establishments]

	Number of establishments	Wage earners (average for the year)	Wages	Paid for contract work	Cost of materials, fuel, and purchased electric energy	Value of products [1]	Value added by manufacture [2]
United States							
1931	21	275	$443,677	----------	$1,165,724	$2,319,223	$1,153,499
1929	19	313	448,385	(3)	1,794,804	3,129,483	1,334,679
1927	17	178	293,962	(3)	1,289,261	2,168,737	879,476
1925	16	177	276,204	----------	1,202,203	2,014,036	811,833
1923	24	224	391,557	6,724	1,359,350	2,302,627	943,277
1921	22	184	302,206	----------	1,046,403	1,816,873	770,470
1919	21	174	212,171	58	1,484,269	2,248,122	763,853
1914	13	106	73,391	----------	550,659	768,258	217,599
1909	18	129	95,505	823	609,053	920,727	311,674
1904	10	49	31,062	----------	95,887	170,710	74,823
1899	11	76	44,939	2,000	141,785	282,489	140,704
Percent of increase or decrease (—):							
1929–31	(4)	—12.1	—1.0	----------	—35.1	—25.9	—13.6
1927–29	(4)	75.8	52.5	----------	39.2	44.3	51.8
1925–27	(4)	0.6	6.4	----------	7.2	7.7	8.3
1923–25	(4)	—21.0	—29.5	----------	—11.6	—12.5	—13.9
1921–23	(4)	21.7	29.6	----------	29.9	26.7	22.4
1919–21	(4)	5.7	42.4	----------	—29.5	—19.2	0.9
1921–31	(4)	49.5	46.8	----------	11.4	27.6	49.7
1919–29	(4)	79.9	111.3	----------	20.9	39.2	74.7
1909–19	(4)	34.9	122.2	—93.0	143.7	144.2	145.1
1899–1909	(4)	(4)	112.5	—58.9	329.6	225.9	121.5
States, 1931							
Illinois	3	62	$95,084	----------	$392,304	$583,610	$191,306
New York	12	86	185,311	----------	346,898	891,824	544,926
Other States [5]	6	127	163,282	----------	426,522	843,789	417,267

[1] For 1929, manufacturers' sales (shipments or deliveries); for other years, production. See sec. 16, p. 9.
[2] Value of products less cost of materials, fuel, and purchased electric energy. See sec. 20, p. 11.
[3] No data.
[4] Percent not computed where base is less than 100.
[5] California, 1 establishment; Massachusetts, 1; New Jersey, 2; Ohio, 1; Texas, 1.

ENGRAVING (OTHER THAN STEEL, COPPERPLATE, OR WOOD), CHASING, ETCHING, AND DIESINKING

Description of the industry.—This industry embraces establishments engaged primarily in engraving (for purposes other than printing), etching, and diesinking. The engraving on silverware and jewelry is done mainly on a custom basis for the trade. The products include name plates, badges, signs, etc., and metal dies and stamps.

SUMMARY FOR THE UNITED STATES, 1899 TO 1931, AND FOR STATES, 1931

[Data for establishments with products under $5,000 in value are included for 1919 and prior years but not for 1921 and subsequent years. See sec. 3d, p. 4. Statistics are given for all States for which separate figures can be published without disclosing, exactly or approximately, the data reported by individual establishments. Certain of the "Other States," however, are more important in the industry than some of the States shown separately]

	Number of establishments	Wage earners (average for the year)	Wages	Paid for contract work	Cost of materials, fuel, and purchased electric energy	Value of products [1]	Value added by manufacture [2]
United States							
1931	133	1,467	$2,047,611	$28,149	$1,439,812	$5,607,496	$4,167,684
1929	189	2,240	3,211,743	(3)	2,583,039	10,933,741	8,350,702
1927	173	1,805	2,612,434	(3)	2,078,160	7,930,688	5,852,528
1925	188	1,827	2,690,803	76,150	2,177,251	8,622,823	6,445,572
1923	210	1,887	2,853,125	59,531	2,820,179	9,121,446	6,301,267
1921	193	1,276	1,760,335	51,556	1,397,020	4,849,882	3,452,862
1919	478	1,878	2,391,504	58,903	1,927,323	7,350,602	5,423,279
1914	486	1,536	1,075,721	16,428	596,107	3,133,791	2,537,684
1909	253	1,308	821,472	7,332	350,764	2,249,861	1,899,097
1904	305	1,573	1,032,232	21,747	376,409	2,422,487	2,046,078
1899	277	964	543,004	23,848	203,046	1,468,202	1,265,156
Percent of increase or decrease (−):							
1929-31	−29.6	−34.5	−36.2	----------	−44.3	−48.7	−50.1
1927-29	9.2	24.1	22.9	----------	24.3	37.9	42.7
1925-27	−8.0	−1.2	−2.9	----------	−4.6	−8.0	−9.2
1923-25	−10.5	−3.2	−5.7	27.9	−22.8	−5.5	2.3
1921-23	8.8	47.9	62.1	15.5	101.9	88.1	82.5
1919-21	−59.6	−32.1	−26.4	−12.5	−27.5	−34.0	−36.3
1921-31	−31.1	15.0	16.3	−45.4	3.1	15.6	20.7
1919-29	−60.5	19.3	34.3	----------	34.0	48.7	54.0
1909-19	88.9	43.6	191.1	703.4	449.5	226.7	185.6
1899-1909	−8.7	35.7	51.3	−69.2	72.8	53.2	50.1
States, 1931							
California	7	13	$14,342	----------	$17,705	$90,896	$73,191
Illinois	19	449	603,265	117	491,268	1,644,653	1,153,385
Massachusetts	25	197	283,434	2,956	75,481	635,282	559,801
New Jersey	8	41	74,118	4,191	17,842	138,415	120,573
New York	40	439	640,106	18,070	532,984	1,980,415	1,447,431
Ohio	5	19	32,421	490	17,215	136,832	119,617
Pennsylvania	9	35	56,575	----------	35,303	143,906	108,603
Rhode Island	3	12	21,740	746	2,066	41,030	38,964
Other States [4]	17	262	321,610	1,579	249,948	796,067	546,119

[1] The values of miscellaneous products, normally belonging to other industries, made as secondary products by establishments engaged primarily in engraving, chasing, etching, and diesinking, are included as follows: For 1931, $381,233; 1929, $543,671; 1927, $261,394; 1925, $669,907; corresponding amounts for earlier years not available. The following values of engraving, chasing, etc., reported by establishments engaged primarily in other industries are not included: For 1931, $184,631; 1929, $124,528; 1927, $174,624; 1925, $80,665; 1923, $89,493; 1921, $145,224; 1919, $144,776.

[2] Value of products less cost of materials, fuel, and purchased electric energy. See sec. 20, p. 11.

[3] No data.

[4] Connecticut, 1 establishment; Maryland, 2; Michigan, 3; Minnesota, 1; Missouri, 1; New Hampshire, 1; North Carolina, 1; Oregon ,1; Wisconsin, 6.

ENGRAVING, STEEL, COPPERPLATE, AND WOOD, AND PLATE PRINTING

Description of the industry.—The establishments assigned to this industry are engaged primarily in engraving steel and copper plates for printing stationery, visiting and other cards, invitations, announcements, securities, bonds, stock certificates, music, maps, half tones, etc.; in printing from these plates; and in making woodcuts for use in printing illustrations, posters, etc. Woodcuts are made to some extent by establishments classified in the Printing and Publishing industries but the value of such work is not separately reported.

The distinction between this industry and "Engraving (Other Than Steel, Copperplate, and Wood), Chasing, Etching, and Die-sinking" lies in the fact that the plates engraved in this industry are all intended for use in printing.

Change in classification.—Wood engraving was given a separate industry classification in former censuses but the figures for 1929 and earlier years, as given in the following table, have been adjusted so as to make them comparable with those for 1931.

SUMMARY FOR THE UNITED STATES, 1899 TO 1931, AND FOR STATES, 1931

[Data for establishments with products under $5,000 in value are included for 1919 and prior years but not for 1921 and subsequent years. See sec. 3d, p. 4. Statistics are given for all States for which separate figures can be published without disclosing, exactly or approximately, the data reported by individual establishments. Certain of the "Other States," however, are more important in the industry than some of the States shown separately]

	Number of establishments	Wage earners (average for the year)	Wages	Paid for contract work	Cost of materials, fuel, and purchased electric energy	Value of products [1]	Value added by manufacture [2]
United States							
1931	432	6,995	$9,503,497	$468,570	$6,424,732	$27,425,476	$21,000,744
1929	483	10,272	14,812,941	(3)	11,947,014	47,900,592	35,953,578
1927	416	8,681	12,176,514	(3)	10,312,570	39,712,542	29,399,972
1925	390	7,376	10,402,449	561,232	7,674,810	32,631,390	24,956,580
1923	401	7,670	10,399,217	582,296	7,999,855	33,074,961	25,075,106
1921	391	7,287	9,831,239	514,925	7,747,511	29,407,033	21,659,522
1919	476	7,249	8,115,324	142,880	7,200,015	25,362,772	18,162,757
1914	471	7,161	4,837,002	276,577	4,010,892	14,505,619	10,494,727
1909	398	5,644	3,646,467	---------	2,343,700	10,143,758	7,800,058
1904	329	3,918	2,472,882	64,696	1,613,901	6,590,989	4,977,088
1899	430	3,639	2,218,084	39,200	1,272,543	5,714,598	4,442,055
Percent of increase or decrease (−):							
1929–31	−10.6	−31.9	−35.8	---------	−46.2	−42.7	−41.6
1927–29	6.1	18.3	21.7	---------	15.8	20.6	22.3
1925–27	6.7	17.7	17.1	---------	34.4	21.7	17.8
1923–25	−2.7	−3.8	(4)	−3.6	−4.1	−1.3	−.5
1921–23	2.6	5.3	5.8	13.1	3.3	12.5	15.8
1919–21	−17.9	.5	21.1	260.4	7.6	15.9	19.3
1921–31	10.5	−4.0	−3.3	−9.0	−17.1	−6.7	−3.0
1919–29	1.5	41.7	82.5	---------	65.9	88.9	98.0
1909–19	19.6	28.4	122.6	---------	207.2	150.0	132.9
1899–1909	−7.4	55.1	64.4	---------	84.2	77.5	75.0

See footnotes at end of table.

SUMMARY FOR THE UNITED STATES, 1899 TO 1931, AND FOR STATES, 1931—Con.

[See note at head of table]

	Number of establishments	Wage earners (average for the year)	Wages	Paid for contract work	Cost of materials, fuel, and purchased electric energy	Value of products [1]	Value added by manufacture [2]
States, 1931							
California	39	172	$245,006	$20,699	$219,456	$794,658	$575,202
Colorado	5	62	68,214	5,172	66,522	230,139	163,617
District of Columbia	7	68	98,221	9,087	101,394	307,556	206,162
Illinois	53	784	1,056,927	48,489	949,365	3,373,734	2,424,369
Indiana	8	69	60,533	3,295	46,975	200,894	153,919
Kentucky	9	164	144,815	548	150,529	549,861	399,332
Louisiana	3	12	17,449	--------	21,851	57,919	36,068
Maryland	6	41	35,601	2,394	18,086	91,035	72,949
Massachusetts	27	524	572,403	15,228	738,163	2,211,042	1,472,879
Michigan	8	44	57,159	5,555	36,427	156,917	120,490
Minnesota	8	76	86,161	2,871	67,910	252,767	184,857
New Jersey	22	659	1,036,505	23,175	185,668	1,773,060	1,587,392
New York	120	2,448	3,799,377	195,612	1,933,529	9,736,888	7,803,359
Ohio	16	152	171,462	15,773	155,462	587,715	432,253
Oregon	4	16	18,989	254	23,396	75,229	51,833
Pennsylvania	31	830	1,007,107	78,919	838,593	3,219,696	2,381,103
Rhode Island	7	143	233,997	262	17,625	438,078	420,453
Tennessee	3	14	16,481	247	11,575	40,310	28,735
Texas	7	104	115,237	1,793	187,915	466,174	278,259
Wisconsin	4	42	38,516	--------	34,016	123,530	89,514
Other States [5]	45	571	623,337	39,197	620,275	2,738,274	2,117,999

[1] For detail, see table on p. 548.
[2] Value of products less cost of materials, fuel, and purchased electric energy. See sec. 20, p. 11.
[3] No data.
[4] Less than one-tenth of 1 percent.
[5] Alabama, 2 establishments; Connecticut, 7; Florida, 2; Georgia, 2; Kansas, 1; Maine, 1; Missouri, 10; Nebraska, 2; North Carolina, 1; Oklahoma, 1; Utah, 2; Virginia, 2; Washington, 3.

LITHOGRAPHING

[A preliminary report for this industry was issued under date of Dec. 29, 1932]

Description of the industry.—The establishments in this industry are engaged primarily in drawing or transferring designs and preparing lithograph plates of stone or metal, and in printing from such plates. The products include calendars, bank notes, commercial and bank forms, maps, picture post cards, advertising signs and pictures, billheads, circulars, etc. Cigar bands, blank checks and drafts, bonds, letterheads, passbooks, etc., are reported as products both of this and of the "Engraving, Steel, Copperplate, and Wood, and Plate Printing" industry. Some of the establishments in the Lithographing industry draw designs and prepare lithograph plates for use by others in printing.

The "value of products" of this industry is, therefore, made up in part of the actual values of the calendars, bank notes, etc., printed from lithograph plates, and in part of the value of plates made for others.

SUMMARY FOR THE UNITED STATES, 1899 TO 1931, AND FOR STATES, 1931

[Data for establishments with products under $5,000 in value are included for 1919 and prior years but not for 1921 and subsequent years. See sec. 3d, p. 4. Statistics are given for all States for which separate figures can be published without diclosing, exactly or approximately, the data reported by individual establishments. Certain of the "Other States," however, are more important in the industry than some of the States shown separately]

	Number of establishments	Wage earners (average for the year)	Wages	Paid for contract work	Cost of materials, fuel, and purchased electric energy	Value of products [1]	Value added by manufacture [2]
United States							
1931	364	16,215	$25,722,990	$4,081,642	$26,606,611	$87,433,164	$60,826,553
1929	376	18,979	32,021,919	(3)	38,992,142	121,014,321	82,022,179
1927	309	16,348	27,465,552	(3)	32,703,772	97,050,124	64,346,352
1925	331	16,957	27,106,883	3,488,872	32,171,152	98,721,268	66,550,116
1923	328	16,317	25,067,427	3,312,264	31,008,765	91,670,752	60,661,987
1921	296	13,971	21,085,435	2,312,388	30,522,209	79,472,260	48,950,051
1919	331	15,618	18,201,089	1,363,424	27,718,217	73,151,115	45,432,898
1914	336	15,171	11,861,018	703,601	14,017,181	39,135,973	25,118,792
1909	318	15,073	10,202,184	----------	11,930,731	34,109,233	22,178,502
1904	248	12,614	8,198,676	325,806	8,349,823	25,245,266	16,895,443
1899	263	12,994	6,882,168	229,121	7,886,045	22,240,679	14,354,634
Percent of increase or decrease (—):							
1929–31	—3.2	—14.6	—19.7	----------	—31.8	—27.7	—25.8
1927–29	21.7	16.1	16.6	----------	19.2	24.7	27.5
1925–27	—6.6	—3.6	1.3	----------	1.7	—1.7	—3.3
1923–25	0.9	3.9	8.1	5.3	3.7	7.7	9.7
1921–23	10.8	16.8	18.9	43.2	1.6	15.3	23.9
1919–21	—10.6	—10.5	15.8	69.6	10.1	8.6	7.7
1921–31	23.0	16.1	22.0	76.5	—12.8	10.0	24.3
1919–29	13.6	21.5	75.9	----------	40.7	65.4	80.5
1909–19	4.1	3.6	78.4	----------	132.3	114.5	104.9
1899–1909	20.9	16.0	48.2	----------	51.3	53.4	54.5

See footnotes at end of table.

SUMMARY FOR THE UNITED STATES, 1899 TO 1931, AND FOR STATES, 1931—Con.

[See note at head of table]

	Number of establishments	Wage earners (average for the year)	Wages	Paid for contract work	Cost of materials, fuel, and purchased electric energy	Value of products [1]	Value added by manufacture [2]
States, 1931							
California	14	847	$1,453,861	$100,027	$1,894,333	$5,218,664	$3,324,331
District of Columbia	8	138	226,526	5,814	125,603	664,446	538,843
Illinois	43	1,797	3,043,209	643,292	2,877,310	10,301,479	7,424,169
Indiana	4	144	147,432	14,781	249,653	638,169	388,516
Iowa	4	100	143,539	----------	278,291	592,240	313,949
Kentucky	5	317	387,601	19,340	311,388	992,841	681,453
Maryland	11	583	703,198	30,465	963,832	2,640,942	1,677,110
Massachusetts	12	790	1,180,192	137,468	936,465	3,790,431	2,853,966
Michigan	12	507	797,809	231,516	901,510	3,061,538	2,160,028
Missouri	17	426	574,612	102,719	829,603	2,342,831	1,513,228
New Jersey	8	243	332,193	91,060	311,601	1,076,125	764,524
New York	116	4,996	8,891,779	1,755,972	8,295,300	29,480,975	21,185,675
Ohio	37	2,437	3,469,203	394,557	3,950,464	12,227,335	8,276,871
Pennsylvania	28	1,396	2,086,229	229,916	2,094,355	6,392,238	4,297,883
Texas	6	87	134,894	21,774	186,666	526,191	339,525
Virginia	3	124	162,820	----------	225,902	521,839	295,937
Washington	7	148	238,859	34,395	326,953	966,571	639,618
Wisconsin	12	541	873,342	207,151	904,108	2,971,864	2,067,756
Other States [4]	17	594	875,692	61,395	943,274	3,026,445	2,083,171

[1] For detail, see table on p. 548.
[2] Value of products less cost of materials, fuel, and purchased electric energy. See sec. 20, p. 11.
[3] No data.
[4] Alabama, 1 establishment; Colorado, 1; Connecticut, 1; Georgia, 1; Kansas, 2; Louisiana, 1; Minnesota, 1; Nebraska, 1; Oregon, 1; Rhode Island, 1; Tennessee, 2; Utah, 2; West Virginia, 2.

PHOTO-ENGRAVING, NOT DONE IN PRINTING ESTABLISHMENTS

Description of the industry.—The establishments in this industry are engaged primarily in making photo-engraved plates for printing illustrations, art work, post cards, greeting cards, magazine covers, half-tone engravings, etc. Such establishments do not, as a rule, print from the plates which they make, but prepare them for use by others.

SUMMARY FOR THE UNITED STATES, 1899 TO 1931, AND FOR STATES, 1931

[Data for establishments with products under $5,000 in value are included for 1919 and prior years but not for 1921 and subsequent years. See sec. 3d, p. 4. Statistics are given for all States for which separate figures can be published without disclosing, exactly or approximately, the data reported by individual establishments. Certain of the "Other States," however, are more important in the industry than some of the States shown separately]

	Number of establishments	Wage earners (average for the year)	Wages	Paid for contract work	Cost of materials, fuel, and purchased electric energy	Value of products [1]	Value added by manufacture [2]
United States							
1931	617	10,095	$24,990,256	$1,044,766	$7,408,475	$56,019,675	$48,611,200
1929	654	12,353	31,831,176	(3)	11,003,121	77,382,259	66,379,138
1927	611	11,033	28,381,480	(3)	10,790,128	69,207,376	58,417,248
1925	577	9,868	24,320,884	1,140,480	8,392,623	58,640,247	50,247,624
1923	450	8,521	18,668,866	557,150	6,606,207	43,660,021	37,053,814
1921	421	6,971	15,046,323	543,616	5,928,493	36,215,570	30,287,077
1919	422	6,769	10,423,541	317,416	5,038,382	29,389,386	24,351,004
1914	376	6,211	6,166,638	230,504	2,798,132	15,358,604	12,560,472
1909	313	5,343	4,750,046	139,988	2,133,980	11,624,000	9,490,020
1904	223	3,876	2,916,073	77,208	1,303,147	7,268,262	5,965,115
1899	203	2,691	1,749,578	36,348	725,069	4,190,002	3,464,933
Percent of increase or decrease (−):							
1929–31	−5.7	−18.3	−21.5	----------	−32.7	−27.6	−26.8
1927–29	7.0	12.0	12.2	----------	2.0	11.8	13.6
1925–27	5.9	11.8	16.7	----------	28.6	18.0	16.3
1923–25	28.2	15.8	30.3	104.7	27.0	34.3	35.6
1921–23	6.9	22.2	24.1	2.5	11.4	20.6	22.3
1919–21	−0.2	3.0	44.3	71.3	17.7	23.2	24.4
1921–31	46.6	44.8	66.1	92.2	25.0	54.7	60.5
1919–29	55.0	82.5	205.4	----------	118.4	163.3	172.6
1909–19	34.8	26.7	119.4	126.7	136.1	152.8	156.6
1899–1909	54.2	98.6	171.5	285.1	194.3	177.4	173.9
States, 1931							
Alabama	5	25	$49,509	$5,467	$16,116	$162,162	$146,046
California	52	476	1,112,655	56,062	472,560	3,234,719	2,762,159
Colorado	5	37	74,567	1,251	33,640	184,310	150,670
Connecticut	16	186	409,239	15,443	105,153	960,747	855,594
District of Columbia	7	87	205,113	----------	72,296	516,188	443,892
Florida	6	27	67,601	499	17,190	161,481	144,291
Georgia	8	90	188,670	3,707	50,006	397,614	347,608
Illinois	53	1,706	3,961,810	262,045	1,437,200	9,285,549	7,848,349
Indiana	9	151	394,826	4,099	98,177	881,630	783,453
Iowa	8	87	214,773	4,450	62,263	514,421	452,158

See footnotes at end of table.

SUMMARY FOR THE UNITED STATES, 1899 TO 1931, AND FOR STATES, 1931—Continued

[See note at head of table]

	Number of establishments	Wage earners (average for the year)	Wages	Paid for contract work	Cost of materials, fuel, and purchased electric energy	Value of products [1]	Value added by manufacture [2]
States, 1931—Contd.							
Kentucky	7	149	$242,826	$5,655	$188,837	$610,378	$421,541
Louisiana	4	23	58,526	----------	16,172	123,414	107,242
Maine	6	23	39,823	----------	17,032	100,209	83,177
Maryland	6	92	227,365	5,484	81,656	527,370	445,714
Massachusetts	42	583	1,227,928	20,814	264,842	2,518,522	2,253,680
Michigan	28	544	1,204,459	33,958	471,709	3,010,063	2,538,354
Minnesota	11	217	460,934	7,514	138,379	1,077,275	938,896
Missouri	20	317	748,656	29,935	145,973	1,651,445	1,505,472
Nebraska	6	34	79,627	2,409	21,563	198,322	176,759
New Jersey	9	168	450,088	8,663	169,775	931,814	762,039
New York	109	2,659	7,792,897	277,204	2,059,421	16,083,392	14,023,971
North Carolina	6	31	64,109	1,663	20,965	152,904	131,939
Ohio	52	785	1,787,448	110,744	456,633	4,083,963	3,627,330
Oklahoma	5	23	60,546	1,428	21,663	215,180	193,517
Oregon	9	47	104,404	2,632	38,539	294,448	255,909
Pennsylvania	41	861	2,281,658	109,673	495,265	4,582,559	4,087,294
Rhode Island	4	50	95,990	----------	23,759	217,301	193,542
Tennessee	7	47	118,100	4,160	38,497	271,229	232,732
Texas	18	115	270,868	8,298	75,253	687,140	611,887
Utah	3	17	40,287	876	23,325	92,868	69,543
Virginia	7	51	107,228	16,033	41,936	258,438	216,502
Washington	14	52	124,425	599	53,409	429,541	376,132
West Virginia	3	16	24,035	----------	7,255	55,158	47,903
Wisconsin	16	239	549,185	39,003	117,840	1,127,045	1,009,205
Other States [4]	15	80	150,081	4,998	54,176	420,876	366,700

[1] For detail, see table on p. 548.
[2] Value of products less cost of materials, fuel, and purchased electric energy. See sec. 20, p. 11.
[3] No data.
[4] Arizona, 1 establishment; Arkansas, 2; Delaware, 1; Kansas, 3; Mississippi, 1; Montana, 2; New Hampshire, 1; North Dakota, 1; South Carolina, 2; South Dakota, 1.

PRINTING MATERIALS, NOT INCLUDING TYPE OR INK

Description of the industry.—The establishments in this industry are those whose products of chief value are composing rules and sticks, mallets, planes, chases, quoins, type cases, galleys, printers' rollers, blocks, plate hooks, and locking devices.

SUMMARY FOR THE UNITED STATES, 1899–1931, AND FOR STATES, 1931

[Data for establishments with products under $5,000 in value are included for 1919 and prior years but not for 1921 and subsequent years. See sec. 3d, p. 4. Statistics are given for all States for which separate figures can be published without disclosing, exactly or approximately, the data reported by individual establishments. Certain of the "Other States," however, are more important in the industry than some of the States shown separately]

	Number of establishments	Wage earners (average for the year)	Wages	Paid for contract work	Cost of materials, fuel, and purchased electric energy	Value of products [1] [2]	Value added by manufacture [3]
United States							
1931	90	781	$1,201,403	$1,413	$1,465,742	$5,795,071	$4,329,329
1929	84	1,004	1,649,276	(4)	2,184,544	8,579,006	6,394,462
1927	70	882	1,402,256	(4)	2,034,348	7,022,343	4,987,995
1925	71	888	1,378,748	12,279	1,786,570	6,525,379	4,738,809
1923	68	560	843,963	622	1,162,531	4,805,648	3,643,117
1921	74	816	1,153,276	6,429	1,713,736	5,319,261	3,605,525
1919	82	723	799,402	3,184	1,619,718	4,918,799	3,299,081
1914	94	423	340,041	4,529	763,212	2,110,814	1,347,602
1909	93	535	354,838	----------	760,886	1,982,416	1,221,530
1904	77	357	239,036	10,573	372,480	1,207,163	834,683
1899	70	560	232,799	----------	406,357	1,088,432	682,075
Percent of increase or decrease (−):							
1929–31	(5)	−22.2	−27.2	----------	−32.9	−32.5	−32.3
1927–29	(5)	13.8	17.6	----------	7.4	22.2	28.2
1925–27	(5)	−.7	1.7	----------	13.9	7.6	5.3
1923–25	(5)	58.6	63.4	1,874.1	53.7	35.8	30.1
1921–23	(5)	−31.4	−26.8	−90.3	−32.2	−9.7	1.0
1919–21	(5)	12.9	44.3	101.9	5.8	8.1	9.3
1921–31	(5)	−4.3	4.2	−78.0	−14.5	8.9	20.1
1919–29	(5)	38.9	106.3	----------	34.9	74.4	93.8
1909–19	(5)	35.1	125.3	----------	112.9	148.1	170.1
1899–1909	(5)	−4.5	52.4	----------	87.2	82.1	79.1
States, 1931							
California	5	15	$33,554	----------	$80,206	$187,678	$107,472
Illinois	11	290	434,996	$1,013	507,785	1,916,301	1,408,516
Massachusetts	5	49	82,087	----------	82,357	423,287	340,930
Michigan	5	40	41,528	----------	65,250	246,454	181,204
Minnesota	3	8	12,203	----------	20,476	74,006	53,530
Missouri	5	20	30,091	----------	40,871	176,484	135,613
New Jersey	3	27	50,526	----------	35,771	152,709	116,938
New York	18	179	272,063	400	317,263	1,209,339	892,076
Ohio	10	29	48,622	----------	68,941	290,995	222,054
Pennsylvania	5	54	85,702	----------	82,298	458,582	376,284
Other States [6]	20	70	110,031	----------	164,524	659,236	494,712

[1] For 1929, manufacturers' sales (shipments or deliveries); for other years, production. See sec. 16, p. 9.

[2] The values of miscellaneous products, normally belonging to other industries, made as secondary products by establishments engaged primarily in the manufacture of printing materials are included, as follows: For 1931, $24,972; 1929, $19,547; 1927, $7,810; 1925, $97,506; corresponding amounts for earlier years not available. The following values of printing materials made as secondary products by establishments classified in other industries are not included. For 1931, $228,910; 1929, $644,853; 1927, $505,385; 1925, $109,386; 1923, $373,498; 1921, $61,906; 1919, $159,700.

[3] Value of products less cost of materials, fuel, and purchased electric energy. See sec. 20, p. 11.

[4] No data.

[5] Percent not computed where base is less than 100.

[6] Colorado, 1 establishment; District of Columbia, 1; Georgia, 2; Indiana, 1; Iowa, 1; Kentucky, 1; Louisiana, 1; Maryland, 3; North Carolina, 1; Oregon, 1; Tennessee, 2; Texas 2; Utah, 1; Washington, 1; Wisconsin, 1.

STEREOTYPING AND ELECTROTYPING, NOT DONE IN PRINTING ESTABLISHMENTS

[A preliminary report for this industry was issued under date of July 19, 1932]

Description of the industry.—This industry classification embraces establishments engaged primarily in making stereotype and electrotype plates, and therefore does not cover stereotyping and electrotyping done by printing and publishing establishments.

SUMMARY FOR THE UNITED STATES, 1899–1931, AND FOR STATES, 1931

[Data for establishments with products under $5,000 in value are included for 1919 and prior years, but not for 1921 and subsequent years. See sec. 3*d*, p. 4. Statistics are given for all States for which separate figures can be published without disclosing, exactly or approximately, the data reported by individual establishments. Certain of the "Other States," however, are more important in the industry than some of the States shown separately]

	Number of establishments	Wage earners (average for the year)	Wages	Paid for contract work	Cost of materials, fuel, and purchased electric energy	Value of products [1]	Value added by manufacture [2]
United States							
1931	223	4,857	$10,916,883	$170,503	$3,590,480	$24,581,941	$20,991,461
1929	230	6,487	13,770,676	(3)	6,546,881	35,617,297	29,070,416
1927	197	4,502	10,272,775	(3)	4,676,853	25,549,214	20,872,361
1925	193	4,283	9,206,642	44,883	4,280,244	22,361,187	18,080,943
1923	179	4,096	8,333,721	206,264	3,805,550	20,596,208	16,790,658
1921	157	3,617	7,081,705	83,445	3,745,595	17,358,994	13,613,399
1919	171	3,664	5,002,545	76,516	4,234,479	15,919,014	11,684,535
1914	189	3,457	3,001,369	54,705	2,254,926	8,154,171	5,899,245
1909	174	2,850	2,312,104	15,644	1,765,102	6,383,694	4,618,592
1904	146	2,679	1,993,067	36,862	1,032,053	5,005,338	3,973,285
1899	140	2,408	1,458,977	33,740	766,603	3,772,025	3,005,422
Percent of increase or decrease (—):							
1929–31	—3.0	—25.1	—20.7	----------	—45.2	—31.0	—27.8
1927–29	16.8	44.1	34.1	----------	40.0	39.4	39.3
1925–27	2.1	5.1	11.6	----------	9.3	14.3	15.4
1923–25	7.8	4.6	10.5	—78.2	12.5	8.6	7.7
1921–23	14.0	13.2	17.7	147.2	1.6	18.6	23.3
1919–21	—8.2	—1.3	41.6	9.1	—11.5	9.0	16.5
1921–31	42.0	34.3	54.2	104.3	—4.1	41.6	54.2
1919–29	34.5	77.0	175.3	----------	54.6	123.7	148.8
1909–19	—1.7	28.6	116.4	389.1	139.9	149.4	153.0
1899–1909	24.3	18.4	58.5	—53.6	130.2	69.2	53.7
States, 1931							
California	8	163	$338,846	$13,310	$109,088	$803,929	$694,841
Connecticut	7	138	278,617	1,340	89,197	523,569	434,372
Illinois	33	1,041	2,694,153	43,335	575,934	5,331,149	4,755,215
Indiana	6	107	212,267	5,200	87,496	527,325	439,829
Maryland	4	46	78,982	72	29,195	205,863	176,668
Massachusetts	16	321	562,355	----------	198,426	1,247,084	1,048,658
Michigan	9	276	649,539	21,569	216,187	1,466,040	1,249,853
Minnesota	5	58	132,445	1,590	32,494	288,980	256,486
Missouri	8	123	247,198	825	81,919	572,027	490,108
New Jersey	6	100	218,458	2,922	75,711	537,690	461,979
New York	49	1,127	2,790,537	41,414	1,018,674	6,405,447	5,386,773
Ohio	25	660	1,325,975	23,966	685,802	3,531,516	2,845,714
Pennsylvania	14	385	794,542	7,721	190,112	1,711,719	1,521,607
Tennessee	3	38	78,740	1,556	24,377	170,474	146,097
Texas	4	21	32,527	----------	22,867	90,624	67,757
Washington	4	19	46,261	76	11,743	95,811	84,068
Wisconsin	6	71	132,274	307	51,304	349,346	298,042
Other States [4]	16	163	303,167	5,300	89,954	723,348	633,394

[1] For detail, see table on p. 548.
[2] Value of products less cost of materials, fuel, and purchased electric energy. See sec. 20, p. 11.
[3] No data.
[4] Colorado, 1 establishment; District of Columbia, 2; Florida, 1; Iowa, 2; Kentucky, 1; Louisiana, 2, Maine, 1; Nebraska, 1; Oregon, 2; Rhode Island, 1; Virginia, 2.

TYPE FOUNDING

Description of the industry.—This classification covers establishments engaged primarily in the manufacture of metal type, including that for typewriters and adding machines; and of brass rules, leads, slugs, and related items.

SUMMARY FOR THE UNITED STATES, 1899 TO 1931, AND FOR ILLINOIS, 1931

[Data for establishments with products under $5,000 in value are included for 1919 and prior years but not for 1921 and subsequent years. See sec. 3d, p. 4. Illinois is the only State for which separate figures can be published without disclosing, exactly or approximately, the data reported by individual establishments. Certain of the "Other States," however, are more important in this industry]

	Number of establishments	Wage earners (average for the year)	Wages	Paid for contract work	Cost of materials, fuel, and purchased electric energy	Value of products [1]	Value added by manufacture [2]
United States							
1931	18	407	$403,488	$2,495	$308,826	$1,275,065	$966,239
1929	19	467	556,051	(3)	648,114	2,603,619	1,955,505
1927	19	525	658,381	(3)	749,085	2,683,704	1,934,619
1925	18	537	603,163	356	705,416	2,450,503	1,745,087
1923	18	606	646,386	487	709,468	2,512,328	1,802,860
1921	18	608	634,131	----------	696,256	2,129,636	1,433,380
1919	23	810	867,517	750	943,245	2,089,757	1,146,512
1914	31	1,054	665,861	2,117	901,331	2,319,781	1,418,450
1909	29	1,491	835,882	----------	1,011,345	2,721,090	1,709,745
1904	21	1,446	883,595	----------	746,176	2,727,759	1,981,583
1899	22	1,424	803,470	----------	863,689	2,842,384	1,978,695
Percent of increase or decrease (—):							
1929–31	(4)	−12.8	−27.4	----------	−52.4	−51.0	−50.6
1927–29	----------	−11.0	−15.5	----------	−13.5	−3.0	1.1
1925–27	(4)	−2.2	9.2	----------	6.2	9.5	10.9
1923–25	----------	−11.4	−6.7	−26.9	−0.6	−2.5	−3.2
1921–23	----------	−0.3	1.9	----------	1.9	18.0	25.8
1919–21	(4)	−24.9	−26.9	----------	−26.2	1.9	25.0
1921–31	----------	−33.1	−36.4	----------	−55.6	−40.1	−32.6
1919–29	(4)	−42.3	−35.9	----------	−31.3	24.6	70.6
1909–19	(4)	−45.7	3.8	----------	−6.7	−23.2	−32.9
1899–1909	(4)	4.7	4.0	----------	17.1	−4.3	−13.6
States, 1931							
Illinois	4	23	$40,078	$63	$15,011	$83,520	$68,509
Other States [5]	14	384	363,410	2,432	293,815	1,191,545	897,730

[1] For 1929, manufacturers' sales (shipments or deliveries); for other years, production. See sec. 16, p. 9.
[2] Value of products less cost of materials, fuel, and purchased electric energy. See sec. 20, p. 11.
[3] No data.
[4] Percent not computed where base is less than 100.
[5] California, 1 establishment; Kansas, 1; Minnesota, 1; Missouri, 1; New Jersey, 1; New York, 4; Ohio, 1; Oregon, 1; Pennsylvania, 2; Tennessee, 1.

DETAILED STATISTICS OF PRODUCTS FOR BOOKBINDING, ENGRAVING, LITHOGRAPHING, PHOTO-ENGRAVING, AND STEREOTYPING AND ELECTROTYPING

Data on the values of the several classes of products made or of the work done by establishments classified in the following-named industries were called for specifically by the schedule used in canvassing these industries (the same schedule that was used for the Printing and Publishing industries): Bookbinding and Blank-Book Making; Engraving, Steel, Copperplate, and Wood, and Plate Printing; Lithographing; Photo-Engraving, not done in Printing Establishments; Stereotyping and Electrotyping, not done in Printing Establishments. The statistics compiled from the data thus collected are given in the table below. No similar data were, however, collected for the other industries allied to printing and publishing, namely, Engravers' Materials; Engraving (Other Than Steel, Copperplate, and Wood), Chasing, Etching, and Diesinking; Printing Materials, not including Type or Ink; and Type Founding.

BOOKBINDING, ENGRAVING, LITHOGRAPHING, PHOTO-ENGRAVING, AND STEREOTYPING AND ELECTROTYPING—PRODUCTION, BY CLASS AND VALUE: 1925 TO 1931

CLASS	1931	1929	1927	1925
1. Bookbinding and Blank-book Making industry, all products, total value	$79,779,955	$102,783,405	$87,327,392	$81,600,302
2. Bookbinding, blank-book making, and loose-leaf manufactures	76,530,168	101,730,239	86,369,511	80,738,267
3. Other products (not normally belonging to the industry)	3,249,787	1,053,166	957,881	862,035
4. Bookbinding, blank-book making, and loose-leaf manufactures, secondary activities of other industries	16,488,668	21,296,296	22,051,738	18,506,791
Bookbinding, blank-book making, and loose-leaf manufactures, all industries: Aggregate value (sum of 2 and 4)	93,018,836	123,026,535	108,421,249	99,245,058
Bookbinding	66,280,883	123,026,535	108,421,249	99,245,058
Blank-book making	5,572,369			
Loose-leaf manufactures:				
Forms	11,553,123			
Binders	9,612,461			
1. Engraving, Steel, Copperplate, and Wood, and Plate Printing industry, all products, total value	27,425,476	47,900,592	39,712,542	32,631,390
2. Engraving, steel, copperplate, and wood, and plate printing	24,572,697	47,298,932	39,514,090	32,186,769
3. Other products (not normally belonging to the industry)	2,852,779	601,660	198,452	444,621
4. Engraving, steel, copperplate, and wood, and plate printing, secondary activities of other industries	4,809,178	6,145,706	5,513,912	1,467,742
Engraving, steel, copperplate, and wood, and plate printing, all industries: Aggregate value (sum of 2 and 4)	29,381,875	53,444,638	45,028,002	33,654,511
Engraving, etc., other than greeting cards	23,762,813	49,146,531	45,028,002	33,654,511
Greeting cards	[1] 5,619,062	4,298,107		

See footnote at end of table.

BOOKBINDING, ENGRAVING, LITHOGRAPHING, PHOTO-ENGRAVING, AND STEREOTYPING AND ELECTROTYPING—PRODUCTION, BY CLASS AND VALUE: 1925 TO 1931—Continued

CLASS	1931	1929	1927	1925
1. Lithographing industry, all products, total value	$87,433,164	$121,014,321	$97,050,124	$98,721,268
2. Lithographing	78,403,640	115,547,307	95,974,028	93,830,220
3. Other products (not normally belonging to the industry)	9,029,524	5,467,014	1,076,096	4,891,048
4. Lithographing, secondary activities of other industries	14,067,657	15,125,091	16,084,636	14,693,256
Lithographing, all industries: Aggregate value (sum of 2 and 4)	92,471,297	130,672,398	112,058,664	108,523,476
Commercial	54,619,235	129,409,808	112,058,664	108,523,476
Color	18,779,719			
Labels	[2] 14,690,752			
Tags	[3] 268,264			
Music	1,063,809			
Greeting cards	[1] 3,049,468	1,262,590		
1. "Photo-engraving Not Done in Printing Establishments" industry, all products, total value	56,019,675	77,382,259	69,207,376	58,640,247
2. Photo-engraving	53,879,287	75,614,058	67,050,490	56,896,616
3. Other products (not normally belonging to the industry)	2,140,388	1,768,201	2,156,886	1,743,631
4. Photo-engraving, secondary activities of other industries	7,099,424	4,680,291	4,400,475	4,446,090
Photo-engraving, all industries: Aggregate value (sum of 2 and 4)	60,978,711	80,294,349	71,450,965	61,342,706
Photo-engraving	53,365,045	80,294,349	71,450,965	61,342,706
Rotogravure	7,613,666			
1. Stereotyping and Electrotyping industry, all products, total value	24,581,941	35,617,297	25,549,214	22,361,187
2. Stereotyping and electrotyping	22,664,910	35,331,995	24,872,194	21,473,854
3. Other products (not normally belonging to the industry)	1,917,031	285,302	677,020	887,333
4. Stereotyping and electrotyping, secondary activities of other industries	4,577,512	5,495,107	5,748,853	5,562,940
Stereotyping and electrotyping, all industries: Aggregate value (sum of 2 and 4)	27,242,422	40,827,102	30,621,047	27,036,794

[1] In addition, greeting cards valued as follows were reported by establishments classified in other industries: Printed, $15,477,178; other than printed, lithographed, or engraved, $5,053,085. The total value of greeting cards produced in 1931, in all industries, as reported to the Bureau of the Census, amounted to $29,198,793.

[2] In addition, printed labels, valued at $26,582,723, were reported by establishments classified in the Printing and Publishing industries.

[3] In addition, printed tags valued at $10,134,493 and blank tags valued at $594,102, were reported by establishments classified in other industries.

GROUP 6.—CHEMICALS AND ALLIED PRODUCTS

THE GROUP AS A WHOLE

Group 6 includes not only the industries whose products are chemicals in the ordinary sense, but also those which employ to a large extent chemical processes in their manufacturing operations. The group is complex in character, and its several products differ widely, both in kind and in the uses to which they are put. Considerable duplication occurs in the aggregate cost of materials and the aggregate value of products for the group, because of the use of the products of certain industries as materials for others.

Summary statistics for the group and its component subgroups and industries are given in the table beginning below, and detailed reports for the individual industries, all of which have previously been published in pamphlet form, appear on pages 554 to 649.

SUMMARY FOR GROUP 6.—CHEMICALS AND ALLIED PRODUCTS: 1921 TO 1931

INDUSTRY	Census year	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, containers, fuel, and purchased electric energy	Value of products	Value added by manufacture [1]
Aggregate for the group.	1931	7,485	231,463	$264,720,701	$1,268,972,670	$2,673,324,913	$1,404,352,243
	1929	8,278	280,868	354,393,308	1,970,713,269	3,759,404,640	1,788,691,371
	1927	7,541	253,436	317,908,093	1,803,084,544	3,351,892,059	1,548,807,515
	1925	7,282	244,812	296,525,641	1,830,591,898	3,211,230,498	1,380,638,600
	1923	7,197	246,527	288,833,729	1,702,944,290	2,933,561,637	1,230,617,347
	1921	7,348	199,596	224,332,535	1,352,904,081	2,225,917,456	873,013,375
Chemicals and allied products, other than animal, vegetable, and compounded oils, total.	1931	6,876	216,269	252,513,259	1,048,825,318	2,399,668,353	1,350,843,035
	1929	7,599	260,829	336,816,056	1,579,430,948	3,289,288,556	1,709,857,608
	1927	6,760	228,674	294,089,964	1,409,190,016	2,855,979,420	1,446,789,404
	1925	6,509	222,112	275,579,472	1,374,949,810	2,651,374,528	1,276,424,718
	1923	6,424	226,710	271,444,048	1,316,282,391	2,472,610,167	1,156,327,776
	1921	6,438	177,525	204,711,695	1,022,488,500	1,840,963,888	818,475,388
Alcohol, ethyl, and distilled liquors.	1931	27	997	1,331,443	13,132,268	21,740,611	8,608,343
	1929	30	1,484	2,131,188	35,046,063	54,284,665	19,238,602
	1927	28	1,180	1,704,518	19,309,772	33,971,150	14,661,378
	1925	31	1,395	1,838,318	38,564,481	57,705,704	19,141,223
	1923	30	1,062	1,474,166	17,770,264	33,000,099	15,229,835
	1921	33	1,141	1,626,949	22,269,046	28,788,965	6,519,909
Ammunition and related products.	1931	20	5,873	4,992,510	11,013,550	28,366,330	17,352,780
	1929	21	7,223	8,272,618	19,841,665	43,808,520	23,966,855
	1927	20	7,602	8,265,963	20,945,130	45,602,184	24,657,054
	1925	27	7,777	7,986,834	22,819,987	41,707,396	18,887,409
	1923	27	10,470	10,816,647	27,741,517	51,508,622	23,767,105
	1921	28	8,370	7,896,382	16,006,385	32,350,445	16,344,060
Baking powder, yeast, and other leavening compounds.	1931	45	2,881	4,797,883	20,746,441	47,027,339	26,280,898
	1929	48	3,006	4,846,730	22,598,378	52,336,812	29,738,434
	1927	47	3,032	4,793,624	24,619,450	[2] 55,716,025	[2] 31,096,575
	1925	49	2,931	4,063,260	23,375,795	[2] 53,347,406	[2] 29,971,611
	1923	57	3,507	4,919,858	21,656,521	51,691,123	30,034,602
	1921	62	3,557	4,479,099	24,666,261	52,885,888	28,219,627

For footnotes, see p. 553.

SUMMARY FOR GROUP 6.—CHEMICALS AND ALLIED PRODUCTS: 1921 TO 1931—Con.

INDUSTRY	Census year	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, containers, fuel, and purchased electric energy	Value of products	Value added by manufacture [1]
Blacking, stains, and dressings.	1931	156	1,501	$1,666,227	$6,940,724	$20,342,665	$13,401,941
	1929	170	1,617	1,959,443	8,345,234	24,681,836	16,336,602
	1927	176	1,716	2,180,733	9,185,543	22,548,235	13,362,692
	1925	171	1,869	2,164,430	9,733,455	25,054,969	15,321,514
	1923	175	2,165	2,170,138	10,253,195	25,821,709	15,568,514
	1921	173	1,666	1,522,333	9,362,119	18,452,864	9,090,745
Bluing	1931	20	95	93,896	401,789	1,178,554	776,765
	1929	20	105	106,917	468,867	1,364,510	895,643
	1927	20	155	151,364	593,725	1,674,140	1,080,415
	1925	23	176	185,310	1,017,221	2,167,013	1,149,792
	1923	25	188	187,901	800,293	1,643,186	842,893
	1921	33	226	203,460	1,017,713	1,883,225	865,512
Bone black, carbon black, and lampblack.	1931	62	1,039	1,344,223	5,021,874	9,535,203	4,513,329
	1929	77	1,915	2,583,253	9,096,098	20,169,722	11,073,624
	1927	67	1,553	2,047,044	6,571,019	14,361,775	7,690,756
	1925	66	1,505	1,721,779	5,654,965	14,564,982	8,910,017
	1923	68	1,303	1,460,868	5,294,567	14,599,872	9,305,305
	1921	45	826	979,845	3,745,146	8,180,844	4,435,698
Candles	1931	23	713	711,459	2,480,770	5,396,198	2,915,428
	1929	20	781	923,039	3,250,627	6,686,194	3,435,567
	1927	17	709	761,464	2,958,987	6,350,931	3,391,944
	1925	20	626	672,691	2,786,247	5,114,292	2,328,045
	1923	21	746	753,919	2,392,948	5,079,884	2,686,936
	1921	20	609	589,737	2,090,807	3,776,911	1,686,104
Chemicals not elsewhere classified.[3]	1931	558	48,522	66,360,107	246,068,398	533,175,179	287,106,781
	1929	551	62,199	94,680,013	363,576,811	738,048,386	374,471,575
	1927	492	52,347	78,274,975	296,677,164	572,090,732	275,413,568
	1925	751	57,890	83,537,432	282,712,468	570,310,106	287,597,638
	1923	773	77,354	103,300,991	328,596,621	655,274,829	326,678,208
	1921	728	49,138	62,161,005	200,272,506	412,231,354	211,958,848
Cleaning and polishing preparations.	1931	388	2,449	2,969,048	16,979,010	48,007,349	31,028,339
	1929	429	2,713	3,356,161	19,399,041	50,779,632	31,380,591
	1927	341	2,403	2,988,430	15,219,635	41,234,466	26,014,831
	1925	299	2,161	2,659,767	12,707,370	34,020,384	21,313,014
	1923	298	2,376	2,746,082	13,600,082	35,443,130	21,843,048
	1921	279	1,687	1,884,922	10,959,174	23,177,721	12,218,547
Compressed and liquefied gases.[4]	1931	349	2,844	3,895,612	10,134,507	41,806,112	31,671,605
	1929	354	3,390	5,378,211	14,528,603	52,189,779	37,661,176
	1927	313	3,212	4,947,577	11,748,839	50,547,395	38,798,556
Druggists' preparations	1931	392	9,476	10,552,092	32,207,738	109,448,176	77,240,438
	1929	429	10,688	12,452,066	43,775,986	124,778,487	81,002,501
	1927	373	10,138	11,942,469	40,499,392	110,309,139	69,809,747
	1925	370	9,685	11,078,384	36,063,719	95,419,824	59,356,105
	1923	389	8,966	9,185,975	33,363,859	79,142,668	45,778,809
	1921	408	10,838	11,936,658	34,573,664	81,697,922	47,124,258
Drug grinding	1931	23	661	711,328	5,457,110	9,159,361	3,702,251
	1929	26	677	840,935	5,675,079	9,669,220	3,994,141
	1927	25	659	820,187	5,683,720	9,205,243	3,521,523
	1925	22	622	709,903	4,921,118	8,446,361	3,525,243
	1923	24	750	893,318	6,555,193	10,561,580	4,006,387
	1921	28	840	1,005,155	6,804,453	10,085,691	3,281,238
Explosives	1931	78	4,733	5,572,447	19,518,905	46,258,353	26,739,448
	1929	95	5,614	8,487,890	31,764,307	72,539,724	40,775,417
	1927	100	5,803	8,131,234	36,893,576	72,489,668	35,596,092
	1925	103	5,697	7,731,369	37,877,418	69,668,837	31,791,419
	1923	106	6,388	9,112,027	39,495,972	79,029,127	35,533,155
	1921	109	4,478	6,610,206	30,644,327	59,174,598	28,530,271
Fertilizers	1931	599	14,551	12,145,966	106,481,104	154,349,887	47,868,783
	1929	638	20,926	17,883,925	159,801,195	232,510,936	72,709,741
	1927	621	18,612	17,649,661	138,142,925	190,384,890	52,241,965
	1925	587	19,644	17,743,327	137,808,185	206,772,904	68,964,719
	1923	573	18,572	16,365,324	127,980,450	183,088,751	55,108,301
	1921	588	16,898	16,025,728	144,978,255	180,374,789	35,396,534

For footnotes, see p. 553.

SUMMARY FOR GROUP 6.—CHEMICALS AND ALLIED PRODUCTS: 1921 TO 1931—Con.

INDUSTRY	Census year	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, containers, fuel, and purchased electric energy	Value of products	Value added by manufacture [1]
Fireworks	1931	37	1,350	$1,096,656	$1,405,598	$3,722,103	$2,316,505
	1929	50	1,811	1,930,595	2,464,617	6,583,502	4,118,885
	1927	36	1,564	1,395,624	2,623,672	5,884,939	3,261,267
	1925	41	1,446	1,429,093	2,399,200	6,031,435	3,632,235
	1923	38	1,224	1,156,120	1,830,933	4,977,008	3,146,075
	1921	37	1,229	1,116,075	1,917,104	4,726,870	2,809,766
Glue and gelatin	1931	72	2,559	3,325,312	15,460,384	27,515,739	12,055,355
	1929	74	2,993	4,236,092	18,978,027	32,458,019	13,479,992
	1927	61	3,226	4,524,232	19,222,384	31,195,807	11,973,423
	1925	55	3,325	3,976,383	15,337,870	25,763,977	10,426,107
	1923	50	3,651	4,075,904	14,590,638	24,366,097	9,775,459
	1921	47	2,915	3,573,149	13,401,858	21,342,004	7,940,146
Grease and tallow, not including lubricating greases.	1931	238	4,067	5,224,902	17,532,576	29,240,848	11,708,272
	1929	297	5,475	7,862,149	40,142,447	61,607,990	21,465,543
	1927	247	5,052	7,402,936	38,272,446	56,279,958	18,007,512
	1925	263	5,303	7,508,013	33,713,150	51,442,186	17,729,036
	1923	254	5,248	7,004,170	31,274,806	48,633,681	17,358,875
	1921	265	4,428	5,428,939	17,786,592	27,206,011	9,419,419
Ink, printing	1931	171	2,247	3,479,344	14,532,021	32,188,398	17,656,377
	1929	147	2,448	3,957,185	19,204,715	42,749,992	23,545,277
	1927	123	2,288	3,665,199	16,054,110	37,734,493	21,680,383
	1925	109	2,150	3,346,071	16,252,786	34,753,329	18,500,543
	1923	99	1,975	2,858,742	14,779,289	29,412,122	14,632,833
	1921	97	1,676	2,470,097	10,644,453	20,869,477	10,225,024
Ink, writing	1931	23	347	362,999	1,462,621	3,535,121	2,072,500
	1929	29	416	479,995	1,992,573	4,594,974	2,602,401
	1927	24	491	576,091	2,208,835	5,342,027	3,133,192
	1925	28	524	596,200	2,424,311	6,084,215	3,660,004
	1923	31	578	634,874	2,653,486	6,107,379	3,453,893
	1921	33	504	546,058	2,062,291	4,980,148	2,917,857
Liquors, vinous	1931	14	96	118,581	381,452	949,279	567,827
	1929	24	186	277,963	608,857	2,447,912	1,839,055
	1927	13	150	177,073	1,206,217	2,692,856	1,486,639
	1925	27	265	262,343	1,764,623	3,435,657	1,671,034
	1923	38	515	524,029	2,958,555	5,830,883	2,872,328
	1921	72	415	417,005	1,692,750	4,757,334	3,064,584
Mucilage, paste, and other adhesives, except glue and rubber cement.	1931	69	282	350,145	1,888,790	3,620,783	1,731,993
	1929	84	414	546,926	3,668,707	6,638,387	2,969,680
	1927	80	502	679,468	4,270,361	7,945,403	3,675,042
	[3] 1925	84	561	766,251	5,562,740	9,853,302	4,290,562
Paints and varnishes	1931	1,039	22,521	29,424,646	193,736,737	350,725,652	156,988,915
	1929	1,063	29,211	42,244,695	334,132,065	568,975,838	234,843,773
	1927	1,006	28,061	40,184,732	307,724,370	519,009,842	211,285,472
	1925	923	25,490	35,419,552	293,943,040	470,736,264	176,793,224
	1923	826	22,818	29,871,195	248,954,692	404,134,231	155,179,539
	1921	804	18,015	23,293,275	171,397,822	274,310,314	102,912,492
Patent or proprietary medicines and compounds.	1931	1,298	13,475	14,885,227	68,416,029	254,514,150	186,098,121
	1929	1,522	16,434	18,780,980	94,769,833	318,906,928	224,137,095
	1927	1,282	15,071	16,667,425	84,640,850	278,242,929	193,602,079
	1925	1,279	14,802	15,592,017	84,789,647	247,564,046	162,774,399
	1923	1,363	17,353	16,914,859	88,802,058	237,494,447	148,692,389
	1921	1,436	13,800	13,684,434	69,571,327	175,898,330	106,327,003
Perfumes, cosmetics, and other toilet preparations.	1931	663	10,748	10,445,781	46,556,363	158,174,699	111,618,336
	1929	815	13,109	13,762,961	58,298,879	193,440,550	135,141,671
	1927	705	10,463	10,965,085	52,765,346	161,245,659	108,480,313
	1925	594	8,714	8,536,510	46,932,699	129,510,453	82,577,754
	1923	465	7,761	7,102,044	37,635,988	100,241,486	62,605,498
	1921	422	5,838	5,358,337	28,012,720	72,540,904	44,528,184
Rayon and allied products [4]	1931	32	38,735	38,231,493	36,180,858	132,632,416	96,451,558
	1929	29	39,106	44,697,129	33,334,753	149,546,107	116,211,354
	1927	19	26,341	28,649,441	25,747,792	109,888,336	84,140,544
	1925	14	19,128	22,975,605	18,477,965	88,060,962	69,582,997

For footnotes, see p. 553.

SUMMARY FOR GROUP 6.—CHEMICALS AND ALLIED PRODUCTS: 1921 TO 1931—Con.

INDUSTRY	Census year	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, containers, fuel, and purchased electric energy	Value of products	Value added by manufacture [1]
Salt	1931	53	4,728	$5,549,119	$10,863,679	$31,429,873	$20,566,194
	1929	58	5,458	6,735,484	14,187,797	37,868,697	23,680,900
	1927	58	5,961	7,117,454	14,664,126	34,329,236	19,665,110
	1925	70	6,308	7,260,552	13,848,644	34,253,056	20,404,412
	1923	75	6,809	8,129,492	16,476,623	36,837,162	20,360,539
	1921	79	5,993	7,147,512	16,407,355	33,158,558	16,751,203
Soap	1931	248	14,163	17,739,732	121,829,338	257,718,699	135,889,361
	1929	282	14,363	18,994,656	180,352,984	310,191,530	129,838,546
	1927	256	13,432	19,715,931	172,244,130	287,059,935	114,815,805
	1925	272	15,406	18,526,104	184,873,537	278,273,107	93,399,570
	1923	270	17,002	20,776,443	173,545,981	276,402,838	102,856,857
	1921	283	16,558	18,864,713	150,355,643	240,194,619	89,838,976
Tanning materials, natural dyestuffs, mordants and assistants, and sizes.	1931	116	1,962	2,390,118	15,520,635	26,469,119	10,948,484
	1929	126	2,419	3,113,617	25,335,629	39,836,035	14,500,406
	1927	122	2,414	2,971,477	23,073,925	35,677,033	12,603,108
	1925	125	2,495	2,987,070	22,763,114	34,783,703	12,020,589
	1923	125	3,243	3,800,783	24,033,018	35,971,612	11,938,594
	1921	123	2,993	3,007,547	20,105,517	28,310,708	8,205,191
Wood distillation and charcoal manufacture.	1931	63	2,654	2,744,963	6,474,049	11,440,157	4,966,108
	1929	91	4,648	5,293,240	14,791,111	29,593,672	14,802,561
	1927	88	4,537	4,739,153	15,422,575	27,630,487	12,207,912
	1925	106	4,217	4,304,904	15,824,055	25,283,432	9,459,377
	1923	123	4,123	4,324,848	17,268,950	29,695,423	12,426,473
	1921	108	2,130	1,913,503	6,727,787	9,677,552	2,949,765
Animal, vegetable, and compounded oils, total.	1931	609	15,194	12,207,442	220,147,352	273,656,560	53,509,208
	1929	679	20,039	17,577,252	391,282,321	470,116,064	78,833,763
	1927	781	24,762	23,818,129	393,894,528	495,912,639	102,018,111
	1925	773	22,700	20,946,169	455,642,088	559,855,970	104,213,882
	1923	773	19,817	17,389,681	386,661,899	460,951,470	74,289,571
	1921	910	22,071	19,620,840	330,415,581	384,953,568	54,537,987
Oil, cake, and meal, cottonseed.	1931	504	12,268	8,335,459	147,164,705	181,347,056	34,182,351
	1929	553	15,825	11,203,227	249,019,800	298,376,039	49,356,239
	1927	547	18,434	14,258,555	220,038,437	276,338,488	56,300,051
	1925	535	16,215	11,411,854	244,315,214	295,684,526	51,369,312
	1923	511	12,745	7,908,305	197,514,913	226,387,758	28,872,845
	1921	610	16,163	12,339,895	194,864,331	217,225,030	22,360,699
Oil, cake, and meal, linseed.	1931	28	1,837	2,278,340	50,306,207	62,882,544	12,576,337
	1929	29	2,715	4,097,712	101,562,787	119,926,867	18,364,080
	1927	33	2,718	4,324,938	97,750,350	111,543,845	13,793,495
	1925	33	2,692	4,290,063	121,762,284	140,513,542	18,751,258
	1923	34	2,631	3,783,516	102,689,799	113,221,318	10,531,519
	1921	28	2,073	3,019,376	58,452,351	71,032,261	12,579,910
Oils, essential	1931	12	128	199,241	2,706,615	3,504,948	798,333
	1929	22	265	325,881	3,804,228	6,653,353	2,849,125
	1927	14	160	258,036	3,427,334	4,641,861	1,214,527
	1925	14	178	281,395	4,362,512	5,881,689	1,519,177
	1923	17	170	237,409	2,255,772	3,184,124	928,352
	1921	27	299	363,879	2,548,439	3,421,690	873,251
Oils not elsewhere classified.[6]	1931	65	961	1,394,402	19,969,825	25,922,012	5,952,187
	1929	75	1,234	1,950,432	36,895,506	45,159,825	8,264,319

[1] Value of products less cost of materials, containers, fuel, and purchased electric energy. See sec. 20, p. 11.

[2] Revised; revision not carried into total for subgroup or aggregate for group.

[3] The figures for "Chemicals not elsewhere classified" for 1923 and prior years include data for establishments engaged primarily in the manufacture of rayon; and for 1925 and prior years they include data for establishments whose principal products were compressed and liquefied gases. The manufacture of sulphuric, nitric, and mixed acids was treated as a separate industry at the censuses for 1927 and earlier years, but has been combined with "Chemicals not elsewhere classified" for 1929 and 1931.

[4] See note 3.

[5] No comparable statistics available for earlier years.

[6] At censuses prior to 1929 the "Oils not elsewhere classified" industry included the manufacture of lubricating oils other than those made in petroleum refineries, but for 1929 and 1931 such oils have been classified in the "Lubricating oils and greases, not made in petroleum refineries" industry (group 7). No comparable figures for earlier years are available, and therefore no adjustments in the totals for the subgroup or in the aggregates for the group can be made.

ALCOHOL, ETHYL, AND DISTILLED LIQUORS

Description of the industry.—This industry embraces establishments engaged primarily in the production of pure and denatured ethyl alcohol, whisky, and nonbeverage rum. It does not include the manufacture of synthetic methanol nor of methanol produced by the distillation of wood, these products being assigned to the Chemicals Not Elsewhere Classified and Wood Distillation and Charcoal Manufacture industries, respectively.

SUMMARY FOR THE UNITED STATES, 1899 TO 1931, AND FOR STATES, 1931

[Data for establishments with products under $5,000 in value are included for 1919 and prior years but not for 1921 and subsequent years. See sec. 3d, p. 4. Statistics are given for all States for which separate figures can be published without disclosing, exactly or approximately, the data reported by individual establishments. Certain of the "Other States," namely, Maryland and Illinois, are, however, more important in the industry than some of the States shown separately]

	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, containers, fuel, and purchased electric energy	Value of products [1]	Value added by manufacture [2]
United States						
1931	27	997	$1,331,443	$13,132,268	[3] $21,740,611	$8,608,343
1929	30	1,484	2,131,188	35,046,063	[3] 54,284,665	19,238,602
1927	28	1,180	1,704,518	19,309,772	33,971,150	14,661,378
1925	31	1,395	1,838,318	38,564,481	57,705,704	19,141,223
1923	30	1,062	1,474,166	17,770,264	33,000,099	15,229,835
1921	33	1,141	1,626,949	22,269,046	28,788,965	6,519,919
1919	34	1,380	1,716,699	19,655,522	31,854,085	12,198,563
1914	434	6,295	3,994,469	40,996,781	206,778,708	165,781,927
1909	613	6,430	3,074,395	35,976,893	204,699,412	168,722,519
1904	805	5,355	2,657,025	25,625,858	131,269,886	105,644,028
1899	965	3,720	1,732,798	15,145,363	96,793,681	81,648,318
Percent of increase or decrease (−):						
1929–31	(4)	−32.8	−37.5	−62.5	−60.0	−55.3
1927–29	(4)	25.8	25.0	81.5	59.8	31.2
1925–27	(4)	−15.4	−7.3	−49.9	−41.1	−23.4
1923–25	(4)	31.4	24.7	117.0	74.9	25.7
1921–23	(4)	−6.9	−9.4	−20.2	14.6	133.6
1919–21	(4)	−17.3	−5.2	13.3	−9.6	−46.6
1921–31	(4)	−12.6	−18.2	−41.0	−24.5	32.0
1919–29	(4)	7.5	24.1	78.3	70.4	57.7
1909–19	−94.4	−78.5	−44.2	−45.4	−84.4	−92.8
1899–1909	−36.5	72.8	77.4	137.5	111.5	106.6
States, 1931						
California	5	103	$151,413	$699,927	$1,217,610	$517,683
Kentucky	4	60	65,733	326,097	1,309,622	983,525
Louisiana	5	138	166,687	2,549,250	3,269,870	720,620
New Jersey	3	73	93,410	628,232	1,463,709	835,477
Pennsylvania	3	346	482,050	3,858,255	6,512,772	2,654,517
Other States [5]	7	277	372,150	5,070,507	7,967,028	2,896,521

[1] For 1929, manufacturers' sales (shipments or deliveries); for other years, production. See sec. 16, p. 9.
[2] Value of products less cost of materials, containers, fuel, and purchased electric energy. See sec. 20, p. 11.
[3] Includes values of commodities other than ethyl alcohol and distilled liquors made as secondary products by establishments in this industry, as follows: 1931, $2,362,319; 1929, $6,351,788. Does not include following values of ethyl alcohol and distilled liquors made as secondary products by establishments classified in other industries: 1931, $2,379,441; 1929, $2,270,248.
[4] Percent not computed where base is less than 100.
[5] Illinois, 2 establishments; Indiana, 1; Maryland, 2; Massachusetts, 2.

AMMUNITION AND RELATED PRODUCTS

Description of the industry.—This industry, as defined for census purposes, consists in the manufacture of ammunition and of such related products as fuses, blasting and detonating caps, miners' squibs, railroad torpedoes, etc. It does not, however, include the manufacture of dynamite and other explosives for use in blasting, of nitroglycerin for "shooting" oil wells, or of fireworks. Commercial manufacturers only are classified in the ammunition industry, no data having been collected from Government establishments.

TABLE 1.—SUMMARY FOR THE UNITED STATES, 1899 TO 1931, AND FOR STATES, 1931

[Connecticut is the only State for which separate figures can be given without disclosing approximations of the data for individual establishments]

	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, containers, fuel, and purchased electric energy	Value of products [1]	Value added by manufacture [2]
United States						
1931	20	5,873	$4,992,510	$11,013,550	$28,366,330	$17,352,780
1929	21	7,223	8,272,618	19,841,665	43,808,520	23,966,855
1927	20	7,602	8,265,963	20,945,130	45,602,184	24,657,054
1925	27	7,777	7,986,834	22,819,987	41,707,396	18,887,409
1923	27	10,470	10,816,647	27,741,517	51,508,622	23,767,105
1921	28	8,370	7,896,382	16,006,385	32,350,445	16,344,060
1919	42	22,816	23,587,692	38,101,602	88,038,223	49,936,621
1914	32	11,493	6,750,986	16,276,575	30,840,472	14,563,897
1909	39	8,713	4,508,597	15,451,929	26,053,065	10,601,136
1904	32	7,410	4,032,310	10,600,929	19,930,821	9,329,892
1899	33	5,231	2,560,954	7,436,748	13,027,635	5,590,887
Percent of increase or decrease (−):						
1929–31	(3)	−18.7	−39.7	−44.5	−35.2	−27.6
1927–29	(3)	−5.0	0.1	−5.3	−3.9	−2.8
1925–27	(3)	−2.3	3.5	−8.2	9.3	30.5
1923–25	------	−25.7	−26.2	−17.7	−19.0	−20.5
1921–23	(3)	25.1	37.0	73.3	59.2	45.4
1919–21	(3)	−63.3	−66.5	−58.0	−63.3	−67.3
1921–31	(3)	−29.8	−36.8	−31.2	−12.3	6.2
1919–29	(3)	−68.3	−64.9	−47.9	−50.2	−52.0
1909–19	(3)	161.9	423.2	146.6	237.9	371.0
1899–1909	(3)	66.6	76.1	107.8	100.0	89.6
State, 1931						
Connecticut	3	2,799	$2,754,493	$5,491,309	$14,906,114	$9,414,805
Other States [4]	17	3,074	2,238,017	5,522,241	13,460,216	7,937,975

[1] For 1929, sales (shipments or deliveries) by manufacturers; for other years, production. See sec. 16, p. 9
[2] Value of products less cost of materials, containers, fuel, and purchased electric energy. See sec. 20, p. 11
[3] Percent not computed where base is less than 100.
[4] California, 2 establishments; Colorado, 1; Illinois, 1; Indiana, 1; Massachusetts, 1; Michigan, 1; Minnesota, 2; New Jersey, 3; New York, 1; Ohio, 2; Pennsylvania, 2.

TABLE 2.—WAGE EARNERS, BY MONTHS, FOR THE UNITED STATES, 1931, 1929, 1925, 1919, AND 1914, AND FOR CONNECTICUT, 1931

[Connecticut is the only State for which separate figures can be given without disclosing approximations of the data for individual establishments. The month of maximum employment is indicated by **bold-faced** figures and that of minimum employment by *italic* figures. See sec. 13, p. 8]

	Average number employed during year	NUMBER REPORTED FOR—											
		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
United States													
1931	5,873	5,878	6,046	6,290	6,301	6,222	6,096	6,042	5,814	5,669	5,468	5,325	*5,324*
1929	7,223	7,016	7,205	7,330	7,618	7,608	7,659	7,566	7,479	7,257	6,897	6,617	*6,426*
1925	7,777	*7,067*	7,501	7,852	8,115	7,946	8,038	8,001	8,023	7,966	7,667	7,644	7,506
1919	22,816	**46,771**	33,327	25,965	20,436	19,113	18,869	18,768	17,285	*17,121*	17,713	18,795	19,629
1914	11,493	10,826	10,768	10,934	10,886	10,814	10,936	10,820	*10,002*	11,366	12,565	13,422	14,577
Connecticut	2,799	2,696	2,755	2,868	2,957	2,948	2,900	2,871	2,762	2,730	2,712	*2,690*	2,693

TABLE 3.—PRODUCTS, BY KIND AND VALUE, FOR THE UNITED STATES: 1925 TO 1931

[The figures for 1929 refer to sales (shipments or deliveries) by manufacturers; those for other years represent production. See sec. 16, p. 9]

	1931	1929	1927	1925
1. "Ammunition and related products" industry, all products, total value	$28,366,330	$43,808,520	$45,602,184	$41,707,396
2. Ammunition and related products	27,497,912	42,811,546	41,230,365	39,264,274
3. Other products (not normally belonging to the industry)	868,418	996,974	4,371,819	2,443,122
4. Ammunition and related products made as secondary products in other industries, value	1,178,358	2,087,012	2,233,308	1,862,147
Ammunition and related products, all industries: Aggregate value (sum of 2 and 4)	$28,676,270	$44,898,558	$43,463,673	$41,126,421
Ammunition, total value	20,814,084	31,685,864	30,934,182	29,530,904
Paper shells, loaded:				
Number of establishments	5	5	5	8
Value	$12,582,730	$21,663,280	$19,197,637	$18,874,408
Cartridges:				
Number of establishments	5	5	5	7
Total value	$7,749,421	$9,382,645	$10,569,588	$8,623,181
Rifle	4,936,697	6,814,060	7,789,757	4,376,911
Revolver, pistol, and blank cartridges [1]	2,812,724	2,568,585	2,779,831	4,246,270
Other ammunition, value	$481,933	$639,939	$1,166,957	$2,033,315
Blasting and detonating caps and railroad torpedoes: [1]				
Number of establishments	6	8	9	11
Value	$5,299,281	$9,169,905	$7,302,662	$6,190,127
Safety fuses, miners' squibs, etc.:				
Number of establishments	6	11	11	13
Value	$2,562,905	$4,042,789	$5,226,829	$5,405,390

[1] Data called for separately on schedule but combined to avoid disclosing approximations of output of individual establishments.

BAKING POWDER, YEAST, AND OTHER LEAVENING COMPOUNDS

[A preliminary report for this industry was issued under date of June 30, 1932]

Description of the industry.—This classification covers establishments engaged primarily in the manufacture of baking powder, yeast, and other compounds used for leavening purposes.

TABLE 1.—SUMMARY FOR THE UNITED STATES, 1899 TO 1931, AND FOR STATES, 1931

[Data for establishments with products under $5,000 in value are included for 1919 and prior years but not for 1921 and subsequent years. See sec. 3d, p. 4. Statistics are given for all States for which separate figures can be published without disclosing, exactly or approximately, the data reported by individual establishments. One of the "Other States," namely, New York is, however, more important in the industry than some of the States shown separately]

	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, containers, fuel, and purchased electric energy	Value of products [1]	Value added by manufacture [2]
United States						
1931	45	2,881	$4,797,883	$20,746,441	$47,027,339	$26,280,898
1929	48	3,006	4,846,730	22,598,378	52,336,812	29,738,434
1927	47	3,032	4,793,624	24,619,450	55,716,025	31,096,575
1925	49	2,931	4,063,260	23,375,795	53,347,406	29,971,611
1923	57	3,507	4,919,858	21,656,521	51,691,123	30,034,602
1921	62	3,557	4,479,099	24,666,261	52,885,888	28,219,627
1919	88	3,331	3,554,534	26,635,429	46,230,312	19,594,883
1914	124	2,270	1,241,316	10,894,844	22,339,347	11,444,503
1909	144	2,155	1,045,544	9,337,985	20,774,588	11,436,603
1904	164	2,449	1,041,606	8,940,076	19,042,521	10,102,445
1899	191	1,938	717,000	7,126,967	14,568,380	7,441,413
Percent of increase or decrease (−):						
1929–31	(3)	−4.2	−1.0	−8.2	−10.1	−11.6
1927–29	(3)	−.9	1.1	−8.2	−6.1	−4.4
1925–27	(3)	3.4	18.0	5.3	4.4	3.8
1923–25	(3)	−16.4	−17.4	7.9	3.2	−.2
1921–23	(3)	−1.4	9.8	−12.2	−2.3	6.4
1919–21	(3)	6.8	26.0	−7.4	14.4	44.0
1921–31	(3)	−19.0	7.1	−15.9	−11.1	−6.9
1919–29	(3)	−9.8	36.4	−15.2	13.2	51.8
1909–19	−38.9	54.6	240.0	185.2	122.5	71.3
1899–1909	−24.6	11.2	45.8	31.0	42.6	53.7
States, 1931						
California	3	163	$333,012	$788,344	$1,696,605	$908,261
Illinois	8	964	1,634,562	8,171,717	18,786,907	10,615,190
Maryland	3	128	230,089	649,547	1,350,599	701,052
New Jersey	5	302	357,016	1,789,131	4,869,200	3,080,069
Other States [4]	26	1,324	2,243,204	9,347,702	20,324,028	10,976,326

[1] For 1929, manufacturers' sales (shipments or deliveries); for other years, production. See sec. 16, p. 9.
[2] Value of products less cost of materials, containers, fuel, and purchased electric energy. See sec. 20, p. 11.
[3] Percent not computed where base is less than 100.
[4] District of Columbia, 1 establishment; Indiana, 2; Iowa, 1; Massachusetts, 1; Missouri, 1; New York, 6; North Dakota, 1; Ohio, 4; Pennsylvania, 3; Rhode Island, 1; Tennessee, 1; Virginia, 1; Washington, 1; Wisconsin, 2.

TABLE 2.—WAGE EARNERS, BY MONTHS, FOR THE UNITED STATES, 1931, 1929, 1925, 1919, 1914, AND 1909, AND FOR STATES, 1931

[This table presents statistics for only those States for which figures can be given without disclosing, exactly or approximately, the 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. See sec. 13, p. 8]

	Average number employed during year	NUMBER REPORTED FOR—											
		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
United States													
1931	2,881	2,935	2,962	2,966	2,924	2,917	2,894	2,883	2,840	2,917	2,840	2,765	*2,726*
1929	3,006	3,016	3,072	3,108	3,076	3,079	3,035	2,969	2,944	2,935	*2,905*	2,973	2,956
1925	2,931	2,988	3,088	3,018	2,974	2,920	2,863	2,861	2,821	*2,819*	2,909	2,949	2,966
1919	3,331	3,544	3,323	3,325	3,188	3,160	3,368	3,348	3,283	3,425	3,489	3,379	*3,140*
1914	2,270	2,267	2,281	2,323	2,302	2,389	2,382	2,220	2,194	2,278	2,286	*2,159*	*2,159*
1909	2,155	2,154	2,153	2,140	2,080	2,115	2,165	2,072	*2,040*	2,201	2,226	2,243	2,267
States, 1931													
California	163	*155*	157	163	162	171	170	178	160	164	160	158	156
Illinois	964	1,023	1,019	1,011	1,009	998	967	950	935	919	919	913	*904*
Maryland	128	142	143	142	144	143	143	143	141	136	122	72	*65*
New Jersey	302	*279*	322	337	316	312	317	312	285	294	284	290	281

TABLE 3.—PRODUCTS, BY KIND, QUANTITY, AND VALUE, FOR THE UNITED STATES: 1931, 1929, 1927, and 1925

[The figures for 1929 refer to sales (shipments or deliveries) by manufacturers; those for other years represent production. See sec. 16, p. 9]

KIND	1931	1929	1927	1925
1. Baking Powder, Yeast, and Other Leavening Compounds industry, all products, total value	$47,027,339	$52,336,812	$55,716,025	$53,347,406
2. Baking powder, yeast, and other leavening compounds	42,259,488	47,313,407	49,916,787	48,845,738
3. Other products (not normally belonging to the industry)	4,767,851	5,023,405	5,799,238	4,501,668
4. Baking powder, yeast, and other leavening compounds made as secondary products in other industries, value	1,157,593	2,627,905	1,415,900	2,229,708
Baking powder, yeast, and other leavening compounds, all industries: Aggregate value (sum of 2 and 4)	$43,417,081	$49,941,312	$51,332,687	$51,075,446
Baking powder:				
Pounds	169,641,173	[1] 541,144,919	162,907,334	(2)
Value	$22,740,706	[1] $49,941,312	$30,747,969	[1] $51,075,446
Yeast and other leavening compounds:				
Pounds	334,965,763		288,195,440	
Value	$20,676,375		$20,584,718	

[1] Combined in order to avoid disclosing an approximation of the output of an individual establishment.
[2] No data for quantity.

BLACKING, STAINS, AND DRESSINGS

Description of the industry.—The establishments assigned to this industry classification are those engaged primarily in the manufacture of blackings, waxes, stains, polishes (including stove polish), dressings, etc., for leather, boots and shoes, automobile tops, etc.

SUMMARY FOR THE UNITED STATES, 1899 TO 1931, AND FOR STATES, 1931

[Data for establishments with products under $5,000 in value are included for 1919 and prior years but not for 1921 and subsequent years. See sec. 3d, p. 4. Statistics are given for all States for which separate figures can be published without disclosing, exactly or approximately, the data reported by individual establishments. One of the "Other States," namely, Indiana, is however, more important in the industry than some of the States shown separately]

	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, containers, fuel, and purchased electric energy	Value of products [1]	Value added by manufacture [2]
United States						
1931	156	1,501	$1,666,227	$6,940,724	$20,342,665	$13,401,941
1929	170	1,617	1,959,443	8,345,234	24,681,836	16,336,602
1927	176	1,716	2,180,733	9,185,543	22,548,235	13,362,692
1925	171	1,869	2,164,430	9,733,455	25,054,969	15,321,514
1923	175	2,165	2,170,138	10,253,195	25,821,709	15,568,514
1921	173	1,666	1,522,333	9,362,119	18,452,864	9,090,745
1919	220	2,455	2,109,103	14,041,840	25,284,072	11,242,232
1914	197	1,766	877,434	5,128,614	9,881,594	4,752,980
1909	201	1,438	667,787	4,263,215	8,418,851	4,155,636
1904	138	1,218	495,963	3,096,807	5,941,042	2,844,235
1899	121	1,250	424,174	2,186,809	4,504,965	2,318,156
Percent of increase or decrease (−):						
1929–31	−8.2	−7.2	−15.0	−16.8	−17.6	−18.0
1927–29	−3.4	−5.8	−10.1	−9.1	9.5	22.3
1925–27	2.9	−8.2	0.8	−5.6	−10.0	−12.8
1923–25	−2.3	−13.7	−0.3	−5.1	−3.0	−1.6
1921–23	1.2	30.0	42.6	9.5	39.9	71.3
1919–21	−21.4	−32.1	−27.8	−33.3	−27.0	−19.1
1921–31	−9.8	−9.9	9.5	−25.9	10.2	47.4
1919–29	−22.7	−34.1	−7.1	−40.6	−2.4	45.3
1909–19	9.5	70.7	215.8	229.4	200.3	170.5
1899–1909	66.1	15.0	57.4	95.0	86.9	79.3
States, 1931						
California	8	28	$35,354	$168,242	$430,832	$262,590
Illinois	12	47	62,681	230,574	603,733	373,159
Maryland	6	47	39,273	172,347	433,801	261,454
Massachusetts	63	340	424,708	1,578,307	3,894,959	2,316,652
Missouri	9	90	90,643	392,282	1,113,187	720,905
New Jersey	9	431	502,968	1,770,641	5,921,661	4,151,020
New York	16	148	151,222	825,184	1,991,877	1,166,693
Pennsylvania	10	32	35,978	184,461	378,154	193,693
Wisconsin	4	35	53,896	176,936	418,185	241,249
Other States [3]	19	303	269,504	1,441,750	5,156,276	3,714,526

[1] For 1929, manufacturers' sales (shipments or deliveries); for other years, production. See sec. 16, p. 9.
[2] Value of products less cost of materials, containers, fuel, and purchased electric energy. See sec. 20, p. 11.
[3] Indiana, 2 establishments; Maine, 2; Michigan, 2; Nebraska, 1; New Hampshire, 1; North Carolina, 1; Ohio, 4; Oregon, 1; Rhode Island, 1; Tennessee, 1; Texas, 2; Virginia, 1.

BLUING

Description of the industry.—This industry classification covers establishments engaged primarily in the production of laundry bluing, soluble and liquid, aniline blue, etc.

SUMMARY FOR THE UNITED STATES, 1899 TO 1931

[Data for establishments with products under $5,000 in value are included for 1919 and prior years but not for 1921 and subsequent years. See sec. 3d, p. 4]

	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, containers, fuel, and purchased electric energy	Value of products [1]	Value added by manufacture [2]
United States						
1931	[3] 20	95	$93,896	$401,789	[4] $1,178,554	$776,765
1929	20	105	106,917	468,867	[4] 1,364,510	895,643
1927	20	155	151,364	593,725	[4] 1,674,140	1,080,415
1925	23	176	185,310	1,017,221	[4] 2,167,013	1,149,792
1923	25	188	187,901	800,293	1,643,186	842,893
1921	33	226	203,460	1,017,713	1,883,225	865,512
1919	57	360	285,063	1,542,954	2,731,277	1,188,323
1914	66	254	104,853	489,431	1,184,045	694,614
1909	82	313	113,812	493,742	1,074,231	580,489
1904	56	206	77,204	265,800	678,737	412,937
1899	65	220	79,380	244,970	575,804	330,834
Percent of increase or decrease (—):						
1929-31	--------	—9.5	—12.2	—14.3	—13.6	—13.3
1927-29	--------	—32.3	—29.4	—21.0	—18.5	—17.1
1925-27	(5)	—11.9	—18.3	—41.6	—22.7	—6.0
1923-25	(5)	—6.4	—1.4	27.1	31.9	36.4
1921-23	(5)	—16.8	—7.6	—21.4	—12.7	—2.6
1919-21	(5)	—37.2	—28.6	—34.0	—31.0	—27.2
1921-31	(5)	—58.0	—53.9	—60.5	—37.4	—10.3
1919-29	(5)	—70.8	—62.5	—69.6	—50.0	—24.6
1909-19	(5)	15.0	150.5	212.5	154.3	104.7
1899-1909	(5)	42.3	43.4	101.6	86.6	75.5

[1] For 1929, manufacturers' sales (shipments or deliveries); for other years, production. See sec. 16, p. 9.

[2] Value of products less cost of materials, containers, fuel, and purchased electric energy. See sec. 20, p. 11.

[3] California, 1 establishment; Illinois, 2; Massachusetts, 2; Michigan, 1; Minnesota, 1; Missouri, 2; New Jersey, 1; New York, 2; Pennsylvania, 2; Tennessee, 1; Texas, 3; Virginia, 1; Washington, 1. No separate figures for any of these States can be published without disclosing, exactly or approximately, data reported by individual establishments.

[4] Includes values of commodities other than bluing, made as secondary products by establishments in this industry, as follows: 1931, $226,374; 1929, $240,510; 1927, $297,752; 1925, $354,709. Does not include following values of bluing made as a secondary product by establishments classified in other industries: 1931, $234,296; 1929, $258,465; 1927, $255,983; 1925, $298,495.

[5] Percent not computed where base is less than 100.

BONE BLACK, CARBON BLACK, AND LAMPBLACK

Description of the industry.—This industry embraces establishments engaged primarily in the manufacture of bone black, carbon black, and lampblack. Bone black, also known as "char" or animal charcoal, is produced by the carbonization of bone in retorts; carbon black, by the imperfect combustion of natural gas; and lampblack, by the imperfect combustion of coal or wood tar, petroleum, rosin, etc.

TABLE 1.—SUMMARY FOR THE UNITED STATES, 1899 TO 1931, AND FOR STATES, 1931

[Data for establishments with products under $5,000 in value are included for 1919 and prior years but not for 1921 and subsequent years. See sec. 3d, p. 4. Statistics are given for the only States for which separate figures can be published without disclosing, exactly or approximately, the data reported by individual establishments]

	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, containers, fuel, and purchased electric energy	Value of products [1]	Value added by manufacture [2]
United States						
1931	62	1,039	$1,344,223	$5,021,874	$9,535,203	$4,513,329
1929	77	1,915	2,583,253	9,096,098	20,169,722	11,073,624
1927	67	1,553	2,047,044	6,571,019	14,261,775	7,690,756
1925	66	1,505	1,721,779	5,654,965	14,564,982	8,910,017
1923	68	1,303	1,460,868	5,294,567	14,599,872	9,305,305
1921	45	826	979,845	3,745,146	8,180,844	4,435,698
1919	35	675	808,332	2,848,059	6,186,204	3,338,145
1914	27	339	230,821	686,240	1,463,569	777,329
1909	27	228	149,327	444,608	1,093,494	648,886
1904	25	200	105,159	203,396	647,717	444,321
1899	15	85	46,107	105,712	359,787	254,075
Percent of increase or decrease (—)						
1929–31	(3)	—45.7	—48.0	—44.8	—52.7	—59.2
1927–29	(3)	23.3	26.2	38.4	41.4	44.0
1925–27	(3)	3.2	18.9	16.2	—2.1	—13.7
1923–25	(3)	15.5	17.9	6.8	—.2	—4.2
1921–23	(3)	57.7	49.1	41.4	78.5	109.8
1919–21	(3)	22.4	21.2	31.5	32.2	32.9
1921–31	(3)	25.8	37.2	34.1	16.6	1.8
1919–29	(3)	183.7	219.6	219.4	226.0	231.7
1909–19	(3)	196.1	441.3	540.6	465.7	414.4
1899–1909	(3)	168.2	223.9	320.6	203.9	155.4
States, 1931						
Louisiana (carbon black)	23	300	$312,043	$1,436,311	$1,895,235	$458,924
Texas (carbon black)	31	575	832,691	2,996,671	6,625,215	3,628,544
Other States [4]	8	164	199,489	588,892	1,014,753	425,861

[1] For 1929, manufacturers' sales (shipments or deliveries); for other years, production. See sec. 16, p. 9.
[2] Value of products less cost of materials, containers, fuel, and purchased electric energy. See sec. 20, p. 11.
[3] Percent not computed where base is less than 100.
[4] California, 1 establishment; Montana, 1; New Jersey, 1; Oklahoma, 1; Pennsylvania, 2; Utah, 1; Wyoming, 1.

TABLE 2.—WAGE EARNERS, BY MONTHS, FOR THE UNITED STATES, 1931, 1929, 1925, 1919, 1914, AND 1909, AND FOR STATES, 1931

[This table presents statistics for only those States for which figures can be given without disclosing, exactly or approximately, 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. See sec. 13, p. 8]

	Average number employed during year	NUMBER REPORTED FOR—											
		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
United States													
1931	1,039	**1,147**	1,042	1,033	1,093	1,037	1,058	1,020	1,022	1,004	*995*	1,011	1,008
1929	1,915	1,844	*1,804*	1,879	1,861	1,935	1,920	1,946	1,938	2,016	1,998	1,927	1,913
1925	1,505	1,556	1,507	1,502	1,477	1,438	*1,435*	1,523	1,532	1,509	1,508	1,525	1,544
1919	675	*658*	687	661	669	665	674	669	676	680	698	675	688
1914	339	306	304	*300*	306	306	309	350	369	388	390	387	353
1909	228	219	*216*	*216*	225	228	231	228	233	234	243	235	237
States, 1931													
Louisiana	300	**334**	289	*283*	333	299	317	300	289	288	291	297	287
Texas	575	**632**	581	574	584	576	577	558	571	561	*554*	564	572

TABLE 3.—PRODUCTS, BY KIND, QUANTITY, AND VALUE, FOR THE UNITED STATES: 1925 TO 1931

[The figures for 1929 refer to sales (shipments or deliveries) by manufacturers; those for other years represent production. See sec. 16, p. 9]

KIND	1931	1929	1927	1925
1. Bone black, carbon black, and lampblack industry, all products, total value	$9,535,203	$20,169,722	$14,261,775	$14,564,982
2. Bone black, carbon black, and lampblack	9,023,617	18,462,283	12,411,829	10,990,186
3. Other products (not normally belonging to the industry)	511,586	1,707,439	1,849,946	3,574,796
4. Bone black and lampblack made as secondary products in other industries, value	1,206,670	2,241,415	2,106,994	2,624,133
Bone black, carbon black, and lampblack, all industries: Total value (sum of 2 and 4)	$10,230,287	$20,703,698	$14,518,823	$13,614,319
Bone black:				
Number of establishments	5	6	8	7
Pounds	33,214,240	54,277,051	59,359,476	64,135,425
Value	$1,288,298	$2,490,090	$2,523,582	$2,539,704
Carbon black:				
Number of establishments	58	71	61	63
Pounds[1]	280,907,000	283,806,000	198,429,000	177,417,378
Value[1]	$8,621,000	$17,028,360	$10,955,000	$9,639,585
Lampblack:				
Number of establishments	4	6	5	5
Pounds	3,424,048	10,765,492	8,800,366	12,031,745
Value	$320,989	$1,185,248	$1,040,241	$1,435,030

[1] From report of the United States Bureau of Mines.

CANDLES

Description of the industry.—This industry embraces establishments engaged primarily in the manufacture of candles for lighting and for decorative and ornamental purposes.

SUMMARY FOR THE UNITED STATES, 1904–31, AND FOR NEW YORK, 1931

[Data for establishments with products under $5,000 in value are included for 1919 and prior years but not for 1921 and subsequent years. See sec. 3d, p. 4. New York is the only State for which separate figures can be given without disclosing data for individual establishments]

	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, containers, fuel, and purchased electric energy	Value of products [1]	Value added by manufacture [2]
United States						
1931	23	713	$711,459	$2,480,770	[3] $5,396,198	$2,915,428
1929	20	781	923,039	3,250,627	[3] 6,686,194	3,435,567
1927	17	709	761,464	2,958,987	[3] 6,350,931	3,391,944
1925	20	626	672,691	2,786,247	[3] 5,114,292	2,328,045
1923	21	746	753,919	2,392,948	5,079,884	2,686,936
1921	20	609	589,737	2,090,807	3,776,911	1,686,104
1919	19	541	437,581	2,178,528	3,350,806	1,172,278
1914	15	387	183,007	1,118,575	1,730,723	612,148
1909	16	539	246,290	2,176,102	3,130,521	954,419
1904	17	816	293,935	2,911,215	3,889,362	978,147
Percent of increase or decrease (−):						
1929–31	(4)	−8.7	−22.9	−23.7	−19.3	−15.1
1927–29	(4)	10.2	21.2	9.9	5.3	1.3
1925–27	(4)	13.3	13.2	6.2	24.2	45.7
1923–25	(4)	−16.1	−10.8	16.4	0.7	−13.4
1921–23	(4)	22.5	27.8	14.5	34.5	59.4
1919–21	(4)	12.6	34.8	−4.0	12.7	43.8
1921–31	(4)	17.1	20.6	18.7	42.9	72.9
1919–29	(4)	44.4	110.9	49.2	99.5	193.1
1909–19	(4)	0.4	77.7	0.1	7.0	22.8
States, 1931						
New York	14	594	$581,284	$2,075,827	$4,469,499	$2,393,672
Other States [5]	9	119	130,175	404,943	926,699	521,756

[1] For 1929, manufacturers' sales (shipments or deliveries); for other years, production. See sec. 16, p. 9.
[2] Value of products less cost of materials, containers, fuel, and purchased electric energy. See sec. 20, p. 11.
[3] Includes values of commodities other than candles, made as secondary products by establishments in this industry, as follows: 1931, $576,956; 1929, $565,550; 1927, $740,863; 1925, $329,297. Does not include following values of candles made as secondary products by establishments classified in other industries: 1931, $1,290,060; 1929, $1,972,792; 1927, $1,969,020; 1925, $2,463,938.
[4] Percent not computed where base is less than 100.
[5] California, 2 establishments; Maryland, 1; Massachusetts, 2; Missouri, 2; New Jersey, 1; Pennsylvania, 1.

CHEMICALS NOT ELSEWHERE CLASSIFIED

[Preliminary reports on the several groups of chemical products were issued on June 30, 1932, and subsequent dates]

Description of the industry.—This industry embraces establishments engaged primarily in the manufacture of products falling within the eight groups for which statistics for 1925, 1927, 1929, and 1931 are given in table 3. It does not include the production of all classes of chemicals in the broad sense of the term, the principal exceptions being (1) explosives, (2) fertilizers, (3) soap, and (4) wood-distillation products. The manufacture of each of these four classes of products is treated as a separate industry.

Rayon and compressed and liquefied gases.—Statistics for the manufacture of rayon in 1923 and earlier years and for the manufacture of compressed and liquefied gases in 1925 and earlier years were included with those for the Chemicals Not Elsewhere Classified industry, but both these lines of manufacture are now treated as separate industries. Because of these changes in classification, the figures for 1925 and earlier years are not comparable with those for 1927, 1929, and 1931, and the figures for 1923 and earlier years are not comparable with those for 1925 and later years; and accordingly no percentages of increase or decrease are given in table 1 for the periods 1919–29, 1921–31, 1923–25, and 1925–27.

Products made and consumed and for sale.—In most cases where the amounts of chemicals made and consumed in the same establishments were reported, separate figures are given in tables 4 to 14 for the total production, the amounts made and consumed, and the production for sale. *Where no separate figures are given, the quantities and values shown relate to the amounts made for sale.*

TABLE 1.—SUMMARY FOR THE UNITED STATES, 1899 TO 1931, AND FOR STATES, 1931

[Data for establishments with products under $5,000 in value are included for 1919 and prior years, but not for 1921 and subsequent years. See sec. 3d, p. 4. Statistics are given for all States for which separate figures can be published without disclosing, exactly or approximately, the data reported by individual establishments. Certain of the "Other States," however, are more important in the industry than some of the States shown separately]

	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, containers, fuel, and purchased electric energy	Value of products	Value added by manufacture [1]
United States						
1931	558	48,522	$66,360,107	$246,068,398	$533,175,179	$287,106,781
1929	551	62,199	94,680,013	363,576,811	738,048,386	374,471,575
1927	492	52,347	78,274,975	296,677,164	572,090,732	275,413,568
1925	751	57,890	83,537,432	282,712,468	570,310,106	287,597,638
1923	773	77,254	103,300,991	328,596,621	655,274,829	326,678,208
1921	728	49,138	62,161,005	200,272,506	412,231,354	211,958,848
1919	836	76,918	105,062,261	301,519,182	614,278,849	312,759,667
1914	427	35,375	24,278,759	96,185,122	173,269,076	77,083,954
1909	401	25,981	15,590,817	69,531,257	127,625,160	58,093,903
1904	329	22,294	12,319,164	47,070,795	84,410,141	37,339,346
1899	350	17,519	8,717,170	31,125,829	56,754,651	25,628,822
Percent of increase or decrease (−): [2]						
1929–31	1.3	−22.0	−29.9	−32.3	−27.8	−23.3
1927–29	12.0	18.8	21.0	22.5	29.0	36.0
1921–23	6.2	57.2	66.2	64.1	59.0	54.1
1919–21	−12.9	−36.1	−40.8	−33.6	−32.9	−32.2
1909–19	108.5	196.1	573.9	333.6	381.3	438.4
1899–1909	14.6	48.3	78.9	123.4	124.9	126.7
States, 1931						
Alabama	4	475	$371,120	$4,266,852	$5,510,842	$1,243,990
California	51	1,998	3,033,132	9,451,674	21,280,565	11,828,891
Colorado	4	32	24,272	163,400	282,439	119,039
Connecticut	7	426	510,970	2,325,326	4,924,708	2,599,382
Illinois	34	3,546	4,704,634	22,883,782	44,611,055	21,727,273
Indiana	10	760	1,029,941	3,528,459	7,050,505	3,522,046
Iowa	4	211	266,296	1,407,952	2,614,337	1,206,385
Louisiana	6	148	126,301	756,165	1,394,893	638,728
Maryland	10	752	1,050,244	4,478,293	7,152,654	2,674,361
Massachusetts	20	2,711	3,406,414	6,298,563	14,700,407	8,401,844
Michigan	17	4,192	6,357,703	15,403,238	36,870,104	21,466,866
Minnesota	4	75	101,695	796,900	1,285,250	488,350
Missouri	8	784	861,877	5,493,495	10,790,373	5,296,878
New Jersey	101	9,469	13,504,933	51,641,619	111,887,171	60,245,552
New York	90	9,386	12,843,609	46,534,352	110,324,699	63,790,347
Ohio	52	3,376	4,634,214	16,923,951	35,717,363	18,793,412
Pennsylvania	54	2,612	3,614,828	15,135,042	27,037,942	11,902,900
Rhode Island	6	296	386,629	1,031,512	1,896,209	864,697
Tennessee	9	1,062	1,172,264	7,392,374	17,443,428	10,051,054
Texas	8	322	364,520	1,836,256	3,208,834	1,372,578
Virginia	10	1,693	2,374,109	8,103,630	20,917,442	12,813,812
Washington	8	127	195,296	701,674	1,935,655	1,233,981
West Virginia	14	2,060	2,865,387	8,200,266	21,741,013	13,540,747
Other States [3]	27	2,009	2,549,719	11,313,623	22,597,291	11,283,668

[1] Value of products less cost of materials, containers, fuel, and purchased electric energy. See sec. 20, p. 11.

[2] See "Rayon and compressed and liquefied gases," p. 564.

[3] Arkansas, 1 establishment; Delaware, 1; District of Columbia, 1; Georgia, 2; Kansas, 1; Kentucky, 2; Maine, 2; Montana, 2; New Hampshire, 2; North Carolina, 1; Oklahoma, 2; South Carolina, 3; Utah, 2; Wisconsin, 5.

TABLE 2.—WAGE EARNERS, BY MONTHS, FOR THE UNITED STATES, 1931, 1929, 1925, 1914, AND 1909, AND FOR STATES, 1931

[This table presents statistics for only those States for which figures can be given without disclosing, exactly or approximately, 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. See sec. 13, p. 8]

	Average number employed during year	NUMBER REPORTED FOR—											
		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
United States													
1931	48,522	50,907	50,408	50,494	49,943	49,246	48,712	48,269	47,495	47,531	47,443	46,322	*45,492*
1929	62,199	*60,909*	61,584	62,416	62,490	61,765	62,192	62,683	62,908	62,491	63,339	62,370	61,245
1925[1]	57,890	57,824	58,087	58,679	57,846	57,219	57,151	*56,897*	57,102	57,398	58,372	58,853	59,257
1914	35,375	35,492	35,075	35,581	35,340	34,885	34,883	*34,866*	35,370	35,862	35,763	35,640	35,743
1909	25,981	*24,851*	24,978	25,195	25,385	25,955	26,043	26,060	25,766	26,248	26,697	27,176	27,405
States, 1931													
Alabama	475	549	520	533	538	511	500	493	448	443	387	399	*377*
California	1,998	2,082	2,002	2,001	1,975	1,953	*1,949*	1,955	1,967	2,128	2,042	1,967	1,962
Colorado	32	27	35	39	39	39	36	39	36	29	*23*	*23*	*23*
Connecticut	426	429	431	409	431	436	446	*397*	417	404	420	430	466
Illinois	3,546	3,710	3,795	3,744	3,792	3,705	3,712	3,411	3,337	*3,314*	3,363	3,345	3,325
Indiana	760	725	731	796	791	777	785	799	738	*704*	756	763	759
Iowa	211	*160*	177	205	232	249	228	257	219	216	214	191	191
Louisiana	148	129	132	203	185	169	167	169	158	120	113	116	*112*
Maryland	752	709	741	808	816	818	782	713	737	747	800	695	*660*
Massachusetts	2,711	2,670	2,765	2,831	2,855	2,830	2,723	2,775	2,703	2,640	2,654	2,614	*2,475*
Michigan	4,192	4,532	4,421	4,280	4,247	4,083	4,198	4,215	4,136	4,161	4,041	*3,983*	4,011
Minnesota	75	68	63	57	102	81	118	66	61	63	*56*	90	82
Missouri	784	796	789	786	775	784	799	797	793	803	778	765	*744*
New Jersey	9,469	9,718	9,365	9,623	9,610	9,576	9,369	9,327	*9,305*	9,339	9,532	9,471	9,397
New York	9,386	10,139	10,195	9,975	9,754	9,526	9,380	9,410	9,141	9,130	8,988	8,573	*8,490*
Ohio	3,376	3,406	3,292	3,375	3,407	3,437	3,341	3,398	3,358	3,375	3,390	3,451	*3,277*
Pennsylvania	2,612	2,737	2,768	2,724	2,719	2,731	2,684	2,598	2,594	2,513	2,458	2,432	*2,381*
Rhode Island	296	289	291	290	301	308	307	306	304	307	294	285	*269*
Tennessee	1,062	1,112	1,102	1,097	1,123	1,103	1,041	1,096	1,115	1,030	1,019	953	*947*
Texas	322	355	354	331	327	309	322	336	317	303	301	*300*	307
Virginia	1,693	2,172	2,031	1,991	1,739	1,691	1,631	1,524	1,528	1,519	1,517	*1,481*	1,502
Washington	127	137	130	136	133	129	133	131	121	120	*104*	121	125
West Virginia	2,060	2,106	2,107	2,093	1,998	1,982	2,043	2,178	2,018	2,163	2,239	1,942	*1,848*

[1] No comparable figures can be given for 1919.

TABLE 3.—CHEMICAL PRODUCTS—VALUE, BY CHEMICAL GROUPS: 1931, 1929, 1927, and 1925

	1931	1929	1927	1925
1. Chemicals Not Elsewhere Classified industry, all products, total value	$533,175,179	$738,048,386	$572,090,732	[1] $570,310,106
2. Chemicals made in the industry	490,902,870	671,767,066	526,914,393	[1] 540,414,883
3. Other products (not normally belonging to the industry)	42,272,309	66,281,320	45,176,339	29,895,223
4. Chemicals made as secondary products in other industries	57,718,419	87,048,026	83,228,766	66,661,789
Chemicals, all industries:				
Aggregate value (sum of 2 and 4)	548,621,289	758,815,092	610,143,159	[1] 607,076,672
Intergroup duplication [2]	27,207,271	22,374,835	11,068,280	[1] 38,348,044
Gross total	575,828,560	781,189,927	621,211,439	[1] 631,267,827
CHEMICAL GROUPS				
I. Acids	66,432,788	98,619,871	88,175,519	79,273,578
II. Nitrogen and fixed-nitrogen compounds	33,483,281	38,336,799	26,085,661	29,659,414
III. Sodium compounds	108,591,274	137,654,863	113,880,497	109,522,017
IV. Potassium compounds	8,112,469	9,998,054	9,306,037	6,071,146
V. Aluminum compounds and alums	10,760,635	15,948,773	13,563,095	11,581,290
VI. Coal-tar products	103,088,441	130,651,757	106,056,504	112,201,348
VII. Plastics	27,847,230	[3] 39,734,426	28,202,865	[3] 34,575,068
VIII. Chemicals, miscellaneous	217,512,442	310,245,384	235,941,261	192,851,350
Compressed and liquefied gases	(4)	(4)	(4)	55,532,616

[1] Not comparable with figures for subsequent years. See "Rayon and compressed and liquefied gases," p. 564.

[2] Value of chemicals produced in certain groups and consumed in others. The value of these chemicals is included directly in the totals for the groups in which they are manufactured, and indirectly in those for the groups in which they are consumed.

[3] Revised.

[4] The manufacture of compressed and liquefied gases has been treated as a separate industry beginning with the census for 1927.

TABLE 4.—GROUP I, ACIDS—PRODUCTION, BY KIND, QUANTITY, AND VALUE: 1925 TO 1931

[See "Products Made and Consumed and For Sale," p. 564]

[Ton, 2,000 pounds]

	1931	1929	1927	1925
Aggregate value	$66,432,788	$98,619,871	$88,175,519	$79,273,578
Inorganic, total	50,986,242	70,085,328	66,027,312	58,958,357
Organic, total	15,446,546	28,534,543	22,148,207	20,315,221
Acetic: [1]				
Number of establishments	18	17	18	16
Total production:				
Dilute, basis 100 percent, pounds	[2] 76,401,939	72,737,771	41,399,599	[2] 29,824,953
Glacial, pounds		13,449,259	15,917,232	37,108,961
Made and consumed in same establishments:				
Dilute, basis 100 percent, pounds	[2] 13,815,839	19,822,964	10,918,361	[2] 1,102,650
Glacial, pounds		----------	101,885	239,711
For sale:				
Dilute:				
Pounds, basis 100 percent	48,846,511	52,914,807	30,481,238	[2] 28,722,303
Value	$2,761,237	$5,487,427	$3,522,196	$775,668
Glacial:				
Pounds	13,739,589	13,449,259	15,815,347	36,869,250
Value	$776,251	$1,402,984	$1,527,089	$3,661,954
Boric (boracic):				
Number of establishments	5	7	6	4
Pounds	18,127,718	26,055,132	21,009,603	15,604,654
Value	$970,383	$1,541,360	$1,582,565	$1,202,382
Carbonic (carbon dioxide, CO_2):				
Number of establishments	53	54	49	44
Pounds	[4] 153,574,997	136,930,311	74,344,287	59,721,309
Value	$6,225,643	$6,931,735	$6,048,424	$5,128,441
Chromic:				
Number of establishments	6	8	6	(5)
Pounds	3,024,854	4,211,605	898,093	(5)
Value	$423,069	$710,272	$241,965	(5)

See footnotes at end of table.

TABLE 4.—GROUP I, ACIDS—PRODUCTION, BY KIND, QUANTITY, AND VALUE: 1925 TO 1931—Continued

[See "Products Made and Consumed and For Sale," p. 564]

[Ton, 2,000 pounds]

	1931	1929	1927	1925
Citric: [1]				
Number of establishments	4	5	4	6
Pounds	8,381,441	10,755,798	7,058,215	7,598,213
Value	$3,060,185	$4,832,984	$3,150,976	$3,469,740
Hydrochloric (muriatic):				
Number of establishments	31	33	40	37
Total production, basis 100 percent, tons	54,899	81,307	[3] 224,596	[3] 227,800
Made and consumed in same establishments, tons	14,212	18,701	[3] 62,154	[3] 72,781
For sale—Tons	40,687	62,606	[3] 162,442	[3] 155,019
Value	$2,422,439	$3,195,415	$3,016,014	$2,976,155
Hydrofluosilicic:				
Number of establishments	3	(5)	(5)	(5)
Pounds	3,734,000	(6)	(6)	(6)
Value	$68,739	(7)	(7)	(7)
Mixed (sulphuric-nitric):				
Number of establishments	27	36	41	39
Total production, tons	101,707	184,163	180,142	160,629
Made and consumed in same establishments, tons	64,121	120,442	119,517	99,339
For sale—Tons	37,586	63,721	60,625	61,290
Value	$1,800,480	$4,214,433	$3,820,564	$3,766,701
Nitric:				
Number of establishments	43	48	50	53
Total production, basis 100 percent, tons	117,240	143,454	[3] 121,991	[3] 119,652
Made and consumed in same establishments, tons	85,819	110,493	[3] 93,285	[3] 92,800
For sale—Tons	31,421	32,961	[3] 28,706	[3] 26,852
Value	$3,381,554	$3,494,577	$3,559,436	$3,559,695
Oleic: [1]				
Number of establishments	10	13	12	13
Pounds	29,946,164	56,947,501	55,686,031	53,275,959
Value	$1,872,263	$5,374,587	$4,778,037	$5,171,093
Phosphoric:				
Number of establishments	10	9	6	7
Pounds	[8] 19,096,150	34,673,982	22,397,366	21,330,215
Value	$761,354	$2,073,066	$1,681,504	$1,488,701
Stearic: [1]				
Number of establishments	9	12	12	11
Pounds	24,868,407	39,153,726	37,276,703	26,877,253
Value	$2,056,964	$5,488,320	$3,832,433	$3,378,959
Sulphuric:				
Number of establishments	175	170	181	177
Total production, basis 50° Baumé, tons	6,085,242	8,491,114	7,335,795	7,004,112
Made and consumed in same establishments, tons	1,855,489	2,674,949	2,364,212	2,303,915
For sale—Tons	4,229,753	5,816,165	4,971,583	4,700,197
Value	$33,074,957	$45,573,245	$42,885,573	$38,230,284
Sulphuric, reclaimed:				
Number of establishments	69	69	66	66
Total production, basis 50° Baumé, tons	880,323	980,626	757,107	768,765
Made and consumed in same establishments, tons	524,578	599,470	565,796	559,176
For sale—Tons	355,745	381,156	191,311	209,589
Value	$1,319,653	$1,389,340	$1,088,554	$1,479,145
Tannic: [1]				
Number of establishments	4	4	3	6
Pounds	667,212	1,449,375	1,297,232	1,439,957
Value	$250,874	$503,567	$593,465	$585,951
Tartaric: [1]				
Number of establishments	4	4	4	4
Pounds	5,181,020	4,906,479	5,781,166	5,498,920
Value	$1,462,529	$2,059,680	$1,810,890	$1,541,955
Other inorganic acids, value	[9] $537,971	$961,885	$2,102,713	$1,126,853
Other organic acids, value [1]	[10] $3,206,243	$3,384,994	$2,933,121	$1,729,901

[1] Organic.
[2] Combined to avoid disclosing approximations of production of individual establishments.
[3] Quantity as reported, regardless of strength.
[4] Includes approximately 80,000,000 pounds piped to plants making "dry ice," but does not include 26,896,186 pounds made and consumed in such plants.
[5] Not tabulated separately.
[6] No data.
[7] Included in value of "Other inorganic acids."
[8] Basis 50 percent.
[9] Includes, in order of value, data for hydrofluoric, tungstic, molybdic, hydriodic, etc.
[10] Includes, in order of value, data for hydrocyanic, acetic anhydride, oxalic, formic, lactic, gallic, etc.

TABLE 5.—SULPHURIC ACID—PRODUCTION, BY INDUSTRY AND BY PROCESS: 1925 TO 1931

[See "Products Made and Consumed and For Sale," p. 564]

[Ton, 2,000 pounds]

	1931	1929	1927	1925
Total production, basis 50° Baumé, tons	6,085,242	8,491,114	7,335,795	7,004,112
Made and consumed in same establishments, tons	1,855,489	2,674,949	2,364,212	2,303,915
For sale—Tons	4,229,753	5,816,165	4,971,583	4,700,197
Value	$33,074,957	$45,573,245	$42,885,573	$38,230,284
BY INDUSTRY				
(Basis 50° Baumé)				
Chemicals Not Elsewhere Classified industry: Total production of sulphuric acid, tons	3,398,555	5,157,835	4,071,458	4,032,248
Made and consumed in same establishments, tons	553,948	1,017,022	805,066	749,059
For sale—Tons	2,844,607	4,140,813	3,266,392	3,283,189
Value	$24,024,027	$32,736,042	$29,684,493	$27,633,446
Fertilizers industry: Total production of sulphuric acid, tons	1,685,950	2,002,105	2,045,344	2,008,418
Made and consumed in same establishments, tons	1,102,629	1,373,033	1,270,007	1,345,442
For sale—Tons	583,321	629,072	775,337	662,976
Value	$3,869,001	$4,981,093	$6,158,493	$4,812,152
Explosives industry: Total production of sulphuric acid, tons	75,860	133,656	138,219	162,057
Made and consumed in same establishments, tons	51,567	88,369	105,961	114,209
For sale—Tons	24,293	45,287	32,258	47,848
Value	$192,591	$437,721	$266,564	$414,328
Other—Petroleum Refining, Zinc and Copper Smelting, etc.: Total production of sulphuric acid, tons	924,877	1,197,518	1,080,774	801,389
Made and consumed in same establishments, tons	147,345	196,525	183,178	95,205
For sale—Tons	777,532	1,000,993	897,596	706,184
Value	$4,989,338	$7,418,389	$6,776,023	$5,370,358
BY PROCESS				
(Basis 50° Baumé)				
Chamber process: Number of establishments [1]	136	141	155	153
Tons	3,638,279	5,414,874	5,112,649	4,953,582
Contact process: Number of establishments [1]	49	42	37	37
Tons	2,446,963	3,076,240	2,223,146	2,050,530

[1] Both processes were employed by 10 establishments in 1931, 13 in 1929, 11 in 1927, and 13 in 1925.

TABLE 6.—SULPHURIC ACID—PRODUCTION, BY QUANTITY (BASIS 50° BAUMÉ) AND VALUE, FOR THE UNITED STATES, 1925–31, AND FOR STATES, 1931

[This table gives statistics for each State for which it is possible to publish separate figures without disclosing, exactly or approximately, the output of individual establishments. In a few cases, however, certain of the States named in combination with others outranked some of those for which separate figures are given]

[Ton, 2,000 pounds]

	Total (tons)	Made and consumed in same establishments (tons)	FOR SALE	
			Tons	Value
United States				
1931	6,085,242	1,855,489	4,229,753	$33,074,957
1929	8,491,114	2,674,949	5,816,165	45,573,245
1927	7,335,795	2,364,212	4,971,583	42,885,573
1925	7,004,112	2,303,915	4,700,197	38,230,284
States, 1931				
Georgia	187,318	125,261	62,057	430,685
Illinois	643,234	52,509	590,725	4,341,233
Maryland	676,124	318,943	357,181	2,247,699
New Jersey	624,405	163,922	460,483	3,940,921
Ohio	357,271	81,662	275,609	2,584,446
Pennsylvania	608,805	128,938	479,867	4,133,101
Alabama and Florida	137,602	91,017	46,585	348,178
Arizona and California	337,038	31,590	305,448	2,975,340
Connecticut and Massachusetts	188,302	96,360	91,942	933,409
Kentucky and Tennessee	508,765	57,979	450,786	2,139,786
Louisiana and Mississippi	129,359	47,117	82,242	595,266
Michigan and Wisconsin	88,790	17,790	71,000	619,624
North Carolina and South Carolina	240,355	192,661	47,694	345,373
Oklahoma and Texas	439,409	98,714	340,695	2,794,505
Virginia and West Virginia	232,126	100,715	131,411	968,598
Other States	686,339	250,311	436,028	3,676,793

TABLE 7.—GROUP II, NITROGEN AND FIXED-NITROGEN COMPOUNDS—PRODUCTION, BY KIND, QUANTITY, AND VALUE: 1931, 1929, 1927, AND 1925

[No data are included for the production of ammonia and ammonia products in the Coke and Manufactured Gas industries. See table 8. See also "Products Made and Consumed and For Sale," p. 564]

CLASS AND KIND	1931	1929	1927	1925
Total value	$33,483,281	$38,336,799	$26,085,661	$29,659,414
Ammonium group (see table 8):				
Ammonia, aqua, and liquor:				
Pounds	[1] 18,830,923	[1] 30,200,074	46,225,012	66,227,955
Value	$1,031,748	$1,784,212	$1,260,426	$3,027,474
Ammonia, anhydrous:				
Pounds	127,098,718	173,349,355	45,115,020	31,724,858
Value	$8,043,679	$10,673,234	$4,011,362	$6,771,876
Ammonium sulphate:				
Pounds	25,431,352	11,852,867	12,381,506	5,708,984
Value	$280,009	$240,391	$266,426	$153,134
Ammonium iodide:				
Pounds	4,888	7,840		(2)
Value	$25,724	$40,592		(3)
Ammonium nitrate:				
Pounds	22,948,425			3,162,256
Value	$937,930		$6,058,544	$229,349
Ammonium molybdate:				
Pounds	24,192	$3,225,600		(2)
Value	$22,371			(3)
Other ammonium compounds, value	[4] $2,152,648			$4,886,172

[1] Ammonia (NH^3) content.
[2] No data.
[3] Included in value of "Other ammonium compounds."
[4] Includes, in order of value, data for chloride, phosphate, sulphide, bicarbonate, carbonate, etc.

TABLE 7.—GROUP II, NITROGEN AND FIXED-NITROGEN COMPOUNDS—PRODUCTION, BY KIND, QUANTITY, AND VALUE: 1931, 1929, 1927, AND 1925—Con.

[See note at head of table]

CLASS AND KIND	1931	1929	1927	1925
Cyanogen compounds:				
Ferric ferrocyanide (Prussian blue):				
Number of establishments	20	21	19	26
Pounds	3,506,912	4,803,419	4,104,233	4,971,486
Value	$1,134,364	$1,446,456	$1,364,537	$1,619,509
Sodium and potassium ferrocyanides; sodium, silver, and other cyanides; hydrocyanic acid, value	$4,590,336	$6,336,719	$4,945,982	$5,044,479
Nitric acid (see also table 4), value	$3,381,554	$3,494,577	$3,559,436	$3,559,695
Nitrous oxide (laughing gas):				
Number of establishments	11	9	10	10
Thousands of gallons	94,607	109,812	66,392	54,882
Value	$922,626	$1,196,392	$809,614	$729,534
Other nitrogen compounds and gaseous nitrogen, value	[5] $10,960,292	$9,898,626	$3,809,334	$3,638,192

[5] Includes, in order of value, data for sodium nitrate, silver nitrate, sodium nitrite, bismuth subnitrate, gaseous nitrogen, strontium nitrate, etc.

TABLE 8.—SUMMARY FOR AMMONIA AND AMMONIA COMPOUNDS—PRODUCTION IN COKE, CHEMICALS, AND MANUFACTURED-GAS INDUSTRIES: 1925—1931

[See "Products Made and Consumed and For Sale," p. 564]

	1931	1929	1927	1925
Aggregate value	$27,074,913	$44,998,960	$39,590,030	$43,734,363
COKE INDUSTRY				
NH_3 equivalent of sales:				
Pounds	255,247,138	401,440,953	349,619,116	310,744,721
Value	$12,859,888	$26,861,440	$26,239,840	$26,850,266
Number of establishments	67	67	62	61
Liquor (NH_3 equivalent):				
Total production, pounds	35,757,003	52,302,845	49,825,891	57,425,326
Sales—Pounds	33,982,437	51,762,440	49,011,372	47,128,790
Value	$1,390,392	$2,687,053	$2,335,047	$4,385,501
Ammonium sulphate:				
Total production, pounds	877,960,541	1,396,552,434	1,172,643,719	1,013,277,580
Sales—Pounds	905,244,708	1,350,154,009	1,225,624,762	986,179,337
Value	$11,469,496	$24,174,387	$23,904,793	$22,464,765
CHEMICALS INDUSTRY				
Total value	$12,494,109	$15,964,029	$11,596,758	$15,068,005
Ammonia, aqua and liquor:				
Number of establishments	16	11	13	17
Pounds	[1] 18,830,923	[1] 30,200,074	46,225,012	66,227,955
Value	$1,031,748	$1,784,212	$1,260,426	$3,027,474
Anhydrous ammonia:				
Number of establishments	16	16	15	16
Pounds	127,098,718	173,349,355	45,115,020	31,724,858
Value	$8,043,679	$10,673,234	$4,011,362	$6,771,876
Ammonium sulphate:				
Number of establishments	10	10	11	10
Pounds	25,431,352	11,852,867	12,381,506	5,708,984
Value	$280,009	$240,391	$266,426	$153,134
Other forms, value	$3,138,673	$3,266,192	$6,058,544	$5,115,521
MANUFACTURED-GAS INDUSTRY				
NH_3 equivalent of forms reported:				
Pounds	37,852,903	36,216,150	28,814,232	24,339,955
Value	$1,720,916	$2,173,491	$1,753,432	$1,816,092
Number of establishments	48	55	64	89
Reported as—				
Ammonium sulphate:				
Pounds	112,718,691	92,826,531	56,078,150	13,439,204
Value	$1,455,815	$1,727,540	$1,255,739	$351,235
Ammonia (NH_3):				
Pounds	9,673,231	13,009,518	14,794,695	20,980,154
Value	$265,101	$445,951	$497,693	$1,464,857

[1] Ammonia (NH_3) content.

TABLE 9.—GROUP III, SODIUM COMPOUNDS—PRODUCTION, BY KIND, QUANTITY, AND VALUE: 1925 TO 1931

[See "Products Made and Consumed and For Sale," p. 564]

[Ton, 2,000 pounds]

KIND	1931	1929	1927	1925
Total value	$108,591,274	$137,654,863	$113,880,497	$109,522,017
Inorganic	103,942,359	131,030,656	110,752,027	106,526,071
Organic	4,648,915	6,624,207	3,128,470	2,995,946
Benzoate: [1]				
Number of establishments	6	5	6	7
Pounds	688,248	868,141	937,070	804,240
Value	$249,039	$349,318	$393,053	$372,286
Bichromate and chromate:				
Number of establishments	7	8	5	5
Tons	24,745	39,301	31,462	27,820
Value	$3,162,482	$5,137,346	$3,780,435	$3,526,568
Borate (borax):				
Number of establishments	7	8	7	7
Tons	80,004	92,250	64,864	49,967
Value	$2,432,172	$3,279,640	$5,079,278	$4,083,209
Carbonates:				
Bicarbonate, refined:				
Number of establishments	5	5	6	6
Tons	127,981	140,234	121,449	123,472
Value	$3,730,716	$4,062,074	$3,647,446	$3,651,848
Sal soda:				
Number of establishments	18	19	21	29
Tons	49,836	57,850	55,220	63,619
Value	$1,319,413	$1,522,895	$1,370,811	$1,332,071
Soda ash:				
Number of establishments	15	14	12	12
Total production, tons	2,275,416	2,682,216	2,037,808	1,907,791
Made and consumed in same establishments, tons	766,737	868,360	571,429	539,131
For sale—Tons	1,508,679	1,813,856	1,466,379	1,368,660
Value	$22,492,943	$34,648,657	$29,939,291	$32,243,941
Production, by process:				
Ammonia-soda:				
Number of establishments	7	6	6	6
Total production, tons	2,189,351	2,586,304	1,974,157	1,850,013
Made and consumed in same establishments, tons	766,737	868,360	571,429	539,131
For sale—Tons	1,422,614	1,717,944	1,402,728	1,310,882
Value	$21,079,187	$32,540,942	$28,645,404	$30,914,558
Natural and electrolytic soda:				
Number of establishments	8	8	6	6
Tons	86,065	95,912	63,651	57,778
Value	$1,413,756	$2,107,715	$1,293,887	$1,329,383
Caustic (hydroxide):				
Primary production:				
Total, tons [1]	658,889	761,792	573,417	497,261
Made and consumed in same establishments, tons	24,676	37,118	26,112	10,116
For sale—Tons	634,213	724,674	547,305	487,145
Value	$26,565,202	$36,089,264	$29,193,003	$27,392,352
By process:				
Lime-soda:				
Number of establishments	[3] 8	6	6	6
Tons	[3] 455,832	524,985	387,235	355,783
Electrolytic:				
Number of establishments	22	20	17	16
Tons	203,057	236,807	186,182	141,478
Repacked caustic (purchased in bulk):				
Number of establishments	7	6	6	12
Tons	22,515	17,474	21,104	26,687
Value	$3,857,411	$3,611,573	$4,128,433	$4,414,836
Citrate: [1]				
Number of establishments	4	4	5	6
Pounds	1,370,561	1,432,482	745,249	553,181
Value	$409,124	$544,570	$294,688	$249,537
Hypochlorite:				
Number of establishments	28	20	11	7
Tons	32,323	26,772	14,697	15,392
Value	$2,573,628	$2,015,817	$1,140,746	$1,877,257
Iodide:				
Number of establishments	5	6	7	7
Pounds	47,658	49,796	47,982	49,531
Value	$194,526	$214,960	$208,512	$194,803

Footnotes at end of table.

TABLE 9.—GROUP III, SODIUM COMPOUNDS—PRODUCTION, BY KIND, QUANTITY, AND VALUE: 1925 TO 1931—Continued

[See note at head of table]

[Ton, 2,000 pounds]

KIND	1931	1929	1927	1925
Phosphates:				
Number of establishments	16	14	11	13
Tribasic:				
Tons	82,954	82,045	63,531	48,783
Value	$4,675,085	$5,008,815	$4,524,595	$3,288,101
Dibasic:				
Tons	61,238	64,134	32,950	30,561
Value	$2,887,390	$3,955,723	$2,460,656	$2,467,387
Monobasic and pyro:				
Tons	2,111			
Value	$583,144			
Salicylate:[1]				
Number of establishments	4	(4)	(4)	(4)
Pounds	393,199	(5)	(5)	(5)
Value	$145,906	(6)	(6)	(6)
Silicate, basis 40°:				
Number of establishments	28	23	24	23
Tons	664,452	590,277	504,518	394,884
Value	$7,501,837	$7,179,397	$6,820,099	$5,717,426
Silicofluoride:				
Number of establishments	8	7	8	8
Tons	1,357	2,278	1,646	1,384
Value	$115,169	$228,093	$191,687	$128,025
Sulphates:				
Anhydrous:				
Number of establishments	6	(4)	5	5
Tons	7,609	(5)	2,088	2,100
Value	$169,717	(7)	$119,111	$128,115
Glauber's salt:				
Number of establishments	20	20	20	22
Tons	48,899	61,953	53,420	57,622
Value	$847,424	$1,112,267	$1,081,980	$1,265,260
Hyposulphite (thiosulphate):				
Number of establishments	7	7	8	12
Tons	23,512	25,020	23,574	23,982
Value	$969,206	$906,369	$992,865	$1,051,068
Niter cake (bisulphate):				
Number of establishments	28	46	53	42
Total production, tons	35,680	111,522	153,615	124,296
Made and consumed in same establishments, tons	5,019	28,839	33,109	22,700
For sale—Tons	30,661	82,683	120,506	101,596
Value	$563,872	$1,023,136	$625,049	$400,598
Salt cake:				
Number of establishments	23	28	34	38
Total production, tons	119,399	206,612	208,565	189,293
Made and consumed in same establishments, tons	20,672	36,436	33,573	48,450
For sale—Tons	98,727	170,176	174,992	140,843
Value	$1,528,032	$2,014,838	$2,786,818	$2,339,002
Sulphide:				
Number of establishments	14	18	16	15
Tons	23,268	33,032	38,446	23,765
Value	$1,032,811	$1,406,606	$1,691,609	$1,203,332
Sulphite (normal):				
Number of establishments	8	6	6	7
Tons	6,437	5,970	5,030	4,492
Value	$568,892	$462,072	$399,529	$382,728
Tungstate:				
Number of establishments	7	(4)	(4)	3
Pounds	354,205	(5)	(5)	271,327
Value	$215,147	(6)	(6)	$158,543
Other:				
Inorganic	[8] $15,956,140	$17,151,114	$10,564,074	$9,279,601
Organic	[9] $3,844,846	$5,730,319	$2,440,729	$2,374,123

[1] Organic.
[2] Not including caustic soda made and consumed in the wood-pulp and textile industries.
[3] Includes data for 2 establishments that produce caustic from natural soda ash.
[4] Not tabulated separately.
[5] No data.
[6] Included in value of "Other organic" compounds.
[7] Included in value of "Other inorganic" compounds.
[8] Includes, in order of value, data for nitrate, hydrosulphite, aluminate, nitrite, bisulphite, etc.
[9] Includes, in order of value, data for cyanide, ferrocyanide, gold sodium cyanide, xanthate, etc.

TABLE 10.—GROUP IV, POTASSIUM COMPOUNDS—PRODUCTION, BY KIND, QUANTITY, AND VALUE: 1931, 1929, 1927, and 1925

[See "Products Made and Consumed and For Sale," p. 564]

[Ton, 2,000 pounds]

KIND	1931	1929	1927	1925
Total value	$8,112,469	$9,998,054	$9,306,037	$6,671,146
Acetate:				
Number of establishments	3	(1)	4	4
Pounds	80,119	(2)	74,119	81,043
Value	$22,816	(2)	$20,879	$19,220
Bitartrate (cream of tartar):				
Number of establishments	5	7	6	5
Pounds	6,881,444	7,852,559	7,594,777	7,072,651
Value	$1,572,337	$1,930,577	$1,746,793	$1,472,082
Citrate:				
Number of establishments	4	5	5	7
Pounds	136,935	151,074	117,297	147,399
Value	$72,451	$80,701	$66,609	$83,540
Iodide:				
Number of establishments	6	7	7	7
Pounds	380,047	443,557	528,017	494,935
Value	$1,290,565	$1,487,166	$1,896,944	$1,821,259
Hydroxide:				
Number of establishments	3	3		
Tons	4,818	7,191		
Value	$580,765	$637,977	$4,765,151	$2,345,849
Other:				
Inorganic	[4] $3,782,218	$4,543,802		
Organic	[5] $791,317	$1,317,831	$809,661	$329,196
Potash from original sources (reported by Bureau of Mines):				
Number of plants	6	5	9	9
Crude potassium salt, tons	133,920	107,820	76,819	51,565
Content of K_2O, tons	63,880	61,590	43,510	25,448

[1] Not tabulated separately.
[2] No data.
[3] Included in value of "Other inorganic" compounds.
[4] Includes, in order of value, data for chloride, bichromate, carbonate, bromide, permanganate, etc.
[5] Includes, in order of value, data for xanthate, Rochelle salt, tartar emetic, glycerophosphate, etc.

TABLE 11.—GROUP V, ALUMINUM COMPOUNDS AND ALUMS—PRODUCTION, BY KIND, QUANTITY, AND VALUE: 1931, 1929, 1927, and 1925

[See "Products Made and Consumed and For Sale," p. 564]

[Ton, 2,000 pounds]

KIND	1931	1929	1927	1925
Total value	$10,760,635	$15,948,773	$13,563,095	$11,581,290
Aluminum sulphate:				
Number of establishments	26	27	22	23
Tons	309,133	344,962	314,018	284,298
Value	$6,672,406	$8,038,730	$8,012,626	$7,396,922
Sodium aluminum sulphate:				
Number of establishments	3	3	5	5
Tons	15,944	14,947	19,454	16,718
Value	$901,529	$848,299	$1,044,196	$933,478
Ammonia alum:				
Number of establishments	6	6	6	7
Tons	4,472	5,720	5,411	5,039
Value	$233,556	$286,772	$316,220	$330,339
Potash and chrome alums:				
Number of establishments	5	7	6	5
Tons	2,596	3,447	2,291	841
Value	$162,243	$214,646	$151,635	$75,105
Aluminous abrasives:				
Number of establishments	4	4	4	4
Tons	7,401	33,246	19,782	16,410
Value	$1,151,586	$3,446,116	$1,970,000	$1,789,251
Aluminum chloride:				
Number of establishments	9	7	5	6
Tons [1]	[2] 1,099	[2] 1,521	2,872	3,554
Value [1]	$161,786	$225,184	$161,613	$203,205
Aluminum stearate:				
Number of establishments	6	6	7	3
Tons	1,065	1,066	801	385
Value	$341,083	$440,180	$322,516	$165,473
Other aluminum compounds, value	[3] $1,136,446	$2,448,846	$1,584,289	$687,517

[1] Production for sale. Total production of aluminum chloride, as reported by Bureau of Mines, was as follows: For 1931, 7,121 tons, valued at $620,860; for 1929, 16,551 tons, $1,600,826; for 1927, 17,130 tons, $4,054,080; for 1925, 12,830 tons, $4,012,920.
[2] Reported as solutions of varying strengths; reduced to 100 percent equivalent.
[3] Includes, in order of value, data for sodium aluminate, hydroxide, oleate, palmitate, resinate, etc.

TABLE 12.—GROUP VI, COAL-TAR PRODUCTS—PRODUCTION, BY CLASS AND VALUE: 1925 TO 1931

[The figures in this table refer to production for sale and therefore do not include data for amounts made and consumed in the same establishments]

CLASS	1931	1929	1927	1925
Total value	$103,088,441	$130,651,757	$106,056,504	$112,201,348
Crudes [1]	20,777,932	26,370,143	24,861,831	25,403,177
Intermediates	18,907,149	25,593,686	22,844,748	25,324,456
Finished products, total	63,403,360	78,687,928	58,349,925	61,473,715
Dyes	41,531,044	(2)	(2)	(2)
Color lakes	2,268,441			
Photographic chemicals	583,492			
Medicinals	7,726,375			
Flavors	1,957,348			
Perfume materials	865,312			
Phenolic resins (see also table 13)	7,372,278			
Other	1,099,070			

[1] Not including by-product crudes made in coke plants and gas works.
[2] Data incomplete.

TABLE 13.—GROUP VII, PLASTICS [1]—PRODUCTION, BY KIND, QUANTITY, AND VALUE: 1925 TO 1931

[See "Products Made and Consumed and For Sale," p. 564]

KIND	1931	1929	1927	1925
Total value	$27,847,230	[2] $39,734,426	$28,202,865	[2] $34,575,068
Pyroxylin:				
Plastics:				
Number of establishments	12	10	8	8
Total production, pounds	15,009,769	[2] 21,847,427	19,503,710	17,859,469
Made and consumed in same establishments, pounds	3,001,330	4,856,625	3,205,687	4,156,313
For sale, in form for further manufacture:				
Pounds	12,008,439	[2] 16,990,802	16,298,023	13,703,156
Value	$11,113,618	[2] $17,266,323	$14,409,668	$13,720,802
Finished articles of pyroxylin made in the producing establishments, value [3]	$6,545,486	$10,522,214	$6,801,355	$10,984,254
Rubber substitutes:				
Number of establishments	6	8		
Pounds	3,397,886	9,923,231		
Value	$366,908	$1,003,371	$6,991,842	$9,870,012
Phenolic resins:				
Number of establishments	14			
Pounds	33,817,869	$10,942,518		
Value	$7,372,278			
Other plastics, value	[4] $2,448,940			

[1] Not including photographic films.
[2] Revised.
[3] Toothbrush blanks, toys, novelties, fancy articles, handles for cutlery and umbrellas, etc.
[4] Includes, in order of value, data for cellulose-acetate plastics, casein plastics, and urea-formaldehyde plastics.

TABLE 14.—GROUP VIII, MISCELLANEOUS CHEMICALS—PRODUCTION, BY KIND, QUANTITY, AND VALUE: 1925 TO 1931

[See "Products Made and Consumed and For Sale," p. 564]

[Ton, 2,000 pounds, except as otherwise stated]

	1931	1929	1927	1925
Total value	$217,512,442	$310,245,384	$235,941,261	$192,851,350
Inorganic	138,008,593	205,170,110	159,353,057	137,273,296
Organic	79,503,849	105,075,274	76,588,204	55,578,054
Acetin and triacetin:[1]				
Number of establishments	4	(2)	(2)	(2)
Pounds	128,188	(3)	(3)	(3)
Value	$46,529	(4)	(4)	(4)
Acetone:[1]				
Number of establishments	4	(2)	(2)	(2)
Pounds	25,853,902	(3)	(3)	(3)
Value	$1,799,467	(4)	(4)	(4)
Alcohols:[1]				
Amyl alcohol and fusel oil:				
Number of establishments	9		20	20
Gallons	104,014		175,069	293,921
Value	$100,342		$277,069	$639,547
Methanol, synthetic:				
Number of establishments	3			
Gallons	7,007,332	$11,840,877		
Value	$1,462,272			
Other alcohols, not including ethyl,[5] glycerol (see "Glycerine"), nor methanol produced by the distillation of wood,[5] value	$4,790,874		$9,667,376	$6,479,559
Aluminum metal, primary production:				
Pounds	[6] 177,544,000	[6] 225,000,000	[6] 160,000,000	[6] 140,000,000
Value	[6] $37,284,000	[6] $51,864,000	[6] $39,266,000	[6] $36,430,000
Amyl acetate:[1]				
Number of establishments	9	11	12	12
Gallons	476,658	181,203	218,876	137,483
Value	$401,348	$312,898	$435,656	$414,860
Antimony salts and compounds, value	$503,312	$551,182	$376,609	$471,740
Arsenic:				
Oxides:				
Number of establishments	8	7	11	10
Total production, pounds	43,704,148	42,926,400	35,315,999	30,653,261
Made and consumed in same establishments, pounds	9,351,648	14,283,784	4,682,271	7,776,096
For sale—Pounds	34,352,500	28,642,616	30,633,728	22,877,165
Value	$1,054,106	$851,858	$1,028,244	$781,328
Arsenate of calcium:[7]				
Number of establishments	17	16	18	8
Pounds	26,128,620	33,064,426	27,282,326	15,199,387
Value	$1,279,789	$1,859,735	$1,665,000	$1,074,960
Arsenate of lead:[7]				
Number of establishments	18	20	22	13
Pounds	37,974,038	30,682,379	21,527,838	11,938,032
Value	$3,674,422	$3,523,427	$3,190,257	$1,777,552
Other (magnesium arsenate, sodium arsenate, etc.), value	$110,116	$107,819	$127,142	$113,945
Barium:				
Carbonate:				
Number of establishments	6	7	5	4
Pounds	11,067,103	22,351,172	15,558,434	10,815,491
Value	$265,594	$648,617	$463,591	$300,468
Sulphate, precipitated ("blanc fixé"):				
Number of establishments	11	12	13	13
Pounds	18,671,982	26,049,893	18,290,290	17,491,557
Value	$654,487	$958,446	$565,822	$621,807
Other (chloride, dioxide, sulphide, etc.), value	$606,331	$626,900	$577,717	$575,785
Bismuth:				
Subcarbonate:				
Number of establishments	5	5	7	6
Pounds	161,878	140,391	93,546	97,712
Value	$259,562	$304,972	$268,682	$304,393
Subgallate:				
Number of establishments	5	5	7	6
Pounds	26,394	22,946	22,210	28,808
Value	$46,318	$54,899	$59,287	$69,964

Footnotes at end of table.

TABLE 14.—GROUP VIII, MISCELLANEOUS CHEMICALS—PRODUCTION, BY KIND, QUANTITY, AND VALUE: 1925 TO 1931—Continued

[See note at head of table]

[Ton, 2,000 pounds, except as otherwise stated]

	1931	1929	1927	1925
Bismuth—Continued.				
Subnitrate:				
Number of establishments	5	5	7	5
Pounds	373,067	280,454	248,134	220,052
Value	$532,896	$465,982	$565,732	$548,352
Other (subsalicylate, oyxchloride, etc.), value	$43,498	$71,786	$44,619	$292,905
Butyl acetate:[1]				
Number of establishments	11	11	9	11
Gallons	4,663,966	4,523,863	2,342,011	870,463
Value	$3,491,729	$5,680,155	$3,613,182	$1,577,503
Butyl propionate:[1]				
Number of establishments	4	(2)	(2)	(2)
Pounds	1,117,809	(3)	(3)	(3)
Value	$204,097	(4)	(4)	(4)
Cadmium salts and compounds, value	$71,253	$128,809	$58,679	$16,950
Calcium:				
Acetate:				
Number of establishments	34	49	53	63
Tons	25,796	58,163	69,017	72,652
Value	$869,771	$4,695,449	$4,021,292	$3,437,384
Arsenate (see "Arsenic").				
Chloride, basis 73 to 79 percent:				
Number of establishments	14	18	15	16
Tons	232,057	277,010	191,123	170,773
Value	$4,725,085	$5,947,281	$4,442,876	$3,717,456
Hypochlorite:				
Number of establishments	18	15	19	17
Tons	63,793	93,116	110,524	115,438
Value	$2,074,230	$3,350,537	$4,148,205	$3,964,604
Phosphate:				
Monobasic:				
Number of establishments	6	8	7	9
Tons	36,454	38,139	33,636	34,725
Value	$5,057,977	$5,557,454	$4,857,979	$4,298,152
Dibasic and tribasic:				
Number of establishments	6		4	4
Tons	4,541		367	1,039
Value	$532,748		$46,107	$154,563
Satin white (calcium sulphate and alumina):				
Number of establishments	5	4	5	5
Tons	16,759	21,007	18,386	14,411
Value	$353,555	$532,385	$542,414	$444,700
Carbide:				
Number of establishments	7		7	7
Tons	128,263		201,955	127,600
Value	$8,024,029	$14,195,512	$9,397,556	$6,599,378
Stearate:				
Number of establishments	5			
Pounds	166,618		$2,115,852	$447,956
Value	$27,540			
Other (citrate, carbonate, etc.), value	$1,806,725			
Carbon bisulphide:[1]				
Number of establishments	9	10	8	6
Pounds	83,045,219	71,009,798	44,972,489	39,874,700
Value	$3,199,896	$2,859,584	$2,159,524	$1,938,894
Carbon tetrachloride:[1]				
Number of establishments	5	3	4	4
Pounds	34,095,802	32,712,749	17,026,466	16,059,956
Value	$1,719,796	$1,728,034	$1,036,165	$978,068
Cerium salts and compounds, value	$403,730	$239,690	(5)	(5)
Choroform:[1]				
Number of establishments	5	5	5	4
Pounds	2,134,451	3,081,920	2,972,889	1,582,402
Value	$322,656	$595,759	$604,317	$379,221
Chromium salts and compounds, other than of sodium and potassium and chrome tannage, value	$216,680	$150,836	$166,581	$175,027
Cobalt:				
Linoleate:				
Number of establishments	3			
Pounds	115,752			
Value	$38,507	$769,586	$517,798	$413,472
Resinate:				
Number of establishments	3			
Pounds	124,006			
Value	$26,813			
Other cobalt salts and compounds, value	$403,936			

Footnotes at end of table.

TABLE 14.—GROUP VIII, MISCELLANEOUS CHEMICALS—PRODUCTION, BY KIND, QUANTITY, AND VALUE: 1925 TO 1931—Continued

[See note at head of table]

[Ton, 2,000 pounds, except as otherwise stated]

	1931	1929	1927	1925
Copper:				
Sulphate (blue vitriol):				
Number of establishments	13	13	11	12
Pounds	60,981,335	78,669,112	56,666,812	32,296,583
Value	$2,183,522	$4,344,538	$2,774,400	$1,083,788
Carbonate:				
Number of establishments	5	7	6	6
Pounds	405,306	675,436	1,072,808	263,994
Value	$54,282	$123,202	$182,076	$44,888
Oxide:				
Number of establishments	7	5		
Pounds	499,019	825,280		
Value	$64,732	$170,778	$394,711	$366,411
Other (cyanide, chloride, nitrate, oleate, etc.), value	$193,591	$354,029		
Ether: [1]				
Number of establishments	8	6	7	9
Pounds	6,981,845	6,463,552	6,134,771	5,389,589
Value	$1,471,735	$1,897,194	$1,720,374	$1,401,557
Ethyl acetate: [1]				
Number of establishments	10	14	12	12
Gallons	5,457,495	10,932,225	4,606,902	2,907,212
Value	$2,449,892	$9,006,914	$3,701,084	$2,406,517
Ethyl chloride: [1]				
Number of establishments	6	(2)	6	8
Pounds	828,500	(3)	3,519,006	1,130,936
Value	$170,468	(4)	$541,263	$281,219
Geraniol: [1]				
Number of establishments	5	6	(2)	(2)
Pounds	74,908	94,743	(3)	(3)
Value	$129,796	$244,650	(4)	(4)
Glycerin: [1]				
Crude: [9]				
Number of establishments	47	48	68	75
Pounds	27,529,860	28,789,974	26,999,863	30,734,801
Value	$1,673,733	$2,358,031	$3,942,991	$4,258,351
Refined:				
Number of establishments	23	26	24	24
Pounds	102,509,832	113,140,075	89,584,918	94,302,350
Value	$10,316,347	$12,715,641	$19,184,806	$16,991,213
Gold chloride:				
Number of establishments	6	6	(2)	(2)
Ounces	4,832	6,016	(3)	(3)
Value	$53,864	$73,008	(5)	(5)
Hydrogen peroxide:				
Number of establishments	12	10	8	10
Pounds	[10] 12,853,651	[10] 8,508,649	21,442,651	27,160,730
Value	$3,292,509	$2,371,781	$1,505,739	$1,880,943
Iodine, resublimed:				
Number of establishments	7	7	7	8
Pounds	66,735	87,102	90,765	79,872
Value	$304,982	$412,444	$429,475	$372,938
Iron:				
Chloride (crystals and solutions):				
Number of establishments	9	7	7	8
Pounds	7,764,867	5,941,289	2,985,663	2,983,909
Value	$231,962	$292,515	$176,769	$177,878
Sulphate (copperas):				
Number of establishments	27	28	32	34
Tons	30,669	56,047	61,527	52,994
Value	$280,434	$553,604	$672,918	$602,585
Ferro-alloys (electric-furnace): [11]				
Number of establishments	17	19	16	10
Tons (2,240 pounds)	130,254	220,410	176,272	134,055
Value	$13,200,409	$28,655,447	$17,049,050	$15,255,491
Iron-ammonium citrate:				
Number of establishments	3		3	3
Pounds	87,852	$1,438,555	110,182	136,269
Value	$52,035		$75,772	$80,306
Other salts and compounds, value	$705,010		$1,118,209	$1,248,466
Lead:				
Acetate:				
Number of establishments	4	6	8	7
Pounds	454,963	2,084,364	3,016,840	2,501,021
Value	$56,015	$255,753	$395,122	$350,686
Other salts and compounds, not including arsenate (see "Arsenic") nor pigments, value	$117,308	$186,736	$254,809	$192,095

Footnotes at end of table.

TABLE 14.—GROUP VIII, MISCELLANEOUS CHEMICALS—PRODUCTION, BY KIND, QUANTITY, AND VALUE: 1925 TO 1931—Continued

[See note at head of table]

[Ton, 2,000 pounds, except as otherwise stated]

	1931	1929	1927	1925
Magnesium:				
Sulphate (Epsom salt):				
Number of establishments	6	8	8	11
Tons	34,340	36,983	27,065	23,428
Value	$1,524,431	$1,404,978	$1,141,633	$1,219,177
Other salts and compounds, value	$721,939	$1,125,756	$1,548,508	$2,631,331
Manganese:				
Dioxide:				
Number of establishments	4	4		
Pounds	1,368,292	2,479,648	$390,962	$326,372
Value	$36,715	$64,547		
Other salts and compounds, value	$228,684	$301,005		
Mercury:				
Chloride, mercuric (corrosive sublimate):				
Number of establishments	4	5	6	6
Pounds	285,734	375,034	433,725	341,834
Value	$326,575	$606,512	$663,584	$369,341
Chloride, mercurous (calomel):				
Number of establishments	4	5	5	3
Pounds	122,752	150,725	104,901	102,341
Value	$215,289	$315,099	$197,890	$136,003
Ammoniated:				
Number of establishments	5			3
Pounds	44,503	$635,172	$599,291	50,467
Value	$81,853			$80,750
Other salts and compounds, value	$328,921			$383,041
Methyl acetone: [1]				
Number of establishments	6	7	6	5
Pounds	1,925,942	4,675,140	2,603,520	3,644,302
Value	$125,812	$574,736	$352,947	$457,589
Nickel:				
Sulphate:				
Number of establishments	6			
Pounds	3,949,511	$1,218,028	$836,465	$873,273
Value	$330,186			
Other salts and compounds, value	$257,414			
Nitrocellulose, for sale as such: [1]				
Number of establishments	6	(2)	(2)	(2)
Pounds	23,408,364	(3)	(3)	(3)
Value	$5,154,930	(4)	(4)	(4)
Silver:				
Nitrate:				
Number of establishments	6	5	6	8
Ounces	5,596,998	5,646,749	4,896,607	4,338,549
Value	$1,198,936	$2,015,936	$1,956,961	$2,022,956
Other salts and compounds, value	$92,240	$88,385	$186,786	$150,372
Strontium salts and compounds, value	$124,123	$198,171	$296,026	$202,058
Sulphur:				
Refined:				
Number of establishments	16	14	7	8
Tons	66,914	78,119	43,508	47,220
Value	$2,069,345	$3,066,002	$1,799,153	$2,121,092
Chloride:				
Number of establishments	4	4	5	(3)
Pounds	22,795,699	17,827,108	3,354,965	4,972,591
Value	$325,399	$312,228	$72,628	$132,781
Sulphur-lime: [7]				
Dry:				
Number of establishments	8	9	11	(3)
Tons	5,517	7,203	3,018	2,518
Value	$564,482	$602,762	$433,992	$377,184
Solution:				
Number of establishments	51	50	39	(3)
Gallons	11,015,019	11,973,877	7,652,779	2,607,064
Value	$1,265,863	$1,446,026	$1,055,665	$363,191
Tin:				
Chloride, stannic:				
Number of establishments	4			4
Pounds	34,871,533			11,947,001
Value	$5,743,308			$3,591,285
Chloride, stannous:				
Number of establishments	5			4
Pounds	193,347	$13,111,529	$10,582,562	652,258
Value	$44,769			$240,272
Oxide:				
Number of establishments	5			4
Pounds	3,330,156			4,788,334
Value	$911,682			$2,904,882

Footnotes at end of table.

TABLE 14.—GROUP VIII, MISCELLANEOUS CHEMICALS—PRODUCTION, BY KIND, QUANTITY, AND VALUE: 1925 TO 1931—Continued

[See note at head of table]

[Ton, 2,000 pounds, except as otherwise stated]

	1931	1929	1927	1925
Vanillin: [1]				
Number of establishments	4	5	6	4
Pounds	171,669	317,355	299,624	215,012
Value	$775,724	$1,858,228	$1,922,510	$1,133,926
Vitreous enamels (frit):				
Number of establishments	9	11	(3)	(3)
Pounds	[12] 42,823,773	(13)		
Value	[12] $3,449,281	[12] $4,512,183		
Zinc:				
Stearate:				
Number of establishments	7	6	7	6
Pounds	1,128,176	1,454,797	782,833	786,771
Value	$220,286	$320,203	$164,927	$169,051
Sulphate:				
Number of establishments	9	7	8	10
Pounds	37,392,441	24,903,841	20,627,505	13,481,646
Value	$699,947	$698,092	$517,865	$376,801
Other salts and compounds, not including pigment oxide, value	$1,690,965	$2,092,560	$2,298,132	$2,413,712
Other inorganic chemicals (of lithium, molybdenum, phosphorus, silicon, titanium, uranium, vanadium, etc.), miscellaneous metals (sodium, magnesium, phosphorus, tungsten, zirconium, etc.), and calcined bauxite, value	$23,818,295	$34,345,384	$31,056,936	$26,889,075
Other organic chemicals (ethylene bromide, ethylene glycol, formaldehyde, hexamethylene-tetramine, methyl chloride, tetraethyl lead, etc.), value [4]	$39,696,406	$53,402,573	$27,428,940	$16,180,030

[1] Organic.
[2] Not tabulated separately.
[3] No data.
[4] Included in value of "Other organic chemicals."
[5] For value of ethyl alcohol produced, see report for Alcohol, Ethyl, and Distilled Liquors. For statistics on methanol produced by the distillation of wood, see report on Wood Distillation and Charcoal Manufacture.
[6] From "Bauxite and Aluminum in 1931," prepared and published by the Bureau of Mines, Department of the Interior.
[7] The figures for 1925 are not comparable with those for 1927 and subsequent years because data for the production reported by establishments engaged primarily in the manufacture of patent or proprietary medicines and compounds are included for 1927 and later years but not for 1925.
[8] Included in value of "Other inorganic chemicals."
[9] Production for sale by chemical- and soap-manufacturing establishments only. The total production of crude glycerin, 80-percent basis, was as follows: 1931, 140,001,604 pounds; 1929, 140,079,568 pounds; 1927, 128,208,642 pounds; 1925, 103,406,943 pounds. (Quarterly Census of Animal and Vegetable Fats and Oils.)
[10] Basis of 100 volumes.
[11] Production, for sale, of electric-furnace ferro-alloys only. For total production of ferro-alloys in all industries, see table 5, report on Blast-Furnace Products.
[12] Production for sale only. In addition, vitreous enamels were made and consumed in further manufacturing operations in the "Stamped Ware, Enameled Ware, and Metal Stampings; Enameling, Japanning, and Lacquering" and "Plumbers' Supplies, not including Pipe or Vitreous-China Sanitary Ware" industries, as follows: 1931, 52,528,344 pounds, valued at $2,931,598; 1929, 90,932,626 pounds, $5,683,701.
[13] Data incomplete.

Index of Products and Distribution of Number of Establishments, by States

[This list covers those products, and only those, for which separate statistics are given in the foregoing tables]

Table	Page	PRODUCT, NUMBER OF ESTABLISHMENTS, AND DISTRIBUTION BY STATES
14	576	Acetin and triacetin, 4: Mass., N.J., N.Y., Ohio, 1 each.
14	576	Acetone, 4: Ill., Md., Ohio, W.Va., 1 each.
		Acids:
4	567	Acetic, 18: Pa., 4; Mich., 3; Tenn., 3; Mass., 2; N.J., 2; Ark., Calif., Ill., N.Y., 1 each.
4	567	Boric, 5: Calif., 3; N.Y., 1; Pa., 1.
4	567	Carbonic (carbon dioxide), 53: Calif., 6; N.Y., 5; Ill., 4; Pa., 4; Tex., 4; Mich., 3; N.J., 3; Tenn., 3; Fla., 2; Ga., 2; Mass., 2; Mo., 2; Ohio., 2; Wash., 2; Ala., Colo., Ind., La., Md., Minn., N.C., Utah, Va., 1 each.
4	567	Chromic, 6: N.J., 3; Mo., Ohio, Pa., 1 each.
4	567	Citric, 4: Calif., N.J., N.Y., Pa., 1 each.
4	567	Hydrochloric (muriatic), 31: N.J., 4; N.Y., 4; Calif., 3; Ill., 3; Mass., 3; Pa., 3; Mich., 2; Ohio, 2; Ala., Conn., Del., Ind., La., Tex., Wash., 1 each.
4	567	Hydrofluosilicic, 3: Pa., 2; Md., 1.
4	567	Mixed (sulphuric-nitric), 27: N.J., 5; Ill., 3; Pa., 3; Colo., 2; Mass., 2; Mo., 2; Ala., Ariz., Calif., Conn., Del., N.Y., Ohio., Tex., Wash., Wis., 1 each.
4, 7	567, 570	Nitric, 43: N.J., 7; Ill., 5; Pa., 5; Calif., 3; Ala., 2; Colo., 2; Conn., 2; Mass., 2; Mo., 2; N.Y., 2; Tex., 2; Wis., 2; Ariz., Del., Ind., Mich., Ohio., Wash., W.Va., 1 each.
4	567	Oleic, 10: Ohio, 5; N.J., 2; Pa., 2; Ill., 1.
4	567	Phosphoric, 10: S.C., 3; N.J., 2; Ala., Mont., N.Y., R.I., Tenn., 1 each.
4	567	Stearic, 9: Ohio, 5; Pa., 2; Ill., 1; N.J., 1.
4, 5, 6	567, 570, 570	Sulphuric, 175: Ga., 16; Pa., 14; N.J., 12; Ohio, 12; S.C., 12; Ill., 11; N.C., 11, Calif., 8; Va., 8; Ala., 7; Md., 6; N.Y., 6; Tex., 6; La., 5; Tenn., 5; Fla., 4; Mass., 4; Ind., 3; Mich., 3; Miss., 3; Ariz., 2; Conn., 2; Okla., 2; Wis., 2; Colo., Del., Ky., Mo., Mont., Nebr., R.I., Utah, Wash., W.Va., Wyo., 1 each.
4	567	Sulphuric, reclaimed, 69: Tex., 13; Pa., 9; Calif., 8; Ill., 6; N.J., 6; Ohio, 4; Ind., 3; Okla., 3; La., 2; N.Y., 2; Ala., Ariz., Ark., Kans., Ky., Md., Mont., S.C., Utah, Wash., W.Va., Wis., Wyo., 1 each.
4	567	Tannic, 4: Mass., Mo., N.J., N.Y., 1 each.
4	567	Tartaric, 4: N.Y., 2; Calif., 1; Ohio, 1.
14	567	Alcohol, amyl, and fusel oil, 9: Calif., 2; Md., 2; N.J., 2; Ill., Okla., Wis., 1 each.
		Alums:
11	574	Ammonia, 6: Mass., 2. Pa., 2; Del., 1; Ill., 1.
11	574	Potash and chrome, 5: Del., Ill., Mo., N.J., Pa., 1 each.
		Aluminum:
11	574	Aluminous abrasives, 4: N.Y., 2; Ala., 1; Pa., 1.
11	574	Chloride, 9: Mass., 2; N.J., 2; Conn.., Mo., N.Y., Pa., W.Va., 1 each.
11	574	Sodium aluminum sulphate, 3: Ill., 3.
11	574	Stearate, 6: N.Y., 2; Mo., N.J., Ohio, Pa., 1 each.
11	574	Sulphate, 26: Pa., 5; Ill., 3; N.J., 3; Ohio, 3; Calif., 2; La., 2; Mass., 2; Conn., Del., Ga., Mo., N.H., Tenn., 1 each.
		Ammonia:
7, 8	570, 571	Anhydrous (chemicals industry), 16: Calif., 2; N.Y., 2; Pa., 2; Wash., 2; Colo., Del., Mich., Mo., N.J., Ohio, Va., W.Va., 1 each.
7, 8	570, 571	Aqua and liquor (chemicals industry), 16: N.Y., 3; Calif., 2; N.J., 2; Pa., 2; Wash., 2; Md., Mass., Mo., Va., W.Va., 1 each.
7	570	Iodide, 4: N.J., 2; Mo., 1; N.Y., 1.
7	570	Molybdate, 3: Pa., 2; Colo., 1.
7	570	Nitrate, 10: N.J., 3; Pa., 3; Ala., Calif., Mo., N.Y., 1 each.
7, 8	570, 571	Sulphate (chemicals industry), 10: Calif., 2; Ky., Md., Mo., N.J., R.I., Tenn., Tex., Va., 1 each.
14	576	Amyl acetate, 9: N.J., 4; Ill., Md., Okla., Pa., Wis., 1 each.
		Arsenate of—
14	576	Calcium, 17: N.J., 3; N.Y., 3; Calif., 2; Md., 2; Ga., Ill., Ind., Mich., Mo., Ohio, Tenn., 1 each.
14	576	Lead, 18: Calif., 3; Md., 2; N.J., 2; N.Y., 2; Ohio, 2; Ga., Ill., Ind., Mich., Mo., Pa., Wash., 1 each.
14	576	Arsenic oxides, 8: Calif., 2; Md., Mont., N.J., Tenn., Utah, Wash., 1 each.
		Barium:
14	576	Carbonate, 6: Calif., 2; Ill., N.J., Pa., W.Va., 1 each.
14	576	Sulphate (blanc fixé), 11: N.J., 3; N.Y., 3; Mo., 2; Calif., R.I., W.Va., 1 each.
		Bismuth:
14	576	Subcarbonate, 5: N.Y., 3; Mo., 1; N.J., 1.
14	576	Subgallate, 5: N.Y., 3; Mo., 1; N.J., 1.
14	576	Subnitrate, 5: N.Y., 3; Mo., 1; N.J., 1.
14	576	Blanc fixé. See Barium sulphate.
14	576	Bleaching powder. See Calcium hypochlorite.
9	572	Borax. See Sodium borate.
14	576	Butyl acetate, 11: Ill., 3; N.J., 2; Calif., Mass., N.Y., Okla., Pa., W.Va., 1 each.
14	576	Butyl propionate, 4: N.J., 2; Ill., 1; N.Y., 1.
		Calcium:
14	576	Acetate, 34: Pa., 15; N.Y., 7; Mich., 6; W.Va., 2; Ky., N.J., Tenn., Wis., 1 each.
14	576	Arsenate. See Arsenate of calcium.
14	576	Carbide, 7: Iowa, 2; Ala., Mich., N.Y., Pa., Va., 1 each.
14	576	Chloride, 14: Calif., 3; Mich., 3; W.Va., 3; Ohio, 2; Mass., Mo., N.Y., 1 each.
14	576	Hypochlorite, 18: N.Y., 6; Mich., 3; Pa., 2; Calif., Me., Md., N.H., R.I., Va., Wis., 1 each.
14	576	Phosphate, monobasic, 6: Ill., 2; Mo., R.I., S.C., Tenn., 1 each.
14	576	Phosphate, dibasic and tribasic, 6: Ill., 3; La., Mo., N.J., 1 each.

INDEX OF PRODUCTS AND DISTRIBUTION OF NUMBER OF ESTABLISHMENTS, BY STATES—Continued

[See note at head of table]

Table	Page	PRODUCT, NUMBER OF ESTABLISHMENTS, AND DISTRIBUTION BY STATES
		Calcium—Continued.
14	576	Satin white (calcium sulphate and alumina), 5: Mich., 2; Mass., Pa., R.I., 1 each.
14	576	Stearate, 5: N.Y., 2; N.J., Ohio, Pa., 1 each.
		Carbon:
14	576	Bisulphide, 9: N.Y., 2; Pa., 2; Calif., Mich., Tenn., Va., W.Va., 1 each.
14	576	Tetrachloride, 5: Mich., 2; N.J., N.Y., W.Va., 1 each.
14	576	Chloroform, 5: Ind., Mich., N.H., N.J., N.Y., 1 each.
		Cobalt:
14	576	Linoleate, 3: Ohio, 2; N.J., 1.
14	576	Resinate, 3: Ohio, 2; Pa., 1.
		Copper:
14	576	Carbonate, 5: Calif., Ill., N.J., N.Y., Ohio, 1 each.
14	576	Oxide, 7: N.J., 2; N.Y., 2; Pa., 2; Ohio, 1.
14	576	Sulphate (blue vitriol), 13: Calif., 4; N.J., 3; Idaho, Ill., N.Y., Ohio, Tenn., Tex., 1 each.
7	570	Cyanide, ferric ferro (Prussian blue), 20: N.J., 5; N.Y., 5; Ill., 4; Pa., 2; Ky., Mich., Ohio, Wis., 1 each.
14	576	Ether, 8: N.J., 3; Ind., Md., Mo., Pa., W.Va., 1 each.
14	576	Ethyl acetate, 10: Calif., 2; Ill., 2; N.J., 2; Md., Mass., Mich., Pa., 1 each.
14	576	Ethyl chloride, 6: N.J., 3; Mich., N.Y., Ohio, 1 each.
14	576	Ferro-alloys, electric-furnace, 17: N.Y., 4; Ohio, 2; Pa., 2; Tenn., 2; Ala., Iowa, Md., Minn., N.J., Va., W.Va., 1 each.
14	576	Geraniol, 5: N.J., 4; N.Y., 1.
		Glycerin:
14	576	Crude, 47: N.Y., 7; Ohio, 7; Calif., 6; N.J., 5; Mass., 4; Pa., 4; Ill., 2; Ind., 2; Colo., Conn., Iowa, Ky., Md., Nebr., Oreg., R.I., Wash., Wis., 1 each.
14	576	Refined, 23: Ill., 4; Ohio, 4; N.Y., 3; Kans., 2; Mass., 2; N.J., 2; Calif., Ind., Ky., Md., Mo., Pa., 1 each.
14	576	Gold chloride, 6: N.J., 3; Mo., N.Y., Pa., 1 each.
14	576	Hydrogen peroxide, 12: N.Y., 5; Mo., 2; N.J., 2; Calif., Pa., R.I., 1 each.
14	576	Iodine, resublimed, 7: N.Y., 3; N.J., 2; Ind., 1; Mo., 1.
		Iron:
14	576	Alloys. See Ferro-alloys.
14	576	Chloride, 9: Mich., 2; N.J., 2; N.Y., 2; Calif., Mo., Ohio, 1 each.
14	576	Iron-ammonium citrate, 3: Mo., N.J., N.Y., 1 each.
14	576	Sulphate (copperas), 27: Ill., 5; Ohio, 5; Pa., 4; Ala., 2; Calif., 2; Ind., 2; N.J., 2; N.Y., 2; Conn., Mich., Mo., 1 each.
		Lead:
14	576	Acetate, 4: N.J., 3; N.Y., 1.
14	576	Arsenate. See Arsenate of lead.
14	576	Magnesium sulphate (Epsom salt), 6: Calif., Ga., Md., Mich., Mo., N.Y., 1 each.
14	576	Manganese dioxide, 4: Ill., N.J., Pa., Va., 1 each.
		Mercury:
14	576	Ammoniated, 5: N.Y., 3; Mo., 1; N.J., 1.
14	576	Chloride, mercuric, 4: N.J., 3; N.Y., 1.
14	576	Chloride, mercurous, 4: N.J., 2; Mo., 1; N.Y., 1.
14	576	Methanol, synthetic, 3: Ill., N.Y., W.Va., 1 each.
14	576	Methyl acetone, 6: Pa., 2; Mich., N.J., N.Y., Tenn., 1 each.
14	576	Nickel sulphate, 6: N.Y., 2; Md., N.J., Ohio, Wash., 1 each.
9	572	Niter cake (sodium bisulphate), 28: Pa., 5; N.J., 4; Ill., 3; Ohio, 3; Conn., 2; Tenn., 2; Calif., Colo., Del., Ga., La., Mass., Mich., Wash., W.Va., 1 each.
14	576	Nitrocellulose, 6: N.J., 3; Mass., 2; Calif., 1.
7	570	Nitrous oxide, 11: Calif., 3; Mo., 2; Ohio, 2; Md., Mich., N.J., N.Y., 1 each.
12, 13	575	Phenolic resins, 14: N.J., 5; N.Y., 4; Mass., 2; Pa., 2; Ill., 1.
		Potassium:
10	574	Acetate, 3: Mo., N.J., N.Y., 1 each.
10	574	Bitartrate (cream of tartar), 5: N.Y., 2; Calif., Mass., Ohio, 1 each.
10	574	Citrate, 4: N.Y., 2; Mo., 1; N.J., 1.
10	574	Hydroxide, 3: N.Y., 3.
10	574	Iodide, 6: N.Y., 3; N.J., 2; Mo., 1.
13	575	Pyroxylin plastics, 12: N.J., 6; Mass., 3; N.Y., 2; Conn., 1.
13	575	Rubber substitutes, 6: N.J., 3; Conn., Ill., Mass., 1 each.
14	576	Satin white. See Calcium.
14	576	Silver nitrate, 6: N.J., 2; N.Y., 2; Mo., 1; Pa., 1.
		Sodium:
9		Benzoate, 6: N.J., 2; Ill., Mich., N.Y., W.Va., 1 each.
9	572	Bicarbonate, refined, 5: Mich., 2; N.Y., Ohio, Va., 1 each.
9	572	Bichromate and chromate, 7: N.J., 4; Md., Mo., Ohio, 1 each.
9	572	Bisulphate. See Niter cake.
9	572	Borate (borax), 7: Calif., 6; Pa., 1.
9	572	Caustic (hydroxide)—Lime-soda, 8: Calif., 2; Mich., 2; Ohio, 2; N.Y., 1; Va., 1.
9	572	Caustic (hydroxide)—Electrolytic, 22: N.Y., 6; Mich., 3; Calif., 2; Wash., 2; W.Va., 2; Ill., Me., N.H., N.J., Ohio, R.I., Wis., 1 each.
9	572	Caustic, repacked (purchased in bulk), 7: Ohio, 2; Ill., Mo., N.J., N.Y., Pa., 1 each.
9	572	Citrate, 4: N.Y., 2; Mo., 1; N.J., 1.
9	572	Glauber's salt (sodium sulphate), 20: N.J., 5; Calif., 3; Mass., 2; Pa., 2; Conn., Del., Ill., Ind., Iowa, Md., N.Y., Ohio, 1 each.

Index of Products and Distribution of Number of Establishments, by States—Continued

[See note at head of table]

Table	Page	PRODUCT, NUMBER OF ESTABLISHMENTS, AND DISTRIBUTION BY STATES
		Sodium—Continued.
9	572	Hypochlorite, 28: Pa., 7; N.Y., 4; Calif., 3; Mass., 3; N.J., 3; Ill., 2; Mich., 2; Wash., 2; N.H., 1; Ohio, 1.
9	572	Hyposulphite (thiosulphate), 7: N.J., 3; Calif., Del., Ind., Pa., 1 each.
9	572	Iodide, 5: N.Y., 3; Mo., 1; N.J., 1.
9	572	Phosphates, 16: N.J., 7; Ill., 2; Ala., Calif., Del., Ind., Md., Mo., S.C., 1 each.
9	572	Sal soda, 18: Calif., 4; N.J., 3; Colo., 2; Mass., 2; Md., Mich., N.Y., Ohio, Pa., Wash., Wis., 1 each.
9	572	Salicylate, 4: N.J., 2; Mich., 1; Mo., 1.
9	572	Salt cake, 23: N.J., 5; Ill., 3; Pa., 3; Calif., 2; Ohio, 2; Conn., Del., Ind., La., Mass., Mich., N.Y., Tex., 1 each.
9	572	Silicate, 28: Calif., 4; N.J., 4; Ill., 3; Ind., 3; Ohio, 3; N.Y., 2; Wash., 2; Kans., Md., Mass., Mich., Mo., Pa., Wis., 1 each.
9	572	Silicofluoride, 8: Md., 2; Fla., Ga., Mass., Mont., N.J., Tenn., 1 each.
9	572	Soda ash, 15: Calif., 4; Mich., 3; N.Y., 2; Ohio, 2; Va., 2; Md., 1; Pa., 1.
9	572	Sulphate, anhydrous, 6: Mass., 2; N.J., 2; Md., 1; Mo., 1.
9	572	Sulphide, 14: N.J., 3; Calif., 2; Del., Ill., Mass., Mich., Mo., N.Y., Ohio, Pa., W.Va., 1 each.
9	572	Sulphite (normal), 8: Mo., 2; N.J., 2; Calif., Ill., Md., Wis., 1 each.
9	572	Tungstate, 7: Pa., 4; Colo., Mo., Ohio, 1 each.
		Sulphur:
14	576	Chloride, 4: N.Y., 2; Mich., 1; W.Va., 1.
14	576	Refined, 16: Calif., 6; N.J., 2; N.Y., 2; Tex., 2; Ind., Md., Mass., Ohio, 1 each.
		Sulphur-lime:
14	576	Dry, 8: N.J., 2; Calif., Mich., Mo., N.Y., Ohio, Vt., 1 each.
14	576	Solution, 51: Calif., 7; Wash., 5; N.Y., 4; Ga., 3; Mich., 3; Ark., 2; Colo., 2; Md., 2; Mo., 2; Nebr., 2; N.J., 2; Ohio, 2; Oreg., 2; Pa., 2; Fla., Idaho, Ill., Ind., Iowa, La., Mass., Miss., Tex., W.Va., Wis., 1 each.
		Tin:
14	576	Chloride, stannic, 4: N.J., 3; Pa., 1.
14	576	Chloride, stannous, 5: N.J., 4; N.Y., 1.
14	576	Oxide, 5: Ohio, 2; Ind., N.J., Pa., 1 each.
14	576	Vanillin, 4: N.J., 4.
14	576	Vitreous enamels (frit), 9: Ill., 2; Ohio, 2; Pa., 2; Ind., Md., N.J., 1 each.
		Zinc:
14	576	Stearate, 7: N.J., 2; N.Y., 2; Mo., Ohio, Pa., 1 each.
14	576	Sulphate, 9: N.J., 2; Ohio, 2; Kans., Mo., N.Y., Pa., Va., 1 each.

CLEANING AND POLISHING PREPARATIONS

[A preliminary report for this industry was issued under date of Aug. 8, 1932]

Description of the industry.—This industry embraces establishments engaged primarily in the manufacture of powders and other preparations for scouring cooking utensils, kitchen sinks, bathtubs, etc.; preparations for cleaning wearing apparel; sweeping compounds; automobile body polish, floor wax, furniture polish, and metal polish; paint and varnish removers; etc.

TABLE 1.—SUMMARY FOR THE UNITED STATES, 1899 TO 1931, AND FOR STATES, 1931

[Data for establishments with products under $5,000 in value are included for 1919 and prior years but not for 1921 and subsequent years. See sec. 3d, p. 4. Statistics are given for all States for which separate figures can be published without disclosing, exactly or approximately, the data reported by individual establishments. Certain of the "Other States," however, are more important in the industry than some of the States shown separately]

	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, containers, fuel, and purchased electric energy	Value of products [1]	Value added by manufacture [2]
United States						
1931	388	2,449	$2,969,048	$16,979,010	$48,007,349	$31,028,339
1929	429	2,713	3,356,161	19,399,041	50,779,632	31,380,591
1927	341	2,403	2,988,430	15,219,635	41,234,466	26,014,831
1925	299	2,161	2,659,767	12,707,370	34,020,384	21,313,014
1923	298	2,376	2,746,082	13,600,082	35,443,130	21,843,048
1921	279	1,687	1,884,922	10,959,174	23,177,721	12,218,547
1919	499	1,955	1,898,447	12,923,518	26,703,109	13,779,591
1914	398	1,239	618,783	3,895,199	9,151,718	5,256,519
1909	300	979	478,325	2,699,177	6,260,269	3,561,092
1904	156	564	241,576	1,286,060	2,710,393	1,424,333
1899	154	508	209,438	965,242	2,193,019	1,227,777
Percent of increase or decrease (−):						
1929-31	−9.6	−9.7	−11.5	−12.5	−5.5	−1.1
1927-29	25.8	12.9	12.3	27.5	23.1	20.6
1925-27	14.0	11.2	12.4	19.8	21.2	22.1
1923-25	0.3	−9.0	−3.1	−6.6	−4.0	−2.4
1921-23	6.8	40.8	45.7	24.1	52.9	78.8
1919-21	−44.1	−13.7	−0.7	−15.2	−13.2	−11.3
1921-31	39.1	45.2	57.5	54.9	107.1	153.9
1929-29	−14.0	38.8	76.8	50.1	90.2	127.7
1909-19	66.3	99.7	296.9	378.8	326.5	286.9
1899-1909	94.8	92.7	128.4	179.6	185.5	190.0
States, 1931						
California	23	57	$32,079	$312,065	$591,340	$279,275
Colorado	6	9	11,792	39,193	84,962	45,769
Connecticut	13	179	228,244	897,871	1,473,212	575,341
Illinois	53	316	380,618	2,787,497	7,325,182	4,537,685
Indiana	7	47	45,323	306,907	848,631	541,724
Iowa	8	18	22,520	89,690	270,487	180,797
Maine	3	5	5,068	17,186	40,051	22,865
Maryland	8	39	37,045	219,243	756,780	537,537
Massachusetts	34	129	113,203	675,617	1,628,075	952,458

See footnotes at end of table.

TABLE 1.—SUMMARY FOR THE UNITED STATES, 1899 TO 1931, AND FOR STATES, 1931—Continued

[See note at head of table]

	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials containers, fuel, and purchased electric energy	Value of products [1]	Value added by manufacture [2]
States, 1931—Continued						
Michigan	18	233	$318,075	$2,466,208	$6,523,285	$4,057,077
Minnesota	8	17	17,458	107,987	235,626	127,639
Missouri	19	94	97,416	544,900	1,687,951	1,143,051
New Jersey	15	93	135,214	488,076	1,431,689	943,613
New York	67	599	736,127	2,731,242	8,223,096	5,491,854
Ohio	41	263	292,438	2,459,926	6,939,957	4,480,031
Tennessee	3	6	4,721	20,849	40,618	19,769
Texas	6	11	10,595	25,334	85,933	60,599
Other States [3]	56	334	451,112	2,789,219	9,820,474	7,031,255

[1] For 1929, manufacturers' sales (shipments or deliveries); for other years, production. See sec. 16, p. 9.
[2] Value of products less cost of materials, containers, fuel, and purchased electric energy. See sec. 20, p. 11.
[3] Alabama, 2 establishments; Arkansas, 1; District of Columbia, 1; Florida, 2; Georgia, 2; Kansas, 1; Mississippi, 1; Nebraska, 2; New Hampshire, 5; North Carolina, 1; Oregon, 1; Pennsylvania, 28; Rhode Island, 2; South Carolina, 1; Virginia, 1; Wisconsin, 5.

TABLE 2.—WAGE EARNERS, BY MONTHS, FOR THE UNITED STATES, 1931, 1929, 1925, 1919 AND 1914, AND FOR STATES, 1931

[This table presents statistics for only those States for which figures can be given without disclosing, exactly or approximately, the 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. See sec. 13, p. 8.]

	Average number employed during year	NUMBER REPORTED FOR—											
		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
United States													
1931	2,449	2,437	2,472	2,522	2,584	2,555	2,452	2,415	2,435	2,453	2,375	2,369	**2,323**
1929	2,713	2,637	2,733	2,773	2,832	2,807	2,710	2,691	2,721	2,688	2,707	2,655	**2,596**
1925	2,161	2,108	2,177	2,260	2,244	2,192	2,179	2,144	**2,103**	2,112	2,154	2,161	2,104
1919	1,955	1,880	1,806	1,811	*1,805*	1,872	1,927	1,908	1,980	2,055	2,102	2,119	2,195
1914	1,239	1,261	1,306	1,347	1,336	1,227	1,213	1,178	*1,169*	1,201	1,189	1,198	1,243
States, 1931													
California	57	56	55	57	*54*	57	58	60	59	**62**	57	58	55
Colorado	9	9	9	9	10	10	10	*8*	8	9	*8*	*8*	*8*
Connecticut	179	173	173	175	188	188	**196**	181	190	174	168	*164*	175
Illinois	316	310	313	327	338	331	326	330	332	327	291	301	**268**
Indiana	47	*35*	44	43	43	42	43	44	61	51	52	54	57
Iowa	18	19	18	19	19	18	*16*	17	17	17	17	18	17
Maine	5	5	*4*	5	5	5	*4*	*4*	5	5	*4*	5	*4*
Maryland	39	37	*36*	38	37	38	*36*	*36*	*36*	*36*	61	47	*36*
Massachusetts	129	133	132	133	134	131	127	125	*124*	131	129	130	*124*
Michigan	233	240	243	245	**262**	258	238	235	219	218	216	*210*	216
Minnesota	17	16	21	21	22	19	16	*15*	*15*	16	16	16	*15*
Missouri	94	93	103	95	103	109	97	89	92	87	*84*	87	*84*
New Jersey	93	*84*	88	94	90	94	96	**96**	96	95	93	93	95
New York	599	*580*	604	611	611	615	601	593	593	597	597	600	582
Ohio	263	277	276	295	310	289	242	238	242	272	*233*	239	241
Tennessee	6	6	6	6	6	6	6	6	6	6	6	*5*	*5*
Texas	11	*9*	*9*	*9*	*9*	13	13	13	13	13	13	*9*	*9*

TABLE 3.—PRODUCTS, BY CLASS, KIND, AND VALUE, FOR THE UNITED STATES: 1925 TO 1931

[The figures for 1929 refer to sales (shipments or deliveries) by manufacturers; those for other years represent production. See sec. 16, p. 9]

CLASS	1931	1929	1927	1925
1. Cleaning and Polishing Preparations industry, all products, total value	$48,007,349	$50,779,632	$41,234,466	$34,020,384
2. Cleaning and polishing preparations	44,953,566	46,969,447	38,769,557	31,527,330
3. Other products (not normally belonging to the industry)	3,053,783	3,810,185	2,464,909	2,493,054
4. Cleaning and polishing preparations made as secondary products in other industries, value	10,553,857	14,463,971	10,589,047	4,911,733
Cleaning and polishing preparations, all industries: Aggregate value (sum of 2 and 4)	55,507,423	61,433,418	49,358,604	36,439,063
Cleaning preparations, total value	37,851,148	43,525,055	32,252,813	24,076,649
Containing soap	9,392,428	(1)	(1)	(1)
Containing no soap	25,785,562			
Cleaning preparations not reported by kind	2,673,158			
Polishing preparations, total value	15,840,683	17,908,363	17,105,791	12,362,414
Metal polish	2,719,657	4,071,094	2,657,979	2,447,242
Automobile body polish	2,772,403	13,837,269	14,447,812	9,915,172
Floor wax (liquid and paste)	4,999,877			
Other polishing preparations	5,348,746			
Paint and varnish removers	1,815,592	(2)	(2)	(2)

[1] Not called for separately on schedule.
[2] Data incomplete.

COMPRESSED AND LIQUEFIED GASES

[A preliminary report for this industry was issued on Nov. 14, 1932]

Description of the industry.—This industry embraces establishments engaged primarily in the production of gases, such as anhydrous ammonia, carbon dioxide, chlorine, hydrogen, oxygen, etc., which are usually sold in compressed and liquefied forms but some of which, as carbon dioxide for the manufacture of "dry ice" (solid carbon dioxide) and hydrogen for the manufacture of ammonia and other commodities, are delivered through pipes. "Dry ice" also is treated as a product of this industry. This group of establishments was first classified under a separate industry designation at the census for 1927. (See "Rayon and compressed and liquefied gases," p. 534.)

TABLE 1.—SUMMARY FOR THE UNITED STATES, 1931, 1929, AND 1927, AND FOR STATES, 1931

[No comparable data can be given for years prior to 1927. See "Rayon and compressed and liquefied gases," p. 564. Statistics are given for all States for which separate figures can be published without disclosing, exactly or approximately, the data reported by individual establishments. Certain of the "Other States," however, are more important in the industry than some of the States shown separately]

	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, fuel, and purchased electric energy	Value of products [1]	Value added by manufacture [2]
United States						
1931	349	2,844	$3,895,612	$10,134,507	$41,806,112	$31,671,605
1929	354	3,390	5,378,211	14,528,603	52,189,779	37,661,176
1927	313	3,212	4,947,577	11,748,839	50,547,395	38,798,556
Percent of increase or decrease (−):						
1929–31	−1.4	−16.1	−27.6	−30.2	−19.9	−15.9
1927–29	13.1	5.5	8.7	23.7	3.2	−2.9
States, 1931						
California	26	155	$224,440	$790,914	$2,594,260	$1,803,346
Florida	6	26	21,820	66,745	263,878	197,133
Georgia	9	64	70,749	182,978	595,851	412,873
Illinois	17	183	250,380	625,910	3,424,347	2,798,437
Indiana	9	74	89,314	289,018	1,254,641	965,623
Kansas	7	25	32,830	127,082	417,085	290,003
Louisiana	11	56	73,415	255,905	893,649	637,744
Maryland	5	51	59,980	178,185	676,398	498,213
Massachusetts	8	87	116,432	380,119	1,506,271	1,126,152
Michigan	17	104	156,201	433,127	1,774,437	1,341,310
Minnesota	9	54	74,450	261,790	1,025,567	763,777
Missouri	12	95	134,891	302,638	1,455,625	1,152,987
New Jersey	13	262	389,972	1,009,367	4,004,296	2,994,929
New York	12	185	262,245	716,958	3,621,445	2,904,487
Ohio	34	310	432,230	956,905	4,062,559	3,105,654
Oklahoma	7	30	40,136	155,229	492,806	337,577
Pennsylvania	33	337	478,727	888,750	4,383,822	3,495,072
Tennessee	7	33	47,136	122,744	525,225	402,481
Texas	24	132	157,958	477,010	1,569,796	1,092,786
Utah	5	28	41,657	82,145	283,896	201,751
Virginia	10	121	164,237	281,301	1,265,430	984,129
Washington	10	37	53,527	164,675	627,376	462,701
West Virginia	7	96	127,593	378,431	1,146,761	768,330
Wisconsin	7	63	89,916	232,773	965,657	732,884
Other States [3]	44	236	305,376	773,808	2,975,034	2,201,226

[1] For 1929, manufacturers' sales (shipments or deliveries); for other years, production. See sec. 16, p. 9.
[2] Value of products less cost of materials, fuel, and purchased electric energy. See sec. 20, p. 11.
[3] Alabama, 7 establishments; Arizona, 2; Arkansas, 1; Colorado, 6; Connecticut, 1; District of Columbia, 1; Idaho, 1; Iowa, 6; Kentucky, 4; Maine, 1; Montana, 1; Nebraska, 3; North Carolina, 3; Oregon, 4; South Dakota, 1; Wyoming, 2.

TABLE 2.—WAGE EARNERS, BY MONTHS, FOR THE UNITED STATES, 1931 AND 1929, AND FOR STATES, 1931

This table presents statistics for only those States for which figures can be given without disclosing, exactly or approximately, the 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. See sec. 13, p. 8]

	Average number employed during year	NUMBER REPORTED FOR—											
		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
United States													
1931	2,844	3,029	2,974	2,978	2,935	2,904	2,882	2,879	2,837	2,764	2,715	2,662	*2,570*
1929	3,390	*3,093*	3,172	3,222	3,329	3,382	3,463	3,537	3,577	3,557	3,480	3,454	3,412
States, 1931													
California	155	174	166	167	159	157	157	155	159	152	139	138	*135*
Florida	26	27	28	27	28	28	27	27	25	25	*22*	23	*22*
Georgia	64	67	67	67	64	64	62	66	*59*	64	63	61	*59*
Illinois	183	196	209	203	200	192	188	182	179	167	160	*158*	165
Indiana	74	83	83	82	76	77	77	72	72	68	68	68	*67*
Kansas	25	33	33	24	20	20	29	28	27	27	18	26	*17*
Louisiana	56	52	55	54	57	55	57	61	59	63	59	55	*49*
Maryland	51	56	55	55	52	52	52	50	49	49	49	*48*	*48*
Massachusetts	87	93	92	91	90	84	*83*	86	*83*	*83*	91	86	*83*
Michigan	104	101	104	103	105	111	110	108	105	109	106	97	*89*
Minnesota	54	54	55	56	56	55	55	54	52	52	54	*51*	*51*
Missouri	95	101	102	96	96	91	93	97	97	98	95	89	*87*
New Jersey	262	266	256	269	289	280	287	285	272	248	230	234	*224*
New York	185	186	186	187	185	180	179	186	192	189	191	179	*178*
Ohio	310	332	326	326	323	316	311	306	306	297	297	294	*289*
Oklahoma	30	34	31	31	30	32	31	30	30	29	27	27	*26*
Pennsylvania	337	372	366	369	348	342	334	325	318	312	330	326	*299*
Tennessee	33	*32*	*32*	33	*32*	34	34	35	35	34	34	33	*32*
Texas	132	151	136	131	128	150	140	139	131	124	121	119	*110*
Utah	28	28	28	28	*26*	28	29	29	33	32	29	*26*	*26*
Virginia	121	120	120	*118*	122	120	*118*	121	121	121	120	123	122
Washington	37	39	40	38	39	40	38	36	36	36	35	35	*33*
West Virginia	96	107	102	103	101	97	95	95	93	92	91	89	*87*
Wisconsin	63	68	*52*	66	64	63	63	67	71	61	60	59	*59*

TABLE 3.—PRODUCTS, BY KIND, QUANTITY, AND VALUE, FOR THE UNITED STATES: 1931, 1929, 1927, AND 1925

[The figures for 1929 refer to sales (shipments or deliveries) by manufacturers; those for other years represent production. See sec. 16, p. 9]

	1931	1929	1927	1925
1. Compressed and Liquefied Gases industry, all products, total value	$41,806,112	$52,189,779	$50,547,395	(1)
2. Compressed and liquefied gases	41,470,825	51,622,803	50,067,106	(1)
3. Other products (not normally belonging to the industry)	335,287	566,976	480,289	
4. Compressed and liquefied gases made as secondary products in other industries, value	$15,234,451	$19,670,116	$11,797,083	
Compressed and liquefied gases, all industries: Aggregate value (sum of 2 and 4)	$56,705,276	$71,292,919	$61,864,189	$55,532,616
Ammonia, anhydrous:[2]				
Number of establishments	[3] 16	16	15	16
Pounds	127,098,718	173,349,355	45,115,020	31,724,858
Value	$8,043,679	$10,673,234	$4,011,362	$6,771,876

Footnotes at end of table.

TABLE 3.—PRODUCTS, BY KIND, QUANTITY, AND VALUE, FOR THE UNITED STATES: 1931, 1929, 1927, AND 1925—Continued

[See note at head of table]

	1931	1929	1927	1925
Compressed and liquefied gases—Continued.				
Carbon dioxide (not including "dry ice"):				
Number of establishments	[3] 53	54	49	44
Total production, pounds	180,471,183			
Made and consumed in same establishments in production of "dry ice," pounds	26,896,186	(4)	(4)	(4)
For sale—Pounds	[5] 153,574,997	136,930,311	74,344,287	59,721,309
Value	$6,225,643	$6,931,735	$6,048,424	$5,128,441
"Dry ice" (solid carbon dioxide):				
Number of establishments	[3] 29	(6)	(7)	(7)
Pounds	84,954,018			
Value	$2,899,738			
Chlorine: [8]				
Number of establishments	[3] 20	20	15	14
Total production, pounds	361,739,705	398,943,703	234,978,522	166,325,643
Made and consumed in same establishments, pounds	106,229,018	109,088,853	54,815,084	61,365,457
For sale—Pounds	255,510,687	289,854,850	180,163,438	104,960,186
Value	$5,248,496	$7,113,091	$6,678,145	$4,236,307
Hydrogen:				
Number of establishments	[3] 46	44	47	48
M cubic feet	493,518	207,843	103,714	150,502
Value	$957,373	$1,423,456	$741,982	$876,976
Oxygen:				
Number of establishments	[3] 168	178	156	141
M cubic feet, total	2,050,377	3,140,095	2,359,896	2,073,826
Liquefaction process	1,997,810	2,816,641	2,086,301	1,705,092
Electrolytic process	52,567	323,454	273,595	368,734
Value	$16,410,759	$23,409,606	$23,986,881	$22,577,110
Nitrous oxide:				
Number of establishments	[3] 11	9	10	10
Thousands of gallons	94,607	109,812	66,392	54,882
Value	$922,626	$1,196,392	$809,614	$729,534
Sulphur dioxide:				
Number of establishments	[3] 4	4	5	4
Pounds	16,104,534	17,600,936	11,003,719	8,968,453
Value	$839,021	$973,596	$720,470	$638,175
Hydrocarbon gases:				
Acetylene:				
Number of establishments	[3] 111	104	83	69
M cubic feet	742,898	969,534	682,481	525,746
Value	$12,911,727	$16,553,763	$16,196,388	$13,514,964
Other hydrocarbon gases, value	$1,627,183	$2,447,196	$2,416,080	$882,815
Other gases,[9] value	$619,031	$570,850	$254,843	$176,418

[1] No data. First treated as a separate industry at the census for 1927. See "Rayon and compressed and liquefied gases," p. 564.

[2] Not including production in coke and manufactured-gas industries.

[3] *Ammonia, anhydrous:* Calif., 2 establishments; Colo., 1; Del., 1; Mich., 1; Mo., 1; N.J., 1; N.Y., 2; Ohio, 1; Pa., 2; Va., 1; Wash., 2; W.Va., 1. *Carbon dioxide* (not including "dry ice"): Ala., 1 establishment; Calif., 6; Colo., 1; Fla., 2; Ga., 2; Ill., 4; Ind., 1; La., 1; Md., 1; Mass., 2; Mich., 3; Minn., 1; Mo., 2; N.J., 3; N.Y., 5; N.C., 1; Ohio, 2; Pa., 4; Tenn., 3; Tex., 4; Utah, 1; Va., 1; Wash., 2. *"Dry ice"* (solid carbon dioxide): Calif., 3 establishments; Colo., 1; Fla., 2; Ga., 2; Ill., 2; La., 2; Mass., 1; Mich., 1; Mo., 2; N.J., 2; N.Y., 2; Ohio, 3; Pa., 1; Tex., 2; Va., 1; Wash., 2. *Chlorine:* Calif., 2 establishments; Ill., 1; Mich., 3; N.H., 1; N.J., 1; N.Y., 6; Ohio, 1; R.I., 1; Wash., 2; W.Va., 2. *Hydrogen:* Ark., 1 establishment; Calif., 3; Ga., 1; Ill., 2; Ind., 1; Ky., 1; La., 1; Md., 1; Mass., 1; Mich., 2; Minn., 1; Mo., 3; N.J., 2; N.Y., 3; Ohio, 7; Okla., 1; Oreg., 1; Pa., 5; Tenn., 1; Tex., 2; Utah, 1; Va., 2; Wash., 1; Wis., 2. *Oxygen:* Ala., 4 establishments; Ariz., 1; Ark., 1; Calif., 9; Colo., 3; Fla., 2; Ga., 2; Ill., 8; Ind., 5; Iowa, 2; Kans., 2; Ky., 2; La., 4; Md., 3; Mass., 3; Mich., 8; Minn., 4; Mo., 8; Mont., 1; Nebr., 2; N.J., 5; N.Y., 6; N.C., 1; Ohio, 21; Okla., 4; Oreg., 2; Pa., 20; Tenn., 3; Tex., 12; Utah, 2; Va., 6; Wash., 5; W.Va., 2; Wis., 4; Wyo., 1. *Nitrous oxide:* Calif., 3 establishments; Md., 1; Mich., 1; Mo., 2; N.J., 1; N.Y., 1; Ohio, 2. *Sulphur dioxide:* Calif., 1 establishment; N.J., 1; Va., 1; Wis., 1. *Acetylene:* Ala., 2 establishments; Ariz., 1; Ark., 1; Calif., 9; Colo., 2; Fla., 1; Ga., 2; Ill., 5; Ind., 5; Iowa, 3; Kans., 3; Ky., 1; La., 4; Md., 2; Mass., 4; Mich., 6; Minn., 3; Mo., 3; Nebr., 2; N.J., 3; N.Y., 3; Ohio, 11; Okla., 3; Oreg., 1; Pa., 10; S.Dak., 1; Tenn., 1; Tex., 7; Utah, 1; Va., 3; Wash., 3; W.Va., 2; Wis., 2; Wyo., 1.

[4] Data incomplete.

[5] Includes approximately 80,000,000 pounds piped to plants making "dry ice."

[6] Withheld to avoid disclosing approximations of the production reported by individual establishments.

[7] No data.

[8] Not including chlorine made and consumed in the wood-pulp industry.

[9] Argon, nitrogen, helium, etc.

DRUGGISTS' PREPARATIONS; PATENT OR PROPRIETARY MEDICINES AND COMPOUNDS; PERFUMES, COSMETICS, AND OTHER TOILET PREPARATIONS

Because of the close relationship existing among these three industries, the statistics are given both separately and in combination in the tables herewith.

Description of the industries.—The "Druggists' Preparations" industry embraces those establishments which are engaged primarily in the manufacture of serums, vaccines, tablets, pills, tinctures, medicinal plasters, cough sirups, ointments, and other pharmaceuticals.

The principal products of the "Patent or Proprietary Medicines and Compounds" industry are medicines and compounds sold under the protection of patents, copyrights, or trade marks, or prepared according to secret formulas, including medicines of a proprietary character, not necessarily patented or sold under a trade mark, and various compounds or products handled by the pharmaceutical trade, such as insecticides, corn cures, household ammonia, disinfectants, boiler compounds, etc.

The establishments assigned to the "Perfumes, Cosmetics, and Other Toilet Preparations" industry are those whose leading products are perfumes of all kinds; toilet waters; creams and rouges; face, talcum, and other toilet powders; tooth pastes and other dentifrices; washes and lotions; skin emollients; etc.

TABLE 1.—SUMMARY FOR THE UNITED STATES, 1899 TO 1931, AND FOR STATES, 1931

[Data for establishments with products under $5,000 in value are included for 1919 and prior years but not for 1921 and subsequent years. See sec. 3d, p. 4. Statistics are given for all States for which separate figures can be published without disclosing, exactly or approximately, the data reported by individual establishments. Certain of the "Other States," however, are more important in the respective industries—in particular, Indiana and Michigan in the "Druggists' Preparations" industry—than some of the States shown separately]

	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, containers, fuel, and purchased electric energy	Value of products [1]	Value added by manufacture [1]
THE GROUP AS A WHOLE						
United States						
1931	2,353	33,699	$35,883,100	$147,180,130	$522,137,025	$374,956,895
1929	2,766	40,231	44,996,007	196,844,698	637,125,965	440,281,267
1927	2,360	35,672	39,574,979	177,905,588	549,797,727	371,892,139
1925	2,243	33,201	35,206,911	167,786,065	472,494,323	304,708,258
1923	2,217	34,080	33,202,878	159,801,905	416,878,601	257,076,696
1921	2,266	30,476	30,979,429	132,157,711	330,137,156	197,979,445
1919	3,560	38,417	29,893,754	170,104,918	386,369,132	216,264,214
1914	3,815	25,502	12,709,575	66,339,943	167,372,129	101,032,186
1909	3,642	22,895	9,896,674	50,375,665	141,941,602	91,565,937
1904	2,777	20,472	7,913,318	39,494,289	117,435,874	77,941,585
1899	2,154	19,028	6,909,611	31,949,890	88,790,774	56,840,884
Percent of increase or decrease (—):						
1929–31	—14.9	—16.2	—20.3	—25.2	—18.0	—14.8
1927–29	17.2	12.8	13.7	10.6	15.9	18.4
1925–27	5.2	7.4	12.4	6.0	16.4	22.0
1923–25	1.2	—2.6	6.0	5.0	13.3	18.5
1921–23	—2.2	11.8	7.2	20.9	26.3	29.9
1919–21	—36.3	—20.7	3.6	—22.3	—14.6	—8.5
1921–31	3.8	10.6	15.8	11.4	58.2	89.4
1919–29	—22.3	4.7	50.5	15.7	64.9	103.6
1909–19	—2.3	67.8	202.1	237.7	172.2	136.2
1899–1909	69.1	20.3	43.2	57.7	59.9	61.1

See footnotes at end of table.

TABLE 1.—SUMMARY FOR THE UNITED STATES, 1899 TO 1931, AND FOR STATES, 1931—Continued

[See note at head of this table]

	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, containers, fuel, and purchased electric energy	Value of products [1]	Value added by manufacture [2]
DRUGGISTS' PREPARATIONS						
United States						
1931	392	9,476	$10,552,092	$32,207,738	$109,448,176	$77,240,438
1929	429	10,688	12,452,066	43,775,986	124,778,487	81,002,501
1927	373	10,138	11,942,469	40,499,392	110,309,139	69,809,747
1925	370	9,685	11,078,384	36,063,719	95,419,824	59,356,105
1923	389	8,966	9,185,975	33,363,859	79,142,668	45,778,809
1921	408	10,838	11,930,658	34,573,664	81,697,922	47,124,258
1919	524	15,568	12,161,925	55,138,475	114,593,486	59,455,011
1914	416	9,277	4,754,508	22,934,723	48,009,654	25,074,931
1909	375	9,490	4,158,432	17,847,006	43,958,479	26,111,473
1904	240	7,410	2,792,914	13,419,635	31,782,250	18,362,615
1899	173	5,658	2,006,540	10,814,432	22,714,889	11,900,457
Percent of increase or decrease (—):						
1929–31	—8.6	—11.3	—15.3	—26.4	—12.3	—4.6
1927–29	15.0	5.4	4.3	8.1	13.1	16.0
1925–27	0.8	4.7	7.8	12.3	15.6	17.6
1923–25	—4.9	8.0	20.6	8.1	20.6	29.7
1921–23	—4.7	—17.3	—23.0	—3.5	—3.1	—2.9
1919–21	—22.1	—30.4	—1.9	—37.3	—28.7	—20.7
1921–31	—3.9	—12.6	—11.6	—6.8	34.0	63.9
1919–29	—18.1	—31.3	2.4	—20.6	8.9	36.2
1909–19	39.7	64.0	192.5	209.0	160.7	127.7
1899–1909	116.8	67.7	107.2	65.0	93.5	119.4
States, 1931						
California	16	182	$212,233	$757,681	$2,116,224	$1,358,543
Colorado	6	29	43,120	123,641	311,541	187,900
Georgia	5	18	12,869	37,769	92,640	54,871
Illinois	37	565	655,418	2,222,083	8,413,698	6,191,615
Iowa	11	165	187,496	680,454	1,531,160	850,706
Kansas	13	115	156,624	472,747	1,018,544	545,797
Kentucky	5	51	41,603	199,603	402,643	203,040
Maine	3	14	10,264	13,897	47,632	33,735
Maryland	7	103	95,510	362,063	781,152	419,089
Massachusetts	19	185	202,984	570,535	1,487,715	917,180
Minnesota	9	62	73,300	232,280	719,398	487,118
Missouri	28	400	463,564	1,557,944	4,185,992	2,628,048
Nebraska	10	124	139,932	584,714	1,461,177	876,463
New Jersey	18	382	452,789	1,181,057	4,362,585	3,181,528
New York	83	1,673	1,667,492	5,532,117	18,542,871	13,010,754
Ohio	21	368	353,935	1,180,863	3,268,056	2,087,193
Pennsylvania	35	1,894	1,969,669	4,645,786	17,407,227	12,761,441
Tennessee	5	104	81,331	769,391	1,698,602	929,211
Texas	5	57	64,900	187,921	488,907	300,986
Wisconsin	5	59	64,975	145,411	344,432	199,021
Other States [3]	51	2,926	3,602,084	10,749,781	40,765,980	30,016,199
PATENT OR PROPRIETARY MEDICINES AND COMPOUNDS						
United States						
1931	1,298	13,475	14,885,227	68,416,029	254,514,150	186,098,121
1929	1,522	16,434	18,780,980	94,769,833	318,906,928	224,137,095
1927	1,282	15,071	16,667,425	84,640,850	278,242,929	193,602,079
1925	1,279	14,802	15,592,017	84,789,647	247,564,046	162,774,399
1923	1,363	17,353	16,914,859	88,802,058	237,494,447	148,692,389
1921	1,436	13,800	13,684,434	69,571,327	175,898,330	106,327,003
1919	2,467	17,444	13,748,813	88,819,417	212,162,255	123,342,838
1914	2,903	13,328	6,675,168	35,940,434	102,463,374	66,522,940
1909	2,838	11,030	4,744,021	26,894,628	83,771,154	56,876,526
1904	2,245	10,980	4,351,867	21,293,051	74,520,765	53,227,714
1899	1,719	11,606	4,334,425	18,000,441	58,988,181	40,987,740

See footnotes at end of table.

TABLE 1.—SUMMARY FOR THE UNITED STATES, 1899 TO 1931, AND FOR STATES, 1931—Continued

[See note at head of this table]

	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, containers, fuel, and purchased electric energy	Value of products [1]	Value added by manufacture [2]
PATENT OR PROPRIETARY MEDICINES AND COMPOUNDS—continued						
United States—Continued						
Percent of increase or decrease (—):						
1929-31	—14.7	—18.0	—20.7	—27.8	—20.2	—17.0
1927-29	18.7	9.0	12.7	12.0	14.6	15.8
1925-27	0.2	1.8	6.9	—0.2	12.4	18.9
1923-25	—6.2	—14.7	—7.8	—4.5	4.2	9.5
1921-23	—5.1	25.7	23.6	27.6	35.0	39.8
1919-21	—41.8	—20.9	—0.5	—21.7	—17.1	—13.8
1921-31	—9.6	—2.4	8.8	—1.7	44.7	75.0
1919-29	—38.3	—5.8	36.6	6.7	50.3	81.7
1909-19	—13.1	58.2	189.8	230.2	153.3	116.9
1899-1909	65.1	—5.0	9.4	49.4	42.0	38.8
States, 1931						
Alabama	5	12	$7,376	$26,683	$65,073	$38,390
Arkansas	6	8	6,536	36,053	107,152	71,099
California	92	401	516,902	2,406,045	6,560,769	4,154,724
Colorado	10	33	38,222	107,995	288,207	180,212
Connecticut	16	227	244,475	1,507,171	6,523,439	5,016,268
Florida	13	81	64,969	404,974	1,327,894	922,920
Georgia	24	139	111,082	566,685	3,104,810	2,538,125
Illinois	135	1,492	1,703,002	8,330,858	31,708,447	23,377,589
Indiana	33	312	325,692	1,012,860	4,625,380	3,612,520
Iowa	44	174	177,791	881,401	2,669,632	1,788,231
Kansas	8	18	18,312	38,222	152,758	114,536
Kentucky	9	47	37,423	115,514	483,460	367,946
Louisiana	19	97	66,398	365,340	1,070,782	705,442
Maine	7	24	21,772	52,862	198,430	145,568
Maryland	31	433	409,838	2,977,209	10,893,763	7,916,554
Massachusetts	54	1,254	1,535,216	4,958,270	16,040,222	11,081,952
Michigan	43	1,057	1,284,046	5,098,801	18,754,744	13,655,943
Minnesota	32	170	180,151	828,373	2,596,027	1,767,654
Missouri	76	1,234	1,250,222	5,994,426	24,117,727	18,123,301
Nebraska	15	52	66,209	299,866	993,643	693,777
New Jersey	79	1,791	2,060,975	12,559,407	47,155,251	34,595,844
New York	204	2,101	2,495,249	9,538,097	38,198,638	28,660,541
North Carolina	11	163	117,376	718,307	3,756,560	3,038,253
Ohio	85	521	548,285	2,770,048	9,270,225	6,500,177
Oklahoma	3	4	5,926	16,481	41,287	24,806
Oregon	6	12	13,084	94,470	199,176	104,706
Pennsylvania	105	796	874,370	3,556,415	13,240,095	9,683,680
Rhode Island	6	27	26,429	71,529	283,167	211,638
South Carolina	5	9	8,912	22,508	59,862	37,354
Tennessee	25	368	289,093	1,352,139	4,447,600	3,095,461
Texas	26	78	71,519	274,391	911,461	637,070
Vermont	10	100	79,428	346,281	973,399	627,118
Virginia	12	76	69,257	442,324	1,414,576	972,252
Washington	11	17	17,346	132,523	330,590	198,067
West Virginia	5	15	16,085	33,186	157,863	124,677
Wisconsin	21	75	64,092	274,956	1,004,324	729,368
Other States [4]	12	57	62,167	203,359	787,717	584,358

See footnotes at end of table.

TABLE 1.—SUMMARY FOR THE UNITED STATES, 1899 TO 1931, AND FOR STATES, 1931—Continued

[See note at head of this table]

	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, containers, fuel, and purchased electric energy	Value of products[1]	Value added by manufacture[2]
PERFUMES, COSMETICS, AND OTHER TOILET PREPARATIONS						
United States						
1931	663	10,748	$10,445,781	$46,556,363	$158,174,699	$111,618,336
1929	815	13,109	13,762,961	58,293,879	193,440,550	135,141,671
1927	705	10,463	10,965,085	52,765,346	161,245,659	108,480,313
1925	594	8,714	8,536,510	46,932,699	129,510,453	82,577,754
1923	465	7,761	7,102,044	37,635,988	100,241,486	62,605,498
1921	422	5,838	5,358,337	28,012,720	72,540,904	44,528,184
1919	569	5,405	3,983,016	26,147,026	59,613,391	33,466,365
1914	496	2,897	1,279,899	7,464,786	16,899,101	9,434,315
1909	429	2,375	994,221	5,634,031	14,211,969	8,577,938
1904	292	2,082	768,537	4,781,603	11,132,859	6,351,256
1899	262	1,764	568,646	3,135,017	7,087,704	3,952,687
Percent of increase or decrease (−):						
1929–31	−18.7	−18.0	−24.1	−20.1	−18.2	−17.4
1927–29	15.6	25.3	25.5	10.5	20.0	24.6
1925–27	18.7	20.1	28.4	12.4	24.5	31.4
1923–25	27.7	12.3	20.2	24.7	29.2	31.9
1921–23	10.2	32.9	32.5	34.4	38.2	40.6
1919–21	−25.8	8.0	34.5	7.1	21.7	33.1
1921–31	57.1	84.1	94.9	66.2	118.0	150.7
1919–29	43.2	142.5	245.5	123.0	224.5	303.8
1909–19	32.6	127.6	300.6	364.1	319.5	290.1
1899–1909	63.7	34.6	74.8	79.7	100.5	117.0
States, 1931						
California	39	175	$193,102	$763,262	$2,462,018	$1,698,756
Colorado	5	7	5,211	14,542	43,406	28,864
Georgia	12	70	39,093	226,066	563,301	337,235
Illinois	85	1,010	1,033,249	4,722,761	22,077,698	17,354,937
Indiana	12	92	73,362	281,398	977,821	696,423
Kentucky	4	13	11,171	21,486	166,094	144,608
Louisiana	7	21	17,726	59,454	169,987	110,533
Massachusetts	27	106	98,531	490,166	1,420,628	930,462
Michigan	19	203	219,408	787,976	2,628,586	1,840,610
Minnesota	22	389	392,186	1,537,923	4,422,619	2,884,696
Missouri	34	368	309,481	1,384,599	4,512,754	3,128,155
Nebraska	6	23	18,768	37,820	136,750	98,930
New Jersey	23	708	834,807	3,480,409	13,937,886	10,457,477
New York	232	5,778	5,849,398	24,401,521	77,051,512	52,649,991
Ohio	22	438	340,736	1,886,456	5,601,331	3,714,875
Pennsylvania	29	174	163,109	828,584	2,676,133	1,847,549
Tennessee	14	382	205,298	1,515,469	4,390,118	2,874,649
Texas	11	71	51,152	310,896	761,784	450,888
Wisconsin	3	17	14,398	64,380	196,342	131,962
Other States[4]	57	703	575,595	3,741,195	13,977,931	10,236,736

[1] For 1929, manufacturers' sales (shipments or deliveries); for other years, production. See sec. 16, p. 9.

[2] Value of products less cost of materials, containers, fuel, and purchased electric energy. See sec. 20, p. 11.

[3] Alabama, 1 establishment; Connecticut, 2; Delaware, 1; District of Columbia, 3; Florida, 1; Indiana, 15; Louisiana, 1; Michigan, 14; New Hampshire, 1; North Carolina, 1; Oklahoma, 1; Rhode Island, 3; South Dakota, 3; Vermont, 1; Washington, 1; West Virginia, 2.

[4] Arizona, 1 establishment; Delaware, 2; District of Columbia, 3; Idaho, 1; Mississippi, 2; New Hampshire, 1; South Dakota, 2.

[5] Alabama, 3 establishments; Connecticut, 11; District of Columbia, 1; Florida, 3; Iowa, 6; Kansas, 2; Maine, 1; Maryland, 11; Mississippi, 1; New Hampshire, 1; North Carolina, 1; Oklahoma, 1; Oregon, 2; Rhode Island, 2; Utah, 1; Virginia, 3; Washington, 7.

TABLE 2.—WAGE EARNERS, BY MONTHS, FOR THE UNITED STATES, 1931, 1929, 1925, 1919, 1914, AND 1909, AND FOR STATES, 1931

[This table presents statistics for only those States for which figures can be given without disclosing, exactly or approximately, the 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. See sec. 13, p. 8]

	Average number employed during year	NUMBER REPORTED FOR—											
		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
THE GROUP AS A WHOLE													
United States													
1931	33,699	33,974	34,621	34,985	34,506	33,742	32,968	*32,470*	32,680	33,853	34,014	33,797	32,795
1929	40,231	40,756	41,353	41,249	40,224	39,581	39,199	*39,129*	39,359	40,321	41,089	40,720	39,786
1925	33,201	32,761	33,462	33,666	33,533	32,810	32,387	*32,293*	32,702	33,239	33,921	34,042	33,587
1919	38,417	38,913	39,347	39,102	37,995	37,457	*36,784*	37,059	37,311	38,027	39,095	40,036	39,878
1914	25,502	26,073	26,453	26,674	26,363	25,808	24,804	24,626	*24,184*	25,111	25,446	25,329	25,153
1909	22,895	22,526	22,898	23,337	23,138	22,672	21,942	*21,406*	21,540	22,829	23,865	24,363	24,202
DRUGGISTS' PREPARATIONS													
United States													
1931	9,476	9,576	9,628	9,685	9,625	9,569	9,449	9,319	*9,500*	9,434	9,413	9,364	9,347
1929	10,688	10,936	11,057	10,947	10,743	10,570	10,549	10,477	*10,411*	10,480	10,791	10,751	10,547
1925	9,685	9,594	9,685	9,667	9,665	9,560	*9,470*	9,493	9,770	9,899	9,796	9,849	9,769
1919	15,568	16,275	16,359	16,159	15,484	15,219	*14,941*	15,138	14,961	15,221	15,547	15,709	15,803
1914 [1]	9,277	9,549	9,558	9,540	9,423	9,311	9,146	8,976	*8,855*	9,301	9,351	9,247	9,067
States, 1931													
California	182	178	178	175	*169*	175	182	184	188	192	184	189	189
Colorado	29	31	31	31	31	31	33	33	33	31	32	*16*	*16*
Georgia	18	16	17	18	20	20	18	19	18	*15*	*15*	17	17
Illinois	565	*549*	*549*	*549*	551	585	590	568	567	569	571	568	569
Iowa	165	*197*	142	163	172	180	185	179	179	176	163	155	154
Kansas	115	*104*	109	112	115	111	109	113	111	115	118	130	131
Kentucky	51	66	67	65	64	63	54	39	40	*36*	*36*	38	40
Maine	14	14	14	14	14	14	14	14	14	14	14	14	14
Maryland	103	105	108	119	108	99	*98*	104	*98*	100	99	101	102
Massachusetts	185	200	192	197	190	177	*167*	174	178	183	181	191	192
Minnesota	62	63	66	73	74	70	59	57	58	61	56	57	*54*
Missouri	400	*381*	394	407	397	397	405	406	410	399	411	400	393
Nebraska	124	*115*	116	117	122	126	125	130	131	122	125	132	131
New Jersey	382	401	404	407	407	413	421	356	350	363	358	353	*349*
New York	1,673	1,695	1,669	1,677	1,698	1,683	1,656	*1,650*	1,651	1,672	1,678	1,684	1,665
Ohio	368	*336*	345	344	341	33[illegible]	369	377	394	388	393	394	395
Pennsylvania	1,894	1,927	1,962	1,986	1,985	1,9[illegible]6	1,848	*1,806*	1,807	1,904	1,878	1,835	1,829
Tennessee	104	100	112	109	108	98	*93*	99	95	96	106	117	113
Texas	57	55	58	58	58	58	58	57	58	60	*53*	*53*	54
Wisconsin	59	66	59	58	59	60	59	*55*	59	62	60	57	58
PATENT OR PROPRIETARY MEDICINES AND COMPOUNDS													
United States													
1931	13,475	13,768	14,112	14,122	13,856	13,412	12,982	*12,842*	12,903	13,506	13,595	13,443	13,154
1929	16,434	17,127	17,432	17,152	16,629	16,161	15,862	*15,752*	15,842	16,306	16,508	16,339	16,062
1925	14,802	14,786	15,124	15,213	15,113	14,801	14,491	14,238	*14,128*	14,428	14,970	15,137	15,188
1919	17,444	17,917	18,112	17,938	17,415	17,002	16,629	*16,607*	16,756	17,086	17,600	18,166	18,101
1914 [1]	13,328	13,878	14,143	14,235	14,000	13,569	12,753	12,804	*12,543*	12,862	12,945	13,082	13,122
States, 1931													
Alabama	12	*11*	12	12	12	14	14	14	13	13	12	*11*	*11*
Arkansas	8	8	8	8	9	8	9	11	13	7	5	*4*	7
California	401	411	446	458	431	438	377	370	371	389	*369*	383	370
Colorado	33	35	35	33	33	*32*	*32*	*32*	35	34	*32*	*32*	*32*
Connecticut	227	*190*	199	228	218	218	215	231	236	309	273	199	206
Florida	81	83	99	89	83	78	*70*	75	80	75	77	78	83
Georgia	139	159	194	200	173	140	*98*	103	115	113	113	127	131
Illinois	1,492	*1,404*	1,458	1,457	1,512	1,557	1,505	1,533	1,482	1,515	1,544	1,519	1,418
Indiana	312	305	310	302	282	274	275	*266*	293	325	368	367	377
Iowa	174	200	202	203	184	178	170	160	165	160	163	162	*146*

[1] No comparable data available for 1909.

TABLE 2.—WAGE EARNERS, BY MONTHS, FOR THE UNITED STATES, 1931, 1929, 1925, 1919, 1914, AND 1909, AND FOR STATES, 1931—Continued

[See note at head of this table]

	Average number employed during year	NUMBER REPORTED FOR—											
		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
PATENT OR PROPRIETARY MEDICINES AND COMPOUNDS—contd.													
States, 1931—Con.													
Kansas	18	19	19	19	19	18	18	18	17	*16*	*16*	*16*	*16*
Kentucky	47	*47*	*47*	*47*	*47*	48	48	*47*	*47*	*47*	*47*	*47*	*47*
Louisiana	97	95	95	99	98	98	95	*92*	98	97	101	101	94
Maine	24	27	28	34	33	26	27	21	19	*17*	*17*	19	*17*
Maryland	433	443	456	460	453	444	444	421	*397*	412	418	425	425
Massachusetts	1,254	1,336	1,376	1,367	1,312	1,153	1,105	*1,078*	1,097	1,263	1,371	1,345	1,246
Michigan	1,057	1,083	1,130	1,144	1,116	1,053	998	*993*	1,003	1,005	1,006	1,070	1,077
Minnesota	170	162	173	188	183	172	170	166	180	185	161	155	*141*
Missouri	1,234	1,291	1,252	1,254	1,259	1,246	1,233	1,224	1,197	1,239	1,221	1,204	*1,184*
Nebraska	52	57	55	54	51	50	*49*	*49*	54	51	53	51	51
New Jersey	1,791	1,863	1,913	1,883	1,828	1,818	1,788	1,739	1,741	1,762	1,730	1,729	*1,698*
New York	2,101	2,137	2,204	2,192	2,167	2,124	2,022	2,003	*1,961*	2,049	2,108	2,125	2,115
North Carolina	163	149	130	115	*114*	*114*	128	133	195	271	255	180	169
Ohio	521	621	600	591	565	482	481	*462*	*462*	497	508	488	497
Oklahoma	4	*3*	5	*3*	5	*3*	5	*3*	5	*3*	5	*3*	5
Oregon	12	*8*	20	20	14	12	12	11	10	9	9	*8*	*8*
Pennsylvania	796	795	811	819	808	782	758	*752*	798	827	817	799	784
Rhode Island	27	27	*26*	28	27	27	*26*	27	27	27	27	*26*	*26*
South Carolina	9	11	11	11	11	10	10	7	8	8	8	7	7
Tennessee	368	363	358	*340*	372	371	377	380	372	366	369	374	379
Texas	78	72	75	84	86	85	83	84	78	85	74	71	*64*
Vermont	100	108	103	107	104	101	102	101	98	97	*93*	*93*	96
Virginia	76	76	75	*72*	74	77	79	82	80	79	74	76	73
Washington	17	13	30	42	20	*11*	12	*11*	*11*	13	13	13	14
West Virginia	15	*13*	15	15	15	16	15	16	15	15	14	14	14
Wisconsin	75	80	78	76	73	76	77	74	76	73	71	*70*	72
PERFUMES, COSMETICS, AND OTHER TOILET PREPARATIONS													
United States													
1931	10,748	10,630	10,881	11,158	11,025	10,761	10,537	10,309	10,477	10,913	11,006	10,990	*10,294*
1929	13,109	*12,693*	12,864	13,150	12,852	12,850	12,788	12,870	13,106	13,535	13,790	13,630	13,177
1925	8,714	*8,381*	8,653	8,786	8,755	8,449	8,426	8,562	8,804	8,912	9,155	9,056	8,630
1919	5,405	*4,721*	4,876	5,005	5,096	5,236	5,214	5,314	5,594	5,720	5,945	6,162	5,974
1914 [1]	2,897	*2,646*	2,752	2,899	2,940	2,928	2,905	2,846	2,786	2,948	3,150	3,000	2,964
States, 1931													
California	175	161	166	175	180	177	166	169	188	192	195	178	*153*
Colorado	7	8	*7*	7	7	7	7	7	7	7	7	7	8
Georgia	70	74	74	80	*58*	60	61	63	69	68	78	81	76
Illinois	1,010	1,088	1,109	1,184	1,098	1,032	969	965	931	936	955	935	*920*
Indiana	92	85	*83*	92	94	98	99	99	100	95	92	86	87
Kentucky	13	13	13	13	11	11	12	*10*	11	13	13	15	15
Louisiana	21	22	23	22	22	22	22	22	22	20	21	*19*	20
Massachusetts	106	104	111	111	113	113	111	98	103	108	107	102	*94*
Michigan	203	222	224	225	228	202	189	*113*	214	222	221	222	153
Minnesota	389	397	391	407	405	408	408	389	372	373	*368*	369	384
Missouri	368	364	379	384	379	378	387	366	354	*350*	*350*	360	361
Nebraska	23	22	23	25	26	25	25	23	22	*20*	22	24	23
New Jersey	708	698	698	709	702	699	*679*	702	720	712	723	728	722
New York	5,778	5,689	5,854	5,949	5,874	5,718	5,623	5,573	5,610	6,028	6,005	5,946	*5,470*
Ohio	438	*390*	411	421	464	424	425	407	447	458	462	486	458
Pennsylvania	174	169	172	169	*165*	169	172	176	170	174	176	203	171
Tennessee	382	*352*	363	379	383	385	381	385	379	387	414	402	371
Texas	71	81	84	75	65	*64*	68	72	69	68	72	69	69
Wisconsin	17	*16*	*16*	*16*	18	18	17	18	18	17	18	19	*16*

[1] No comparable data available for 1909.

TABLE 3.—PRODUCTS, BY CLASS, KIND, AND VALUE, FOR THE UNITED STATES: 1925 TO 1931

The figures for 1929 refer to sales (shipments or deliveries) by manufacturers; those for other years represent production. See sec. 16, p. 9]

CLASS	1931	1929	1927	1925
PRODUCTS, BY INDUSTRIES				
1. The drug industries (except drug grinding), all products, aggregate value	$522,137,025	$637,125,965	$549,797,727	$472,494,323
2. Products belonging to the drug industries	491,392,001	599,634,025	521,510,876	445,252,396
3. Other products (not normally belonging to these industries)	30,745,024	37,491,940	28,286,851	27,241,927
4. Products normally belonging to the drug industries, made as secondary products in other industries, value	36,054,243	40,797,450	33,670,382	30,354,736
Druggists' preparations industry, all products, total value	109,448,176	124,778,487	110,309,139	95,419,824
Druggists' preparations	77,531,592	94,548,916	83,582,583	67,111,168
Patent or proprietary medicines and compounds	28,008,231	24,928,249	22,069,686	22,590,733
Perfumes, cosmetics, and other toilet preparations	2,230,171	1,850,410	1,746,121	2,082,850
Other products	1,678,182	3,450,912	2,910,749	3,635,073
Patent or proprietary medicines and compounds industry, all products, total value	254,514,150	318,906,928	278,242,929	247,564,046
Patent or proprietary medicines and compounds	204,987,508	267,177,289	234,028,975	214,015,660
Druggists' preparations	11,589,567	11,694,158	12,008,181	6,535,576
Perfumes, cosmetics, and other toilet preparations	20,759,751	18,555,387	17,776,856	11,723,274
Other products	17,177,324	21,480,094	14,428,917	15,289,536
Perfumes, cosmetics, and other toilet preparations industry, all products, total value	158,174,699	193,440,550	161,245,659	129,510,453
Perfumes, cosmetics, and other toilet preparations	129,194,082	165,720,043	142,036,937	115,780,721
Druggists' preparations	3,258,217	4,300,741	2,118,273	921,317
Patent or proprietary medicines and compounds	13,832,882	10,858,832	6,143,264	4,491,097
Other products	11,889,518	12,560,934	10,947,185	8,317,318
Made as secondary products in other industries:				
Druggists' preparations, value	14,933,741	14,445,195	10,793,159	6,352,614
Patent or proprietary medicines and compounds, value	7,047,148	10,788,941	5,963,201	6,196,233
Perfumes, cosmetics, and other toilet preparations, value	14,073,354	15,563,314	16,914,022	17,805,889
PRODUCTS IN DETAIL, ALL INDUSTRIES				
Aggregate value (sum of 2 and 4)	$527,446,244	$640,431,475	$555,181,258	$475,607,132
Druggists' preparations, total value	$107,313,117	$124,989,010	$108,502,196	$80,920,675
Alkaloids and derivatives, total	$7,676,913	$8,029,633	$7,154,505	$6,336,778
Caffeine:				
Pounds	371,577	442,226	399,002	322,137
Value	$953,094	$1,104,337	$1,178,216	$1,047,321
Codein:				
Pounds	16,014	14,058	9,125	5,956
Value	$1,799,375	$1,986,376	$1,168,966	$701,777
Morphine:				
Pounds	8,357	8,075	10,665	6,297
Value	$855,773	$1,080,864	$1,391,213	$922,133
Other (cocaine, nicotine, quinine, strychnine, etc.), value	$4,068,671	$3,858,056	$3,416,110	$3,665,547
Biological products, total value	$14,821,143	$16,850,168	$18,411,028	$10,621,933
Antitoxins:				
For human use	2,430,274	2,916,918	2,104,967	2,573,728
For animal use	255,141	635,070	675,268	
Bacterins:				
For human use	1,026,220	808,711	1,349,229	766,052
For animal use	542,730	776,785	955,072	

TABLE 3.—PRODUCTS, BY CLASS, KIND, AND VALUE, FOR THE UNITED STATES: 1925 TO 1931—Continued

[See note at head of this table]

CLASS	1931	1929	1927	1925
PRODUCTS IN DETAIL, ALL INDUSTRIES—contd.				
Druggists' preparations—Continued				
Biological products—Continued				
Serums:				
For human use	$1,103,246	$673,055	$1,619,767	$2,951,459
For animal use	5,435,630	6,802,688	8,342,027	
Vaccines:				
For human use	1,146,052	1,091,812	1,487,074	1,335,184
For animal use	515,917	561,874	515,904	
Viruses:				
For human use	193,337	340,734	399,951	864,338
For animal use	885,925	908,767	471,843	
Undistributed (not reported by kind):				
For human use	1,189,412	1,285,594	423,913	2,131,172
For animal use	97,259	48,160	66,013	
Other druggists' preparations (not patent or proprietary):				
Tinctures, fluid extracts, medicinal sirups, and other liquid preparations, not otherwise accounted for, value	33,595,432	49,486,489	38,611,636	30,232,355
Pills, tablets, powders, etc., not otherwise accounted for, value	40,307,922	46,184,113	41,745,473	32,553,416
Ointments, cerates, suppositories, globules, etc., value	6,903,303			
Pharmaceutical metals and their salts, value	4,008,404	4,438,607	2,579,554	1,176,193
Patent or proprietary medicines, total value	175,800,013	211,840,222	184,073,332	174,305,562
For sale to the general public:				
Containing narcotic drugs (opium, codein, morphine, heroin, or cocaine)	148,013	331,815	646,139	278,202
Not containing narcotic drugs, total value	123,244,874	154,567,308	140,032,935	133,909,803
For human use	113,700,823	(1)	(1)	(1)
For animal use	9,544,051			
Ethical specialties (dispensed on physicians' prescriptions or through physicians):				
Containing narcotic drugs (opium, codein, morphine, heroin, or cocaine)	2,629,876	2,149,863	1,781,319	1,394,549
Not containing narcotic drugs, total value	49,777,250	54,791,236	41,612,939	38,723,008
Synthetic chemical medicinals	5,117,142	3,456,059	5,815,436	2,252,244
Gland products	11,008,890	7,021,428	6,748,801	5,447,361
Vitamin preparations	6,039,507	4,483,769	1,443,211	342,554
Other	27,611,711	39,829,980	27,605,491	30,680,849
Patent or proprietary compounds, total value	$78,075,756	$101,913,089	$84,131,794	$72,988,161
Antiseptics, value	$22,432,260	$21,799,004	$17,863,540	$13,842,386
Deodorants other than for human use, total value	$1,500,541	(2)	(2)	(2)
Liquid:				
Pounds	4,892,630	(2)	(2)	(2)
Value	$599,325			
Block and crystal:				
Pounds	1,032,412			
Value	$611,661			
Powder:				
Pounds	955,699			
Value	$194,528			
Other:				
Pounds	246,553			
Value	$95,027			
Germicides, value	$1,468,886	$2,482,798	$2,237,513	$1,305,430
Disinfectants, insecticides, and fungicides:[3] Disinfectants, total value	$5,411,502	$7,331,787	$6,088,781	$5,775,388
Coal-tar:				
Pounds	21,789,691	21,773,790	23,230,545	(1)
Value	$3,695,589	$4,637,106	$3,824,974	
Pine-oil:				
Pounds	3,001,713	1,831,653	2,897,009	
Value	$614,139	$426,874	$442,072	

See footnotes at end of table.

TABLE 3.—PRODUCTS, BY CLASS, KIND, AND VALUE, FOR THE UNITED STATES: 1925 TO 1931—Continued

[See note at head of this table]

CLASS	1931	1929	1927	1925
PRODUCTS IN DETAIL, ALL INDUSTRIES—contd.				
Patent or proprietary compounds—Continued				
Disinfectants, insecticides, and fungicides—Continued				
Disinfectants—Continued				
Chloride of lime and chlorine products:				
Pounds	4,497,586	2,835,904	1,390,607	
Value	$561,679	$536,424	$123,925	
Other:				(1)
Pounds	3,167,540	11,280,930	7,283,512	
Value	$540,095	$1,731,383	$1,697,810	
Household insecticides, total value	$14,773,046	$15,077,107	$12,907,977	
Sprays, fly:				
Pounds	32,359,219	36,685,374	18,407,817	
Value	$9,258,038	$9,322,578	$6,100,798	
nsect powder (Pyrethrum):				
Pounds	4,739,449	5,542,498	2,730,863	
Value	$1,850,647	$2,446,524	$1,772,153	
Fluoride powders and mixtures:				
Pounds	905,201	700,845	614,878	
Value	$415,615	$385,199	$310,236	
Moth repellants:				
Pounds	5,205,983	2,364,401	3,679,903	$18,903,973
Value	$1,550,958	$799,774	$1,103,685	
Other:				
Pounds	9,027,471	8,954,579	14,197,294	
Value	$1,697,788	$2,123,032	$3,621,105	
Disinfectants and insecticides not reported by kind, value [3]	$941,598	$3,345,314	----------	
Agricultural insecticides and fungicides, value [4]	$6,964,534	$10,339,835	$8,781,654	
Boiler compounds, value	$3,386,537	$5,083,950	$5,867,285	$5,756,729
Household ammonia, value	$1,272,241	$1,253,149	$1,249,117	$1,848,198
Other compounds, value	$19,924,611	[5] $35,200,145	[5] $29,135,927	[5] $25,556,057
Perfumes, cosmetics, and other toilet preparations, total value	$166,257,358	$201,689,154	$178,473,936	$147,392,734
Perfumes	10,350,722	19,197,844	15,300,504	20,357,539
Toilet waters	4,652,993	8,264,132	8,469,207	
Creams, other than shaving cream	25,124,553	33,347,464	29,218,815	
Lip sticks and lip rouges	5,100,047	12,308,969	11,492,644	35,548,920
Other rouges	5,629,874			
Dentifrices	35,699,132	32,463,698	30,692,834	25,736,068
Deodorants, for human use	2,802,169	(6)	(6)	(6)
Hair dyes	2,999,172	3,327,259	3,118,760	2,581,862
Hair tonics	7,384,152	10,339,232	11,638,678	9,990,986
Face powders	18,871,771	24,037,625	21,582,602	
Talcum powders	8,417,995	8,343,697	8,002,743	21,377,529
Other toilet powders	2,543,202	2,340,008	3,096,985	
Depilatories	1,639,696	1,551,633	1,071,969	
Shampoos	4,087,052	5,796,526	3,824,540	
Face lotions	5,816,761			
Hair dressings	5,505,819	40,371,067	30,963,655	23,698,412
Other toilet preparations, including manicure preparations [7]	19,632,248			
Perfumes, cosmetics, and other toilet preparations not reported by class or kind	----------	----------	----------	8,101,418

[1] Not reported separately.

[2] No figures comparable with those for 1931 can be given. The values originally published for 1929 ($5,032,968), 1927 ($2,572,840), and 1925 ($2,718,633) included the values of deodorants for human use. These are now included in the figures for "Other compounds."

[3] Because of the fact that it has been necessary to show, for 1931 and 1929, under the heading "Disinfectants and insecticides not reported by kind," the value of certain products which were reported by kind for 1927 but not for 1929 or 1931, the indicated increases and decreases during the 2 periods between 1927 and 1931 in the quantities and values of products classified as "Disinfectants" and "Household insecticides" differ somewhat from the actual increases and decreases.

[4] Production in the drug industries only. This item includes calcium and lead arsenates and lime-sulphur solution, data for which will be found in the statistics for these commodities shown in the report for the "Chemicals not elsewhere classified" industry.

[5] Not strictly comparable with figures for 1931. See footnote 3.

[6] Data incomplete.

[7] Data called for separately on schedule but combined to avoid disclosing approximations of the output of individual establishments.

TABLE 4.—PERFUMES, COSMETICS, AND OTHER TOILET PREPARATIONS—PRODUCTION, BY KIND AND VALUE, BY STATES: 1931

[This table gives statistics for each State for which it is possible to publish separate figures without disclosing exactly, or approximately, the output of individual establishments. In many cases, however, certain of the States named in combination with others (including the "Other States") outranked some of those for which separate figures are given]

PRODUCT AND STATE	Value
Aggregate value	$166,257,358
Perfumes, total	10,350,722
California	115,601
Connecticut	259,878
Illinois	756,928
Louisiana	23,102
Massachusetts	409,770
Michigan	180,678
Minnesota	163,843
Missouri	170,140
New Jersey	845,829
New York	6,524,917
Ohio	380,396
Pennsylvania	141,816
Tennessee	78,465
Other States	299,359
Toilet waters, total	4,652,993
California	34,008
Connecticut	126,591
Illinois	220,784
Indiana	19,098
Louisiana	4,655
Massachusetts	80,423
Michigan	23,611
Missouri	86,365
New Jersey	752,387
New York	2,588,153
Ohio	128,298
Pennsylvania	77,377
Tennessee	46,086
Texas	2,112
Other States	463,045
Creams other than shaving cream, total	25,124,553
California	642,790
Colorado	21,208
Georgia	113,297
Illinois	2,165,328
Indiana	139,816
Louisiana	13,949
Michigan	407,382
Minnesota	281,714
Missouri	1,140,578
New Jersey	1,374,108
New York	8,117,576
Tennessee	728,455
Texas	82,956
Connecticut, Maryland, and Massachusetts	6,727,926
Ohio and Pennsylvania	2,621,477
Other States	545,993
Lip sticks and lip rouges, total	5,100,047
Illinois	1,596,859
Missouri	16,156
New York	3,038,377
Ohio	28,926
Tennessee	19,505
Other States	400,224
Other rouges, total	5,629,874
Illinois	845,248
Michigan	3,781
New York	4,193,988
Ohio	17,321
New Jersey and Pennsylvania	181,000
Other States	388,536
Dentifrices, total	$35,699,132
New Jersey	14,586,726
Connecticut and New York	6,451,077
Illinois, Michigan, and Ohio	11,083,767
Missouri and Tennessee	2,829,276
Other States	748,286
Deodorants, for human use, total	2,802,169
Georgia	1,463
Illinois	103,782
Ohio	9,698
Tennessee	10,761
Minnesota and Missouri	391,698
New Jersey and New York	2,147,748
Other States	137,019
Depilatories, total	1,639,696
New York	302,677
Ohio	1,061
Illinois and New Jersey	1,286,000
Other States	49,958
Shampoos, total	4,087,052
California	88,427
Georgia	6,865
Illinois	556,503
Louisiana	1,997
Massachusetts	86,339
Michigan	58,786
Minnesota	166,996
Missouri	28,591
New Jersey	219,283
New York	956,340
Pennsylvania	29,124
Tennessee	14,200
Connecticut and Ohio	1,219,287
Indiana and Iowa	247,768
Other States	406,546
Hair dyes, total	2,999,172
New York	2,021,551
Illinois and Kentucky	162,326
Michigan, Minnesota, and Missouri	532,839
Other States	282,456
Hair tonics, total	7,384,152
California	117,239
Connecticut	135,321
Georgia	44,641
Illinois	329,575
Louisiana	3,895
Massachusetts	168,263
Michigan	252,012
Minnesota	261,021
New York	2,921,079
Pennsylvania	78,646
Tennessee	52,253
Texas	98,859
Iowa and Ohio	366,788
Missouri and New Jersey	2,085,089
Other States	469,471
Hair dressings, total	5,505,819
California	194,122
Georgia	252,548
Illinois	420,419

TABLE 4.—PERFUMES, COSMETICS, AND OTHER TOILET PREPARATIONS—PRODUCTION, BY KIND AND VALUE, BY STATES: 1931—Continued

[See note at head of table]

PRODUCT AND STATE	Value
Hair dressings—Continued.	
Michigan	$79,462
Minnesota	162,789
Missouri	517,353
New Jersey	810,707
New York	2,032,094
Pennsylvania	34,634
Tennessee	236,649
Connecticut and Massachusetts	98,043
Ohio and Virginia	379,154
Other States	287,845
Face lotions, total	5,816,761
California	303,508
Connecticut	667,688
Illinois	636,733
Massachusetts	273,242
Michigan	120,239
Minnesota	200,635
Missouri	305,589
New Jersey	201,924
New York	2,331,217
Tennessee	201,633
Texas	23,974
Ohio and Pennsylvania	304,405
Other States	245,974
Face powders, total	18,871,771
California	372,495
Georgia	28,057
Illinois	1,660,764
Indiana	52,640
Massachusetts	1,002,215
Michigan	165,750
Minnesota	138,760
New Jersey	607,375
New York	12,079,715
Ohio	288,932
Pennsylvania	174,654
Tennessee	327,717
Iowa and Missouri	1,677,862
Other States	294,835
Talcum powders, total	$8,417,995
California	30,138
Georgia	7,929
Illinois	334,737
Indiana	6,766
Iowa	28,927
Michigan	60,799
Minnesota	29,173
Missouri	209,070
New Jersey	3,144,570
New York	3,632,454
Ohio	60,385
Pennsylvania	69,565
Tennessee	202,695
Connecticut and Massachusetts	326,219
Other States	274,568
Other toilet powders, total	2,543,202
Illinois	132,998
New Jersey	178,485
New York	1,440,994
Connecticut and Massachusetts	304,690
Ohio, Pennsylvania, and Virginia	251,342
Other States	234,693
Other toilet preparations, including manicure preparations,[1] total	19,632,248
California	350,237
Connecticut	851,244
Illinois	1,157,362
Indiana	300,366
Massachusetts	544,743
Michigan	197,584
Minnesota	111,836
Missouri	226,036
New Jersey	4,353,571
New York	9,870,231
Ohio	672,418
Pennsylvania	215,843
Tennessee	225,382
Other States	555,395

[1] Data called for separately on schedule but combined to avoid disclosing approximations of the output of individual establishments.

DRUG GRINDING

Description of the industry.—The establishments in this industry are engaged primarily in grinding drugs, charcoal, herbs, gums, licorice and other roots, etc. The values of products for the industry, as given in the table below, do not, of course, include the values of drugs ground for their own use or for sale by establishments which, because of the character of their principal products, are classified in the "Druggists' Preparations," "Patent or Proprietary Medicines and Compounds," or other industries. See section 10, page 7.

SUMMARY FOR THE UNITED STATES, 1899 TO 1931, AND FOR STATES, 1931

[Data for establishments with products under $5,000 in value are included for 1919 and prior years but not for 1921 and subsequent years. See sec. 3d, p. 4. Statistics are given for all States for which separate figures can be published without disclosing, exactly or approximately, the data reported by individual establishments. Certain of the States for which combined figures are given—namely, Connecticut, Maryland, New Jersey, and Minnesota—are, however, more important in the industry than New York]

	Number of establishments	Wage earners (average of the year)	Wages	Cost of materials, containers, fuel, and purchased electric energy	Value of products [1]	Value added by manufacture [2]
United States						
1931	23	661	$711,328	$5,457,110	$9,159,361	$3,702,251
1929	26	677	840,935	5,675,079	9,669,220	3,994,141
1927	25	659	820,187	5,683,720	9,205,243	3,521,523
1925	22	622	709,903	4,921,118	8,446,361	3,525,243
1923	24	750	893,318	6,555,193	10,561,580	4,006,387
1921	28	840	1,005,155	6,804,453	10,085,691	3,281,238
1919	31	1,347	1,526,137	11,556,480	16,937,698	5,381,218
1914	29	1,059	583,361	5,215,287	8,080,118	2,864,831
1909	25	922	464,128	3,453,720	6,006,999	2,553,279
1904	27	981	483,097	3,024,305	5,145,522	2,121,217
1899	26	644	291,823	3,315,228	4,308,144	992,916
Percent of increase or decrease (−):						
1929-31	(3)	−2.4	−15.4	−3.8	−5.3	−7.3
1927-29	(3)	2.7	2.5	−0.2	5.0	13.4
1925-27	(3)	5.9	15.5	15.5	9.0	−0.1
1923-25	(3)	−17.1	−20.5	−24.9	−20.0	−12.0
1921-23	(3)	−10.7	−11.1	−3.7	4.7	22.1
1919-21	(3)	−37.6	−34.1	−41.1	−40.5	−39.0
1921-31	(3)	−21.3	−29.2	−19.8	−9.2	12.8
1919-29	(3)	−49.7	−44.9	−50.9	−42.9	−25.8
1909-19	(3)	46.1	228.8	234.6	182.0	110.8
1899-1909	(3)	43.2	59.0	4.2	39.4	157.1
States, 1931						
New York	5	60	$97,179	$276,019	$569,092	$293,073
Pennsylvania	3	11	12,798	46,226	90,996	44,770
Connecticut	1	481	498,609	4,331,889	7,146,996	2,815,107
Maryland	1					
New Jersey	4					
Other States [4]	9	109	102,742	802,976	1,352,277	549,301

[1] For 1929, manufacturers' sales (shipments or deliveries); for other years, production. See sec. 16, p. 9.
[2] Value of products less cost of materials, containers, fuel, and purchased electric energy. See sec. 20, p. 11.
[3] Percent not computed where base is less than 100.
[4] Illinois, 2 establishments; Indiana, 1; Massachusetts, 1; Michigan, 1; Minnesota, 1; North Carolina, 1; Tennessee, 1; Wisconsin, 1.

EXPLOSIVES

Description of the industry.—This industry embraces those establishments whose principal products are explosives, not including fireworks nor ammunition. (Separate reports have been compiled for the "Ammunition and Related Products" and "Fireworks" industries, the former of which includes the manufacture of cartridges, detonators, fuses, miners' squibs, railroad torpedoes, etc.)

Detailed statistics of products (table 3).—The so-called "permissible" explosives are those approved by the Bureau of Mines, Department of the Interior, as suitable for use in mines where dust and gas explosions are likely to occur.

The amount received for shooting wells has been taken as the value of the nitroglycerin used for this purpose.

TABLE 1.—SUMMARY FOR THE UNITED STATES, 1899 TO 1931, AND FOR STATES, 1931

[Data for establishments with products under $5,000 in value are included for 1919 and prior years but not for 1921 and subsequent years. See sec. 3d, p. 4. Statistics are given for all States for which separate figures can be published without disclosing, exactly or approximately, the data reported by individual establishments. One of the "Other States"—namely, New Jersey—however, is more important in the industry than any of the States shown separately]

	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, containers, fuel, and purchased electric energy	Value of products [1]	Value added by manufacture [2]
United States						
1931	78	4,733	$5,572,447	$19,518,905	$46,258,353	$26,739,448
1929	95	5,614	8,487,890	31,764,307	72,539,724	40,775,417
1927	100	5,803	8,131,234	36,893,576	72,489,668	35,596,092
1925	103	5,697	7,731,369	37,877,418	69,668,837	31,791,419
1923	106	6,388	9,112,027	39,495,972	75,029,127	35,533,155
1921	109	4,478	6,610,206	30,644,327	59,174,598	28,530,271
1919	118	9,249	12,504,986	45,911,049	92,474,813	46,563,764
1914	111	6,306	4,488,288	25,626,539	41,432,970	15,806,431
1909	86	6,274	4,304,370	22,811,548	40,139,661	17,328,113
1904	124	5,800	3,308,774	17,203,667	29,602,884	12,399,217
1899	97	4,502	2,383,756	10,334,974	17,125,418	6,790,444
Percent of increase or decrease (−):						
1929–31	(3)	−15.7	−34.3	−38.6	−36.2	−34.4
1927–29	−5.0	−3.3	4.4	−13.9	0.1	14.6
1925–27	−2.9	1.9	5.2	−2.6	4.0	12.0
1923–25	−2.8	−10.8	−15.2	−4.1	−7.1	−10.5
1921–23	−2.8	42.7	37.8	28.9	26.8	24.5
1919–21	−7.6	−51.6	−47.1	−33.3	−36.0	−38.7
1921–31	−28.4	5.7	−15.7	−36.3	−21.8	−6.3
1919–29	−19.5	−39.3	−32.1	−30.8	−21.6	−12.4
1909–19	(3)	47.4	190.5	101.3	130.4	168.7
1899–1909	(3)	39.4	80.6	120.7	134.4	155.2
States, 1931						
California	3	364	$577,659	$2,047,654	$4,804,225	$2,756,571
Illinois	7	307	337,078	1,538,938	3,069,930	1,530,992
Missouri	4	300	284,059	1,128,579	2,360,100	1,231,521
Ohio	8	128	143,078	337,624	796,468	458,844
Pennsylvania	17	1,004	1,101,719	3,489,239	8,151,488	4,662,249
Other States [4]	39	2,630	3,128,854	10,976,871	27,076,142	16,099,271

[1] For 1929, sales (shipments or deliveries) by manufacturers; for other years, production. See sec. 16, p. 9.
[2] Value of products less cost of materials, containers, fuel, and purchased electric energy. See sec. 20, p. 11
[3] Percent not computed where base is less than 100.
[4] Alabama, 3 establishments; Arizona, 1; Arkansas, 1; Colorado, 1; Indiana, 1; Iowa, 1; Kansas, 2; Kentucky, 2; Massachusetts, 1; Michigan, 2; Montana, 1; Nevada, 1; New Jersey, 5; New York, 2; Oklahoma, 1; Tennessee, 1; Texas, 3; Utah, 1; Washington, 4; West Virginia, 4; Wisconsin, 1.

TABLE 2.—WAGE EARNERS, BY MONTHS, FOR THE UNITED STATES, 1931, 1929, 1925, 1919, 1914, AND 1909, AND FOR STATES, 1931

[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. See sec. 13, p. 8]

	Average number employed during year	NUMBER REPORTED FOR—											
		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
United States													
1931	4,733	5,168	4,997	4,985	4,846	4,685	4,697	4,752	4,691	4,659	4,634	4,413	*4,270*
1929	5,614	5,518	5,465	*5,428*	5,461	5,538	5,498	5,663	5,877	5,910	5,850	5,693	5,466
1925	5,697	5,689	5,770	5,742	5,763	5,616	5,631	5,790	5,869	5,781	5,760	5,575	*5,374*
1919	9,249	11,809	9,903	9,509	8,922	8,721	*8,605*	8,706	8,937	8,994	8,946	8,984	8,952
1914	6,306	6,398	6,168	6,218	6,154	5,917	5,910	*5,877*	5,947	5,990	6,129	7,014	7,950
1909	6,274	5,813	5,737	5,771	*5,504*	5,893	6,138	6,407	6,548	6,680	6,799	6,899	7,106
States, 1931													
California	364	341	340	342	320	*316*	326	356	365	422	476	413	352
Illinois	307	331	335	291	323	*288*	296	303	306	310	297	305	296
Missouri	300	422	406	404	333	296	277	275	267	265	255	*203*	*203*
Ohio	128	122	121	123	*105*	108	124	134	110	144	153	155	143
Pennsylvania	1,004	1,123	1,018	1,041	1,027	1,039	1,063	1,045	1,012	939	920	916	*904*

TABLE 3.—PRODUCTS, BY KIND, QUANTITY, AND VALUE, FOR THE UNITED STATES: 1925 TO 1931

[The figures for 1929 refer to sales (shipments or deliveries) by manufacturers; those for other years represent production. See sec. 16, p. 9]

KIND	1931	1929	1927	1925
Explosives industry, all products, aggregate value	$46,258,353	$72,539,724	$72,489,668	$69,668,837
Explosives (including consumption in shooting wells), value	40,269,344	62,953,053	66,192,463	63,825,757
Other products (not normally belonging to the industry)	5,989,009	9,586,671	6,297,205	5,843,080
Explosives (including consumption in shooting wells):				
Total pounds	350,913,678	529,862,602	548,869,144	551,188,384
Total value	$40,269,344	$62,953,053	$66,192,463	$63,825,757
Dynamite:				
Number of establishments	34	28	27	28
Pounds	191,843,064	306,147,401	294,716,046	282,310,576
Value	$22,023,737	$36,989,032	$38,274,514	$36,163,905
Permissible explosives:				
Number of establishments	27	24	24	25
Pounds	51,578,885	70,608,408	65,220,608	60,711,877
Value	$5,820,489	$8,375,355	$8,412,190	$7,944,634
Nitroglycerin:				
Consumed in shooting wells, pounds	[1] 678,916	2,966,882	[1] 2,846,759	2,686,158
For sale as such, pounds		486,480		373,832
Amount received for shooting wells on contract	[1] $433,851	$2,319,173	[1] $2,168,230	$2,011,393
For sale as such, value		$127,711		$266,197
Blasting powder:				
Number of establishments	23	29	36	36
Kegs (25 pounds)	3,137,389	4,826,696	5,475,299	6,437,876
Value	$4,909,226	$7,750,000	$8,693,884	$9,684,228
Gunpowder, black:				
Number of establishments	4	6	6	3
Pounds	443,177	1,081,515	1,535,450	1,177,570
Value	$104,924	$231,384	$315,767	$238,319
Fuse powder:				
Number of establishments	4	5	6	6
Pounds	1,421,895	2,270,256	2,708,099	2,840,150
Value	$292,964	$426,914	$562,454	$609,437
Other explosives, including smokeless powder:[1]				
Pounds	26,513,016	25,634,260	44,959,707	40,141,321
Value	$6,684,153	$6,733,484	$7,765,424	$6,907,594

[1] Data called for separately on schedule but combined to avoid disclosing approximations of output of individual establishments.

FERTILIZERS

Description of the industry.—This industry consists in the manufacture of commercial fertilizers, of which the principal classes are complete fertilizers (mixtures of superphosphates, potash, and ammoniates) and superphosphates. It does not include the merchandising of fertilizer materials for use in the natural state, nor of tankage from meat-packing establishments for use without remanufacture.

Sulphuric acid.—The fertilizer industry consumes a large amount of sulphuric acid, of which a very considerable proportion is manufactured by the fertilizer companies. Of the total production of sulphuric acid by all industries in 1931, 27.7 percent was reported by establishments in the fertilizer industry, as compared with 23.6 percent in 1929, 28.5 percent in 1927, and 28.7 percent in 1925.

Monthly statistics on superphosphates.—The Census Bureau collects monthly, from manufacturers of fertilizers, data on their production, shipments, and stocks of superphosphates. According to the results of this monthly canvass, the production in 1931, on the basis of 16 percent of available phosphoric acid, aggregated 2,813,479 tons, as compared with 3,492,771 tons reported at the biennial census for the same year. This difference is due chiefly to the fact that the biennial-census returns for a number of important manufacturers covered the fiscal year from July 1, 1930, to June 30, 1931, whereas all the monthly returns pertained to the calendar year 1931.

TABLE 1.—SUMMARY FOR THE UNITED STATES, 1899 TO 1931, AND FOR STATES, 1931

[Data for establishments with products under $5,000 in value are included for 1919 and prior years but not for 1921 and subsequent years. See sec. 3d, p. 4. Statistics are given for all States for which separate figures can be published without disclosing, exactly or approximately, the data reported by individual establishments. Certain of the "Other States," however, are more important in the industry than some of the States shown separately]

	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, containers, fuel, and purchased electric energy	Value of products	Value added by manufacture [1]
United States						
1931	599	14,551	$12,145,966	$106,481,104	$154,349,887	$47,868,783
1929	638	20,926	17,883,925	159,801,195	232,510,936	72,709,741
1927	621	18,612	17,649,661	138,142,925	190,384,890	52,241,965
1925	587	19,644	17,743,327	137,808,185	206,772,904	68,964,719
1923	573	18,572	16,365,324	127,980,450	183,088,751	55,108,301
1921	588	16,898	16,025,728	144,978,255	180,374,789	35,396,534
1919	600	26,296	25,363,132	185,040,522	281,143,587	96,103,065
1914	784	22,815	10,532,005	107,954,644	153,196,152	45,241,508
1909	550	18,310	7,477,179	69,521,920	103,960,213	34,438,293
1904	399	14,184	5,127,147	39,287,914	56,541,253	17,253,339
1899	422	11,581	4,185,289	28,958,473	44,657,385	15,698,912

See footnote at end of table.

TABLE 1.—SUMMARY FOR THE UNITED STATES, 1899 TO 1931, AND FOR STATES, 1931—Continued

[See note at head of table]

	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, containers, fuel, and purchased electric energy	Value of products	Value added by manufacture [1]
Percent of increase or decrease (−):						
1929-31	−6.1	−30.5	−32.1	−33.4	−33.6	−34.2
1927-29	2.7	12.4	1.3	15.7	22.1	39.2
1925-27	5.8	−5.3	−0.5	0.2	−7.9	−24.2
1923-25	2.4	5.8	8.4	7.7	12.9	25.1
1921-23	−2.6	9.9	2.1	−11.7	1.5	55.7
1919-21	−2.0	−35.7	−36.8	−21.7	−35.8	−63.2
1921-31	1.9	−13.9	−24.2	−26.6	−14.4	35.2
1919-29	6.3	−20.4	−29.5	−13.6	−17.3	−24.3
1909-19	9.1	43.6	239.2	166.2	170.4	179.1
1899-1909	30.3	58.1	78.7	140.1	132.8	119.4
States, 1931						
Alabama	40	726	$389,640	$4,417,674	$6,347,631	$1,929,957
Arkansas	10	76	37,715	573,093	658,557	85,464
California	26	225	262,380	2,324,253	3,415,736	1,091,483
Connecticut	6	140	130,283	1,382,196	2,085,120	702,924
Delaware	6	58	57,104	400,019	585,480	185,461
Florida	25	809	628,281	7,961,817	11,746,525	3,784,708
Georgia	116	1,977	1,118,659	12,906,289	18,541,643	5,635,354
Illinois	13	394	372,890	4,095,820	5,892,134	1,796,314
Indiana	10	169	179,791	1,924,940	2,840,439	915,499
Louisiana	11	323	221,515	2,228,733	3,453,565	1,224,832
Maine	11	150	148,396	2,531,013	3,598,564	1,067,551
Maryland	35	1,861	2,117,492	12,026,769	17,805,748	5,778,979
Massachusetts	6	360	418,959	2,896,608	3,895,973	999,365
Mississippi	12	281	146,274	1,662,894	2,595,890	932,996
New Jersey	20	495	676,056	3,812,275	5,512,089	1,699,814
New York	13	210	269,576	2,239,077	2,759,109	520,032
North Carolina	68	1,497	943,782	10,454,930	15,244,307	4,789,377
Ohio	24	730	832,412	6,622,106	9,929,241	3,307,135
Pennsylvania	25	489	503,957	3,182,739	4,836,452	1,653,713
South Carolina	41	1,071	673,174	6,070,647	8,349,334	2,278,687
Tennessee	8	366	297,925	2,491,828	3,661,983	1,170,155
Texas	12	86	50,680	643,180	1,080,430	437,250
Virginia	40	1,475	1,039,038	10,336,272	14,472,852	4,136,580
Washington	4	20	22,138	129,187	215,646	86,459
Other States [2]	17	563	607,849	3,166,745	4,825,439	1,658,694

[1] Value of products less cost of materials, containers, fuel, and purchased electric energy. See sec. 20, p. 11.

[2] Kansas, 2 establishments; Kentucky, 2; Michigan, 3; Minnesota, 1; Missouri, 1; Montana, 1; Nebraska, 1; Nevada, 1; Rhode Island, 1; Vermont, 1; West Virginia, 1; Wisconsin, 2.

TABLE 2.—WAGE EARNERS, BY MONTHS, FOR THE UNITED STATES, 1931, 1929, 1925, 1919, 1914, AND 1909, AND FOR STATES, 1931

[This table presents statistics for only those States for which figures can be given without disclosing, exactly or approximately, the 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 See sec. 13, p. 8]

	Average number employed during year	NUMBER REPORTED FOR—											
		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
United States													
1931	14,551	13,840	17,250	23,118	27,379	14,867	*9,821*	10,812	11,187	12,667	11,913	10,729	11,025
1929	20,926	19,946	23,337	35,195	**37,767**	18,688	14,847	*14,554*	15,287	18,961	17,941	17,381	17,210
1925	19,644	17,761	23,212	33,402	31,962	16,338	*13,916*	14,116	15,321	18,872	17,405	16,655	16,773
1919	26,296	27,808	31,043	38,357	36,465	23,856	*21,071*	21,731	22,500	25,205	22,028	21,897	23,591
1914	22,815	22,571	30,647	38,332	32,977	21,793	18,286	17,603	18,041	20,863	18,249	17,564	*16,854*
1909	18,310	17,076	24,196	**29,310**	23,198	16,737	14,506	*14,264*	15,514	18,163	16,232	15,095	15,425
States, 1931													
Alabama	726	593	1,038	1,552	1,952	608	*346*	373	422	460	490	437	443
Arkansas	76	105	136	159	186	89	*16*	27	47	34	58	21	30
California	225	284	304	281	230	193	175	*166*	208	219	204	220	218
Connecticut	140	112	144	194	276	277	149	*73*	85	79	85	121	90
Delaware	58	17	23	28	35	36	44	122	116	122	128	26	*5*
Florida	809	975	1,042	986	711	700	*603*	776	837	679	744	794	859
Georgia	1,977	1,712	2,983	4,769	3,857	1,570	*915*	1,216	1,237	1,363	1,413	1,290	1,404
Illinois	394	384	451	512	661	434	*229*	302	307	429	301	365	350
Indiana	169	162	170	192	316	245	151	149	138	223	122	*76*	87
Louisiana	323	374	441	617	554	180	*156*	235	289	285	279	223	239
Maine	150	151	145	249	271	262	71	*45*	59	118	149	153	128
Maryland	1,861	1,798	2,027	2,388	2,942	2,215	1,605	1,548	1,663	1,852	1,687	1,309	*1,301*
Massachusetts	360	343	322	472	580	502	263	*248*	277	337	312	336	324
Mississippi	281	259	365	499	605	200	*134*	143	219	238	273	237	202
New Jersey	495	466	519	579	696	598	*373*	478	445	468	444	428	451
New York	210	205	186	215	398	277	194	216	186	191	*140*	149	157
North Carolina	1,497	1,462	1,719	2,734	3,765	1,544	834	*790*	907	945	1,096	1,036	1,127
Ohio	730	695	704	863	1,193	786	621	648	559	1,110	*509*	503	579
Pennsylvania	489	459	491	646	713	614	422	388	428	473	470	*343*	416
South Carolina	1,071	1,059	1,235	2,143	2,413	853	*562*	635	727	828	802	764	827
Tennessee	366	254	375	414	1,140	389	*169*	299	281	280	258	269	265
Texas	86	131	177	176	148	52	*16*	34	61	89	75	27	46
Virginia	1,475	1,264	1,608	1,748	2,861	1,602	1,153	1,517	1,272	1,358	1,353	1,045	*925*
Washington	20	*5*	34	30	24	16	9	10	22	35	30	20	8

TABLE 3.—PRODUCTION, BY CLASS, QUANTITY, AND VALUE, FOR THE UNITED STATES: 1925 TO 1931

[Ton, 2,000 pounds]

	1931	1929	1927	1925
1. Fertilizer industry, all products, total value	$154,349,887	$232,510,936	$190,384,890	$206,772,904
2. Fertilizers	$134,384,776	$201,751,371	$165,272,337	$187,003,635
3. Other products (not normally belonging to the industry) [1]	$19,965,111	$30,759,565	$25,112,553	$19,769,269
4. Fertilizers made as secondary products in other industries, value	$6,333,125	$20,979,745	$8,537,436	$8,036,522
Fertilizers, all industries:				
Total tons	6,967,681	9,320,229	8,122,723	8,229,032
Total value (sum of 2 and 4)	$140,717,901	$222,731,116	$173,809,773	$195,040,157

See footnotes at end of table.

TABLE 3.—PRODUCTION, BY CLASS, QUANTITY, AND VALUE, FOR THE UNITED STATES: 1925 TO 1931—Continued

[Ton, 2,000 pounds]

	1931	1929	1927	1925
Fertilizers, all industries—Continued				
Complete fertilizers:				
Tons	4,544,650	5,991,780	5,088,179	4,925,948
Value	$110,172,501	$168,838,463	$128,379,580	$143,326,670
Superphosphates, including concentrated phosphates:				
Total production, tons	[2] 3,492,771	4,133,134	4,086,225	4,096,442
For sale:				
Tons	[2] 1,968,153	[2] 2,531,230	2,434,516	2,638,761
Value	$20,678,216	$28,375,184	$30,003,438	$35,180,160
Made and consumed, tons	[2,3] 1,524,618	[3] 1,601,904	[3] 1,651,709	[3] 1,457,681
Fish scrap:				
Tons	45,655	84,711	95,769	72,123
Value	$1,441,522	$3,244,632	$3,348,589	$2,927,927
Potash superphosphate:				
Tons	149,301	211,293	233,499	247,541
Value	$2,998,074	$4,854,365	$5,464,885	$6,159,388
Bone meal:				
Tons	51,773	39,548	41,996	48,282
Value	$1,518,136	$1,544,054	$1,601,044	$1,622,204
Other fertilizers:				
Tons	208,149	461,667	228,764	296,377
Value	$3,909,452	$15,874,418	$5,012,237	$5,823,808

[1] Sulphuric acid, bone black, etc., and goods sold in condition in which purchased. Sulphuric acid is made primarily in the Chemicals Not Elsewhere Classified industry, and bone black is made primarily by establishments in the Bone Black, Carbon Black, and Lampblack industry. The values of these commodities included in this figure represent only the production by establishments in the fertilizer industry.

[2] Basis 16 percent available phosphoric acid.

[3] Not included in total tons for "Fertilizers, all industries."

TABLE 4.—PRODUCTION, BY CLASS, QUANTITY, AND VALUE, BY STATES: 1931

[Statistics are given for all States for which separate figures can be published without disclosing, exactly or approximately, the data reported by individual establishments. Certain of the "Other States," however, outranked some of the States shown separately]

	Total	Complete fertilizers	Superphosphates, including concentrated phosphates	Other fertilizers [1]
United States:				
Tons	6,967,681	4,544,650	[2] 1,968,153	454,878
Value	$140,717,901	$110,172,501	$20,678,216	$9,867,184
Alabama:				
Tons	313,305	223,372	87,744	2,189
Value	$5,866,836	$4,884,868	$944,034	$37,934
Arkansas:				
Tons	23,751	20,669	(3)	(3)
Value	$641,806	$601,438	(3)	(3)
California:				
Tons	105,003	54,463	(3)	(3)
Value	$3,943,693	$2,379,115	(3)	(3)
Connecticut:				
Tons	44,880	40,872	(3)	(3)
Value	$1,791,740	$1,567,036	(3)	(3)
Florida:				
Tons	433,644	319,432	101,683	12,529
Value	$10,923,233	$9,413,715	$1,131,951	$377,567
Georgia:				
Tons	890,800	635,661	238,845	16,294
Value	$16,665,355	$13,797,457	$2,551,395	$316,503

See footnotes at end of table.

TABLE 4.—PRODUCTION, BY CLASS, QUANTITY, AND VALUE, BY STATES: 1931—Continued

[See note at head of table]

	Total	Complete fertilizers	Superphosphates, including concentrated phosphates	Other fertilizers
Illinois:				
Tons	220,920	140,844	42,783	37,293
Value	$5,609,495	$4,099,956	$661,605	$847,934
Indiana:				
Tons	105,040	75,733	13,135	16,172
Value	$2,654,836	$2,008,599	$220,693	$425,544
Louisiana:				
Tons	160,826	90,729	58,751	11,346
Value	$3,261,041	$2,344,141	$642,389	$274,511
Maine:				
Tons	89,443	87,276	(3)	(3)
Value	$3,597,949	$3,532,284	(3)	(3)
Maryland:				
Tons	972,476	407,154	539,550	25,772
Value	$13,857,891	$8,912,251	$4,501,723	$443,917
Massachusetts:				
Tons	162,540	116,254	40,431	5,855
Value	$3,420,916	$2,855,641	$395,200	$170,075
Mississippi:				
Tons	101,270	76,680	(3)	(3)
Value	$2,409,225	$2,097,410	(3)	(3)
New Jersey:				
Tons	244,821	179,081	(3)	(3)
Value	$5,635,445	$4,369,774	(3)	(3)
New York:				
Tons	138,838	83,590	(3)	(3)
Value	$2,776,995	$2,116,992	(3)	(3)
North Carolina:				
Tons	768,145	579,405	169,118	19,622
Value	$14,522,092	$12,386,479	$1,700,146	$435,467
Ohio:				
Tons	382,304	237,932	105,128	39,244
Value	$8,801,439	$6,462,653	$1,472,790	$865,996
Pennsylvania:				
Tons	204,075	116,129	55,656	32,290
Value	$4,184,750	$2,958,174	$501,204	$725,372
South Carolina:				
Tons	431,286	294,734	132,334	4,218
Value	$7,435,309	$6,019,943	$1,342,815	$72,551
Tennessee:				
Tons	223,107	107,441	96,394	19,272
Value	$3,774,510	$2,207,532	$1,161,517	$405,461
Texas:				
Tons	54,286	33,306	(3)	(3)
Value	$1,319,864	$973,140	(3)	(3)
Virginia:				
Tons	648,459	491,685	94,687	62,087
Value	$12,241,972	$10,454,984	$957,333	$829,655
Other States:				
Tons	248,462	132,208	74,424	41,830
Value	$5,381,509	$3,728,919	$955,374	$697,216
Undistributed:				
Tons	----------	----------	[3] 117,490	[3] 108,865
Value	----------	----------	[3] $1,538,047	[3] 2,941,481

[1] Ammoniated, potash superphosphate, fish scrap, bone meal, and "Other fertilizers." (See table 3.)
[2] Basis 16 percent available phosphoric acid.
[3] The items not shown for individual States are included in the "Undistributed" item to avoid disclosing, exactly or approximately, the output of individual establishments.

TABLE 5.—PLANT-FOOD CONTENT OF COMPLETE FERTILIZERS AND OF POTASH SUPERPHOSPHATE, FOR THE UNITED STATES AND FOR GEOGRAPHIC DIVISIONS, 1931 AND 1929, AND FOR STATES, 1931

[Statistics are given for each State which can be shown separately without disclosing, exactly or approximately, the data reported by individual establishments, and for the remaining States in groups]

GEOGRAPHIC DIVISION AND STATE	Census year	QUANTITY AND PERCENT FOR WHICH PLANT-FOOD CONTENT WAS REPORTED		AVERAGE PERCENTAGE CONTENT OF—		
		Tons (2,000 pounds)	Percent of total	Nitrogen as N	Phosphorus as P_2O_5	Potassium as K_2O
COMPLETE FERTILIZERS						
United States	1931	3,424,694	75.4	3.2	8.6	4.6
	1929	4,143,110	69.1	2.7	9.5	4.4
NEW ENGLAND DIVISION	1931	229,706	92.0	4.4	8.1	8.0
	1929	216,928	92.3	4.0	8.2	7.1
Connecticut and Maine	1931	110,302	86.1	4.6	8.1	8.4
Massachusetts, Rhode Island, and Vermont	1931	119,404	98.2	4.2	8.1	7.6
MIDDLE ATLANTIC DIVISION	1931	289,817	76.5	3.4	8.8	5.7
	1929	348,538	82.0	2.9	9.2	6.0
New Jersey	1931	165,983	92.7	3.8	8.7	6.7
New York	1931	64,501	77.2	2.8	9.5	5.7
Pennsylvania	1931	59,333	51.1	3.2	8.4	3.0
NORTH CENTRAL DIVISION	1931	411,831	80.5	2.5	12.1	5.7
	1929	480,988	71.1	1.9	12.5	5.1
Illinois	1931	132,845	67.6	2.8	12.4	6.8
Indiana	1931	65,310	86.2	2.3	12.3	5.7
Michigan and Ohio	1931	213,676	76.8	2.4	11.8	5.0
SOUTH ATLANTIC DIVISION	1931	2,038,606	74.3	3.2	7.9	3.9
	1929	2,358,894	65.6	2.7	8.8	3.9
Delaware and Maryland	1931	306,740	72.7	3.7	7.4	4.7
Florida	1931	232,584	72.8	3.8	7.5	5.3
Georgia	1931	522,016	82.1	2.8	8.3	3.7
North Carolina	1931	447,817	77.3	2.8	7.7	3.3
South Carolina	1931	229,559	77.9	3.4	8.1	3.4
Virginia	1931	299,890	61.0	3.3	8.0	3.7
SOUTH CENTRAL DIVISION	1931	420,821	71.6	3.3	9.4	4.3
	1929	701,472	72.8	2.9	10.0	4.4
Alabama	1931	154,649	69.2	2.9	8.9	4.5
Arkansas	1931	12,098	58.5	3.5	9.5	4.0
Kentucky and Tennessee	1931	113,636	79.4	3.0	9.8	4.1
Louisiana	1931	83,037	91.5	4.0	9.7	4.4
Mississippi	1931	33,117	43.2	3.6	8.4	3.8
Texas	1931	24,284	72.9	4.5	10.9	5.2
MOUNTAIN AND PACIFIC DIVISIONS	1931	33,913	46.4	5.5	8.4	4.9
	1929	36,290	37.1	4.7	8.1	3.7
California, Montana, and Washington	1931	33,913	46.4	5.5	8.4	4.9

TABLE 5.—PLANT-FOOD CONTENT OF COMPLETE FERTILIZERS AND OF POTASH SUPERPHOSPHATES, FOR THE UNITED STATES AND FOR GEOGRAPHIC DIVISIONS, 1931 AND 1929, AND FOR STATES, 1931—Continued

[See note at head of table]

GEOGRAPHIC DIVISION AND STATE	Census year	QUANTITY AND PERCENT FOR WHICH PLANT-FOOD CONTENT WAS REPORTED		AVERAGE PERCENTAGE, CONTENT OF—	
		Tons (2,000 pounds)	Percent of total	Phosphorus as P_2O_5	Potassium as K_2O
POTASH SUPERPHOSPHATE					
United States	1931	135,719	90.9	11.4	7.5
	1929	166,658	78.9	12.1	7.6
NEW ENGLAND AND MIDDLE ATLANTIC DIVISIONS	1931	5,454	89.8	11.6	6.8
	1929	8,748	95.3	11.5	6.7
Massachusetts, New Jersey, and New York	1931	2,955	98.5	11.3	8.2
Pennsylvania	1931	2,499	81.3	11.9	5.1
NORTH CENTRAL DIVISION	1931	67,269	96.6	12.5	10.1
	1929	85,868	88.4	12.8	10.0
Illinois	1931	14,029	100.0	11.8	17.1
Indiana	1931	15,771	99.9	12.6	9.1
Michigan and Ohio	1931	37,469	94.2	12.7	8.0
SOUTH ATLANTIC DIVISION	1931	44,305	80.9	9.7	4.6
	1929	57,613	77.7	11.0	4.7
Delaware and Maryland	1931	16,132	90.9	9.2	4.3
Florida	1931	1,130	100.0	6.2	2.9
Georgia	1931	5,124	94.1	10.2	3.9
North Carolina	1931	6,653	81.2	9.5	5.5
South Carolina	1931	1,410	87.7	9.6	3.7
Virginia and West Virginia	1931	13,856	67.2	11.8	5.2
SOUTH CENTRAL DIVISION	1931	18,546	99.0	11.3	4.9
	1929	14,234	46.5	11.9	5.1
Alabama	1931	1,615	96.2	11.5	4.3
Arkansas, Mississippi, and Tennessee	1931	9,838	100.0	10.2	4.5
Kentucky and Texas	1931	1,695	93.4	10.6	8.0
Louisiana	1931	5,398	100.0	13.4	5.7
MOUNTAIN AND PACIFIC DIVISIONS	1931	145	100.0	10.3	13.1
	1929	195	100.0	11.8	8.7
California	1931	145	100.0	10.3	13.1

TABLE 6.—MATERIALS CONSUMED IN THE FERTILIZER INDUSTRY, BY KIND AND QUANTITY, FOR THE UNITED STATES: 1931 AND 1929

KIND	TONS (2,000 POUNDS)		KIND	TONS (2,000 POUNDS)	
	1931	1929		1931	1929
Sulphate of ammonia	322,878	460,505	Superphosphates:		
Nitrate of soda	106,284	240,403	Made and consumed in same establishments	[2] 1,524,618	[3] 1,601,685
Ammonia, anhydrous	16,931	(1)	Purchased	[2] 1,077,279	[4] 1,368,031
Ammonia, aqua	31,372	(1)	Muriate of potash	[5] 192,984	228,319
Calcium cyanamid	39,509	77,389	Sulphate of potash	63,554	77,043
Urea and calurea	9,954	(1)	Manure salts	[6] 274,422	389,884
Ammonium phosphate	35,488	(1)	Kainite	49,101	81,119
Cottonseed meal	55,340	84,762	Other potash-bearing substances	83,511	90,497
Tankage (animal) and dried blood	47,621	221,460	Phosphate rock	1,780,397	2,291,037
Tankage (processed)	69,514		Sulphur	269,517	339,088
Tankage (garbage)	51,482		Pyrites	148,593	201,384
Fish scrap and meal	43,579	149,887	Sulphuric acid, basis 50° Baumé:		
Guano (all kinds)	26,134	40,807	Made and consumed in same establishments	1,102,629	1,373,033
Sewage sludge	7,497	(1)	Purchased	633,860	922,150
Other nitrogenous materials	66,082	(1)	Other fertilizer materials	326,071	[7] 916,812
Bones, ground, steamed, etc.	24,817	45,676			

[1] Not called for on schedule; included in item for "Other fertilizer materials."
[2] Basis 16 percent available phosphoric acid.
[3] Basis 20 percent or less available phosphoric acid, run of pile.
[4] Comprises 1,320,694 tons, basis 20 percent or less available phosphoric acid, run of pile, and 47,337 tons, basis over 40 percent available phosphoric acid.
[5] Basis 50 percent K_2O.
[6] Basis 20 percent K_2O.
[7] Not comparable with item for 1931. See footnote 1.

FIREWORKS

Description of the industry.—This industry embraces establishments engaged primarily in the manufacture of fireworks of all kinds, such as toy torpedoes, bombs, shells, pin wheels, torches, rockets, sparklers, firecrackers, and set pieces.

SUMMARY FOR THE UNITED STATES, 1899 TO 1931, AND FOR STATES, 1931

[Data for establishments with products under $5,000 in value are included for 1919 and prior years but not for 1921 and subsequent years. See sec. 3d, p. 4. Statistics are given for all States for which separate figures can be published without disclosing, exactly or approximately, the data reported by individual establishments. Certain of the "Other States," however, are more important in the industry than some of the States shown separately]

	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, containers, fuel, and purchased electric energy	Value of products [1]	Value added by manufacture [2]
United States						
1931	37	1,350	$1,096,656	$1,405,598	$3,722,103	$2,316,505
1929	50	1,811	1,930,595	2,464,617	6,583,502	4,118,885
1925	36	1,564	1,395,024	2,623,672	5,884,939	3,261,267
1927	41	1,446	1,429,093	2,399,200	6,031,435	3,632,235
1923	38	1,224	1,156,120	1,830,933	4,977,008	3,146,075
1921	37	1,229	1,116,075	1,917,104	4,726,870	2,809,766
1919	57	1,222	994,851	2,108,156	4,629,984	2,521,828
1914	41	1,324	616,279	1,206,006	2,296,236	1,090,230
1909	42	1,403	579,001	896,190	2,269,349	1,373,159
1904	34	1,480	535,508	769,235	1,986,790	1,217,555
1899	46	1,638	506,990	627,761	1,785,271	1,157,510
Percent of increase or decrease (—):						
1929–31	(3)	—25.5	—43.2	—43.0	—43.5	—43.8
1927–29	(3)	15.8	38.4	—6.1	11.9	26.3
1925–27	(3)	8.2	—2.4	9.4	—2.4	—10.2
1923–25	(3)	18.1	23.6	31.0	21.2	15.5
1921–23	(3)	—0.4	3.6	—4.5	5.3	12.0
1919–21	(3)	0.6	12.2	—9.1	2.1	11.4
1921–31	--------	9.8	—1.7	—26.7	—21.3	—17.6
1919–29	(3)	48.2	94.1	16.9	42.2	63.3
1909–19	(3)	—12.9	71.8	135.2	104.0	83.7
1899–1909	(3)	—14.3	14.2	42.8	27.1	18.6
States, 1931						
Illinois	3	30	$26,755	$27,956	$97,849	$69,893
Massachusetts	5	296	236,642	183,521	591,045	407,524
New Jersey	3	99	94,838	130,356	315,615	185,259
Ohio	4	327	276,746	294,602	944,514	649,912
Pennsylvania	4	37	29,310	57,549	147,405	89,856
Other States [4]	18	561	432,365	711,614	1,625,675	914,061

[1] For 1929, sales (shipments or deliveries) by manufacturers; for other years, production. See sec. 16, p. 9.
[2] Value of products less cost of materials, containers, fuel, and purchased electric energy. See sec. 20, p. 11.
[3] Percent not computed where base is less than 100.
[4] California, 2 establishments: Connecticut, 1; Indiana, 1; Iowa, 1; Maryland, 1; Missouri, 1; Nebraska, [5] New York, 7; Texas, 1; Virginia, 1; Washington, 1.

GLUE AND GELATIN

[A preliminary report for this industry was issued Sept. 23, 1932]

Description of the industry.—This industry classification covers establishments whose principal products are animal, vegetable, and other glues, and edible and inedible gelatin.

TABLE 1.—SUMMARY FOR THE UNITED STATES, 1899–1931, AND FOR STATES, 1931

[Data for establishments with products under $5,000 in value are included for 1919 and prior years but not for 1921 and subsequent years. See sec. 3d, p. 4 Statistics are given for all States for which separate figures can be published without disclosing, exactly or approximately, the data reported by individual establishments]

	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, containers, fuel, and purchased electric energy	Value of products	Value added by manufacture [1]
United States						
1931	72	2,559	$3,325,312	$15,460,384	$27,515,739	$12,055,355
1929	74	2,993	4,236,092	18,978,027	32,458,019	13,479,992
1927	61	3,226	4,524,232	19,222,384	31,195,807	11,973,423
1925	55	3,325	3,976,383	15,337,870	25,763,977	10,426,107
1923	50	3,051	4,075,904	14,590,638	24,366,097	9,775,459
1921	47	2,915	3,573,149	13,401,858	21,342,004	7,940,146
1919	62	4,264	4,776,724	19,279,905	32,134,067	12,854,162
1914	57	3,129	1,853,548	9,367,922	13,732,824	4,364,902
1909	65	3,265	1,570,643	7,524,529	13,717,820	6,193,291
1904	58	2,864	1,528,512	6,186,139	10,034,685	3,848,546
1899	61	1,618	685,096	3,767,023	5,389,006	1,621,983
Percent of increase or decrease (−):						
1929–31	(2)	−14.5	−21.5	−18.5	−15.2	−10.6
1927–29	(2)	−7.2	−6.4	−1.3	4.0	12.6
1925–27	(2)	−3.0	13.8	25.3	21.1	14.8
1923–25	(2)	−8.9	−2.4	5.1	5.7	6.7
1921–23	(2)	25.2	14.1	8.9	14.2	23.1
1919–21	(2)	−31.6	−25.2	−30.5	−33.6	−38.2
1921–31	(2)	−12.2	−6.9	15.4	28.9	51.8
1919–29	(2)	−29.8	−11.3	−1.6	1.0	4.9
1909–19	(2)	30.6	204.1	156.2	134.3	107.5
1899–1909	(2)	101.8	129.3	99.7	154.6	281.8
States, 1931						
California	6	155	$194,320	$978,451	$2,002,073	$1,023,622
Illinois	15	481	599,094	2,813,289	5,398,202	2,584,913
Massachusetts	10	630	830,997	3,472,053	6,228,909	2,756,856
New York	13	461	607,588	3,056,903	5,089,831	2,032,928
Pennsylvania	10	380	510,734	2,213,954	3,725,375	1,511,421
Other States [3]	18	452	582,579	2,925,734	5,071,349	2,145,615

[1] Value of products less cost of materials, containers, fuel, and purchased electric energy. See sec. 20, p. 11.

[2] Percent not computed where base is less than 100.

[3] Connecticut, 1 establishment; Indiana, 2; Maryland, 1; Michigan, 2; Minnesota, 1; Missouri, 2; New Jersey, 3; Ohio, 1; Vermont, 1; Washington, 3; Wisconsin, 1.

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TABLE 2.—WAGE EARNERS, BY MONTHS, FOR THE UNITED STATES, 1931, 1929, 1925, 1919, 1914, AND 1909, AND FOR STATES, 1931

[This table presents statistics for only those States for which figures can be given without disclosing, exactly or approximately, the 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. See sec. 13, p. 8]

	Average number employed during year	NUMBER REPORTED FOR—											
		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
United States													
1931	2,559	2,713	2,777	2,794	2,749	2,657	2,585	2,395	*2,223*	2,331	2,372	2,542	2,565
1929	2,993	3,180	3,151	3,159	3,112	2,995	2,817	2,670	*2,537*	2,858	3,021	3,211	3,204
1925	3,325	3,509	3,553	3,725	3,558	3,376	3,105	2,943	*2,911*	3,043	3,172	3,403	3,599
1919	4,264	4,377	4,454	4,448	4,478	4,323	4,181	*3,812*	4,017	4,098	4,308	4,398	4,274
1914	3,129	3,396	3,414	3,438	3,531	3,342	3,158	2,788	*2,785*	2,827	3,008	2,902	2,959
1909	3,265	3,593	3,570	3,620	3,517	3,394	3,117	2,829	*2,810*	2,949	3,169	3,304	3,325
States, 1931													
California	155	166	162	168	189	165	164	159	148	137	*127*	135	139
Illinois	481	518	582	554	521	509	507	436	*392*	407	440	460	464
Massachusetts	630	757	719	719	679	663	643	577	*444*	518	531	645	665
New York	461	459	473	485	491	480	467	445	444	450	454	456	*434*
Pennsylvania	380	375	388	379	383	383	376	*364*	374	394	383	383	379

TABLE 3.—PRODUCTS, BY KIND, QUANTITY, AND VALUE, FOR THE UNITED STATES: 1927 TO 1931

KIND	1931	1929	1927
1. Glue and Gelatin industry, all products, total value	$27,515,739	$32,458,019	$31,195,807
2. Glue and gelatin	23,949,069	26,863,540	25,213,514
3. Other products (not normally belonging to the industry)	3,566,670	5,594,479	5,982,293
4. Glue and gelatin made as secondary products in other industries, value	3,704,111	5,332,618	5,538,704
Glue and gelatin, all industries: Aggregate value (sum of 2 and 4)	$27,653,180	$32,196,158	$30,752,218
Glues:			
Animal:			
Pounds	89,400,156	106,380,612	112,303,104
Value	$13,385,282	$15,141,433	$15,549,399
Vegetable:			
Pounds	102,511,167	133,152,385	97,142,115
Value	$4,067,468	$6,141,686	$4,972,481
Casein:			
Pounds	2,787,406	2,652,840	3,200,747
Value	$329,523	$425,035	$472,508
Flexible and fish:			
Pounds	10,236,507	10,281,013	7,489,191
Value	$2,057,681	$2,430,519	$2,312,172
Kind not specified:			
Pounds	----------	----------	2,568,928
Value	----------	----------	$294,269
Gelatin:			
Edible:			
Pounds	15,199,452	18,423,304	17,605,423
Value	$5,980,469	$7,514,488	$6,462,187
Inedible:			
Pounds	3,150,199	1,712,799	2,030,978
Value	$1,832,757	$542,997	$689,202

GREASE AND TALLOW, NOT INCLUDING LUBRICATING GREASES

[A preliminary report for this industry was issued under date of Nov. 14, 1932]

Description of the industry.—This industry embraces establishments engaged primarily in rendering grease and soap stock, chiefly from animal fat, bones, meat scraps, etc., and in rendering tallow from fat.

Grease and tallow are also made in large quantities as by-products by establishments in other industries, principally meat packing. (See footnote 3, table below.)

SUMMARY FOR THE UNITED STATES, 1899 TO 1931, AND FOR STATES, 1931

[Data for establishments with products under $5,000 in value are included for 1919 and prior years but not for 1921 and subsequent years. See sec. 3d, p. 4. Statistics are given for all States for which separate figures can be published without disclosing, exactly or approximately, the data reported by individual establishments. Certain of the "Other States," however, are more important in the industry than some of the States shown separately]

	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, containers, fuel, and purchased electric energy	Value of products [1]	Value added by manufacture [2]
United States						
1931	238	4,067	$5,224,902	$17,532,576	[3] $29,240,848	$11,708,272
1929	297	5,475	7,862,149	40,142,447	[3] 61,607,990	21,465,543
1927	247	5,052	7,402,936	38,272,446	[3] 56,279,958	18,007,512
1925	263	5,303	7,508,013	33,713,150	[3] 51,442,186	17,729,036
1923	254	5,248	7,004,170	31,274,806	48,633,681	17,358,875
1921	265	4,428	5,428,939	17,786,592	27,206,011	9,419,419
1919	482	6,647	7,954,378	47,756,341	67,265,206	19,508,865
1914	369	5,106	3,512,085	17,060,872	24,900,519	7,839,647
1909	353	4,357	2,629,239	15,543,439	23,419,395	7,875,956
1904	300	3,628	2,114,355	12,369,075	18,814,533	6,445,458
1899	287	2,040	1,066,693	8,751,797	11,953,021	3,201,224
Percent of increase or decrease (−):						
1929–31	−19.9	−25.7	−33.5	−56.3	−52.5	−45.5
1927–29	20.2	8.4	6.2	4.9	9.5	19.2
1925–27	−6.1	−4.7	−1.4	13.5	9.4	1.6
1923–25	3.5	1.0	7.2	7.8	5.8	2.1
1921–23	−4.2	18.5	29.0	75.8	78.8	84.3
1919–21	−45.0	−33.4	−31.8	−62.8	−59.6	−51.7
1921–31	−10.2	−8.2	−3.8	−1.4	7.5	24.3
1919–29	−38.4	−17.6	−1.2	−15.9	−8.4	10.0
1909–19	36.5	52.6	202.5	207.2	187.2	147.7
1899–1909	23.0	113.6	146.5	77.6	95.9	146.0
States, 1931						
California	21	323	$460,793	$1,372,352	$2,358,849	$986,497
Colorado	6	46	59,340	189,814	272,811	82,997
Illinois	14	478	603,245	3,235,906	5,056,528	1,820,622
Indiana	11	82	92,359	82,169	333,773	251,604
Iowa	18	150	177,443	289,888	607,777	317,889
Kansas	3	84	99,806	203,753	430,406	226,653

For footnotes, see end of table.

SUMMARY FOR THE UNITED STATES, 1899 TO 1931, AND FOR STATES, 1931—Continued

[See note at head of table]

	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, containers, fuel, and purchased electric energy	Value of products [1]	Value added by manufacture [2]
States, 1931—Continued						
Maryland	4	44	$57,429	$149,743	$279,423	$129,680
Massachusetts	14	472	551,968	1,519,741	3,083,548	1,563,807
Michigan	12	174	248,075	369,997	922,389	552,392
Minnesota	5	20	24,493	65,617	120,050	54,433
New Jersey	15	230	326,690	2,551,198	3,315,281	764,083
New York	25	697	925,639	2,339,009	4,185,269	1,846,260
Ohio	23	246	309,242	943,640	1,553,165	609,525
Pennsylvania	30	544	729,495	2,218,564	3,404,237	1,185,673
Virginia	4	88	89,426	335,929	498,860	162,931
Wisconsin	8	53	75,071	335,060	500,174	165,114
Other States [4]	25	336	403,388	1,330,196	2,318,308	988,112

[1] For 1929, manufacturers' sales (shipments or deliveries); for other years, production. See sec. 16, p. 9.

[2] Value of products less cost of materials, containers, fuel, and purchased electric energy. See sec. 20, p. 11.

[3] For 1931: Grease, $3,498,952; tallow, $12,048,009; other products, $13,693,887. For 1929: Grease, $7,928,725; tallow, $24,689,800; other products, $28,989,465. For 1927: Grease, $6,892,862; tallow, $23,202,409; other products, $26,184,687. For 1925: Grease, $7,505,756; tallow, $23,147,048; other products, $20,789,382. Does not include values of grease and tallow made as secondary products by establishments in other industries (principally Meat Packing), as follows: For 1931: Grease, $7,478,785; tallow, $9,548,689. For 1929: Grease, $18,364,159; tallow, $16,889,765. For 1927: Grease, $15,810,767; tallow, $17,019,637. For 1925: Grease, $19,323,530; tallow, $20,640,630.

[4] Arizona, 1 establishment; Connecticut, 2; Delaware, 1; District of Columbia, 1; Georgia, 1; Kentucky, 2; Maine, 1; Missouri, 2; Montana, 1; Nebraska, 2; New Hampshire, 2; Oregon, 1; Rhode Island, 1; South Dakota, 1; Texas, 2; Utah, 3; Vermont, 1.

INK, PRINTING

[A preliminary report for this industry was issued under date of Aug. 5, 1932]

Description of the industry.—This industry embraces establishments engaged primarily in the production of printing inks of various colors, gold and bronze inks, and lithographing inks.

Summary for the United States, 1899 to 1931, and for States, 1931

[Data for establishments with products under $5,000 in value are included for 1919 and prior years but not for 1921 and subsequent years. See sec. 3d, p. 4. Statistics are given for all States for which separate figures can be published without disclosing, exactly or approximately, the data reported by individual establishments, certain of the "Other States," however, are more important in the industry than some of the States shown separately]

	Number of establishments [1]	Wage earners (average for the year)	Wages	Cost of materials, containers, fuel, and purchased electric energy	Value of products [2]	Value added by manufacture [3]
United States						
1931	171	2,247	$3,479,344	$14,532,021	[4] $32,188,398	$17,656,377
1929	147	2,448	3,957,185	19,204,715	[4] 42,749,992	23,545,277
1927	123	2,288	3,665,199	16,054,110	[4] 37,734,493	21,680,383
1925	109	2,150	3,346,071	16,252,786	34,753,329	18,500,543
1923	99	1,975	2,858,742	14,779,289	29,412,122	14,632,833
1921	97	1,676	2,470,097	10,644,453	20,869,477	10,225,024
1919	90	1,988	2,574,920	14,661,115	26,244,470	11,583,355
1914	70	1,391	1,063,959	6,805,874	13,830,312	7,024,438
1909	71	1,121	772,528	4,174,917	8,865,504	4,690,587
1904	60	711	474,987	2,612,558	5,774,254	3,161,696
1899	60	503	298,161	1,535,916	3,079,948	1,544,032
Percent of increase or decrease (−):						
1929–31	16.3	−8.2	−12.1	−24.3	−21.7	−25.0
1927–29	19.5	7.0	8.0	19.6	13.3	8.6
1925–27	12.8	6.4	9.5	−1.2	8.6	17.2
1923–25	(5)	8.9	17.0	10.0	18.2	26.4
1921–23	(5)	17.8	15.7	38.8	40.9	43.1
1919–21	(5)	−15.7	−4.1	−27.4	−20.5	−11.7
1921–31	(5)	34.1	40.9	36.5	54.2	72.7
1919–29	(5)	23.1	53.7	31.0	62.9	103.3
1909–19	(5)	77.3	233.3	251.2	196.0	146.9
1899–1909	(5)	122.9	159.1	171.8	187.8	203.8
States, 1931						
California	6	133	$184,868	$828,807	$1,222,471	$393,664
Illinois	31	298	475,065	2,508,048	6,181,532	3,673,484
Michigan	6	64	109,738	499,169	1,405,321	906,152
Missouri	11	69	83,023	412,860	937,711	524,851
New Jersey	11	193	328,701	1,392,745	3,102,244	1,709,499
New York	46	818	1,382,422	4,975,437	11,192,214	6,216,777
Ohio	14	198	309,950	1,176,789	2,742,843	1,566,054
Pennsylvania	15	258	287,666	1,085,156	2,479,759	1,394,603
Texas	3	15	23,662	117,190	246,870	129,680
Other States [6]	28	201	294,249	1,535,820	2,677,433	1,141,613

[1] The numbers of establishments for years prior to 1931 are not strictly comparable with that shown for 1931 because the latter covers branch plants producing printing inks from base ink, such plants not having been reported as separate establishments for the earlier years. The effect of this change on the other items is slight.

[2] For 1929, manufacturers' sales (shipments or deliveries); for other years, production. See sec. 16, p. 9.

[3] Value of products less cost of materials, containers, fuel, and purchased electric energy. See sec. 20, p. 11.

[4] Includes values of commodities other than printing ink, made as secondary products by establishments in this industry, as follows: 1931, $1,037,790; 1929, $2,051,601; 1927, $3,116,595. Does not include following values of printing ink made as a secondary product by establishments classified in other industries: 1931, $1,179,168; 1929, $932,095; 1927, $855,060.

[5] Percent not computed where base is less than 100.

[6] Colorado, 1 establishment; Georgia, 1; Indiana, 3; Iowa, 1; Louisiana, 2; Maryland, 1; Massachusetts, 6; Minnesota, 2; New Hampshire, 1; Oregon, 1; Tennessee, 2; Virginia, 2; Wisconsin, 5.

INK, WRITING

[A preliminary report for this industry was issued under date of June 25, 1932]

Description of the industry.—This industry classification covers establishments whose principal products are writing inks and fluids. Writing ink is made also to a considerable extent as a secondary product by establishments engaged principally in the manufacture of other commodities. (See footnote 4, table below.)

SUMMARY: 1899–1931

[Data for establishments with products under $5,000 in value are included for 1919 and prior years but not for 1921 and subsequent years. See sec. 3d, p. 4]

	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, containers, fuel, and purchased electric energy	Value of products [1]	Value added by manufacture [2]
United States						
1931	[3] 23	347	$362,999	$1,462,621	[4] $3,535,121	$2,072,500
1929	29	416	479,995	1,992,573	[4] 4,594,974	2,602,401
1927	24	491	576,091	2,208,835	[4] 5,342,027	3,133,192
1925	28	524	596,200	2,424,311	6,084,315	3,660,004
1923	31	578	634,874	2,653,486	6,107,379	3,453,893
1921	33	504	546,058	2,062,291	4,980,148	2,917,857
1919	61	702	596,168	3,320,346	6,433,941	3,113,595
1914	54	512	262,786	1,236,227	2,783,642	1,547,415
1909	47	505	203,155	1,078,008	2,505,414	1,427,406
1904	42	430	169,726	858,304	1,881,038	1,022,734
1899	44	285	113,979	573,226	1,292,759	719,533
Percent of increase or decrease (−):						
1929-31	(5)	−16.6	−24.4	−26.6	−23.1	−20.4
1927-29	(5)	−15.3	−16.7	−9.8	−14.0	−16.9
1925-27	(5)	−6.3	−3.4	−8.9	−12.2	−14.4
1923-25	(5)	−9.3	−6.1	−8.6	−0.4	6.0
1921-23	(5)	14.7	16.3	28.7	22.6	18.4
1919-21	(5)	−28.2	−8.4	−37.9	−22.6	−6.3
1921-31	(5)	−31.2	−33.5	−29.1	−29.0	−29.0
1919-29	(5)	−40.7	−19.5	−40.0	−28.6	−16.4
1909-19	(5)	39.0	193.5	208.0	156.8	118.1
1899-1909	(5)	77.2	78.2	88.1	93.8	98.4

[1] For 1929, manufacturers' sales (shipments or deliveries); for other years, production. See sec. 16, p. 9.
[2] Value of products less cost of materials, containers, fuel, and purchased electric energy. See sec. 20, p. 11.
[3] California, 1 establishment; Illinois, 3; Indiana, 1; Maryland, 1; Massachusetts, 2; Michigan, 2; Minnesota, 1; Missouri, 3; New York, 4; Pennsylvania, 2; Virginia, 1; Washington, 1; Wisconsin, 1. No separate figures for any of these States can be published without disclosing, exactly or approximately, data reported by individual establishments.
[4] Includes values of commodities other than writing ink, made as secondary products by establishments in this industry, as follows: 1931, $1,644,098; 1929, $1,673,588; 1927, $2,040,616. Does not include following values of writing ink made as a secondary product by establishments classified in other industries: 1931, $1,650,649; 1929, $1,748,602; 1927, $1,431,351.
[5] Percent not computed where base is less than 100.

LIQUORS, VINOUS

Description of the industry.—This industry embraces establishments engaged primarily in the production of fermented wines for medicinal and sacramental purposes.

SUMMARY FOR THE UNITED STATES, 1899 TO 1931, AND FOR CALIFORNIA, 1931

[Data for establishments with products under $5,000 in value are included for 1919 and prior years but not for 1921 and subsequent years. See sec. 3d, p. 4. California is the only State for which separate figures can be given without disclosing data for individual establishments]

	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, containers, fuel, and purchased electric energy	Value of products [1]	Value added by manufacture [2]
United States						
1931	14	96	$118,581	$381,452	[3] $949,279	$567,827
1929	24	186	277,963	608,857	[3] 2,447,912	1,839,055
1927	13	150	177,073	1,206,217	2,692,856	1,486,639
1925	27	265	262,343	1,764,623	3,435,657	1,671,034
1923	38	515	524,029	2,958,555	5,830,883	2,872,328
1921	72	415	417,005	1,692,750	4,757,334	3,064,584
1919	342	1,011	1,013,898	8,115,841	17,454,194	9,338,353
1914	318	2,292	1,194,433	9,489,428	16,618,378	7,128,950
1909	290	1,911	971,502	6,625,533	13,120,846	6,495,313
1904	435	1,913	1,001,554	5,693,394	11,097,853	5,404,459
1899	359	1,163	446,055	3,689,330	6,547,310	2,857,980
Percent of increase or decrease (−):						
1929–31	(4)	−48.4	−57.3	−37.3	−61.2	−69.1
1927–29	(4)	24.0	57.0	−49.5	−9.1	23.7
1925–27	(4)	−43.4	−32.5	−31.6	−21.6	−11.0
1923–25	(4)	−48.5	−49.9	−40.4	−41.1	−41.8
1921–23	(4)	24.1	25.7	74.8	22.6	−6.3
1919–21	−78.9	−59.0	−58.9	−79.1	−72.7	−67.2
1921–31	(4)	−76.9	−71.6	−77.5	−80.0	−81.5
1919–29	−93.0	−81.6	−72.6	−92.5	−86.0	−80.3
1909–19	17.9	−47.1	4.4	22.5	33.0	43.8
1899–1909	−19.2	64.3	117.8	79.6	100.4	127.3
States, 1931						
California	9	66	$81,197	$281,483	$623,551	$342,068
Other States [5]	5	30	37,384	99,969	325,728	225,759

[1] For 1929, manufacturers' sales (shipments or deliveries); for other years, production. See sec. 16, p. 9.
[2] Value of products less cost of materials, containers, fuel, and purchased electric energy. See sec. 20, p. 11.
[3] Includes values of commodities other than vinous liquors, made as secondary products by establishments in this industry, as follows: 1931, $141,887; 1929, $608,074. Does not include following values of vinous liquors made as secondary products by establishments classified in other industries: 1931, $43,417; 1929, $261,044.
[4] Percent not computed where base is less than 100.
[5] New Jersey, 1 establishment; New York, 2; Ohio, 2.

MUCILAGE, PASTE, AND OTHER ADHESIVES, EXCEPT GLUE AND RUBBER CEMENT

Description of the industry.—The principal products of establishments in this industry are mucilage, paste, mending cement, sealing wax, and other adhesives except glue and rubber cement.

Because of the transfer of manufacturers of rubber cement from this industry to the Rubber Goods Other Than Tires, Inner Tubes, and Boots and Shoes industry, no comparable statistics can be given for years prior to 1925.

SUMMARY FOR THE UNITED STATES, 1925 [1] TO 1931, AND FOR STATES, 1931

[Statistics are given for all States for which separate figures can be published without disclosing, exactly or approximately, the data reported by individual establishments. Certain of the "Other States," however, are more important in the industry than some of the States shown separately]

	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, containers, fuel, and purchased electric energy	Value of products [2]	Value added by manufacture [3]
United States						
1931	69	282	$350,145	$1,888,790	[4] $3,620,783	$1,731,993
1929	84	414	546,926	3,668,707	[4] 6,638,387	2,969,680
1927	80	502	679,408	4,270,361	7,945,403	3,675,042
1925	84	561	766,251	5,562,740	9,853,302	4,290,562
Percent of increase or decrease (—):						
1929-31	(5)	—31.9	—36.0	—48.5	—45.5	—41.7
1927-29	(5)	—17.5	—19.5	—14.1	—16.4	—19.2
1925-27	(5)	—10.5	—11.3	—23.2	—19.4	—14.3
States, 1931						
California	6	12	$14,158	$41,514	$110,006	$68,492
Illinois	8	39	50,066	398,156	635,544	237,388
Massachusetts	7	25	36,234	145,280	339,262	193,982
Michigan	5	15	20,902	145,372	220,846	75,474
Missouri	3	6	6,630	28,048	69,153	41,105
New York	15	71	93,776	521,278	956,535	435,257
Ohio	6	28	28,063	144,186	321,252	177,066
Pennsylvania	5	21	23,616	108,003	225,326	117,323
Other States [6]	14	65	76,700	356,953	742,859	385,906

[1] No comparable statistics can be given for earlier years. See "Description of the industry," above.
[2] For 1929, manufacturers' sales (shipments or deliveries); for other years, production. See sec. 16, p. 9.
[3] Value of products less cost of materials, containers, fuel, and purchased electric energy. See sec. 20, p. 11.
[4] Includes values of commodities other than mucilage, paste, and other adhesives, made as secondary products by establishments in this industry, as follows: 1931, $431,183; 1929, $470,397. Does not include following values of mucilage, paste, and other adhesives made as secondary products by establishments classified in other industries; 1931, $2,995,447; 1929, $2,560,597.
[5] Percent not computed where base is less than 100.
[6] Connecticut, 1 establishment; Indiana, 2; Iowa, 1; Kansas, 1; Maryland, 1; Minnesota, 2; New Jersey, 4; Texas, 1; Wisconsin, 1.

OIL, CAKE, AND MEAL, COTTONSEED

Description of the industry.—This industry embraces establishments engaged primarily in the manufacture of products from cottonseed, but does not cover the activities of plants engaged in the further manufacture, from refined cottonseed oil, of lard substitutes and vegetable cooking oils. The statistics relate to the 12-month period from August 1 to July 31, which coincides with the production cycle of the industry. The detailed statistics of products given in table 3 were taken from Bulletin No. 168—Cotton Production and Distribution, Season of 1930–31, published by the Bureau of the Census.

TABLE 1.—SUMMARY FOR THE UNITED STATES, 1899 TO 1931, AND FOR STATES, 1931

[Data for establishments with products under $5,000 in value are included for 1919 and prior years, but not for 1921 and subsequent years. See sec. 3d, p. 4. Statistics are given for all States for which separate figures can be published without disclosing, exactly or approximately, the data reported by individual establishments]

	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, containers, fuel, and purchased electric energy	Value of products [1]	Value added by manufacture [2]
United States						
1931	504	12,268	$8,335,459	$147,164,705	$181,347,056	$34,182,351
1929	553	15,825	11,203,227	249,019,800	298,376,039	49,356,239
1927	547	18,434	14,258,555	220,038,437	276,338,488	56,300,051
1925	535	16,215	11,411,854	244,315,214	295,684,526	51,369,312
1923	511	12,745	7,908,305	197,514,913	226,387,758	28,872,845
1921	610	16,163	12,339,895	194,864,331	217,225,030	22,360,699
1919	711	26,766	20,615,193	495,192,294	581,244,798	86,052,504
1914	882	21,810	8,489,692	180,976,413	212,127,024	31,150,611
1909	817	17,071	5,835,249	119,833,475	147,867,894	28,034,419
1904	715	15,540	4,837,694	80,029,863	96,407,621	16,377,758
1899	369	11,007	3,143,459	45,165,823	58,726,632	13,560,809
Percent of increase or decrease (−):						
1929–31	−8.9	−22.5	−25.6	−40.9	−39.2	−30.7
1927–29	1.1	−14.2	−21.4	13.2	8.0	−12.3
1925–27	2.2	13.7	24.9	−9.9	−6.5	9.6
1923–25	4.7	27.2	44.3	23.7	30.6	77.9
1921–23	−16.2	−21.1	−35.9	1.4	4.2	29.1
1919–21	−14.2	−39.6	−40.1	−60.6	−62.6	−74.0
1921–31	−17.4	−24.1	−32.5	−24.5	−16.5	52.9
1919–29	−22.2	−40.9	−45.7	−49.7	−48.7	−42.6
1909–19	−13.0	56.8	253.3	313.2	293.1	207.0
1899–1909	121.4	55.1	85.6	165.3	151.8	106.7
States, 1931						
Alabama	33	981	$621,644	$11,470,732	$14,084,288	$2,613,556
Arizona	5	129	158,874	1,593,184	2,826,045	1,232,861
Arkansas	26	713	448,643	7,403,673	8,908,325	1,504,652
California	7	213	318,396	3,820,660	5,696,395	1,875,735
Georgia	55	1,496	902,034	20,491,973	24,383,708	3,891,735
Illinois	3	93	83,653	1,754,434	2,081,571	327,137
Louisiana	22	621	390,087	7,352,456	9,422,333	2,069,877
Mississippi	46	1,708	1,163,478	17,284,171	21,690,799	4,406,628
New Mexico	4	50	33,234	532,422	811,375	278,953
North Carolina	46	920	511,987	8,733,443	10,449,598	1,716,155
Oklahoma	40	574	362,875	6,869,158	8,984,897	2,115,739
South Carolina	31	824	452,669	7,982,101	9,720,068	1,737,967
Tennessee	16	846	635,957	9,279,078	11,407,353	2,128,275
Texas	167	3,017	2,188,073	40,808,187	48,913,813	8,105,626
Other States [3]	3	83	63,855	1,789,033	1,966,488	177,455

[1] For 1929, manufacturers' sales (shipments or deliveries); for other years, production. See sec. 16, p. 9.
[2] Value of products less cost of materials, containers, fuel, and purchased electric energy. See sec. 20, p. 11.
[3] Florida, 1 establishment; Kentucky, 1; Missouri, 1.

TABLE 2.—WAGE EARNERS, BY MONTHS, FOR THE UNITED STATES, 1931, 1929, 1925, 1919, 1914, AND 1909, AND FOR STATES, 1931

[This table presents statistics for only those States for which figures can be given without disclosing, exactly or approximately, the 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. See sec. 13, p. 8]

	Average number employed during year	NUMBER REPORTED FOR—											
		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
United States													
1931	12,268	16,834	13,690	10,652	8,050	5,675	4,126	*3,884*	7,949	16,273	20,742	20,332	19,008
1929	15,825	22,028	18,521	14,525	10,953	7,300	*6,309*	6,670	8,880	18,068	26,155	26,109	24,378
1925	16,215	22,099	19,445	15,923	11,586	8,172	6,682	*6,220*	8,886	18,417	25,120	26,437	25,599
1919	26,766	33,890	32,183	28,073	23,006	19,535	16,705	*16,335*	17,159	26,456	35,382	36,567	35,903
1914	21,810	32,459	28,065	21,368	13,561	8,421	7,065	7,361	10,015	24,787	35,478	36,838	36,304
1909	17,071	25,667	22,388	18,032	11,190	7,445	5,635	*5,174*	6,038	16,958	28,293	29,334	28,677
States, 1931													
Alabama	981	1,317	1,126	928	717	373	*219*	239	564	1,448	1,624	1,829	1,580
Arizona	129	220	205	126	*33*	35	*33*	*33*	53	177	192	221	219
Arkansas	713	887	523	490	403	369	210	*192*	479	1,054	1,376	1,344	1,230
California	213	259	247	228	182	160	149	147	*126*	168	277	320	296
Georgia	1,496	2,006	1,640	1,469	1,073	726	392	*355*	872	2,256	2,593	2,387	2,185
Illinois	93	179	94	99	29	21	*17*	*17*	38	72	190	181	175
Louisiana	621	982	1,046	1,098	1,098	524	201	*188*	211	304	409	572	822
Mississippi	1,708	2,362	1,836	1,220	949	723	611	*538*	1,190	2,518	3,040	2,874	2,637
New Mexico	50	69	61	52	*14*	16	16	21	21	82	86	85	80
North Carolina	920	1,358	1,270	956	559	339	209	*179*	251	848	1,776	1,682	1,615
Oklahoma	574	1,063	682	397	194	167	*160*	180	272	494	1,034	1,144	1,104
South Carolina	824	1,067	973	887	602	397	394	*270*	320	985	1,397	1,353	1,238
Tennessee	846	1,128	888	462	541	489	208	*200*	615	1,197	1,551	1,475	1,399
Texas	3,017	3,865	3,053	2,192	1,616	1,286	*1,226*	1,253	2,825	4,564	5,085	4,887	4,346

TABLE 3.—COTTONSEED PRODUCTS, BY KIND, QUANTITY, AND VALUE, AND COTTONSEED CRUSHED, BY QUANTITY, FOR THE UNITED STATES: 1931, 1929, AND 1927

KIND	SEASON (12 MONTHS) ENDED JULY 31—		
	1931	1929	1927
Cottonseed Oil, Cake, and Meal industry, total value of products [1]	$181,347,056	$298,376,039	$276,338,488
Crude cottonseed products, total value [1]	$169,704,000	$265,247,000	$240,284,000
Oil:			
Pounds	1,441,881,530	1,604,131,038	1,887,910,155
Value	$91,638,000	$133,906,000	$142,242,000
Cake and meal:			
Tons	2,164,820	2,281,576	2,840,084
Value	$58,623,000	$90,706,000	$72,476,000
Hulls:			
Tons	1,303,504	1,368,279	1,854,389
Value	$10,474,000	$12,842,000	$8,882,000
Linters:			
Bales	823,944	1,085,766	1,041,864
Value	$8,969,000	$27,793,000	$16,684,000
Cottonseed crushed, tons (2,000 pounds) [1]	4,715,148	5,061,058	6,305,775

[1] Data collected for the Censuses of Manufactures. Figures include values of refined cottonseed oil and minor products, and receipts for ginning, reported by establishments classified in the industry.

[1] Detailed statistics taken from Census Bulletin No. 168, "Cotton Production and Distribution, Season of 1930-31," p. 72.

OIL, CAKE, AND MEAL, LINSEED

[A preliminary report for this industry was issued July 8, 1932]

Description of the industry.—The establishments classified in this industry are those whose principal products are linseed oil and its natural by-products, cake and meal, and ground flaxseed.

Differences between biennial-census figures and those assembled from returns of quarterly census of animal and vegetable fats and oils.—The Bureau of the Census makes a quarterly canvass of producers of animal and vegetable fats and oils. The differences between the totals shown for the last four biennial-census years, assembled from the returns of this quarterly census, and the totals for the same years as given in table 3 of this report are due principally to two causes, namely:

(1) The quarterly figures cover production by all establishments, including those which manufacture linseed oil, cake, and meal as secondary products, whereas the statistics in table 3 of this report relate only to the industry proper.

(2) The totals for the four quarters of a given calendar year represent, of course, production within that year; but the biennial-census figures are assembled from returns made in part on the calendar-year basis and in part on the basis of the manufacturers' fiscal years. (As many manufacturers would find it impracticable, or at least inconvenient, to report on the calendar-year basis, they are given the option of making their returns for their business or fiscal years most nearly coinciding with the calendar year.)

The total production of linseed oil during the last four biennial-census years, calculated from the data collected in the quarterly census, was as follows: 1931, 520,735,372 pounds; 1929, 763,576,494 pounds; 1927, 776,714,498 pounds; 1925, 763,822,379 pounds.

TABLE 1.—SUMMARY FOR THE UNITED STATES, 1899 TO 1931, AND FOR STATES, 1931

[Statistics are given for all States for which separate figures can be published without disclosing, exactly or approximately, the data reported by individual establishments. Certain of the "Other States"—in particular, New Jersey—are, however, more important in the industry than some of the States shown separately]

	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, containers, fuel, and purchased electric energy	Value of products [1]	Value added by manufacture [1]
United States						
1931	28	1,837	$2,278,340	$50,306,207	$62,882,544	$12,576,337
1929	29	2,715	4,097,712	101,562,787	119,926,867	18,364,080
1927	33	2,718	4,324,938	97,750,350	111,543,845	13,793,495
1925	33	2,692	4,290,063	121,762,284	140,513,542	18,751,258
1923	34	2,631	3,783,516	102,689,799	113,221,318	10,531,519
1921	28	2,073	3,019,376	58,452,351	71,032,261	12,579,910
1919	26	2,173	3,052,269	100,577,538	120,638,100	20,060,562
1914	25	1,488	1,127,169	39,555,408	44,882,538	5,327,130
1909	29	1,452	892,612	31,034,576	36,738,694	5,704,118
1904	30	1,349	785,634	23,153,151	27,577,152	4,424,001
1899	48	1,328	693,311	24,395,775	27,184,331	2,788,556

For footnotes, see end of table.

TABLE 1.—SUMMARY FOR THE UNITED STATES, 1899 TO 1931, AND FOR STATES, 1931—Continued

[See note at head of table]

	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, containers, fuel, and purchased electric energy	Value of products [1]	Value added by manufacture [2]
Percent of increase or decrease (−):						
1929–31	(3)	−32.3	−44.4	−50.5	−47.6	−31.5
1927–29	(3)	−.1	−5.3	3.9	7.5	33.1
1925–27		1.0	.8	−19.7	−20.6	−26.4
1923–25	(3)	2.3	13.4	18.6	24.1	78.0
1921–23	(3)	26.9	25.3	75.7	59.4	−16.3
1919–21	(3)	−4.6	−1.1	−41.9	−41.1	−37.3
1921–31		−11.4	−24.5	−13.9	−11.5	(4)
1919–29	(3)	24.9	34.3	1.0	−.6	−8.5
1909–19	(3)	49.7	241.9	224.1	228.4	251.7
1899–1909	(3)	9.3	28.7	27.2	35.1	104.6
States, 1931						
Illinois	4	158	$213,585	$4,387,969	$5,373,548	$985,579
Minnesota	6	407	488,872	11,850,466	15,360,301	3,509,835
New York	6	393	504,771	11,157,920	13,647,478	2,489,558
Other States [5]	12	879	1,071,112	22,909,852	28,501,217	5,591,365

[1] For 1929, manufacturers' sales (shipments or deliveries); for other years, production. See sec. 16, p. 9.
[2] Value of products less cost of materials, containers, fuel, and purchased electric energy. See sec. 20, p. 11.
[3] Percent not computed where base is less than 100.
[4] Less than one-tenth of 1 percent.
[5] Iowa, 1 establishment; Kansas, 1; New Jersey, 3; Ohio, 1; Oregon, 2; Pennsylvania, 2; Wisconsin, 2.

TABLE 2.—WAGE EARNERS, BY MONTHS, FOR THE UNITED STATES, 1931, 1929, 1925, 1919, 1914, AND 1909, AND FOR STATES, 1931

[This table presents statistics for only those States for which figures can be given without disclosing, exactly or approximately, the 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. See sec. 13, p. 8.]

	Average number employed during year	NUMBER REPORTED FOR—											
		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
United States													
1931	1,837	1,811	1,791	1,990	1,890	1,806	*1,664*	1,890	1,862	1,992	1,879	1,772	1,698
1929	2,715	2,710	2,767	2,772	2,705	2,704	2,611	2,622	2,656	2,880	2,994	2,648	*2,512*
1925	2,692	2,884	2,945	2,934	2,596	2,466	2,511	2,276	*2,179*	2,478	2,810	3,054	3,168
1919	2,173	2,119	1,963	*1,825*	1,907	2,101	2,137	2,465	2,333	2,395	2,211	2,308	2,312
1914	1,488	1,770	1,680	1,614	1,352	1,274	*1,104*	1,118	1,236	1,289	1,733	1,853	1,833
1909	1,452	1,792	1,708	1,683	1,515	1,261	1,053	980	*974*	1,146	1,767	1,790	1,765
States, 1931													
Illinois	158	173	145	176	165	163	162	159	152	159	152	160	*131*
Minnesota	407	504	447	431	416	343	*284*	388	363	519	407	401	375
New York	393	418	414	416	446	415	406	399	*309*	374	367	391	367

TABLE 3.—PRODUCTS, BY KIND, QUANTITY, AND VALUE, FOR THE UNITED STATES: 1925 TO 1931

[The figures for 1929 refer to sales (shipments or deliveries) by manufacturers; those for other years represent production. See sec. 16, p. 9]

	1931	1929	1927	1925
Linseed oil, cake, and meal industry, all products, total value	$62,882,544	$119,926,867	$111,543,845	$140,513,542
Oil, cake, and meal [1]	$60,809,084	$111,687,741	$105,751,240	$126,422,534
Other products [2]	$2,073,460	$8,239,126	$5,792,605	$14,091,008
Linseed oil, cake, and meal:				
Oil: [1]				
Pounds	509,153,413	803,868,106	724,081,723	714,714,840
Value	$43,509,324	$75,340,611	$73,581,514	$94,049,549
Cake and meal: [1]				
Tons	542,173	752,110	715,855	743,562
Value	$17,299,760	$36,347,130	$32,169,726	$32,372,985

[1] These figures represent production in the industry alone and therefore do not cover the output of linseed oil, cake, and meal made as secondary products by establishments classified in other industries See "Differences between biennial-census figures and those assembled from returns of quarterly census of animal and vegetable fats and oils," p. 623.

[2] Principally oils other than linseed.

OILS, ESSENTIAL

Description of the industry.—This industry consists in the distillation and refining of natural essential oils and of witch-hazel extract. Essential oils, volatile oils, or essences are distinguished by the possession of strong and characteristic odors and by being vaporizable without decomposition and usually with little or no residue. Outside this industry is a large production of synthetic oils and perfume bases which are chiefly of coal-tar origin and are classed as chemicals.

SUMMARY: 1899 TO 1931

[Data for establishments with products under $5,000 in value are included for 1919 and prior years but not for 1921 and subsequent years. See sec. 3d, p. 4]

	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, containers, fuel, and purchased electric energy	Value of products [1]	Value added by manufacture [2]
United States						
1931	[3] 12	128	$199,241	$2,706,615	$3,504,948	$798,333
1929	22	265	325,881	3,804,228	6,653,353	2,849,125
1927	14	169	258,036	3,427,334	4,641,861	1,214,527
1925	14	178	281,395	4,362,512	5,881,689	1,519,177
1923	17	170	237,409	2,255,772	3,184,124	928,352
1921	27	299	363,879	2,548,439	3,421,690	873,251
1919	78	321	391,213	3,903,417	5,698,403	1,794,986
1914	105	249	133,272	1,564,835	2,313,606	748,771
1909	68	290	122,990	1,255,478	1,737,234	481,756
1904	52	132	69,711	1,110,470	1,464,662	354,192
1899	47	168	61,415	588,594	813,495	224,901
Percent of increase or decrease (−):						
1929–31	(4)	−51.7	−38.9	−28.9	−47.3	−72.0
1927–29	(4)	56.8	26.3	11.0	43.3	134.6
1925–27		−5.1	−8.3	−21.4	−21.1	−20.1
1923–25	(4)	4.7	18.5	93.4	84.7	63.6
1921–23	(4)	−43.1	−34.8	−11.5	−6.9	6.3
1919–21	(4)	−6.9	−7.0	−34.7	−40.0	−51.4
1921–31	(4)	−57.2	−45.2	6.2	2.4	−8.6
1919–29	(4)	−17.4	−16.7	−2.5	16.8	58.7
1909–19	(4)	10.7	218.1	210.9	228.0	272.6
1899–1909	(4)	72.6	100.3	113.3	113.6	114.2

[1] For 1929, manufacturers' sales (shipments or deliveries); for other years, production. See sec. 16, p. 9.
[2] Value of products less cost of materials, containers, fuel, and purchased electric energy. See sec. 20, p. 11.
[3] Connecticut, 3 establishments; Indiana, 2; Michigan, 1; New Jersey, 2; New York, 3; Pennsylvania, 1. No statistics for States can be published without disclosing, exactly or approximately, the data reported by individual establishments.
[4] Percent not computed where base is less than 100.

OILS NOT ELSEWHERE CLASSIFIED

Description of the industry.—This industry embraces establishments engaged primarily in the production of animal oils, such as fish, lard, and neatsfoot, and of certain vegetable oils, such as castor, coconut, palm, and soybean. It does not include the production of cottonseed and linseed oils, each of which is separately classified.

Change in classification.—At censuses prior to that for 1929 the Oils Not Elsewhere Classified industry included the manufacture of lubricating oils not made in petroleum refineries, but at the last two censuses such oils have been treated as products of the Lubricating Oils and Greases Not Made in Petroleum Refineries industry. Because of this change in classification no comparable figures for years prior to 1929 can be given.

SUMMARY FOR THE UNITED STATES, 1931 AND 1929, AND FOR STATES, 1931

[Statistics are given for all States for which separate figures can be published without disclosing, exactly or approximately, the data reported by individual establishments. Certain of the "Other States," however, are more important in the industry than some of the States shown separately]

	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, containers, fuel, and purchased electric energy	Value of products [1]	Value added by manufacture [2]
United States						
1931	65	961	$1,394,402	$19,969,825	$25,922,012	$5,952,187
1929	75	1,234	1,950,432	36,895,506	45,159,825	8,264,319
Percent of decrease, 1929-31	(3)	−22.1	−28.5	−45.9	−42.6	−28.0
States, 1931						
California	10	216	$276,593	$5,349,130	$6,455,319	$1,106,189
Georgia	3	28	25,575	206,150	355,110	148,960
Illinois	7	88	137,987	1,831,751	2,092,759	261,008
Massachusetts	5	29	46,711	472,743	744,494	271,751
New Jersey	9	274	463,620	5,140,305	7,454,743	2,314,438
New York	5	14	23,672	333,140	570,862	237,722
Pennsylvania	9	66	102,708	1,098,899	1,828,585	729,686
Other States [4]	17	246	317,536	5,537,707	6,420,140	882,433

[1] For 1929, manufacturers' sales (shipments or deliveries); for other years, production. See sec. 16, p. 9.
[2] Value of products less cost of materials, containers, fuel, and purchased electric energy. See sec. 20, p. 11.
[3] Percent not computed where base is less than 100.
[4] Alabama, 1 establishment; Connecticut, 1; Delaware, 2; Indiana, 2; Iowa, 1; Maine, 1; Maryland, 3; Michigan, 1; Ohio, 2; Oregon, 1; Tennessee, 1; Washington, 1.

PAINTS AND VARNISHES

Description of the industry.—This industry designation is applied to establishments engaged primarily in the manufacture of pigments or colors (other than bone black, carbon black, and lampblack), paints in paste form, paints mixed ready for use, varnishes, lacquers, japans, enamels, fillers, stains, etc.

TABLE 1.—SUMMARY FOR THE UNITED STATES, 1899 TO 1931, AND FOR STATES, 1931

[Data for establishments with products under $5,000 in value are included for 1919 and prior years but not for 1921 and subsequent years. See sec. 3d, p. 4. Statistics are given for all States for which separate figures can be published without disclosing, exactly or approximately, the data reported by individual establishments. Certain of the "Other States," however, are more important in the industry than some of the States shown separately]

	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, containers, fuel, and purchased electric energy	Value of products [1]	Value added by manufacture [2]
United States						
1931	1,039	22,521	$29,424,646	$193,736,737	$350,725,652	$156,988,915
1929	1,063	29,211	42,244,695	334,132,065	568,975,838	234,843,773
1927	1,006	28,061	40,184,732	307,724,370	519,009,842	211,285,472
1925	923	25,490	35,419,552	293,943,040	470,736,264	176,793,224
1923	826	22,818	29,871,195	248,954,692	404,134,231	155,179,539
1921	804	18,015	23,293,275	171,397,822	274,310,314	102,912,492
1919	830	21,507	24,118,159	217,112,372	340,346,803	123,234,431
1914	800	16,083	10,180,288	88,465,757	145,623,691	57,157,934
1909	791	14,240	8,270,713	79,015,555	124,889,422	45,873,867
1904	639	11,633	6,263,608	59,826,624	90,839,609	31,458,710
1899	600	9,697	4,925,590	44,738,517	69,562,235	24,823,718
Percent of increase or decrease (—)						
1929–1931	—2.3	—22.9	—30.3	—42.0	—38.4	—33.2
1927–1929	5.7	4.1	5.1	8.6	9.6	11.1
1925–1927	9.0	10.1	13.5	4.7	10.3	19.5
1923–1925	11.7	11.7	18.6	18.1	16.5	13.9
1921–1923	2.7	26.7	28.2	45.2	47.3	50.8
1919–1921	—3.1	—16.2	—3.4	—21.1	—19.4	—16.5
1921–1931	29.2	25.0	26.3	13.0	27.9	52.5
1919–1929	28.1	35.8	75.2	53.9	67.2	90.6
1909–1919	4.9	51.0	191.6	174.8	172.5	168.6
1899–1909	31.8	46.8	67.9	76.6	79.5	84.8
States, 1931						
California	77	1,087	$1,471,907	$11,956,033	$19,127,709	$7,171,676
Colorado	5	47	61,862	338,336	629,715	291,379
Connecticut	11	168	206,754	1,393,894	2,611,653	1,217,759
Florida	5	13	16,427	96,257	145,596	49,339
Georgia	14	80	77,722	458,646	842,658	384,012
Illinois	108	2,724	3,607,047	29,852,177	50,430,805	20,578,628
Indiana	24	372	480,744	3,295,834	5,908,127	2,612,293
Iowa	4	26	30,948	240,843	397,660	156,817
Kentucky	22	383	477,841	3,559,575	6,432,752	2,873,177
Louisiana	9	116	118,705	802,213	1,626,904	824,691
Maryland	21	472	583,154	2,521,541	5,078,692	2,557,151
Massachusetts	49	730	896,982	5,076,080	10,674,240	5,598,160
Michigan	43	1,331	1,929,899	13,702,876	25,447,182	11,744,306
Minnesota	19	228	283,896	1,761,863	3,156,954	1,395,091
Missouri	46	1,213	1,540,674	9,291,395	18,766,654	9,475,259
Nebraska	6	48	53,583	333,985	616,194	282,209
New Jersey	95	3,463	4,875,991	29,715,052	55,362,880	25,647,828
New York	178	3,456	4,690,832	28,999,872	54,713,949	25,714,077
Ohio	100	2,391	3,181,954	18,170,124	34,448,097	16,277,973
Oregon	9	75	88,707	548,708	820,773	272,065

[1] For 1929, manufacturers' sales (shipments or deliveries); for other years, production. See sec. 16, p. 9.
[2] Value of products less cost of materials, containers, fuel, and purchased electric energy. See sec. 20, p. 11.

TABLE 1.—SUMMARY FOR THE UNITED STATES, 1899 TO 1931, AND FOR STATES, 1931—Continued

[See note at head of this table]

	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, containers, fuel, and purchased electric energy	Value of products [1]	Value added by manufacture [2]
States, 1931—Continued						
Pennsylvania	98	2,463	$2,868,427	$18,140,632	$32,365,561	$14,224,929
Tennessee	12	113	120,781	831,075	1,335,201	504,126
Texas	22	260	233,702	1,459,356	2,483,282	1,023,926
Virginia	7	92	81,074	351,088	722,820	371,732
Washington	9	76	108,509	505,547	952,180	446,633
West Virginia	6	157	173,017	1,326,360	1,950,660	624,300
Wisconsin	16	475	624,524	5,687,091	7,414,588	1,727,497
Other States [3]	24	462	538,986	3,320,284	6,262,166	2,941,882

For footnotes 1 and 2, see p. 628.

[3] Alabama, 3 establishments; Delaware, 2; Kansas, 1; Maine, 1; Mississippi, 1; North Carolina, 3; Oklahoma, 2; Rhode Island, 5; South Carolina, 3; Utah, 3.

TABLE 2.—WAGE EARNERS, BY MONTHS, FOR THE UNITED STATES, 1931, 1929, 1925, 1919, 1914, AND 1909, AND FOR STATES, 1931

[This table presents statistics for only those States for which figures can be given without disclosing, exactly or approximately, 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. See sec. 13, p. 8]

	Average number employed during year	NUMBER REPORTED FOR—											
		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
United States													
1931	22,521	22,240	22,546	23,089	23,607	24,187	23,911	22,845	21,706	21,876	21,669	21,359	*21,222*
1929	29,211	28,309	28,678	29,362	29,908	30,269	30,216	29,871	29,652	29,390	29,114	28,237	*27,530*
1925	25,490	25,264	25,748	26,295	26,286	25,980	25,453	25,031	*24,709*	24,860	25,338	25,362	25,409
1919	21,507	19,711	*19,707*	19,946	20,424	20,905	21,311	21,972	22,429	22,679	22,927	22,917	23,156
1914	16,083	15,723	16,277	16,593	16,852	16,905	16,870	16,030	15,821	15,872	15,564	15,288	*15,201*
1909	14,240	*13,223*	13,835	14,360	14,635	14,692	14,582	14,202	14,141	14,236	14,444	14,296	14,231
States, 1931													
California	1,087	1,083	1,088	1,104	1,131	1,157	1,132	1,105	1,076	1,095	1,065	*998*	1,013
Colorado	47	*44*	*44*	46	49	50	50	51	48	47	47	45	45
Connecticut	168	172	175	180	170	167	168	167	165	165	165	*159*	161
Florida	13	13	13	13	13	13	13	13	13	13	13	13	13
Georgia	80	82	82	82	84	79	80	81	81	82	79	76	*75*
Illinois	2,724	2,701	2,859	2,871	2,907	3,052	2,950	2,804	2,551	2,563	2,469	*2,442*	2,516
Indiana	372	380	387	376	386	395	384	369	366	351	*347*	364	361
Iowa	26	26	26	26	26	26	26	26	26	26	26	26	26
Kentucky	383	368	375	386	403	421	397	386	385	384	370	*361*	362
Louisiana	116	112	*109*	115	119	120	124	121	112	112	115	113	116
Maryland	472	469	387	595	614	606	594	595	315	*309*	365	406	413
Massachusetts	730	711	*697*	718	738	779	789	728	711	729	724	718	713
Michigan	1,331	1,280	1,312	1,339	1,404	1,460	1,499	1,338	1,258	1,274	1,251	*1,245*	1,314
Minnesota	228	*201*	213	226	232	259	258	246	238	220	219	213	216
Missouri	1,213	*1,140*	1,199	1,221	1,251	1,305	1,349	1,276	1,180	1,159	1,141	1,191	1,142
Nebraska	48	41	37	44	45	45	48	*35*	59	61	56	57	57
New Jersey	3,463	3,525	3,575	3,570	3,561	3,560	3,572	3,423	3,339	3,427	3,455	3,314	*3,240*
New York	3,456	3,482	3,426	3,472	3,559	3,602	3,537	3,382	*3,330*	3,439	3,463	3,423	3,352
Ohio	2,391	2,373	2,420	2,481	2,511	2,580	2,536	2,410	2,328	2,307	2,311	2,238	*2,194*
Oregon	75	*70*	74	75	82	78	77	80	77	74	74	71	*70*
Pennsylvania	2,463	2,355	2,386	2,470	2,565	2,679	2,616	2,524	2,433	2,425	2,390	2,374	*2,342*
Tennessee	113	116	112	116	120	124	119	108	113	112	107	108	*104*
Texas	260	254	263	277	293	272	267	263	252	253	246	243	*231*
Virginia	92	84	106	77	95	95	96	95	95	106	94	83	*75*
Washington	76	69	73	78	82	96	78	80	72	73	71	79	*63*
West Virginia	157	162	157	156	174	157	154	155	162	156	162	*140*	150
Wisconsin	475	*455*	458	477	487	512	517	500	459	464	*455*	462	460

TABLE 3.—PRODUCTS, BY CLASS, QUANTITY, AND VALUE, FOR THE UNITED STATES: 1925 TO 1931

[The figures for 1929 refer to sales (shipments or deliveries) by manufacturers; those for other years represent production. See sec. 16, p. 9]

CLASS	1931	1929	1927	1925
1. Paint and varnish industry, all products, total value	$350,725,652	$568,975,838	$519,009,842	$470,736,264
2. Paints, varnishes, and related products	334,112,813	530,590,165	487,171,879	440,050,419
3. Other products (not normally belonging to the industry)	16,612,839	38,385,673	31,837,963	30,685,845
4. Paints, varnishes, and related products made as secondary products in other industries, value	27,951,198	44,289,418	39,937,128	41,262,417
Paints, varnishes, and related products, all industries: Aggregate value (sum of 2 and 4)	$362,064,011	$574,879,583	$527,109,007	$481,312,836
Pigments (colors) made for sale: Total pounds	1,296,005,670	1,918,458,961	1,773,888,520	1,608,119,046
Total value	$69,427,841	$116,752,604	$105,755,539	$103,918,550
White lead, dry: Total production, pounds	221,176,753	330,117,964	331,617,056	342,131,591
Made and consumed in the same establishments, pounds	96,005,393	179,753,401	188,312,036	199,201,713
For sale: Pounds	125,171,360	150,364,563	143,305,020	142,929,878
Value	$6,899,086	$12,306,028	$12,014,416	$14,172,407
Lead oxides: Total production, pounds	168,616,692	267,851,565	235,463,026	253,861,168
Made and consumed in the same establishments, pounds	3,680,815	5,782,332	3,362,564	5,056,602
For sale: Litharge: Pounds	119,349,709	163,736,000	154,622,069	167,732,121
Value	$6,202,394	$12,964,987	$12,815,967	$18,022,460
Red lead: Pounds	44,388,853	94,275,832	75,285,537	80,280,719
Value	$2,758,534	$8,174,314	$6,961,319	$9,146,267
Other lead oxides: Pounds	1,197,315	4,057,401	2,192,856	791,726
Value	$70,766	$349,112	$245,955	$120,239
Zinc oxide: Pounds	239,755,975	436,714,982	348,210,576	318,691,611
Value	$14,306,981	$26,933,248	$22,285,657	$22,740,819
Lithopone: Pounds	307,489,496	410,638,583	359,759,077	246,402,248
Value	$12,926,953	$19,260,958	$17,163,576	$12,184,593
Iron oxides (ochre, sienna, umber, etc.): Pounds	64,212,191	105,627,130	108,357,735	88,771,532
Value	$1,943,110	$3,374,800	$3,357,895	$2,384,148
Other mineral colors: Pounds	2,811,213	17,263,000	29,199,617	41,107,234
Value	$41,308	$254,373	$343,884	$558,307
Chrome yellow: Pounds	13,345,746	16,399,268	14,334,423	14,231,374
Value	$2,019,456	$2,392,790	$2,351,111	$2,414,938
Chrome orange: Pounds	8,321,990	9,954,493	4,652,209	1,844,541
Value	$1,265,922	$1,449,629	$751,468	$340,047
Chrome green: Pounds	17,083,866	16,351,788	14,114,248	12,610,178
Value	$2,564,497	$2,603,225	$2,460,276	$2,231,168
Prussian blue: Pounds	3,502,912	5,359,419	4,104,233	4,548,016
Value	$1,134,364	$1,612,817	$1,364,537	$1,534,950
Vermilion (true): Pounds	162,059	202,933	322,375	344,374
Value	$243,972	$326,709	$371,608	$345,293
Other fine colors:[1] Pounds	10,870,873	17,045,603	15,991,168	15,500,230
Value	$4,037,671	$6,366,933	$5,847,794	$4,439,227
Mortar colors: Pounds	15,350,812	41,486,166	62,215,054	62,606,710
Value	$263,905	$781,471	$1,099,903	$1,085,904

[1] Figures include data for ultramarine. These were called for separately on schedule, but statistics can not be given without disclosing approximations of the output of individual establishments.

TABLE 3.—PRODUCTS, BY CLASS, QUANTITY, AND VALUE, FOR THE UNITED STATES: 1925 TO 1931—Continued

[See note at head of this table]

CLASS	1931	1929	1927	1925
Paints, varnishes, and related products—Con.				
Pigments (colors) made for sale—Con.				
Whiting:				
Pounds	152, 324, 924	202, 207, 936	221, 137, 263	236, 483, 656
Value	$1, 068, 751	$1, 513, 634	$1, 669, 874	$1, 979, 964
Other dry colors (including barytes):				
Pounds	160, 202, 686	211, 161, 362	201, 677, 719	157, 051, 386
Value	$10, 651, 656	$14, 697, 886	$13, 348, 441	$8, 536, 358
Pulp colors, sold moist:				
Pounds	10, 463, 690	15, 612, 502	14, 407, 341	16, 191, 512
Value	$1, 028, 515	$1, 389, 690	$1, 301, 858	$1, 381, 461
Paints, total value	$154, 004, 703	$232, 000, 991	$221, 538, 902	$218, 719, 633
In paste form:				
Total pounds	242, 528, 011	401, 546, 094	408, 722, 058	434, 583, 529
Total value	$26, 190, 760	$46, 665, 995	$49, 553, 502	$55, 706, 427
White lead in oil:				
Pounds	139, 106, 356	232, 938, 353	252, 743, 419	260, 193, 429
Value	$13, 063, 287	$24, 591, 319	$28, 083, 217	$32, 048, 906
Combination whites:				
Pounds	41, 617, 117	61, 762, 830	53, 927, 072	48, 923, 460
Value	$3, 641, 661	$5, 660, 990	$5, 248, 046	$4, 772, 169
Red lead in oil:				
Pounds	4, 222, 648	6, 980, 118	4, 671, 988	4, 787, 224
Value	$461, 797	$905, 146	$592, 329	$639, 172
Zinc oxide in oil:				
Pounds	2, 582, 567	4, 450, 208	6, 175, 032	7, 083, 414
Value	$301, 192	$486, 317	$783, 155	$907, 803
Colors in oil:				
Pounds	23, 836, 847	33, 194, 913	32, 819, 211	
Value	$4, 674, 255	$6, 900, 814	$6, 442, 477	
Colors in japan:				
Pounds	1, 520, 889	2, 635, 976	3, 441, 324	113, 596, 002
Value	$483, 081	$1, 012, 843	$1, 411, 939	$17, 338, 377
Other paints in paste form:				
Pounds	29, 641, 587	59, 583, 696	54, 044, 012	
Value	$3, 564, 887	$7, 108, 566	$6, 992, 339	
Water paints and kalsomines, dry and in paste form:				
Pounds	122, 823, 417	155, 810, 548	122, 455, 836	110, 618, 307
Value	$5, 265, 219	$7, 093, 017	$6, 321, 002	$4, 638, 360
Plastic paints:				
Pounds	14, 561, 424	(2)	(2)	(2)
Value	$1, 393, 044			
Mixed, ready for use:				
Total gallons	78, 249, 055	106, 165, 398	94, 070, 895	87, 639, 481
Total value	$121, 155, 680	$178, 241, 979	$165, 664, 398	$158, 376, 846
Paints in oil:				
Gallons	37, 709, 502	53, 054, 219	53, 108, 389	
Value	$63, 523, 576	$96, 732, 014	$97, 760, 426	
Undercoatings and primers:				
Gallons	6, 764, 541	12, 059, 640	7, 198, 418	
Value	$9, 237, 455	$17, 315, 189	$11, 343, 928	
Wall paints and mill whites, flat and gloss:				(2)
Gallons	15, 933, 339	19, 400, 773	15, 357, 299	
Value	$24, 361, 397	$31, 946, 834	$26, 525, 797	
Other ready-mixed and semipaste paints:				
Gallons	17, 841, 673	21, 650, 766	18, 406, 789	
Value	$24, 033, 252	$32, 247, 942	$30, 034, 247	
Varnishes, japans, and lacquers (including enamels), total value	$125, 309, 753	$204, 881, 402	$178, 231, 107	$140, 855, 191
Oleoresinous varnishes:				
Gallons	27, 074, 157	38, 843, 280	33, 859, 282	38, 418, 014
Value	$29, 870, 415	$47, 740, 393	$43, 628, 196	$48, 374, 502
Spirit varnishes, not turpentine:				
Gallons	5, 887, 607	7, 379, 820	6, 816, 421	7, 117, 336
Value	$7, 423, 559	$13, 534, 920	$12, 440, 814	$13, 381, 769
Varnishes other than oleoresinous and spirit:				
Gallons	5, 396, 483	8, 476, 266	8, 936, 448	4, 051, 234
Value	$5, 990, 923	$10, 613, 279	$12, 757, 922	$5, 973, 208

[2] Not reported separately.

TABLE 3.—PRODUCTS, BY CLASS, QUANTITY, AND VALUE, FOR THE UNITED STATES: 1925 TO 1931—Continued

[See note at head of this table]

CLASS	1931	1929	1927	1925
Paints, varnishes, and related products—Con.				
Varnishes, japans, and lacquers—Con.				
Pyroxylin products:				
Clear lacquers:				
Gallons	8,096,582	9,938,501	7,738,079	
Value	$12,846,124	$19,178,970	$15,721,249	
Lacquer enamels:				
Gallons	8,705,436	15,150,807	10,757,852	12,265,29[illegible]
Value	$20,734,704	$38,555,226	$30,187,332	$27,254,7[illegible]
Thinners for pyroxylin lacquers:				
Gallons	12,701,400	17,870,548	12,340,237	
Value	$11,271,917	$19,151,462	$14,361,092	
Other pyroxylin products, value	$2,328,406	$5,450,569	$4,252,733	
Drying japans and driers:				
Gallons	2,481,309	5,187,797	6,562,074	5,764,4[illegible]
Value	$2,045,325	$4,057,582	$4,958,378	$4,564,0[illegible]
Baking japans:				
Gallons	2,388,675	4,039,344	4,988,589	6,057,45[illegible]
Value	$1,815,420	$3,480,555	$4,453,467	$4,767,55[illegible]
Enamels, oil and varnish base:				
Gallons	15,478,029	19,987,299	14,453,143	15,017,850
Value	$29,798,701	$40,198,979	$32,070,436	$32,173,74[illegible]
Allied products, value	$1,184,259	$2,919,467	$3,399,488	$4,364,63[illegible]
Fillers:				
Liquid:				
Gallons	294,311	495,361	565,991	722,317
Value	$235,674	$683,221	$721,862	$922,123
Paste:				
Pounds	13,242,997	20,838,050	19,940,061	18,262,373
Value	$828,731	$1,801,974	$1,656,785	$1,768,243
Dry:				
Pounds	6,243,410	9,775,004	21,546,014	23,741,150
Value	$146,498	$152,304	$151,851	$555,726
Putty:				
Pounds	69,907,186	99,163,239	102,702,810	101,268,591
Value	$2,992,484	$4,253,334	$4,255,341	$3,925,616
Bleached shellac:				
Pounds	10,731,259	11,139,556	10,611,004	11,136,137
Value	$2,619,073	$5,431,349	$5,014,823	$5,990,555
Stains:				
Varnish stains:				
Gallons	1,726,151	2,159,620	2,413,420	(1)
Value	$2,542,476	$4,381,153	$4,712,281	
Other stains:				
Gallons	3,037,679	3,533,961	3,834,214	3,322,657
Value	$3,956,778	$4,541,251	$4,770,516	$4,677,201

[1] Not reported separately.

TABLE 4.—SELECTED PRODUCTS, BY QUANTITY AND VALUE, BY STATES: 1931

[This table gives statistics for each class of products whose total value was $5,000,000 or more and for which it is possible to publish figures for at least the leading two States without disclosing, exactly or approximately, the data reported by individual establishments. In each case statistics are given for as many States as possible, including, in many instances, some which are of less importance than certain of the "Other States" in the production of the specified classes of paints, etc.]

PRODUCT AND STATE	Quantity	Value	PRODUCT AND STATE	Quantity	Value
Paints:			Paints—Continued		
Ready-mixed and semi-paste:			Ready-mixed and semi-paste—Continued		
Paints in oil, total	*Gallons* 37,709,502	$63,523,576	Paints in oil—Con.	*Gallons*	
			Louisiana	409,256	$911,396
California	2,030,756	3,236,907	Maryland	638,381	972,792
Colorado	181,612	328,280	Massachusetts	1,017,446	2,097,896
Connecticut	166,019	231,925	Michigan	1,351,545	2,519,927
Florida	90,160	117,919	Minnesota	765,204	1,490,402
Georgia	166,693	260,809	Missouri	2,498,262	3,894,038
Illinois	7,382,000	11,089,884	Nebraska	158,151	325,023
Indiana	505,530	859,324	New Jersey	3,470,890	5,879,207
Iowa	82,899	156,986	New York	5,194,328	8,671,940
Kentucky	584,319	1,076,263	Ohio	4,430,804	8,085,423

TABLE 4.—SELECTED PRODUCTS, BY QUANTITY AND VALUE, BY STATES: 1931—Continued

[See note at head of this table]

PRODUCT AND STATE	Quantity	Value
Paints—Continued		
Ready-mixed and semi-paste—Continued		
Paints in oil—Con.	*Gallons*	
Oregon	186,458	$298,297
Pennsylvania	4,109,427	7,255,206
Tennessee	267,141	442,960
Texas	519,927	808,335
Washington	86,700	178,859
Wisconsin	694,798	1,148,945
Other States	720,796	1,184,633
Undercoatings and primers, total	6,764,541	9,237,455
California	429,379	589,756
Colorado	6,579	11,354
Illinois	516,608	771,869
Indiana	82,124	125,877
Kentucky	58,034	93,592
Louisiana	5,323	8,051
Maryland	40,983	45,904
Massachusetts	92,873	154,147
Michigan	1,558,992	2,035,897
Minnesota	12,175	24,590
Missouri	93,062	135,051
New Jersey	729,468	811,604
New York	1,303,145	1,646,617
Ohio	806,473	1,169,429
Pennsylvania	471,900	736,608
Tennessee	19,891	25,053
Texas	66,728	96,067
Wisconsin	278,577	401,670
Other States	192,227	354,319
Wall paints and mill whites, flat and gloss, total	15,933,339	24,361,397
California	721,136	1,158,902
Colorado	31,054	58,309
Georgia	33,611	49,168
Illinois	2,045,078	3,243,547
Indiana	225,320	377,161
Kentucky	360,843	525,677
Maryland	113,427	142,760
Massachusetts	271,988	468,725
Michigan	740,755	1,358,512
Minnesota	232,233	390,309
Missouri	604,579	844,972
New Jersey	2,730,742	3,863,366
New York	3,550,971	5,111,125
Ohio	1,598,099	2,643,256
Pennsylvania	799,756	1,231,965
Tennessee	91,136	125,576
Texas	113,915	139,724
Wisconsin	769,297	1,091,970
Other States	899,399	1,536,373
Other ready-mixed and semipaste paints, total	17,841,673	24,033,252
California	1,276,466	1,745,412
Colorado	65,267	57,201
Georgia	168,677	150,836
Illinois	2,760,138	2,969,429
Indiana	295,409	417,911
Kentucky	256,328	345,342
Maryland	279,152	395,261
Massachusetts	393,384	698,775
Michigan	1,199,260	1,684,749
Minnesota	157,284	246,456
Missouri	663,803	761,614
New Jersey	1,930,642	3,088,001
New York	1,811,851	2,684,583
Ohio	1,986,852	2,555,841
Pennsylvania	2,399,818	3,184,746
Paints—Continued		
Ready-mixed and semi-paste—Continued		
Other ready-mixed and semipaste paints—Contd.	*Gallons*	
Tennessee	89,634	$151,001
Texas	144,764	231,708
Washington	79,227	112,156
Other States	1,883,667	2,552,230
Varnishes, japans, and lacquers, including enamels:		
Oleoresinous varnishes, total	27,074,157	29,870,415
California	1,530,926	2,078,322
Illinois	4,794,639	4,642,274
Indiana	643,362	764,526
Kentucky	1,045,992	1,043,610
Maryland	59,969	82,706
Massachusetts	1,426,763	1,737,449
Michigan	1,183,936	1,337,086
Minnesota	131,638	233,979
Missouri	1,877,960	1,769,721
New Jersey	4,369,701	4,075,130
New York	3,639,399	5,095,069
Ohio	2,582,900	2,808,453
Pennsylvania	2,398,999	2,507,249
Tennessee	95,340	125,525
Texas	109,329	143,702
Washington	39,187	71,697
Other States	1,144,108	1,353,917
Spirit varnishes, not turpentine, total	5,887,607	7,423,559
California	482,349	481,988
Illinois	996,773	1,261,816
Indiana	119,262	160,733
Kentucky	92,950	100,747
Massachusetts	235,826	296,321
Michigan	295,971	480,471
Missouri	64,294	90,261
New Jersey	300,282	365,524
New York	2,274,606	2,727,001
Ohio	175,418	250,004
Pennsylvania	391,628	553,706
Other States	458,248	654,987
Varnishes other than oleoresinous and spirit, total	5,396,483	5,990,923
California	427,981	383,837
Illinois	784,672	605,341
Indiana	108,464	74,414
Massachusetts	58,296	41,360
Michigan	149,870	195,594
New Jersey	763,194	991,526
New York	1,256,917	1,705,856
Ohio	449,073	571,468
Pennsylvania	562,535	545,307
Other States	835,481	876,220
Pyroxylin products:		
Clear lacquers, total	8,096,582	12,846,124
California	267,701	550,805
Illinois	1,161,349	1,755,932
Indiana	617,255	909,732
Kentucky	574,019	848,638
Massachusetts	276,493	312,836
Michigan	379,859	683,303
Missouri	115,066	194,025
New Jersey	2,993,799	4,677,637
New York	458,985	791,764
Ohio	741,131	1,217,672
Pennsylvania	267,731	482,604
Wisconsin	150,709	223,727
Other States	92,485	197,449

TABLE 4.—SELECTED PRODUCTS, BY QUANTITY AND VALUE, BY STATES: 1931—Continued

[See note at head of this table]

PRODUCT AND STATE	Quantity	Value
Varnishes, japans, and lacquers, including enamels—Continued		
Pyroxylin products—Continued		
Lacquer enamels, total	*Gallons* 8,705,436	$20,734,704
California	392,986	945,466
Illinois	841,252	1,746,040
Indiana	54,072	91,286
Kentucky	197,026	400,481
Massachusetts	156,696	333,261
Michigan	2,205,198	5,278,831
Missouri	249,859	498,288
New Jersey	1,951,849	5,562,659
New York	366,760	927,838
Ohio	1,000,330	2,139,246
Pennsylvania	757,007	1,860,062
Wisconsin	33,930	58,138
Other States	498,471	893,108
Thinners for pyroxylin lacquers, total	12,701,400	11,271,917
California	620,152	718,563
Illinois	1,328,554	1,288,139
Indiana	1,023,155	314,271
Kentucky	261,564	236,540
Massachusetts	400,563	380,419
Michigan	3,404,524	2,651,129
Missouri	213,879	158,780
New Jersey	3,072,783	3,113,869
New York	666,441	674,061
Varnishes, japans, and lacquers, including enamels—Continued		
Pyroxylin products—Continued		
Thinners for pyroxylin lacquers—Continued		
Ohio	*Gallons* 1,030,736	$972,307
Pennsylvania	169,867	236,552
Wisconsin	281,148	298,629
Other States	228,034	228,658
Enamels, oil and varnish base, total	15,478,029	29,798,701
California	718,376	1,549,282
Colorado	28,841	82,916
Illinois	2,592,321	4,201,040
Indiana	374,083	711,623
Kentucky	386,195	533,232
Louisiana	51,769	84,074
Maryland	89,971	159,217
Massachusetts	767,052	1,356,222
Michigan	1,318,935	2,436,289
Minnesota	162,061	355,279
Missouri	594,280	1,054,705
New Jersey	1,599,147	3,037,182
New York	2,327,439	5,152,927
Ohio	2,322,977	4,584,235
Pennsylvania	1,281,548	2,725,545
Texas	97,980	206,512
Wisconsin	383,255	853,243
Other States	381,799	715,198

RAYON AND ALLIED PRODUCTS

[A preliminary report for this industry was issued under date of Aug. 12, 1932]

Description of the industry.—This industry embraces establishments engaged primarily in the manufacture of rayon yarn and allied products in sheets or other forms. Establishments engaged primarily in the further manufacture of products from rayon as a material are classified in the Silk and Rayon Goods industry. At censuses prior to that for 1925, the manufacture of rayon and allied products was treated as a part of the "Chemicals Not Elsewhere Classified" industry.

TABLE 1.—SUMMARY FOR THE UNITED STATES, 1925 TO 1931, AND FOR VIRGINIA, 1931

[Virginia is the only State for which separate figures can be given without disclosing, exactly or approximately, data for individual establishments]

	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, containers, fuel, and purchased electric energy	Value of products [1]	Value added by manufacture [2]
United States						
1931	32	38,735	$38,231,493	$36,180,858	$132,632,416	$96,451,558
1929	29	39,106	44,697,129	33,334,753	149,546,107	116,211,354
1927	19	26,341	28,649,441	25,747,792	109,888,336	84,140,544
1925 [3]	14	19,128	22,975,605	18,477,965	88,060,962	69,582,997
Percent of increase or decrease (−):						
1929-31	(4)	−0.9	−14.5	8.5	−11.3	−17.0
1927-29	(4)	48.5	56.0	29.5	36.1	38.1
1925-27	(4)	37.7	24.7	39.3	24.8	20.9
States, 1931						
Virginia	6	10,567	$9,953,915	$8,484,706	$30,645,651	$22,160,945
Other States [5]	26	28,168	28,277,578	27,696,152	101,986,765	74,290,613

[1] For 1929, sales (shipments or deliveries) by manufacturers; for other years, production. See sec. 16, p. 9.
[2] Value of products less cost of materials, containers, fuel, and purchased electric energy. See sec. 20, p. 11.
[3] No comparable figures can be given for years prior to 1925.
[4] Percent not computed where base is less than 100.
[5] Connecticut, 1 establishment; Delaware, 1; Georgia, 1; Illinois, 1; Maryland, 1; Massachusetts, 1; New Hampshire, 1; New Jersey, 1; New York, 4; North Carolina, 1; Ohio, 2; Pennsylvania, 3; Rhode Island, 1; Tennessee, 5; West Virginia, 1; Wisconsin, 1.

TABLE 2.—WAGE EARNERS, BY MONTHS, FOR THE UNITED STATES, 1931, 1929, AND 1925, AND FOR VIRGINIA, 1931

[The month of maximum employment is indicated by bold-faced figures and that of minimum employment by *italic* figures. Virginia is the only State for which separate figures can be given without disclosing, exactly or approximately, data for individual establishments]

	Average number employed during year	NUMBER REPORTED FOR—											
		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
United States													
1931	38,735	*37,408*	37,413	38,152	38,622	39,014	39,712	39,907	**39,998**	39,475	39,036	38,180	37,899
1929	39,106	35,600	35,827	36,043	36,576	*34,970*	36,280	38,754	40,592	42,188	43,584	44,808	44,055
1925	19,128	*16,890*	17,145	17,324	17,570	18,124	18,678	19,345	19,800	20,307	20,726	21,469	22,157
Virginia: 1931	10,567	10,243	10,407	10,611	10,706	10,719	10,571	10,709	10,651	10,722	10,744	10,512	*10,213*

TABLE 3.—PRODUCTS, BY KIND, QUANTITY, AND VALUE, FOR THE UNITED STATES: 1931, 1929, AND 1927

[The figures for 1929 refer to sales (shipments or deliveries) by manufacturers; those for other years represent production. See sec. 16, p. 9. No comparable figures can be given for years prior to 1927]

	1931	1929	1927
Rayon and allied products, total value	$132,632,416	$149,546,107	$109,888,336
Yarns:			
Total pounds	150,879,496	116,632,378	75,555,439
Total value	$112,282,407	$140,846,595	$106,468,752
Finer than 125 denier:			
Pounds	32,959,202	12,813,845	
Value	$30,525,206	$21,176,640	
125 to 150 denier:			
Pounds	100,022,948	85,528,539	(1)
Value	$70,725,448	$101,494,715	
Heavier than 150 denier:			
Pounds	17,897,346	18,289,994	
Value	$11,031,753	$18,175,240	
Allied products (sheets, waste, etc.), value	$20,350,009	$8,699,512	$3,419,584

[1] Not reported in detail.

SALT

Description of the industry.—The salt industry embraces establishments engaged primarily in the manufacture of commercial salt, whether from rock salt or from natural or artificial brines. The greater part of the product is brine salt, which is obtained mainly by running fresh water into bore-holes in beds of rock salt, pumping the artificial brine to the surface, and evaporating it. In a few places natural brine is pumped to the surface and evaporated, and in some cases salt is extracted from the ocean and from salt lakes. No data are included for the salt content of brine produced and used in the same plants in the manufacture of chemicals.

Difference between value of salt as reported to Census Bureau and as reported to Bureau of Mines.—The differences between the "Value of products" items as shown by the census figures in table 1 and the "Total value" items as shown by the Bureau of Mines figures in table 3 are due principally to the fact that the census figures include data for the value of containers in which the salt is sold, whereas the Bureau of Mines figures represent the value of salt alone. Another but much less important cause of the differences is found in the fact that the census figures represent the total value of all products made by establishments engaged primarily in the production of salt, whereas the Bureau of Mines figures refer to salt alone.

TABLE 1.—SUMMARY FOR THE UNITED STATES, 1899 TO 1931, AND FOR STATES, 1931

[Data for establishments with products under $5,000 in value are included for 1919 and prior years but not for 1921 and subsequent years. See sec. 3d, p. 4. Statistics are given for all States for which separate figures can be published without disclosing, exactly or approximately, the data reported by individual establishments]

	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, containers, fuel, and purchased electric energy	Value of products [1]	Value added by manufacture [2]
United States						
1931	53	4,728	$5,549,119	$10,863,679	[3] $31,429,873	$20,566,194
1929	58	5,458	6,735,484	14,187,797	[3] 37,868,697	23,680,900
1927	58	5,961	7,117,454	14,664,126	34,329,236	19,665,110
1925	70	6,308	7,260,552	13,848,644	34,253,056	20,404,412
1923	75	6,809	8,129,492	16,476,623	36,837,162	20,360,539
1921	79	5,993	7,147,512	16,407,355	33,158,558	16,751,203
1919	86	6,495	7,353,420	16,027,791	37,513,821	21,486,030
1914	98	5,089	3,041,294	6,273,030	14,070,333	7,797,303
1909	124	4,936	2,531,446	5,203,354	11,327,834	6,124,480
1904	146	4,666	2,066,399	4,166,137	9,437,662	5,271,525
1899	159	4,774	1,911,140	3,335,922	7,966,897	4,630,975

For footnotes, see end of table.

TABLE 1.—SUMMARY FOR THE UNITED STATES, 1899 TO 1931, AND FOR STATES, 1931—Continued

[See note at head of table]

	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, containers, fuel, and purchased electric energy	Value of products [1]	Value added by manufacture [2]
United States—Continued						
Percent of increase or decrease (−):						
1929-31	(4)	−13.4	−17.6	−23.4	−17.0	−13.2
1927-29	------	−8.4	−5.4	−3.2	10.3	20.4
1925-27	(4)	−5.5	−2.0	5.9	0.2	−3.6
1923-25	(4)	−7.4	−10.7	−15.9	−7.0	0.2
1921-23	(4)	13.6	13.7	0.4	11.1	21.5
1919-21	(4)	−7.7	−2.8	2.4	−11.6	−22.0
1921-31	(4)	−21.1	−22.4	−33.8	−5.2	−22.8
1919-29	(4)	−16.0	−8.4	−11.5	0.9	10.2
1909-19	−30.6	31.6	190.5	208.0	231.2	250.8
1899-1909	−22.0	3.4	32.5	56.0	42.2	32.3
States, 1931						
California	11	423	$574,769	$1,035,270	$3,196,997	$2,161,727
Kansas	9	733	758,461	1,407,531	4,276,082	2,868,551
Louisiana	3	587	444,815	965,868	3,849,497	2,883,629
Michigan	8	1,192	1,610,223	3,069,467	7,612,543	4,543,076
New York	7	898	975,442	1,928,028	6,749,371	4,821,343
Ohio	5	550	800,662	1,663,676	3,855,705	2,192,029
Other States [5]	10	345	384,747	793,839	1,889,678	1,095,839

[1] For 1929, manufacturers' sales (shipments or deliveries); for other years, production. See sec. 16, p. 9.
[2] Value of products less cost of materials, containers, fuel, and purchased electric energy. See sec. 20, p. 11.
[3] Includes values of commodities other than salt, made as secondary products by establishments in this industry, as follows: 1931, $244,004; 1929, $1,608,425. Does not include following values of salt made as a secondary product by establishments classified in other industries: 1931, $387,981; 1929, $226,044.
[4] Not computed where base is less than 100.
[5] Minnesota, 1 establishment; Texas, 3; Utah, 3; West Virginia, 3.

TABLE 2.—WAGE EARNERS, BY MONTHS, FOR THE UNITED STATES, 1931, 1929, 1925, 1919, 1914, AND 1909, AND FOR STATES, 1931

[This table presents statistics for only those States for which figures can be given without disclosing, exactly or approximately, the 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. See sec. 13, p. 8]

	Average number employed during year	NUMBER REPORTED FOR—											
		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
United States													
1931	4,728	4,588	4,674	4,778	4,610	*4,585*	4,606	4,695	4,859	4,968	4,908	4,788	4,684
1929	5,458	5,361	5,401	5,390	5,259	*5,139*	5,258	5,588	5,661	5,669	5,776	5,603	5,394
1925	6,308	6,316	6,300	6,318	6,076	6,172	6,301	6,337	6,394	6,497	6,648	6,307	*6,033*
1919	6,495	6,433	6,220	6,179	6,161	*5,994*	6,114	6,443	6,900	6,771	7,110	6,826	6,789
1914	5,089	4,731	*4,654*	4,875	5,096	5,126	5,128	5,167	5,221	5,448	5,492	5,159	4,971
1909	4,936	*4,340*	4,462	4,846	4,977	4,984	5,132	5,229	5,198	5,192	5,158	5,070	4,636
States, 1931													
California	423	355	*322*	341	357	346	345	391	586	623	589	445	374
Kansas	733	747	749	771	737	716	*713*	732	726	723	721	729	735
Louisiana	587	587	587	587	587	587	587	587	587	587	587	587	587
Michigan	1,192	1,206	1,272	1,304	1,224	1,259	1,267	1,143	1,145	1,161	*1,101*	1,119	1,105
New York	898	883	878	904	894	870	*862*	882	874	916	945	941	934
Ohio	550	516	*507*	523	515	520	533	568	560	574	596	595	593

TABLE 3.—MANUFACTURED (EVAPORATED) AND ROCK SALT SOLD OR USED BY PRODUCERS IN THE UNITED STATES: 1931, 1929, 1927, AND 1925

[The statistics given in this table are compiled from annual reports on "Salt, Bromine, and Calcium Chloride" published by the Bureau of Mines, Department of the Interior. See "Difference between value of salt as reported to Census Bureau and as reported to Bureau of Mines," p. 637]

	1931	1929	1927	1925
Total tons	4,057,860	4,659,400	4,406,890	4,577,810
Total value	$19,912,323	$25,049,603	$22,963,382	$24,495,540
Manufactured (evaporated):				
Tons	2,203,690	2,546,390	2,263,030	2,235,170
Value	$14,177,116	$17,921,922	$16,587,027	$17,050,741
Rock salt:				
Tons	1,854,170	2,113,010	2,143,860	2,342,640
Value	$5,735,207	$7,127,681	$6,376,355	$7,444,799