Group 5.—PRINTING, PUBLISHING, AND ALLIED INDUSTRIES

THE GROUP AS A WHOLE

This group was formerly a part of Group 7—Paper, printing, and related industries. It is divided into two subgroups, (1) Printing and publishing and (2) Industries related to printing and publishing.

Summary statistics for the group, for the two subgroups, and for the separate industries are given in the table following, and complete reports for the several industries are presented on pages 595 to 646.

Summary for Group 5.—Printing, Publishing, and Allied Industries: 1921 to 1927

[See "Regrouping of industries and renumbering of groups," p. 19]

INDUSTRY	Census year	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, supplies, fuel, and power	Value of products	Value added by manufacture	Horsepower
				Expressed in thousands of dollars [1]				
Total	1927	25,416	327,534	584,766	752,469	2,846,078	2,093,609	568,427
	1925	23,810	314,021	540,824	692,576	2,583,205	1,890,629	485,274
	1923	23,095	307,064	491,808	664,481	2,306,059	1,641,579	428,996
	1921	22,759	281,684	433,883	661,963	2,068,233	1,406,271	(2)
Printing and publishing	1927	22,541	261,671	473,221	661,959	2,507,426	1,845,467	481,194
	1925	21,056	251,272	438,833	610,059	2,269,638	1,659,580	408,308
	1923	20,452	246,455	399,388	585,936	2,021,356	1,435,420	357,048
	1921	20,318	229,489	356,671	589,279	1,827,809	1,238,530	(2)
Allied industries	1927	2,875	65,863	111,544	90,509	338,652	248,143	87,233
	1925	2,754	62,749	101,991	82,517	313,567	231,050	76,966
	1923	2,643	60,609	92,420	78,545	284,703	206,158	71,948
	1921	2,441	52,195	77,213	72,683	240,424	167,740	(2)
Bookbinding and blank-book making.	1927	1,063	21,909	28,281	25,875	87,327	61,452	19,038
	1925	970	20,836	26,006	24,127	81,600	57,473	16,147
	1923	965	20,728	25,216	23,073	76,959	53,886	15,539
	1921	869	17,465	20,318	19,886	63,854	43,968	(2)
Engravers' materials	1927	17	178	294	1,289	2,169	879	864
	1925	16	177	276	1,202	2,014	812	921
	1923	24	224	392	1,359	2,303	943	832
	1921	22	184	302	1,046	1,817	770	(2)
Engraving (other than steel, copperplate, or wood), chasing, etching, and die-sinking.	1927	173	1,805	2,612	2,078	7,931	5,853	2,028
	1925	188	1,827	2,691	2,177	8,623	6,446	1,753
	1923	210	1,887	2,853	2,820	9,121	6,301	2,345
	1921	193	1,276	1,760	1,397	4,850	3,453	(2)
Engraving, steel and copperplate, and plate printing.	1927	393	8,549	11,886	10,236	39,071	28,835	6,894
	1925	368	7,259	10,169	7,628	32,106	24,478	5,764
	1923	377	7,529	10,185	7,958	32,551	24,593	5,738
	1921	367	7,156	9,612	7,609	28,779	21,170	(2)
Engraving, wood	1927	23	132	291	76	641	565	45
	1925	22	117	234	46	525	479	32
	1923	24	141	214	42	524	482	26
	1921	24	131	219	139	628	489	(2)
Lithographing	1927	309	16,348	27,466	32,704	97,050	64,346	28,541
	1925	331	16,957	27,107	32,171	98,721	66,550	28,623
	1923	328	16,317	25,067	31,009	91,671	60,662	26,869
	1921	296	13,971	21,085	30,522	79,472	48,950	(2)
Photo-engraving, not done in printing establishments.	1927	611	11,033	28,381	10,790	69,207	58,417	9,366
	1925	577	9,868	24,321	8,393	58,640	50,248	6,735
	1923	450	8,521	18,669	6,606	43,660	37,054	5,786
	1921	421	6,971	15,046	5,928	36,216	30,287	(2)
Printing materials, not including type or printing ink.	1927	70	882	1,402	2,034	7,022	4,988	2,339
	1925	71	888	1,379	1,787	6,525	4,739	1,981
	1923	68	560	844	1,163	4,806	3,643	1,062
	1921	74	816	1,153	1,714	5,319	3,606	(2)
Stereotyping and electrotyping, not done in printing establishments.	1927	197	4,502	10,273	4,677	25,549	20,872	16,888
	1925	193	4,283	9,207	4,280	22,361	18,081	13,774
	1923	179	4,096	8,334	3,806	20,596	16,791	12,313
	1921	157	3,617	7,082	3,746	17,359	13,613	(2)
Type founding	1927	19	525	658	749	2,684	1,935	1,230
	1925	18	537	603	705	2,451	1,745	1,236
	1923	18	606	646	709	2,512	1,803	1,438
	1921	18	608	634	696	2,130	1,433	(2)

[1] Each total is the sum, expressed to the nearest thousand, of the individual items expressed in units. For this reason the totals in some cases may differ slightly from the sums of the items as here given.
[2] Not called for on schedule.

PRINTING, PUBLISHING, AND ALLIED INDUSTRIES

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. 597.) More or less closely allied to these industries are a number of others, namely, steel and copperplate engraving and plate printing, lithographing, bookbinding and blank-book making, wood engraving, photo-engraving, the manufacture of printing materials and of engravers' materials, stereotyping and electrotyping, type founding, and engraving, chasing, etching, and diesinking. Statistics for these allied industries are presented on pages 625 to 646, and combined statistics for printing and publishing and these allied industries are given in the table on page 596.

Duplication in value of products and value added by manufacture.—In this group of industries there is some duplication both in the value of products and in the value added by manufacture, as given in the table on the following page and in Tables 1 and 24. 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, supplies, fuel, and power (not including amounts paid for contract work) from the total value of products. If the combined amount paid in 1927 for contract work by all establishments in these industries, $173,237,581, be subtracted from the combined value of products, $2,846,078,033, there remains approximately $2,673,000,000, which, with a further slight deduction 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, $2,093,609,275, leaves approximately $1,920,372,000 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, $173,237,581 (which is the same as the contract-work figure for the entire group of industries because of the fact that no payments for contract work were reported by establishments in this group other than printing and publishing establishments), from the total value of products for the industries, $2,507,425,913, leaves, in round millions, $2,334,000,000, 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, $1,845,466,517, leaves approximately $1,672,000,000 as the net value added by manufacture.

General Statistics for Printing, Publishing, and Allied Industries, for the United States: 1919 to 1927

[Data for establishments with products under $5,000 in value included for 1919 but not for subsequent years. See sec. 10, p. 6]

Year or period	Number of establishments	Wage earners (average for the year)	Wages	Paid for contract work	Cost of materials, supplies, fuel, and power	Value of products	Value added by manufacture [1]	Horsepower
Printing and Publishing and Allied Industries Combined								
1927	25,416	327,534	$584,765,653	[2] $173,237,581	$752,468,758	$2,846,078,033	$2,093,609,275	568,427
1925	23,810	314,021	540,824,371	145,284,710	692,575,977	2,583,205,365	1,890,629,388	485,274
1923	23,095	307,064	491,807,900	123,590,055	664,480,628	2,306,059,150	1,641,578,522	428,996
1921	22,759	281,684	433,883,487	110,989,609	661,962,638	2,068,233,386	1,406,270,748	(3)
1919	33,728	301,531	351,623,318	88,148,607	586,976,961	1,762,858,527	1,175,881,566	379,168
Per cent of increase or decrease (—):								
1925–1927	6.7	4.3	8.1	19.2	8.6	10.2	10.7	17.1
1923–1925	3.1	2.3	10.0	17.6	4.2	12.0	15.2	13.1
1923–1927	10.0	6.7	18.9	40.2	13.2	23.4	27.5	32.5
1919–1927	—24.6	8.6	66.3	96.5	28.2	61.4	78.0	49.9
Printing and Publishing Industries								
1927	22,541	261,671	$473,221,233	$173,237,581	$661,959,396	$2,507,425,913	$1,845,466,517	481,194
1925	21,056	251,272	438,832,974	138,872,030	610,058,696	2,269,638,230	1,659,579,534	408,308
1923	20,452	246,455	399,387,583	117,950,134	585,935,675	2,021,355,739	1,435,420,064	357,048
1921	20,318	229,489	356,670,960	106,857,187	589,279,172	1,827,809,475	1,238,530,303	(3)
1919	30,611	244,285	286,751,404	85,733,251	513,576,142	1,536,408,283	1,022,832,141	326,184
Per cent of increase or decrease (—):								
1925–1927	7.1	4.1	7.8	24.7	8.5	10.5	11.2	17.8
1923–1925	3.0	2.0	9.9	17.7	4.1	12.3	15.6	14.4
1923–1927	10.2	6.2	18.5	46.9	13.0	24.0	28.6	34.8
1919–1927	—26.4	7.1	65.0	102.1	28.9	63.2	80.4	47.5
Allied Industries [4]								
1927	2,875	65,863	$111,544,420	(5)	$90,509,362	$338,652,120	$248,142,758	87,233
1925	2,754	62,749	101,991,397	$6,412,680	82,517,281	313,567,135	231,049,854	76,966
1923	2,643	60,609	92,420,317	5,639,921	78,544,953	284,703,411	206,158,458	71,948
1921	2,441	52,195	77,212,527	4,132,422	72,683,466	240,423,911	167,740,445	(3)
1919	3,117	57,246	64,871,914	2,415,356	73,400,819	226,450,244	153,049,425	52,984
Per cent of increase or decrease (—):								
1925–1927	4.4	5.0	9.4	----------	9.7	8.0	7.4	13.3
1923–1925	4.2	3.5	10.4	13.7	5.1	10.1	12.1	7.0
1923–1927	8.8	8.7	20.7	----------	15.2	18.9	20.4	21.2
1919–1927	—7.8	15.1	71.9	----------	23.3	49.5	62.1	64.6

[1] Value of products less cost of materials, supplies, fuel, and power. (See secs. 18 and 21, pp. 9 and 10.)
[2] Not including data for allied industries. (See footnote 5.)
[3] Not called for on schedule.
[4] Bookbinding and blank-book making; engravers' materials; engraving, chasing, etching, and diesinking; lithographing; photo-engraving; printing materials; steel and copperplate engraving and plate printing; stereotyping and electrotyping; type founding; and wood engraving.
[5] The item "Paid for contract work" was not carried on the schedule used in canvassing the "Allied industries" at the census for 1927.

PRINTING AND PUBLISHING

[Preliminary reports for the printing and publishing industries were published as follows: Music, October 26, 1928; book and job, newspapers and periodicals, and music April 13, 1929]

Description of the industries.—The printing and publishing subgroup comprises three industries: (1) Book and job, (2) music, and (3) newspaper and periodical. Establishments classified in the first industry are engaged primarily in commercial printing, machine composition for other establishments, book printing and publishing, or book publishing only; those in the second industry, in music printing and publishing or music publishing only; and those in the third industry, in printing and publishing, or publishing only, newspapers and periodicals. An exception to the general rule of classification on the basis of products of chief value (see "Assignment of establishments to industries," p. 17) 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 are engaged solely in the publication of books, music, or periodicals printed by others, and maintain no manufacturing plants and perform no 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 "Assignment of establishments to industries," p. 17), 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 manufacture. The same is true of the several industries of the printing and publishing subgroup. To illustrate: An establishment engaged primarily in book and job (commercial) 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 et seq. 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 23, inclusive, relate in most cases to the subgroup as a whole and not to separate industries.

Number of publications and aggregate circulation per issue.—In calculating the number of newspapers, as shown in Table 10 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 UNITED STATES: 1919 TO 1927

[Data for establishments with products under $5,000 in value included for 1919 but not for subsequent years. See sec. 10, p. 6]

YEAR OR PERIOD	Number of establishments	Wage earners (average for the year)	Wages	Paid for contract work	Cost of materials, supplies, fuel, and power	Value of products	Value added by manufacture [1]	Horsepower
THE PRINTING AND PUBLISHING INDUSTRIES AS A WHOLE								
1927	22,541	261,671	$473,221,233	$173,237,581	$661,959,396	$2,507,425,913	$1,845,466,517	481,194
1925	21,056	251,272	438,832,974	138,872,030	610,058,696	2,269,638,230	1,659,579,534	408,308
1923	20,452	246,455	399,387,583	117,950,134	585,935,675	2,021,355,739	1,435,420,064	357,048
1921	20,318	229,489	356,670,960	106,857,187	589,279,172	1,827,809,475	1,238,530,303	(2)
1919	30,611	244,285	286,751,404	85,733,251	513,576,142	1,536,408,283	1,022,832,141	326,184
Per cent of increase or decrease (—):								
1925–1927	7.1	4.1	7.8	24.7	8.5	10.5	11.2	17.9
1923–1925	3.0	2.0	9.9	17.7	4.1	12.3	15.6	14.4
1923–1927	10.2	6.2	18.5	46.9	13.0	24.0	28.6	34.8
1919–1927	—26.4	7.1	65.0	102.1	28.9	63.2	80.4	47.5
BOOK AND JOB								
1927	11,449	141,278	$240,392,870	$62,696,328	$250,487,149	$906,468,767	$655,981,618	193,617
1925	10,322	133,316	219,830,346	50,531,031	228,689,864	806,887,417	578,197,553	169,283
1923	10,075	129,890	201,216,502	39,125,646	220,203,014	738,227,363	518,024,349	152,363
1921	9,758	121,055	181,065,572	38,544,455	216,138,568	690,074,975	473,936,407	(2)
1919	13,089	123,005	141,476,243	32,243,303	211,067,174	597,663,228	386,596,054	131,476
Per cent of increase or decrease (—):								
1925–1927	10.9	6.0	9.4	24.1	9.5	12.3	13.5	14.4
1923–1925	2.5	2.6	9.3	29.2	3.9	9.3	11.6	11.1
1923–1927	13.6	8.8	19.5	60.2	13.8	22.8	26.6	27.1
1919–1927	—12.5	14.9	69.9	94.4	18.7	51.7	69.7	47.3
MUSIC								
1927	119	994	$1,677,680	$2,819,352	$1,658,367	$15,881,634	$14,223,267	1,343
1925	109	955	1,461,061	2,763,429	1,828,230	15,089,636	13,261,406	1,363
1923	110	919	1,366,756	3,050,499	2,252,830	14,626,810	12,373,980	1,231
1921	107	900	1,246,863	3,055,930	2,016,311	14,024,672	12,008,361	(2)
1919	160	899	926,988	2,713,899	2,123,781	14,592,177	12,468,396	634
Per cent of increase or decrease (—):								
1925–1927	9.2	4.1	14.8	2.0	—9.3	5.2	7.3	—1.5
1923–1925	—0.9	3.9	6.9	—9.4	—18.8	3.2	7.2	10.7
1923–1927	8.2	8.2	22.7	—7.6	—26.4	8.6	14.9	9.1
1919–1927	—25.6	10.6	81.0	3.9	—21.9	8.8	14.1	111.8
NEWSPAPER AND PERIODICAL								
1927	10,973	119,399	$231,150,683	$107,721,901	$409,813,880	$1,585,075,512	$1,175,261,632	286,234
1925	10,625	117,001	217,540,967	85,577,570	379,540,602	1,447,661,177	1,068,120,575	237,662
1923	10,267	115,646	196,804,325	75,773,989	363,479,831	1,268,501,566	905,021,735	203,454
1921	10,453	107,534	174,358,525	65,256,802	371,124,293	1,123,709,828	752,585,535	(2)
1919	17,362	120,381	144,348,173	50,776,049	300,385,187	924,152,878	623,767,691	194,074
Per cent of increase or decrease (—):								
1925–1927	3.3	2.0	6.3	25.9	8.0	9.5	10.0	20.4
1923–1925	3.5	1.2	10.5	12.9	4.4	14.1	18.0	16.8
1923–1927	6.9	3.2	17.5	42.2	12.7	25.0	29.9	40.7
1919–1927	—36.8	—.8	60.1	112.2	36.4	71.5	88.4	47.5

[1] Value of products less cost of materials, supplies, fuel, and power. (See secs. 18 and 21, pp. 9 and 10.)
[2] Not called for on schedule.

TABLE 2.—PRIME MOVERS, MOTORS, AND GENERATORS, BY TYPE, NUMBER, AND RATED CAPACITY, FOR THE UNITED STATES: 1927, 1925, AND 1923

TYPE	1927		1925		1923	
	Number	Capacity	Number	Capacity	Number	Capacity
THE PRINTING AND PUBLISHING INDUSTRIES AS A WHOLE						
Prime movers, total	188, 108	*Horse-power* 481, 194	160, 976	*Horse-power* 408, 308	141, 027	*Horse-power* 357, 048
Steam engines	149	28, 677	174	33, 993	} 364	33, 420
Steam turbines	4	532	10	635		
Internal-combustion engines	427	4, 150	617	4, 511	935	6, 273
Water wheels and turbines	----------	----------	62	251	73	405
Electric motors driven by purchased current	187, 528	447, 835	160, 113	368, 918	139, 655	316, 950
Electric motors, total	193, 815	473, 161	166, 599	391, 286	146, 076	340, 846
Driven by purchased current	187, 528	447, 835	160, 113	368, 918	139, 655	316, 950
Driven by current generated in establishment reporting	6, 287	25, 326	6, 486	22, 368	6, 421	23, 896
Electric generators	177	*Kilowatts* 19, 982	[1] 146	*Kilowatts* 21, 578	(2)	*Kilowatts* (2)
BOOK AND JOB						
Prime movers, total	108, 154	*Horse-power* 193, 617	91, 377	*Horse-power* 169, 283	81, 334	*Horse-power* 152, 363
Steam engines	68	9, 801	94	14, 445	} 133	10, 522
Steam turbines	----------	----------	1	30		
Internal-combustion engines	34	895	58	1, 110	132	1, 481
Water wheels and turbines	----------	----------	6	5	----------	----------
Electric motors driven by purchased current	108, 052	182, 921	91, 218	153, 693	81, 069	140, 360
Electric motors, total	110, 856	190, 960	94, 285	162, 270	83, 732	148, 661
Driven by purchased current	108, 052	182, 921	91, 218	153, 693	81, 069	140, 360
Driven by current generated in establishment reporting	2, 804	8, 039	3, 067	8, 577	2, 663	8, 301
Electric generators	78	*Kilowatts* 6, 080	64	*Kilowatts* 6, 568	(2)	*Kilowatts* (2)
MUSIC						
Prime movers, total	323	*Horse-power* 1, 343	300	*Horse-power* 1, 363	264	*Horse-power* 1, 231
Steam engines	2	250	2	250	} 2	250
Steam turbines	----------	----------	----------	----------		
Internal-combustion engines	1	120	1	120	2	130
Electric motors driven by purchased current	320	973	297	993	260	851
Electric motors, total	375	1, 176	340	1, 208	310	1, 111
Driven by purchased current	320	973	297	993	260	851
Driven by current generated in establishment reporting	55	203	43	215	50	260
Electric generators	3	*Kilowatts* 250	3	*Kilowatts* 275	(2)	*Kilowatts* (2)

[1] Revised.

[2] Not called for on schedule.

TABLE 2.—PRIME MOVERS, MOTORS, AND GENERATORS, BY TYPE, NUMBER, AND RATED CAPACITY, FOR THE UNITED STATES: 1927, 1925, AND 1923—Con.

TYPE	1927		1925		1923	
	Number	Capacity	Number	Capacity	Number	Capacity
NEWSPAPER AND PERIODICAL						
		Horse-power		*Horse-power*		*Horse-power*
Prime movers, total	79, 631	286, 234	69, 299	237, 662	59, 429	203, 454
Steam engines	79	18, 626	78	19, 298	} 229	22, 648
Steam turbines	4	532	9	605		
Internal-combustion engines	392	3, 135	558	3, 281	801	4, 662
Water wheels and turbines	----------	----------	56	246	73	405
Electric motors driven by purchased current	79, 156	263, 941	68, 598	214, 232	58, 326	175, 739
Electric motors, total	82, 584	281, 025	71, 974	227, 808	62, 034	191, 074
Driven by purchased current	79, 156	263, 941	68, 598	214, 232	58, 326	175, 739
Driven by current generated in establishment reporting	3, 428	17, 084	3, 376	13, 576	3, 708	15, 335
		Kilowatts		*Kilowatts*		*Kilowatts*
Electric generators	96	13, 652	[1] 79	14, 735	(2)	(2)

[1] Revised. [2] Not called for on schedule.

TABLE 3.—PRODUCTS, BY CLASS AND VALUE, FOR THE PRINTING AND PUBLISHING INDUSTRIES: 1927, 1925, AND 1923

CLASS	1927	1925	1923	PER CENT OF INCREASE OR DECREASE (—)		
				1925–1927	1923–1925	1923–1927
Number of establishments	22, 541	21, 056	20, 452	7. 1	3. 0	10. 2
Book and job	11, 449	10, 322	10, 075	10. 9	2. 5	13. 6
Music	119	109	110	9. 2	—. 9	8. 2
Newspaper and periodical	10, 973	10, 625	10, 267	3. 3	3. 5	6. 9
Products, total value	$2, 507, 425, 913	$2, 269, 638, 230	$2, 021, 355, 739	10. 5	12. 3	24. 0
Newspapers and periodicals, printed and published or published only, total	1, 459, 688, 163	1, 321, 610, 733	1, 154, 786, 177	10. 4	14. 4	26. 4
Subscriptions and sales	429, 467, 144	398, 338, 060	360, 892, 708	7. 8	10. 4	19. 0
Advertising	1, 030, 221, 019	923, 272, 673	793, 893, 469	11. 6	16. 3	29. 8
Newspapers, total	977, 648, 187	892, 094, 122	803, 497, 387	9. 6	11. 0	21. 7
Subscriptions and sales	252, 811, 104	230, 580, 880	222, 559, 646	9. 6	3. 6	13. 6
Advertising	724, 837, 083	661, 513, 242	580, 937, 741	9. 6	13. 9	24. 8
Periodicals other than newspapers, total	482, 039, 976	429, 516, 611	351, 288, 790	12. 2	22. 3	37. 2
Subscriptions and sales	176, 656, 040	167, 757, 180	138, 333, 062	5. 3	21. 3	27. 7
Advertising	305, 383, 936	261, 759, 431	212, 955, 728	16. 7	22. 9	43. 4
Books and pamphlets, printed and published or published only	178, 162, 753	154, 991, 493	135, 278, 737	15. 0	14. 6	31. 7
Commercial printing, total [1]	846, 752, 891	773, 141, 943	703, 134, 978	9. 5	10. 0	20. 4
General job printing	710, 684, 524	[2] 650, 864, 941	623, 046, 840	9. 2	4. 5	14. 1
Newspapers and periodicals printed for publication by others [1]	54, 974, 959	56, 488, 175	36, 892, 993	—2. 7	53. 1	49. 0
Books and pamphlets printed for publication by others [1]	54, 756, 859	46, 716, 345	43, 195, 145	17. 2	8. 2	26. 8
Composition sold to the trade	26, 336, 549	[2] 19, 072, 482	(3)	38. 1	-------	--------
Sheet music and books of music	17, 146, 715	14, 133, 306	14, 163, 414	21. 3	—. 2	21. 1
Other products	5, 675, 391	5, 760, 755	13, 992, 433	—1. 5	—58. 8	—59. 4

[1] 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 1927 total value of products to the amount of $109,731,818, in the 1925 total to the amount of $103,204,520, and in the 1923 total to the amount of $80,088,138. These items represent amounts paid by publishers for work done for them by printing establishments operated by others, and consequently enter into the production cost of the newspapers and periodicals and the books and pamphlets published but not printed by the same establishments. They are covered by the values of products and the receipts for advertising reported by establishments engaged in publishing only.

[2] The "General job printing" item, as published in the report for 1925, $669,937,423, includes receipts for "Composition," which are here shown separately.

[3] Included in figure for "General job printing."

TABLE 4.—PRODUCTS, BY CLASS AND VALUE, BY GEOGRAPHIC DIVISIONS AND STATES: 1927

DIVISION AND STATE	Number of establishments	Total value	NEWSPAPERS: Printed and published or published only: Subscriptions and sales	NEWSPAPERS: Printed and published or published only: Advertising	PERIODICALS: Printed and published or published only: Subscriptions and sales	PERIODICALS: Printed and published or published only: Advertising	Books and pamphlets, printed and published or published only	Sheet music and books of music	COMMERCIAL PRINTING: Newspapers and periodicals printed for publication by others	COMMERCIAL PRINTING: Books and pamphlets printed for publication by others	COMMERCIAL PRINTING: General job printing and composition sold to the trade	Other products
UNITED STATES	22,541	[1]$2,507,425,913	$252,811,104	$724,837,083	$176,656,040	$305,383,936	$178,162,753	$17,146,715	$54,974,959	$54,756,859	$737,021,073	$5,675,391
NEW ENGLAND	1,628	187,561,615	21,162,998	56,792,120	9,796,894	14,634,933	24,974,541	1,815,646	4,467,654	4,373,230	49,226,730	316,869
Maine	109	8,272,596	1,032,860	2,625,639	1,012,841	1,395,839	77,568	----------	54,892	156,170	1,914,511	2,276
New Hampshire	95	5,092,611	394,978	1,225,632	161,294	266,923	22,000	309	1,316,516	401,936	1,301,924	1,099
Vermont	59	2,602,002	335,458	903,131	6,112	11,992	7,063	----------	88,425	311,401	938,420	----------
Massachusetts	1,022	131,975,238	15,270,296	37,615,083	6,778,974	7,126,461	24,302,084	1,803,993	2,774,934	2,940,575	33,056,305	306,533
Rhode Island	91	10,652,907	1,292,850	5,033,592	22,051	110,878	26,481	----------	17,904	21,917	4,121,234	6,000
Connecticut	252	28,966,261	2,836,556	9,389,043	1,815,622	5,722,840	539,345	11,344	214,983	541,231	7,894,336	961
MIDDLE ATLANTIC	5,854	948,454,808	81,412,867	205,272,558	98,041,399	184,610,477	95,673,267	10,896,381	22,312,321	24,782,195	224,053,484	1,399,859
New York	3,660	641,911,548	54,888,336	121,066,006	81,647,861	102,880,455	82,684,873	9,353,628	18,449,558	19,349,144	150,814,872	776,815
New Jersey	549	51,210,260	4,308,844	21,519,007	468,865	458,830	1,269,484	21,873	1,356,736	3,212,896	18,418,626	175,099
Pennsylvania	1,645	255,333,000	22,215,687	62,687,545	15,924,673	81,271,192	11,718,910	1,520,880	2,506,027	2,220,155	54,819,986	447,945
EAST NORTH CENTRAL	5,330	685,889,913	64,461,684	186,382,114	43,091,151	66,457,504	43,993,375	2,530,416	16,488,842	16,384,748	243,677,256	2,422,823
Ohio	1,251	175,659,959	14,515,944	51,180,299	16,316,490	24,520,510	4,955,604	829,230	3,743,227	1,557,745	57,190,756	850,154
Indiana	573	47,534,702	5,395,815	17,126,023	2,817,005	2,515,369	2,061,193	13,015	1,208,117	1,097,584	15,268,741	31,840
Illinois	2,175	339,123,104	28,390,981	70,633,553	21,953,842	34,470,063	35,758,486	1,617,119	9,402,690	10,121,712	125,848,766	925,892
Michigan	762	82,242,638	10,666,459	33,554,980	1,258,975	2,973,001	827,606	71,052	1,313,657	3,046,586	28,032,502	497,820
Wisconsin	569	41,329,510	5,492,485	13,887,259	744,839	1,978,561	390,486	----------	821,151	561,121	17,336,491	117,117
WEST NORTH CENTRAL	2,968	196,302,569	22,533,748	69,931,180	7,990,422	15,459,797	5,478,769	476,093	2,669,304	1,597,034	69,716,394	449,828
Minnesota	606	44,563,472	4,705,335	14,662,273	1,855,023	3,046,606	2,891,245	23,429	804,853	781,451	15,783,974	9,283
Iowa	538	33,475,334	4,337,555	11,623,142	1,667,326	5,621,618	303,503	71,548	595,341	316,345	8,859,456	79,500
Missouri	864	77,398,298	7,975,497	27,738,361	2,973,046	3,546,003	1,795,629	365,629	866,175	381,497	31,443,946	312,515
North Dakota	97	3,210,208	542,402	1,381,094	20,329	10,273	----------	----------	49,950	10,402	1,173,947	21,811
South Dakota	112	3,567,243	579,211	1,459,744	75,349	250,016	10,605	3,750	32,283	23,517	1,112,999	19,769
Nebraska	326	16,103,559	2,150,532	6,261,745	584,287	748,692	27,154	11,737	113,760	68,175	6,133,723	3,754
Kansas	375	17,984,455	2,243,216	6,804,821	815,062	2,236,589	450,633	----------	206,942	15,647	5,208,349	3,196

See footnote at end of table.

TABLE 4.—PRODUCTS, BY CLASS AND VALUE, BY GEOGRAPHIC DIVISIONS AND STATES: 1927—Continued

DIVISION AND STATE	Number of establishments	Total value	NEWSPAPERS		PERIODICALS		Books and pamphlets, printed and published or published only	Sheet music and books of music	COMMERCIAL PRINTING			Other products.
			Printed and published or published only		Printed and published or published only				Newspapers and periodicals printed for publication by others	Books and pamphlets printed for publication by others	General job printing and composition sold to the trade	
			Subscriptions and sales	Advertising	Subscriptions and sales	Advertising						
SOUTH ATLANTIC	1,739	$144,289,416	$17,664,420	$55,639,966	$9,648,414	$7,566,327	$2,907,640	$129,325	$3,460,963	$3,605,130	$43,273,133	$394,098
Delaware	31	2,335,963	254,725	1,111,519	24,192	206,394	----------	----------	39,591	4,368	695,174	----------
Maryland	285	30,813,561	3,112,673	10,312,990	671,802	977,667	721,142	20,130	634,337	1,677,649	12,426,374	258,797
District of Columbia	173	29,959,154	2,653,167	8,588,261	7,758,933	3,902,083	518,041	8,791	1,753,505	155,654	4,620,719	----------
Virginia	235	18,882,395	1,751,297	6,360,034	538,343	272,991	1,234,744	64,700	272,912	511,929	7,832,038	43,407
West Virginia	164	8,311,348	1,520,699	4,247,928	31,710	28,100	8,571	1,000	62,860	122,714	2,273,716	14,050
North Carolina	229	12,315,484	1,988,467	5,771,119	172,466	271,004	116,998	425	211,305	201,409	3,556,706	25,585
South Carolina	99	4,956,924	995,882	2,161,619	55,815	18,140	750	----------	37,806	49,559	1,622,035	15,318
Georgia	278	19,792,557	3,293,458	7,452,597	338,438	1,649,050	169,088	34,279	293,890	743,834	5,807,578	10,345
Florida	245	16,922,030	2,094,052	9,633,899	56,715	240,898	138,306	----------	154,757	138,014	4,438,793	26,596
EAST SOUTH CENTRAL	801	57,059,553	7,044,080	21,853,637	3,555,996	2,385,606	1,042,333	376,586	918,404	762,827	18,995,015	125,069
Kentucky	266	17,257,427	2,311,630	6,815,965	371,792	572,204	86,795	276,680	255,817	17,240	6,470,458	78,846
Tennessee	220	24,398,534	2,750,151	7,879,365	2,690,862	871,266	866,146	99,906	460,369	483,060	8,259,984	37,425
Alabama	189	11,523,210	1,564,958	5,321,288	467,833	927,714	89,392	----------	118,424	220,090	2,806,351	7,160
Mississippi	126	3,880,382	417,341	1,837,019	25,509	14,422	----------	----------	83,794	42,437	1,458,222	1,638
WEST SOUTH CENTRAL	1,333	81,119,415	10,551,036	38,516,495	1,173,610	4,197,575	709,105	180,756	1,110,525	873,782	23,667,796	138,735
Arkansas	151	5,813,108	886,339	2,320,384	69,538	81,579	1,020	2,621	85,540	71,312	2,293,816	959
Louisiana	168	13,556,074	2,011,731	6,493,625	72,044	309,478	123,266	----------	207,786	67,786	4,240,153	30,205
Oklahoma	296	15,780,190	2,046,735	7,710,204	397,712	1,368,803	69,383	----------	345,052	179,910	3,652,650	9,741
Texas	718	45,970,043	5,606,231	21,992,282	634,316	2,437,715	515,436	178,135	472,147	554,774	13,481,177	97,830
MOUNTAIN	703	34,933,904	4,906,566	16,312,091	619,040	824,929	282,523	18,172	396,294	177,823	11,387,049	9,417
Montana	106	4,528,537	833,998	2,030,643	52,579	117,503	40,229	----------	29,015	8,120	1,416,263	187
Idaho	82	2,578,149	398,264	1,211,658	5,811	6,539	----------	----------	13,475	24,045	917,608	749
Wyoming	48	1,367,779	150,205	699,076	6,891	31,435	----------	----------	14,659	7,461	455,013	3,039
Colorado	265	16,102,119	1,974,055	7,377,476	321,221	482,264	169,679	922	264,425	105,102	5,404,835	2,140
New Mexico	38	1,186,159	164,513	591,298	4,125	10,525	----------	----------	9,110	3,180	403,408	----------
Arizona	54	3,293,228	431,606	1,793,146	34,476	89,230	----------	----------	36,646	8,094	900,030	----------
Utah	83	5,002,456	791,785	2,219,580	193,937	87,433	72,615	17,250	27,211	13,891	1,575,452	3,302
Nevada	27	875,477	162,140	389,214	----------	----------	----------	----------	1,753	7,930	314,440	----------
PACIFIC	2,185	171,814,720	23,073,705	74,136,922	2,739,114	9,246,788	3,101,200	723,340	3,150,652	2,200,090	53,024,216	418,693
Washington	410	25,568,972	3,871,816	12,260,512	292,916	1,355,841	205,031	370	551,108	235,117	6,753,490	42,771
Oregon	248	14,441,507	1,945,633	6,872,858	256,147	785,866	43,476	----------	277,276	35,213	4,087,326	137,712
California	1,527	131,804,241	17,256,256	55,003,552	2,190,051	7,105,081	2,852,693	722,970	2,322,268	1,929,760	42,183,400	238,210

[1] In addition, printing and publishing to the value of $5,540,792 was reported by establishments classified in other industries.

TABLE 5.—BOOKS AND PAMPHLETS—NUMBER OF COPIES PUBLISHED, BY CLASSES, FOR THE UNITED STATES: 1927

CHARACTER	Number of copies	CHARACTER	Number of copies
Aggregate	470, 374, 947	BOOKS—continued	
BOOKS		Religion and philosophy	22, 220, 536
Total	227, 495, 544	Science and technology	2, 392, 044
		Sociology and economics	875, 191
Textbooks (for school use)	83, 849, 664	Travel	1, 190, 569
Juvenile	31, 047, 094	All other	33, 659, 382
Agriculture	282, 861		
Biography	3, 075, 121	PAMPHLETS	
Fiction	36, 553, 507	Total	242, 879, 403
Fine arts	943, 952		
History	1, 462, 193	Texts (for school use)	22, 824, 621
Law	2, 493, 510	Juvenile	2, 739, 166
Medicine	1, 168, 755	General literature	217, 315, 616
Poetry and drama	6, 281, 165		

TABLE 6.—BOOKS—NUMBER OF COPIES PUBLISHED, FOR PRINCIPAL CLASSES, BY STATES: 1927

STATE	Textbooks (for school use)	Juvenile	Fiction	Poetry and drama	Religion and philosophy
California	92, 149	100, 013	12, 000	1, 000	732, 574
Connecticut	28, 208			8, 371	14, 835
District of Columbia	58, 736	22, 595			108, 144
Illinois	19, 244, 358	5, 466, 473	1, 234, 779	2, 231, 447	1, 220, 595
Indiana	696, 757	40, 190	347, 874	23, 134	775, 996
Iowa	1, 708, 025		1, 000		
Kansas			2, 466, 000	1, 808, 400	1, 175, 460
Maine				1, 250	2, 275
Maryland	141, 162		45, 331	1, 277	31, 848
Massachusetts	21, 669, 724	2, 825, 019	560, 056	78, 475	742, 711
Michigan	89, 190	45, 286			15, 760
Minnesota	64, 274	8, 645	3, 020	2, 000	117, 584
Missouri	181, 913	51, 966	22, 400		760, 073
Nebraska	3, 000	3, 000			
New Hampshire	20, 000				
New Jersey	3, 999, 179	940, 546	11, 406	47, 427	8, 122
New York	21, 909, 320	10, 118, 182	23, 397, 746	1, 829, 932	11, 716, 843
North Carolina	1, 300		6, 000	2, 200	276, 000
Ohio	4, 964, 416	10, 590, 000	7, 124, 785	6, 750	537, 486
Oklahoma	39, 567				
Pennsylvania	6, 134, 285	812, 539	1, 297, 931	224, 502	1, 860, 418
South Carolina				1, 000	
South Dakota	12, 565				
Tennessee	1, 000	22, 640			1, 774, 030
Texas	241, 905		3, 179		41, 500
Utah					28, 585
Virginia	2, 398, 971				96, 447
West Virginia					1, 000
Wisconsin	149, 660		20, 000	14, 000	182, 250

TABLE 7.—MUSIC, IN SHEETS AND BOOKS—VALUE, BY STATES: 1927, 1925, AND 1923

[This table presents statistics for all States for which separate figures can be given without disclosing data reported by individual establishments]

STATE	1927	1925	1923
United States	$17,146,715	$14,133,306	$14,163,414
California	722,970	290,760	275,969
Illinois	1,617,119	1,430,949	1,204,818
Massachusetts	1,803,993	1,532,349	1,574,524
Missouri	365,629	483,855	504,095
New York	9,353,628	8,332,133	8,083,557
Ohio	829,230	982,012	581,644
Pennsylvania	1,520,880	407,258	1,260,895
Other States	933,266	673,990	677,912

TABLE 8.—MACHINE COMPOSITION FOR OTHERS—RECEIPTS, BY STATES: 1927 AND 1925

STATE	1927	1925	Per cent of increase or decrease (—)
United States	$26,336,549	$19,072,482	38.1
Alabama	116,003	77,896	48.9
California	1,505,200	1,257,146	19.7
Colorado	118,355	142,474	—16.9
District of Columbia	110,022	164,808	—33.2
Illinois	6,768,994	4,011,193	68.8
Indiana	606,740	320,443	89.3
Iowa	140,659	177,258	—20.6
Maryland	225,203	234,983	—4.2
Massachusetts	1,657,203	965,614	71.6
Michigan	1,170,375	907,295	29.0
Minnesota	511,613	612,361	—16.5
Missouri	1,397,950	911,411	53.4
Nebraska	120,822	116,208	4.0
New Jersey	714,841	692,609	3.2
New York	6,404,461	4,549,685	40.8
Ohio	1,285,926	1,089,335	18.0
Oregon	141,664	142,073	—.3
Pennsylvania	1,456,756	1,083,257	34.5
Tennessee	316,862	206,158	53.7
Texas	350,645	269,674	30.0
Washington	206,640	195,417	5.7
Wisconsin	433,263	216,964	99.7
Other States	576,352	728,220	—20.9

TABLE 9.—NEWSPAPERS AND PERIODICALS PUBLISHED, BY CLASS, NUMBER AND CIRCULATION, FOR THE UNITED STATES: 1927, 1925, AND 1923

CLASS	1927	1925	1923	PER CENT OF INCREASE OR DECREASE (−)			PER CENT DISTRIBUTION		
				1925–1927	1923–1925	1923–1927	1927	1925	1923
All classes, number	14,352	14,065	13,077	2.0	7.6	9.7	100.0	100.0	100.0
Daily (excluding Sunday):									
Number	[1] 2,265	[1] 2,280	[1] 2,314	−.7	−1.5	−2.1	15.8	16.2	17.7
Circulation [2]	42,343,210	38,039,682	35,733,107	11.3	6.5	18.5	15.2	14.6	15.4
Sunday:									
Number	511	597	602	−14.4	−.8	−15.1	3.6	4.2	4.6
Circulation [2]	27,695,859	25,630,056	24,511,693	8.1	4.6	13.0	10.0	9.9	10.6
Triweekly:									
Number	71	74	79	(3)	(3)	(3)	.5	.5	.6
Circulation [2]	468,534	400,730	431,504	16.9	−7.1	8.6	.2	.2	.2
Semiweekly:									
Number	395	383	407	3.1	−5.9	−2.9	2.8	2.7	3.1
Circulation [2]	2,026,760	1,934,095	2,024,683	4.8	−4.5	.1	.7	.7	.9
Weekly:									
Number	7,760	7,568	6,887	2.5	9.9	12.7	54.1	53.8	52.7
Circulation [2]	55,985,413	50,815,443	47,860,508	10.2	6.2	17.0	20.1	19.5	20.6
Semimonthly: [4]									
Number	238	232	193	2.6	20.2	23.3	1.7	1.6	1.5
Circulation [2]	5,955,858	6,773,105	5,531,731	−12.1	22.4	7.7	2.1	2.6	2.4
Monthly:									
Number	2,522	2,271	1,907	11.1	19.1	32.2	17.6	16.2	14.6
Circulation [2]	120,693,490	111,875,957	91,654,028	7.9	22.1	31.7	43.3	43.0	39.5
Quarterly:									
Number	477	553	555	−13.7	−.4	−14.1	3.3	3.9	4.2
Circulation [2]	21,247,360	22,840,186	22,197,918	−7.0	2.9	−4.3	7.6	8.8	9.6
Other classes:									
Number	113	107	133	5.6	−19.5	−15.0	.8	.8	1.0
Circulation [2]	2,200,541	1,677,203	2,097,442	31.2	−20.0	4.9	.8	.6	.9

[1] Includes data for 1927, for 174 daily publications other than newspapers, with an aggregate circulation of 974,890; for 1925, for 164 daily publications other than newspapers, with an aggregate circulation of 633,067; and for 1923, for 43 daily publications other than newspapers, with an aggregate circulation of 262,037.
[2] Aggregate circulation per issue, averaged for the year
[3] Per cent not computed where base is less than 100.
[4] Includes publications reported as biweekly.

TABLE 10.—DAILY NEWSPAPERS—NUMBER, BY GEOGRAPHIC DIVISIONS AND STATES: 1927, 1925, AND 1923

DIVISION AND STATE	TOTAL [1]			MORNING			EVENING		
	1927	1925	1923	1927	1925	1923	1927	1925	1923
UNITED STATES	2,091	2,116	2,271	518	504	631	1,573	1,612	1,640
NEW ENGLAND	152	155	165	32	29	37	120	126	128
Maine	11	11	11	5	5	5	6	6	6
New Hampshire	13	11	14	2	1	2	11	10	12
Vermont	9	10	10	2	2	2	7	8	8
Massachusetts	75	79	83	15	13	17	60	66	66
Rhode Island	11	11	12	2	2	3	9	9	9
Connecticut	33	33	35	6	6	8	27	27	27
MIDDLE ATLANTIC	348	369	406	103	107	127	245	262	279
New York	156	158	188	53	54	69	103	104	119
New Jersey	39	39	40	9	9	9	30	30	31
Pennsylvania	153	172	178	41	44	49	112	128	129
EAST NORTH CENTRAL	484	500	547	87	80	123	397	420	424
Ohio	138	148	158	24	24	34	114	124	124
Indiana	111	113	119	22	19	21	89	94	98
Illinois	125	129	151	28	26	45	97	103	106
Michigan	62	60	65	9	7	18	53	53	47
Wisconsin	48	50	54	4	4	5	44	46	49
WEST NORTH CENTRAL	248	265	286	50	45	61	198	220	225
Minnesota	37	38	46	7	6	10	30	32	36
Iowa	45	48	54	6	7	8	39	41	46
Missouri	59	69	71	17	14	17	42	55	54
North Dakota	9	10	9	1	1	2	8	9	7
South Dakota	15	16	15	3	3	5	12	13	10
Nebraska	23	26	29	7	6	8	16	20	21
Kansas	60	58	62	9	8	11	51	50	51
SOUTH ATLANTIC	211	213	201	69	67	70	142	146	131
Delaware	3	3	3	1	1	1	2	2	2
Maryland	15	15	15	5	5	7	10	10	8
District of Columbia	7	6	6	3	3	3	4	3	3
Virginia	28	30	30	9	9	10	19	21	20
West Virginia	31	29	28	9	9	10	22	20	18
North Carolina	39	37	40	12	11	12	27	26	28
South Carolina	16	14	17	6	6	8	10	8	9
Georgia	26	26	28	7	5	6	19	21	22
Florida	46	53	34	17	18	13	29	35	21
EAST SOUTH CENTRAL	88	87	92	21	23	31	67	64	61
Kentucky	31	30	33	10	9	15	21	21	18
Tennessee	22	21	21	5	7	8	17	14	13
Alabama	21	23	24	3	4	5	18	19	19
Mississippi	14	13	14	3	3	3	11	10	11
WEST SOUTH CENTRAL	216	197	207	48	45	51	168	152	156
Arkansas	32	32	32	5	5	5	27	27	27
Louisiana	15	14	18	5	4	6	10	10	12
Oklahoma	55	47	51	11	11	12	44	36	39
Texas	114	104	106	27	25	28	87	79	78
MOUNTAIN	112	108	115	36	36	40	76	72	75
Montana	18	18	16	9	10	9	9	8	7
Idaho	16	12	14	4	6	7	12	6	7
Wyoming	5	6	7	1	1	1	4	5	6
Colorado	34	32	38	8	6	10	26	26	28
New Mexico	7	8	7	1	1	1	6	7	6
Arizona	16	16	18	9	8	8	7	8	10
Utah	7	7	7	1	1	1	6	6	6
Nevada	9	9	8	3	3	3	6	6	5
PACIFIC	232	222	252	72	72	91	160	150	161
Washington	36	36	40	10	11	13	26	25	27
Oregon	30	30	32	8	8	11	22	22	21
California	166	156	180	54	53	67	112	103	113

[1] See "Number of publications and aggregate circulation per issue," p. 597.

TABLE 11.—DAILY NEWSPAPERS—CIRCULATION, EXCLUDING SUNDAY EDITIONS, BY GEOGRAPHIC DIVISIONS AND STATES: 1927 AND 1925

[This table presents statistics for all States for which separate figures can be given without disclosing the circulation of individual newspapers. Certain of the States shown in combination, however, outranked some of those shown separately]

DIVISION AND STATE	AGGREGATE CIRCULATION PER ISSUE, EXCLUSIVE OF SUNDAY EDITION [1]									
	Total		Morning		Evening		Per cent of total circulation			
							1927		1925	
	1927	1925	1927	1925	1927	1925	Morning	Evening	Morning	Evening
UNITED STATES	41,368,320	37,406,615	15,726,950	14,284,198	25,641,370	23,122,417	38.0	62.0	38.2	61.8
NEW ENGLAND	3,498,536	3,407,050	1,388,978	1,266,619	2,109,558	2,140,431	39.7	60.3	37.2	62.8
Maine and Rhode Island [2]	408,842	388,967	147,279	136,156	261,563	252,811	36.0	64.0	35.0	65.0
Massachusetts	2,520,418	2,435,763	1,089,766	992,809	1,430,652	1,442,954	43.2	56.8	40.8	59.2
Connecticut	440,937	404,854	106,638	99,383	334,299	365,471	24.2	75.8	21.4	78.6
New Hampshire and Vermont [2]	128,339	117,466	45,295	38,271	83,044	79,195	35.3	64.7	32.6	67.4
MIDDLE ATLANTIC	12,668,802	11,322,067	5,538,980	5,136,967	7,129,822	6,185,100	43.7	56.3	45.4	54.6
New York	7,607,343	7,133,670	3,884,123	3,636,130	3,723,220	3,497,540	51.1	48.9	51.0	49.0
New Jersey	937,962	730,950	160,369	125,960	777,593	604,990	17.1	82.9	17.2	82.8
Pennsylvania	4,123,497	3,457,447	1,494,488	1,374,877	2,629,009	2,082,570	36.2	63.8	39.8	60.2
E. N. CENTRAL	9,837,541	8,931,797	3,056,480	2,672,366	6,781,061	6,259,431	31.1	68.9	29.9	70.1
Ohio	2,948,483	2,738,254	660,946	630,750	2,287,537	2,107,504	22.4	77.6	23.0	77.0
Indiana	1,048,829	971,983	357,794	306,002	691,035	665,981	34.1	65.9	31.5	68.5
Illinois	3,496,180	3,117,407	1,611,174	1,386,653	1,885,006	1,730,754	46.1	53.9	44.5	55.5
Michigan	1,523,648	1,361,707	305,653	267,347	1,217,995	1,094,360	20.1	79.9	19.6	80.4
Wisconsin	820,401	742,446	120,913	81,614	699,488	660,832	14.7	85.3	11.0	89.0
W. N. CENTRAL	4,265,378	4,194,364	1,511,018	1,348,709	2,754,360	2,845,655	35.4	64.6	32.2	67.8
Minnesota	803,461	759,052	213,688	168,831	589,773	590,221	26.6	73.4	22.2	77.8
Iowa	690,316	729,010	179,620	183,560	510,696	545,450	26.0	74.0	25.2	74.8
Missouri	1,794,315	1,742,976	752,486	711,833	1,041,829	1,031,143	41.9	58.1	40.8	59.2
Nebraska	390,940	408,967	200,285	133,923	190,655	275,044	51.2	48.8	32.7	67.3
Kansas	414,951	403,031	130,055	121,088	284,896	281,943	31.3	68.7	30.0	70.0
North Dakota and South Dakota [2]	171,395	151,328	34,884	29,474	136,511	121,854	20.4	79.6	19.5	80.5
SOUTH ATLANTIC	3,300,834	2,615,297	1,239,544	1,096,679	2,061,290	1,518,618	37.6	62.4	41.9	58.1
Maryland	614,385	560,730	205,661	197,512	408,724	363,218	33.5	66.5	35.2	64.8
Virginia	355,749	317,789	151,416	125,703	204,333	192,086	42.6	57.4	39.6	60.4
West Virginia	258,564	218,294	112,737	106,475	145,827	111,819	43.6	56.4	48.8	51.2
North Carolina	333,983	278,873	185,055	146,898	148,928	131,975	55.4	44.6	52.7	47.3
South Carolina	145,794	131,010	78,513	73,036	67,281	57,974	53.9	46.1	55.7	44.3
Georgia	394,981	362,267	151,956	132,224	243,025	230,043	38.5	61.5	36.5	63.5
Florida	384,576	355,570	195,679	180,718	188,897	174,852	50.9	49.1	50.8	49.2
Delaware and District of Columbia [2]	812,802	390,764	158,527	134,113	654,275	256,651	19.5	80.5	34.3	65.7
E. S. CENTRAL	1,352,032	1,195,143	449,482	447,665	902,550	747,478	33.2	66.8	37.5	62.5
Kentucky	392,034	378,159	144,036	161,395	247,998	216,764	36.7	63.3	42.7	57.3
Tennessee	542,673	473,773	194,095	200,323	348,578	273,450	35.8	64.2	42.3	57.7
Alabama	323,006	277,416	88,471	72,563	234,535	204,853	27.4	72.6	26.2	73.8
Mississippi	94,319	65,795	22,880	13,384	71,439	52,411	24.3	75.7	20.3	79.7
W. S. CENTRAL	2,120,802	1,854,549	824,316	731,493	1,296,486	1,123,056	38.9	61.1	39.4	60.6
Arkansas	159,070	150,064	67,832	67,160	91,238	82,904	42.6	57.4	44.8	55.2
Louisiana	339,286	307,575	166,778	145,212	172,508	162,363	49.2	50.8	47.2	52.8
Oklahoma	489,368	421,783	192,489	176,073	296,879	245,710	39.3	60.7	41.7	58.3
Texas	1,133,078	975,127	397,217	343,048	735,861	632,079	35.1	64.9	35.2	64.8
MOUNTAIN	821,124	704,796	298,567	250,057	522,557	454,739	36.4	63.6	35.5	64.5
Montana	107,919	95,028	73,097	58,665	34,822	36,363	67.7	32.3	61.7	38.3
Colorado	365,768	302,078	84,030	48,564	281,738	253,514	23.0	77.0	16.1	83.9
Arizona	82,229	66,906	48,447	47,157	33,782	19,749	58.9	41.1	70.5	29.5
Nevada	18,894	16,973	8,417	6,589	10,477	10,384	44.5	55.5	38.8	61.2
Idaho, Wyoming, New Mexico, and Utah [2]	246,314	223,811	84,576	89,082	161,738	134,729	34.3	65.7	39.8	60.2
PACIFIC	3,503,271	3,181,552	1,419,585	1,333,643	2,083,686	1,847,909	40.5	59.5	41.9	58.1
Washington	653,245	572,691	212,941	170,709	440,304	401,982	32.6	67.4	29.8	70.2
Oregon	396,659	387,281	133,735	121,454	262,924	265,827	33.7	66.3	31.4	68.6
California	2,453,367	2,221,580	1,072,909	1,041,480	1,380,458	1,180,100	43.7	56.3	46.9	53.1

[1] See "Number of publications and aggregate circulation per issue," p. 597.
[2] Combined in order to avoid disclosing the circulation of individual papers.

TABLE 12.—DAILY NEWSPAPERS PRINTED IN FOREIGN LANGUAGES [1]—NUMBER AND CIRCULATION, BY STATES: 1927, 1925, AND 1923

[This table presents statistics for all States for which separate figures can be given without disclosing the circulation of individual newspapers]

STATE	NUMBER [2]			AGGREGATE CIRCULATION PER ISSUE, EXCLUSIVE OF SUNDAY EDITIONS [2]			Per cent of increase or decrease (−)		
	1927	1925	1923	1927	1925	1923	1925–1927	1923–1925	1923–1927
United States	131	128	146	2,293,746	2,308,544	2,357,802	−0.6	−2.1	−2.7
California	17	14	15	129,888	106,741	102,688	21.7	3.9	26.5
Illinois	19	15	24	455,913	359,412	442,500	26.8	−18.8	3.0
Massachusetts	11	12	12	102,020	90,673	89,200	12.5	1.7	14.4
Michigan	3	3	6	49,788	48,955	93,250	1.7	−47.5	−46.6
Minnesota	3	3	4	30,543	31,730	36,882	−3.7	−14.0	−17.2
New Jersey	2	2	2	30,650	27,200	25,200	12.7	7.9	21.6
New York	37	36	38	1,005,794	1,104,411	1,027,341	−8.9	7.5	−2.1
Ohio	12	14	16	174,169	212,564	246,902	−18.1	−13.9	−29.5
Pennsylvania	8	8	8	124,450	126,551	105,708	−1.7	−19.7	17.7
Texas	2	3	3	22,913	25,366	25,830	−9.7	−1.8	−11.3
Washington [3]	2	2	2	12,457	15,093	14,922	−17.5	1.1	−16.5
Wisconsin	4	5	5	102,996	95,800	75,390	7.5	27.1	36.6
Other States	11	11	11	52,165	64,048	71,989	−18.6	−11.0	−27.5

[1] Includes data for publications in both a foreign language and English.
[2] See "Number of publications and aggregate circulation per issue," p. 597.
[3] This State is outranked by 1 of the "Other States."

TABLE 13.—DAILY NEWSPAPERS PRINTED IN FOREIGN LANGUAGES [1]—CIRCULATION, FOR PRINCIPAL LANGUAGES, FOR THE UNITED STATES: 1927, 1925, AND 1923

LANGUAGE	NUMBER [2]			AGGREGATE CIRCULATION PER ISSUE, EXCLUSIVE OF SUNDAY EDITIONS [2]			Per cent of increase or decrease (−)		
	1927	1925	1923	1927	1925	1923	1925–1927	1923–1925	1923–1927
Total	131	128	146	2,293,746	2,308,544	2,357,802	−0.6	−2.1	−2.7
Bohemian	7	6	7	145,780	86,227	91,326	69.1	−5.6	59.6
Chinese	6	3	4	30,500	17,100	19,000	78.4	−10.0	60.5
Finnish	5	6	7	34,109	40,369	46,215	−15.5	−12.6	−26.2
French	8	10	9	43,713	59,381	36,402	−26.4	63.1	20.1
German	19	21	22	334,093	372,979	364,200	−10.4	2.4	−8.3
Greek	3	3	3	35,000	73,000	70,000	−52.1	4.3	−50.0
Hungarian	3	3	3	70,000	86,000	94,000	−18.6	−8.5	−25.5
Italian	7	9	8	312,098	353,959	333,533	−11.8	6.1	−6.4
Japanese	10	8	9	64,758	61,370	57,357	5.5	7.0	12.9
Lithuanian	4	3	3	56,550	37,000	32,859	52.8	12.6	72.1
Polish	17	16	26	382,591	332,024	411,529	15.2	19.3	−7.0
Russian	3	3	3	32,890	32,342	25,125	1.7	28.7	30.9
Slovak	3	3	7	29,800	40,000	53,624	−25.5	−25.4	−44.4
Slovenian	3			20,100					
Spanish	7	9	6	55,539	55,348	44,630	.4	24.0	24.5
Yiddish	9	10	9	536,494	559,963	541,252	−4.2	3.5	.9
Other languages [3]	17	15	20	109,701	101,482	136,750	8.1	−25.8	−19.8

[1] Includes data for publications in both a foreign language and English.
[2] See "Number of publications and aggregate circulation per issue," p. 597.
[3] Comprises, for 1927, Arabic, Armenian, Croatian, Danish-Norwegian, Norwegian, Portuguese, Rumanian, Serbian, and Ruthenian.

TABLE 14.—DAILY NEWSPAPERS PUBLISHED IN CITIES HAVING 500,000 INHABITANTS OR MORE [1]—NUMBER, 1927, AND CIRCULATION, 1927, 1925, AND 1923

CITY	NUMBER: [2] 1927		AGGREGATE CIRCULATION PER ISSUE, EXCLUSIVE OF SUNDAY EDITIONS [2]					
			Morning			Evening		
	Morning	Evening	1927	1925	1923	1927	1925	1923
United States	518	1,573	15,726,950	14,284,198	13,567,611	25,641,370	23,122,417	21,903,459
Total [3]	99	104	9,172,898	8,333,383	7,350,913	9,843,202	8,962,409	8,102,033
New York	27	28	3,380,762	3,168,596	2,597,914	2,513,946	2,405,620	2,348,571
Chicago	16	10	1,477,563	1,221,554	1,219,417	1,267,411	1,178,161	1,155,575
Philadelphia	8	5	708,471	731,522	689,783	901,913	753,185	719,058
Cleveland	4	8	300,460	284,056	332,643	522,548	493,539	440,931
Boston	8	6	953,843	870,141	803,901	799,920	858,949	956,488
Pittsburgh	5	4	395,076	287,202	324,610	635,392	393,232	453,347
Los Angeles [4]	9	11	514,647	441,845	309,776	453,873	362,755	345,065
San Francisco	8	7	345,298	398,642	327,078	306,813	265,794	241,804
Detroit and Buffalo [5]	4	10	375,645	302,231	309,768	1,005,939	937,309	793,234
St. Louis and Milwaukee [5]	5	8	387,040	321,526	[6] 253,959	829,942	765,297	[6] 368,311
Baltimore and Washington [5]	5	7	334,093	306,068	[7] 182,064	605,505	548,568	[7] 279,649

[1] As estimated for July 1, 1928.
[2] See "Number of publications and aggregate circulation per issue," p. 597.
[3] For 1927 and 1925, 14 cities; for 1923, 12 cities. The population of Washington and Milwaukee, as estimated for 1923, was below 500,000.
[4] Figures for 1923 not strictly comparable with those for 1927 and 1925 because of the annexation of new territory in 1924.
[5] Combined in order to avoid disclosing the circulation of individual papers. (See footnote 2.)
[6] St. Louis only.
[7] Baltimore only.

TABLE 15.—SUNDAY NEWSPAPERS PUBLISHED IN CITIES HAVING 500,000 INHABITANTS OR MORE [1]—NUMBER AND CIRCULATION: 1927, 1925, AND 1923

CITY	NUMBER [2]			AGGREGATE CIRCULATION PER ISSUE [2]					
							Per cent of increase or decrease (−)		
	1927	1925	1923	1927	1925	1923	1925–1927	1923–1925	1923–1927
United States	511	597	602	27,695,859	25,630,056	24,511,693	8.1	4.6	13.0
Total [3]	96	102	97	16,553,600	15,077,224	13,468,575	9.8	11.9	22.9
New York	29	30	30	5,342,519	4,822,063	4,592,604	10.8	5.0	16.3
Chicago	9	10	16	2,514,420	2,274,888	2,130,221	10.5	6.8	18.0
Philadelphia	7	13	11	1,182,561	1,201,958	1,040,611	−1.6	15.5	13.6
Detroit	5	5	5	998,694	883,324	737,798	13.1	19.7	35.4
Cleveland	7	9	4	581,454	586,557	471,905	−.9	24.3	23.2
Boston	5	4	4	1,388,814	1,358,166	1,349,027	2.3	.7	2.9
Pittsburgh	5	4	6	1,034,702	646,929	615,753	59.9	5.1	68.0
Los Angeles [4]	8	4	3	776,555	688,789	570,767	12.7	20.7	36.1
San Francisco	8	6	6	692,175	546,607	489,993	26.6	11.6	41.3
Buffalo	3	4	4	324,000	305,827	293,372	5.9	4.2	10.4
St. Louis and Milwaukee [5]	5	8	5	1,015,014	1,137,218	[6] 874,404	−10.7	30.1	16.1
Baltimore and Washington [5]	5	5	3	702,692	624,898	[7] 302,120	12.4	106.8	132.6

[1] As estimated for July 1, 1928.
[2] See "Number of publications and aggregate circulation per issue," p. 597.
[3] For 1927 and 1925, 14 cities; for 1923, 12 cities. The population of Washington and Milwaukee, as estimated for 1923, was below 500,000.
[4] Figures for 1923, not strictly comparable with those for 1927 and 1925 because of the annexation of new territory in 1924.
[5] Combined in order to avoid disclosing the circulation of individual papers. (See footnote 2.)
[6] St. Louis only.
[7] Baltimore only.

TABLE 16.—SUNDAY NEWSPAPERS—NUMBER AND CIRCULATION, BY GEOGRAPHIC DIVISIONS AND STATES: 1927, 1925, AND 1923

[This table presents statistics for all States for which separate figures can be given without disclosing the circulation of individual newspapers. The District of Columbia, however, which is shown in combination, outranked some of the States shown separately]

DIVISION AND STATE	NUMBER [1]			AGGREGATE CIRCULATION PER ISSUE [1]					
							Per cent of increase or decrease (—)		
	1927	1925	1923	1927	1925	1923	1925–1927	1923–1925	1923–1927
UNITED STATES	511	597	602	27,695,859	25,630,056	24,511,693	8.1	4.6	13.0
NEW ENGLAND	19	27	27	1,854,993	1,881,080	1,862,543	—1.4	1.0	—.4
Massachusetts	10	15	16	1,568,115	1,583,565	1,559,667	—1.0	1.5	.5
Connecticut	5	8	7	160,849	187,151	174,805	—14.1	7.1	—8.0
Maine and Rhode Island [2]	4	4	4	126,029	110,364	128,071	14.2	—13.8	—1.6
MIDDLE ATLANTIC	65	89	93	8,619,071	7,927,859	7,434,085	8.7	6.6	15.9
New York	41	48	53	6,162,595	5,655,217	5,409,648	9.0	4.5	13.9
New Jersey	8	9	10	141,760	196,347	184,183	—27.8	6.6	—23.0
Pennsylvania	16	32	30	2,314,716	2,076,295	1,840,254	11.5	12.8	25.8
EAST NORTH CENTRAL	94	100	108	6,655,737	5,708,063	5,794,419	16.6	—1.5	14.9
Ohio	33	35	33	1,838,567	1,340,352	1,308,593	37.2	2.4	40.5
Indiana	16	17	18	407,117	379,115	844,145	7.4	—55.1	—51.8
Illinois	27	28	35	2,764,790	2,541,090	2,390,290	8.8	6.3	15.7
Michigan	12	13	13	1,185,449	1,035,082	890,589	14.5	16.2	33.1
Wisconsin	6	7	9	459,814	412,424	360,802	11.5	14.3	27.4
WEST NORTH CENTRAL	42	61	58	2,553,049	2,835,811	2,846,535	—10.0	—.4	—10.3
Minnesota	7	9	7	577,948	576,811	562,429	.2	2.6	2.8
Iowa	5	11	12	284,902	342,348	310,038	—16.8	10.4	—8.1
Missouri	12	16	17	1,180,251	1,319,649	1,379,695	—10.6	—4.4	—14.5
Nebraska	6	6	5	307,452	318,396	321,962	—3.4	—1.1	—4.5
Kansas	8	12	11	153,622	218,431	217,453	—29.7	.4	—29.4
North Dakota and South Dakota [2]	4	7	6	48,874	60,176	54,958	—18.8	9.5	—11.1
SOUTH ATLANTIC	76	91	87	2,111,964	2,012,734	1,809,472	4.9	11.2	16.7
Maryland	3	3	4	387,684	335,097	304,120	15.7	10.2	27.5
Virginia	10	10	12	179,072	158,017	208,861	13.3	—24.3	—14.3
West Virginia	9	11	13	167,052	152,386	149,467	9.6	2.0	11.8
North Carolina	13	16	17	169,396	208,003	179,747	—18.6	15.7	—5.8
South Carolina	6	9	9	95,095	102,317	88,524	—7.1	15.6	7.4
Georgia	12	17	15	501,975	473,771	422,781	6.0	12.1	18.7
Florida	20	21	13	284,982	268,818	147,112	6.0	82.7	93.7
Delaware and District of Columbia [2]	3	4	4	326,708	314,325	308,860	3.9	1.8	5.8
EAST SOUTH CENTRAL	30	37	34	916,531	900,717	793,133	1.8	13.6	15.6
Kentucky	9	11	11	309,716	284,695	211,198	8.8	34.8	46.6
Tennessee	8	11	10	339,699	367,253	346,411	—7.5	6.0	—1.9
Alabama	8	10	9	214,287	214,007	206,359	.1	3.7	3.8
Mississippi	5	5	4	52,829	34,762	29,165	52.0	19.2	81.1
WEST SOUTH CENTRAL	75	79	75	1,712,262	1,491,942	1,363,968	14.8	9.4	25.5
Arkansas	8	7	7	136,559	118,904	114,150	14.8	4.2	19.6
Louisiana	4	4	5	348,509	333,261	326,687	4.6	2.0	6.7
Oklahoma	17	22	22	297,560	279,736	250,041	6.4	11.9	19.0
Texas	46	46	41	929,634	760,041	673,090	22.3	12.9	38.1
MOUNTAIN	44	49	49	726,041	663,958	635,487	9.4	4.5	14.2
Montana	7	11	11	74,454	83,880	94,247	—11.2	—11.0	—21.0
Idaho	9	9	9	56,587	51,423	50,407	10.0	2.0	12.3
Colorado	9	11	11	404,193	344,358	311,263	17.4	10.6	29.9
Arizona	9	8	9	51,527	41,870	40,406	23.1	3.6	27.5
Utah	4	4	3	112,402	112,367	102,813	(3)	9.3	9.3
Wyoming, New Mexico, and Nevada [2]	6	6	6	26,878	30,060	36,351	—10.6	—17.3	—26.1
PACIFIC	66	64	71	2,546,211	2,207,892	1,972,051	15.3	12.0	29.1
Washington	10	11	13	411,752	368,476	372,968	11.7	—1.2	10.4
Oregon	9	9	11	308,665	291,126	263,756	6.0	10.4	17.0
California	47	44	47	1,825,794	1,548,290	1,335,327	17.9	15.9	36.7

[1] See "Number of publications and aggregate circulation per issue," p. 597.
[2] Combined in order to avoid disclosing the circulation of individual papers.
[3] Less than one-tenth of 1 per cent.

TABLE 17.—TRIWEEKLY AND SEMIWEEKLY NEWSPAPERS—CIRCULATION, BY STATES: 1927, 1925, AND 1923

[This table presents statistics for all States for which separate figures can be given without disclosing the circulation of individual newspapers]

STATE	NUMBER [1]			AGGREGATE CIRCULATION PER ISSUE [1]					
							Per cent of increase or decrease (−)		
	1927	1925	1923	1927	1925	1923	1925–1927	1923–1925	1923–1927
United States [2]	466	457	486	2,495,294	2,334,825	2,456,187	6.9	−4.9	1.6
Arkansas	8	7	8	20,707	22,158	19,078	−6.5	16.1	8.5
California	38	38	41	399,739	562,644	251,377	−29.0	123.8	59.0
Colorado	11	------	------	15,185	------	------	------	------	------
Connecticut	6	------	------	15,400	------	------	------	------	------
Florida	18	13	5	28,842	27,450	7,250	5.1	278.6	297.8
Georgia	7	6	10	230,972	166,797	199,409	38.5	−16.4	15.8
Illinois	31	30	41	165,659	177,064	218,538	−6.4	−19.0	−24.2
Indiana	18	16	14	38,251	35,045	20,388	9.1	71.9	87.6
Iowa	20	21	28	87,602	90,222	109,494	−2.9	−17.6	−20.0
Kansas	9	9	5	16,400	22,218	7,330	−26.2	203.1	123.7
Kentucky	12	11	11	43,387	23,891	18,235	81.6	31.0	137.9
Maine	3	4	3	14,623	15,971	14,071	−8.4	13.5	3.9
Massachusetts	5	------	------	13,383	------	------	------	------	------
Michigan	12	14	15	35,487	48,520	34,366	−26.9	41.2	3.3
Minnesota	7	6	7	72,963	36,302	152,474	101.0	−76.2	−52.1
Mississippi	5	6	7	12,693	14,470	12,820	−12.3	12.9	−1.0
Missouri	17	16	18	75,358	307,246	352,773	−75.5	−12.9	−78.6
Nebraska	7	9	8	16,254	21,800	17,180	−25.4	26.9	−5.4
New Jersey	10	7	6	30,538	22,514	18,800	35.6	19.8	62.4
New York	21	23	28	87,770	68,056	272,416	29.0	−75.0	−67.8
North Carolina	21	24	27	56,909	64,617	68,680	−11.9	−5.9	−17.1
Ohio	29	29	34	341,806	63,550	72,506	437.9	−12.4	371.4
Pennsylvania	33	30	29	284,231	146,138	175,534	94.5	−16.7	61.9
South Carolina	10	14	13	22,510	26,534	23,512	−15.2	12.9	−4.3
Texas	27	27	26	179,253	176,436	196,147	1.6	−10.0	−8.6
Virginia	8	9	10	15,700	19,436	22,445	−19.2	−13.4	−30.1
Washington	6	8	10	35,014	28,813	31,653	21.5	−9.0	10.6
Other States	67	80	82	138,658	146,933	139,711	−5.6	5.2	−.8

[1] See "Number of publications and aggregate circulation per issue," p. 597.
[2] Includes data for semiweekly and triweekly publications reported as periodicals: 1927, 36 with average circulation of 820,739; 1925, 27 with average circulation of 631,453; 1923, 11 with average circulation of 29,576.

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TABLE 18.—WEEKLY NEWSPAPERS [1]—NUMBER AND CIRCULATION, BY STATES: 1927, 1925, AND 1923

[This table presents statistics for all States for which separate figures can be given without disclosing the circulation of individual newspapers]

STATE	NUMBER [1]			AGGREGATE CIRCULATION PER ISSUE [1]					
							Per cent of increase or decrease (—)		
	1927	1925	1923	1927	1925	1923	1925–1927	1923–1925	1923–1927
United States	6,661	6,435	5,903	16,878,783	15,989,700	16,424,819	5.6	—2.6	2.8
Alabama	90	80	63	362,652	253,750	237,486	42.9	6.8	52.7
Arkansas [2]	89	86	75	124,659	114,275	92,844	9.1	23.1	34.3
California	363	273	260	737,504	390,648	414,298	88.8	—5.7	78.0
Colorado	117	112	100	183,874	206,537	124,852	—11.0	65.4	47.3
Connecticut [2]	41	41	40	132,388	97,060	90,477	36.4	7.3	46.3
District of Columbia	5	6	12	158,100	183,300	839,183	—13.7	—78.2	—81.2
Florida	99	84	70	172,099	122,228	107,765	40.8	13.4	59.7
Georgia	124	90	78	226,680	144,315	112,237	57.1	28.6	102.0
Idaho [2]	62			66,990					
Illinois	421	425	410	1,516,212	1,992,885	2,007,604	—23.9	—.7	—24.5
Indiana	178	175	168	344,252	287,595	290,330	19.7	—.9	18.6
Iowa	307	320	300	501,830	507,482	479,988	—1.1	5.7	4.6
Kansas	224	224	194	689,021	860,849	1,020,096	—20.0	—15.6	—32.5
Kentucky	112	96	77	235,755	188,231	173,886	25.2	8.2	35.6
Louisiana [2]	47	52	48	73,959	83,247	68,539	—11.2	21.5	7.9
Maryland	65	52	44	145,860	136,868	106,370	6.6	28.7	37.1
Massachusetts	151	162	155	454,891	411,663	486,046	10.5	—15.3	—6.4
Michigan	242	257	214	1,000,243	562,052	1,025,546	78.0	—45.2	—2.5
Minnesota	310	298	279	760,319	883,815	772,474	—14.0	14.4	—1.6
Missouri	262	255	206	1,090,137	958,112	903,705	13.8	6.0	20.6
Montana [2]	69			81,287					
Nebraska	181	184	165	280,157	281,152	375,060	—.4	—25.0	—25.3
New Jersey	197	190	163	503,744	405,773	360,855	24.1	12.4	39.6
New York	485	465	468	1,572,498	1,403,410	1,460,313	12.0	—3.9	7.7
North Carolina	85	78	72	173,640	171,532	168,165	1.2	2.0	3.3
North Dakota [2]	70			96,377					
Ohio	255	265	265	718,993	1,151,487	805,973	—37.6	42.9	—10.8
Oklahoma	157	154	127	240,669	234,249	201,741	2.7	16.1	19.3
Oregon [2]	73	76	69	115,144	116,975	115,671	—1.6	1.1	—.5
Pennsylvania	356	343	344	1,484,614	1,271,072	1,259,914	16.8	.9	17.8
South Carolina [2]	41			68,386					
Tennessee	78	76	58	225,133	190,059	179,519	18.5	5.9	25.4
Texas	324	300	251	558,192	493,218	388,326	13.2	27.0	43.7
Utah [2]	35			121,105					
Vermont [2]	30			51,473					
Virginia	74	69	72	159,588	144,510	144,753	10.4	—.2	10.2
Washington	159	121	123	231,311	193,144	137,092	19.8	40.9	68.7
West Virginia	89	83	69	177,391	154,995	133,982	14.4	15.7	32.4
Wisconsin	236	245	233	449,739	415,388	450,766	8.3	—7.8	—.2
Other States	358	698	631	591,917	977,824	888,963	—39.5	—10.0	—33.4

[1] Not including periodicals, for which see Table 23, p. 618.
[2] This State is outranked, with reference to the circulation for 1927, by 1 or more of the "Other States."

TABLE 19.—WEEKLY NEWSPAPERS AND PERIODICALS—COMBINED STATISTICS FOR NUMBER AND CIRCULATION, BY GEOGRAPHIC DIVISIONS AND STATES: 1927, 1925, AND 1923

DIVISION AND STATE	NUMBER [1]			AGGREGATE CIRCULATION PER ISSUE [1]			Per cent of increase or decrease (−)		
	1927	1925	1923	1927	1925	1923	1925–1927	1923–1925	1923–1927
United States	7,760	7,568	6,887	55,985,413	50,815,443	47,860,508	10.2	6.2	17.0
NEW ENGLAND	373	386	363	1,497,345	1,689,153	1,620,609	−11.4	4.2	−7.6
Maine	40	37	42	74,782	68,153	92,681	9.7	−26.5	−19.3
New Hampshire	42	40	38	82,411	65,895	53,122	25.1	24.0	55.1
Vermont	30	36	32	51,473	68,567	59,543	−24.9	15.2	−13.6
Massachusetts	198	214	195	1,042,212	1,292,593	1,240,815	−19.4	4.2	−16.0
Rhode Island	13	12	9	55,404	46,937	33,471	18.0	40.2	65.5
Connecticut	50	47	47	191,063	147,008	140,977	30.0	4.3	35.5
MIDDLE ATLANTIC	1,352	1,330	1,279	22,640,747	19,727,012	21,454,454	14.8	−8.1	5.5
New York	701	683	680	15,369,772	13,147,329	14,717,849	16.9	−10.7	4.4
New Jersey	206	200	169	580,244	517,458	451,905	12.1	14.5	28.4
Pennsylvania	445	447	430	6,690,731	6,062,225	6,284,700	10.4	−3.5	6.5
EAST NORTH CENTRAL	1,643	1,693	1,543	14,310,489	14,400,602	10,862,854	−.6	32.6	31.7
Ohio	340	341	340	4,147,967	3,708,483	3,382,458	11.9	9.6	22.6
Indiana	206	221	191	1,163,818	1,715,221	512,539	−32.1	234.7	127.1
Illinois	574	580	528	6,953,182	6,846,269	4,913,999	1.6	39.3	41.5
Michigan	272	287	239	1,281,937	1,391,646	1,296,781	−7.9	7.3	−1.1
Wisconsin	251	264	245	763,585	738,983	757,077	3.3	−2.4	.9
WEST NORTH CENTRAL	1,558	1,586	1,433	5,471,072	5,598,193	5,627,222	−2.3	−.5	−2.8
Minnesota	338	325	299	1,165,304	1,258,739	1,066,628	−7.4	18.0	9.3
Iowa	320	333	308	841,821	896,796	843,419	−6.1	6.3	−.2
Missouri	323	312	272	1,937,070	1,741,552	1,721,467	11.2	1.2	12.5
North Dakota	70	76	79	96,377	105,681	98,146	−8.8	7.7	−1.8
South Dakota	80	109	90	107,964	131,349	115,824	−17.8	13.4	−6.8
Nebraska	190	195	178	417,547	424,777	586,266	−1.7	−27.5	−28.8
Kansas	237	236	207	904,989	1,039,299	1,195,472	−12.9	−13.1	−24.3
SOUTH ATLANTIC	657	583	528	4,509,663	3,521,893	3,254,421	28.0	8.2	38.6
Delaware	12	12	13	47,459	31,166	33,021	52.3	−5.6	43.7
Maryland	77	64	57	241,996	225,240	186,022	7.4	21.1	30.1
District of Columbia	18	21	23	1,897,844	1,948,183	1,677,189	−2.6	16.2	13.2
Virginia	84	84	82	1,312,465	438,060	554,821	199.6	−21.0	136.6
West Virginia	91	86	74	183,591	163,995	148,381	11.9	10.5	23.7
North Carolina	96	84	79	292,668	251,227	246,609	16.5	1.9	18.7
South Carolina	44	44	39	92,761	97,060	88,175	−4.4	10.1	5.2
Georgia	133	98	86	255,780	206,897	183,087	23.6	13.0	39.7
Florida	102	90	75	185,099	160,065	137,116	15.6	16.7	35.0
EAST SOUTH CENTRAL	411	381	301	3,059,264	2,152,684	1,930,498	42.1	11.5	58.5
Kentucky	126	110	90	364,460	309,131	307,794	17.9	.4	18.4
Tennessee	101	104	87	1,669,183	993,899	944,383	67.9	5.2	76.7
Alabama	97	87	68	878,910	750,730	616,446	17.1	21.8	42.6
Mississippi	87	80	56	146,711	98,924	61,875	48.3	59.9	137.1
WEST SOUTH CENTRAL	670	644	553	1,570,530	1,587,292	1,409,581	−1.1	12.6	11.4
Arkansas	96	91	80	163,769	153,275	112,044	6.8	36.8	46.2
Louisiana	56	62	59	121,164	128,395	116,024	−5.6	10.7	4.4
Oklahoma	163	161	135	279,301	272,858	236,883	2.4	15.2	17.9
Texas	355	330	279	1,006,296	1,032,764	944,630	−2.6	9.3	6.5
MOUNTAIN	400	390	357	672,865	559,392	486,917	20.3	14.9	38.2
Montana	74	78	82	102,287	95,491	108,788	7.1	−12.2	−6.0
Idaho	62	65	50	66,990	77,274	47,297	−13.3	63.4	41.6
Wyoming	32	32	35	43,484	43,662	49,377	−.4	−11.6	−11.9
Colorado	128	124	108	253,362	243,020	176,907	4.3	37.4	43.2
New Mexico	29	30	22	39,362	38,786	27,123	1.5	43.0	45.1
Arizona	23	24	19	25,760	21,248	17,705	21.2	20.0	45.5
Utah	39	25	30	128,405	30,435	51,950	321.9	−41.4	147.2
Nevada	13	12	11	13,215	9,476	7,770	39.5	22.0	70.1
PACIFIC	696	575	530	2,253,438	1,579,222	1,213,952	42.7	30.1	85.6
Washington	188	144	136	646,981	454,105	169,225	42.5	168.3	282.3
Oregon	80	90	84	167,775	227,865	276,773	−26.4	−17.7	−39.4
California	428	341	310	1,438,682	897,222	767,954	60.3	16.8	87.3

[1] See "Number of publications and aggregate circulation per issue," p. 597.

TABLE 20.—WEEKLY NEWSPAPERS AND PERIODICALS PRINTED IN FOREIGN LANGUAGES—NUMBER AND CIRCULATION, BY STATES: 1927, 1925, AND 1923

[This table presents statistics for all States for which separate figures can be given without disclosing the circulation of individual publications]

STATE	NUMBER [1]			AGGREGATE CIRCULATION PER ISSUE [1]					
							Per cent of increase or decrease (—)		
	1927	1925	1923	1927	1925	1923	1925–1927	1923–1925	1923–1927
United States	425	378	366	3,294,931	2,819,147	2,842,542	16.9	—0.8	15.9
California	31	26	22	73,019	54,350	57,453	34.3	—5.4	27.1
Connecticut	10	4	4	29,950	16,000	29,360	87.2	—45.5	2.0
Illinois	43	45	45	528,775	554,685	553,271	—4.7	.3	—4.4
Indiana [2]	2	2	3	6,000	5,900	20,180	1.7	—70.8	—70.3
Iowa	7	8	7	21,281	20,098	15,775	5.9	27.4	34.9
Kansas	3			9,000					
Massachusetts	21	21	20	108,294	106,050	97,740	2.1	8.5	10.8
Michigan	22	15	12	113,325	49,863	36,425	127.3	36.9	211.1
Minnesota	37	25	21	501,361	384,945	208,917	30.2	84.3	140.0
Missouri	10	8	7	115,297	36,557	34,949	215.4	4.6	229.9
Nebraska	7	8	11	32,050	38,230	256,500	—16.2	—85.1	—87.5
New Jersey	18	16	12	78,730	70,325	50,300	12.0	39.8	56.5
New Mexico	5			9,800					
New York	71	61	64	806,556	503,059	469,967	60.3	7.0	71.6
Ohio	23	19	18	158,834	159,936	114,910	—.7	39.2	38.2
Oregon	6	4	5	54,638	36,400	54,637	50.1	—33.4	0.0
Pennsylvania	44	44	44	314,038	310,655	277,251	1.1	12.0	13.3
Rhode Island	4	4	2	24,000	16,886	6,386	42.1	164.4	275.8
Texas	16	16	14	173,854	286,695	292,325	—39.4	—1.9	—40.5
Utah	5			8,800					
Washington	8	5	7	17,200	8,140	14,500	111.3	—43.9	18.6
Wisconsin	17	15	22	80,704	69,078	163,861	16.8	—57.8	—50.7
Other States	15	32	26	29,425	91,295	87,835	—67.8	3.9	—66.5

[1] See "Number of publications and aggregate circulation per issue," p. 597.
[2] This State is outranked by one of the "Other States."

LE 21.—WEEKLY NEWSPAPERS AND PERIODICALS PRINTED IN FOREIGN ANGUAGES—NUMBER AND CIRCULATION, FOR PRINCIPAL LANGUAGES, FOR IE UNITED STATES: 1927, 1925, AND 1923

[Includes data for publications in both a foreign language and English]

LANGUAGE	NUMBER [1]			AGGREGATE CIRCULATION PER ISSUE [1]					
							Per cent of increase or decrease (−)		
	1927	1925	1923	1927	1925	1923	1925–1927	1923–1925	1923–1927
United States	425	378	366	3,294,931	2,819,147	2,842,542	16.9	−0.8	15.9
›nian	4			9,000					
›mian (Czech) [2]	23	18	18	63,036	50,361	54,245	25.2	−7.2	16.2
sh [3]	37	28	28	307,359	135,742	148,374	126.4	−8.5	107.2
ih [4]	18	12	9	75,820	42,058	32,943	80.3	27.7	130.2
ish	4	4	4	16,995	27,100	21,662	−37.3	25.1	−21.5
ch	15	14	16	59,419	62,066	35,111	−4.3	76.8	69.2
ıan	98	85	95	711,528	610,365	727,478	16.6	−16.1	−2.2
k	7	7	7	19,350	18,100	28,397	6.9	−36.3	−31.9
garian	19	14	14	54,422	36,274	42,066	50.0	−13.8	29.4
ın	50	40	44	470,800	129,502	193,480	263.5	−33.1	143.3
ıanian	5	7	7	56,360	50,709	73,039	11.2	−30.6	−22.8
h	42	38	35	427,466	444,429	410,997	−3.8	8.1	4.0
ıguese	7			11,868					
ian	5			39,350					
ian	4	4	6	12,700	12,300	16,400	3.3	−25.0	−22.6
ak	8	9	10	135,350	177,131	84,461	−23.6	109.7	60.3
›nian	5	3	3	37,400	32,000	18,493	16.9	73.0	102.2
ıish	19	16	5	243,374	306,298	269,000	−20.5	13.9	−9.5
lish	27	32	29	378,084	337,232	321,208	12.1	5.0	17.7
lish	15	18	18	130,800	204,880	230,900	−36.2	−11.3	−43.4
ır languages [5]	13	29	18	34,450	142,600	134,288	−75.8	6.2	−74.3

ee "Number of publications and aggregate circulation per issue," p. 597.
ncludes, for 1927, 4 publications reported as Czechoslovak.
ncludes, for 1927, 21 publications, with a circulation of 168,765, reported as Norwegian and 2 reported orwegian-Danish.
ncludes 2 publications reported as Flemish.
Comprises, for 1927, Bulgarian, Chinese, Croatian, Japanese, Ladino, Rumanian, Ruthenian, and ih.

TABLE 22.—PERIODICALS, BY CLASS, NUMBER, AND CIRCULATION, BY STATES: 1927

[This table presents statistics for all States for which separate figures can be given without disclosing the circulation of individual publications]

CLASS OF PUBLICATION AND STATE	Number	Circulation
AGRICULTURE, STOCK RAISING, ETC.		
United States	243	18,288,494
California [1]	10	135,468
Colorado [1]	3	73,000
Florida [1]	3	60,000
Illinois	32	2,007,548
Indiana	15	1,513,883
Iowa	18	1,987,017
Kansas	9	1,015,800
Kentucky [1]	5	258,000
Massachusetts [1]	9	194,925
Michigan [1]	5	252,284
Minnesota	12	615,882
Missouri [1]	14	420,045
Montana [1]	4	36,936
Nebraska [1]	5	189,500
New York	15	699,007
Ohio	10	1,724,543
Oklahoma [1]	5	330,782
Oregon [1]	6	63,916
Pennsylvania	11	3,479,348
South Dakota [1]	3	151,182
Tennessee	3	645,553
Texas [1]	12	191,923
Washington [1]	8	272,377
Wisconsin [1]	6	308,500
Other States	20	1,661,075
ART, MUSIC, AND DRAMA		
United States	52	831,192
Illinois [1]	7	34,350
Massachusetts [1]	4	20,541
New York	24	288,310
Ohio [1]	7	143,800
Other States	10	344,191
AUTOMOBILES, MOTOR BOATS, ETC.		
United States	77	1,279,339
California	10	214,246
Illinois	10	244,607
New York	19	204,222
Ohio [1]	4	75,400
Pennsylvania	14	173,113
Rhode Island [1]	3	25,000
Washington [1]	3	27,651
Wisconsin [1]	3	41,000
Other States	11	274,100
COLLEGE AND SCHOOL PERIODICALS		
United States	222	769,540
California	19	72,961
Colorado [1]	3	12,100
Connecticut [1]	7	22,025
Illinois	13	38,750
Indiana	9	49,720
Iowa [1]	6	12,845
Maryland [1]	5	9,175
Massachusetts	22	70,566
Michigan [1]	6	20,667
Minnesota [1]	3	22,100
Missouri [1]	3	9,350
New Hampshire [1]	3	9,350
New Jersey	7	26,200
COLLEGE AND SCHOOL PERIODICALS—continued		
New York	23	124,300
Ohio [1]	6	18,700
Oregon [1]	11	24,700
Pennsylvania	17	70,631
Texas [1]	4	14,300
Virginia [1]	6	11,300
Washington	9	29,250
Wisconsin	9	26,500
Other States	31	74,050
COMMERCE, FINANCE, AND INSURANCE		
United States	239	2,721,101
California	22	69,870
Colorado [1]	3	5,800
District of Columbia	4	247,100
Illinois	23	350,357
Iowa [1]	5	24,232
Louisiana [1]	4	8,840
Massachusetts	11	120,818
Michigan [1]	4	13,550
Minnesota [1]	3	5,810
Missouri [1]	10	29,650
New Jersey [1]	3	6,245
New York	86	1,428,912
Ohio	10	131,849
Pennsylvania	20	119,064
Texas [1]	7	33,680
Other States	24	125,324
FRATERNAL		
United States	126	8,720,893
Colorado [1]	4	152,000
District of Columbia [1]	7	403,300
Illinois	19	2,436,090
Indiana [1]	3	638,000
Iowa [1]	3	197,450
Michigan [1]	5	323,671
New York	15	1,791,000
Ohio [1]	7	295,200
Pennsylvania [1]	9	105,290
Other States	54	2,378,892
LABOR (BY LABOR ORGANIZATIONS)		
United States	172	3,525,101
California [1]	10	79,700
Colorado [1]	4	22,488
District of Columbia	13	803,641
Illinois	20	276,065
Indiana	6	734,544
Iowa [1]	5	67,903
Kansas [1]	3	23,250
Kentucky [1]	5	16,680
Massachusetts [1]	5	50,600
Michigan	4	164,600
Minnesota [1]	5	27,380
Missouri [1]	6	122,181
New York	23	249,348
Ohio	16	569,285
Pennsylvania [1]	9	55,616
Tennessee [1]	3	14,000
Texas [1]	7	23,850
Washington [1]	6	19,860
Other States	22	204,110

[1] This State is outranked, with reference to the circulation for 1927, by 1 or more of the "Other States."

TABLE 22.—PERIODICALS, BY CLASS, NUMBER, AND CIRCULATION, BY STATES: 1927—Continued

[See note at head of this table]

CLASS OF PUBLICATION AND STATE	Number	Circulation
MEDICINE, SURGERY, AND DENTISTRY		
United States	145	909,350
California	7	34,348
Colorado	3	9,350
District of Columbia	3	58,768
Illinois	34	320,560
Maryland	14	31,777
Massachusetts	4	10,888
Michigan	3	14,000
Missouri	9	39,290
New York	31	199,428
Ohio	4	11,400
Pennsylvania	12	131,898
Other States	21	47,643
MOTION PICTURES		
United States	35	1,666,450
California	5	50,387
Illinois	4	561,713
New York	16	1,026,700
Pennsylvania	4	13,350
Other States	6	14,300
NEWS SUMMARIES, GENERAL LITERATURE, FAMILY READING, AND FICTION		
United States	206	57,264,100
California [1]	4	133,750
District of Columbia	3	845,000
Illinois	24	9,142,814
Iowa	4	2,165,150
Kansas	7	1,764,600
Massachusetts	9	523,664
Minnesota	11	1,274,659
Missouri	5	943,500
New York	98	26,023,801
Ohio	5	5,116,283
Pennsylvania	4	5,519,500
Texas	3	458,680
Wisconsin [1]	4	66,250
Other States	25	3,286,449
RELIGION		
United States	1,368	40,529,248
Alabama	5	126,702
Arkansas [1]	5	34,950
California	18	356,557
Colorado	3	43,500
Connecticut	6	42,350
District of Columbia	13	468,063
Illinois	460	5,522,298
Indiana	32	874,709
Iowa [1]	4	27,629
Kentucky	8	112,000
Maryland [1]	3	31,411
Massachusetts	33	1,337,338
Michigan	27	179,193
Minnesota	15	196,023
Missouri	85	2,497,767
Nebraska [1]	5	21,390
New Jersey	6	111,300
New York	92	3,096,822
North Carolina	13	112,600
Ohio	161	7,224,927
Oklahoma	4	64,500
Oregon	5	86,001
Pennsylvania	248	7,397,518
RELIGION—continued		
South Carolina	6	39,725
Tennessee	42	8,474,375
Texas	20	275,048
Utah	8	71,050
Virginia	9	1,401,352
Wisconsin	15	168,500
Other States	17	133,650
SCIENCE AND TECHNOLOGY		
United States	109	1,294,256
California [1]	6	16,000
District of Columbia	11	65,691
Illinois	9	45,789
Maryland [1]	5	4,710
New York	51	1,062,466
Pennsylvania [1]	12	21,144
Other States	15	78,456
SOCIETY, FASHION, BEAUTY CULTURE, ETC.		
United States	78	30,096,892
California [1]	3	23,000
Connecticut [1]	3	298,917
Illinois [1]	19	419,585
New York	38	19,630,852
Ohio	6	7,996,760
Pennsylvania [1]	3	56,650
Other States	6	1,671,128
SPORTS, GAMES, AND AMUSEMENTS		
United States	103	2,032,342
California [1]	15	68,130
Illinois	26	454,349
Maryland [1]	3	28,350
Massachusetts	4	408,800
Missouri [1]	4	85,500
New York	24	596,787
Ohio [1]	8	109,526
Pennsylvania [1]	5	109,000
Other States	14	171,900
TRADE JOURNALS (NOT ELSEWHERE CLASSIFIED)		
United States	932	8,291,854
California	80	452,703
Colorado	7	23,450
District of Columbia	12	63,966
Florida	8	23,273
Georgia	20	115,601
Illinois	196	2,242,868
Indiana	7	100,800
Iowa [1]	3	16,200
Kansas [1]	4	13,718
Louisiana [1]	5	14,075
Maryland	7	30,648
Massachusetts	32	164,299
Michigan	16	100,209
Minnesota	25	117,652
Missouri	37	818,051
New Jersey	4	27,170
New York	294	2,710,192
North Carolina	8	44,528
Ohio	33	422,095
Oregon	11	58,300
Pennsylvania	44	321,406

[1] This State is outranked, with reference to the circulation for 1927, by 1 or more of the "Other States."

TABLE 22.—PERIODICALS, BY CLASS, NUMBER, AND CIRCULATION, BY STATES: 1927—Continued

[See note at head of this table, p. 616]

CLASS OF PUBLICATION AND STATE	Number	Circulation
TRADE JOURNALS (NOT ELSEWHERE CLASSIFIED)—con.		
Tennessee [1]	4	13,426
Texas	20	69,319
Washington	15	26,150
Wisconsin	19	207,378
Other States	21	94,377
MISCELLANEOUS		
United States	552	12,779,356
California	42	834,618
Colorado [1]	3	9,650
District of Columbia	25	1,026,364
Florida [1]	3	14,500
Georgia [1]	4	18,700
Illinois	85	2,572,370
Indiana	11	1,059,972
Iowa	8	99,388
Kansas	5	91,600
MISCELLANEOUS—continued		
Kentucky [1]	3	6,200
Maryland	12	131,452
Massachusetts	27	449,102
Michigan	13	343,438
Minnesota	11	125,771
Missouri	22	101,061
Nebraska [1]	7	67,200
New Jersey [1]	3	41,500
New York	128	3,220,608
North Carolina [1]	6	35,398
Ohio	42	1,452,928
Oklahoma [1]	6	21,233
Oregon [1]	5	44,000
Pennsylvania	27	361,771
South Dakota [1]	4	18,139
Texas [1]	7	36,439
Virginia [1]	4	20,623
Washington	6	160,383
Wisconsin	14	254,558
Other States	19	160,390

[1] This State is outranked, with reference to the circulation for 1927, by 1 or more of the "Other States."

TABLE 23.—PERIODICALS, BY PERIOD OF ISSUE, NUMBER, AND CIRCULATION, BY STATES: 1927, 1925, AND 1923

[This table presents statistics for all States for which separate figures can be given without disclosing the circulation of individual publications]

STATE	NUMBER [1]			AGGREGATE CIRCULATION PER ISSUE [1]					
	1927	1925	1923	1927	1925	1923	Per cent of increase or decrease (−)		
							1925–1927	1923–1925	1923–1927
	WEEKLY (Not including newspapers, for which see Table 18)								
United States	1,099	1,133	984	39,106,630	34,825,743	31,435,689	12.3	10.8	24.4
Alabama	7	7	5	516,258	496,980	378,960	3.9	31.1	36.2
Arkansas	7	5	5	39,110	39,000	19,200	.3	103.1	103.7
California	65	68	50	701,178	506,574	353,656	38.4	43.2	98.3
Colorado	11	12	8	69,488	36,483	52,055	90.5	−29.9	33.5
Connecticut	9	6	7	58,675	49,948	50,500	17.5	−1.1	16.2
District of Columbia	13	15	11	1,739,744	1,764,883	838,006	−1.4	110.6	107.6
Florida	3	6	5	13,000	37,837	29,351	−65.6	28.9	−55.7
Georgia	9	8	8	29,100	62,582	70,850	−53.5	−11.7	−58.9
Illinois	153	155	118	5,436,970	4,853,384	2,906,395	12.0	67.0	87.1
Indiana	28	46	23	819,566	1,427,626	222,209	−42.6	542.5	268.8
Iowa	13	13	8	339,991	389,314	363,431	−12.7	7.1	−6.4
Kansas	13	12	13	215,968	178,450	175,376	21.0	1.8	23.1
Kentucky	14	14	13	128,705	120,900	133,908	6.5	−9.7	−3.9
Louisiana	9	10	11	47,205	45,148	47,485	4.6	−4.9	−.6
Maryland	12	12	13	96,136	88,372	79,652	8.8	10.9	20.7
Massachusetts	47	52	40	587,321	880,930	754,769	−33.3	16.7	−22.2
Michigan	30	30	25	281,694	829,594	271,235	−66.0	205.9	3.9
Minnesota	28	27	20	404,985	374,924	294,154	8.0	27.5	37.7
Missouri	61	57	66	846,933	783,440	817,762	8.1	−4.2	3.6
Montana	5			21,000					

See footnotes at end of table.

TABLE 23.—PERIODICALS, BY PERIOD OF ISSUE, NUMBER, AND CIRCULATION, BY STATES: 1927, 1925, AND 1923—Continued

[See note at head of this table]

STATE	NUMBER [1]			AGGREGATE CIRCULATION PER ISSUE [1]			Per cent of increase or decrease (−)		
	1927	1925	1923	1927	1925	1923	1925–1927	1923–1925	1923–1927
	WEEKLY—continued (Not including newspapers, for which see Table 18)								
Nebraska	9	11	13	137,390	143,625	211,206	−4.3	−32.0	−34.9
New Jersey	9	10	6	76,500	111,685	91,050	−31.5	22.7	−16.0
New York	216	218	212	13,797,274	11,743,919	13,257,536	17.5	−11.4	4.1
North Carolina	11	6	7	119,028	79,695	78,444	49.4	1.6	51.7
Ohio	85	76	75	3,428,974	2,556,996	2,576,485	34.1	−.8	33.1
Oklahoma	6	7	8	38,632	38,609	35,142	.1	9.9	9.9
Oregon	7	14	15	52,631	110,920	161,102	−52.6	−31.1	−67.3
Pennsylvania	89	104	86	5,206,117	4,791,153	5,024,786	8.7	−4.6	3.6
South Carolina	3	4	2	24,375	28,400	11,590	−14.2	145.0	110.3
Tennessee	23	28	29	1,444,050	803,840	764,864	79.6	5.1	88.8
Texas	31	30	28	448,104	539,546	556,304	−16.9	−3.0	−19.4
Virginia	10	15	10	1,152,877	293,550	410,068	292.7	−28.4	181.1
Washington	29	23	13	415,670	260,961	32,133	59.3	712.1	(2)
Wisconsin	15	19	12	313,846	323,595	306,311	−3.0	5.6	2.5
Other States	19	13	19	58,135	32,880	59,714	76.8	−44.9	−2.6
	SEMIMONTHLY AND BIWEEKLY								
United States	238	232	193	5,955,858	6,773,105	5,531,731	−12.1	22.4	7.7
Arkansas [3]	3	4	3	83,940	116,491	100,670	−27.9	15.7	−16.6
California [3]	14	12	9	45,356	50,650	36,300	−10.5	39.5	24.9
District of Columbia [3]	7	8	8	243,922	398,532	193,953	−38.8	105.5	25.8
Illinois [3]	24	30	28	235,559	289,159	280,672	−18.5	3.0	−16.1
Indiana [3]	5	4	5	220,400	312,300	328,300	−29.4	−4.9	−32.9
Iowa [3]	4	6	4	53,350	315,199	181,880	−83.1	73.3	−70.7
Kentucky [3]	3	3	5	85,500	120,000	107,847	−28.8	11.3	−20.7
Maryland [3]	3	------	------	16,100	------	------	------	------	------
Massachusetts [3]	6	------	------	37,800	------	------	------	------	------
Michigan [3]	5	6	5	105,775	74,061	123,486	42.8	−40.0	−14.3
Minnesota [3]	4	5	5	171,700	207,650	156,683	−17.3	32.5	9.6
Missouri [3]	18	19	15	177,830	347,414	310,598	−48.8	11.9	−42.7
Nebraska [3]	4	4	3	52,625	35,074	51,474	50.1	−31.9	2.2
New York	49	55	36	1,751,700	2,011,558	1,622,317	−12.9	23.9	8.0
Ohio [3]	10	10	15	127,814	206,369	182,948	−38.1	12.8	−30.1
Oregon [3]	3	3	3	11,100	115,789	105,150	−90.4	10.1	−89.4
Pennsylvania [3]	22	22	6	393,281	269,990	33,741	45.7	700.2	(2)
South Dakota [3]	3	------	------	146,582	------	------	------	------	------
Texas [3]	5	5	3	18,866	74,000	13,095	−74.5	465.1	44.1
Washington [3]	3	3	3	18,820	17,010	18,250	10.6	−6.8	3.1
Wisconsin [3]	9	5	3	238,885	63,200	28,123	278.0	124.7	749.4
Other States	34	28	34	1,718,953	1,748,659	1,656,244	−1.7	5.6	3.8
	MONTHLY								
United States	2,522	2,271	1,907	120,693,490	111,875,957	91,654,028	7.9	22.1	31.7
Alabama	6	4	4	112,249	131,983	75,255	−15.0	75.4	49.2
California	142	109	106	1,070,410	852,387	897,713	25.6	−5.0	19.2
Colorado	22	19	16	339,750	257,354	115,310	32.0	123.2	194.6
Connecticut	9	10	6	999,420	1,052,726	830,100	−5.1	26.8	20.4
Delaware	3	3	1	45,485	45,500	28,344	(4)	60.5	60.5
District of Columbia	61	60	50	2,100,880	3,071,513	2,013,883	−31.6	52.5	4.3
Florida	15	8	6	96,923	29,697	35,992	226.4	−17.5	169.3
Georgia	21	23	31	189,979	101,692	151,989	86.8	−33.1	25.0
Illinois	698	589	333	17,971,020	16,128,295	13,126,020	11.4	22.9	36.9
Indiana	43	33	37	3,796,010	2,722,265	2,520,782	39.4	8.0	50.6

See footnotes at end of table.

TABLE 23.—PERIODICALS, BY PERIOD OF ISSUE, NUMBER, AND CIRCULATION, BY STATES: 1927, 1925, AND 1923—Continued

[See note at head of this table, p. 618]

STATE	NUMBER [1]			AGGREGATE CIRCULATION PER ISSUE [1]					
	1927	1925	1923	1927	1925	1923	Per cent of increase or decrease (−) 1925–1927	1923–1925	1923–1927
	MONTHLY—continued								
Iowa	32	35	28	4,174,140	3,490,805	2,576,233	19.6	35.5	62.0
Kansas	13	21	15	2,838,680	2,764,293	2,576,309	2.7	7.3	10.2
Kentucky	13	13	12	589,750	583,150	440,380	1.1	32.4	33.9
Louisiana [3]	4	8	6	8,165	106,248	79,935	−92.3	32.9	−89.8
Maine	6	6	5	3,888,386	3,658,250	3,658,449	6.3	(4)	6.3
Maryland	21	23	15	156,175	116,939	33,909	33.6	244.9	360.6
Massachusetts	83	85	66	2,632,719	2,934,306	2,552,100	−10.3	15.0	3.2
Michigan	42	45	51	1,069,005	1,430,235	1,578,640	−25.2	9.4	−32.3
Minnesota	52	40	34	1,756,570	1,471,037	1,319,521	19.4	11.5	33.1
Mississippi [3]	3			10,900					
Missouri	92	79	69	2,706,000	2,170,122	1,971,253	24.7	10.1	37.3
Montana [3]	4	3	2	13,030	11,805	3,900	10.4	202.7	234.1
Nebraska	12	13	14	997,340	1,001,752	988,877	−.4	1.3	.9
New Hampshire	8	4	2	40,024	12,226	15,452	227.4	−20.9	159.0
New Jersey	15	13	19	356,471	354,205	309,469	.6	14.5	15.2
New York	581	546	518	43,990,170	45,639,181	37,793,343	−3.6	20.8	16.4
North Carolina	14	10	7	82,022	156,350	55,725	−47.5	180.6	47.2
Ohio	116	101	106	16,781,588	10,302,873	7,417,337	62.9	38.9	126.2
Oklahoma	13	10	6	350,875	312,650	51,800	12.2	503.6	577.4
Oregon	28	26	21	214,786	144,569	130,864	48.6	10.5	64.1
Pennsylvania	169	164	154	8,498,646	7,759,566	5,848,012	9.5	32.7	45.3
Rhode Island	4			28,300					
South Dakota	6			24,060					
Tennessee	20	23	20	1,240,595	1,408,675	870,849	−11.9	61.8	42.5
Texas	45	34	35	655,288	580,614	551,826	12.9	5.2	18.7
Utah	7	10	7	81,650	86,700	58,350	−5.8	48.6	39.9
Virginia	14	16	9	198,402	247,926	159,768	−20.0	55.2	24.2
Washington	21	24	26	89,733	123,997	151,286	−27.6	−18.0	−40.7
West Virginia [3]	4			12,945					
Wisconsin	48	43	40	404,808	439,607	431,248	−7.9	1.9	−6.1
Other States	12	18	30	80,141	174,464	233,805	−54.1	−25.4	−65.7
	QUARTERLY								
United States	477	553	555	21,247,360	22,840,186	22,197,918	−7.0	2.9	−4.3
California	10			129,900					
District of Columbia	12	11	5	171,847	125,594	81,347	36.8	54.4	111.3
Illinois	64	61	60	2,279,074	2,016,669	3,524,297	13.0	−42.8	−35.3
Indiana	5	12	6	132,600	94,000	93,900	41.1	.1	41.2
Maryland [3]	6	10	6	8,055	8,419	4,410	−4.3	90.9	82.6
Massachusetts	20	18	20	757,051	670,847	657,170	12.8	2.1	15.2
Michigan [3]	4	8	2	7,500	134,315	6,500	−94.4	(2)	15.4
Minnesota [3]	4			21,675					
Missouri	21	62	47	1,137,089	965,456	521,972	17.8	85.0	117.8
New York	49	47	49	1,782,326	2,713,427	2,876,531	−34.3	−5.7	−38.0
North Carolina [3]	7	4	5	36,076	73,050	356,800	−50.6	−79.5	−89.9
Ohio	93	93	100	4,643,648	5,478,754	3,429,703	−15.2	59.7	35.4
Pennsylvania	140	143	150	3,762,944	3,590,078	4,009,388	4.8	−10.5	−6.1
Tennessee	14	36	37	5,972,500	6,398,920	4,346,291	−6.7	47.2	37.4
Texas [3]	6			54,575					
Virginia	3			138,800					
Washington [3]	3			39,500					
Wisconsin [3]	3	3	3	46,100	48,300	2,605	−4.6	(2)	(2)
Other States	13	45	65	126,100	522,357	2,287,004	−75.9	−77.2	−94.5

[1] See "Number of publications and aggregate circulation per issue," p. 597.
[2] Percentages higher than 1,000 are not shown.
[3] This State is outranked, with reference to circulation for 1927, by 1 or more of the "Other States."
[4] Less than one-tenth of 1 per cent.

TABLE 24.—GENERAL STATISTICS, BY STATES: 1927

[This table presents statistics for all States for which separate figures can be given without disclosing data reported by individual establishments]

STATE	Number of establishments	PERSONS ENGAGED IN THE INDUSTRY				Horsepower	Paid for contract work	Salaries	Wages	Cost of materials, supplies, fuel, and power		Value of products	Value added by manufacture[1]
		Total	Proprietors and firm members	Salaried officers and employees	Wage earners (average for the year)					Materials and supplies	Fuel and power		
THE PRINTING AND PUBLISHING INDUSTRIES AS A WHOLE													
United States	22,541	453,855	16,482	175,702	261,671	481,194	$173,237,581	$391,682,907	$473,221,233	$642,505,009	$19,454,387	$2,507,425,913	$1,845,466,517
BOOK AND JOB													
United States	11,449	193,506	9,130	43,098	141,278	193,617	62,696,328	108,927,382	240,392,870	242,343,505	8,143,644	906,468,767	655,981,618
Alabama	70	753	55	167	531	679	109,882	349,858	811,720	790,939	32,144	2,789,057	1,965,974
Arizona	11	129	6	23	100	100	----------	40,394	157,787	166,891	6,913	516,232	342,428
Arkansas	33	521	23	140	358	526	10,597	304,008	555,988	533,945	20,336	1,867,629	1,313,348
California	827	8,617	860	1,858	5,899	9,012	2,162,810	4,383,488	11,051,036	13,372,638	267,401	44,136,988	30,496,949
Colorado	99	1,286	76	314	896	1,211	196,178	681,123	1,366,004	1,490,188	50,099	5,062,522	3,522,235
Connecticut	162	2,349	130	498	1,721	2,086	369,485	1,068,099	2,437,711	2,395,225	116,977	8,259,845	5,747,643
Delaware	14	182	11	32	139	166	6,869	88,147	177,797	173,776	8,294	577,625	395,555
District of Columbia	85	1,509	62	245	1,202	1,243	214,805	715,004	1,956,935	1,745,188	60,174	6,341,453	4,536,091
Florida	96	817	74	183	560	947	68,235	383,050	878,645	1,128,851	40,962	3,383,485	2,213,672
Georgia	110	1,667	83	300	1,284	1,894	110,419	633,555	1,808,997	1,878,448	74,624	6,132,857	4,179,785
Idaho	12	117	10	19	88	102	3,318	49,793	105,226	112,400	6,067	372,295	252,028
Illinois	1,250	33,625	924	7,255	25,446	38,118	13,696,020	19,791,725	47,421,609	40,505,585	1,443,402	167,874,087	125,925,100
Indiana	245	4,348	192	916	3,240	4,901	1,009,561	2,088,201	4,879,377	4,783,804	176,826	17,190,810	12,230,180
Iowa	184	1,806	157	364	1,285	2,063	119,331	785,138	1,866,871	1,925,462	81,281	6,462,201	4,455,458
Kansas	101	973	109	205	659	863	39,589	432,704	969,920	1,116,090	44,083	3,524,249	2,364,076
Kentucky	92	1,512	64	265	1,183	1,470	31,352	632,417	1,558,299	1,649,829	65,616	5,188,471	3,473,026
Louisiana	93	1,112	47	297	768	1,074	142,669	604,142	1,100,225	1,217,410	48,028	4,152,133	2,886,695
Maine	56	503	37	106	360	617	75,277	200,139	474,937	483,560	18,633	1,676,675	1,174,482
Maryland	191	3,411	155	759	2,497	3,256	541,257	1,606,791	3,576,530	4,997,525	118,768	14,111,176	8,994,883
Massachusetts	681	12,093	548	2,976	8,569	11,171	4,603,986	7,152,075	13,294,125	12,680,356	409,865	57,852,084	44,761,863

See footnotes at end of table.

TABLE 24.—GENERAL STATISTICS, BY STATES: 1927—Continued

[See note at head of this table, p. 621]

STATE	Number of establishments	PERSONS ENGAGED IN THE INDUSTRY				Horsepower	Paid for contract work	Salaries	Wages	Cost of materials, supplies, fuel, and power		Value of products	Value added by manufacture[1]
		Total	Proprietors and firm members	Salaried officers and employees	Wage earners (average for the year)					Materials and supplies	Fuel and power		
BOOK AND JOB—con.													
Michigan	393	6,368	318	1,365	4,685	6,442	$1,885,311	$3,568,509	$8,163,992	$9,290,306	$300,453	$30,576,882	$20,986,123
Minnesota	216	4,196	152	1,109	2,935	3,825	432,222	2,498,217	4,108,933	4,799,433	158,135	15,634,142	10,676,574
Mississippi	25	294	21	45	228	296	1,034	89,874	325,259	320,724	12,374	1,006,158	673,060
Missouri	444	7,343	290	1,708	5,345	7,487	1,126,163	4,053,901	8,682,681	10,513,311	296,658	31,647,874	20,837,905
Montana	19	234	8	48	178	232	8,720	96,981	262,687	241,278	10,053	796,683	545,352
Nebraska	101	1,187	89	247	851	1,219	70,450	628,930	1,222,768	1,676,022	53,805	4,859,256	3,129,429
Nevada	4	40	2	7	31	41	5,536	19,373	62,761	55,465	2,430	222,125	164,230
New Hampshire	37	952	33	90	829	854	29,078	201,095	1,219,045	446,806	22,266	2,554,256	2,085,184
New Jersey	301	5,090	244	881	3,965	5,203	800,032	2,275,314	6,945,574	5,928,648	282,029	21,444,780	15,234,103
New Mexico	4	40	3	3	34	25	----------	11,400	50,126	43,499	2,419	150,990	105,072
New York	2,341	44,111	1,732	11,543	30,836	38,100	28,465,389	30,631,347	60,849,504	53,489,940	2,032,915	241,840,111	186,317,256
North Carolina	72	945	54	194	697	862	32,470	459,746	1,020,136	991,454	38,367	3,354,963	2,325,142
North Dakota	18	210	15	42	153	205	9,524	90,920	229,487	216,199	10,997	697,056	469,860
Ohio	725	12,734	516	2,512	9,706	14,538	2,561,309	6,883,961	15,258,851	18,448,277	500,439	61,570,979	42,622,263
Oklahoma	91	757	97	158	502	740	28,622	378,993	737,518	868,383	38,186	2,795,067	1,888,498
Oregon	118	931	100	196	635	1,142	108,252	445,272	1,075,406	1,262,236	32,963	3,976,410	2,681,211
Pennsylvania	957	14,955	919	2,770	11,266	15,109	1,977,577	7,157,313	17,009,299	20,008,934	625,725	62,349,684	41,715,025
Rhode Island	64	1,049	58	209	782	857	109,262	565,606	1,067,940	1,170,297	31,149	3,971,003	2,769,557
South Carolina	30	403	31	94	278	402	5,414	160,254	418,708	408,422	15,890	1,290,770	866,458
South Dakota	20	204	10	81	113	172	1,593	133,701	164,243	230,351	6,639	689,615	452,625
Tennessee	95	2,367	60	433	1,874	2,375	190,691	935,263	2,427,261	2,839,009	85,759	8,737,424	5,812,656
Texas	276	3,297	271	716	2,310	3,067	340,243	1,503,410	3,333,016	3,493,766	121,337	12,215,523	8,600,420
Utah	35	336	23	84	229	303	44,306	165,558	319,180	374,471	19,247	1,175,094	781,376
Vermont	24	359	16	54	289	392	15,689	112,705	436,129	349,832	16,978	1,140,515	773,705
Virginia	118	2,182	78	430	1,674	2,020	392,487	1,042,488	2,112,775	2,644,921	82,001	9,104,168	6,377,246
Washington	197	1,535	151	361	1,023	1,632	201,887	851,656	1,780,611	1,869,837	53,855	6,713,430	4,789,738
West Virginia	52	501	37	97	367	455	19,992	229,960	585,663	432,208	17,903	1,761,442	1,311,331
Wisconsin	250	3,491	177	680	2,634	4,032	320,445	1,697,672	3,980,439	6,712,773	178,422	16,446,299	9,555,104
Wyoming	10	65	2	19	44	91	990	48,112	93,139	66,793	3,757	274,194	203,644

MUSIC													
United States	119	2,579	67	1,518	994	1,343	2,819,352	3,530,608	1,677,680	1,617,384	40,983	15,881,634	14,223,267
California	5	156	2	139	15	47	127,188	208,257	31,160	25,714	514	721,946	695,718
Illinois	22	280	20	153	107	137	291,109	400,065	190,715	133,119	4,077	1,625,093	1,487,897
Massachusetts	9	273	3	121	149	137	368,270	259,407	211,054	195,911	4,669	1,809,192	1,608,612
Missouri	6	84	4	57	23	22	10,030	131,834	29,200	37,983	1,898	316,737	276,856
New York	53	1,298	15	829	454	448	1,555,234	2,071,763	878,714	923,977	17,676	9,255,496	8,313,843
Ohio	6	135	6	125	4	1	186,107	241,111	4,450	----------	----------	584,333	584,333
Pennsylvania	8	200	7	48	145	403	110,833	102,849	192,875	142,059	10,365	783,997	631,573
Other States [2]	10	153	10	46	97	148	170,581	115,322	139,512	158,621	1,784	784,840	624,435
NEWSPAPER AND PERIODICAL													
United States	10,973	257,770	7,285	131,086	119,399	286,234	107,721,901	279,224,917	231,150,683	398,544,120	11,269,760	1,585,075,512	1,175,261,632
Alabama	119	1,846	95	990	761	1,726	118,908	1,594,328	1,246,233	3,134,550	77,479	8,734,153	5,522,124
Arizona	43	669	25	288	356	489	69,204	665,532	674,045	695,630	35,766	2,776,996	2,045,600
Arkansas	118	1,042	118	364	560	1,190	72,117	691,273	856,757	974,789	58,776	3,945,479	2,911,914
California	695	16,335	549	9,679	6,107	17,465	3,579,123	17,730,956	13,290,900	20,333,625	484,065	86,945,307	66,127,617
Colorado	166	2,614	135	1,240	1,239	2,175	391,245	1,919,938	2,347,209	3,077,608	105,345	11,039,597	7,856,644
Connecticut	89	3,940	34	1,955	1,951	4,494	317,320	4,693,360	3,520,161	5,125,477	194,359	20,695,072	15,375,236
Delaware	17	416	7	196	213	451	40,751	342,386	365,199	361,441	25,219	1,758,338	1,371,678
District of Columbia	88	3,593	15	2,389	1,189	2,294	3,226,589	4,934,766	2,520,755	5,243,809	100,347	23,617,701	18,273,545
Florida	149	2,991	72	1,366	1,553	4,740	112,044	2,966,878	3,156,089	2,656,688	202,440	13,538,545	10,679,417
Georgia	168	2,769	132	1,236	1,401	2,705	454,249	2,293,926	2,222,886	4,544,087	102,400	13,659,700	9,013,213
Idaho	70	622	68	219	335	548	12,482	385,804	621,610	395,379	35,278	2,205,854	1,775,197
Illinois	903	23,819	490	12,650	10,679	24,638	16,429,662	29,992,331	21,256,494	45,092,976	1,236,937	169,623,924	123,294,011
Indiana	328	6,696	252	3,290	3,154	7,234	1,513,577	5,075,298	5,562,830	7,236,230	334,327	30,343,892	22,773,335
Iowa	403	5,460	393	2,237	2,830	6,567	642,987	4,325,135	4,592,706	6,193,113	280,386	26,941,655	20,468,156
Kansas	274	3,462	269	1,509	1,684	3,368	237,532	2,576,715	2,665,615	3,773,142	164,855	14,460,206	10,522,209
Kentucky	173	2,689	87	1,219	1,383	2,031	511,885	2,160,505	2,080,199	4,287,637	125,947	11,680,621	7,267,037
Louisiana	75	1,936	48	942	946	2,042	149,419	1,836,263	1,421,100	2,591,652	84,243	9,403,941	6,728,046
Maine	53	1,594	20	601	973	1,365	71,275	983,125	1,204,823	1,807,610	46,529	6,595,921	4,741,782
Maryland	93	3,224	45	1,750	1,429	2,868	869,530	3,042,854	2,486,256	4,473,879	119,939	16,682,255	12,088,437
Massachusetts	332	11,796	149	5,983	5,664	14,091	5,042,994	12,889,830	11,976,944	21,582,298	495,122	72,313,962	50,236,542
Michigan	368	7,776	300	3,741	3,735	10,538	1,492,428	8,405,205	7,035,359	12,567,102	376,121	51,577,504	38,634,281
Minnesota	390	5,776	323	2,596	2,857	6,518	1,278,931	4,893,140	4,666,417	7,457,410	261,541	28,929,330	21,210,379
Mississippi	101	797	90	233	474	877	48,289	434,126	685,697	615,163	63,334	2,874,224	2,195,727
Missouri	414	7,977	327	3,595	4,055	8,813	1,673,002	7,511,955	7,677,965	13,374,582	366,577	45,433,687	31,692,528
Montana	87	1,004	57	389	558	1,030	72,120	783,155	1,046,502	676,422	62,553	3,731,854	2,992,879

See footnotes at end of table.

TABLE 24.—GENERAL STATISTICS, BY STATES: 1927—Continued

[See note at head of this table, p. 621]

STATE	Number of establishments	PERSONS ENGAGED IN THE INDUSTRY				Horsepower	Paid for contract work	Salaries	Wages	Cost of materials, supplies, fuel, and power		Value of products	Value added by manufacture [1]
		Total	Proprietors and firm members	Salaried officers and employees	Wage earners (average for the year)					Materials and supplies	Fuel and power		
NEWSPAPER AND PERIODICAL—continued													
Nebraska	224	2,474	209	945	1,320	3,392	$386,744	$1,997,137	$2,091,783	$2,711,274	$136,191	$11,232,566	$8,385,101
Nevada	23	145	20	52	73	147	8,013	103,499	157,408	105,648	11,193	653,352	536,511
New Hampshire	58	695	35	283	377	734	181,878	505,571	578,451	439,800	38,418	2,538,355	2,060,137
New Jersey	246	5,787	112	2,786	2,889	7,007	654,321	6,210,759	6,548,012	6,288,398	314,078	29,744,819	23,142,343
New Mexico	34	315	29	108	178	309	2,793	199,251	296,469	207,431	21,525	1,035,169	806,213
New York	1,266	48,404	432	29,246	18,726	37,818	55,140,129	76,342,959	44,579,716	86,927,975	1,777,230	390,815,941	302,110,736
North Carolina	157	2,119	114	946	1,059	2,308	162,488	1,838,282	1,819,469	1,821,161	125,222	8,960,521	7,014,138
North Dakota	79	550	56	184	310	786	25,463	461,275	610,119	418,254	40,715	2,513,152	2,054,183
Ohio	520	17,784	271	8,068	9,445	24,593	4,217,007	15,046,949	16,884,398	30,688,491	776,988	113,504,647	82,039,168
Oklahoma	205	3,006	183	1,275	1,548	3,042	180,766	2,688,150	2,634,824	2,695,629	134,228	12,985,123	10,155,266
Oregon	130	2,350	101	1,188	1,061	2,466	332,604	1,886,444	2,060,207	2,381,868	95,874	10,465,097	7,987,355
Pennsylvania	680	26,086	370	12,480	13,236	43,747	3,652,369	24,237,522	24,053,066	55,812,561	1,053,362	192,199,319	135,333,396
Rhode Island	27	1,221	12	500	709	2,020	54,899	1,273,556	1,342,251	1,493,748	57,651	6,681,904	5,130,505
South Carolina	69	850	47	359	444	805	28,478	739,510	744,897	709,303	48,594	3,666,154	2,908,257
South Dakota	92	799	92	286	421	902	12,748	584,653	665,845	505,259	54,645	2,877,628	2,317,724
Tennessee	125	3,252	103	1,436	1,713	2,811	1,076,372	2,541,710	2,772,792	3,865,178	147,616	15,661,110	11,648,316
Texas	440	6,896	368	3,303	3,225	7,564	710,800	6,072,130	5,949,282	8,806,275	327,735	33,581,617	24,447,607
Utah	48	887	31	447	409	860	114,955	811,144	698,878	1,241,117	40,898	3,827,362	2,545,347
Vermont	35	451	25	183	243	436	10,196	332,911	361,219	226,125	27,927	1,461,487	1,207,435
Virginia	117	2,052	66	944	1,042	2,916	394,391	1,851,535	1,607,126	2,004,254	99,051	9,778,227	7,674,922
Washington	213	3,563	161	1,978	1,424	2,933	911,457	3,717,757	3,460,267	3,891,669	133,019	18,855,542	14,830,854
West Virginia	112	1,705	78	719	908	2,122	29,244	1,301,308	1,546,924	1,424,659	73,160	6,549,906	5,052,087
Wisconsin	319	5,258	241	2,622	2,395	5,969	992,389	5,173,181	4,208,151	5,430,872	273,785	24,883,211	19,178,554
Wyoming	38	278	29	91	158	290	13,734	178,940	298,378	174,872	20,770	1,093,585	897,943

[1] Value of products less cost of materials, supplies, fuel, and power. (See secs. 18 and 21, pp. 9 and 10).
[2] Connecticut, 1 establishment; Iowa, 1; Kentucky, 1; Maryland, 1; Michigan, 1; Nebraska, 1; New Jersey, 2; Texas, 2.

BOOKBINDING AND BLANK-BOOK MAKING

[A preliminary report for this industry was issued under date of March 5, 1929]

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.

TABLE 1.—SUMMARY FOR THE UNITED STATES: 1919 TO 1927

[Data for establishments with products under $5,000 in value included for 1919 but not for subsequent years. See sec. 10, p. 6]

YEAR OR PERIOD	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, supplies, fuel, and power	Value of products [1]	Value added by manufacture [2]	Horsepower
1927	1,063	21,909	$28,281,066	$25,875,185	$87,327,392	$61,452,207	19,038
1925	970	20,836	26,005,621	24,127,012	81,600,302	57,473,290	16,147
1923	965	20,728	25,216,055	23,073,048	76,959,420	53,886,372	15,539
1921	869	17,465	20,317,877	19,886,243	63,854,402	43,968,159	(3)
1919	1,113	20,361	18,658,821	23,235,171	66,020,677	42,785,506	11,037
	PER CENT OF INCREASE OR DECREASE (−)						
1925-1927	9.6	5.1	8.8	7.2	7.0	6.9	17.9
1923-1925	.5	.5	3.1	4.6	6.0	6.7	3.9
1923-1927	10.2	5.7	12.2	12.1	13.5	14.0	22.5
1919-1927	−4.5	7.6	51.6	11.4	32.3	43.6	72.5

[1] Values of miscellaneous products, normally belonging to other industries, made as secondary products by establishments engaged primarily in bookbinding and blank-book making, included as follows: 1927, $957,881; 1925, $862,035; corresponding amounts for earlier years not available. Values of bookbinding and blank-book making done as secondary activities by establishments classified in other industries are not included: 1927, $22,051,738; 1925, $18,506,791; 1923, $17,130,856; comparable figures for earlier years not available.

[2] Value of products less cost of materials, supplies, fuel, and power. (See secs. 18 and 21, pp. 9 and 10.)

[3] Not called for on schedule.

TABLE 2.—GENERAL STATISTICS, BY STATES: 1927

[This table presents statistics for all States for which separate figures can be given without disclosing data reported by individual establishments. Certain of the "Other States," however, reported larger values of products than some of the States shown separately]

STATE	Number of establishments	PERSONS ENGAGED IN THE INDUSTRY				Horsepower
		Total	Proprietors and firm members	Salaried officers and employees	Wage earners (average for the year)	
United States	1,063	26,477	927	3,641	21,909	19,038
California	51	1,084	109	145	830	945
Colorado	6	63	5	11	47	36
Connecticut	11	59	10	5	44	25
District of Columbia	4	70	6	5	59	27
Georgia	4	40	3	5	32	11
Illinois	124	3,505	94	398	3,013	2,643
Indiana	14	170	10	30	130	93
Iowa	11	257	11	85	161	190
Kentucky	3	43	3	6	34	24
Louisiana	9	59	9	4	46	40
Maine	5	57	4	7	46	64
Maryland	15	290	7	36	247	179
Massachusetts	81	2,923	57	357	2,509	1,806
Michigan	23	1,257	19	224	1,014	1,121
Minnesota	14	204	8	32	164	113
Missouri	39	1,199	24	254	921	1,212
Nebraska	4	25	5	2	18	24
New Jersey	25	486	19	48	419	345
New York	403	10,562	329	1,365	8,868	7,295
Ohio	52	1,058	51	207	800	924
Oklahoma	4	25	6	1	18	13
Oregon	7	60	2	9	49	62
Pennsylvania	86	1,879	83	192	1,604	1,228
Tennessee	3	18	3	2	13	15
Texas	12	127	9	21	97	75
Virginia	6	66	8	3	55	45
Washington	13	58	12	1	45	38
Wisconsin	20	622	11	151	460	293
Other States [1]	14	211	10	35	166	152

See footnotes at end of table.

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

[See note at head of this table, p. 626]

STATE	Salaries	Wages	Cost of materials, supplies, fuel, and power		Value of products [2]	Value added by manufacture [3]
			Materials and supplies	Fuel and power		
United States	$8,832,184	$28,281,066	$25,127,567	$747,618	$87,327,392	$61,452,207
California	501,704	1,226,261	1,488,488	22,437	4,955,432	3,444,507
Colorado	26,357	50,276	38,975	1,216	167,509	127,318
Connecticut	9,846	57,099	37,491	734	160,951	122,726
District of Columbia	4,299	75,572	32,450	1,483	137,675	103,742
Georgia	6,182	36,377	12,036	884	75,597	62,677
Illinois	1,119,888	4,048,729	3,940,188	102,219	12,373,094	8,330,687
Indiana	58,783	142,505	131,453	6,026	505,964	368,485
Iowa	136,636	191,389	231,308	7,326	723,106	484,472
Kentucky	8,940	38,208	15,296	587	87,272	71,389
Louisiana	7,512	57,921	19,324	1,305	133,090	112,461
Maine	13,048	51,817	52,112	1,633	182,053	128,308
Maryland	59,174	247,826	155,139	5,785	640,493	479,569
Massachusetts	793,456	3,021,732	2,447,765	68,154	9,112,175	6,596,256
Michigan	502,096	1,263,351	1,644,408	48,016	5,985,714	4,293,290
Minnesota	65,331	185,467	244,346	6,313	717,790	467,131
Missouri	469,865	1,104,890	997,131	29,192	3,382,804	2,356,481
Nebraska	5,283	21,965	16,336	556	81,226	64,334
New Jersey	141,325	466,211	451,904	16,068	1,598,178	1,130,206
New York	3,484,993	12,156,865	9,259,500	313,828	33,429,697	23,856,369
Ohio	406,906	1,052,779	1,128,283	32,853	3,609,557	2,448,421
Oklahoma	960	23,799	13,406	670	57,185	43,109
Oregon	19,886	74,282	60,181	2,122	206,337	144,034
Pennsylvania	523,594	1,714,807	1,566,865	49,365	5,195,049	3,578,819
Tennessee	515	22,909	19,947	571	66,082	45,564
Texas	50,392	82,990	108,441	2,032	444,431	333,958
Virginia	6,700	56,823	29,935	1,718	128,804	97,151
Washington	5,500	63,917	47,151	1,561	189,113	140,401
Wisconsin	285,212	537,500	799,748	15,226	2,217,970	1,402,996
Other States [1]	117,801	206,799	137,960	7,738	763,044	617,346

[1] Alabama, 2 establishments; Arizona, 1; Delaware, 1; Kansas, 1; New Hampshire, 3; Rhode Island, 1; South Carolina, 1; South Dakota, 1; Utah, 3.
[2] See footnote 1, Table 1, p. 625.
[3] Value of products less cost of materials, supplies, fuel, and power. (See secs. 18 and 21, pp. 9 and 10.)

103734—30——41

ENGRAVERS' MATERIALS

[A preliminary report for this industry was issued under date of July 6, 1928]

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.

TABLE 1.—SUMMARY FOR THE UNITED STATES: 1919 TO 1927

[Data for establishments with products under $5,000 in value included for 1919 but not for subsequent years. See sec. 10, p. 6]

YEAR OR PERIOD	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, supplies, fuel, and power	Value of products [1]	Value added by manufacture [2]	Horsepower
1927	17	178	$293,962	$1,289,261	$2,168,737	$879,476	864
1925	16	177	276,204	1,202,203	2,014,036	811,833	921
1923	24	224	391,557	1,359,350	2,302,627	943,277	832
1921	22	184	302,206	1,046,403	1,816,873	770,470	(3)
1919	21	174	212,171	1,484,269	2,248,122	763,853	733
	PER CENT OF INCREASE OR DECREASE (—)						
1925-1927	(4)	0.6	6.4	7.2	7.7	8.3	—6.2
1923-1925	(4)	—21.0	—29.5	—11.6	—12.5	—13.9	10.7
1923-1927	(4)	—20.5	—24.9	—5.2	—5.8	—6.8	3.8
1919-1927	(4)	2.3	38.5	—13.1	—3.5	15.1	17.9

[1] The following values of engravers' materials made as secondary products by establishments classified in other industries are not included: 1927, $104,410; 1925, $33,094; 1923, no comparable data; 1921, $40,840; 1919, $90,807.

[2] Value of products less cost of materials, supplies, fuel, and power. (See secs. 18 and 21, pp. 9 and 10.)

[3] Not called for on schedule.

[4] Per cent not computed where base is less than 100.

TABLE 2.—GENERAL STATISTICS, BY STATES: 1927

[This table presents statistics for all States for which separate figures can be given without disclosing data reported by individual establishments]

STATE	Number of establishments	PERSONS ENGAGED IN THE INDUSTRY				Horsepower
		Total	Proprietors and firm members	Salaried officers and employees	Wage earners (average for the year)	
United States	17	245	3	64	178	864
Illinois	4	103	--------	33	70	398
New York	7	82	--------	21	61	236
Other States [1]	6	60	3	10	47	230

STATE	Salaries	Wages	Cost of materials, supplies, fuel, and power		Value of products [2]	Value added by manufacture [3]
			Materials and supplies	Fuel and power		
United States	$186,464	$293,962	$1,262,299	$26,962	$2,168,737	$879,476
Illinois	102,318	130,666	537,472	9,494	956,829	409,863
New York	60,841	93,019	406,600	8,665	662,928	247,663
Other States [1]	23,305	70,277	318,227	8,803	548,980	221,950

[1] California, 1 establishment; Massachusetts, 1; Missouri, 1; New Jersey, 1; Ohio, 1; Pennsylvania, 1.
[2] See footnote 1, Table 1, p. 628.
[3] Value of products less cost of materials, supplies, fuel, and power. (See secs. 18 and 21, pp. 9 and 10.)

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

[A preliminary report for this industry was issued under date of March 5, 1929]

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., as well as metal dies and stamps.

TABLE 1.—SUMMARY FOR THE UNITED STATES: 1919 TO 1927

[Data for establishments with products under $5,000 in value included for 1919 but not for subsequent years. See sec. 10, p. 6]

YEAR OR PERIOD	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, supplies, fuel, and power	Value of products [1]	Value added by manufacture [2]	Horsepower
1927	173	1,805	$2,612,434	$2,078,160	$7,930,688	$5,852,528	2,028
1925	188	1,827	2,690,803	2,177,251	8,622,823	6,445,572	1,753
1923	210	1,887	2,853,125	2,820,179	9,121,446	6,301,267	2,345
1921	193	1,276	1,760,335	1,397,020	4,849,882	3,452,862	(3)
1919	478	1,878	2,391,504	1,927,323	7,350,602	5,423,279	1,750
	PER CENT OF INCREASE OR DECREASE (—)						
1925–1927	—8.0	—1.2	—2.9	—4.6	—8.0	—9.2	15.7
1923–1925	—10.5	—3.2	—5.7	—22.8	—5.5	2.3	—25.2
1923–1927	—17.6	—4.3	—8.4	—26.3	—13.1	—7.1	—13.5
1919–1927	—63.8	—3.9	9.2	7.8	7.9	7.9	15.9

[1] Values of miscellaneous products, normally belonging to other industries, made as secondary products by establishments engaged primarily in engraving (other than steel, copperplate, or wood), chasing, etching, and diesinking, included as follows: 1927, $261,394; 1925, $669,907; corresponding amounts for earlier years not available. The following values of engraving (other than steel, copperplate, or wood), chasing, etching, and diesinking reported by establishments engaged primarily in other industries are not included: 1927, $174,624; 1925, $80,665; 1923, $89,493; 1921, $145,224; 1919, $144,776.

[2] Value of products less cost of materials, supplies, fuel, and power. (See secs. 18 and 21, pp. 9 and 10.)

[3] Not called for on schedule.

TABLE 2.—GENERAL STATISTICS, BY STATES: 1927

[This table presents statistics for all States for which separate figures can be given without disclosing data reported by individual establishments. Certain of the "Other States," however, reported larger values of products than some of the States shown separately]

STATE	Number of establishments	PERSONS ENGAGED IN THE INDUSTRY				Horsepower
		Total	Proprietors and firm members	Salaried officers and employees	Wage earners (average for the year)	
United States	173	2,295	164	326	1,805	2,028
California	7	56	8	9	39	30
Illinois	25	622	21	99	502	682
Maryland	5	21	3	2	16	7
Massachusetts	28	237	26	41	170	179
New Jersey	8	60	9	5	46	23
New York	62	938	59	128	751	861
Ohio	4	32	3	3	26	30
Pennsylvania	12	67	18	4	45	46
Rhode Island	7	47	5	5	37	6
Other States [1]	15	215	12	30	173	164

STATE	Salaries	Wages	Cost of materials, supplies, fuel, and power		Value of products [2]	Value added by manufacture [3]
			Materials and supplies	Fuel and power		
United States	$949,841	$2,612,434	$1,977,689	$100,471	$7,930,688	$5,852,528
California	15,955	67,323	28,140	1,172	172,403	143,091
Illinois	405,916	693,805	563,413	35,502	2,303,094	1,704,179
Maryland	3,204	20,756	4,712	408	48,812	43,692
Massachusetts	94,413	261,091	140,886	7,342	756,495	608,267
New Jersey	15,340	92,037	7,770	442	188,929	180,717
New York	330,812	1,116,953	1,051,065	42,922	3,490,814	2,396,827
Ohio	2,768	39,710	8,922	1,433	71,473	61,118
Pennsylvania	5,814	73,483	32,528	1,272	194,264	160,464
Rhode Island	9,584	55,731	9,849	745	111,908	101,314
Other States [1]	66,035	191,545	130,404	9,233	592,496	452,859

[1] Connecticut, 1 establishment; District of Columbia, 1; Michigan, 3; Minnesota, 1; Missouri, 1; Oregon, 1; Texas, 2; Wisconsin, 5.
[2] See footnote 1, Table, 1, p. 630.
[3] Value of products, less cost of materials, supplies, fuel, and power. (See secs. 18 and 21, pp. 9 and 10.)

ENGRAVING, WOOD

Description of the industry.—This industry classification covers establishments engaged primarily in making woodcuts for use in printing illustrations, posters, etc. Woodcuts are also made to some extent by establishments classified in the printing and publishing industry, but the value of such work was not separately reported.

TABLE 1.—SUMMARY FOR THE UNITED STATES: 1919 TO 1927

[Data for establishments with products under $5,000 in value included for 1919 but not for subsequent years. See sec. 10, p. 6]

YEAR OR PERIOD	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, supplies, fuel, and power	Value of products [1]	Value added by manufacture [2]	Horsepower
1927	23	132	$290,777	$76,354	$641,437	$565,083	45
1925	22	117	233,849	46,499	525,240	478,741	32
1923	24	141	213,824	42,099	523,752	481,653	26
1921	24	131	219,033	138,991	628,368	489,377	(3)
1919	55	235	407,215	219,268	1,153,618	934,350	67
	PER CENT OF INCREASE OR DECREASE (—)						
1925–1927	(4)	12.8	24.3	64.2	22.1	18.0	(4)
1923–1925	(4)	—17.0	9.4	10.5	.3	—.6	(4)
1923–1927	(4)	—6.4	36.0	81.4	22.5	17.3	(4)
1919–1927	(4)	—43.8	—28.6	—65.2	—44.4	—39.5	(4)

[1] Miscellaneous products, normally belonging to other industries, made as secondary products by establishments engaged primarily in wood engraving, are included, for 1927, to the amount of $20,000; corresponding amounts for earlier years not available. The following values of wood engraving reported by establishments engaged primarily in other industries are not included: 1927, $136,085; 1925, $313,297; 1923, $100,527; 1921, $7,883; 1919, $7,597.

[2] Value of products less cost of materials, supplies, fuel, and power. (See secs. 18 and 21, pp. 9 and 10.)

[3] Not called for on schedule.

[4] Per cent not computed where base is less than 100.

TABLE 2.—GENERAL STATISTICS, BY STATES: 1927

[This table presents statistics for all States for which separate figures can be given without disclosing data reported by individual establishments]

STATE	Number of establishments	PERSONS ENGAGED IN THE INDUSTRY				Horsepower
		Total	Proprietors and firm members	Salaried officers and employees	Wage earners (average for the year)	
United States	23	194	26	36	132	45
Connecticut	3	10	3	-------	7	4
Illinois	7	91	9	15	67	17
Missouri	5	29	6	2	21	2
New York	4	55	3	18	34	19
Other States [1]	4	9	5	1	3	3

STATE	Salaries	Wages	Cost of materials, supplies, fuel, and power		Value of products [2]	Value added by manufacture [3]
			Materials and supplies	Fuel and power		
United States	$77,316	$290,777	$73,826	$2,528	$641,437	$565,083
Connecticut	----------	13,311	4,732	168	35,617	30,717
Illinois	38,965	187,723	34,811	1,209	365,251	329,231
Missouri	3,811	31,981	6,443	291	79,626	72,892
New York	34,300	53,022	18,838	827	127,146	107,481
Other States [1]	240	4,740	9,002	33	33,797	24,762

[1] California, 1 establishment; Minnesota, 1; Ohio, 1; Pennsylvania, 1.
[2] See footnote 1, Table 1, p. 634.
[3] Value of products less cost of materials, supplies, fuel, and power. (See secs. 18 and 21, pp. 9 and 10.)

PHOTO-ENGRAVING, NOT DONE IN PRINTING ESTABLISHMENTS

[A preliminary report for this industry was issued under date of March 11, 1929]

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.

TABLE 1.—SUMMARY FOR THE UNITED STATES: 1919 TO 1927

[Data for establishments with products under $5,000 in value included for 1919 but not for subsequent years. See sec. 10, p. 6]

YEAR OR PERIOD	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, supplies, fuel, and power	Value of products [1]	Value added by manufacture [2]	Horsepower
1927	611	11,033	$28,381,480	$10,790,128	$69,207,376	$58,417,248	9,366
1925	577	9,868	24,320,884	8,392,623	58,640,247	50,247,624	6,735
1923	450	8,521	18,668,866	6,606,207	43,660,021	37,053,814	5,786
1921	421	6,971	15,046,323	5,928,493	36,215,570	30,287,077	(3)
1919	422	6,769	10,423,541	5,038,382	29,389,386	24,351,004	3,800
	PER CENT OF INCREASE						
1925–1927	5.9	11.8	16.7	28.6	18.0	16.3	39.1
1923–1925	28.2	15.8	30.3	27.0	34.3	35.6	16.4
1923–1927	35.8	29.5	52.0	63.3	58.5	57.6	61.9
1919–1927	44.8	63.0	172.2	114.1	135.5	139.9	146.5

[1] Values of miscellaneous products, normally belonging to other industries, made as secondary products by establishments engaged primarily in photo-engraving, included as follows: 1927, $2,156,886; 1925, $1,743,631; corresponding amounts for earlier years not available. The following values of photo-engraving reported by establishments engaged primarily in other industries are not included: Printing and publishing establishments—1927, $4,045,121; 1925, $3,563,633; 1923, $3,853,473; no comparable data for 1921 and 1919; establishments other than printing and publishing—1927, $355,354; 1925, $882,457; 1923, $716,265; 1921, $641,384; 1919, $298,067.

[2] Value of products less cost of materials, supplies, fuel, and power. (See secs. 18 and 21, pp. 9 and 10.)

[3] Not called for on schedule.

TABLE 2.—GENERAL STATISTICS, BY STATES: 1927

[This table presents statistics for all States for which separate figures can be given without disclosing data reported by individual establishments. Certain of the "Other States," however, reported larger values of products than some of the States shown separately]

STATE	Number of establishments	PERSONS ENGAGED IN THE INDUSTRY				Horsepower
		Total	Proprietors and firm members	Salaried officers and employees	Wage earners (average for the year)	
United States	611	15,014	288	3,693	11,033	9,366
Alabama	4	39	2	12	25	18
California	50	695	59	184	452	648
Colorado	7	111	6	35	70	89
Connecticut	14	215	3	60	152	91
District of Columbia	6	107	4	29	74	40
Florida	9	60	4	20	36	125
Georgia	9	160	5	35	120	82
Illinois	53	2,278	11	618	1,649	2,051
Indiana	12	405	10	107	288	373
Iowa	6	94	4	26	64	72
Kentucky	5	128	1	29	98	159
Louisiana	4	39	2	8	29	18
Maine	5	28	6	4	18	36
Maryland	7	164	-------	33	131	131
Massachusetts	42	978	19	287	672	335
Michigan	24	764	12	176	576	400
Minnesota	14	464	-------	113	351	246
Missouri	23	568	6	181	381	256
Nebraska	6	54	3	18	33	40
New Jersey	6	95	3	24	68	111
New York	116	3,991	33	774	3,184	1,941
North Carolina	6	45	3	9	33	21
Ohio	47	1,136	11	288	837	747
Oklahoma	4	41	1	11	29	96
Oregon	8	90	4	24	62	97
Pennsylvania	42	1,183	21	296	866	477
Tennessee	9	121	6	27	88	109
Texas	15	194	12	64	118	131
Utah	3	13	3	1	9	16
Virginia	5	74	1	19	54	23
Washington	14	113	8	42	63	99
West Virginia	3	18	1	6	11	18
Wisconsin	17	381	11	89	281	143
Other States [1]	16	168	13	44	111	127

[1] See footnotes at end of table.

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

[See note at head of this table, p. 639.]

STATE	Salaries	Wages	Cost of materials, supplies, fuel, and power		Value of products [2]	Value added by manufacture [3]
			Materials and supplies	Fuel and power		
United States	$11,939,351	$28,381,480	$10,012,144	$777,984	$69,207,376	$58,417,248
Alabama	25,366	60,173	19,661	1,286	121,097	100,150
California	491,070	1,238,392	387,273	31,622	3,208,175	2,789,280
Colorado	106,054	123,449	65,319	5,928	390,005	318,758
Connecticut	221,632	334,270	108,509	10,369	977,394	858,516
District of Columbia	80,491	213,059	47,865	4,604	415,361	362,892
Florida	36,153	93,506	23,772	4,087	203,725	175,866
Georgia	79,900	249,171	155,814	9,465	679,606	514,327
Illinois	2,344,131	4,544,447	2,031,652	95,967	11,689,330	9,561,711
Indiana	252,641	712,687	201,065	15,302	1,523,008	1,306,641
Iowa	75,764	162,808	34,055	3,868	401,196	363,273
Kentucky	63,932	160,669	206,999	8,396	531,755	316,360
Louisiana	11,912	69,437	20,664	2,904	154,631	131,063
Maine	2,855	32,635	12,992	1,558	89,841	75,291
Maryland	87,546	300,743	121,221	12,908	800,843	666,714
Massachusetts	772,617	1,407,282	444,771	37,549	3,591,989	3,109,669
Michigan	622,544	1,278,011	420,710	41,540	3,464,534	3,002,284
Minnesota	253,041	656,890	281,468	19,930	2,082,585	1,781,187
Missouri	505,551	962,243	543,324	20,009	2,620,093	2,056,760
Nebraska	43,138	90,202	49,080	2,395	224,279	172,804
New Jersey	58,262	221,914	72,986	7,987	414,003	333,030
New York	2,895,842	8,988,068	2,930,040	256,180	20,023,765	16,837,545
North Carolina	20,759	77,980	21,090	3,034	165,297	141,173
Ohio	941,199	2,107,300	479,503	54,287	5,053,748	4,519,958
Oklahoma	30,543	75,362	28,092	3,792	259,037	227,153
Oregon	101,693	111,470	46,747	4,822	363,187	311,618
Pennsylvania	1,033,615	2,336,937	745,795	56,470	5,412,538	4,610,273
Tennessee	77,505	206,650	52,232	9,824	494,934	432,878
Texas	130,570	343,163	100,112	11,490	884,985	773,383
Utah	2,600	11,788	4,266	1,507	42,451	36,678
Virginia	50,955	129,185	36,850	4,178	287,802	246,774
Washington	106,707	170,739	65,688	5,370	475,275	404,217
West Virginia	11,720	15,399	5,106	780	46,380	40,494
Wisconsin	308,554	650,633	172,381	14,860	1,503,777	1,316,536
Other States [1]	92,489	244,818	75,042	13,716	610,750	521,992

[1] Arizona, 1 establishment; Arkansas, 2; Delaware, 1; Kansas, 3; Montana, 2; North Dakota, 1; Rhode Island, 4; South Carolina, 1; South Dakota, 1.
[2] See footnote 1, Table 1, p. 638.
[3] Value of products less cost of materials, supplies, fuel, and power. (See secs. 18 and 21, pp. 9 and 10.)

PRINTING MATERIALS, NOT INCLUDING TYPE OR PRINTING INK

[A preliminary report for this industry was issued under date of October 15, 1928][1]

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, printer's rollers, blocks, plate hooks, and locking devices.

TABLE 1.—SUMMARY FOR THE UNITED STATES: 1919 TO 1927

[Data for establishments with products under $5,000 in value included for 1919 but not for subsequent years. See sec. 10, p. 6]

YEAR OR PERIOD	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, supplies, fuel, and power	Value of products [1]	Value added by manufacture [2]	Horsepower
1927	70	882	$1,402,256	$2,034,348	$7,022,343	$4,987,995	2,339
1925	71	888	1,378,748	1,786,570	6,525,379	4,738,809	1,981
1923	68	560	843,963	1,162,531	4,805,648	3,643,117	1,062
1921	74	816	1,153,276	1,713,736	5,319,261	3,605,525	(3)
1919	82	723	799,402	1,619,718	4,918,799	3,299,081	1,351
	PER CENT OF INCREASE OR DECREASE (—)						
1925–1927	(4)	—0.7	1.7	13.9	7.6	5.3	18.1
1923–1925	(4)	58.6	63.4	53.7	35.8	30.1	86.5
1923–1927	(4)	57.5	66.2	75.0	46.1	36.9	120.2
1919–1927	(4)	22.0	75.4	25.6	42.8	51.2	73.1

[1] Values of miscellaneous products, normally belonging to other industries, made as secondary products by establishments engaged primarily in the manufacture of printing materials, included as follows: 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: 1927, $505,385; 1925, $109,386; 1923, $373,498; 1921, $61,906; 1919, $159,700.

[2] Value of products less cost of materials, supplies, fuel, and power. (See secs. 18 and 21, pp. 9 and 10.)

[3] Not called for on schedule.

[4] Per cent not computed where base is less than 100.

TABLE 2.—GENERAL STATISTICS, BY STATES: 1927

[This table presents statistics for all States for which separate figures can be given without disclosing data reported by individual establishments. Certain of the "Other States," however, reported larger values of products than some of the States shown separately]

STATE	Number of establishments	PERSONS ENGAGED IN THE INDUSTRY				Horsepower
		Total	Proprietors and firm members	Salaried officers and employees	Wage earners (average for the year)	
United States	70	1,181	27	272	882	2,339
Illinois	12	510	5	106	399	986
Massachusetts	4	49	--------	12	37	52
Minnesota	3	14	--------	5	9	12
New York	18	283	7	71	205	442
Ohio	6	41	5	12	24	77
Pennsylvania	5	85	--------	20	65	85
Other States [1]	22	199	10	46	143	685

STATE	Salaries	Wages	Cost of materials, supplies, fuel, and power		Value of products [2]	Value added by manufacture [3]
			Materials and supplies	Fuel and power		
United States	$867,738	$1,402,256	$1,912,182	$122,166	$7,022,343	$4,987,995
Illinois	336,117	638,241	816,112	54,218	2,736,110	1,865,780
Masachusetts	58,807	56,625	65,130	2,812	286,236	218,294
Minnesota	15,265	12,176	19,424	1,167	66,775	46,184
New York	208,596	330,388	400,577	26,622	1,493,343	1,066,144
Ohio	33,181	45,125	71,336	4,664	313,523	237,523
Pennsylvania	64,479	95,603	212,385	7,462	868,881	649,043
Other States [1]	151,293	224,098	327,218	25,221	1,257,475	905,036

[1] California, 1 establishment; Colorado, 1; District of Columbia, 1; Georgia, 2; Indiana, 1; Iowa, 1; Louisiana, 1; Maryland, 2; Michigan, 3; Missouri, 3; New Jersey, 3; Texas, 2; Wisconsin, 1.

[2] See footnote 1, Table 1, p. 641.

[3] Value of products less cost of materials, supplies, fuel, and power. (See secs. 18 and 21, pp. 9 and 10.)

STEREOTYPING AND ELECTROTYPING, NOT DONE IN PRINTING ESTABLISHMENTS

[A preliminary report for this industry was issued under date of December 28, 1928]

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.

TABLE 1.—SUMMARY FOR THE UNITED STATES: 1919 TO 1927

[Data for establishments with products under $5,000 in value included for 1919 but not for subsequent years. See sec. 10, p. 6]

YEAR OR PERIOD	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, supplies, fuel, and power	Value of products [1]	Value added by manufacture [2]	Horsepower
1927	197	4,502	$10,272,775	$4,676,853	$25,549,214	$20,872,361	16,888
1925	193	4,283	9,206,642	4,280,244	22,361,187	18,080,943	13,774
1923	179	4,096	8,333,721	3,805,550	20,596,208	16,790,658	12,313
1921	157	3,617	7,081,705	3,745,595	17,358,994	13,613,399	(3)
1919	171	3,664	5,002,545	4,234,479	15,919,014	11,684,535	9,498
	PER CENT OF INCREASE						
1925–1927	2.1	5.1	11.6	9.3	14.3	15.4	22.6
1923–1925	7.8	4.6	10.5	12.5	8.6	7.7	11.9
1923–1927	10.1	9.9	23.3	22.9	24.0	24.3	37.2
1919–1927	15.2	22.9	105.4	10.4	60.5	78.6	77.8

[1] Values of miscellaneous products, normally belonging to other industries, made as secondary products by establishments engaged primarily in stereotyping and electrotyping, included as follows: 1927, $677,020; 1925, $887,333; corresponding amounts for earlier years not available. The following values of stereotyping and electrotyping done by establishments engaged primarily in other industries are not included: Printing and publishing establishments—1927, $4,694,179; 1925, $4,794,278; establishments other than printing and publishing—1927, $1,054,674; 1925, $768,662. No comparable data for earlier years.

[2] Value of products less cost of materials, supplies, fuel, and power. (See secs. 18 and 21, pp. 9 and 10.)

[3] Not called for on schedule.

TABLE 2.—GENERAL STATISTICS, BY STATES: 1927

[This table presents statistics for all States for which separate figures can be given without disclosing data reported by individual establishments. Certain of the "Other States," however, reported larger values of products than some of the States shown separately]

STATE	Number of establishments	PERSONS ENGAGED IN THE INDUSTRY				Horsepower
		Total	Proprietors and firm members	Salaried officers and employees	Wage earners (average for the year)	
United States	197	5,722	80	1,140	4,502	16,888
California	5	153	6	23	124	343
Connecticut	6	125	4	25	96	265
Illinois	30	1,064	7	234	823	2,706
Indiana	4	78	-------	13	65	368
Maryland	4	72	-------	24	48	171
Massachusetts	14	327	7	49	271	1,046
Michigan	9	409	5	92	312	1,048
Minnesota	5	66	5	10	51	322
Missouri	7	208	2	38	168	512
New Jersey	5	101	4	21	76	326
New York	41	1,510	9	309	1,192	4,918
Ohio	25	686	9	106	571	2,293
Pennsylvania	16	597	7	124	466	1,466
Washington	4	29	3	12	14	133
Wisconsin	4	77	1	17	59	261
Other States [1]	18	220	11	43	166	710

STATE	Salaries	Wages	Cost of materials, supplies, fuel, and power		Value of products [2]	Value added by manufacture [3]
			Materials and supplies	Fuel and power		
United States	$3,430,110	$10,272,775	$3,973,797	$703,056	$25,549,214	$20,872,361
California	85,367	260,575	56,269	11,969	656,794	588,556
Connecticut	71,645	158,825	55,067	11,764	408,277	341,446
Illinois	731,967	2,077,395	589,795	101,740	4,662,202	3,970,667
Indiana	43,607	110,409	49,647	7,470	278,063	220,946
Maryland	71,425	79,770	22,479	5,635	293,478	265,364
Massachusetts	155,543	485,539	172,382	35,049	1,165,244	957,813
Michigan	262,969	743,261	315,046	43,590	1,886,501	1,527,865
Minnesota	34,560	111,098	34,887	8,615	303,074	259,572
Missouri	126,093	332,500	113,419	15,408	766,118	637,291
New Jersey	54,864	197,948	66,311	15,135	472,518	391,072
New York	954,010	2,885,768	1,204,765	259,064	7,216,840	5,753,011
Ohio	325,208	1,174,772	726,063	86,699	3,183,706	2,370,944
Pennsylvania	301,784	1,144,355	372,474	64,310	2,878,260	2,441,476
Washington	36,498	32,408	10,594	3,076	132,015	118,345
Wisconsin	74,379	117,175	46,963	9,132	323,741	267,646
Other States [1]	100,191	360,977	137,636	24,400	922,383	760,347

[1] District of Columbia, 2 establishments; Florida, 1; Iowa, 2; Kentucky, 1; Louisiana, 1; Maine, 1; Nebraska, 1; Oregon, 2; Rhode Island, 1; Tennessee, 2; Texas, 2; Virginia, 2.
[2] See footnote 1, Table 1, p. 643.
[3] Value of products less cost of materials, supplies, fuel, and power. (See secs. 18 and 21, pp. 9 and 10.)

TYPE FOUNDING

[A preliminary report for this industry was issued under date of August 8, 1928]

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

TABLE 1.—SUMMARY FOR THE UNITED STATES: 1919 TO 1927

[Data for establishments with products under $5,000 in value included for 1919 but not for subsequent years. See sec. 10, p. 6]

YEAR OR PERIOD	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, supplies, fuel, and power	Value of products	Value added by manufacture [1]	Horsepower
1927	19	525	$658,381	$749,085	$2,683,704	$1,934,619	1,230
1925	18	537	603,163	705,416	2,450,503	1,745,087	1,236
1923	18	606	646,386	709,468	2,512,328	1,802,860	1,438
1921	18	608	634,131	696,256	2,129,636	1,433,380	(2)
1919	23	810	867,517	943,245	2,089,757	1,146,512	845
	PER CENT OF INCREASE OR DECREASE (—)						
1925-1927	(3)	—2.2	9.1	6.2	9.5	10.9	—0.5
1923-1925	(3)	—11.4	—6.7	—.6	—2.5	—3.2	—14.0
1923-1927	(3)	—13.4	1.9	5.6	6.8	7.3	—14.5
1919-1927	(3)	—35.2	—24.1	—20.6	28.4	68.7	45.6

[1] Value of products less cost of materials, supplies, fuel, and power. (See secs. 18 and 21, pp. 9 and 10.)
[2] Not called for on schedule.
[3] Per cent not computed where base is less than 100.

TABLE 2.—GENERAL STATISTICS, BY STATES: 1927

[This table presents statistics for all States for which separate figures can be given without disclosing data reported by individual establishments. Certain of the "Other States," however, reported larger values of products than some of the States shown separately]

STATE	Number of establishments	PERSONS ENGAGED IN THE INDUSTRY				Horsepower
		Total	Proprietors and firm members	Salaried officers and employees	Wage earners (average for the year)	
United States	19	611	11	75	525	1,230
Illinois	4	23	2	5	16	17
New York	5	96	4	25	67	172
Pennsylvania	3	20	1	1	18	15
Other States [1]	7	472	4	44	424	1,026

STATE	Salaries	Wages	Cost of materials, supplies, fuel, and power		Value of products	Value added by manufacture [2]
			Materials and supplies	Fuel and power		
United States	$180,426	$658,381	$697,825	$51,260	$2,683,704	$1,934,619
Illinois	14,525	30,340	17,454	1,388	78,640	59,798
New York	35,853	93,728	114,778	6,007	284,959	164,174
Pennsylvania	3,120	21,985	3,722	1,218	40,555	35,615
Other States [1]	126,928	512,328	561,871	42,647	2,279,550	1,675,032

[1] California, 1 establishment; Kansas, 1; Maryland, 1; Massachusetts, 1; Missouri, 1; New Jersey, 1; Oregon, 1.

[2] Value of products less cost of materials, supplies, fuel, and power. (See secs. 18 and 21, pp. 9 and 10.)

Group 6.—CHEMICALS AND ALLIED PRODUCTS

THE GROUP AS A WHOLE

This group 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.

This group does not embrace all the industries included in the group having the same title, as constituted at former censuses, the "Coke, not including gas-house coke," "Gas, manufactured, illuminating and heating," "Lubricating greases, not made in petroleum refineries," and "Petroleum refining" industries having been withdrawn and included in Group 7—Products of petroleum and coal.

The manufacture of compressed and liquefied gases, formerly included in the "Chemicals, not elsewhere classified" industry, is now treated as a separate industry.

The table on page 648 gives summary statistics for the Chemicals group as a whole and for the subgroups, "Chemicals and allied products, other than animal, vegetable, and compounded oils" and "Animal, vegetable, and compounded oils." On pages 651 to 734 are presented detailed reports for those industries in Group 6 for which statistics have been published separately in pamphlet form. Following these reports are summary statistics for the 15 industries in the group for which separate reports have not been prepared, together with brief descriptions of these industries or lists of their principal products.

Summary for Group 6.—Chemicals and Allied Products: 1921 to 1927

[See "Regrouping of industries and renumbering of groups," p. 19]

[This group formerly included four industries now assigned to Group 7, namely: "Gas, manufactured, illuminating and heating"; "Coke, not including gas-house coke"; "Lubricating greases, not made in petroleum refineries"; "Petroleum refining"]

INDUSTRY	Census year	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, supplies, containers for products, fuel, and power	Value of products	Value added by manufacture	Horsepower
				Expressed in thousands of dollars [1]				
Total	1927	7,541	253,436	317,908	1,803,085	3,351,892	1,548,808	1,848,309
	1925	7,282	244,812	296,526	1,830,592	3,211,230	1,380,639	1,748,481
	1923	7,197	246,527	288,834	1,702,944	2,933,562	1,230,617	1,654,228
	1921	7,348	199,596	224,333	1,352,904	2,225,917	873,013	(2)
Chemicals and allied products, other than animal, vegetable, and compounded oils.	1927	6,760	228,674	294,090	1,409,190	2,855,979	1,446,789	1,528,092
	1925	6,509	222,112	275,579	1,374,950	2,651,375	1,276,425	1,464,454
	1923	6,424	226,710	271,444	1,316,282	2,472,610	1,156,328	1,388,993
	1921	6,438	177,525	204,712	1,022,489	1,840,964	818,475	(2)
Alcohol, ethyl	1927	28	1,180	1,705	19,310	33,971	14,661	7,261
	1925	31	1,395	1,838	38,564	57,706	19,141	10,268
	1923	30	1,062	1,474	17,770	33,000	15,230	8,129
	1921	33	1,141	1,627	22,269	28,789	6,520	(2)
Ammunition and related products.	1927	20	7,602	8,266	20,945	45,602	24,657	17,175
	1925	27	7,777	7,987	22,820	41,707	18,887	23,316
	1923	27	10,470	10,817	27,742	51,509	23,767	23,172
	1921	28	8,370	7,896	16,006	32,350	16,344	(2)
Baking powders, yeast, and other leavening compounds.	1927	47	3,032	4,794	24,619	85,151	60,531	42,816
	1925	49	2,931	4,063	23,376	74,593	51,217	36,633
	1923	57	3,507	4,920	21,657	51,691	30,035	35,845
	1921	62	3,557	4,479	24,666	52,886	28,220	(2)
Blacking, stains, and dressings.	1927	176	1,716	2,181	9,186	22,548	13,363	4,005
	1925	171	1,869	2,164	9,733	25,055	15,322	2,659
	1923	175	2,165	2,170	10,253	25,822	15,569	2,792
	1921	173	1,666	1,522	9,362	18,453	9,091	(2)
Bluing	1927	20	155	151	594	1,674	1,080	363
	1925	23	176	185	1,017	2,167	1,150	366
	1923	25	188	188	800	1,643	843	296
	1921	33	226	203	1,018	1,883	866	(2)
Bone black, carbon black, and lampblack.	1927	67	1,553	2,047	6,571	14,262	7,691	8,065
	1925	66	1,505	1,722	5,655	14,565	8,910	7,289
	1923	68	1,303	1,461	5,295	14,600	9,305	5,567
	1921	45	826	980	3,745	8,181	4,436	(2)
Candles	1927	17	709	761	2,959	6,351	3,392	996
	1925	20	626	673	2,786	5,114	2,328	922
	1923	21	746	754	2,393	5,080	2,687	912
	1921	20	609	590	2,091	3,777	1,686	(2)
Chemicals, not elsewhere classified.[3]	1927	457	50,510	75,261	284,795	548,536	263,741	552,410
	1925	715	55,694	80,435	271,646	547,003	275,357	[4] 524,677
	1923	736	74,897	99,845	316,901	630,870	313,969	[4] 572,892
	1921	692	46,306	58,024	190,502	390,768	200,266	(2)
Cleaning and polishing preparations.	1927	341	2,403	2,988	15,220	41,234	26,015	8,485
	1925	299	2,161	2,660	12,707	34,020	21,313	6,279
	1923	298	2,376	2,746	13,600	35,443	21,843	6,698
	1921	279	1,687	1,885	10,959	23,178	12,219	(2)
Compressed and liquefied gases.[3]	1927	313	3,212	4,948	11,749	50,547	38,799	70,489
Drug grinding	1927	25	659	820	5,684	9,205	3,522	4,662
	1925	22	622	710	4,921	8,446	3,525	4,389
	1923	24	750	893	6,555	10,562	4,006	4,958
	1921	28	840	1,005	6,804	10,086	3,281	(2)

See footnotes at end of table.

SUMMARY FOR GROUP 6.—CHEMICALS AND ALLIED PRODUCTS: 1921 TO 1927—Con.

[See notes at head of this summary]

INDUSTRY	Census year	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, supplies, containers for products, fuel, and power	Value of products	Value added by manufacture	Horsepower
				Expressed in thousands of dollars [1]				
Chemicals, etc.—Con.								
Druggists' preparations	1927	373	10,138	11,942	40,499	110,309	69,810	15,919
	1925	370	9,685	11,078	36,064	95,420	59,356	12,553
	1923	389	8,966	9,186	33,364	79,143	45,779	11,255
	1921	408	10,838	11,937	34,574	81,698	47,124	(2)
Explosives	1927	100	5,803	8,131	36,894	72,490	35,596	38,239
	1925	103	5,697	7,731	37,877	69,669	31,791	37,808
	1923	106	6,388	9,112	39,496	75,029	35,533	35,231
	1921	109	4,478	6,610	30,644	59,175	28,530	(2)
Fertilizers	1927	621	18,612	17,650	138,143	190,385	52,242	156,274
	1925	587	19,644	17,743	137,808	206,773	68,965	152,193
	1923	573	18,572	16,365	127,980	183,089	55,108	161,774
	1921	588	16,898	16,026	144,978	180,375	35,397	(2)
Fireworks	1927	36	1,564	1,395	2,624	5,885	3,261	1,300
	1925	41	1,446	1,429	2,399	6,031	3,632	1,148
	1923	38	1,224	1,156	1,831	4,977	3,146	941
	1921	37	1,229	1,116	1,917	4,727	2,810	(2)
Glue and gelatin	1927	61	3,226	4,524	19,222	31,196	11,973	24,763
	1925	55	3,325	3,976	15,338	25,764	10,426	22,807
	1923	50	3,651	4,076	14,591	24,366	9,775	24,708
	1921	47	2,915	3,573	13,402	21,342	7,940	(2)
Grease and tallow, not including lubricating greases.	1927	247	5,052	7,403	38,272	56,280	18,008	34,069
	1925	263	5,303	7,508	33,713	51,442	17,729	30,840
	1923	254	5,248	7,004	31,275	48,634	17,359	25,275
	1921	265	4,428	5,429	17,787	27,206	9,419	(2)
Ink, printing	1927	123	2,288	3,665	16,054	37,734	21,680	18,901
	1925	109	2,150	3,346	16,253	34,753	18,501	17,041
	1923	99	1,975	2,859	14,779	29,412	14,633	14,703
	1921	97	1,676	2,470	10,644	20,869	10,225	(2)
Ink, writing	1927	24	491	576	2,209	5,342	3,133	743
	1925	28	524	596	2,424	6,084	3,660	700
	1923	31	578	635	2,653	6,107	3,454	695
	1921	33	504	546	2,062	4,980	2,918	(2)
Liquors, vinous	1927	13	150	177	1,206	2,693	1,487	999
	1925	27	265	262	1,765	3,436	1,671	1,499
	1923	38	515	524	2,959	5,831	2,872	2,935
	1921	72	415	417	1,693	4,757	3,065	(2)
Mucilage, paste, and other adhesives, not elsewhere classified.	1927	80	502	679	4,270	7,945	3,675	2,219
	[5] 1925	84	561	766	5,563	9,853	4,291	2,574
	1923	101	663	883	5,976	10,621	4,645	3,204
	1921	98	757	970	5,015	9,930	4,914	(2)
Paints and varnishes	1927	1,006	28,061	40,185	307,724	519,010	211,285	163,187
	1925	923	25,490	35,420	293,943	470,736	176,793	143,111
	1923	826	22,818	29,871	248,955	404,134	155,180	114,281
	1921	804	18,015	23,293	171,398	274,310	102,912	(2)
Patent and proprietary medicines and compounds.	1927	1,282	15,071	16,667	84,641	278,243	193,602	34,082
	1925	1,279	14,802	15,592	84,790	247,564	162,774	33,840
	1923	1,363	17,353	16,915	88,802	237,494	148,692	29,998
	1921	1,436	13,800	13,684	69,571	175,898	106,327	(2)
Perfumes, cosmetics, and other toilet preparations.	1927	705	10,463	10,965	52,765	161,246	108,480	10,431
	1925	594	8,714	8,537	46,933	129,510	82,578	7,381
	1923	465	7,761	7,102	37,636	100,241	62,605	6,502
	1921	422	5,838	5,358	28,013	72,541	44,528	(2)
Rayon [6]	1927	19	26,341	28,649	25,748	109,888	84,141	122,406
	1925	14	19,128	22,976	18,478	88,061	69,583	66,966

See footnotes at end of table.

SUMMARY FOR GROUP 6.—CHEMICALS AND ALLIED PRODUCTS: 1921 TO 1927—Con.

[See notes at head of this summary]

INDUSTRY	Census year	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, supplies, containers for products, fuel, and power	Value of products	Value added by manufacture	Horsepower
				Expressed in thousands of dollars [1]				
Chemicals, etc.—Con.								
Salt	1927	58	5,961	7,117	14,664	34,329	19,665	55,928
	1925	70	6,308	7,261	13,849	34,253	20,404	54,647
	1923	75	6,809	8,129	16,477	36,837	20,361	58,101
	1921	79	5,993	7,148	16,407	33,159	16,751	(2)
Soap	1927	256	13,432	19,716	172,244	287,060	114,816	62,025
	1925	272	15,406	18,526	184,874	278,273	93,400	56,697
	1923	270	17,002	20,776	173,546	276,403	102,857	74,820
	1921	283	16,558	18,865	150,356	240,195	89,839	(2)
Sulphuric, nitric, and mixed acids.	1927	35	1,837	3,014	11,882	23,555	11,672	23,875
	1925	36	2,196	3,103	11,066	23,307	12,241	22,120
	1923	37	2,357	3,456	11,695	24,405	12,709	19,131
	1921	36	2,832	4,137	9,770	21,463	11,693	(2)
Tanning materials, natural dyestuffs, mordants and assistants, and sizes.	1927	122	2,414	2,971	23,074	35,677	12,603	29,172
	1925	125	2,495	2,987	22,763	34,784	12,021	32,634
	1293	125	3,243	3,801	24,033	35,972	11,939	32,833
	1921	123	2,993	3,008	20,106	28,311	8,205	(2)
Wood distillation and charcoal manufacture.	1927	88	4,537	4,739	15,423	27,630	12,208	16,833
	1925	106	4,217	4,305	15,824	25,283	9,459	17,907
	1923	123	4,123	4,325	17,269	29,695	12,426	14,910
	1921	108	2,130	1,914	6,728	9,678	2,950	(2)
Animal, vegetable, and compounded oils.	1927	781	24,762	23,818	393,895	495,913	102,018	320,217
	1925	773	22,700	20,946	455,642	559,856	104,214	284,027
	1923	773	19,817	17,390	386,662	460,951	74,290	265,235
	1921	910	22,071	19,621	330,416	384,954	54,538	(2)
Oil, cake, and meal, cottonseed.	1927	547	18,434	14,259	220,038	276,338	56,300	270,500
	1925	535	16,215	11,412	244,315	295,685	51,369	239,005
	1923	511	12,745	7,908	197,515	226,388	28,873	223,742
	1921	610	16,163	12,340	194,864	217,225	22,361	(2)
Oil, cake, and meal, linseed.	1927	33	2,718	4,325	97,750	111,544	13,793	28,273
	1925	33	2,692	4,290	121,762	140,514	18,751	25,869
	1923	34	2,631	3,784	102,690	113,221	10,532	21,674
	1921	28	2,073	3,019	58,452	71,032	12,580	(2)
Oils, essential	1927	14	169	258	3,427	4,642	1,215	758
	1925	14	178	281	4,363	5,882	1,519	[4] 1,164
	1923	17	170	237	2,256	3,184	928	1,388
	1921	27	299	364	2,548	3,422	873	(2)
Oils, not elsewhere classified.	1927	187	3,441	4,977	72,678	103,388	30,710	20,686
	1925	191	3,615	4,963	85,202	117,776	32,574	17,989
	1923	211	4,271	5,460	84,201	118,158	33,957	18,431
	1921	245	3,536	3,898	74,550	93,275	18,724	(2)

[1] Each total is the sum, expressed to the nearest thousand, of the individual items expressed in units. For this reason the totals in some cases may differ slightly from the sums of the items as here given.
[2] Not called for on schedule.
[3] See note 6.
[4] Revised; revision not carried into total or subtotals.
[5] These figures differ from those published in the report for 1925 because of a change in the classification of certain establishments manufacturing rubber cement as their principal product. At the census for 1927 such establishments were classified in the "Rubber goods, other than tires, inner tubes, and boots and shoes" industry, but for 1925 and prior years they were classified in the "Mucilage, paste, and other adhesives" industry. The figures for 1925 have been adjusted by the exclusion of the data for such establishments, but no corresponding adjustment has been made in the statistics for 1923 and 1921.
[6] "Rayon" included in "Chemicals, not elsewhere classified," for 1923 and prior years; "Compressed and liquefied gases" included in "Chemicals, etc.," for 1925 and prior years.

AMMUNITION AND RELATED PRODUCTS

[A preliminary report for this industry was issued under date of October 31, 1928]

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. (Government establishments were canvassed at the census for 1919, but the statistics relating to them were presented separately from those for commercial plants.)

State statistics.—In order to avoid disclosing operations of individual establishments, it is necessary to withhold from publication the statistics by States.

TABLE 1.—SUMMARY FOR THE UNITED STATES: 1919 TO 1927

[Data for establishments with products under $5,000 in value included for 1919 but not for subsequent years. See sec. 10, p. 6]

YEAR OR PERIOD	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, supplies, fuel, and power	Value of products	Value added by manufacture [1]	Horsepower
1927	[2] 20	7,602	$8,265,963	$20,945,130	$45,602,184	$24,657,054	17,175
1925	27	7,777	7,986,834	22,819,987	41,707,396	18,887,409	23,316
1923	27	10,470	10,816,647	27,741,517	51,508,622	23,767,105	23,172
1921	28	8,370	7,896,382	16,006,385	32,350,445	16,344,060	([3])
1919	42	22,816	23,587,692	38,101,602	88,038,223	49,936,621	39,128
	PER CENT OF INCREASE OR DECREASE (—)						
1925–1927	([4])	—2.3	3.5	—8.2	9.3	30.5	—26.3
1923–1925	([4])	—25.7	—26.2	—17.7	—19.0	—20.5	.6
1923–1927	([4])	—27.4	—23.6	—24.5	—11.5	3.7	—25.9
1919–1927	([4])	—66.7	—65.0	—45.0	—48.2	—50.6	—56.1

[1] Value of products less cost of materials, supplies, fuel, and power. (See secs. 18 and 21, pp. 9 and 10.)
[2] California, 2 establishments; Colorado, 1; Connecticut, 3; Illinois, 1; Indiana, 1; Massachusetts, 1; Michigan, 1; Minnesota, 2; New Jersey, 2; New York, 1; Ohio, 2; Pennsylvania, 3.
[3] Not called for on schedule.
[4] Per cent not computed where base is less than 100.

TABLE 2.—PRIME MOVERS, MOTORS, AND GENERATORS, BY TYP AND RATED CAPACITY, FOR THE UNITED STATES: 1927, 1925,

TYPE	1927		1925		
	Number	Capacity	Number	Capacity	Nu
		Horse-power		*Horse-power*	
Prime movers, total	1,055	17,175	1,125	23,316	1
Steam engines	4	1,480	36	4,259	}
Steam turbines	9	7,843	24	8,376	
Internal-combustion engines	1	5	6	1,468	
Water wheels and turbines	3	125	3	125	
Electric motors driven by purchased current	1,038	7,722	1,056	9,088	1,
Electric motors, total	2,588	15,291	3,324	17,593	2,
Driven by purchased current	1,038	7,722	1,056	9,088	1,
Driven by current generated in establishment reporting	1,550	7,569	2,268	8,505	1,
		Kilowatts		*Kilowatts*	
Electric generators	12	6,164	15	6,085	(1

[1] Not called for on schedule.

TABLE 3.—PRODUCTS, BY CLASS AND VALUE, FOR THE UNITED ST TO 1927

	1927	1925	1923
1. Ammunition and related products industry, all products, total value	$45,602,184	$41,707,396	$51,508,622
2. Ammunition and related products	41,230,365	39,264,274	46,712,713
3. Other products (not normally belonging to the industry) [1]	4,371,819	2,443,122	4,795,909
4. Ammunition and related products made as secondary products in other industries, value	2,233,308	1,862,147	784,032
Ammunition and related products, all industries: Aggregate value (sum of 2 and 4)	43,463,673	41,126,421	47,496,745
Ammunition, total value	30,934,182	29,530,904	36,621,542
Paper shells, loaded—			
Number of establishments	5	8	8
Value	$19,197,637	$18,874,408	$25,850,963
Cartridges—			
Number of establishments	5	7	7
Total value	$10,569,588	$8,623,181	$9,645,196
Rifle	$7,789,757	$4,376,911	
Revolver and pistol	[3] $2,779,831	[4] $4,246,270	(5)
Other, value [6]	$1,166,957	$2,033,315	$1,125,383
Blasting and detonating caps—			
Number of establishments		7	5
Value		$5,814,641	$5,126,229
Railroad torpedoes—			
Number of establishments	9	4	4
Value	$7,302,662	$375,486	$517,985
Safety fuses, miners' squibs, etc.—			
Number of establishments	11	13	11
Value	$5,226,829	$5,405,390	$5,230,989

[1] Cutlery, tools, blasting accessories, etc.
[2] Reported as paper shells, without specification as to whether loaded.
[3] Value reported for blank cartridges included to avoid disclosing production of individual esta
[4] Includes $73,533 for blank cartridges.
[5] No data.
[6] Empty and blank paper shells, shot, percussion caps and primers, and wads.
[7] Includes $1,656,442 for artillery ammunition.

BONE BLACK, CARBON BLACK, AND LAMPBLACK

[A preliminary report for this industry was issued under date of February 4, 1929]

Description of the industry.—This industry designation covers 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: 1919 TO 1927

[Data for establishments with products under $5,000 in value included for 1919 but not for subsequent years. See sec. 10, p. 6]

YEAR OR PERIOD	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, supplies, containers for products, fuel, and power	Value of products	Value added by manufacture [1]	Horsepower
1927	67	1,553	$2,047,044	$6,571,019	$14,261,775	$7,690,756	8,065
1925	66	1,505	1,721,779	5,654,965	14,564,982	8,910,017	7,289
1923	68	1,303	1,460,868	5,294,567	14,599,872	9,305,305	5,567
1921	45	826	979,845	3,745,146	8,186,844	4,435,698	(2)
1919	35	675	808,332	2,848,059	6,186,204	3,338,145	1,857
	PER CENT OF INCREASE OR DECREASE (—)						
1925–1927	(3)	3.2	18.9	16.2	−2.1	−13.7	10.6
1923–1925	(3)	15.5	17.9	6.8	−.2	−4.2	30.9
1923–1927	(3)	19.2	40.1	24.1	−2.3	−17.4	44.9
1919–1927	(3)	130.1	153.2	130.7	130.5	130.4	334.3

[1] Value of products less cost of materials, supplies, containers for products, fuel, and power. (See secs. 18 and 21, pp. 9 and 10.)
[2] Not called for on schedule.
[3] Per cent not computed where base is less than 100.

TABLE 2.—PRIME MOVERS, MOTORS, AND GENERATORS, BY TYPE, NUMBER, AND RATED CAPACITY, FOR THE UNITED STATES: 1927, 1925, AND 1923

TYPE	1927		1925		1923	
	Number	Capacity	Number	Capacity	Number	Capacity
		Horse-power		*Horse-power*		*Horse-power*
Prime movers, total	353	8,065	263	7,289	203	5,567
Steam engines	137	4,450	122	4,235	84	2,665
Steam turbines	2	50	2	50		
Internal-combustion engines	71	1,853	70	2,172	75	2,290
Electric motors driven by purchased current	143	1,712	69	832	44	612
Electric motors, total	162	1,944	72	844	64	830
Driven by purchased current	143	1,712	69	832	44	612
Driven by current generated in establishment reporting	19	232	3	12	20	218
		Kilowatts		*Kilowatts*		*Kilowatts*
Electric generators	13	502	10	279	(1)	(1)

[1] Not called for on schedule.

TABLE 3.—PRODUCTS, BY KIND, QUANTITY, AND VALUE, FOR THE UNITED STATES: 1921 TO 1927

KIND	1927	1925	1923	1921
1. Bone black, carbon black, and lampblack industry, all products, total value	$14,261,775	$14,564,982	$14,599,872	$8,180,844
2. Bone black, carbon black, and lampblack	12,411,829	10,990,186	13,406,550	7,241,436
3. Other products (not normally belonging to the industry)	1,849,946	3,574,796	1,193,322	939,408
4. Bone black and lampblack made as secondary products in other industries, value	2,106,994	2,624,133	2,160,554	3,144,927
Bone black, carbon black, and lampblack, all industries:				
Total value (sum of 2 and 4)	14,518,823	13,614,319	15,567,104	10,386,363
Carbon black:				
Number of establishments	61	63	63	41
Pounds [1]	198,429,000	177,417,378	138,262,648	59,766,315
Value [1]	$10,955,000	$9,639,585	$11,692,066	$5,445,878
Bone black:				
Number of establishments	8	7	8	9
Pounds	59,359,476	64,135,425	49,724,560	53,141,089
Value	$2,523,582	$2,539,704	$2,417,938	$4,005,845
Lampblack:				
Number of establishments	5	5	4	7
Pounds	8,800,366	12,031,745	11,117,456	6,585,571
Value	$1,040,241	$1,435,030	$1,457,100	$934,640

[1] From reports of the U. S. Bureau of Mines.

TABLE 4.—GENERAL STATISTICS, BY STATES: 1927

[This table presents statistics for all States for which separate figures can be given without disclosing data reported by individual establishments. Certain of the "Other States," however, reported larger values of products than one of the States shown separately]

STATE	Number of establishments	PERSONS ENGAGED IN THE INDUSTRY				Horsepower
		Total	Proprietors and firm members	Salaried officers and employees	Wage earners (average for the year)	
United States:						
The industry	67	1,798	2	243	1,553	8,065
Carbon black [1]	61	1,488	1	200	1,287	6,163
Bone black and lampblack [2]	6	310	1	43	266	1,902
Louisiana (carbon black)	34	917	1	116	800	4,303
Texas (carbon black)	13	333	-------	34	299	1,265
West Virginia (carbon black)	6	84	-------	28	56	215
Other States [3]	14	464	1	65	398	2,282

STATE	Salaries	Wages	Cost of materials, supplies, containers for products, fuel, and power		Value of products	Value added by manufacture [4]
			Materials, supplies, and containers	Fuel and power		
United States:						
The industry	$508,472	$2,047,044	$6,430,578	$140,441	$14,261,775	$7,690,756
Carbon black [1]	373,619	1,676,871	4,922,075	63,532	11,483,686	6,498,079
Bone black and lampblack [2]	134,853	370,173	1,508,503	76,909	2,778,089	1,192,677
Louisiana (carbon black)	195,589	923,558	3,112,662	59,344	7,182,698	4,010,692
Texas (carbon black)	74,598	491,640	1,329,072	4,188	3,312,228	1,978,968
West Virginia (carbon black)	44,199	64,967	164,046	----------	227,944	63,898
Other States [3]	194,086	566,879	1,824,798	76,909	3,538,905	1,637,198

[1] Establishments engaged primarily in the manufacture of carbon black.
[2] Establishments engaged primarily in the manufacture of bone black and lampblack.
[3] California (bone black) 1 establishment, (lampblack) 1; Kentucky (carbon black), 3; Massachusetts (bone black), 1; Montana (carbon black), 2; New Jersey (lampblack), 1; Pennsylvania (lampblack), 2; Utah (carbon black), 1; Wyoming (carbon black), 2.
[4] Value of products less cost of materials, supplies, containers for products, fuel, and power. (See secs. 18 and 21, pp. 9 and 10.)

CHEMICALS, NOT ELSEWHERE CLASSIFIED

[Preliminary statistics for the principal classes of products of this industry were issued on January 15, 1929, and subsequent dates]

Description of the industry.—This industry embraces establishments engaged primarily in the manufacture of products falling within the nine groups for which statistics for 1927 are given in Table 2, page 662. It does not include the production of all classes of chemicals in the broad sense of the term, the principal exceptions being (1) sulphuric, nitric, and mixed acids, (2) explosives, (3) fertilizers, and (4) wood-distillation products. The manufacture of each of these four classes of products is treated as a separate industry.

At the census for 1919 the manufacture of coal-tar products and the manufacture of ferro-alloys (electric-furnace and blast-furnace) were classified as separate industries, but at subsequent censuses coal-tar products and electric-furnace ferro-alloys have been treated as products of the "Chemicals, not el where classified" industry. The statistics for 1919, as given in Table 1, have be revised so as to include data for these products, thus making them comparab with the figures for subsequent years.

Rayon and compressed and liquefied gases.—Statistics for the manufactur of rayon were included with those for the "Chemicals, not elsewhere classified' industry for 1923 and earlier years, and data for the manufacture of compressed and liquefied gases were included for 1925 and earlier years. Because of these changes in classification, the figures for 1925 and earlier years are not comparable with those for 1927, and the figures for 1923 and earlier years are not comparable with those for 1925 or 1927; and accordingly no percentages of increase or decrease are given for "Chemicals, not elsewhere classified," in Table 1, below. Separate statistics for the "Rayon" industry are shown on page 717, and for the "Compressed and liquefied gases" industry on pages 681 to 683.

Detailed statistics of products.—No statistics of quantities or values of individual classes of chemicals manufactured are given in the report for the industry proper (Tables 1–3, pp. 656 to 658), but such statistics will be found in the section "Chemicals—Combined statistics for materials and for products," Tables 2–14, pages 661 to 677.

TABLE 1.—SUMMARY FOR THE UNITED STATES: 1919 TO 1927

[Data for establishments with products under $5,000 in value included for 1919 but not for subsequent years. See sec. 10, p. 6. See also "Rayon and compressed and liquefied gases," above]

YEAR	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, supplies, fuel, and power	Value of products	Value added by manufacture [1]	Horsepower
1927	457	50,510	$75,261,188	$284,794,754	$548,535,935	$263,741,181	552,410
1925	715	55,694	80,434,642	271,646,392	547,003,093	275,356,701	[2] 524,677
1923	736	74,897	99,845,388	316,901,405	630,870,249	313,968,844	[2] 572,892
1921	692	46,306	58,023,943	190,502,119	390,768,434	200,266,315	(3)
1919	797	71,957	97,145,730	285,661,821	582,808,369	297,146,548	449,798

[1] Value of products less cost of materials, supplies, fuel, and power. (See secs. 18 and 21, pp. 9 and 10.)
[2] Revised.
[3] Not called for on schedule.

TABLE 2.—PRIME MOVERS, MOTORS, AND GENERATORS, BY TYPE, NUMBER, AND RATED CAPACITY, FOR THE UNITED STATES: 1927, 1925, AND 1923

[See "Rayon and compressed and liquefied gases," p. 656]

TYPE	1927		1925		1923	
	Number	Capacity	Number	Capacity	Number	Capacity
		Horse-power		*Horse-power*		*Horse-power*
Prime movers, total	18,370	552,410	[1] 16,885	[1] 524,677	[1] 38,529	[1] 572,892
Steam engines	774	114,241	902	134,978	1,275	239,578
Steam turbines	245	190,537	203	138,411		
Internal-combustion engines	44	2,380	59	3,081	59	4,808
Water wheels and turbines	37	26,318	[1] 51	[1] 14,121	[1] 44	[1] 51,099
Electric motors driven by purchased current	17,270	218,934	[1] 15,670	[1] 234,086	[1] 37,151	[1] 277,407
Electric motors, total	30,122	401,293	26,091	382,062	47,588	428,421
Driven by purchased current	17,270	218,934	[1] 15,670	[1] 234,086	[1] 37,151	[1] 277,407
Driven by current generated in establishment reporting	12,852	182,359	[1] 10,421	[1] 147,976	[1] 10,437	[1] 151,014
		Kilowatts		*Kilowatts*		*Kilowatts*
Electric generators	269	174,343	[1] 387	[1] 154,719	(2)	(2)

[1] Revised. [2] Not called for on schedule.

TABLE 3.—GENERAL STATISTICS, BY STATES: 1927

[This table presents statistics for all States for which separate figures can be given without disclosing data reported by individual establishments. Certain of the "Other States," however, reported larger values of products than some of the States shown separately]

STATE	Number of establishments	PERSONS ENGAGED IN THE INDUSTRY				Horse-power
		Total	Proprietors and firm members	Salaried officers and employees	Wage earners (average for the year)	
United States	457	60,615	53	10,052	50,510	552,410
California	30	1,928	4	355	1,569	19,769
Colorado	5	201	--------	42	159	808
Illinois	26	3,929	4	454	3,471	42,609
Indiana	8	1,458	--------	258	1,200	5,996
Iowa	4	293	--------	32	261	757
Maryland	8	961	--------	92	869	3,533
Massachusetts	15	2,009	7	422	1,580	8,791
Michigan	12	5,347	--------	626	4,721	81,203
Missouri	9	1,012	--------	392	620	2,801
New Jersey	95	12,785	13	2,425	10,347	66,948
New York	95	15,002	9	2,486	12,507	125,592
Ohio	34	4,319	1	676	3,642	37,931
Pennsylvania	44	3,222	9	671	2,542	23,822
Rhode Island	7	350	4	28	318	2,415
Tennessee	6	894	--------	123	771	25,065
Virginia	9	1,537	2	178	1,357	10,793
Washington	6	89	--------	26	63	3,504
West Virginia	14	1,334	--------	201	1,133	36,331
Other States [1]	30	3,945	--------	565	3,380	53,742

See footnotes at end of table.

TABLE 3.—GENERAL STATISTICS, BY STATES: 1927—Continued

[See note at head of this table, p. 657]

STATE	Salaries	Wages	Cost of materials, supplies, fuel, and power		Value of products	Value added by manufacture [2]
			Materials and supplies	Fuel and power		
United States	$27,462,989	$75,261,188	$243,287,382	$41,507,372	$548,535,935	$263,741,181
California	977,210	2,386,023	5,556,215	1,262,339	15,741,651	8,923,097
Colorado	101,327	224,961	1,202,673	96,707	2,115,992	816,612
Illinois	1,285,509	5,143,620	23,047,929	3,049,028	44,603,549	18,506,592
Indiana	461,156	1,946,003	6,626,889	898,676	12,784,198	5,258,633
Iowa	111,486	322,250	1,042,738	611,244	3,060,319	1,406,337
Maryland	218,353	900,467	6,251,534	741,786	12,069,068	5,075,748
Massachusetts	1,038,158	2,039,684	6,005,925	574,889	12,919,567	6,338,753
Michigan	1,952,700	7,540,026	9,640,080	5,757,379	40,504,065	25,106,606
Missouri	971,958	814,212	6,130,925	205,097	10,394,875	4,058,853
New Jersey	7,045,233	15,882,798	61,453,024	4,309,025	115,370,137	49,608,088
New York	6,564,903	18,754,733	54,004,106	11,939,282	138,577,620	72,634,232
Ohio	1,917,233	5,745,812	15,603,102	3,195,920	37,393,688	18,594,666
Pennsylvania	1,810,381	3,784,320	20,311,101	1,665,928	35,471,411	13,494,382
Rhode Island	104,910	385,479	822,652	170,353	1,712,947	719,942
Tennessee	331,954	1,000,292	3,407,213	1,230,197	9,846,545	5,209,135
Virginia	448,270	1,561,326	2,274,209	1,291,093	8,169,829	4,604,527
Washington	67,219	99,547	425,007	74,992	914,732	414,733
West Virginia	620,416	1,575,739	5,689,882	942,613	10,777,266	4,144,771
Other States [1]	1,434,613	5,153,896	13,792,178	3,490,824	36,108,476	18,825,474

[1] Alabama, 4 establishments; Arizona, 1; Arkansas, 2; Connecticut, 3; Delaware, 1; Kansas, 1; Kentucky, 1; Louisiana, 1; Maine, 1; Minnesota, 2; Montana, 1; New Hampshire, 2; North Carolina, 1; South Carolina, 1; Texas, 2; Utah, 1; Wisconsin, 5.

[2] Value of products less cost of materials, supplies, fuel, and power. (See secs. 18 and 21, pp. 9 and 10.)

SULPHURIC, NITRIC, AND MIXED ACIDS

Description of the industry.—This industry designation covers establishments engaged primarily in the manufacture of sulphuric, nitric, and mixed (sulphuric-nitric) acids, and the statistics in Tables 1–3 herewith relate to such establishments only. These acids are, however, manufactured to a considerable extent as secondary products by establishments in the "Chemicals, not elsewhere classified" and other industries.

Detailed statistics of products.—No statistics of quantities and values of the several kinds of acids manufactured are given in the report for the industry proper (Tables 1–3, pp. 659 and 660), but such statistics will be found in the section "Chemicals—Combined statistics for materials and for products," Tables 3–5, pages 662 to 666.

TABLE 1.—SUMMARY FOR THE UNITED STATES: 1919 TO 1927

[Data for establishments with products under $5,000 in value included for 1919 but not for subsequent years. See sec. 10, p. 6]

YEAR OR PERIOD	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, supplies, fuel, and power	Value of products	Value added by manufacture [1]	Horsepower
1927	35	1,837	$3,013,787	$11,882,410	$23,554,797	$11,672,387	23,875
1925	36	2,196	3,102,790	11,066,076	23,307,013	12,240,937	22,120
1923	37	2,357	3,455,603	11,695,216	24,404,580	12,709,364	19,131
1921	36	2,832	4,137,062	9,770,387	21,462,920	11,692,533	(2)
1919	39	4,961	7,916,531	15,857,361	31,470,480	15,613,119	30,637
	PER CENT OF INCREASE OR DECREASE (—)						
1925–1927	(3)	—16.3	—2.9	7.4	1.1	—4.6	7.9
1923–1925	(3)	—6.8	—10.2	—5.4	—4.5	—3.7	15.6
1923–1927	(3)	—22.1	—12.8	1.6	—3.5	—8.2	24.8
1919–1927	(3)	—63.0	—61.9	—25.1	—25.2	—25.2	—22.1

[1] Value of products less cost of materials, supplies, fuel, and power. (See secs. 18 and 21, pp. 9 and 10.)
[2] Not called for on schedule.
[3] Not shown where base is less than 100.

TABLE 2.—PRIME MOVERS, MOTORS, AND GENERATORS, BY TYPE, NUMBER, AND RATED CAPACITY, FOR THE UNITED STATES: 1927, 1925, AND 1923

TYPE	1927		1925		1923	
	Number	Capacity	Number	Capacity	Number	Capacity
Prime movers, total	849	*Horsepower* 23,875	862	*Horsepower* 22,120	686	*Horsepower* 19,131
Steam engines	70	3,753	88	4,443	98	5,296
Steam turbines	4	245	3	275		
Internal-combustion engines	16	1,346	16	1,521	16	1,488
Water wheels and turbines	2	5				
Electric motors driven by purchased current	757	18,526	755	15,881	572	12,347
Electric motors, total	906	20,340	968	18,257	873	15,157
Driven by purchased current	757	18,526	755	15,881	572	12,347
Driven by current generated in establishment reporting	149	1,814	213	2,376	301	2,810
Electric generators	14	*Kilowatts* 1,291	19	*Kilowatts* 1,835	(1)	*Kilowatts* (1)

[1] Not called for on schedule.

TABLE 3.—GENERAL STATISTICS, BY STATES: 1927

[This table presents statistics for all States for which separate figures can be given without disclosing data reported by individual establishments. One of the "Other States," however, reported a larger value of products than either of the States shown separately]

STATE	Number of establishments	PERSONS ENGAGED IN THE INDUSTRY			Horsepower
		Total	Salaried officers and employees	Wage earners (average for the year)	
United States	35	2,079	242	1,837	23,875
New Jersey	4	305	37	268	2,166
Pennsylvania	5	258	45	213	3,272
Other States [1]	26	1,516	160	1,356	18,437

STATE	Salaries	Wages	Cost of materials, supplies, fuel, and power		Value of products	Value added by manufacture [2]
			Materials and supplies	Fuel and power		
United States	$719,314	$3,013,787	$10,680,031	$1,202,379	$23,554,797	$11,672,387
New Jersey	134,115	473,103	1,626,096	244,258	3,133,890	1,263,536
Pennsylvania	103,880	342,321	1,412,508	118,501	2,869,307	1,338,298
Other States [1]	481,319	2,198,363	7,641,427	839,620	17,551,600	9,070,553

[1] Alabama, 2 establishments; Arkansas, 1; California, 4; Colorado, 1; Connecticut, 1; Illinois, 1; Kentucky, 1; New York, 2; Ohio, 5; Oklahoma, 1; Tennessee, 1; Texas, 3; Utah, 1; Virginia, 1; Wisconsin, 1.

[2] Value of products less cost of materials, supplies, fuel, and power. (See secs. 18 and 21, pp. 9 and 10.)

CHEMICALS—COMBINED STATISTICS FOR MATERIALS AND FOR PRODUCTS

As already explained (see "Description of the industry," p. 656 and p. 659), chemicals are manufactured to a considerable extent in industries other than "Chemicals, not elsewhere classified"; and, similarly, acids of the classes which normally belong to the "Sulphuric, nitric, and mixed acids" industry are made largely as secondary products in other industries. In fact, in the latter case the outside production is greater than that in the industry proper.

For these reasons combined statistics for specified materials and for products are presented in this section. The statistics for specified materials (Table 1) refer to those consumed in the two industries "Chemicals, not elsewhere classified" and "Sulphuric, nitric, and mixed acids," and the product statistics (Tables 2–14) refer to chemicals belonging in the nine groups for which statistics for 1927 are given in Table 2 and cover the output of all establishments reporting such chemicals either as primary or as secondary products.

In most cases where the amounts of specified kinds of chemicals made and consumed in the same establishments were reported, separate figures are given 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.—PURCHASED MATERIALS—CONSUMPTION, BY QUANTITY AND COST: 1927, 1925, AND 1923

[The statistics given in this table cover only the "Chemicals, not elsewhere classified" and the "Sulphuric, nitric, and mixed acids" industries, and do not represent the total consumed by all industries]

[Ton, 2,000 pounds]

	1927	1925	1923
Sulphur:			
Tons	688,877	561,930	578,100
Cost	$12,812,907	$9,497,021	$9,982,067
Pyrites:			
Tons	330,163	384,005	471,146
Cost	$1,743,684	$1,763,172	$1,991,954
Sodium nitrate:			
Tons	67,398	61,758	114,395
Cost	$3,432,382	$3,113,618	$6,078,455
Sulphuric acid (basis 50° Baumé):			
Tons	363,677	306,059	446,522
Cost	$3,137,991	$2,179,660	$3,372,866
Nitric acid:			
Tons	11,642	8,059	4,961
Cost	$1,284,397	$963,969	$536,160
Soda ash:			
Tons	199,651	146,139	(1)
Cost	$4,647,016	$3,923,356	
Caustic soda:			
Tons	62,290	49,871	(1)
Cost	$3,410,360	$2,687,053	

[1] No data.

TABLE 2.—CHEMICAL PRODUCTS, VALUE, BY INDUSTRIES AND BY CHEMICAL GROUPS: 1921 TO 1927

INDUSTRY OR CHEMICAL GROUP	1927	1925	1923	1921
INDUSTRIES				
1. The chemical industries, all products, total value	$572,090,732	$570,310,106	[1] $655,274,829	[1] $412,231,354
2. "Chemicals, not elsewhere classified" industry	548,535,935	547,003,093	630,870,249	390,768,434
3. "Sulphuric, nitric, and mixed acids" industry	23,554,797	23,307,013	24,404,580	21,462,920
4. Chemicals	533,592,538	544,651,190	634,432,927	401,022,875
5. Other products (not normally belonging to the industries)	38,498,194	25,658,916	20,841,902	11,208,479
6. Chemicals made as secondary products in other industries	83,228,766	66,661,789	53,097,421	42,142,566
Chemicals, all industries:				
Aggregate value (sum of 4 and 6)	616,821,304	611,312,979	[1] 687,530,348	[1] 443,165,441
Intergroup duplication	21,858,911	49,398,206	34,063,243	38,335,693
Gross total	638,680,215	660,711,185	721,593,591	481,501,134
CHEMICAL GROUPS				
I.—Acids	88,175,519	79,273,578	79,005,511	59,538,275
II.—Nitrogen and fixed-nitrogen compounds	26,085,661	29,659,414	30,435,909	21,059,976
III.—Sodium compounds	113,880,497	109,522,017	111,848,381	83,698,199
IV.—Potassium compounds	9,306,037	6,071,146	6,318,822	4,934,749
V.—Alums and other aluminum compounds	13,563,095	11,581,290	11,066,611	23,243,824
VI.—Bleaching compounds	18,974,515	17,167,412	16,729,233	13,900,353
VII.—Coal-tar products	106,056,504	112,201,348	121,893,211	75,918,521
VIII.—Plastics [2]	[3] 28,202,865	48,731,957	102,229,807	58,836,711
IX.—Chemicals, miscellaneous	234,435,522	190,970,407	188,682,077	99,949,691
Compressed and liquefied gases [4]	([5])	55,532,616	53,384,029	40,420,835

[1] Not strictly comparable with figures for 1927 and 1925; see footnotes 2, 3, and 4.
[2] Data for rayon are included for 1923 and 1921 but not for 1927 and 1925; see p. 717.
[3] Data for pyroxylin solutions excluded for 1927; see Table 13, footnote 3.
[4] At former censuses "Compressed and liquefied gases" constituted Group IX, and "Chemicals, miscellaneous," Group X. (See "Rayon and compressed and liquefied gases," p. 656.)
[5] The manufacture of compressed and liquefied gases was treated as a separate industry at the census for 1927; see p. 681.

TABLE 3.—GROUP I, ACIDS—PRODUCTION, BY CLASS, KIND, QUANTITY, AND VALUE: 1921 TO 1927

[See third paragraph of text, p. 661]

[Ton, 2,000 pounds]

	1927	1925	1923	1921
Aggregate value	$88,175,519	$79,273,578	$79,005,511	$59,538,275
Inorganic	66,027,312	58,958,357	59,436,428	46,879,890
Organic*	22,148,207	20,315,221	19,569,083	12,658,385
*Acetic:				
Number of establishments	18	16	16	17
Value	$5,523,752	$4,437,622	$4,154,838	$1,790,857
Dilute—				
Total production, pounds	56,990,259	29,824,953	29,470,045	23,530,087
Made and consumed, pounds	10,762,097	1,102,650	1,437,661	1,081,404
For sale—Pounds	46,228,162	28,722,303	28,032,384	22,448,683
Value	$2,327,085	$775,668	$876,864	$701,163
Glacial and anhydride—				
Total production, pounds	38,943,446	37,108,961	32,663,200	15,544,157
Made and consumed, pounds	8,739,603	239,711	3,043,455	3,448,028
For sale—Pounds	30,203,843	36,869,250	29,619,745	12,096,129
Value	$3,196,667	$3,661,954	$3,277,974	$1,089,694
Boric (boracic):				
Number of establishments	6	4	3	5
Pounds	21,009,603	15,604,654	17,277,801	12,692,370
Value	$1,582,565	$1,202,382	$1,736,081	$1,780,589

See footnotes at end of table.

TABLE 3.—GROUP I, ACIDS—PRODUCTION, BY CLASS, KIND, QUANTITY, AND VALUE: 1921 TO 1927—Continued

[See third paragraph of text, p. 661]

[Ton, 2,000 pounds]

	1927	1925	1923	1921
Carbonic (carbon dioxide, CO_2)				
Number of establishments	49	44	45	43
Pounds	74,344,287	59,721,309	51,095,965	54,615,742
Value	$6,048,424	$5,128,441	$4,992,373	$6,374,619
Chromic:				
Number of establishments	6			
Pounds	898,093			
Value	$241,965	(1)	(1)	(1)
*Citric:				
Number of establishments	4	6	6	5
Pounds	7,058,215	7,598,213	5,689,473	3,849,789
Value	$3,150,976	$3,469,740	$2,829,306	$1,913,774
Hydrochloric (muriatic):				
Number of establishments	40	37	39	37
Total production, tons	224,596	227,800	218,521	157,571
Made and consumed, tons	62,154	72,781	62,707	61,471
For sale—Tons	162,442	155,019	155,814	96,100
Value	$3,016,014	$2,976,155	$3,102,172	$2,778,468
Production according to strength, tons—				
20° Baumé	193,364	201,093	181,131	133,336
18° Baumé	26,803	25,461	32,442	22,397
Other	4,429	1,246	4,948	1,838
Total production, basis 100 per cent, tons	70,848	71,619	69,092	49,823
Production, by States, tons—				
New Jersey	23,522	22,537	22,936	16,730
New York	21,001	14,115	16,660	10,484
Pennsylvania	18,752	16,788	18,234	9,080
Illinois	33,284	32,686		
Indiana, Michigan, and Ohio	76,371		160,691	121,277
Connecticut, Delaware, and Massachusetts	40,906	141,674		
Other States	10,760			
*Hydrocyanic:				
Number of establishments	6	7		
Pounds	2,283,395	2,288,598	(2)	(2)
Value	$1,078,770	$888,101		
Hydrofluoric:				
Number of establishments	5	8	7	6
Total production, pounds	9,192,000	7,260,765	4,868,381	3,504,386
Made and consumed, pounds	2,516,712	1,572,462	600,922	910,712
For sale—Pounds	6,675,288	5,688,303	4,267,459	2,593,674
Value	$614,125	$526,555	$413,821	$329,329
Mixed (sulphuric-nitric):				
Number of establishments	41	39	51	58
Total production, tons	180,142	160,629	156,467	89,544
Made and consumed, tons	119,517	99,339	78,534	49,296
For sale—Tons	60,625	61,290	77,933	40,248
Value	$3,820,564	$3,766,701	$5,502,735	$3,406,495
Production, by industries, tons—				
"Chemicals, not elsewhere classified" industry	54,251	42,697	34,350	14,748
"Explosives" industry	106,457	88,029	102,006	56,708
"Sulphuric, nitric, and mixed acids" industry	19,434	29,903	20,111	18,088
Production, by States, tons—				
New Jersey	84,407	70,669	52,557	43,637
Pennsylvania	18,862	17,763	20,220	12,145
Illinois	4,135	3,648	6,910	2,861
Missouri	10,716			
Delaware, Massachusetts, and New York	30,684	68,549	76,780	30,901
Other States	31,338			
Nitric:				
Number of establishments	50	53	55	56
Total production, tons	121,991	119,652	113,116	57,887
Made and consumed, tons	93,285	92,800	91,357	49,587
For sale—Tons	28,706	26,852	21,759	8,300
Value	$3,559,436	$3,559,695	$2,741,370	$1,317,918
Production according to strength, tons—				
36° Baumé	2,149	2,012	4,928	643
38° Baumé	8,258	6,515	10,758	3,836
40° Baumé	68,918	92,632	74,682	40,229
100 per cent	41,703	17,677	21,948	12,935
C. P	963	816	800	244
Total production, basis 100 per cent, tons	91,077	80,443	77,633	40,475

See footnotes at end of table.

TABLE 3.—GROUP I, ACIDS—PRODUCTION, BY CLASS, KIND, QUANTITY, AND VALUE: 1921 TO 1927—Continued

[See third paragraph of text, p. 661]

[Ton, 2,000 pounds]

	1927	1925	1923	1921
Nitric—Continued.				
Production, by industries, tons—				
"Chemicals, not elsewhere classified" industry	28,910	26,750	33,602	13,271
"Explosives" industry	79,867	80,821	65,595	34,376
"Sulphuric, nitric, and mixed acids" industry	13,214	12,081	13,919	10,213
Production, by States, tons—				
New Jersey	45,507	44,926	44,804	23,846
Pennsylvania	18,600	15,253	15,606	7,392
California	5,605	6,914	6,208	4,029
New York	4,975	4,654	6,103	2,841
Illinois	4,066	4,073	4,709	2,301
Missouri	9,910	11,606	35,686	17,478
Michigan	2,851	2,512		
Delaware and Indiana	10,116	29,714		
Connecticut and Massachusetts	9,206			
Other States	11,155			
*Oleic:				
Number of establishments	12	[3] 13	15	15
Pounds	55,686,031	[3] 53,275,959	48,786,009	47,895,515
Value	$4,778,037	[3] $5,171,093	$4,353,654	$3,338,090
Phosphoric:				
Number of establishments	6	7	11	11
Pounds	22,397,366	21,330,215	12,829,361	6,197,045
Value	$1,681,504	$1,488,701	$955,194	$898,744
*Stearic:				
Number of establishments	12	[3] 11	13	9
Pounds	37,276,703	[3] 26,877,253	22,477,754	14,331,553
Value	$3,832,433	[3] $3,378,959	$2,752,995	$1,512,207
Sulphuric:				
Number of establishments	181	177	185	197
Total production, basis 50° Baumé, tons	7,335,795	7,004,112	6,555,517	4,369,941
Made and consumed, tons	2,364,212	2,303,915	2,210,819	1,766,409
For sale—Tons	4,971,583	4,700,197	4,344,698	2,603,532
Value	$42,885,573	$38,230,284	$38,274,540	$27,417,905
Production according to strength—				
For sale—				
50° Baumé—Tons	1,090,866	723,955	259,812	139,949
Value	$8,572,448	$5,430,611	$2,150,439	$1,515,773
60° Baumé—Tons	836,622	971,750	1,204,720	689,769
Value	$7,275,022	$7,609,027	$9,890,933	$6,975,211
66° Baumé—Tons	746,423	787,826	674,148	485,050
Value	$11,004,446	$10,316,880	$10,097,966	$8,692,205
Other—Tons	1,054,055	967,525	961,355	526,960
Value	$16,033,657	$14,873,766	$16,135,202	$10,234,716
Made and consumed in the same establishments—				
50° Baumé—Tons	1,474,608	1,430,769	1,304,254	1,181,632
60° Baumé—Tons	170,069	231,298	308,096	254,713
66° Baumé—Tons	177,933	178,603	126,483	108,525
Other—Tons	251,717	193,845	203,534	73,540
Sulphuric reclaimed (basis 50° Baumé):				
Number of establishments	66	66	64	34
Total, tons	757,107	768,765	588,668	200,861
Made and consumed, tons	565,796	559,176	418,530	33,234
For sale—Tons	191,311	209,589	170,138	167,627
Value	$1,088,554	$1,479,145	$1,478,558	$1,633,610
*Tannic:				
Number of establishments	3	6	5	6
Pounds	1,297,232	1,439,957	969,541	776,603
Value	$593,465	$585,951	$357,023	$327,371
*Tartaric:				
Number of establishments	4	4	4	----------
Pounds	5,781,166	5,498,920	5,868,000	----------
Value	$1,810,890	$1,541,955	$1,544,431	(2)
Other inorganic acids, value	[4] $1,488,588	$600,298	$239,584	$942,213
*Other organic acids, value	[5] $1,379,884	$841,800	$3,576,836	$3,776,086

*Organic.

[1] Included in figure for "Other inorganic acids."
[2] Included in figure for "Other organic acids."
[3] Revised.
[4] Value of hydriotic, hypophosphorous, rare-metal acids, etc.
[5] Value of gallic, lactic, oxalic, pyrogallic, etc.

TABLE 4.—SULPHURIC ACID—PRODUCTION, BY INDUSTRY AND BY PROCESS, AND PRODUCTION FROM ZINC AND COPPER ORES: 1921 TO 1927

[See third paragraph of text, p. 661]

[Ton, 2,000 pounds]

	1927	1925	1923	1921
Total production, basis 50° Baumé, tons	7,335,795	7,004,112	6,555,517	4,369,941
Made and consumed in the same establishments, tons	2,364,212	2,303,915	2,210,819	1,766,409
For sale—Tons	4,971,583	4,700,197	4,344,698	2,603,532
Value	$42,885,573	$38,230,284	$38,274,540	$27,417,905
BY INDUSTRY				
(Basis 50° Baumé)				
"Sulphuric, nitric, and mixed acids" industry:				
Total production of sulphuric acid, tons	2,035,800	2,165,085	2,049,293	1,523,178
Made and consumed, tons	133,692	230,020	174,777	143,254
For sale—Tons	1,902,108	1,935,065	1,874,516	1,379,924
Value	$16,803,911	$16,020,512	$17,139,567	$14,406,476
"Chemicals, not elsewhere classified" industry:				
Total production of sulphuric acid, tons	2,035,658	1,867,163	1,926,142	905,468
Made and consumed, tons	671,374	519,039	499,233	282,151
For sale—Tons	1,364,284	1,348,124	1,426,909	623,317
Value	$12,880,582	$11,612,934	$13,429,785	$7,227,859
"Fertilizers" industry:				
Total production of sulphuric acid, tons	2,045,344	2,008,418	1,631,217	1,321,844
Made and consumed, tons	1,270,007	1,345,442	1,365,884	1,145,436
For sale—Tons	775,337	662,976	265,333	176,408
Value	$6,158,493	$4,812,152	$2,006,054	$1,881,776
"Explosives" industry:				
Total production of sulphuric acid, tons	138,219	162,057	146,938	94,930
Made and consumed, tons	105,961	114,209	107,955	65,986
For sale—Tons	32,258	47,848	38,983	28,944
Value	$266,564	$414,328	$380,385	$336,862
Other—"Petroleum refining," "Zinc and copper smelting," etc.:				
Total production of sulphuric acid, tons	1,080,774	801,389	801,927	524,521
Made and consumed, tons	183,178	95,205	62,970	129,582
For sale—Tons	897,596	706,184	738,957	394,939
Value	$6,776,023	$5,370,358	$5,318,749	$3,564,932
BY PROCESS				
(Basis 50° Baumé)				
Chamber process:				
Number of establishments [1]	155	153	160	----------
Tons	5,112,649	4,953,582	4,743,176	3,267,374
Contact process:				
Number of establishments [1]	37	37	34	----------
Tons	2,223,146	2,050,530	1,812,341	1,102,567
Per cent of total	30.2	29.2	27.6	25.2
Weight of platinum in contact mass, troy ounces	31,462	30,348	36,650	31,588
From zinc and copper ores, by smelters and roasters (included above):				
From zinc ores				
Number of establishments	10	10	11	14
For sale—				
Tons, basis 60° Baumé	472,823	480,378	384,489	286,826
Value	$4,775,063	$4,492,543	$3,375,020	$3,403,968
Reported as 50°–60° Baumé—				
Tons	442,388	448,638	290,370	195,894
Value	$4,107,819	$3,822,892	$2,453,964	$2,155,314
Reported as 66° Baumé and stronger—				
Tons	44,624	46,932	76,809	72,038
Value	$667,244	$669,651	$921,056	$1,248,654
From copper ores				
Number of establishments	4	4	4	5
Tons, basis 60° Baumé	416,599	392,652	401,300	285,444
Value	$2,489,912	$2,276,596	$2,834,137	$2,431,025

[1] Both processes employed by following numbers of establishments: For 1927, 11; for 1925, 13; for 1923, 9.

TABLE 5.—SULPHURIC ACID—PRODUCTION, BY STRENGTH, QUANTITY, AND VALUE, FOR THE UNITED STATES, 1921 TO 1927, AND FOR STATES, 1927

[This table presents statistics for all States for which separate figures can be given without disclosing the production of individual establishments. Certain of the "Other States," however, outranked some of those shown separately. The differences between the total production and the production for sale represent the amounts made and consumed in the same establishments]

[Ton, 2,000 pounds]

STATE	Number of establishments	PRODUCTION ACCORDING TO STRENGTH, TONS				TOTAL, BASIS 50° BAUMÉ	
		50° Baumé	60° Baumé	66° Baumé	Other strengths	Tons	Value
Total production:							
1927	181	2,565,474	1,006,691	924,356	1,305,772	7,335,795	----------
1925	177	2,154,724	1,203,048	966,429	1,161,370	7,004,112	----------
1923	185	1,564,066	1,512,816	800,631	1,164,889	6,555,517	----------
1921	197	1,321,581	944,422	593,575	610,500	4,369,941	----------
For sale—							
1927	-------	1,090,866	836,622	746,423	1,054,055	4,971,583	$42,885,573
1925	-------	723,955	971,750	787,826	967,525	4,700,197	38,230,284
1923	-------	259,812	1,204,720	674,148	961,355	4,344,698	38,274,540
1921	-------	139,949	689,709	485,050	536,960	2,603,532	27,417,905
Alabama:							
Total production	11	67,216	44,466	32,200	764	172,328	----------
For sale	-------	7,665	44,466	32,200	----------	111,547	943,749
California:							
Total production	6	4,500	33,640	15,474	163,344	332,745	----------
For sale	-------	----------	32,145	9,475	158,452	309,501	3,418,655
Florida:							
Total production	4	64,937	1,498	----------	----------	66,809	----------
For sale	-------	----------	1,498	----------	----------	1,872	11,784
Georgia:							
Total production	19	230,320	7,962	4,398	----------	246,869	----------
For sale	-------	53,758	7,962	4,398	----------	70,307	503,244
Illinois:							
Total production	11	132,599	185,042	38,883	129,202	642,045	----------
For sale	-------	115,654	178,867	36,881	111,550	583,849	4,903,356
Louisiana:							
Total production	3	55,158	----------	----------	----------	55,158	----------
For sale	-------	9,717	----------	----------	----------	9,717	35,118
Maryland:							
Total production	5	661,538	----------	----------	----------	661,538	----------
For sale	-------	329,298	----------	----------	----------	329,298	2,971,449
Massachusetts:							
Total production	4	163,941	----------	70,709	1,185	272,030	----------
For sale	-------	67,044	----------	21,671	227	99,938	1,015,625
Mississippi:							
Total production	5	55,414	----------	----------	----------	55,414	----------
For sale	-------	25,444	----------	----------	----------	25,444	150,244
New Jersey:							
Total production	16	129,994	77,143	216,170	205,780	886,362	----------
For sale	-------	68,462	5,260	167,992	150,532	571,013	5,113,698
North Carolina:							
Total production	9	122,482	6,399	----------	----------	130,481	----------
For sale	-------	20,825	6,399	----------	----------	28,824	213,111
Ohio:							
Total production	11	59,152	30,373	191,083	86,829	528,850	----------
For sale	-------	14,586	30,373	170,876	73,686	432,814	4,144,748
Pennsylvania:							
Total production	15	168,319	171,858	104,225	194,607	852,919	----------
For sale	-------	113,040	154,153	85,732	133,934	650,077	6,002,860
South Carolina:							
Total production	12	151,107	----------	----------	----------	151,107	----------
For sale	-------	74,302	----------	----------	----------	74,302	529,307
Tennessee:							
Total production	7	140,273	317,306	37,243	----------	592,769	----------
For sale	-------	75,225	246,070	37,243	----------	438,676	2,088,178
Texas:							
Total production	8	85,204	600	12,234	112,174	282,892	----------
For sale	-------	----------	600	9,235	107,132	185,164	1,879,723
Virginia:							
Total production	7	116,741	----------	----------	61,320	215,466	----------
For sale	-------	6,779	----------	----------	61,320	105,504	805,810
Other States:							
Total production	28	156,579	130,404	201,737	350,567	1,190,013	----------
For sale	-------	109,067	128,829	170,720	257,222	943,736	8,154,914

TABLE 6.—GROUP II, NITROGEN AND FIXED-NITROGEN COMPOUNDS [1]—PRODUCTION, BY KIND, QUANTITY, AND VALUE: 1921 TO 1927

[Data not included for production of ammonia and ammonia products in the coke and manufactured-gas industries for 1927, 1925, and 1923, but such data for the latter industry are included for 1921; see footnote 2 and Table 7. See also third paragraph of text, p. 661]

CLASS AND KIND	1927	1925	1923	1921
Total value	$26,085,661	$29,659,414	$30,435,909	$21,059,976
Ammonium group (see Table 7):				
Ammonia, aqua—				
Total production, pounds	50,471,829	102,488,362	67,425,904	[2] 77,036,278
Made and consumed, pounds	4,246,817	36,260,407	28,731,764	37,952,241
For sale—				
Pounds	46,225,012	66,227,955	38,694,140	[2] 39,084,037
Value	$1,260,426	$3,027,474	$2,453,831	[2] $2,795,760
Ammonia, anhydrous—				
Pounds	45,115,020	31,724,858	23,529,382	[2] 27,637,376
Value	$4,011,362	$6,771,876	$6,414,667	[2] $6,198,671
Ammonium sulphate—				
Pounds	12,381,506	5,708,984	1,424,448	6,102,793
Value	$266,426	$153,134	$70,455	$165,965
Other ammonium compounds, value [3]	$6,058,544	$5,115,521	$3,607,585	$3,033,077
Cyanogen compounds:				
Ferric ferrocyanide (Prussian blue)—				
Number of establishments	19	26	30	28
Pounds	4,104,233	4,971,486	3,915,777	3,686,637
Value	$1,364,537	$1,619,509	$1,642,378	$1,116,404
Sodium and potassium ferrocyanides and sodium, silver, and other cyanides, value	$3,867,212	$4,156,378	$7,082,535	$3,006,550
Hydrocyanic acid (see also Table 3), value	$1,078,770	$888,101		
Nitric acid (see also Table 3), value	$3,559,436	$3,559,695	$2,741,370	$1,317,918
Nitrous oxide (laughing gas):				
Number of establishments	10	10	12	8
Thousands of gallons	66,392	54,882	45,297	42,016
Value	$809,614	$729,534	$730,644	$747,979
Other nitrogen compounds and gaseous nitrogen, value	$3,809,334	$3,638,192	$5,692,444	$2,677,652

[1] Not including alkaloids, coal-tar crudes and intermediates, dyestuffs, pyroxylin, nor explosives.
[2] Includes data for products of the gas industry.
[3] Includes, in order of value, phosphates, chlorides, carbonates, nitrate, iodide, molybdate, etc.

TABLE 7.—SUMMARY FOR AMMONIA AND AMMONIA COMPOUNDS—PRODUCTION IN COKE, CHEMICALS,[1] AND MANUFACTURED-GAS INDUSTRIES: 1921 TO 1927

[See third paragraph of text, p. 661]

	1927	1925	1923	1921
Aggregate value	$39,590,030	$43,734,363	$45,566,237	$28,336,643
COKE INDUSTRY				
NH_3 equivalent of sales:				
Pounds	349,619,116	310,744,721	287,681,592	162,492,887
Value	$26,239,840	$26,850,266	$31,094,119	$16,143,170
Number of establishments	62	61	57	59
Liquor (NH_3 equivalent):				
Total production, pounds	49,825,891	57,425,326	51,825,389	[2] 27,023,829
Sales—Pounds	49,011,372	47,128,790	[3] 50,986,996	30,009,918
Value	$2,335,047	$4,385,501	[3] $5,139,706	$3,052,433
Ammonium sulphate:				
Total production, pounds	1,172,643,719	1,013,277,580	915,926,762	528,547,798
Sales—Pounds	1,225,624,762	986,179,337	884,952,912	529,931,877
Value	$23,904,793	$22,464,765	$25,954,413	$13,090,737
CHEMICAL INDUSTRIES [1]				
Total value	$11,596,758	$15,068,005	$12,546,538	$10,525,622
Aqua ammonia:				
Number of establishments	13	17	16	18
Pounds	46,225,012	66,227,955	38,694,140	27,056,238
Value	$1,260,426	$3,027,474	$2,453,831	$1,719,005
Anhydrous ammonia:				
Number of establishments	15	16	12	12
Pounds	45,115,020	31,724,858	23,529,382	21,127,421
Value	$4,011,362	$6,771,876	$6,414,667	$5,708,820
Ammonium sulphate:				
Number of establishments	11	10	7	6
Pounds	12,381,506	5,708,984	1,424,448	2,201,351
Value	$266,426	$153,134	$70,455	$64,720
Other forms	$6,058,544	$5,115,521	$3,607,585	$3,033,077
MANUFACTURED-GAS INDUSTRY				
NH_3 equivalent of forms reported:				
Pounds	28,814,232	24,339,955	22,749,956	(4)
Value	$1,753,432	$1,816,092	$1,925,580	$1,667,851
Number of establishments	64	89	102	106
Reported as—				
Ammonium sulphate—				
Pounds	56,078,150	13,439,204	8,050,598	3,901,442
Value	$1,255,739	$351,235	$278,158	$101,245
Ammonia (NH_3)—				
Pounds	14,794,695	20,980,154	[5] 20,737,307	(4)
Value	$497,693	$1,464,857	[5] $1,647,422	[6] $1,566,606

[1] "Chemicals, not elsewhere classified" and "Sulphuric, nitric, and mixed acids."
[2] Includes a small amount reported as "Other forms."
[3] Includes data for an unknown quantity of sulphate sold on basis of NH_3 content.
[4] Not computed.
[5] Represents the ammonia content of the following: Ammonia liquors, 5,039,223 gallons, valued at $376,352; anhydrous ammonia, 182,676 pounds, $17,811; and ammonia reported in terms NH_3, 14,634,055 pounds, $1,253,259.
[6] Represents the following: Ammonia liquors, 12,027,799 gallons, valued at $1,076,755; anhydrous ammonia, 6,509,955 pounds, $489,851. The ammonia ($NH_3$) content of these products can not be estimated because that reported as "anhydrous ammonia" includes an indefinite amount of NH_3 in other forms. It is probable that a large part of it was the NH_3 content of liquors.

TABLE 8.—GROUP III, SODIUM COMPOUNDS—PRODUCTION, BY KIND, QUANTITY, AND VALUE: 1921 TO 1927

[See third paragraph of text, p. 661]

[Ton, 2,000 pounds]

CLASS AND KIND	1927	1925	1923	1921
Total value	$113,880,497	$109,522,017	$111,848,381	$83,698,199
Inorganic	110,752,027	106,526,071	106,615,843	83,205,458
Organic*	3,128,470	2,995,946	5,232,538	492,741
*Acetate:				
Number of establishments	7	7	8	6
Pounds	1,854,588	813,834	905,639	312,323
Value	$80,553	$47,583	$59,941	$16,132
*Benzoate:				
Number of establishments	6	7		
Pounds	937,070	804,240		
Value	$393,053	$372,286	(1)	(1)
Bichromate and chromate:				
Number of establishments	5	5	5	9
Tons	31,462	27,820	26,879	18,169
Value	$3,780,435	$3,526,568	$3,994,566	$3,823,465
Borate (borax):				
Number of establishments	7	7	6	6
Tons	64,864	49,967	53,092	18,499
Value	$5,079,278	$4,083,209	$5,102,148	$2,745,192
Carbonates:				
Bicarbonate, refined—				
Number of establishments	6	6	7	6
Tons	121,449	123,472	145,316	100,726
Value	$3,647,446	$3,651,848	$3,738,129	$2,635,022
Sal soda—				
Number of establishments	21	29	26	31
Tons	55,220	63,619	68,802	69,342
Value	$1,370,811	$1,332,071	$1,690,084	$2,174,689
Soda ash—				
Number of establishments	12	12	14	19
Total production, tons	2,037,808	1,907,791	1,707,987	959,593
Made and consumed, tons	571,429	539,131	449,207	183,265
For sale—Tons	1,466,379	1,368,660	1,258,780	776,328
Value	$29,939,291	$32,243,941	$32,427,166	$29,347,426
Production, by process—				
Ammonia-soda—				
Number of establishments	6	6	6	8
Total production, tons	1,974,157	1,850,013	1,674,234	929,448
Made and consumed, tons	571,429	539,131	449,207	183,265
For sale—Tons	1,402,728	1,310,882	1,225,027	746,183
Value	$28,645,404	$30,914,558	$31,413,210	$28,316,435
Natural and electrolytic soda—				
Fumber of establishments	6	6	8	11
Tons	63,651	57,778	33,753	30,145
Value	$1,293,887	$1,329,383	$1,013,956	$1,030,991
Modified sodas—				
Number of establishments	7	5	12	
Tons	53,866	47,452	47,669	
Value	$1,827,521	$1,550,772	$1,342,182	(1)
Caustic:				
Hydroxide—				
Number of establishments	23	22	23	35
Total production, tons [2]	587,514	497,261	436,619	238,591
Made and consumed, tons	26,112	10,116	5,658	7,695
For sale—Tons	561,402	487,145	430,961	230,896
Value	$29,193,003	$27,392,352	$25,056,547	$16,628,400
Production, by process—				
Lime-soda—				
Number of establishments	6	6	6	
Tons	397,943	355,783	314,195	163,044
Electrolytic—				
Number of establishments	17	16	17	
Tons	163,459	141,478	122,424	75,547
Repacked caustic (purchased in bulk)—				
Number of establishments	6	12	12	10
Tons	21,104	26,687	32,828	33,228
Value	$4,128,433	$4,414,836	$5,034,336	$5,304,583
*Citrate:				
Number of establishments	5	6	7	7
Pounds	745,249	553,181	423,511	112,659
Value	$294,688	$249,537	$273,595	$73,965
Fluoride:				
Number of establishments	3	3		
Tons	1,534	1,252		
Value	$252,975	$216,558	(1)	(1)

See footnotes at end of table.

TABLE 8.—GROUP III, SODIUM COMPOUNDS—PRODUCTION, BY KIND, QUANTITY, AND VALUE: 1921 TO 1927—Continued

See third paragraph of text, p. 661]

[Ton, 2,000 pounds]

CLASS AND KIND	1927	1925	1923	1921
Hypochlorite:				
Number of establishments	11	7	8	6
Tons	23, 118	[3] 15, 392	10, 939	4, 025
Value	$1, 140, 746	$1, 877, 257	$758, 745	$324, 002
Iodide:				
Number of establishments	7	7	8	7
Pounds	47, 982	49, 531	45, 450	26, 138
Value	$208, 512	$194, 803	$189, 739	$88, 295
Nitrate, refined:				
Number of establishments	5	5	4	----------
Tons	1, 177	3, 127	10, 675	----------
Value	$104, 005	$221, 551	$870, 698	(1)
Phosphates:				
Number of establishments	11	13	14	13
Tribasic—				
Tons	63, 531	48, 783	26, 224	26, 214
Value	$4, 524, 595	$3, 288, 101	$1, 955, 632	$3, 052, 952
Monobasic, dibasic, and not specified—				
Tons	32, 950	30, 561	10, 375	
Value	$2, 460, 656	$2, 467, 387	$1, 215, 922	
Silicate (basis 40°):				
Number of establishments	24	23	21	21
Tons	504, 518	394, 884	331, 309	221, 550
Value	$6, 826, 099	$5, 717, 426	$5, 066, 719	$4, 641, 754
Silicofluoride:				
Number of establishments	8	8	10	----------
Tons	1, 646	1, 384	2, 481	----------
Value	$191, 687	$128, 025	$302, 758	(1)
Sulphates:				
Niter cake (bisulphate)—				
Number of establishments	53	42	45	38
Total production, tons	153, 615	124, 296	154, 087	55, 578
Made and consumed, tons	33, 109	22, 700	24, 640	6, 613
For sale—Tons	120, 506	101, 596	129, 447	48, 965
Value	$625, 049	$400, 598	$587, 897	$274, 161
Salt cake—				
Number of establishments	34	38	34	30
Total production, tons	208, 565	189, 293	187, 064	131, 701
Made and consumed, tons	33, 573	48, 450	46, 047	35, 706
For sale—Tons	174, 992	140, 843	141, 017	95, 995
Value	$2, 786, 818	$2, 339, 002	$2, 972, 013	$2, 046, 314
Glauber's salt—				
Number of establishments	20	22	21	21
Tons	53, 420	57, 622	66, 192	52, 041
Value	$1, 081, 980	$1, 265, 260	$1, 521, 095	$1, 288, 987
Refined anhydrous—				
Number of establishments	5	5	6	4
Tons	2, 688	2, 100	3, 183	2, 019
Value	$119, 111	$128, 115	$267, 518	$153, 954
Hyposulphite (thiosulphate)—				
Number of establishments	8	12	11	10
Tons	23, 574	23, 982	22, 538	17, 826
Value	$992, 865	$1, 051, 068	$1, 124, 351	$1, 202, 870
Sulphide:				
Number of establishments	16	15	19	14
Total production, tons	46, 094	29, 169	38, 148	24, 682
Made and consumed, tons	7, 648	5, 404	6, 310	2, 000
For sale—Tons	38, 446	23, 765	31, 838	22, 682
Value	$1, 691, 609	$1, 203, 332	$2, 209, 499	$1, 740, 153
Sulphites:				
Sulphite (normal)—				
Number of establishments	6	7	4	7
Tons	5, 030	4, 492	4, 382	3, 442
Value	$399, 529	$382, 728	$370, 601	$328, 376
Bisulphite—				
Number of establishments	9	10	10	15
Total production, tons	15, 235	13, 703	16, 213	15, 175
Made and consumed, tons	4, 725	1, 266	1, 713	1, 897
For sale—Tons	10, 510	12, 437	14, 500	13, 278
Value	$512, 765	$609, 163	$677, 882	$1, 116, 381
Other inorganic sodium compounds, value [4]	$7, 866, 808	$6, 840, 100	$8, 139, 616	$4, 288, 482
*Other organic sodium compounds, value [5]	$2, 360, 176	$2, 326, 540	$4, 899, 002	$402, 644

* Organic.

[1] Included in figure for "Other inorganic sodium compounds."
[2] Not including caustic soda made and consumed in the wood-pulp and textile industries.
[3] Includes data for some packed in small containers.
[4] Bromide, chlorate, chloride (refined), hydrosulphide, nitrate, peroxide, etc.
[5] Cyanide, glycerophosphate, salicylate, etc.

TABLE 9.—GROUP IV, POTASSIUM COMPOUNDS—PRODUCTION, BY KIND, QUANTITY, AND VALUE: 1921 TO 1927

[See third paragraph of text, p. 661]

[Ton, 2,000 pounds]

KIND	1927	1925	1923	1921
Total value	$9,306,037	$6,071,146	$6,318,822	$4,934,749
Acetate:				
Number of establishments	4	4	6	5
Pounds	74,119	81,043	68,830	43,096
Value	$20,879	$19,220	$20,697	$21,400
Bitartrate (cream of tartar):				
Number of establishments	6	5	4	7
Pounds	7,594,777	7,072,651	5,971,186	5,778,731
Value	$1,746,793	$1,472,082	$1,746,363	$1,630,150
Citrate:				
Number of establishments	5	7	7	6
Pounds	117,297	147,399	111,334	51,486
Value	$66,609	$83,540	$72,185	$47,054
Iodide:				
Number of establishments	7	7	9	7
Pounds	528,017	494,935	438,692	297,715
Value	$1,896,944	$1,821,259	$1,623,100	$888,555
Other:				
Inorganic [1]	$4,765,151	$2,345,849	$2,684,808	$2,141,958
Organic [2]	$809,661	$329,196	$171,669	$205,632
Potash from original sources (reported by the Bureau of Mines):				
Number of plants	9	9	12	20
Crude potassium salt, tons	76,819	51,565	39,029	25,485
Content of K_2O, tons	43,510	25,448	20,215	10,171

[1] Bichromate, carbonate, chloride, hydroxide, nitrate, permanganates, etc.
[2] Glycerophosphates, Rochelle salts, tartar emetic, etc.

TABLE 10.—GROUP V, ALUMS AND OTHER ALUMINUM COMPOUNDS—PRODUCTION, BY KIND, QUANTITY, AND VALUE: 1921 TO 1927

[See third paragraph of text, p. 661]

[Ton, 2,000 pounds]

KIND	1927	1925	1923	1921
Aggregate value	$13,563,095	$11,581,290	$11,066,611	$23,243,824
Alums, total value	9,524,677	8,735,844	7,445,378	6,632,558
Aluminum sulphate (concentrated alum)—				
Number of establishments	22	23	21	20
Tons	314,018	284,298	234,116	155,187
Value	$8,012,626	$7,396,922	$6,519,350	$5,758,128
Ammonia alum—				
Number of establishments	6	7		
Tons	5,411	5,039		
Value	$316,220	$330,339		
Soda alum—				
Number of establishments	5	5	12	12
Tons	19,454	16,718	14,978	14,821
Value	$1,044,196	$933,478	$926,028	$874,430
Potash and chrome alums—				
Number of establishments	6	5		
Tons	2,291	841		
Value	$151,635	$75,105		
Aluminous abrasives:				
Number of establishments	4	4	4	3
Tons	19,782	16,410	20,356	9,184
Value	$1,970,000	$1,789,251	$2,125,703	$902,881
Aluminum chloride:				
Number of establishments	5	6	8	8
Tons	[1] 2,872	[1] 3,554	4,706	4,351
Value	[1] $161,613	[1] $203,205	$312,921	$406,700
Aluminum stearate:				
Number of establishments	7	3		
Tons	801	385		
Value	$322,516	$165,473	$1,182,609	[2] $15,301,685
Other aluminum compounds [3]	$1,584,289	$687,517		

[1] Production for sale. Total production of aluminum chloride, as reported by the Bureau of Mines, was, for 1927, 17,130 tons, valued at $4,054,080; for 1925, 12,830 tons, valued at $4,012,920.
[2] Includes value of aluminum metal, refined cryolite, calcined bauxite, etc. Figures not comparable with those for later years.
[3] Aluminum hydroxide, oxide, oleate, etc.

TABLE 11.—GROUP VI, BLEACHING COMPOUNDS—PRODUCTION, BY KIND, QUANTITY, AND VALUE: 1921 TO 1927

[See third paragraph of text, p. 661]

[Ton, 2,000 pounds]

CLASS AND KIND	1927	1925	1923	1921
Total value	$18,974,515	$17,167,412	$16,729,233	$13,900,353
Chlorine bleaches:				
Chlorine [1]—				
Number of establishments	15	14	12	13
Total production, pounds	234,978,522	166,325,643	125,361,020	75,969,228
Made and consumed, pounds	54,815,084	61,365,457	49,242,780	18,746,625
For sale—pounds	180,163,438	104,960,186	76,118,240	57,222,603
New York	98,458,333	71,520,183	62,310,788	29,236,600
Other States	81,705,105	33,440,003	13,807,452	27,986,003
Value	$6,678,145	$4,236,307	$2,778,088	$3,188,750
Hypochlorites—				
Calcium hypochlorite—				
Number of establishments	19	17	16	16
Tons	110,524	115,438	146,975	82,577
New York	29,211	50,527	72,760	59,525
Other States	81,313	64,911	74,215	23,052
Value	$4,148,205	$3,964,604	$5,192,385	$4,296,101
Sodium hypochlorite—				
Number of establishments	11	7	8	6
Tons	23,118	[2] 15,392	10,939	4,025
Value	$1,440,746	$1,877,257	$758,745	$324,002
Peroxide bleaches:				
Hydrogen peroxide—				
Number of establishments	8	10	12	11
Pounds	21,442,651	27,160,730	25,006,182	27,296,000
Value	$1,505,739	$1,880,943	$1,763,451	$2,157,619
Other—				
Number of establishments	6	5	6	4
Pounds	8,862,000	7,534,890	7,416,100	5,245,194
Value	$1,573,157	$1,461,200	$1,601,292	$1,133,521
Sulphur bleaches:				
Bisulphites of calcium and sodium—				
Number of establishments	10	11	14	17
Tons	10,641	12,599	19,029	12,336
Value	$514,851	$612,908	$1,056,110	$978,657
Sulphur dioxide—				
Number of establishments	5	4	4	4
Pounds	11,003,719	8,968,453	6,575,995	1,837,819
Value	$720,470	$638,175	$414,049	$168,356
Other sulphur bleaches, value	$2,393,202	$2,496,018	$3,165,113	$1,653,347

[1] Not including chlorine made and consumed in the wood-pulp industry.
[2] Includes data for some in small containers.

TABLE 12.—GROUP VII, COAL-TAR PRODUCTS—PRODUCTION, BY CLASS AND VALUE: 1921 TO 1927 [1]

CLASS	1927	1925	1923	1921
Total	$106,056,504	$112,201,348	$121,893,211	$75,918,521
Crudes [2]	24,861,831	25,403,177	38,296,898	21,633,369
Intermediates	22,844,748	25,324,456	23,279,761	8,998,070
Dyes and other finished products	58,349,925	61,473,715	60,316,552	45,287,082

[1] For detailed statistics of production and sales of coal-tar products, see Census of Dyes and Other Synthetic Organic Chemicals, 1927, Tariff Information Series No. 37, United States Tariff Commission.
[2] Does not include by-product crudes of by-product coke plants and gas works.

TABLE 13.—GROUP VIII, PLASTICS [1]—PRODUCTION, BY KIND, QUANTITY, AND VALUE: 1921 TO 1927

[Data for rayon are included for 1923 and earlier years; see "Rayon and compressed and liquefied gases," p. 656. See also third paragraph of text, p. 661]

KIND	1927	1925	1923	1921
Total value [2]	$28,202,865	$48,731,957	$102,229,807	$58,836,711
Pyroxylin, including collodion:				
Plastics—				
Number of establishments	8	8	8	
Total production, pounds	19,503,710	17,859,469	27,651,910	
Made and consumed in the same establishments, pounds	3,205,687	4,156,313	3,671,794	21,678,285
For sale, in form for further manufacture—				
Pounds	16,298,023	13,703,156	23,980,116	$13,966,108
Value	$14,409,668	$13,720,802	$17,682,049	
Solutions, value	(3)	$14,156,889	$4,476,774	
Finished articles of pyroxylin made in the producing establishments, value [4]	$6,801,355	$10,984,254	$11,299,538	$2,069,894
Other plastics (phenolic resins, rubber substitutes, casein plastics, etc.), value	$6,991,842	$9,870,012	$9,720,061	$42,800,709
Rayon	(5)	(5)	$59,051,385	

[1] Not including photographic films.
[2] See headnote and footnotes 3 and 4.
[3] Data included in statistics on "Pyroxylin products," shown in report on "Paints and varnishes."
[4] Toys, novelties, fancy articles, handles for cutlery and umbrellas, etc.
[5] The manufacture of rayon (artificial silk, visca, cellophane, etc.) was treated as a separate industry for 1925 and 1927. (See p. 717.)

TABLE 14.—GROUP IX, MISCELLANEOUS CHEMICALS—PRODUCTION, BY KIND, QUANTITY, AND VALUE: 1921 TO 1927

[See third paragraph of text, p. 661]

[Ton, 2,000 pounds]

	1927	1925	1923	1921
Total value	$234,435,522	$190,970,407	$188,682,077	$99,949,691
Inorganic	157,847,318	135,392,353	149,304,526	63,568,998
Organic*	76,588,204	55,578,054	39,377,551	36,380,693
*Alcohols: [1]				
Amyl alcohol, including fusel oil—				
Number of establishments	20	20	16	10
Total production, gallons	182,054	325,178	161,824	194,824
Made and consumed, gallons	6,985	31,257	76,233	82,440
For sale—Gallons	175,069	293,921	85,591	112,384
Value	$277,069	$639,547	$315,355	$300,845
Other (butyl, propyl, etc.), not including glycerol (see "Glycerin"), value	$9,667,376	$6,479,559	$2,788,185	$806,178
*Amyl acetate:				
Number of establishments	12	12	10	7
Total production, gallons	316,578	168,251	440,976	88,688
Made and consumed, gallons	97,702	30,768	191,083	23,334
For sale—Gallons	218,876	137,483	249,893	65,354
Value	$435,656	$414,860	$996,267	$149,786
Antimony:				
Chloride—				
Number of establishments	5	4		
Pounds	165,890	139,111	$934,850	$466,397
Value	$27,437	$20,324		
Other salts and compounds, value	$349,172	$451,416		
Arsenic:				
Oxides—				
Number of establishments	11	10	10	7
Total production, pounds	35,315,999	30,653,261	33,015,107	11,046,404
Made and consumed, pounds	4,682,271	7,776,096	3,621,360	1,646,613
For sale—Pounds	30,633,728	22,877,165	29,393,747	9,399,791
Value	$1,028,244	$781,328	$2,607,829	$556,259

See footnotes at end of table.

TABLE 14.—GROUP IX, MISCELLANEOUS CHEMICALS—PRODUCTION, BY KIND, QUANTITY, AND VALUE: 1921 TO 1927—Continued

[See third paragraph of text, p. 661]

[Tons, 2,000 pounds]

	1927	1925	1923	1921
Arsenic—Continued.				
Arsenate of calcium [2]—				
Number of establishments	18	8	9	7
Pounds	27,282,326	15,199,387	13,261,233	2,419,684
Value	$1,665,000	$1,074,960	$1,703,119	$362,697
Arsenate of lead [2]—				
Number of establishments	22	13	9	11
Pounds	21,527,838	11,938,032	10,755,137	9,229,701
Value	$3,190,257	$1,777,552	$2,229,431	$1,629,446
Other (magnesium arsenate, sodium arsenate, etc.), value	$127,142	$113,945	$826,467	$132,834
Barium:				
Sulphate, precipitated ("blanc fixe")—				
Number of establishments	13	13	15	11
Total production, pounds	30,061,944	26,089,696	21,661,123	----------
Made and consumed, pounds	11,771,654	8,598,139	11,088,400	----------
For sale—Pounds	18,290,290	17,491,557	10,572,723	7,375,733
Value	$565,822	$621,807	$351,819	$242,119
Carbonate—				
Number of establishments	5	4	4	
Pounds	15,558,434	10,815,491	13,979,766	
Value	$463,591	$300,468	$484,138	
Chloride—				$541,760
Number of establishments	4	4	6	
Pounds	6,668,043	7,923,187	7,294,361	
Value	$201,453	$253,357	$302,815	
Other (dioxide, sulphide, etc.), value	$376,264	$322,428	$216,484	
Bismuth:				
Subnitrate—				
Number of establishments	7	5	7	5
Pounds	248,134	220,052	255,027	222,412
Value	$565,732	$548,352	$694,966	$446,357
Subcarbonate—				
Number of establishments	7	6	6	
Pounds	93,546	97,712	53,619	
Value	$268,682	$304,393	$172,077	
Subgallate—				
Number of establishments	7	6	5	
Pounds	22,210	28,808	15,538	$336,204
Value	$59,287	$69,994	$42,034	
Subsalicylate—				
Number of establishments	4	4		
Pounds	9,550	11,313	$600,200	
Value	$28,235	$30,194		
Other salts and compounds, value	$16,384	$262,711		
Bromine, liquid: [3]				
Number of establishments	4	4	7	7
Pounds	90,634	133,165	273,426	191,114
Value	$26,996	$48,231	$48,952	$28,810
*Butyl acetate:				
Number of establishments	9	11	8	
Total production, gallons	4,220,490	2,078,926	252,706	
Made and consumed, gallons	1,878,479	1,208,463	188,098	(5)
For sale—Gallons	2,342,011	870,463	64,608	
Value	$3,613,182	$1,577,503	$193,411	
Cadmium iodide, chloride, etc., value	$58,679	$16,950	$114,407	(5)
Calcium:				
Acetate—				
Number of establishments	53	63	73	63
Tons	69,017	72,652	72,294	27,725
Value	$4,021,292	$3,437,384	$4,823,403	$737,081
Arsenate (see "Arsenic").				
Carbide—				
Number of establishments	7	7	6	
Tons	201,955	127,600	118,702	(4)
Value	$9,397,556	$6,599,378	$8,818,221	
Chloride—				
Number of establishments	15	16	13	19
Tons	191,123	170,773	90,750	79,014
Value	$4,442,876	$3,717,456	$2,038,632	$2,027,385

See footnotes at end of table.

TABLE 14.—GROUP IX, MISCELLANEOUS CHEMICALS—PRODUCTION, BY KIND, QUANTITY, AND VALUE: 1921 TO 1927—Continued

[See third paragraph of text, p. 661]

[Ton, 2,000 pounds]

	1927	1925	1923	1921
Calcium—Continued.				
Phosphates—				
Monobasic—				
Number of establishments	7	9		
Tons	33,636	34,725		
Value	$4,867,979	$4,298,152	14	13
Dibasic and tribasic—			38,751	23,150
Number of establishments	4	4	$4,393,119	$4,123,459
Tons	367	1,039		
Value	$46,107	$154,563		
Hypochlorite—				
Number of establishments	19	17	16	16
Tons	110,524	115,438	146,975	82,577
Value	$4,148,205	$3,964,604	$5,192,385	$4,296,101
Satin white (calcium sulphate and alumina)—				
Number of establishments	5	5		
Tons	18,386	14,411		
Value	$542,414	$444,700	$1,120,108	$8,176,236
Other salts and compounds, value	$2,115,852	$447,956		
*Carbon bisulphide:				
Number of establishments	8	6	7	7
Total production, pounds	55,531,106	46,246,675	30,559,033	22,740,969
Made and consumed, pounds	10,558,617	6,371,975	5,358,066	7,798,526
For sale—Pounds	44,972,489	39,874,700	25,200,967	14,942,443
Value	$2,159,524	$1,938,894	$1,337,024	$795,911
*Carbon tetrachloride:				
Number of establishments	4	4	4	
Pounds	13,282,160	16,059,956	11,745,972	(4)
Value	$1,036,165	$978,068	$956,590	
*Chloroform:				
Number of establishments	5	4	4	4
Pounds	2,972,889	1,582,402	1,805,083	944,303
Value	$604,317	$379,221	$478,524	$289,340
Chromium compounds, other than of sodium and potassium, value	$166,581	$175,027	$484,484	$520,308
Cobalt compounds and salts, value	$517,798	$413,472	$1,710,142	$720,576
Copper:				
Sulphate (blue vitriol)—				
Number of establishments	11	12	10	11
Pounds	56,666,812	32,296,583	32,304,421	27,221,704
Value	$2,774,400	$1,683,788	$1,777,663	$1,767,695
Carbonate—				
Number of establishments	6	5	5	
Pounds	1,072,808	263,994	386,740	
Value	$182,076	$44,888	$76,700	$164,218
Other (cyanide, chloride, nitrate, oleate, oxide, etc.), value	$394,711	$366,411	$368,082	
*Ether:				
Number of establishments	7	9	8	9
Total production, pounds	8,068,052	5,662,365	5,220,663	3,763,725
Made and consumed, pounds	1,933,281	272,776	285,188	347,200
For sale—Pounds	6,134,771	5,389,589	4,935,475	3,416,525
Value	$1,720,374	$1,461,557	$619,860	$921,169
*Ethyl acetate:				
Number of establishments	12	12	9	7
Total production, gallons	6,638,147	4,021,653	3,091,024	1,016,677
Made and consumed, gallons	2,031,245	1,114,441	561,236	496,292
For sale—Gallons	4,606,902	2,907,212	2,529,788	520,385
Value	$3,701,084	$2,406,517	$2,193,039	$317,966
*Ethyl chloride:				
Number of establishments	6	8	7	8
Pounds	3,519,006	1,130,936	622,250	279,400
Value	$541,263	$281,219	$161,167	$127,062
*Ethyl nitrite:				
Number of establishments	4	4	4	5
Pounds	39,462	96,546	43,649	59,431
Value	$29,454	$38,361	$34,919	$31,815
*Formaldehyde:				
Number of establishments	5	6	8	5
Total production, pounds	30,846,948	29,963,927	27,192,431	9,657,409
Made and consumed, pounds	4,400,397	7,991,747	6,978,558	3,600,926
For sale—Pounds	26,446,551	21,972,180	20,213,873	6,056,483
Value	$2,432,006	$1,891,134	$2,604,061	$651,681

See footnotes at end of table.

TABLE 14.—GROUP IX, MISCELLANEOUS CHEMICALS—PRODUCTION, BY KIND, QUANTITY, AND VALUE: 1921 TO 1927—Continued

[See third paragraph of text, p. 661]

[Ton, 2,000 pounds]

	1927	1925	1923	1921
Gold chloride and other gold salts, value	$584,159	$546,161	$535,378	$550,579
*Glycerin:				
Crude: [6]				
Number of establishments	68	75	73	79
Pounds	26,999,863	30,734,804	27,444,065	21,856,035
Value	$3,942,991	$4,258,351	$3,124,470	$2,085,589
Refined—				
Number of establishments	24	24	24	31
Total production, pounds	95,352,632	97,354,898	76,049,552	68,843,696
Made and consumed, pounds	5,767,714	3,052,048	1,944,698	8,982,268
For sale—Pounds	89,584,918	94,302,850	74,104,854	59,861,428
Value	$19,184,806	$16,991,213	$12,214,012	$9,514,272
*Hexamethylenetetramine:				
Number of establishments	4	4	(4)	(4)
Pounds	1,313,011	1,454,124		
Value	$726,437	$1,067,747		
Iodine, resublimed:				
Number of establishments	7	8	8	(5)
Pounds	90,765	79,872	97,070	
Value	$429,475	$372,988	$440,487	
*Iodoform:				
Number of establishments	4	3	(4)	(4)
Pounds	15,535	13,503		
Value	$89,386	$71,038		
Iron:				
Chloride (crystals and solutions)—				
Number of establishments	7	8	8	8
Pounds	2,985,663	2,983,969	2,104,000	1,475,259
Value	$176,769	$177,878	$143,637	$128,139
Sulphate (copperas)—				
Number of establishments	32	34	32	21
For sale, tons	61,527	52,994	70,552	[7] 28,941
Made in rolling and wire-drawing mills	42,895	33,750	45,418	[7] 20,481
Other	18,632	19,244	25,134	8,460
Value	$672,918	$602,585	$1,275,045	[7] $515,129
Ferro-alloys (electric furnace)[8]—				
Number of establishments	16	19	23	20
Tons	197,425	150,141	215,424	48,513
Value	$17,049,050	$15,255,491	$20,899,085	$8,835,356
Iron-ammonium citrate—				
Number of establishments	3	3	3	$765,276
Pounds	110,182	136,269	52,464	
Value	$75,772	$80,306	$42,149	
Other salts and compounds	$1,118,209	$1,248,466	$1,181,488	
Lead:				
Acetate—				
Number of establishments	8	7	9	9
Pounds	3,016,840	2,501,021	1,232,637	744,000
Value	$395,122	$359,686	$160,133	$90,305
Arsenate (see "Arsenic")—				
Other (not including pigments), value	$254,809	$192,995	$388,868	$120,327
Magnesium:				
Sulphate (Epsom salt)—				
Number of establishments	8	11	12	12
Tons	27,665	23,428	20,676	14,923
Value	$1,141,633	$1,219,177	$851,103	$753,822
Other salts and compounds, value	$1,548,508	$2,631,331	$2,223,163	$1,445,465
Manganese salts and compounds, value	$390,962	$326,372	$201,367	$142,886
Mercury:				
Chloride, mercuric (corrosive sublimate)—				
Number of establishments	6	6	5	5
Pounds	433,725	341,834	305,905	239,340
Value	$663,584	$369,341	$291,686	$179,008
Chloride, mercurous (calomel)—				
Number of establishments	5	3	4	3
Pounds	104,901	102,341	127,654	106,209
Value	$197,890	$136,003	$153,571	$97,717
Oxide—				
Number of establishments	5	5	4	----------
Pounds	168,991	108,297	50,408	----------
Value	$330,781	$150,249	$68,021	----------
Other salts and compounds, value	$268,510	$313,542	$247,160	$221,080
*Methyl acetone:				
Number of establishments	6	5	5	(4)
Pounds	2,603,520	3,644,302	6,602,336	----------
Value	$352,947	$457,589	$930,468	----------

See footnotes at end of table.

TABLE 14.—GROUP IX, MISCELLANEOUS CHEMICALS—PRODUCTION, BY KIND, QUANTITY, AND VALUE: 1921 TO 1927—Continued

[See third paragraph of text, p. 661]

[Ton, 2,000 pounds]

	1927	1925	1923	1921
Nickel salts and compounds, value	$836,465	$873,273	$786,171	$424,779
Phosphorus and phosphorus compounds, value	$688,977	$829,420	$786,723	(5)
Silver:				
Nitrate—				
Number of establishments	6	8	5	7
Ounces	4,896,607	4,338,549	3,438,464	2,579,122
Value	$1,956,961	$2,022,956	$1,508,785	$1,229,060
Other salts and compounds, value	$186,786	$150,372	$179,858	$88,121
Strontium salts and compounds, value	$296,026	$202,058	$309,967	(5)
Sulphur:				
Refined—				
Number of establishments	7	8	11	10
Tons	43,508	47,220	61,424	29,382
Value	$1,799,153	$2,121,092	$2,765,133	$1,599,561
Chloride, yellow and red—				
Pounds	3,354,965	4,972,591	1,188,991	
Value	$72,628	$132,781	$46,664	
Sulphur-lime [2]—				
Dry—Tons	3,018	2,518	3,599	$93,132
Value	$433,992	$377,184	$468,964	
Solution—Gallons	7,652,779	2,607,064	2,472,284	
Value	$1,055,665	$363,191	$369,194	
Tin salts and compounds, value	$10,582,562	$6,783,421	$8,650,554	$2,172,491
*Vanillin:				
Number of establishments	6	4	4	4
Pounds	299,624	215,012	227,997	191,236
Value	$1,922,510	$1,133,926	$1,326,935	$1,493,436
Zinc:				
Chloride—				
Number of establishments	13	14	10	14
Pounds	58,268,485	58,946,674	64,575,076	75,291,448
Value	$1,921,466	$1,992,768	$1,996,950	$3,634,282
Sulphate—				
Number of establishments	8	10	13	6
Pounds	20,627,505	13,481,646	12,807,971	6,855,196
Value	$517,865	$376,801	$347,877	$304,995
Stearate—				
Number of establishments	7	6	5	
Pounds	782,833	786,771	453,186	$449,800
Value	$164,927	$169,051	$107,319	
Other salts and compounds, value	$376,666	$420,944	$410,913	
Other elements, compounds, and salts				
Inorganic:				
Rare-metal salts and compounds of vanadium, radium, thorium, cerium, etc. (in order of value)	$1,043,938	$396,200	[9] $1,678,612	
Metals and alloys, including aluminum, titanium, magnesium, zirconium, cadmium, etc., value	$41,606,296	$39,601,265		$12,451,809
Other compounds, salts, etc., including bauxite and cryolite, carbon electrodes, silicon carbide and abrasives, decolorizing carbon, etc., value	$26,372,570	$21,850,816	$62,655,974	
Organic: [10]				
Miscellaneous organic chemicals, including nitrocellulose, acetone, ethyl bromide, butyl propionate, etc., value	$24,151,657	$13,111,750	$9,103,264	$18,895,643

* Organic.

[1] Not including ethyl alcohol nor methanol (wood alcohol). For methanol statistics, see report on Wood Distillation and Charcoal Manufacture.

[2] Statistics for prior years are not comparable with those shown for 1927, because of the fact that the production reported by establishments engaged primarily in the manufacture of patent and proprietary medicines and compounds is included for 1927 but not for prior years.

[3] Bromine and bromine content of compounds sold or used by producers in the United States, as reported by the Bureau of Mines: 1927, 1,756,310 pounds, valued at $564,689; 1925, 1,566,120 pounds, $488,406.

[4] Included in the figure for other "Miscellaneous organic chemicals."

[5] Included in the figure for "Inorganic—Other compounds."

[6] Production for sale by chemical and soap-manufacturing establishments only. Total production of crude glycerin, 80 per cent basis (Quarterly Census of Animal and Vegetable Fats and Oils): 1927, 128,208,642 pounds; 1925, 103,406,943 pounds.

[7] Data for production of copperas by rolling mills, 9,943 short tons, valued at $100,925, not included. The inclusion of this production would make a total of 37,884 tons, valued at $616,054.

[8] Production of electric-furnace ferro-alloys only. For the total production of ferro-alloys in all industries, see Table 13 in report on Blast Furnaces.

[9] Includes value of metals.

[10] For detailed statistics of production and sales of synthetic organic chemicals, see report of U. S. Tariff Commission, Tariff Information Series No. 37, 1927.

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

[Only the names of products for which separate statistics are shown are printed in this list]

Table	Page	Product, number of establishments, and distribution by states
		Acids—
3	662	Acetic, 18: Pa., 5; N. J., 3; Md., 2; Mass., 2; Mich., 2; Ill., Ind., N. Y., W. Va., 1 each.
3	662	Boric, 6: Calif., 2; Md., N. J., N. Y., Pa , 1 each.
3	663	Carbonic (carbon dioxide), 49: Calif., 6; N. Y., 6; Ill., 4; Pa., 4; Mass., 3; Tex., 3; Fla., 2; Ga., 2; Mich., 2; Mo., 2; Ohio, 2; Tenn., 2; Ala., Colo., Ind., Ky., La., Md., Minn., N. J., N. C., Va., Wash., 1 each.
3	663	Chromic, 6: N. J., 3; Mo., 1; Ohio, 1; Pa., 1.
3	663	Citric, 4: Calif., N. J., N. Y., Pa., 1 each.
3	663	Hydrochloric (muriatic), 40: Calif., 5; N. J., 5; Pa., 5; N. Y., 4; Ill., 3; Mass., 3; Mich., 3; Ohio, 3; Conn., 2; La., 2; Ark., Del., Ind., Md., Tex., 1 each.
3, 6	663, 667	Hydrocyanic, 6: Calif., 2; N. J., 2; Mo., 1; Pa., 1.
3	663	Hydrofluoric, 5: Del., Ind., N. Y., Ohio, Pa., 1 each.
3	663	Mixed (sulphuric-nitric), 41: N. J., 9; Pa., 5; Ill., 4; Mo. 3; N. Y., 3; Ala., 2; Calif., 2; Colo., 2; Mich., 2; Ariz., Conn., Del., Ind., Mass., Ohio, Utah, Wash., Wis., 1 each.
3, 6	663, 667	Nitric, 50: N. J., 9; Pa., 7; Calif., 5; Ill., 4; N. Y., 4; Mich., 3; Mo., 3; Colo., 2; Conn., 2; Tex., 2; Ala., Ariz., Del., Ind., Mass., Ohio, Wash., W. Va., Wis., 1 each.
3	664	Oleic, 12: Ohio, 5; Ill., 2; N. Y., 2; Pa., 2; N. J., 1.
3	664	Phosphoric, 6: N. J., 3; Ala., 1; N. Y., 1; R. I., 1.
3	664	Stearic, 12: Ohio, 5; Ill., 2; N. Y., 2; Pa., 2; N. J., 1.
3, 4, 5	664, 665, 666	Sulphuric, 181: Ga., 19; N. J., 16; Pa., 15; S. C., 12; Ala., 11; Ill., 11; Ohio, 11; N. C., 9; Tex., 8; Tenn., 7; Va., 7; Calif., 6; Md., 5; Miss., 5; Fla., 4; Mass., 4; N. Y., 4; La., 3; Mich., 3; Wis., 3; Ariz., 2; Ark., 2; Colo., 2; Conn., 2; Ind., 2; Del., Ky., Mo., Mont., Okla., Utah, Wash., W. Va., 1 each.
3	664	Sulphuric, reclaimed, 66: Pa., 11; Tex., 9; N. J., 7; Calif., 6; Ohio, 4; Okla., 4; Mo., 3; Ala., 2; Ill., 2; Ind., 2; Kans., 2; N. Y., 2; Wyo., 2; Ariz., Ark., Colo., Ky., La., Mich., Utah, Wash., W. Va., Wis., 1 each.
3	664	Tannic, 3: Mass., 1; Mo., 1; N. Y., 1.
3	664	Tartaric, 4: N. Y., 2; Calif., 1; Ohio, 1.
14	673	Alcohol, amyl, 20: La., 5; N. J., 5; Ill., 3; N. Y., 3; Ind., Md., Ohio, Pa., 1 each.
		Alums—
10	671	Aluminum sulphate (concentrated alum), 22: Pa., 6; Ill., 3; Ohio, 3; Calif., 2; Mass., 2; Conn., Del., Mo., N. J., N. Y., Tenn., 1 each.
10	671	Ammonia alum, 6: Pa., 2; Del., Ill., Mass., N. Y., 1 each.
10	671	Chrome and potash alums, 6: Mo., 2; N. J., 2; N. Y., 1; Pa., 1.
10	671	Soda alum, 5: Ill., 3; N. H., 1; Pa., 1.
10	671	Aluminous abrasives, 4: N. Y., 3; Ala., 1.
		Aluminum—
10	671	Chloride, 5: N. J., 2; Mass., 1; Pa., 1; W. Va., 1.
10	671	Stearate, 7: N. J., 2; Ohio, 2; Mo., 1; N. Y., 1; Pa., 1.
		Ammonia—
6, 7	667, 668	Anhydrous (chemical industries), 15: N. Y., 3; Pa., 2; Wash., 2; W. Va., 2; Calif., Del., Ill., Mo., N. J., Ohio, 1 each.
6, 7	667, 668	Aqua (chemical industries), 13: N. Y., 3; Pa., 2; Wash., 2; Calif., Colo., Mass., Mo., N. J., W. Va., 1 each.
6, 7	667, 668	Sulphate (chemical industries), 11: Pa., 2; Ky., La., Md., Mass., Mo., N. J., R. I., Tex., Va., 1 each.
14	673	Amyl acetate, 12: N. J., 7; Ill., Md., Mass., N. Y., Wis., 1 each.
14	673	Antimony chloride, 5: N. Y., 2; Mo., 1; N. J., 1; Pa., 1.
		Arsenate of—
14	674	Calcium, 18: N. J., 5; N. Y., 3; Md., 2; Tenn., 2; Ga., Ind., Mich., Mo., N. H., Ohio, 1 each.
14	674	Lead, 22: N. J., 5; Calif., 2; Colo., 2; Md., 2; N. Y., 2; Ga., Ill., Ind., Mich., Mo., Ohio, Pa., Wash., Wis., 1 each.
14	673	Arsenic oxides, 11: Calif., 2; Utah, 2; Colo., Md., Mont., N. J., N. Y., Tenn., Wash., 1 each.
		Barium—
14	674	Carbonate, 5: Ill., 2; Ohio, 1; Pa., 1; W. Va., 1.
14	674	Chloride, 4: Ill., 2; N. J., 1; Pa., 1.
14	674	Sulphate (blanc fixé), 13: N. Y., 3; Ill., 2; Mo., 2; Calif., N. J., Ohio, Pa., R. I., W. Va., 1 each.
		Bismuth—
14	674	Subcarbonate, 7: N. Y., 3; N. J., 2; Mo., 1; Pa., 1.
14	674	Subgallate, 7: N. Y., 3; N. J., 2; Mo., 1; Pa., 1.
14	674	Subnitrate, 7: N. Y., 3; N. J., 2; Mo., 1; Pa., 1.
14	674	Subsalicylate, 4: Mo., N. J., N. Y., Pa., 1 each.
14	674	Blanc fixé. (See Barium sulphate.)
11, 14	672, 675	Bleaching powder. (See Calcium hypochlorite.)
8	669	Borax. (See Sodium borate.)
14	674	Bromine, liquid, 4: W. Va., 3; Ohio, 1.
14	674	Butyl acetate, 9: N. J., 5; Ill., Md., Mass., N. Y., 1 each.

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

[See note at head of this table]

Table	Page	PRODUCT, NUMBER OF ESTABLISHMENTS, AND DISTRIBUTION BY STATES
		Calcium—
14	674	Acetate, 53: Pa., 23; N. Y., 11; Mich., 10; Tenn., 3; W. Va., 2; Wis., 2; Ky., 1; Miss., 1.
14	674	Arsenate. (See Arsenate of calcium.)
14	674	Carbide, 7: Iowa, 2; Ala., Mich., Minn., N. Y., Va., 1 each.
14	674	Chloride, 15: Calif., 4; W. Va., 3; Mich., 2; N. Y., 2; Ohio, 2; Mo., 1; Pa., 1.
11, 14	672, 675	Hypochlorite, 19: N. Y., 7; Mich., 2; Calif., Me., Md., Mass., N. H., Ohio, Pa., R. I., Va., Wis., 1 each.
		Phosphates—
14	675	Monobasic, 7: Ill., 2; Ala., Mo., R. I., S. C., Tenn., 1 each.
14	675	Dibasic and tribasic, 4: Ill., 2; N. Y., 1; R. I., 1.
		Carbon—
14	675	Bisulphide, 8: N. Y., 2; Pa., 2; Calif., Mich., N. H., W. Va., 1 each.
14	675	Tetrachloride, 4: Mich., N. H., N. Y., W. Va., 1 each.
14	675	Chloroform, 5: Mich., N. H., N. J., N. Y., Pa., 1 each.
11	672	Chlorine, liquid, 15: N. Y., 5; Mich., 3; Calif., 2; W. Va., 2; Ill., 1; N. H., 1; R. I., 1.
		Copper—
14	675	Carbonate, 6: N. J., 2; N. Y., 2; Calif., 1; Ohio, 1.
14	675	Sulphate (blue vitriol), 11: Calif., 2; N. J., 2; Idaho, N. Y., Mont., Mass., Pa., R. I., Tenn., 1 each.
6	667	Cyanide, ferric ferro (Prussian blue), 19: N. Y., 7; Ill., 4; N. J., 3; Pa., 2; Ky., 1; Ohio, 1; Wis., 1.
14	675	Ether, 7: N. J., 2; N. Y., 2; Md., 1; Mo., 1; Pa., 1.
		Ethyl—
14	675	Acetate, 12: N. J., 6; Mich., 2; Ill., Md., Mass., N. Y., 1 each.
14	675	Chloride, 6: N. J., 3; Mich., 1; N. Y., 1; Ohio, 1.
14	675	Nitrite, 4: Mo., N. J., N. Y., Pa., 1 each.
14	676	Ferro-alloys, electric furnace, 16: N. Y., 6; Pa., 3; Ala., Iowa, N. J., Ohio, Tenn., Va., W. Va., 1 each.
14	675	Formaldehyde, 5: N. J., 3; Ill., 1; Mich., 1.
		Glycerin—
14	676	Crude, 68: Calif., 11; N. Y., 9; Ohio, 8; Mass., 6; N. J., 6; Ill., 4; Pa., 4; Mo., 3; Ind., 2; Minn., 2; Oreg., 2; R. I., 2; Colo., Iowa, Ky., Md., Mich., Nebr., Nev., Wash., Wis., 1 each.
14	676	Refined, 24: Ill., 4; N. Y., 4; Ohio, 4; Calif., 2; Kans., 2; Mass., 2; N. J., 2; Pa., 2; Ind., 1; R. I., 1.
14	676	Hexamethylenetetramine, 4: N. J., 3; Ill., 1.
11	672	Hydrogen peroxide, 8: N. Y., 3; Mo., 2; N. J., 2; Calif., 1.
14	676	Iodine, resublimed, 7: N. Y., 3; N. J., 2; Mo., 1; Pa., 1.
14	676	Iodoform, 4: Mo., N. J., N. Y., Pa., 1 each.
		Iron—
14	676	Alloys. (See Ferro-alloys.)
14	676	Ammonium citrate, 3: Mo., 1; N. Y., 1; Pa., 1.
14	676	Chloride, 7: N. Y., 2; N. J., 2; Mich., 1; Mo., 1; Pa., 1.
14	676	Sulphate (copperas), 32: Pa., 7; Ohio, 6; Ill., 5; N. Y., 3; Ala., 2; Calif., 2; Ind., 2; N. J., 2; Conn., 1; Mich., 1; Mo., 1.
		Lead—
14	676	Acetate, 8: N. J., 3; N. Y., 3; Ohio, 1; Pa., 1.
14	674	Arsenate. (See Arsenate of lead.)
14	677	Lime-sulphur. (See Sulphur-lime.)
14	676	Magnesium sulphate (Epsom salt), 8: Calif., Ga., Md., Mich., Mo., N. Y., Ohio, Pa., 1 each.
		Mercury—
14	676	Chloride, mercuric, 6: N. J., 3; Mo., 1; N. Y., 1; Pa., 1.
14	676	Chloride, mercurous, 5: Md., Mo., N. J., N. Y., Pa., 1 each.
14	676	Oxide, 5: N. J., 2; Mo., 1; N. Y., 1; Pa., 1.
14	676	Methyl acetone, 6: Mich., 3; N. Y., 1; Pa., 1; Tenn., 1.
8	670	Niter cake (sodium bisulphate), 53: N. J., 8; Pa., 7; Ill., 4; Ga., 3; Mich., 3; Mo., 3; N. Y., 3; Tenn., 3; Colo., 2; Conn., 2; La., 2; N. C., 2; Ohio, 2; Ala., Calif., Del., Fla., Mass., Tex., Wash., W. Va., Wis., 1 each.
6	667	Nitrous oxide, 10: Ohio, 4; Calif., 2; Ill., Minn., Mo., N. J., 1 each.
		Potassium—
9	671	Acetate, 4: N. Y., 2; Mo., 1; Pa., 1.
9	671	Bitartrate (cream of tartar), 6: N. Y., 3; Calif., 1; Mass., 1; Ohio, 1.
9	671	Citrate, 5: N. Y., 2; Mo., 1; N. J., 1; Pa., 1.
9	671	Iodide, 7: N. Y., 4; Mo., 1; N. J., 1; Pa., 1.
13	673	Pyroxylin plastics, 8: N. J., 4; Mass., 2; Mo., 1; N. Y., 1.
14	675	Satin white (calcium sulphate and alumina), 5: Mich., 2; Pa., 2; R. I., 1.
14	677	Silver nitrate, 6: Pa., 2; Mo., N. J., N. Y., Ohio, 1 each.
		Soda—
8	669	Modified sodas (soda ash and caustic; soda ash and bicarbonate), 7: N. Y., 3; Calif., Mich., Ohio, Pa., 1 each.
8	669	Sal soda (soda, sodium carbonate), 21: Calif., 7; Colo., 2; Mass., 2; N. J., 2; N. Y., 2; Pa., 2; Ill., Md., Mich., Mo., 1 each.
8	670	Salt cake, 34: N. J., 5; Ohio, 4; Pa., 4; Calif., 3; Ill., 3; Conn., 2; Md., 2; Mass., 2; Ariz., Ark., Del., Ind., La., Mich., N. Y., Tex., W. Va., 1 each.
8	669	Soda ash, 12: Calif., 2; Mich., 2; N. Y., 2; Ohio, 2; Va., 2; Md., 1; Pa., 1.
		Sodium—
8	669	Acetate, 7: N. J., 2; N. Y., 2; Mass., 1; Mo., 1; Pa., 1.
8	669	Benzoate, 6: N. J., 2; N. Y., 2; Ill., 1; W. Va., 1.
8	669	Bicarbonate, refined, 6: Calif., 2; Mich., N. Y., Ohio, Va., 1 each.
8	669	Bichromate and chromate, 5: N. J., 3; Md., 1; Mo., 1.
8	670	Bisulphate. (See Niter cake.)

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

[See note at head of this table, p. 678]

Table	Page	PRODUCT, NUMBER OF ESTABLISHMENTS, AND DISTRIBUTION BY STATES
		Sodium—Continued.
8	670	Bisulphite, 9: N. J., 4; Mass., 2; Del., 1; Mo., 1; Pa., 1.
8	669	Borate (borax), 7; Calif., 4; N. J., 1; N. Y., 1; Pa., 1.
8	669	Citrate, 5: N. Y., 2; Mo., 1; N. J., 1; Pa., 1.
8	669	Fluoride, 3: Del., 1; N. Y., 1; Ohio, 1.
8	670	Glauber's salt (sodium sulphate), 20: N. J., 4; N. Y., 3; Pa., 3; Calif., 2; Mass., 2; Conn., Del., Ind., Iowa, Md., Ohio, 1 each.
8	669	Hydroxide (caustic), 23: N. Y., 7; Mich., 5; Ohio, 2; W. Va., 2; Calif., Ill., Me., N. H., R. I., Va., Wis., 1 each.
8	669	Hydroxide, repacked (purchased in bulk), 6: Pa., 2; Md., Mo., N. Y., Ohio, 1 each.
8, 11	670, 672	Hypochlorite, 11: Mich., 2; N. J., 2; N. Y., 2; Pa., 2; Calif., 1; Md., 1; Mo., 1.
8	670	Hyposulphite (thiosulphate), 8: N. J., 2; Pa., 2; Calif., Del., Ind., W. Va., 1 each
8	670	Iodide, 7: N. Y., 4; Mo., 1; N. J., 1; Pa., 1.
8	670	Nitrate, refined, 5: Calif., 2; Mo., 1; N. Y., 1; Pa., 1.
8	670	Phosphates, 11: N. J., 4; Ala., Del., Ill., Ind., Md., N. Y., Pa., 1 each.
8	670	Silicate, 24: Ohio, 4; Ind., 3; N. J., 3; N. Y., 3; Calif., 2; Ill., 2; Kans., 2; Mass., Mich., Mo., Pa., Wis., 1 each.
8	670	Silicofluoride, 8: Md., 2; Fla., Ga., Mass., N. J., Pa., Tenn., 1 each.
8	670	Sulphate, anhydrous, 5: N. J., 2; Ind., 1; Mo., 1; Pa., 1.
8	670	Sulphide, 16: N. J., 3; Ill., 2; Mo., 2; Pa., 2; Del., Ind., Mass., Mich., N. Y., Ohio, W. Va., 1 each.
8	670	Sulphite (normal), 6: N. J., 3; Calif., 1; Md., 1; Mo., 1.
		Sulphur—
14	677	Chloride, 5: Ill., Mich., N. H., N. Y., W. Va., 1 each.
11	672	Dioxide, 5: N. J., 2; Calif., 1; Va., 1; Wis., 1.
14	677	Refined, 7: Calif., 3; Md., N. J., Ohio, Tex., 1 each.
14	677	Sulphur-lime, 47: Wash., 6; Mo., 5; N. J., 5; Calif., 4; N. Y., 4; Fla., 3; Mich., 3; Colo., 2; Ga., 2; Ill., 2; Md., 2; Ohio, 2; Ala., Idaho, Ind., Oreg., Pa., Tex., Wis., 1 each.
14	677	Vanillin, 6: N. J., 4; Mo., 1; N. Y., 1.
		Zinc—
14	677	Chloride, 13: N. J., 3; Ill., 2; Pa., 2; Calif., Ind., Mass., Mo., Ohio, W. Va., 1 each.
14	677	Stearate, 7: N. J., 4; Mo., 1; N. Y., 1; Pa., 1.
14	677	Sulphate, 8: N. J., 2; Pa., 2; Kans., Mo., N. Y., Ohio, 1 each.

COMPRESSED AND LIQUEFIED GASES

[A preliminary report for this industry was issued under date of January 15, 1929]

Description of the industry.—This industry embraces establishments engaged primarily in the production of gases, such as carbon dioxide, chlorine, hydrogen, oxygen, etc., for sale in compressed and liquefied forms. 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. 656.)

Detailed statistics of products.—Table 3 gives detailed statistics of products for the census years 1921 to 1927. The statistics for 1925, 1923, and 1921 were formerly given in the report for the "Chemicals, not elsewhere classified" industry.

TABLE 1.—SUMMARY FOR THE UNITED STATES: 1927

[Statistics for this industry were included with those for the "Chemicals, not elsewhere classified" industry for 1925 and prior years]

ITEM	Number or amount	ITEM	Number or amount
Number of establishments	313	Value of products	$50, 547, 395
Wage earners (average for the year)	3, 212	Value added by manufacture [1]	$38, 798, 556
Wages	$4, 947, 577	Horsepower	70, 489
Cost of materials, supplies, fuel, and power	$11, 748, 839		

[1] Value of products less cost of materials, supplies, fuel, and power. (See secs. 18 and 21, pp. 9 and 10.)

TABLE 2.—PRIME MOVERS, MOTORS, AND GENERATORS, BY TYPE, NUMBER, AND RATED CAPACITY, FOR THE UNITED STATES: 1927

TYPE	1927	
	Number	Capacity
		Horsepower
Prime movers, total	1, 822	70, 489
Steam engines	73	5, 667
Steam turbines	1	10
Internal-combustion engines	10	1, 190
Water wheels and turbines	5	715
Electric motors driven by purchased current	1, 733	62, 907
Electric motors, total	1, 816	64, 580
Driven by purchased current	1, 733	62, 907
Driven by current generated in establishment reporting	83	1, 673
		Kilowatts
Electric generators	15	1, 982

TABLE 3.—PRODUCTS, BY KIND, QUANTITY, AND VALUE, FOR T STATES: 1921 TO 1927

	1927	1925	1923
1. Compressed and liquefied gases industry, all products, total value	$50,547,395	(1)	(1)
2. Compressed and liquefied gases	$50,067,106	(1)	(1)
3. Other products (not normally belonging to the industry)	$480,289		
4. Compressed and liquefied gases made as secondary products in other industries, value	$11,797,083		
Compressed and liquefied gases, all industries: Aggregate value (sum of 2 and 4)	$61,864,189	$55,532,616	$53,384,029
Ammonia, anhydrous [2]—			
Number of establishments	15	16	12
Pounds	45,115,020	31,724,858	23,529,382
Value	$4,011,362	$6,771,876	$6,414,667
Carbon dioxide (carbonic acid)—			
Number of establishments	49	44	45
Pounds	74,344,287	59,721,309	51,095,965
Value	$6,048,424	$5,128,441	$4,992,373
Chlorine [4]—			
Number of establishments	15	14	12
Total production, pounds	234,978,522	166,325,643	125,361,020
Made and consumed in same establishments	54,815,084	61,365,457	49,242,780
For sale—Pounds	180,163,438	104,960,186	76,118,240
Value	$6,678,145	$4,236,307	$2,778,088
Hydrogen—			
Number of establishments	47	48	51
M cubic feet	103,714	150,502	103,818
Value	$741,982	$876,976	$695,476
Oxygen—			
Number of establishments	156	141	121
M cubic feet	2,359,896	2,073,826	2,057,526
Liquefaction process	2,086,301	1,705,092	1,677,746
Electrolytic process	273,595	368,734	379,780
Value	$23,986,881	$22,577,110	$23,382,236
Nitrous oxide—			
Number of establishments	10	10	12
Thousands of gallons	66,392	54,882	45,297
Value	$809,614	$729,534	$730,644
Sulphur dioxide—			
Number of establishments	5	4	4
Pounds	11,003,719	8,968,453	6,575,995
Value	$720,470	$638,175	$414,049
Hydrocarbon gases—			
Acetylene—			
Number of establishments	83	69	58
M cubic feet	682,481	525,746	522,349
Value	$16,196,388	$13,514,964	$13,080,232
Pintsch gas—			
Number of establishments	43	(5)	(5)
M cubic feet	177,460		
Value	$1,408,211		
Other hydrocarbon gases, value	$1,007,869	$882,815	$735,988
Other gases,[6] value	$254,843	$176,418	$160,276

[1] No data. First treated as a separate industry at the census for 1927; see "Rayon and and liquefied gases," p. 656.
[2] The statistics do not include data for production in the coke and manufactured-gas indu for 1921; see footnote 3.
[3] Includes data for production in the manufactured-gas industry.
[4] Not including chlorine made and consumed in the wood-pulp industry.
[5] No data. Included in the statistics for the manufactured-gas industry.
[6] Argon, neon, nitrogen, etc.

TABLE 4.—GENERAL STATISTICS, BY STATES: 1927

[This table presents statistics for all States for which separate figures can be given without disclosing data reported by individual establishments. Certain of the "Other States," however, reported larger values of products than some of the States shown separately]

STATE	Number of establishments	PERSONS ENGAGED IN THE INDUSTRY				Horsepower
		Total	Proprietors and firm members	Salaried officers and employees	Wage earners (average for the year)	
United States	313	5,756	3	2,541	3,212	70,489
Alabama	6	72	--------	29	43	1,053
California	18	362	--------	179	183	4,097
Florida	4	24	--------	12	12	391
Georgia	7	121	--------	45	76	1,151
Illinois	19	354	--------	133	221	6,710
Iowa	5	55	--------	26	29	466
Kansas	4	31	--------	10	21	155
Kentucky	5	43	--------	24	19	945
Louisiana	5	111	--------	49	62	1,493
Massachusetts	11	223	--------	110	113	1,155
Michigan	10	203	1	82	120	2,136
Missouri	11	216	--------	112	104	2,438
New Jersey	16	495	--------	191	304	3,578
New York	14	345	--------	132	213	4,108
Ohio	32	676	--------	298	378	8,259
Pennsylvania	37	724	--------	251	473	10,425
Tennessee	6	57	--------	27	30	846
Texas	16	200	--------	97	103	4,937
Utah	5	54	--------	23	31	1,316
Virginia	10	200	--------	78	122	2,031
Washington	9	227	--------	177	50	1,153
Wisconsin	8	154	--------	65	89	1,892
Other States [1]	55	809	2	391	416	9,754

STATE	Salaries	Wages	Cost of materials, supplies, fuel, and power		Value of products	Value added by manufacture [2]
			Materials and supplies	Fuel and power		
United States	$4,779,887	$4,947,577	$8,983,319	$2,765,520	$50,547,395	$38,798,556
Alabama	52,487	62,782	88,355	32,265	713,619	592,999
California	345,606	280,122	811,840	124,382	3,579,197	2,642,975
Florida	17,922	15,325	14,431	5,128	123,761	104,202
Georgia	88,770	71,642	197,456	37,818	1,059,635	824,361
Illinois	307,338	388,611	494,541	208,026	3,832,654	3,130,087
Iowa	51,476	45,381	132,738	20,358	490,360	337,264
Kansas	16,693	29,149	58,392	9,871	287,365	219,102
Kentucky	57,707	30,670	97,068	30,329	311,864	184,467
Louisiana	92,048	71,339	147,018	63,278	977,925	767,629
Massachusetts	187,720	178,090	406,423	104,730	2,109,814	1,598,661
Michigan	174,912	193,600	456,908	110,377	2,206,466	1,639,181
Missouri	215,367	156,208	389,119	95,700	2,352,966	1,868,147
New Jersey	477,866	520,979	1,009,136	230,680	4,304,670	3,064,854
New York	244,451	321,162	416,345	123,957	3,205,168	2,664,866
Ohio	607,253	628,886	815,855	378,009	5,207,267	4,013,403
Pennsylvania	450,627	717,313	838,070	394,940	5,912,697	4,679,687
Tennessee	48,937	46,142	24,093	27,987	412,683	360,603
Texas	165,781	138,645	340,910	157,143	1,879,115	1,381,062
Utah	44,761	48,508	75,259	23,041	370,878	272,578
Virginia	140,443	172,416	211,026	61,452	1,335,520	1,063,042
Washington	91,070	69,846	180,633	43,339	808,512	584,540
Wisconsin	151,852	131,704	232,671	114,604	1,452,098	1,104,823
Other States [1]	748,800	629,057	1,545,032	368,106	7,613,161	5,700,023

[1] Arizona, 1 establishment; Arkansas, 1; Colorado, 5; Connecticut, 1; District of Columbia, 1; Idaho, 1; Indiana, 9; Maine, 1; Maryland, 4: Minnesota, 10; Montana, 1; Nebraska, 4; North Carolina, 3; Oklahoma, 5; Oregon, 2; Rhode Island, 1; South Carolina, 1; South Dakota, 1; West Virginia, 3.

[2] Value of products less cost of materials, supplies, fuel, and power. (See secs. 18 and 21, pp. 9 and 10.)

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

[Preliminary reports for these industries were published as follows: Druggists' preparations, January 31, 1929; Patent and proprietary medicines and compounds, February 27, 1929; Perfumes, cosmetics, and other toilet preparations, November 20, 1928]

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, toxins, capsules (filled or unfilled), tablets, pills, tinctures, medicinal plasters, cough sirups, ointments, and other pharmaceuticals.

The principal products of the "Patent and 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, and various compounds or products handled by the pharmaceutical trade, such as insecticides, corn cures, household ammonia, disinfectants, boiler compounds, fire-extinguishing 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: 1919 TO 1927

[Data for establishments with products under $5,000 in value included for 1919 but not for subsequent years. See sec. 10, p. 6]

YEAR OR PERIOD	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, supplies, containers for products, fuel, and power	Value of products	Value added by manufacture [1]	Horsepower
THE GROUP AS A WHOLE							
1927	2,360	35,672	$39,574,979	$177,905,588	$549,797,727	$371,892,139	60,432
1925	2,243	33,201	35,206,911	167,786,065	472,494,323	304,708,258	53,774
1923	2,217	34,080	33,202,878	159,801,905	416,878,601	257,076,696	47,755
1921	2,266	30,476	30,979,429	132,157,711	330,137,156	197,979,445	(2)
1919	3,560	38,417	29,893,754	170,104,918	386,369,132	216,264,214	40,275
Per cent of increase or decrease (−):							
1925–1927	5.2	7.4	12.4	6.0	16.4	22.0	12.4
1923–1925	1.2	−2.6	6.0	5.0	13.3	18.5	12.6
1923–1927	6.5	4.7	19.2	11.3	31.9	44.7	26.5
1919–1927	−33.7	−7.1	32.4	4.6	42.3	72.0	50.0
DRUGGISTS' PREPARATIONS							
1927	373	10,138	$11,942,469	$40,499,392	$110,309,139	$69,809,747	15,919
1925	370	9,685	11,078,384	36,063,719	95,419,824	59,356,105	12,553
1923	389	8,966	9,185,975	33,363,859	79,142,668	45,778,809	11,255
1921	408	10,838	11,936,658	34,573,664	81,697,922	47,124,258	(2)
1919	524	15,568	12,161,925	55,138,475	114,593,486	59,455,011	12,670
Per cent of increase or decrease (−):							
1925–1927	0.8	4.7	7.8	12.3	15.6	17.6	26.8
1923–1925	−4.9	8.0	20.6	8.1	20.6	29.7	11.5
1923–1927	−4.1	13.1	30.0	21.4	39.4	52.5	41.4
1919–1927	−28.8	−34.9	−1.8	−26.6	−3.7	17.4	25.6
PATENT AND PROPRIETARY MEDICINES AND COMPOUNDS							
1927	1,282	15,071	$16,667,425	$84,640,850	$278,242,929	$193,602,079	34,082
1925	1,279	14,802	15,592,017	84,789,647	247,564,046	162,774,399	33,840
1923	1,363	17,353	16,914,859	88,802,058	237,494,447	148,692,389	29,998
1921	1,436	13,800	13,684,434	69,571,327	175,898,330	106,327,003	(2)
1919	2,467	17,444	13,748,813	88,819,417	212,162,255	123,342,838	25,409
Per cent of increase or decrease (−):							
1925–1927	0.2	1.8	6.9	−0.2	12.4	18.9	0.7
1923–1925	−6.2	−14.7	−7.8	−4.5	4.2	9.5	12.8
1923–1927	−5.9	−13.2	−1.5	−4.7	17.2	30.2	13.6
1919–1927	−48.0	−13.6	21.2	−4.7	31.1	57.0	34.1
PERFUMES, COSMETICS, AND OTHER TOILET PREPARATIONS							
1927	705	10,463	$10,965,085	$52,765,346	$161,245,659	$108,480,313	10,431
1925	594	8,714	8,536,510	46,932,699	129,510,453	82,577,754	7,381
1923	465	7,761	7,102,044	37,635,988	100,241,486	62,605,498	6,502
1921	422	5,838	5,358,337	28,012,720	72,540,904	44,528,184	(2)
1919	569	5,405	3,983,016	26,147,026	59,613,391	33,466,365	2,196
Per cent of increase:							
1925–1927	18.7	20.1	28.4	12.4	24.5	31.4	41.3
1923–1925	27.7	12.3	20.2	24.7	29.2	31.9	13.5
1923–1927	51.6	34.8	54.4	40.2	60.9	73.3	60.4
1919–1927	23.9	93.6	175.3	101.8	170.5	224.1	375.0

[1] Value of products less cost of materials, supplies, containers for products, fuel, and power. (See secs. 18 and 21, pp. 9 and 10.)
[2] Not called for on schedule.

TABLE 2.—PRIME MOVERS, MOTORS, AND GENERATORS, BY TYPE, NUMBER, AND RATED CAPACITY, FOR THE UNITED STATES: 1927, 1925, AND 1923

TYPE	1927		1925		1923	
	Number	Capacity	Number	Capacity	Number	Capacity
THE GROUP AS A WHOLE		*Horse-power*		*Horse-power*		*Horse-power*
Prime movers, total	13,141	60,432	9,817	53,774	7,893	47,755
Steam engines	150	13,135	163	15,222	169	15,493
Steam turbines	12	3,003	3	1,750		
Internal-combustion engines	26	1,007	29	1,244	51	1,435
Water wheels and turbines	----------	----------	----------	----------	3	34
Electric motors driven by purchased current	12,953	43,287	9,622	35,558	7,670	30,793
Electric motors, total	16,873	54,897	13,557	48,672	10,928	41,417
Driven by purchased current	12,953	43,287	9,622	35,558	7,670	30,793
Driven by current generated in establishment reporting	3,920	11,610	3,935	13,114	3,258	10,624
		Kilowatts		*Kilowatts*		*Kilowatts*
Electric generators	84	9,810	90	9,833	(1)	(1)
DRUGGISTS' PREPARATIONS		*Horse-power*		*Horse-power*		*Horse-power*
Prime movers, total	2,924	15,919	1,750	12,553	1,564	11,255
Steam engines	39	4,873	45	5,251	43	5,897
Steam turbines	8	2,602	3	1,750		
Internal-combustion engines	6	613	3	625	13	674
Electric motors driven by purchased current	2,871	7,831	1,699	4,927	1,508	4,684
Electric motors, total	4,885	13,033	3,932	10,762	2,789	9,782
Driven by purchased current	2,871	7,831	1,699	4,927	1,508	4,684
Driven by current generated in establishment reporting	2,014	5,202	2,233	5,835	1,281	5,098
		Kilowatts		*Kilowatts*		*Kilowatts*
Electric generators	35	5,012	31	4,592	(1)	(1)
PATENT AND PROPRIETARY MEDICINES AND COMPOUNDS		*Horse-power*		*Horse-power*		*Horse-power*
Prime movers, total	6,528	34,082	5,666	33,840	4,713	29,998
Steam engines	98	7,530	111	9,276	116	8,801
Steam turbines	3	394	----------	----------		
Internal-combustion engines	19	374	23	594	33	723
Water wheels and turbines	----------	----------	----------	----------	3	34
Electric motors driven by purchased current	6,408	25,784	5,532	23,970	4,561	20,440
Electric motors, total	8,030	31,745	7,065	30,763	6,346	25,269
Driven by purchased current	6,408	25,784	5,532	23,970	4,561	20,440
Driven by current generated in establishment reporting	1,622	5,961	1,533	6,793	1,785	4,829
		Kilowatts		*Kilowatts*		*Kilowatts*
Electric generators	44	4,453	53	4,850	(1)	(1)
PERFUMES, COSMETICS, AND OTHER TOILET PREPARATIONS		*Horse-power*		*Horse-power*		*Horse-power*
Prime movers, total	3,689	10,431	2,401	7,381	1,616	6,502
Steam engines	13	732	7	695	10	795
Steam turbines	1	7	----------	----------		
Internal-combustion engines	1	20	3	25	5	38
Electric motors driven by purchased current	3,674	9,672	2,391	6,661	1,601	5,669
Electric motors, total	3,958	10,119	2,560	7,147	1,793	6,366
Driven by purchased current	3,674	9,672	2,391	6,661	1,601	5,669
Driven by current generated in establishment reporting	284	447	169	486	192	697
		Kilowatts		*Kilowatts*		*Kilowatts*
Electric generators	5	345	6	391	(1)	(1)

[1] Not called for on schedule.

TABLE 3.—PRODUCTS, BY CLASS, KIND, AND VALUE, FOR THE UNITED STATES: 1921 TO 1927

CLASS	1927	1925	1923	1921
PRODUCTS, BY INDUSTRIES				
1. The drug industries, all products, total value	$549,797,727	$472,494,323	$416,878,601	$330,137,156
2. Products belonging to the drug industries	521,510,876	445,252,396	395,745,329	314,337,266
3. Other products (not normally belonging to these industries)	28,286,851	27,241,927	21,133,272	15,799,890
4. Secondary products of other industries, value	33,670,382	30,354,736	32,345,968	27,134,938
Druggists' preparations industry, all products, total value	110,309,139	95,419,824	79,142,668	81,697,922
Druggists' preparations	83,582,583	67,111,168	57,384,698	(1)
Patent and proprietary medicines and compounds	22,069,686	22,590,733	16,988,320	
Perfumes, cosmetics, and other toilet preparations	1,746,121	2,082,850	1,245,537	
Other products	2,910,749	3,635,073	3,524,113	
Patent and proprietary medicines and compounds industry, all products, total value	278,242,929	247,564,046	237,494,447	175,898,330
Patent and proprietary medicines and compounds	234,028,975	214,015,660	202,628,887	(1)
Druggists' preparations	12,008,181	6,535,576	12,407,979	
Perfumes, cosmetics, and other toilet preparations	17,776,856	11,723,274	8,996,691	
Other products	14,428,917	15,289,536	13,460,890	
Perfumes, cosmetics, and other toilet preparations industry, all products, total value	161,245,659	129,510,453	100,241,486	72,540,904
Perfumes, cosmetics, and other toilet preparations	142,036,937	115,780,721	90,005,203	(1)
Druggists' preparations	2,118,273	921,317	1,309,158	
Patent and proprietary medicines and compounds	6,143,264	4,491,097	4,778,856	
Other products	10,947,185	8,317,318	4,148,269	
Secondary products of other industries:				
Druggists' preparations, value	10,793,159	6,352.614	7,475,488	5,199,800
Patent and proprietary medicines and compounds, value	5,963,201	6,196,233	5,880,851	5,823,405
Perfumes, cosmetics, and other toilet preparations, value	[2] 16,914,022	[2] 17,805,889	[2] 18,989,629	[2] 16,111,733
Products in detail, all industries: Aggregate value (sum of 2 and 4)	[3] $555,181,258	$475,607,132	$428,091,297	$341,472,204
Druggists' preparations, total value	$108,502,196	$80,920,675	$78,577,323	$77,970,083
Alkaloids and derivatives, total	$7,154,505	$6,336,778	$6,432,991	$4,986,730
Caffeine—				(4)
Pounds	399,002	322,137	55,754	
Value	$1,178,216	$1,047,321	$491,379	
Codein—				
Pounds	9,125	5,956	6,654	
Value	$1,168,966	$701,777	$689,249	
Morphine—				
Pounds	10,665	6,297	11,268	
Value	$1,391,213	$922,133	$1,305,988	
Strychnine—				
Pounds	27,644	14,402	17,768	
Value	$190,120	$121,805	$245,803	
Nicotine—				
Pounds	789,838	711,374		
Value	$2,011,300	$1,681,893	$3,700,572	
Other, including quinine and other cinchona alkaloids, and alkaloids not itemized, value	$1,214,690	$1,861,849		

See footnotes at end of table.

TABLE 3.—PRODUCTS, BY CLASS, KIND, AND VALUE, FOR THE UNITED STATES: 1921 TO 1927—Continued

CLASS	1927	1925	1923	1921
Druggists' preparations—Continued.				
Biological products, total value	$18,411,028	$10,621,933	$14,002,409	$10,856,924
Antitoxins—				
For human use	2,104,967	2,573,728	(5)	(5)
For animal use	675,268			
Bacterins—				
For human use	1,349,229	766,052		
For animal use	955,072			
Serums—				
For human use	1,619,767	2,951,459		
For animal use	8,342,027			
Vaccines—				
For human use	1,487,074	1,335,184		
For animal use	515,904			
Viruses—				
For human use	399,951	864,338		
For animal use	471,843			
Undistributed (not reported by kind)—				
For human use	423,913	2,131,172		
For animal use	66,013			
Other druggists' preparations (not patent or proprietary):				
Tinctures, fluid extracts, medicinal sirups, and other liquid preparations, not otherwise accounted for, value	38,611,636	30,232,355	26,316,298	29,777,199
Pills, tablets, powders, etc., not otherwise accounted for, value	41,745,473	32,553,416	30,653,374	30,451,434
Pharmaceutical metals and their salts, value	2,579,554	1,176,193	1,172,251	1,897,796
Patent and proprietary medicines, total value	$184,073,332	$174,305,562	$165,464,630	$128,306,010
For sale to the general public—				
Containing narcotic drugs (opium, codein, morphine, heroin, or cocaine)	646,139	278,202	862,403	403,552
Not containing narcotic drugs	140,032,935	133,909,803	125,980,912	107,952,047
Ethical specialties (dispensed on prescription)—				
Containing narcotic drugs (opium, codein, morphine, heroin, or cocaine)	1,781,319	1,394,549	1,347,861	657,790
Not containing narcotic drugs, total value	41,612,939	38,723,008	37,273,454	19,292,621
Synthetic chemicals, medicinal	5,815,436	2,252,244	(5)	(5)
Gland products	6,748,801	5,447,361		
Vitamin preparations	1,443,211	342,554		
Other	27,605,491	30,680,849		
Patent and proprietary compounds, total value	$84,131,794	$72,988,161	$64,812,284	$44,440,048
Antiseptics, value	$17,863,540	$13,842,386	$7,963,407	$4,073,425
Deodorants, total value	$2,5724,80	$2,718,633	$1,369.968	$1,176,135
Liquid—				
Pounds	6,378,283	(5)	(5)	(5)
Value	$1,517,035			
Block and crystal—				
Pounds	513,503			
Value	$380,171			
Powder—				
Pounds	1,671,838			
Value	$347,125			
Other—				
Pounds	630,230			
Value	$328,509			
Disinfectants, total value	$6,088,781	$5,775,388	$5,291,353	$4,648,249
Coal-tar—				
Pounds	23,230,545	(5)	(5)	(5)
Value	$3,824,974			
Pine oil—				
Pounds	2,897,009			
Value	$442,072			
Chloride of lime and chlorine products—				
Pounds	1,390,607			
Value	$123,925			
Other—				
Pounds	7,283,512			
Value	$1,697,810			

See footnotes at end of table.

TABLE 3.—PRODUCTS, BY CLASS, KIND, AND VALUE, FOR THE UNITED STATES: 1921 TO 1927—Continued

CLASS	1927	1925	1923	1921
Patent and proprietary compounds—Continued.				
Germicides, value	$2,237,513	$1,305,430	$1,060,211	$509,448
Insecticides and fungicides, total value	$21,689,631	$18,903,973	$21,916,776	$12,354,228
Household insecticides, total value	$12,907,977			
Sprays, fly—				
Pounds	18,407,817			
Value	$6,100,798			
Insect powder (Pyrethrum)—				
Pounds	2,730,863			
Value	$1,772,153			
Fluoride powders and mixtures—				
Pounds	614,878	(5)	(5)	(5)
Value	$310,236			
Moth repellants—				
Pounds	3,679,903			
Value	$1,103,685			
Other—				
Pounds	14,197,294			
Value	$3,621,105			
Agricultural insecticides and fungicides, value [6]	$8,781,654			
Boiler compounds, value	$5,867,285	$5,756,729	$4,889,270	$3,622,352
Fire-extinguishing compounds, value	$156,223	$144,601	$132,430	$98,447
Household ammonia, value	$1,249,117	$1,848,198	(4)	(4)
Other compounds, value	$26,406,864	$22,692,823	$22,188,869	$17,957,764
Perfumes, cosmetics, and other toilet preparations, total value	[2] $178,473,936	[2] $147,392,734	[2] $119,237,060	[2] $90,756,063
Perfumes	15,300,504	20,357,539	(5)	(5)
Toilet waters	8,469,207			
Creams	29,218,815	35,548,920		
Rouges	11,492,644			
Dentifrices	30,692,834	25,736,068		
Hair dyes	3,118,760	2,581,862		
Hair tonics	11,638,678	9,990,986		
Face powders	21,582,602	21,377,529		
Talcum powders	8,002,743			
Other toilet powders	3,096,985			
Depilatories	1,071,969	23,698,412		
Shampoos	3,824,540			
Other toilet preparations	30,963,655			
Perfumes, cosmetics, and other toilet preparations not reported by class or kind	----------	8,101,418		

[1] Not tabulated separately.
[2] Includes values of perfumes, cosmetics, and other toilet preparations made as secondary products by establishments classified in the soap industry, as follows: 1927, $16,278,835; 1925, $15,686,545; 1923, $16,928,310; 1921, $15,115,334.
[3] This aggregate is the sum of all items in the column beneath except those which are underscored.
[4] No comparable data.
[5] Not reported separately.
[6] Production in the drug industries only. This item consists principally of calcium and lead arsenates, lime-sulphur solution, etc., data for which are included in the statistics for these commodities shown in the report for the "Chemicals, not elsewhere classified" industry.

TABLE 4.—PRODUCTS, BY CLASS AND VALUE, FOR THE UNITED STATES, 1921 TO 1927, AND FOR STATES, 1927

[This table presents statistics for all States for which separate figures can be given without disclosing data reported by individual establishments]

STATE AND CENSUS YEAR	Aggregate	DRUGGISTS' PREPARATIONS					Patent and proprietary medicines	Patent and proprietary compounds
		Total	Biological products (serums, vaccines, toxins, etc.)	Tinctures, fluid extracts, medicinal sirups, etc., and synthetic preparations	Pills, tablets, powders, etc., not otherwise accounted for	Alkaloids and derivatives, and pharmaceutical metals and their salts		
United States:								
1927	$555,181,258	$108,502,196	$18,411,028	$38,611,636	$41,745,473	$9,734,059	$184,073,332	$84,131,794
1925	475,607,132	80,920,675	10,621,933	30,232,355	32,553,416	7,512,971	174,305,562	72,988,161
1923	428,091,297	78,577,323	14,002,409	26,316,298	30,653,374	7,605,242	165,464,630	64,812,284
1921	341,472,204	77,970,083	10,856,924	29,777,199	30,451,434	6,884,526	128,306,010	44,440,048
Alabama and Florida	3,001,583	58,298	----------	22,876	35,422	----------	465,031	1,942,183
California	10,201,428	877,929	428,606	299,186	(1)	(1)	3,135,370	3,708,120
Connecticut	15,522,459	3,618,441	----------	2,822,372	796,069	----------	4,067,278	577,473
Georgia	4,444,888	162,164	(1)	59,239	(1)	----------	3,096,808	647,100
Illinois	59,685,411	9,191,591	532,119	1,728,680	6,895,434	35,358	21,108,349	11,954,915
Indiana	20,832,753	11,088,888	1,850,185	(1)	3,780,465	(1)	5,912,727	1,525,008
Iowa	11,832,137	2,896,084	2,304,271	262,187	329,626	----------	4,182,635	622,651
Kansas	2,070,655	1,863,845	(1)	----------	(1)	----------	157,474	9,937
Kentucky and West Virginia	3,898,532	2,382,328	(1)	757,674	(1)	(1)	730,125	187,177
Louisiana	1,513,322	89,043	----------	43,243	(1)	(1)	736,497	429,787
Maine, New Hampshire, Vermont, and Rhode Island	2,609,980	527,449	----------	437,478	(1)	(1)	1,286,963	755,365
Maryland	18,787,039	3,942,012	----------	2,562,437	1,358,779	(1)	10,285,383	3,873,900
Massachusetts	22,955,359	4,556,316	(1)	2,312,173	2,045,109	(1)	10,481,025	2,325,949
Michigan	35,680,850	9,451,733	(1)	2,866,454	4,604,731	(1)	18,518,528	3,969,215
Minnesota	8,212,585	282,002	120,745	122,050	(1)	(1)	1,968,986	2,385,180
Missouri	45,549,901	6,969,143	1,590,208	2,249,853	1,797,158	1,331,924	13,508,297	15,906,897
Nebraska	2,830,156	1,924,763	1,704,463	(1)	(1)	----------	462,385	352,178
New Jersey	49,543,929	5,601,026	(1)	(1)	3,108,053	1,460,243	14,543,745	6,652,459
New York	148,491,876	19,038,823	1,951,858	5,435,955	9,535,878	2,115,132	38,777,163	11,610,170
North Carolina and Virginia	5,346,170	1,282,819	(1)	(1)	(1)	1,152,573	3,250,182	515,286
Ohio	23,887,951	3,018,250	(1)	1,274,387	1,453,262	(1)	7,777,158	6,859,871
Oregon and Washington	1,276,397	98,923	----------	(1)	(1)	----------	225,185	539,099
Pennsylvania	35,652,910	16,144,420	(1)	7,800,173	4,249,115	(1)	11,796,899	3,168,283
Tennessee	11,999,818	1,214,030	(1)	687,151	498,605	(1)	5,690,484	740,168
Texas	2,587,989	630,578	(1)	302,915	29,533	(1)	713,397	940,712
Wisconsin	3,223,713	341,150	(1)	(1)	(1)	----------	545,608	657,287
Other States	3,541,467	1,250,148	995,040	74,177	80,266	100,665	649,650	1,275,424
Undistributed	----------	----------	[1] 6,933,533	[1] 6,490,976	[1] 1,147,968	[1] 3,538,164	----------	----------

[1] The values not shown for individual States are included in the "Undistributed" item in order to avoid disclosing the output of individual establishments.

TABLE 4.—PRODUCTS, BY CLASS AND VALUE, FOR THE UNITED STATES, 1921 TO 1927, AND FOR STATES, 1927—Continued

[This table presents statistics for all States for which separate figures can be given without disclosing data reported by individual establishments]

STATE AND CENSUS YEAR	PERFUMES, COSMETICS, AND OTHER TOILET PREPARATIONS							
	Total	Perfumes and toilet waters	Creams, rouges, etc.	Dentifrices	Hair tonics	Face powders	Talcum and other toilet powders	Other toilet preparations
United States:								
1927	$178,473,936	$23,769,711	$40,711,459	$30,692,834	$11,638,678	$21,582,602	$11,099,728	$38,978,924
1925	147,392,734	20,357,539	35,548,920	25,736,068	9,990,986	21,377,529		34,381,692
1923	119,237,060	(2)	(2)	(2)	(2)	(2)	(2)	(2)
1921	90,756,063							
Alabama and Florida	536,071	47,228	17,233	(1)	7,625	(1)	414,173	20,814
California	2,480,009	418,327	566,397	277,487	447,327	120,530	25,750	624,191
Connecticut	7,259,267	932,092	3,848,499	2,267,832	(1)	(1)	(1)	145,129
Georgia	538,816	7,711	23,620		73,495	22,610	46,156	365,224
Illinois	17,430,556	1,827,265	4,155,181	5,484,445	540,129	2,005,997	571,053	2,846,486
Indiana	2,306,130	377,682	357,639	6,925	293,152	125,243	39,550	1,105,939
Iowa	4,130,767	270,404	862,154	9,560	376,207	2,234,964	18,840	358,638
Kansas	39,399	(1)	4,573	(1)	(1)	(1)	(1)	9,511
Kentucky and West Virginia	598,902	(1)	(1)		294,404	11,381	1,491	248,059
Louisiana	257,995	41,709	48,342	6,432	9,955	15,293	95,993	40,271
Maine, New Hampshire, Vermont, and Rhode Island	40,203	5,143	7,058	(1)	(1)	(1)	2,563	3,552
Maryland	685,744	189,203	280,101	58,476	73,865	22,729	41,702	19,668
Massachusetts	5,592,069	1,527,763	995,345	435,467	175,984	1,144,453	867,299	445,758
Michigan	3,741,374	511,231	1,463,660	500,628	346,295	105,324	297,733	516,503
Minnesota	3,576,417	463,589	1,291,293	75,087	289,052	210,250	73,165	1,173,981
Missouri	9,165,564	471,637	606,479	3,762,388	1,517,597	329,053	523,476	1,954,934
Nebraska	90,830	(1)	(1)			(1)		68,233
New Jersey	22,746,699	1,405,950	1,107,099	11,864,274	301,361	9,282	1,584,169	6,474,564
New York	79,065,720	13,051,396	19,666,173	4,720,664	5,846,625	13,291,210	5,935,002	16,554,650
North Carolina and Virginia	297,883	12,213	(1)	(1)	49,831	(1)	(1)	202,239
Ohio	6,232,672	1,000,597	1,190,867	676,150	407,491	139,246	175,357	2,642,964
Oregon and Washington	413,190	12,409	65,286	(1)	(1)	6,673	6,450	319,634
Pennsylvania	4,543,308	906,483	1,213,996	246,213	250,314	520,482	133,344	1,272,476
Tennessee	4,355,136	153,718	1,753,612	194,409	85,109	1,058,853	208,189	901,246
Texas	303,302	19,452	58,540	(1)	120,426	(1)	8,049	85,513
Wisconsin	1,679,668	42,678	988,548		52,781	(1)	(1)	511,711
Other States	366,245	51,215	89,997	62,474	32,538	57,538	5,447	67,036
Undistributed		[1] 22,616	[1] 49,767	[1] 43,923	[1] 47,115	[1] 151,491	[1] 24,777	

[1] The values not shown for individual States are included in the "Undistributed" item in order to avoid disclosing the output of individual establishments.
[2] Not reported separately.

TABLE 5.—GENERAL STATISTICS, BY STATES: 1927

[This table presents statistics for all States for which separate figures can be given without disclosing data reported by individual establishments. Certain of the "Other States," however, reported larger values of products than some of the States shown separately]

STATE	Number of establishments	PERSONS ENGAGED IN THE INDUSTRY				Horsepower	Salaries	Wages	Cost of materials, supplies, containers for products, fuel, and power		Value of products	Value added by manufacture [1]
		Total	Proprietors and firm members	Salaried officers and employees	Wage earners (average for the year)				Materials, supplies, and containers	Fuel and power		
THE GROUP AS A WHOLE												
United States	2,360	55,187	1,162	18,353	35,672	60,432	$44,329,163	$39,574,979	$175,309,852	$2,595,736	$549,797,727	$371,892,139
DRUGGISTS' PREPARATIONS												
United States	373	14,770	154	4,478	10,138	15,919	10,372,755	11,942,469	39,870,330	629,062	110,309,139	69,809,747
Alabama	4	26	-------	16	10	----------	24,666	3,755	21,519	125	71,785	50,141
California	9	193	7	74	112	131	127,772	124,514	449,374	5,702	1,153,855	698,779
Colorado	5	36	5	10	21	10	23,334	30,121	134,714	2,661	209,756	72,381
Illinois	31	854	11	398	445	1,264	1,027,022	590,141	1,953,715	42,020	6,171,216	4,175,481
Indiana	11	1,850	-------	673	1,177	2,054	1,384,375	1,445,040	3,715,165	99,205	13,304,269	9,489,899
Iowa	11	274	11	67	196	291	197,645	225,267	1,085,811	19,831	2,662,313	1,556,671
Kansas	15	194	6	44	144	232	113,120	180,200	1,170,218	12,365	1,690,649	508,066
Massachusetts	19	162	3	53	106	148	126,280	111,931	571,340	5,519	1,194,256	617,397
Minnesota	6	46	2	13	31	58	28,078	33,686	118,288	4,980	331,132	207,864
Missouri	23	505	11	149	345	844	356,363	386,075	1,677,599	24,595	3,429,769	1,727,575
Nebraska	10	211	5	69	137	159	167,145	188,571	1,156,903	11,937	1,942,943	774,103
New Jersey	15	765	8	226	531	540	675,829	526,654	1,716,681	29,325	5,212,143	3,466,137
New York	74	2,518	40	775	1,703	2,969	1,795,254	1,938,631	7,141,461	117,020	18,392,861	11,134,380
Ohio	24	588	9	214	365	739	392,610	428,177	1,588,732	19,805	3,790,695	2,182,158
Pennsylvania	39	2,232	18	626	1,588	2,118	1,420,976	1,721,342	4,879,522	82,238	15,397,388	10,435,628
Rhode Island	3	25	1	7	17	13	17,961	18,724	41,931	1,993	100,972	57,048
Tennessee	8	176	2	63	111	69	131,234	84,478	892,843	3,683	1,724,785	828,259
Texas	8	132	1	30	101	85	79,140	83,370	346,859	6,208	835,949	482,882
Other States [2]	58	3,983	14	971	2,998	4,195	2,283,951	3,821,792	11,207,655	139,850	32,692,403	21,344,898

PATENT AND PROPRIETARY MEDICINES AND COMPOUNDS												
United States	1,282	24,167	633	8,463	15,071	34,082	21,362,430	16,667,425	83,154,851	1,485,999	278,242,929	193,602,079
Arkansas	8	34	6	12	16	9	21,296	13,390	63,815	1,796	177,224	111,613
California	90	930	59	362	509	1,911	806,399	632,074	2,954,974	34,699	6,671,017	3,681,344
Colorado	10	35	3	14	18	18	25,001	14,984	96,940	906	214,887	117,041
Florida	15	123	1	54	68	432	133,058	66,347	473,521	4,630	1,117,597	639,446
Georgia	25	367	14	152	201	377	368,333	128,519	1,065,169	12,000	3,967,290	2,890,121
Illinois	124	2,982	51	1,211	1,720	4,316	2,706,671	2,098,299	11,062,826	220,654	38,809,788	27,526,808
Indiana	36	578	16	215	347	791	733,012	395,736	1,484,932	26,508	5,597,442	4,086,002
Iowa	47	728	28	292	408	1,214	519,400	434,839	1,712,559	24,400	5,498,453	3,761,434
Kansas	9	47	2	15	30	34	30,711	36,999	90,723	2,973	244,178	150,482
Kentucky	12	99	13	32	54	71	72,736	45,725	180,622	4,551	658,312	473,139
Louisiana	18	165	7	52	106	31	147,153	72,260	479,351	1,778	1,350,310	869,181
Maine	9	75	7	22	46	78	54,188	48,790	138,871	6,300	454,315	309,144
Maryland	32	852	27	311	514	1,782	865,528	539,696	3,459,962	58,282	12,452,551	8,934,307
Massachusetts	54	1,491	19	455	1,017	1,695	1,024,830	1,101,637	6,388,700	88,049	20,189,407	13,712,598
Michigan	39	1,668	24	476	1,168	2,129	1,547,576	1,395,938	4,686,739	131,387	13,860,886	9,042,700
Minnesota	33	458	23	215	220	324	471,633	229,684	1,350,006	11,862	4,340,618	2,978,750
Missouri	83	2,399	35	769	1,595	2,054	1,693,420	1,633,470	9,193,678	87,049	37,504,067	28,223,340
Nebraska	10	100	5	52	43	163	116,352	49,001	290,099	3,884	832,772	538,789
New Jersey	68	1,838	24	513	1,301	3,984	1,392,054	1,521,658	7,633,015	229,488	22,925,373	15,062,870
New York	214	4,339	97	1,586	2,656	5,467	4,628,499	3,249,234	13,774,085	277,003	50,132,237	36,081,149
North Carolina	12	190	4	89	97	62	266,815	79,744	572,152	2,576	2,002,161	1,427,433
Ohio	83	1,212	46	418	748	2,791	1,040,579	800,673	4,577,929	55,446	14,227,416	9,594,041
Oregon	6	33	7	10	16	111	18,229	12,443	72,165	1,365	159,742	86,212
Pennsylvania	97	1,398	45	399	954	1,572	1,048,207	967,238	4,779,482	98,543	13,438,845	8,560,820
South Carolina	3	12	-------	4	8	4	6,605	2,703	10,304	68	31,835	21,465
Tennessee	24	701	22	266	413	1,356	546,010	388,503	1,832,627	25,827	6,596,615	4,738,161
Texas	21	157	9	63	85	181	122,051	98,541	581,388	3,528	1,564,573	979,657
Vermont	9	194	2	60	132	179	119,857	109,775	600,508	15,063	1,596,939	981,368
Virginia	16	151	6	56	89	91	194,991	90,863	582,559	6,705	1,853,801	1,264,537
Washington	16	62	2	30	30	142	90,256	28,603	213,169	6,251	560,669	341,249
Wisconsin	23	193	5	98	90	196	230,815	82,752	408,041	4,751	1,253,406	840,614
Other States [2]	36	556	24	160	372	507	320,165	297,307	2,343,880	37,617	7,958,203	5,576,706
PERFUMES, COSMETICS, AND OTHER TOILET PREPARATIONS												
United States	705	16,250	375	5,412	10,463	10,431	12,593,978	10,965,085	52,284,671	480,675	161,245,659	108,480,313
California	43	310	35	148	127	231	213,221	141,110	666,832	3,099	2,028,399	1,358,468
Georgia	9	91	5	25	61	22	69,525	33,829	199,906	1,633	535,160	333,621
Illinois	90	1,732	60	664	1,008	805	1,094,465	992,686	5,131,618	42,764	16,448,713	11,274,331
Indiana	11	383	5	129	249	143	329,747	189,569	919,449	8,812	2,458,008	1,529,747
Louisiana	4	50	2	13	35	23	15,353	19,182	106,213	652	208,170	101,305

See footnotes at end of table.

TABLE 5.—GENERAL STATISTICS, BY STATES: 1927—Continued

[See note at head of this table, p. 692]

STATE	Number of establishments	PERSONS ENGAGED IN THE INDUSTRY				Horsepower	Salaries	Wages	Cost of materials, supplies, containers for products, fuel, and power		Value of products	Value added by manufacture [1]
		Total	Proprietors and firm members	Salaried officers and employees	Wage earners (average for the year)				Materials, supplies, and containers	Fuel and power		
PERFUMES, COSMETICS, AND OTHER TOILET PREPARATIONS—contd.												
Maryland	11	132	18	47	67	29	$48,607	$41,558	$201,013	$3,398	$598,428	$394,017
Massachusetts	20	174	10	56	108	27	150,977	103,064	501,613	1,972	1,533,969	1,030,384
Michigan	22	495	6	163	326	310	392,562	417,656	1,445,208	16,112	3,383,224	1,921,904
Minnesota	22	688	10	286	392	2,015	591,914	389,569	1,688,841	31,699	5,246,365	3,525,825
Missouri	25	680	12	262	406	256	435,484	410,649	1,377,469	18,346	4,322,246	2,926,431
New Jersey	24	777	8	216	553	718	604,123	663,995	2,989,332	38,634	10,985,654	7,957,688
New York	286	7,766	123	2,370	5,273	3,365	6,210,677	5,871,732	27,447,686	202,848	83,494,619	55,844,085
Ohio	23	684	11	271	402	597	651,869	470,627	2,246,621	19,331	7,102,441	4,836,489
Oklahoma	3	27	2	6	19	21	14,264	14,404	74,494	7,094	177,398	95,810
Pennsylvania	42	647	31	185	431	795	474,297	370,616	1,858,631	50,281	4,614,407	2,705,495
Tennessee	10	606	6	220	380	281	337,684	283,051	1,563,798	11,280	5,215,852	3,640,774
Texas	6	46	4	13	29	7	27,304	15,316	83,966	687	284,236	199,583
Virginia	4	40	1	14	25	----------	30,824	22,737	94,160	176	289,164	194,828
Wisconsin	6	82	2	27	53	24	50,578	38,498	50,291	2,369	219,759	167,099
Other States [4]	44	840	24	297	519	762	850,503	475,237	3,637,530	19,488	12,099,447	8,442,429

[1] Value of products less cost of materials, supplies, containers for products, fuel, and power. (See secs. 18 and 21, pp. 9 and 10.)

[2] Connecticut, 6 establishments; District of Columbia, 4; Florida, 1; Georgia, 3; Kentucky, 4; Louisiana, 1; Maine, 3; Maryland, 8; Michigan, 10; Montana, 1; New Hampshire, 2; North Carolina, 2; Oklahoma, 1; Oregon, 1; South Carolina, 2; South Dakota, 1; Utah, 1; Vermont, 1; Washington, 1; West Virginia, 2; Wisconsin, 3.

[3] Alabama, 7 establishments; Connecticut, 9; Delaware, 1; District of Columbia, 3; Idaho, 1; Mississippi, 1; New Hampshire, 2; Oklahoma, 2; Rhode Island, 3; South Dakota, 3; Utah, 2; West Virginia, 2.

[4] Alabama, 3 establishments; Colorado, 3; Connecticut, 5; District of Columbia, 1; Florida, 3; Iowa, 8; Kansas, 2; Kentucky, 4; Mississippi, 1; Nebraska, 2; Nevada, 1; New Hampshire, 1; North Carolina, 1; Rhode Island, 1; Utah, 1; Washington, 7.

DRUG GRINDING

scription of the industry.—The establishments in this industry are engaged arily in grinding drugs, charcoal, herbs, gum, licorice and other roots, etc. values of products for the industry, as given in the table below, do not, of e, include the values of drugs ground for their own use or for sale by estab- ents which, because of the character of their principal products, are fied in the "Druggists' preparations," "Patent and proprietary medicines compounds," or other industries. (See "Assignment of establishments to stries," p. 17.)

ate statistics.—In order to avoid disclosing the data supplied by individual lishments, it is necessary to withhold from publication the figures for New y and Maryland, which rank first and second, respectively, in importance e industry. No State statistics are, therefore, presented in the report. distribution of establishments by States is given in footnote 2 to the table 7.

TABLE 1.—SUMMARY FOR THE UNITED STATES: 1919 TO 1927

for establishments with products under $5,000 in value included for 1919 but not for subsequent years. See sec. 10, p. 6]

EAR OR PERIOD	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, supplies, containers for products, fuel, and power	Value of products	Value added by manufacture [1]	Horsepower
	[2] 25	659	$820,187	$5,683,720	$9,205,243	$3,521,523	4,662
	22	622	709,903	4,921,118	8,446,361	3,525,243	4,389
	24	750	893,318	6,555,193	10,561,580	4,006,387	4,958
	28	840	1,005,155	6,804,453	10,085,691	3,281,238	(3)
	31	1,347	1,526,137	11,556,480	16,937,698	5,381,218	6,725
	PER CENT OF INCREASE OR DECREASE (—)						
27	(4)	5.9	15.5	15.5	9.0	—0.1	6.2
25	(4)	—17.1	—20.5	—24.9	—20.0	—12.0	—11.5
27	(4)	—12.1	—8.2	—13.3	—12.8	—12.1	—6.0
27	(4)	—51.1	—46.3	—50.8	—45.7	—34.6	—30.7

ue of products less cost of materials, supplies, containers for products, fuel, and power. (See secs. 21, pp. 9 and 10.)
ois, 2 establishments; Indiana, 1; Maryland, 1; Massachusetts, 1; Michigan, 1; Minnesota, 1; New 5; New York, 5; North Carolina, 1; Pennsylvania, 5; Tennessee, 1; Wisconsin, 1.
called for on schedule.
cent not computed where base is less than 100.

ESSENTIAL OILS

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, and materially affecting its growth, is a large production of synthetic oils and perfume bases, which are chiefly of coal-tar origin and are classed as chemicals.

TABLE 1.—SUMMARY FOR THE UNITED STATES: 1919 TO 1927

[Data for establishments with products under $5,000 in value included for 1919 but not for subsequent years. See sec. 10, p. 6]

YEAR OR PERIOD	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, containers for products, supplies, fuel, and power	Value of products	Value added by manufacture [1]	Horsepower
1927	[2] 14	169	$258,036	$3,427,334	$4,641,861	$1,214,527	758
1925	14	178	281,395	4,362,512	5,881,689	1,519,177	1,064
1923	17	170	237,409	2,255,772	3,184,124	928,352	1,388
1921	27	299	363,879	2,548,439	3,421,690	873,251	(3)
1919	78	321	391,213	3,903,417	5,698,403	1,794,986	1,833
	PER CENT OF INCREASE OR DECREASE (—)						
1925–1927	(4)	—5.1	—8.3	—21.4	—21.1	—20.1	—34.9
1923–1925	(4)	4.7	18.5	93.4	84.7	63.6	—16.1
1923–1927	(4)	—.6	8.7	51.9	45.8	30.8	—45.4
1919–1927	(4)	—47.6	—34.0	—12.2	—18.5	—32.3	—58.6

[1] Value of products less cost of materials, supplies, containers for products, fuel, and power. (See secs. 18 and 21, pp. 9 and 10.)

[2] California, 1 establishment; Connecticut, 2; Indiana, 3; Michigan, 3; New Hampshire, 1; New Jersey, 3; New York, 1. Statistics for States can not be given without disclosing the data reported by individual establishments.

[3] Not called for on schedule.

[4] Per cent not computed where base is less than 100

EXPLOSIVES

[A preliminary report for this industry was issued under date of January 17, 1929]

Description of the industry.—This industry embraces those establishments whose principal products are explosives, not including fireworks, cartridges, detonators, fuses, etc. (Separate reports have been compiled for the "Ammunition" and "Fireworks" industries, the former of which includes the manufacture of cartridges, detonators, and fuses. (See pp. 651 and 707.)

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

The bulk of the nitroglycerin manufactured is consumed by the producing establishments in the manufacture of other explosives, principally dynamite, 96.4 per cent of the total production having been thus used in 1927, 96.1 per cent in 1925, 96.2 per cent in 1923, and 92.1 per cent in 1921. The amount received for well shooting has been taken as the value of the nitroglycerin thus consumed.

TABLE 1.—SUMMARY FOR THE UNITED STATES: 1919 TO 1927

[Data for establishments with products under $5,000 in value included for 1919 but not for subsequent years. See sec. 10, p. 6]

YEAR OR PERIOD	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, supplies, fuel, and power	Value of products,	Value added by manufacture[1]	Horsepower
1927	100	5,803	$8,131,234	$36,893,576	$72,489,668	$35,596,092	38,239
1925	103	5,697	7,731,369	37,877,418	69,668,837	31,791,419	37,808
1923	106	6,388	9,112,027	39,495,972	75,029,127	35,533,155	35,231
1921	109	4,478	6,610,206	30,644,327	59,174,598	28,530,271	(2)
1919	118	9,249	12,504,986	45,911,049	92,474,813	46,563,764	51,635
	PER CENT OF INCREASE OR DECREASE (—)						
1925–1927	—2.9	1.9	5.2	—2.6	4.0	12.0	1.1
1923–1925	—2.8	—10.8	—15.2	—4.1	—7.1	—10.5	7.3
1923–1927	—5.7	—9.2	—10.8	—6.6	—3.4	.2	8.5
1919–1927	—15.3	—37.3	—35.0	—19.6	—21.6	—23.6	—25.9

[1] Value of products less cost of materials, supplies, fuel, and power. (See secs. 18 and 21, pp. 9 and 10.)
[2] Not called for on schedule.

TABLE 2.—PRIME MOVERS, MOTORS, AND GENERATORS, BY TYPE, NUMBER, AND RATED CAPACITY, FOR THE UNITED STATES: 1927, 1925, AND 1923

TYPE	1927		1925		1923	
	Number	Capacity	Number	Capacity	Number	Capacity
		Horsepower		*Horsepower*		*Horsepower*
Prime movers, total	1,471	38,239	1,332	37,808	1,225	35,231
Steam engines	208	14,322	196	14,900	230	20,131
Steam turbines	15	5,330	17	6,353		
Internal-combustion engines	11	114	13	158	7	127
Water wheels and turbines	8	967	8	867	4	476
Electric motors driven by purchased current	1,229	17,506	1,098	15,530	984	14,497
Electric motors, total	2,870	36,973	2,277	29,269	2,046	29,496
Driven by purchased current	1,229	17,506	1,098	15,530	984	14,497
Driven by current generated in establishment reporting	1,641	19,467	1,179	13,739	1,062	14,999
		Kilowatts		*Kilowatts*		*Kilowatts*
Electric generators	63	10,967	66	11,584	(1)	(1)

[1] Not called for on schedule.

TABLE 3.—PRODUCTS, BY KIND, QUANTITY, AND VALUE, FOR THE UNITED STATES: 1921 TO 1927

	1927	1925	1923	1921
Explosives industry, all products	$72,489,668	$69,668,837	$75,029,127	$59,174,598
Explosives (including consumption in shooting wells), value	66,192,463	63,825,757	68,132,607	55,753,771
Other products (not normally belonging to the industry)[1]	6,297,205	5,843,080	6,896,520	3,420,827
Explosives (including consumption in shooting wells):				
Total pounds	548,869,144	551,188,384	577,245,570	407,384,280
Total value	$66,192,463	$63,825,757	$68,132,607	$55,753,771
Dynamite—				
Number of establishments	27	28	29	26
Pounds	294,716,046	282,310,576	262,290,012	167,258,298
Value	$38,274,514	$36,163,905	$35,891,486	$28,457,337
Permissible explosives—				
Number of establishments	24	25	24	19
Pounds	65,220,608	60,711,877	67,334,759	36,819,189
Value	$8,412,190	$7,944,684	$9,389,968	$6,378,988
Nitroglycerin—				
Number of establishments	61	64	66	66
Total production, pounds	79,028,128	78,951,184	71,087,865	45,865,308
Consumed in works where produced, pounds	76,181,369	75,891,194	68,392,085	42,264,126
Consumed in shooting wells, pounds	[2] 2,846,759	2,686,158	2,581,743	3,418,814
Amount received for shooting wells on contract	[2] $2,168,230	$2,011,393	$2,059,472	$3,234,421
Sold as such—				
Pounds		373,832	114,037	182,368
Value		$266,197	$96,160	$160,643
Blasting powder—				
Number of establishments	36	36	38	42
Kegs (25 pounds)	5,475,299	6,437,876	8,433,986	7,340,768
Value	$8,693,884	$9,684,228	$13,493,183	$12,544,898
Gunpowder, black—				
Number of establishments	6	3	5	5
Pounds	1,535,450	1,177,570	2,779,422	990,665
Value	$315,767	$238,319	$548,235	$227,361
Smokeless powder—				
Number of establishments	5	D	6	5
Pounds	5,729,052	4,053,522	5,150,825	2,526,858
Value	$3,861,382	$2,768,511	$3,593,412	$2,435,517
Fuse powder—				
Number of establishments	6	6	6	4
Pounds	2,708,099	2,840,150	2,724,300	1,134,475
Value	$562,454	$609,437	$532,070	$335,113
Other explosives—				
Pounds	39,230,655	36,087,799	23,420,822	11,534,413
Value	$3,904,042	$4,139,083	$2,528,621	$1,979,493
CONSUMED IN WORKS WHERE PRODUCED				
Sulphuric acid (basis 50° Baumé) tons	105,960	114,250	107,955	65,986
Sulphuric acid recovered and used tons	40,240	33,518	40,723	33,234
Nitric acid tons	65,286	67,973	61,143	33,727
Mixed acid tons	88,495	76,244	75,372	41,993
Nitrate of ammonia tons	41,794	31,119	31,773	18,587

[1] Acids, blasting caps, coal-tar derivatives, etc.

[2] Figures for receipts for shooting wells on contract and for sales of nitroglycerin can not be shown separately without disclosing data for individual establishments.

TABLE 4.—GENERAL STATISTICS, BY STATES: 1927

[This table presents statistics for all States for which separate figures can be given without disclosing data reported by individual establishments. Certain of the "Other States," however, reported larger values of products than some of the States shown separately]

STATE	Number of establishments	PERSONS ENGAGED IN THE INDUSTRY				Horsepower
		Total	Proprietors and firm members	Salaried officers and employees	Wage earners (average for the year)	
United States	100	6,690	25	862	5,803	38,239
Illinois	7	272	--------	66	206	2,616
Kentucky	4	36	--------	3	33	414
Missouri	5	524	--------	65	459	2,361
New Jersey	5	1,541	--------	117	1,424	6,354
Ohio	10	220	--------	32	188	3,253
Oklahoma	5	13	--------	3	10	58
Pennsylvania	21	1,614	23	231	1,360	6,537
West Virginia	5	59	--------	6	53	672
Other States [1]	38	2,411	2	339	2,070	15,974

STATE	Salaries	Wages	Cost of materials, supplies, fuel, and power		Value of products	Value added by manufacture [2]
			Materials and supplies	Fuel and power		
United States	$2,272,514	$8,131,234	$35,240,582	$1,652,994	$72,489,668	$35,596,092
Illinois	119,326	224,944	657,892	61,000	2,209,881	1,490,989
Kentucky	19,000	36,187	132,996	16,933	274,836	124,907
Missouri	179,232	607,834	3,675,601	163,725	7,499,733	3,660,407
New Jersey	304,844	2,155,692	9,852,297	515,363	18,610,358	8,242,698
Ohio	135,991	259,463	777,784	64,645	1,786,862	944,433
Oklahoma	10,500	18,786	77,430	1,585	313,013	233,998
Pennsylvania	580,863	1,968,151	7,479,977	259,019	15,103,613	7,364,617
West Virginia	11,880	65,630	156,327	7,402	437,750	274,021
Other States [1]	910,878	2,794,547	12,430,278	563,322	26,253,622	13,260,022

[1] Alabama, 3 establishments; Arizona, 1; Arkansas, 1; California, 3; Colorado, 1; Indiana, 2; Iowa, 1; Kansas, 3; Massachusetts, 1; Michigan, 2; Montana, 2; New York, 4; Tennessee, 2; Texas, 4; Utah, 1; Washington, 4; Wisconsin, 2; Wyoming, 1.

[2] Value of products less cost of materials, supplies, fuel, and power. (See secs. 18 and 21, pp. 9 and 10.)

FERTILIZERS

[A preliminary report for this industry was issued under date of January 31, 1929]

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 fertilizing materials for use in their natural state, nor of tankage from slaughtering and meat-packing establishments for use without remanufacture.

Sulphuric acid.—This 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 1927, 28.5 per cent was reported by establishments in the fertilizer industry, as compared with 28.7 per cent in 1925, 24.9 per cent in 1923, and 30.4 per cent in 1921.

Plant-food content of complete fertilizers.—The manufacturers of complete fertilizers who reported for 1927 the percentage content of nitrogen, phosphorus, and potassium, produced nearly three-fourths of the total output of complete fertilizers for that year. Table 4 shows in detail, for 1927 and 1925, the percentages of the specified plant foods in that portion of the output for which this information was given. The data on the plant-food content of other than complete fertilizers were too incomplete to justify the publication of the statistics.

Semiannual statistics on superphosphates.—The Census Bureau collects semiannually, from manufacturers of fertilizers, data on their production, consumption, sales, and stocks of superphosphates. The production reported at the two semiannual censuses for 1927 aggregated 3,466,738 tons, as compared with 4,086,225 tons reported at the biennial census for the same year. The difference between these totals is due principally to the fact that the biennial canvass is more comprehensive than the semiannual canvass and covers certain establishments which do not report semiannually.

TABLE 1.—SUMMARY FOR THE UNITED STATES: 1919 TO 1927

[Data for establishments with products under $5,000 in value included for 1919 but not for subsequent years. See sec. 10, p. 6]

YEAR OR PERIOD	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, supplies, fuel, and power	Value of products	Value added by manufacture[1]	Horsepower
1927	621	18,612	$17,649,661	$138,142,925	$190,384,890	$52,241,965	156,274
1925	587	19,644	17,743,327	137,808,185	206,772,904	68,964,719	152,193
1923	573	18,572	16,365,324	127,980,450	183,088,751	55,108,301	161,774
1921	588	16,898	16,025,728	144,978,255	180,374,789	35,396,534	(2)
1919	600	26,296	25,363,132	185,040,522	281,143,587	96,103,065	125,939
	PER CENT OF INCREASE OR DECREASE (—)						
1925–1927	5.8	—5.3	—0.5	0.2	—7.9	—24.2	2.7
1923–1925	2.4	5.8	8.4	7.7	12.9	25.1	—5.9
1923–1927	8.4	.2	7.8	7.9	4.0	—5.2	—3.4
1919–1927	3.5	—29.2	—30.4	—25.3	—32.3	—45.6	24.1

[1] Value of products less cost of materials, supplies, fuel, and power. (See secs. 18 and 21, pp. 9 and 10.)
[2] Not called for on schedule.

TABLE 2.—PRIME MOVERS, MOTORS, AND GENERATORS, BY TYPE, NUMBER, AND RATED CAPACITY, FOR THE UNITED STATES: 1927, 1925, AND 1923

TYPE	1927		1925		1923	
	Number	Capacity	Number	Capacity	Number	Capacity
		Horse-power		*Horse-power*		*Horse-power*
Prime movers, total	6,764	156,274	6,035	152,193	5,807	161,774
Steam engines	318	22,443	381	28,292	440	34,715
Steam turbines	3	737	13	1,872		
Internal-combustion engines	116	3,540	104	3,179	125	4,181
Water wheels and turbines	3	65	3	62	4	80
Electric motors driven by purchased current	6,324	129,489	5,534	118,788	5,238	122,798
Electric motors, total	6,931	137,693	6,197	129,487	5,608	128,577
Driven by purchased current	6,324	129,489	5,534	118,788	5,238	122,798
Driven by current generated in establishment reporting	607	8,204	663	10,699	370	5,779
		Kilowatts		*Kilowatts*		*Kilowatts*
Electric generators	66	6,259	102	8,920	(1)	(1)

[1] Not called for on schedule.

TABLE 3.—PRODUCTS, BY CLASS, QUANTITY, AND VALUE, FOR THE UNITED STATES: 1921 TO 1927

[Ton, 2,000 pounds]

	1927	1925	1923	1921
1. Fertilizer industry, all products, total value	$190,384,890	$206,772,904	$183,088,751	$180,374,789
2. Fertilizers	$165,272,337	$187,003,635	$170,070,039	$168,727,840
3. Other products (not normally belonging to the industry) [1]	$25,112,553	$19,769,269	$13,018,712	$11,646,949
4. Fertilizers made as secondary products in other industries, value	$8,537,436	$8,036,522	$9,879,616	$7,871,877
Fertilizers, all industries:				
Total tons	8,122,723	8,229,032	7,625,517	6,038,849
Total value (sum of 2 and 4)	$173,809,773	$195,040,157	$179,949,655	$176,599,717
Complete fertilizers—				
Tons	5,088,179	4,925,948	4,032,506	2,985,265
Value	$128,379,580	$143,326,670	$118,460,453	$112,786,648
Ammoniated fertilizers—				
Tons	74,812	131,703	189,894	339,222
Value	$1,930,596	$3,278,846	$5,674,951	$10,139,885
Superphosphates, including concentrated phosphates—				
Total production, tons	4,086,225	4,096,442	4,237,537	3,483,704
For sale—				
Tons	2,434,516	2,638,761	2,458,118	1,976,742
Value	$30,003,438	$35,180,160	$33,204,439	$33,598,364
Made and consumed, tons	[2] 1,651,709	[2] 1,457,681	[2] 1,779,419	[2] 1,506,962
Fish scrap—				
Tons	95,769	72,123	76,229	44,670
Value	$3,348,589	$2,927,927	$2,722,688	$1,720,853
Potash superphosphate—				
Tons	233,499	247,541		
Value	$5,464,885	$6,159,388		
Bone meal—				
Tons	41,996	48,282	[3] 868,770	[3] 692,950
Value	$1,601,044	$1,622,204	[3] $19,887,124	[3] $18,353,967
Other fertilizers—				
Tons	153,952	164,674		
Value	$3,081,641	$2,544,962		

[1] Goods sold in condition in which purchased, sulphuric acid, bone black, etc. Sulphuric acid is made primarily by establishments in the "Sulphuric, nitric, and mixed acids" 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 table represent only the production of establishments in the fertilizer industry.

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

[3] Includes data for products reported as "Commercial fertilizers," as follows: For 1923, 245,819 tons, valued at $6,199,585; for 1921, 209,844 tons, valued at $5,207,052.

TABLE 4.—PLANT-FOOD CONTENT OF COMPLETE FERTILIZERS, BY GEOGRAPHIC DIVISIONS AND STATES: 1927 AND 1925

[This table shows the percentages of the specified plant foods in that portion of the total output for which such percentages were reported. See "Plant-food content of complete fertilizers," p. 700]

GEOGRAPHIC DIVISION AND STATE	Census year	QUANTITY, AND PER CENT FOR WHICH PLANT-FOOD CONTENT WAS REPORTED		AVERAGE PERCENTAGE CONTENT OF—		
		Tons	Per cent of total	Nitrogen as NH_3	Phosphorus as P_2O_5	Potassium as K_2O
United States	1927	3,625,920	71.3	3.2	8.6	4.2
	1925	3,051,762	62.0	3.1	8.6	3.8
New England division	1927	207,465	96.3	3.8	7.6	6.2
	1925	119,183	79.3	4.0	7.3	6.2
Maine and Connecticut	1927	69,009	90.0	4.7	6.9	6.2
	1925	47,907	65.4	4.5	6.3	6.0
Massachusetts	1927	133,820	99.7	3.5	8.0	6.4
	1925	71,276	97.0	3.6	7.9	6.3
Rhode Island and Vermont	1927	4,636	99.7	2.9	8.3	3.7
Middle Atlantic division	1927	303,875	73.8	3.5	8.3	6.2
	1925	280,479	71.5	3.8	8.2	5.5
New York	1927	70,739	96.3	2.8	8.8	6.2
	1925	41,725	66.9	2.2	8.9	5.4
New Jersey	1927	195,714	82.0	4.1	8.0	6.3
	1925	207,089	96.2	4.3	8.1	5.7
Pennsylvania	1927	37,422	37.6	2.0	8.9	5.9
	1925	31,665	27.6	2.1	8.0	4.6
North Central division	1927	335,068	73.0	2.4	10.9	4.3
	1925	314,695	77.6	1.9	10.5	4.2
Illinois	1927	93,142	86.0	2.7	11.4	4.4
Indiana	1927	67,735	79.8	1.8	12.0	4.3
	1925	54,838	77.9	1.7	11.6	4.2
Ohio	1927	145,966	65.8	2.2	10.8	4.3
	1925	155,465	84.6	1.8	10.3	3.8
Michigan, Nebraska, and Wisconsin	1927	28,225	86.5	3.7	7.2	3.9
Illinois, Michigan, Wisconsin, and Missouri	1925	104,392	72.3	2.3	10.3	3.7
South Atlantic division	1927	2,281,946	69.1	3.3	8.2	3.8
	1925	1,886,377	57.6	3.1	8.2	3.6
Delaware and Maryland	1927	315,216	47.7	2.9	8.9	4.9
	1925	397,103	64.1	2.9	8.1	4.8
Virginia	1927	272,824	55.9	3.2	8.3	3.4
	1925	[1] 180,230	[1] 36.9	[1] 3.2	[1] 8.4	[1] 3.1
North Carolina	1927	565,189	88.5	3.1	8.4	3.1
	1925	300,979	49.1	3.0	8.2	3.0
South Carolina	1927	330,935	84.0	3.4	7.6	3.3
	1925	348,993	76.6	3.0	7.3	2.8
Georgia	1927	564,645	73.5	3.2	8.6	3.8
	1925	475,593	59.0	3.0	9.1	3.5
Florida	1927	233,137	66.4	4.0	7.0	5.3
	1925	183,479	62.1	4.0	7.8	4.9
h Central division	1927	480,980	74.6	3.2	9.5	3.7
	1925	429,741	67.2	3.3	9.7	3.1
Kentucky	1927	27,997	100.0	1.7	10.8	3.5
	1925	23,273	96.5	1.2	10.9	2.6
Tennessee	1927	106,569	95.7	3.1	10.1	3.7
	1925	85,708	95.2	2.5	11.1	3.1
Alabama	1927	208,050	81.4	3.1	8.7	3.9
	1925	172,540	60.8	3.4	9.1	3.5
Mississippi	1927	17,828	20.1	3.4	9.4	3.0
	1925	14,160	17.1	4.2	8.7	2.6
Arkansas	1927	20,581	71.8	3.1	9.8	3.2
	1925	28,771	77.3	2.8	10.4	2.8
Louisiana	1927	84,369	94.4	3.8	10.0	3.4
	1925	88,105	93.5	4.3	9.0	3.0
Texas	1927	15,586	35.9	4.8	10.4	4.2
	1925	17,184	69.4	3.4	10.4	3.2
untain and Pacific divisions	1927	16,586	30.4	5.5	8.5	4.3
	1925	21,287	35.0	6.6	9.4	4.6
Washington and California	1927	16,586	33.8	5.5	8.5	4.3
	1925	[2] 21,287	[2] 38.5	[2] 6.6	[2] 9.4	[2] 4.6

[1] Includes data for West Virginia.

[2] Includes data for Utah.

[This table presents statistics for all States for which separate figures can be given without disclosing the production of individual establishments. Certain of the "Other States," however, outranked some of the States shown separately]

STATE AND YEAR	TOTAL		COMPLETE FERTILIZERS		AMMONIATED FERTILIZERS		SUPERPHOSPHATES, INCLUDING CONCENTRATED PHOSPHATES		OTHER FERTILIZERS [1]	
	Tons	Value	Tons	Value	Tons	Value	Tons	Value	Tons	Value
United States:										
1927	8,122,723	$173,809,773	5,088,179	$128,379,580	74,812	$1,930,596	2,434,516	$30,003,438	525,216	$13,496,159
1925	8,229,032	195,040,157	4,925,948	143,326,670	131,703	3,278,846	2,638,761	35,180,160	532,620	13,254,481
Alabama:										
1927	437,396	8,637,229	255,440	6,127,276	6,603	188,135	155,954	1,991,079	19,399	330,739
1925	485,484	11,208,906	283,888	8,238,821	1,014	54,110	183,819	2,608,801	16,763	307,174
Arkansas: [2]										
1927	38,518	917,341	28,647	790,081	(3)	(3)	(3)	(3)	(3)	(3)
1925	54,774	1,533,445	37,206	1,226,210	(3)	(3)	(3)	(3)	(3)	(3)
California:										
1927	115,625	4,264,255	39,940	1,957,426	3,721	176,477	13,146	210,305	58,818	1,920,047
1925	102,988	4,276,280	49,013	2,339,952	4,538	246,470	15,102	246,058	34,335	1,443,800
Connecticut:										
1927	55,654	2,229,757	52,393	2,103,564	(3)	(3)	----------	----------	(3)	(3)
1925	59,013	2,851,653	56,454	2,733,222	(3)	(3)	----------	----------	(3)	(3)
Delaware: [2]										
1927	28,399	745,648	24,586	657,814	(3)	(3)	(3)	(3)	2,613	63,834
1925	19,686	654,733	19,121	635,351	(3)	(3)	----------	----------	(3)	(3)
Florida:										
1927	488,778	14,196,107	351,254	12,539,040	3,726	115,475	110,801	1,266,047	22,997	275,545
1925	382,389	12,003,176	295,564	10,855,166	792	22,186	80,416	894,446	5,617	231,378
Georgia:										
1927	1,099,666	20,203,596	767,780	16,384,821	3,863	82,547	306,827	3,323,291	21,196	412,937
1925	1,188,311	26,677,137	805,662	21,652,310	9,498	306,853	361,242	4,461,979	11,909	255,995
Illinois:										
1927	229,926	6,072,208	108,307	3,463,454	(3)	(3)	70,049	1,280,713	(3)	(3)
1925	268,257	6,123,348	116,017	3,505,456	11,577	275,708	77,003	1,177,205	63,660	1,164,979
Indiana:										
1927	137,872	4,158,092	84,884	2,715,114	267	6,108	27,983	686,723	24,738	750,147
1925	113,612	3,293,860	70,356	2,203,016	369	10,040	23,508	501,318	19,379	579,486
Louisiana:										
1927	172,290	3,615,503	89,378	2,467,888	1,266	46,509	66,269	884,689	15,377	216,417
1925	162,669	4,285,946	94,237	3,040,473	1,249	32,683	62,055	1,084,882	5,128	127,908

See footnotes at end of table.

TABLE 5.—FERTILIZERS—PRODUCTION, BY CLASS, QUANTITY, AND VALUE, BY STATES: 1927 AND 1925—Continued

[See note at head of this table, p. 703]

STATE AND YEAR	TOTAL		COMPLETE FERTILIZERS		AMMONIATED FERTILIZERS		SUPERPHOSPHATES, INCLUDING CONCENTRATED PHOSPHATES		OTHER FERTILIZERS [1]	
	Tons	Value	Tons	Value	Tons	Value	Tons	Value	Tons	Value
Maine: [2]										
1927	28,301	$1,034,894	24,300	$932,852	(3)	(3)	----------	----------	(3)	(3)
1925	20,048	919,368	16,789	810,146	(3)	(3)	(3)	(3)	2,386	$88,245
Maryland:										
1927	1,258,915	22,450,435	636,293	15,389,166	1,027	$22,668	578,939	$5,767,036	42,656	1,271,565
1925	1,385,152	24,340,164	600,358	15,962,262	24,809	379,385	710,025	6,771,985	49,960	1,226,532
Massachusetts:										
1927	188,080	4,700,535	134,187	3,667,588	----------	----------	40,576	483,180	13,317	549,767
1925	102,707	3,001,122	73,514	2,555,499	(3)	(3)	26,133	358,556	(3)	(3)
Mississippi:										
1927	151,771	3,089,211	88,860	2,337,713	(3)	(3)	62,819	749,235	(3)	(3)
1925	150,043	3,210,444	82,642	2,212,481	889	34,340	66,217	958,802	295	4,821
New Jersey:										
1927	339,175	7,463,589	238,670	6,448,085	1,898	20,682	95,769	925,499	2,838	69,323
1925	330,533	8,076,265	215,381	6,702,130	6,706	97,292	94,784	984,241	13,662	292,602
New York:										
1927	113,897	2,497,614	73,460	1,781,296	(3)	(3)	(3)	(3)	8,994	299,254
1925	109,479	2,022,370	62,362	1,569,470	(3)	(3)	17,056	230,286	(3)	(3)
North Carolina:										
1927	837,747	16,596,212	638,528	13,806,096	4,255	137,603	152,583	1,812,738	42,381	839,775
1925	787,072	20,616,010	612,404	17,367,921	9,583	276,473	129,539	1,960,562	35,546	1,011,054
Ohio:										
1927	426,666	10,858,654	221,683	6,370,472	2,333	40,405	148,388	2,972,697	54,262	1,475,080
1925	461,216	11,266,212	183,815	5,321,027	3,516	79,058	210,349	4,227,553	63,536	1,638,574
Pennsylvania:										
1927	209,828	4,249,958	99,421	2,823,295	530	13,692	92,948	894,053	16,929	518,918
1925	192,365	4,742,084	114,774	3,499,015	1,208	24,331	58,400	684,940	17,983	533,798
South Carolina:										
1927	595,011	10,567,618	394,027	7,770,502	30,899	650,514	157,233	1,865,090	12,852	281,512
1925	684,397	15,086,284	455,878	11,854,548	35,122	806,170	183,201	2,240,522	10,196	185,044
Tennessee:										
1927	277,088	4,843,192	111,407	2,662,053	1,733	38,497	143,457	1,772,006	20,491	370,636
1925	232,105	4,864,743	90,036	2,556,720	3,222	59,191	124,488	1,935,593	14,359	313,239
Texas: [2]										
1927	56,517	1,825,070	43,368	1,599,383	(3)	(3)	(3)	(3)	(3)	(3)
1925	45,336	1,239,945	24,765	817,465	(3)	(3)	15,074	265,782	(3)	(3)

Virginia:										
1927	667,122	13,542,572	488,028	10,490,081	4,821	136,215	117,174	1,336,739	57,099	1,579,537
1925	711,170	17,564,697	486,936	13,000,712	14,558	479,282	128,748	1,909,094	80,928	2,175,609
Washington: [2]										
1927	10,083	416,385	9,198	361,949					885	54,436
1925	9,941	256,206	6,143	226,300					3,798	29,906
Other States:										
1927	158,398	4,634,098	84,140	2,732,571	2,979	127,380	40,233	1,034,429	31,046	739,718
1925	170,285	4,925,759	72,633	2,440,997	2,404	64,831	53,671	1,367,419	41,577	1,052,512
Undistributed:										
1927					[3] 4,891	[3] 127,689	[3] 53,368	[3] 747,889	[3] 56,328	[3] 1,476,972
1925					[3] 649	[3] 30,443	[3] 17,931	[3] 310,136	[3] 41,603	[3] 591,825

[1] Potash superphosphate, bone meal, fish scrap, and "Other fertilizers." (See Table 3, p. 701.)
[2] This State in 1927 is outranked by one or more of the "Other States."
[3] Figures not shown for individual States named above are included in the "Undistributed" items in order to avoid disclosing the production of individual establishments.

TABLE 6.—GENERAL STATISTICS, BY STATES: 1927

[This table presents statistics for all States for which separate figures can be given without disclosing data for individual establishments. Certain of the "Other States," however, reported larger values of products than some of the States shown separately]

STATE	Number of establishments	PERSONS ENGAGED IN THE INDUSTRY				Horsepower	Salaries	Wages	Cost of materials, supplies, fuel, and power		Value of products	Value added by manufacture [1]
		Total	Proprietors and firm members	Salaried officers and employees	Wage earners (average for the year)				Materials and supplies	Fuel and power		
United States	621	22,711	119	3,980	18,612	156,274	$8,936,036	$17,649,661	$135,368,365	$2,774,560	$190,384,890	$52,241,965
Alabama	55	1,273	16	192	1,065	8,181	396,48	772,873	7,709,382	108,632	9,497,502	1,679,488
Arkansas	5	128	-------	39	89	1,385	79,154	55,593	746,343	7,745	910,628	156,540
California	16	342	10	63	269	2,954	187,658	353,126	2,729,664	44,808	3,787,196	1,012,724
Connecticut	7	210	-------	49	161	1,105	156,199	191,129	1,626,663	12,572	2,408,204	768,969
Delaware	7	120	1	27	92	673	52,599	70,283	550,477	18,589	864,941	295,875
Florida	24	1,306	6	252	1,048	6,375	681,041	956,408	9,113,376	139,863	14,807,376	5,554,137
Georgia	114	3,091	22	560	2,509	21,877	1,186,104	1,621,564	17,094,381	295,083	22,093,903	4,704,439
Illinois	13	580	1	167	412	5,636	345,783	482,417	3,952,048	93,603	6,107,999	2,062,348
Indiana	12	386	1	111	274	2,703	256,951	284,572	2,915,036	23,073	4,689,298	1,751,189
Louisiana	11	594	1	117	476	4,377	256,526	442,243	2,957,578	56,353	4,142,380	1,128,449
Maine	8	107	4	32	71	1,071	45,617	66,749	721,427	12,187	1,070,894	337,280
Maryland	45	2,927	3	587	2,337	23,202	1,475,605	2,981,778	19,479,584	444,316	27,167,390	7,243,490
Massachusetts	7	481	1	51	429	2,693	82,475	451,219	2,769,847	93,646	5,041,128	2,177,635
Mississippi	11	360	-------	53	307	2,746	105,512	279,321	1,965,645	52,220	2,792,355	774,490
New Jersey	20	932	5	195	732	4,788	365,106	996,666	5,960,639	100,068	8,001,846	1,941,139
New York	8	368	1	78	229	1,567	177,435	254,073	1,737,985	22,348	2,290,912	530,579
North Carolina	84	2,212	13	349	1,850	16,078	688,193	1,532,363	13,745,640	281,853	18,423,536	4,396,043
Ohio	23	1,075	-------	202	873	10,386	574,408	1,095,548	8,071,800	137,259	12,479,974	4,270,915
Pennsylvania	25	795	16	162	617	3,398	335,584	696,324	4,179,932	121,850	6,113,498	1,811,716
South Carolina	49	1,823	9	251	1,563	10,703	539,786	1,136,955	9,242,549	162,767	11,739,872	2,334,556
Tennessee	9	695	-------	93	602	4,682	191,400	486,187	3,497,001	60,033	4,923,651	1,366,617
Texas	6	98	5	14	79	815	22,968	74,819	544,320	10,701	811,408	256,387
Virginia	44	2,296	2	254	2,040	13,342	551,582	1,705,609	11,011,973	279,164	15,272,776	3,981,639
Washington	4	32	-------	11	21	117	20,808	26,576	164,035	4,002	267,907	99,870
Other States [2]	14	540	2	71	467	5,120	161,001	635,266	2,881,040	191,825	4,678,316	1,605,451

[1] Value of products less cost of materials, supplies, fuel, and power. (See secs. 18 and 21, pp. 9 and 10.)
[2] Kansas, 3 establishments; Kentucky, 2; Michigan, 1; Missouri, 1; Montana, 1; Nebraska, 1; Rhode Island, 1; Vermont, 1; West Virginia, 1; Wisconsin, 2.

FIREWORKS

[A preliminary report for this industry was issued under date of October 24, 1928]

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.

State statistics.—Inasmuch as no figures can be presented for any States except New Jersey and Pennsylvania, which rank fourth and tenth, respectively, no table giving State statistics has been prepared for this industry, but the figures for New Jersey and Pennsylvania will be found on pages 1379 and 1397.

TABLE 1.—SUMMARY FOR THE UNITED STATES: 1919 TO 1927

[Data for establishments with products under $5,000 in value included for 1919 but not for subsequent years. See sec. 10, p. 6]

YEAR OR PERIOD	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, supplies, fuel, and power	Value of products	Value added by manufacture [1]	Horsepower
1927	[2] 36	1,564	$1,395,024	$2,623,672	$5,884,939	$3,261,267	1,300
1925	41	1,446	1,429,093	2,399,200	6,031,435	3,632,235	1,148
1923	38	1,224	1,156,120	1,830,933	4,977,008	3,146,075	941
1921	37	1,229	1,116,075	1,917,104	4,726,870	2,809,766	(3)
1919	57	1,222	994,851	2,108,156	4,629,984	2,521,828	1,005
	PER CENT OF INCREASE OR DECREASE (−)						
1925–1927	(4)	8.2	−2.4	9.4	−2.4	−10.2	13.2
1923–1925	(4)	18.1	23.6	31.0	21.2	15.5	22.0
1923–1927	(4)	27.8	20.7	43.3	18.2	3.7	38.2
1919–1927	(4)	28.0	40.2	24.5	27.1	29.3	29.4

[1] Value of products less cost of materials, supplies, fuel, and power. (See secs. 18 and 21, pp. 9 and 10.)
[2] California, 2 establishments; Colorado, 1; Connecticut, 2; Illinois, 2; Indiana, 1; Iowa, 1; Maine, 1; Maryland, 2; Massachusetts, 5; Missouri, 1; New Jersey, 5; New York, 4; Ohio, 1; Pennsylvania, 4; Tennessee, 1; Texas, 1; Virginia, 1; Washington, 1.
[3] Not called for on schedule.
[4] Per cent not computed where base is less than 100.

PAINTS AND VARNISHES

[A preliminary report for this industry was issued under date of March 25, 1929]

Description of the industry.—This industry consists 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.

Semiannual statistics.—During the period from January 1, 1922, to June 30, 1928, the Bureau of the Census collected, at semiannual intervals, data in regard to the production and sales of paints and varnishes. The totals obtained by combining the items in the half-year reports for 1923, for 1925, and for 1927 differ somewhat from the corresponding biennial-census items, the differences being due principally to the fact that the biennial censuses covered some establishments which did not report semiannually.

TABLE 1.—SUMMARY FOR THE UNITED STATES: 1919 TO 1927

[Data for establishments with products under $5,000 in value included for 1919 but not for subsequent years. See sec. 10, p. 6]

YEAR OR PERIOD	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, supplies, containers for products, fuel, and power	Value of products	Value added by manufacture [1]	Horsepower
1927	1,006	28,061	$40,184,732	$307,724,370	$519,009,842	$211,285,472	163,187
1925	923	25,490	35,419,552	293,943,040	470,736,264	176,793,224	143,111
1923	826	22,818	29,871,195	248,954,692	404,134,231	155,179,539	114,281
1921	804	18,015	23,293,275	171,397,822	274,310,314	102,912,492	(2)
1919	830	21,507	24,118,159	217,112,372	340,346,803	123,234,431	84,827
	PER CENT OF INCREASE						
1925–1927	9.0	10.1	13.5	4.7	10.3	19.5	14.0
1923–1925	11.7	11.7	18.6	18.1	16.5	13.9	25.2
1923–1927	21.8	23.0	34.5	23.6	28.4	36.2	42.8
1919–1927	21.2	30.5	66.6	41.7	52.5	71.5	92.4

[1] Value of products less cost of materials, supplies, containers for products, fuel, and power. (See secs. 18 and 21, pp. 9 and 10.)
[2] Not called for on schedule.

TABLE 2.—PRIME MOVERS, MOTORS, AND GENERATORS, BY TYPE, NUMBER, AND RATED CAPACITY, FOR THE UNITED STATES: 1927, 1925, AND 1923

TYPE	1927		1925		1923	
	Number	Capacity	Number	Capacity	Number	Capacity
Prime movers, total	13,292	*Horsepower* 163,187	9,913	*Horsepower* 143,111	7,294	*Horsepower* 114,281
Steam engines	230	32,388	223	33,891	254	40,872
Steam turbines	16	9,751	26	10,497		
Internal-combustion engines	33	1,392	41	1,252	36	1,173
Water wheels and turbines	6	665	10	694	13	1,340
Electric motors driven by purchased current	13,007	118,991	9,613	96,777	6,991	70,896
Electric motors, total	16,267	155,768	12,276	128,266	8,689	92,372
Driven by purchased current	13,007	118,991	9,613	96,777	6,991	70,896
Driven by current generated in establishment reporting	3,260	36,777	2,663	31,489	1,698	21,476
Electric generators	95	*Kilowatts* 27,269	94	*Kilowatts* 23,275	(1)	*Kilowatts* (1)

[1] Not called for on schedule.

TABLE 3.—PRODUCTS, BY CLASS, QUANTITY, AND VALUE, FOR THE UNITED STATES: 1921 TO 1927

CLASS	1927	1925	1923	1921
1. Paint and varnish industry, all products, total value	$519,009,842	$470,736,264	$404,134,231	$274,310,314
2. Paints, varnishes, and related products	487,171,879	440,050,419	375,645,178	257,366,116
3. Other products (not normally belonging to the industry)	31,837,963	30,685,845	28,489,053	16,944,198
4. Paints, varnishes, and related products made as secondary products in other industries, value	39,937,128	[1] 41,262,417	36,430,387	14,386,804
Paints, varnishes, and related products, all industries: Aggregate value (sum of 2 and 4) [2]	527,109,007	[1] 481,312,836	412,075,565	271,752,920
PIGMENTS (COLORS) for sale:				
Total pounds	1,773,888,520	1,608,119,046	1,309,516,699	743,506,130
Total value	$105,755,539	[1] $103,918,550	$91,479,901	$47,637,057
White lead, dry—				
Total production, pounds	331,617,056	342,131,591	301,083,224	334,948,764
Made and consumed in the same establishments, pounds	188,312,036	199,201,713	160,956,142	211,081,234
For sale—				
Pounds	143,305,020	142,929,878	140,127,082	123,867,530
Value	$12,014,416	$14,172,407	$12,328,336	$9,073,518
Lead oxides—				
Total production, pounds	235,463,026	253,861,168	223,662,983	139,814,627
Made and consumed in the same establishments, pounds	3,362,564	5,056,602	9,816,465	10,177,519
For sale—				
Litharge—				
Pounds	154,622,069	167,732,121	140,571,987	85,114,803
Value	$12,815,967	$18,022,460	$13,241,277	$5,777,072
Red lead—				
Pounds	75,285,537	80,280,719	72,805,694	44,099,505
Value	$6,961,319	$9,146,267	$7,286,030	$3,498,663
Other lead oxides—				
Pounds	2,192,856	791,726	468,837	422,800
Value	$245,955	$120,239	$68,224	$47,284
Zinc oxide—				
Pounds	348,210,576	318,691,611	322,556,810	117,127,315
Value	$22,285,657	$22,740,819	$23,471,098	$9,027,088
Lithopone—				
Pounds	359,759,077	246,402,248	210,520,756	96,434,572
Value	$17,163,576	$12,184,593	$13,001,506	$6,118,907
Iron oxides—				
Natural (ocher, sienna, umber, etc.)—				
Pounds	96,676,202	[1] 78,045,165	122,000,759	82,757,631
Value	$2,452,134	[1] $1,517,997	$2,718,088	$1,737,478
Synthetic (precipitated)—				
Pounds	11,681,533	10,726,367	4,907,251	2,370,757
Value	$905,761	$866,151	$415,865	$214,409
Other mineral colors—				
Pounds	29,199,617	41,107,234	144,890,761	51,837,136
Value	$343,884	$858,307	$2,349,082	$709,939
Chrome yellow—				
Pounds	14,334,423	14,231,374	13,238,317	5,460,733
Value	$2,351,111	$2,414,938	$2,379,338	$1,087,815
Chrome orange—				
Pounds	4,652,209	1,844,541	13,078,252	7,968,498
Value	$751,468	$340,047	$2,291,753	$1,491,311
Chrome green—				
Pounds	14,114,248	12,610,178		
Value	$2,460,276	$2,231,168		
Prussian blue—				
Pounds	4,104,233	4,548,016	3,137,777	1,668,004
Value	$1,364,537	$1,534,950	$1,464,645	$851,835
Ultramarine—				
Pounds	8,347,893	8,366,920	7,064,134	(3)
Value	$1,187,035	$1,226,696	$1,087,547	
Vermilion (true)—				
Pounds	322,375	344,374	567,151	250,865
Value	$371,608	$345,293	$512,572	$169,765

See footnotes at end of table.

TABLE 3.—PRODUCTS, BY CLASS, QUANTITY, AND VALUE, FOR THE UNITED STATES: 1921 TO 1927—Continued

CLASS	1927	1925	1923	1921
PIGMENTS (COLORS) for sale—Continued.				
Other fine colors—				
Pounds	7,643,275	7,133,310	4,697,919	[4] 6,295,120
Value	$4,660,759	$3,212,531	$2,487,128	[3] $1,779,617
Mortar colors—				
Pounds	62,215,054	62,606,710	(5)	(5)
Value	$1,099,903	$1,085,904		
Whiting—				
Pounds	221,137,263	236,483,656	(5)	(5)
Value	$1,669,874	$1,979,964		
Other dry colors (including barytes)—				
Pounds	201,677,719	157,051,386	90,129,304	108,307,108
Value	$13,348,441	$8,536,358	$5,133,266	$5,079,098
Pulp colors, sold moist—				
Pounds	14,407,341	16,191,512	18,753,908	9,523,753
Value	$1,301,858	$1,381,461	$1,244,146	$973,258
PAINTS, total value	$221,538,902	$218,719,633	$183,259,577	$142,177,962
In paste form—				
Total pounds	408,722,058	434,583,529	425,879,838	428,156,109
Total value	$49,553,502	$55,706,427	$50,569,832	$46,603,452
White lead in oil—				
Pounds	252,743,419	260,193,429	272,493,875	329,668,229
Value	$28,083,217	$32,048,906	$30,323,486	$32,685,957
Combination whites—				
Pounds	53,927,072	48,923,460		
Value	$5,248,046	$4,772,169		
Red lead in oil—				
Pounds	4,671,988	4,787,224	5,153,883	3,711,279
Value	$592,329	$639,172	$646,000	$425,256
Zinc oxide in oil—				
Pounds	6,175,032	7,083,414	7,881,428	7,227,587
Value	$783,155	$907,803	$959,764	$803,155
Colors in oil—				
Pounds	32,819,211			
Value	$6,442,477			
Colors in japan—				
Pounds	3,441,324	113,596,002	140,350,652	87,549,014
Value	$1,411,939	$17,338,377	$18,640,582	$12,689,084
Other paints in paste form—				
Pounds	54,944,012			
Value	$6,992,339			
Water paints and kalsomines, dry and in paste form—				
Pounds	122,455,836	110,618,307	122,217,347	87,744,675
Value	$6,321,002	$4,636,360	$5,534,187	$4,394,958
Mixed, ready for use—				
Total gallons	94,070,895	87,639,481	71,356,092	48,119,513
Total value	$165,664,398	$158,376,846	$127,155,558	$91,179,552
Paints in oil—				
Gallons	53,108,389			
Value	$97,760,426			
Undercoatings and primers—				
Gallons	7,198,418			
Value	$11,343,928			
Wall paints and mill whites, flat and gloss—		(5)	(5)	(5)
Gallons	15,357,299			
Value	$26,525,797			
Other ready-mixed and semipaste paints—				
Gallons	18,406,789			
Value	$30,034,247			

See footnotes at end of table.

TABLE 3.—PRODUCTS, BY CLASS, QUANTITY, AND VALUE, FOR THE UNITED STATES: 1921 TO 1927—Continued

CLASS	1927	1925	1923	1921
VARNISHES, JAPANS, AND LACQUERS (INCLUDING ENAMELS), total value	$178,231,107	$140,855,191	$121,009,522	$71,277,190
Oleoresinous varnishes—				
Gallons	33,859,282	38,418,014	40,424,349	22,172,145
Value	$43,628,196	$48,374,502	$52,292,075	$29,033,763
Spirit varnishes, not turpentine—				
Gallons	6,816,421	7,117,336	5,605,568	3,084,507
Value	$12,440,814	$13,381,769	$10,584,374	$7,255,260
Varnishes other than oleoresinous and spirit—				
Gallons	8,936,448	4,051,234	3,862,643	4,293,923
Value	$12,757,922	$5,973,208	$6,143,519	$6,167,731
Pyroxylin products:				
Clear lacquers—				
Gallons	7,738,079			
Value	$15,721,249			
Lacquer enamels—				
Gallons	10,757,852	12,265,206	[6] 3,255,857	[6] 1,409,280
Value	$30,187,332	$27,254,796	[5] $6,944,366	[5] $3,093,862
Thinners for pyroxylin lacquers—				
Gallons	12,340,237			
Value	$14,361,092			
Other pyroxylin products, value	$4,252,733			
Drying japans and driers—				
Gallons	6,562,074	[7] 5,764,468	[7] 7,511,108	[7] 4,527,555
Value	$4,958,378	[7] $4,564,665	[7] $6,806,020	[7] $3,748,841
Baking japans—				
Gallons	4,988,589	6,057,468	6,470,773	3,464,625
Value	$4,453,467	$4,767,888	$6,196,746	$4,245,182
Enamels, oil and varnish base—				
Gallons	14,453,143	15,017,890	13,381,889	6,384,375
Value	$32,070,436	$32,173,742	$27,529,425	$14,757,302
Allied products,[8] value	$3,399,488	$4,364,621	$4,512,997	$2,975,249
FILLERS:				
Liquid—				
Gallons	565,991	722,317	846,329	983,702
Value	$721,862	$922,123	$939,683	$1,052,277
Paste—				
Pounds	19,940,061	18,262,373	16,586,878	15,616,817
Value	$1,656,785	$1,768,243	$1,554,708	$1,382,036
Dry—				
Pounds	21,546,014	23,741,150	17,947,082	5,880,060
Value	$451,851	$535,720	$486,719	$214,723
PUTTY:				
Pounds	102,702,810	101,208,891	92,744,565	65,897,542
Value	$4,255,341	$3,925,616	$3,774,857	$2,641,831
BLEACHED SHELLAC:				
Pounds	10,611,004	11,136,137	15,280,184	8,801,351
Value	$5,014,823	$5,990,559	$9,570,598	$5,369,844
STAINS:				
Varnish stains—				
Gallons	2,413,420	(5)	(5)	(5)
Value	$4,712,281			
Stains, other than varnish stains—				
Gallons	3,834,214	[9] 3,322,657	(5)	(5)
Value	$4,770,516	[9] $4,677,201		

[1] Revised.
[2] These aggregates are the sums of all items in the columns beneath except those which are underscored.
[3] Included in figure for "Other fine colors."
[4] Includes data for "Ultramarine."
[5] Not reported separately.
[6] Does not include data for "Thinners," therefore not strictly comparable with figures for 1925 and 1927.
[7] Revised to include data reported for "Metallic driers" for 1925 and for "Driers" for 1923 and 1921.
[8] Asphaltums, color and lithographic varnishes, etc.
[9] Reported as "Stains."

TABLE 4.—PRINCIPAL PRODUCTS, BY CLASS, QUANTITY, AND VALUE, BY STATES: 1927

[In this table, in each section giving figures for a particular product or class of products, the several States are listed in the order of their importance, and every State shown separately or named in a group is of greater importance than any one of the "Other States"]

PRODUCT AND STATE	Number of establishments	Quantity	Value
PIGMENTS (COLORS):			
White lead, dry, total	20	*Pounds* 143,305,020	$12,014,416
Illinois	5	32,762,300	2,881,769
Pennsylvania	5	14,004,958	1,227,309
New York, New Jersey, Missouri	5	76,337,745	6,139,420
Other States	5	20,200,017	1,765,918
Lead oxides—			
Litharge, total	17	154,622,069	12,815,967
Illinois	3	24,872,955	2,091,405
Missouri and Pennsylvania	5	71,641,565	5,816,413
Other States	9	58,107,549	4,908,149
Red lead, total	14	75,285,537	6,961,319
Illinois	3	11,506,123	1,057,694
Pennsylvania and Missouri	5	43,753,411	3,891,030
Other States	6	20,026,003	2,012,595
Zinc oxide, total	12	348,210,576	22,285,657
Pennsylvania and Ohio	4	245,761,368	15,980,543
Illinois, Kansas, and Indiana	5	68,384,319	4,387,892
Other States	3	34,064,889	1,917,222
Lithopone, total	12	359,759,077	17,163,576
Illinois	4	103,913,555	5,128,722
New Jersey and Pennsylvania	5	158,585,340	8,054,612
Other States	3	97,260,182	3,980,242
Chrome yellow, total	23	14,334,423	2,351,111
New York	6	5,763,092	931,948
New Jersey	5	5,245,136	848,096
Illinois	5	2,185,516	376,366
Pennsylvania	3	565,898	98,152
Other States	4	574,781	96,549
Chrome orange, total	19	4,652,209	751,468
New Jersey	5	2,893,517	447,490
New York	4	1,214,595	205,529
Other States	10	544,097	98,449
Chrome green, total	24	14,114,248	2,460,276
New York	6	6,197,417	999,918
New Jersey	6	3,076,836	605,087
Illinois	5	2,882,294	424,098
Other States	7	1,957,701	431,173
Prussian blue, total	19	4,104,233	1,364,537
New York	7	2,455,723	832,933
New Jersey	3	1,115,017	347,758
Other States	9	533,493	183,846
PIGMENTS (COLORS)—Continued.			
Whiting, total	18	*Pounds* 221,137,263	$1,669,874
Massachusetts	3	31,786,000	257,341
New Jersey, Nebraska, Georgia	4	118,158,000	905,626
Other States	11	71,193,263	506,907
Other dry colors (including barytes), total	56	201,677,719	13,348,441
Pennsylvania	7	63,859,492	3,905,708
New Jersey	13	8,445,068	2,604,088
New York	13	12,088,646	2,085,249
Missouri and Connecticut	3	93,490,000	3,231,850
Other States	20	23,794,513	1,521,546
PAINTS:			
In paste form—			
White lead in oil, total	99	252,743,419	28,083,217
Illinois	13	78,405,757	8,718,457
New York	7	54,863,270	6,292,535
Ohio	12	38,297,076	4,151,001
Pennsylvania	15	26,766,288	3,066,797
Missouri	5	24,002,093	2,768,529
California	8	17,788,357	1,944,367
New Jersey	6	11,010,589	938,403
Other States	33	1,609,989	203,128
Combination whites, total	230	53,927,072	5,248,046
Illinois	21	21,992,204	2,206,298
New York	22	10,285,118	983,892
California	33	4,756,664	488,550
New Jersey	14	5,541,979	411,065
Pennsylvania	25	3,094,538	269,959
Ohio	21	1,489,910	200,552
Missouri	13	1,243,850	98,722
Other States	81	5,522,809	589,008
Colors in oil, total	364	32,819,211	6,442,477
New York	41	6,945,575	1,413,433
Illinois	32	4,970,450	992,418
Pennsylvania	38	7,257,491	879,186
Ohio	42	3,160,674	719,663
New Jersey	12	2,761,671	553,117
California	40	1,802,542	460,029
Missouri	21	1,105,354	322,918
Michigan	10	727,373	206,842
Massachusetts	15	927,204	192,815
Wisconsin	10	670,443	152,442
Other States	103	2,490,434	549,614
Colors in japan, total	167	3,441,324	1,411,939
New York	16	1,604,884	833,362
Illinois	25	443,998	135,583
Ohio	18	387,521	121,287
Michigan	6	191,158	93,710
California	20	189,000	61,989
Other States	82	624,763	166,008

TABLE 4.—PRINCIPAL PRODUCTS, BY CLASS, QUANTITY, AND VALUE, BY STATES: 1927—Continued

[See note at head of this table]

PRODUCT AND STATE	Number of establishments	Quantity	Value
PAINTS—Continued.			
Ready-mixed and semipaste—Paints in oil, total	577	*Gallons* 53,108,389	$97,760,426
Illinois	57	11,323,258	18,655,721
New York	70	7,238,987	14,500,568
Ohio	71	6,560,530	12,677,854
New Jersey	28	5,673,201	9,814,502
Pennsylvania	64	5,461,296	8,634,339
Missouri	30	3,386,366	6,978,705
California	61	2,947,702	5,688,210
Michigan	17	2,586,302	5,216,782
Massachusetts	18	913,329	2,099,020
Minnesota	15	887,343	1,882,465
Kentucky	13	1,101,366	1,719,489
Wisconsin	11	682,344	1,244,634
Indiana	16	501,228	1,027,400
Maryland	11	489,538	883,321
Louisiana	8	388,721	859,941
Texas	10	441,140	787,588
Other States	77	2,525,738	5,089,887
Undercoatings and primers, total	344	7,198,418	11,343,928
Michigan	10	1,824,190	2,396,459
New York	39	1,273,728	2,087,391
Ohio	41	778,410	1,179,961
Illinois	39	567,615	869,670
California	47	527,598	869,295
Wisconsin	10	309,666	633,141
Pennsylvania	31	377,486	615,729
New Jersey	16	322,350	481,438
Missouri	17	223,086	461,581
Kentucky	10	83,634	139,480
Indiana	8	92,867	97,185
Massachusetts	9	66,555	94,952
Other States	67	751,233	1,417,646
Wall paints and mill whites, flat and gloss, total	422	15,357,299	26,525,797
New York	50	2,834,155	4,540,887
Illinois	47	2,525,023	4,311,456
New Jersey	23	1,993,948	3,513,478
Ohio	48	1,743,088	3,025,985
Michigan	11	933,172	1,643,110
Pennsylvania	39	887,886	1,422,041
Wisconsin	11	791,045	1,212,778
California	40	506,749	952,103
Minnesota	9	261,446	497,336
Indiana	11	274,576	473,226
Massachusetts	13	270,091	429,716
Kentucky	11	236,564	373,319
Other States	109	999,556	4,130,362
Water paints and kalsomines, dry and in paste form, total	54	*Pounds* 122,455,836	6,321,002
New York	10	36,539,371	1,654,377
Illinois	9	11,925,702	1,101,462
California	8	12,176,076	603,143
Other States	27	61,814,687	2,962,020
VARNISHES, JAPANS, AND LACQUERS, INCLUDING ENAMELS:			
Oleoresinous varnishes, total	319	*Gallons* 33,859,282	$43,628,196
New York	42	6,087,609	9,848,223
Ohio	48	4,543,209	6,694,301
New Jersey	31	5,166,783	5,904,806
Illinois	38	5,629,510	5,440,548
Michigan	14	1,767,371	2,417,320
Kentucky	9	2,069,430	2,232,906
Pennsylvania	30	1,819,837	1,991,957
Missouri	15	1,381,478	1,948,948
Massachusetts	12	1,238,886	1,713,906
California	28	1,376,332	1,690,436
Indiana	5	1,249,176	1,534,513
Minnesota	6	260,989	387,288
Tennessee	4	343,100	265,000
Other States	37	925,572	1,558,044
Spirit varnishes, not turpentine, total	211	6,816,421	12,440,814
Illinois	25	2,136,688	3,784,478
New York	34	1,688,198	3,580,677
New Jersey	20	564,924	1,155,482
Pennsylvania	21	411,198	731,043
California	23	433,706	637,403
Indiana	7	441,966	619,173
Massachusetts	12	218,269	419,331
Michigan	5	175,359	315,850
Kentucky	5	150,691	220,522
Ohio	24	119,053	204,745
Missouri	9	96,331	183,204
Other States	26	380,038	588,906
Varnishes, other than oleoresinous and spirit, total	155	8,936,448	12,757,922
Ohio	26	1,585,600	3,290,531
New York	21	1,653,783	2,172,286
Missouri	8	671,470	1,176,696
Illinois	15	869,836	964,865
New Jersey	17	770,315	922,629
Pennsylvania	17	421,179	434,560
California	15	330,772	370,474
Connecticut and Massachusetts	7	511,732	713,730
Other States	29	2,121,761	2,712,151
Pyroxylin products: Clear lacquers, total	167	7,738,079	15,721,249
New Jersey	21	1,943,997	4,382,154
Illinois	22	1,308,920	2,334,039
Ohio	22	1,070,504	2,326,945
Kentucky	6	913,169	1,455,808
New York	24	745,018	1,439,355
Massachusetts	6	511,63	914,116
Michigan	10	348,914	847,592
Indiana	8	390,297	799,787
Missouri	12	149,527	514,615
California	12	160,604	260,671
Pennsylvania	8	108,691	235,538
Other States	16	86,475	210,129

TABLE 4.—PRINCIPAL PRODUCTS, BY CLASS, QUANTITY, AND VALUE, BY STATES: 1927—Continued

[See note at head of this table, p. 712]

PRODUCT AND STATE	Number of establishments	Quantity	Value
VARNISHES, JAPANS, AND LACQUERS, INCLUDING ENAMELS—Continued.			
Pyroxylin products—Contd.			
Lacquer enamels, total	175	*Gallons* 10,757,852	$30,187,332
New Jersey	18	2,825,324	9,197,745
Michigan	13	2,392,794	6,308,494
Ohio	28	1,409,527	3,302,450
Illinois	19	1,149,252	3,195,974
New York	23	586,456	1,650,482
Pennsylvania	12	530,351	1,094,445
Wisconsin	4	298,772	890,543
California	11	287,639	699,901
Missouri	10	158,962	538,046
Massachusetts	5	120,738	398,575
Indiana	10	121,410	302,060
Other States	22	876,627	2,608,617
Thinners for pyroxylin lacquers, total	161	12,340,237	14,361,092
New Jersey	23	4,192,991	4,856,870
Michigan	10	2,884,865	3,183,564
Illinois	22	1,131,828	1,600,952
Ohio	24	1,194,927	1,414,512
New York	22	460,487	647,990
Massachusetts	6	443,616	569,493
California	11	330,463	344,500
Pennsylvania	8	128,287	193,190
Maryland and Missouri	11	1,167,580	967,439
Other States	24	405,193	582,582
Drying japans and driers, total	264	6,562,074	4,958,378
Ohio	43	1,071,238	925,892
Illinois	30	1,056,128	814,457
Pennsylvania	30	1,209,444	670,226
New York	36	807,218	658,379
VARNISHES, JAPANS, AND LACQUERS, INCLUDING ENAMELS—Continued.			
Drying japans and driers—Contd.			
New Jersey	25	*Gallons* 589,874	$557,878
Michigan	11	540,172	321,825
Massachusetts	10	325,638	289,663
California	25	260,030	205,388
Kentucky	7	293,649	170,597
Other States	47	408,683	344,073
Baking japans, total	106	4,988,589	4,453,467
Michigan	7	1,638,018	1,270,753
Ohio	20	1,169,857	1,137,865
New York	17	668,706	621,484
New Jersey	9	260,471	374,357
Illinois	11	448,335	369,612
Pennsylvania	10	317,772	233,575
Missouri	4	179,632	220,710
Other States	28	305,798	225,111
Enamels, oil and varnish base, total	376	14,453,143	32,070,436
New York	48	3,290,894	8,559,594
Ohio	51	2,314,419	4,906,578
Michigan	15	2,249,517	3,835,036
Illinois	34	1,675,040	3,355,971
New Jersey	25	864,669	2,140,372
California	42	640,963	1,769,200
Massachusetts	10	710,783	1,669,013
Pennsylvania	36	666,595	1,185,749
Missouri	19	290,618	1,145,851
Wisconsin	7	411,852	939,270
Indiana	10	366,082	633,083
Kentucky	11	383,939	619,035
Minnesota	8	125,255	269,213
Texas	5	63,114	161,800
Other States	55	399,403	880,671

TABLE 5.—GENERAL STATISTICS, BY STATES: 1927

[This table presents statistics for all States for which separate figures can be given without disclosing data reported by individual establishments. Certain of the "Other States," however, reported larger values of products than some of the States shown separately]

STATE	Number of establishments	PERSONS ENGAGED IN THE INDUSTRY				Horsepower	Salaries	Wages	Cost of materials, supplies, containers for products, fuel, and power		Value of products	Value added by manufacture [1]
		Total	Proprietors and firm members	Salaried officers and employees	Wage earners (average for the year)				Materials, supplies, and containers	Fuel and power		
United States	1,006	40,953	258	12,634	28,061	163,187	$33,310,287	$40,184,732	$300,599,001	$7,125,369	$519,009,842	$211,285,472
Alabama	6	83	1	34	48	371	111,644	50,836	639,345	6,887	1,002,408	356,176
California	78	1,850	39	542	1,269	8,048	1,293,234	1,889,675	14,085,001	217,908	22,940,799	8,637,890
Colorado	7	223	------	50	173	1,596	122,932	224,588	1,281,979	183,284	2,131,261	665,998
Connecticut	10	400	2	136	262	1,675	368,697	373,033	1,898,752	61,532	3,939,723	1,979,439
Florida	5	22	------	9	13	152	16,684	16,717	102,469	1,096	173,057	69,492
Georgia	10	147	1	31	115	1,276	79,446	78,665	469,484	16,026	972,527	487,017
Illinois	109	5,548	20	1,531	3,997	29,214	3,935,309	5,845,611	53,447,874	1,362,439	83,213,434	28,403,121
Indiana	24	796	------	314	482	4,508	712,910	777,743	6,063,841	165,694	9,676,328	3,446,793
Iowa	4	48	3	17	28	67	35,122	31,240	397,372	3,734	675,920	274,814
Kansas	3	10	------	3	7	33	4,000	6,548	72,976	876	120,354	46,502
Kentucky	22	671	1	241	429	2,759	734,720	530,455	5,344,171	58,870	9,975,983	4,572,942
Louisiana	9	156	2	67	87	432	151,615	107,766	1,024,882	11,408	1,713,054	676,764
Maryland	20	455	17	138	300	1,914	338,442	425,769	2,457,721	114,109	4,295,758	1,723,928
Massachusetts	40	1,173	10	497	666	3,560	1,173,271	872,685	6,891,264	133,884	12,919,922	5,894,774
Michigan	35	2,676	4	821	1,851	9,223	2,213,837	2,757,370	20,315,237	277,479	35,613,592	15,020,876
Minnesota	23	405	8	158	239	1,212	363,271	292,885	2,359,526	31,305	4,115,826	1,724,995
Missouri	45	1,939	7	771	1,161	8,633	1,648,504	1,456,525	13,969,995	351,332	25,268,416	10,947,089
Nebraska	6	116	------	46	70	1,037	89,143	103,664	632,485	28,813	1,175,620	514,322
New Jersey	87	6,044	25	1,616	4,403	19,505	4,542,452	6,648,097	43,013,464	1,297,274	74,555,420	30,244,682
New York	162	5,943	37	1,715	4,191	22,474	5,404,148	6,178,182	48,909,096	866,686	87,648,608	37,872,826

See footnotes at end of table.

TABLE 5.—GENERAL STATISTICS, BY STATES: 1927—Continued

[See note at head of this table, p. 715]

STATE	Number of establishments	PERSONS ENGAGED IN THE INDUSTRY				Horsepower	Salaries	Wages	Cost of materials, supplies, containers for products, fuel, and power		Value of products	Value added by manufacture [1]
		Total	Proprietors and firm members	Salaried officers and employees	Wage earners (average for the year)				Materials, supplies, and containers	Fuel and power		
Ohio	104	4,737	12	1,504	3,221	18,725	$4,129,981	$4,508,175	$33,144,678	$741,037	$60,453,960	$26,568,245
Oregon	11	105	4	33	68	452	62,236	92,242	635,776	7,202	1,170,841	527,863
Pennsylvania	104	4,618	42	1,320	3,256	15,790	3,380,655	4,762,556	27,457,094	737,118	46,092,491	17,898,279
Tennessee	13	267	2	102	163	1,264	234,504	154,343	1,120,037	27,027	2,065,376	918,312
Texas	11	185	2	82	101	585	216,041	121,336	1,393,508	23,309	2,301,613	884,796
Virginia	8	95	2	30	63	381	63,851	70,080	380,207	14,733	681,526	286,586
Washington	12	144	3	51	90	709	127,763	109,405	669,457	8,642	1,186,815	508,716
West Virginia	6	249	4	51	194	2,599	101,098	260,164	2,370,224	76,031	3,592,264	1,146,009
Wisconsin	17	1,226	9	560	657	2,525	1,188,975	832,178	6,184,564	174,679	12,647,881	6,288,638
Other States [2]	15	622	1	164	457	2,468	465,802	606,199	3,866,522	124,955	6,689,065	2,697,588

[1] Value of products less cost of materials, supplies, containers for products, fuel, and power. (See secs. 18 and 21, pp. 9 and 10.)
[2] Delaware, 2 establishments; Maine, 1; North Carolina, 2; Oklahoma, 3; Rhode Island, 5; South Carolina, 1; Utah, 1.

RAYON

[A preliminary report for this industry was issued under date of August 22, 1928]

Description of the industry.—This industry embraces establishments engaged in the manufacture of rayon yarn and allied products in sheet or other form. No establishments engaged primarily in the further manufacture of products from rayon as a material are included. The manufacture of rayon was first treated as a separate industry at the census for 1925. (See "Rayon and compressed and liquefied gases," p. 656.)

TABLE 1.—SUMMARY FOR THE UNITED STATES:[1] 1927 AND 1925

[Statistics for this industry were included with those for the "Chemicals, not elsewhere classified" industry for 1923 and prior years]

	1927	1925	Per cent of increase
Number of establishments	[2] 19	14	(3)
Salaried officers and employees	1,355	969	39.8
Wage earners (average for the year)	26,341	19,128	37.7
Salaries and wages	$32,643,388	$25,447,500	28.3
Salaries	$3,993,947	$2,471,895	61.6
Wages	$28,649,441	$22,975,605	24.7
Cost of materials, supplies, fuel, and power	$25,747,792	$18,477,965	39.3
Materials and supplies	$22,743,855	(4)	--------
Fuel and power	$3,003,937	(4)	--------
Products, total value	$109,888,336	$88,060,962	24.8
Rayon and allied products:			
Yarns—			
Pounds	[5] 75,555,439	51,902,491	45.6
Value	$106,468,752	$88,007,873	21.0
Other (waste, sheets, etc.)—			
Pounds	[5] 5,038,594	--------	--------
Value	$3,419,584	--------	--------
Other products, value	--------	$53,089	--------
Value added by manufacture [6]	$84,140,544	$69,582,997	20.9
Horsepower	122,406	66,966	82.8

[1] Statistics for States can not be given separately without disclosing data for individual establishments; New Jersey, 3 establishments; New York, 3; Ohio, 2; Pennsylvania, 2; Tennessee, 2; Virginia, 2; Connecticut, 1; Delaware, 1; Maryland, 1; New Hampshire, 1; West Virginia, 1.
[2] By process: Viscose, 15 establishments; cuprammonium, 2; nitrocellulose, 1; acetate, 1.
[3] Not computed where base is less than 100.
[4] Not reported separately.
[5] By process: Viscose, 70,560,808 pounds; other (cuprammonium, nitrocellulose, and acetate), 10,033,225 pounds.
[6] Value of products less cost of materials, supplies, fuel, and power. (See secs. 18 and 21, pp. 9 and 10.)

TABLE 2.—PRIME MOVERS, MOTORS, AND GENERATORS, BY TYPE, NUMBER, AND RATED CAPACITY, FOR THE UNITED STATES: 1927 AND 1925

TYPE	1927		1925	
	Number	Capacity	Number	Capacity
		Horsepower		*Horsepower*
Prime movers, total	6,365	122,406	2,753	66,966
Steam engines	66	7,228	76	4,490
Steam turbines	47	68,749	50	33,631
Internal-combustion engines	1	10	--------	--------
Electric motors driven by purchased current	6,251	46,419	2,627	28,845
Electric motors, total	10,400	79,816	3,912	51,524
Driven by purchased current	6,251	46,419	2,627	28,845
Driven by current generated in establishment reporting	4,149	33,397	1,285	22,679
		Kilowatts		*Kilowatts*
Electric generators	26	49,825	14	17,850

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.

The primary products of the industry are salt, bromine, and calcium chloride. The production figures given in Table 4, as compiled by the United States Bureau of Mines, have been coordinated with the census statistics for the industry.

TABLE 1.—SUMMARY FOR THE UNITED STATES: 1919 TO 1927

[Data for establishments with products under $5,000 in value included for 1919 but not for subsequent years. See sec. 10, p. 6]

YEAR OR PERIOD	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, supplies, fuel, and power	Value of products	Value added by manufacture [1]	Horsepower
1927	58	5,961	$7,117,454	$14,664,126	$34,329,236	$19,665,110	55,928
1925	70	6,308	7,260,552	13,848,644	34,253,056	20,404,412	54,647
1923	75	6,809	8,129,492	16,476,623	36,837,162	20,360,539	58,101
1921	79	5,993	7,147,512	16,407,355	33,158,558	16,751,203	(2)
1919	86	6,495	7,353,420	16,027,791	37,513,821	21,486,030	42,051
	PER CENT OF INCREASE OR DECREASE (—)						
1925-1927	(3)	−5.5	−2.0	5.9	0.2	−3.6	2.3
1923-1925	(3)	−7.4	−10.7	−15.9	−7.0	.2	−5.9
1923-1927	(3)	−12.5	−12.4	−11.0	−6.8	−3.4	−3.7
1919-1927	(3)	−8.2	−3.2	−8.5	−8.5	−8.5	33.0

[1] Value of products less cost of materials, supplies, fuel, and power. (See secs. 18 and 21, pp. 9 and 10.)
[2] Not called for on schedule.
[3] Not shown when base is less than 100.

TABLE 2.—PRIME MOVERS, MOTORS, AND GENERATORS, BY TYPE, NUMBER, AND RATED CAPACITY, FOR THE UNITED STATES: 1927, 1925, AND 1923

TYPE	1927		1925		1923	
	Number	Capacity	Number	Capacity	Number	Capacity
		Horsepower		*Horsepower*		*Horsepower*
Prime movers, total	1,117	55,928	1,137	54,647	1,220	58,101
Steam engines	239	25,786	268	27,939	386	44,308
Steam turbines	86	16,013	49	12,090		
Internal-combustion engines	11	1,080	16	1,115	38	1,264
Water wheels and turbines	2	10	1	5	1	5
Electric motors driven by purchased current	779	13,039	803	13,498	795	12,524
Electric motors, total	2,635	35,717	2,240	29,942	1,564	22,954
Driven by purchased current	779	13,039	803	13,498	795	12,524
Driven by current generated in establishment reporting	1,856	22,678	1,437	16,444	769	10,430
		Kilowatts		*Kilowatts*		*Kilowatts*
Electric generators	51	16,729	58	16,627	(1)	(1)

[1] Not called for on schedule.

TABLE 3.—PRODUCTS, BY CLASS, QUANTITY, AND VALUE, FOR THE UNITED STATES: 1921 TO 1927

[The statistics given in this table for salt, bromine, and calcium chloride are based on reports issued by the United States Bureau of Mines, but the value of "Other products" is the difference between the total value of products as shown by the Bureau of Mines report and the total as reported at the census of manufactures. It is probable that the greater part of this amount represents the value of containers sold with products]

CLASS	1927	1925	1923	1921
Total value	$34,329,236	$34,253,056	$36,837,162	$33,158,558
Salt:				
Tons [1] (2,000 pounds)	[2] 7,568,690	[2] 7,397,500	[2] 7,130,713	[3] 4,981,154
Value	[2] $24,817,962	[2] $26,162,361	[2] $27,795,941	[3] $24,557,966
Bromine: [4]				
Pounds	1,756,310	1,566,120	842,352	711,953
Value	$564,689	$488,406	$146,176	$172,759
Calcium chloride: [5]				
Tons (2,000 pounds)	95,721	67,870	44,961	23,672
Value	$1,947,797	$1,386,639	$663,384	$510,723
Other products, value	$6,998,788	$6,215,650	$8,231,661	$7,917,110

[1] Domestic salt marketed in the United States comprised, for 1927, 2,263,030 tons of evaporated salt, 3,161,800 tons of salt in brine, and 2,143,860 tons of rock salt; for 1925, 2,235,170 tons of evaporated salt, 2,819,690 tons of salt in brine, and 2,342,640 tons of rock salt.

[2] Includes data for salt produced in Porto Rico.

[3] Includes data for salt produced in Hawaii and Porto Rico.

[4] Bromine and bromine content of compounds sold or used by producers in the United States. For liquid bromine, see report on the chemical industry: 1927, 90,634 pounds; 1925, 133,165; 1923, 273,426; 1921, 191,114.

[5] Calcium-magnesium chloride from natural brines sold by producers in the United States. These statistics cover the direct production of calcium chloride from mineral raw materials only. For total production of calcium chloride, including that obtained from the manufacture of soda, see report on the chemical industry: 1927, 191,123 tons; 1925, 170,773; 1923, 90,750; 1921, 79,014.

TABLE 4.—GENERAL STATISTICS, BY STATES: 1927

[This table presents statistics for all States for which separate figures can be given without disclosing data reported by individual establishments. Two of the "Other States," however, reported larger values of products than one of the States shown separately]

STATE	Number of establishments	PERSONS ENGAGED IN THE INDUSTRY				Horsepower
		Total	Proprietors and firm members	Salaried officers and employees	Wage earners (average for the year)	
United States	58	6,823	8	854	5,961	55,928
California	12	607	3	64	540	3,938
Kansas	10	1,027	--------	165	862	10,507
Louisiana	4	990	--------	147	843	3,530
Michigan	10	1,678	2	174	1,502	18,656
New York	9	1,498	--------	152	1,346	9,802
Ohio	5	688	1	99	588	6,808
West Virginia	3	104	1	20	83	690
Other States [1]	5	231	1	33	197	1,997

STATE	Salaries	Wages	Cost of materials, supplies, fuel, and power		Value of products	Value added by manufacture [2]
			Materials and supplies	Fuel and power		
United States	$2,352,424	$7,117,454	$11,051,999	$3,612,127	$34,329,236	$19,665,110
California	120,116	653,050	926,124	134,327	2,608,167	1,547,716
Kansas	333,017	869,421	1,222,934	556,416	4,495,860	2,716,510
Louisiana	434,150	452,220	1,563,537	169,775	3,705,883	1,972,571
Michigan	468,177	2,094,150	3,369,886	1,268,970	10,492,881	5,854,025
New York	604,207	1,736,601	2,051,417	788,289	7,306,002	4,466,296
Ohio	270,021	982,664	1,364,534	501,207	4,224,338	2,358,597
West Virginia	46,787	89,914	60,782	86,519	234,843	87,542
Other States [1]	75,949	239,434	492,785	106,624	1,261,262	661,853

[1] New Mexico, 1 establishment; Texas, 2; Utah, 2.
[2] Value of products less cost of materials, supplies, fuel, and power. (See secs. 18 and 21, pp. 9 and 10.)

SOAP

[A preliminary report for this industry was issued under date of November 20, 1928]

Description of the industry.—This industry classification covers establishments engaged primarily in the manufacture of soap and soap products, together with the soap departments of large slaughtering and meat-packing plants. The principal products are toilet soap, white and yellow laundry soap, soap chips, and other hard soaps; granulated and powdered soaps and soap powders; and soft, liquid, and paste soaps.

TABLE 1.—SUMMARY FOR THE UNITED STATES: 1919 TO 1927

[Data for establishments with products under $5,000 in value included for 1919 but not for subsequent years. See sec. 10, p. 6]

YEAR OR PERIOD	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, supplies, containers for products, fuel, and power	Value of products	Value added by manufacture [1]	Horsepower
1927	256	13,432	$19,715,931	$172,244,130	$287,059,935	$114,815,805	62,025
1925	272	15,406	18,526,104	184,873,537	278,273,107	93,399,570	56,697
1923	270	17,002	20,776,443	173,545,981	276,402,838	102,856,857	74,820
1921	283	16,558	18,864,713	150,355,643	240,194,619	89,838,976	(2)
1919	348	20,436	21,228,063	238,518,858	316,740,115	78,221,257	33,700
	PER CENT OF INCREASE OR DECREASE (—)						
1925-1927	—5.9	—12.8	6.4	—6.8	3.2	22.9	9.4
1923-1925	.7	—9.4	—10.8	6.5	.7	—9.2	—24.2
1923-1927	—5.2	—21.0	—5.1	—.8	3.9	11.6	—17.1
1919-1927	—26.4	—34.3	—7.1	—27.8	—9.4	46.8	84.1

[1] Value of products less cost of materials, supplies, containers for products, fuel, and power. (See secs. 18 and 21, pp. 9 and 10.)
[2] Not called for on schedule.

TABLE 2.—PRIME MOVERS, MOTORS, AND GENERATORS, BY TYPE, NUMBER, AND RATED CAPACITY, FOR THE UNITED STATES: 1927, 1925, AND 1923

TYPE	1927		1925		1923	
	Number	Capacity	Number	Capacity	Number	Capacity
Prime movers, total	3,272	*Horsepower* 62,025	3,078	*Horsepower* 56,697	2,690	*Horsepower* 74,820
Steam engines	199	22,566	274	26,665	253	50,135
Steam turbines	17	12,879	17	6,363		
Internal-combustion engines	6	100	7	78	8	96
Water wheels and turbines	1	35	1	35	1	35
Electric motors driven by purchased current	3,049	26,445	2,779	23,556	2,428	24,554
Electric motors, total	7,504	55,788	7,365	52,141	5,480	45,681
Driven by purchased current	3,049	26,445	2,779	23,556	2,428	24,554
Driven by current generated in establishment reporting	4,455	29,343	4,586	28,585	3,052	21,127
Electric generators	72	*Kilowatts* 17,506	80	*Kilowatts* 17,106	(1)	*Kilowatts* (1)

[1] Not called for on schedule.

TABLE 3.—PRODUCTS, BY CLASS, QUANTITY, AND VALUE, FOR THE UNITED STATES: 1921 TO 1927

CLASS	1927	1925	1923	1921
1. Soap industry, all products, total value	$287,059,935	$278,273,107	$276,402,838	$240,194,619
2. Soap	$242,927,457	$237,420,436	$224,690,560	$197,950,274
3. Other products (not normally belonging to the industry)	$44,132,478	$40,852,671	$51,712,278	$42,244,345
4 Soap made as a secondary product in other industries	$6,291,791	$4,454,488	$4,891,936	$2,851,208
Soap, all industries: Aggregate value (sum of 2 and 4)	$249,219,248	$241,874,924	$229,582,496	$200,801,482
Hard soaps—				
Total pounds	2,219,228,479	2,109,133,309	2,000,340,573	1,752,136,000
Total value	$191,458,196	$191,383,575	$179,924,316	$164,069,970
Toilet soap—				
Pounds	287,696,300	[1] 272,206,996	240,144,347	197,274,000
Value	$53,572,981	[1] $49,387,128	$53,098,527	(2)
Foots soap—				
Pounds	15,788,153	13,062,084	25,159,676	[3] 104,617,000
Value	$1,368,051	$1,162,171	$1,831,840	(2)
Soap chips—				
Pounds	373,215,795	325,042,787	218,754,320	144,536,000
Value	$39,422,667	$36,283,839	$25,373,176	(2)
Laundry soap—				
White (made from vegetable oils, etc.)—				
Pounds	887,720,019	755,788,858		
Value	$48,859,052	$49,996,906		
Yellow (made from tallow, rosin, etc.)—				
Pounds	598,675,316	[1] 675,167,863	[4] 1,516,282,230	[4] 1,305,709,000
Value	$42,864,599	[1] $47,088,060	[4] $99,620,773	(2)
Other hard soaps—				
Pounds	56,132,896	67,864,721		
Value	$5,370,846	$7,465,471		
Granulated and powdered soap—				
Pounds	173,930,283	142,321,736		
Value	$18,130,675	$15,789,485		
Soap powders (including commodities reported as cleansing powders and washing powders)—			655,060,628	580,371,000
Pounds	526,452,627	547,986,130	$39,799,073	$29,431,124
Value	$26,909,511	$25,858,113		
Liquid soap—				
Pounds	24,933,523	22,047,417	17,879,054	10,529,000
Value	$3,240,285	$2,122,358	$1,666,495	$1,267,029
Soft soap—				
Pounds	59,013,964	61,189,483	67,751,705	63,275,000
Value	$4,231,115	$2,513,631	$2,465,114	$2,722,051
Paste soap—				
Pounds	30,458,681	30,086,038	40,584,255	19,631,000
Value	$2,259,306	$2,200,911	$3,670,198	$1,637,867
Special soap articles—				
Pounds	33,249,520	22,750,253	15,685,401	8,831,000
Value	$2,642,904	$1,731,105	$1,600,242	$825,507
Soap stock or soap base, for sale—				
Pounds	8,178,932	5,382,271	7,553,942	25,288,000
Value	$347,256	$275,746	$457,058	$847,934

[1] Revised.
[2] Not tabulated separately.
[3] Includes data for 79,605,000 pounds of "olein soap."
[4] Includes data for "tallow soap": 1923, 1,057,465,908 pounds, valued at $64,593,403; 1921, 836,850,000 pounds.

TABLE 4.—GENERAL STATISTICS, BY STATES: 1927

[This table presents statistics for all States for which separate figures can be given without disclosing the data reported by individual establishments. Certain of the "Other States," however, reported larger values of products than some of the States shown separately]

STATE	Number of establishments	PERSONS ENGAGED IN THE INDUSTRY				Horsepower
		Total	Proprietors and firm members	Salaried officers and employees	Wage earners (average for the year)	
United States	256	17,681	90	4,159	13,432	62,025
California	29	896	10	244	642	3,643
Illinois	27	1,866	6	457	1,403	6,717
Iowa	4	101	3	16	82	433
Massachusetts	23	1,442	7	408	1,027	4,496
Minnesota	8	115	5	36	74	524
New Jersey	14	3,634	1	933	2,700	5,111
New York	39	2,902	3	759	2,140	14,303
Ohio	20	2,025	2	368	1,655	9,671
Pennsylvania	31	828	23	232	573	4,172
Rhode Island	6	85	2	18	65	433
Washington	4	43	--------	15	28	265
Other States [1]	51	3,744	28	673	3,043	12,257

STATE	Salaries	Wages	Cost of materials, supplies, containers for products, fuel, and power		Value of products	Value added by manufacture [2]
			Materials, supplies, and containers	Fuel and power		
United States	$9,766,393	$19,715,931	$168,065,295	$4,178,835	$287,059,935	$114,815,805
California	556,391	811,525	10,834,219	145,966	19,447,669	8,467,484
Illinois	1,159,893	1,777,091	15,868,668	646,903	27,471,332	10,955,761
Iowa	37,431	97,801	1,006,753	28,067	1,553,137	518,317
Massachusetts	1,176,227	1,395,727	14,097,213	339,842	33,496,615	19,059,560
Minnesota	71,562	109,116	830,401	12,113	1,468,878	626,364
New Jersey	1,796,131	4,223,543	24,120,808	456,764	43,517,671	18,940,099
New York	1,856,512	3,469,471	25,352,743	853,041	41,611,115	15,405,331
Ohio	1,042,702	3,245,141	27,617,451	700,561	40,129,058	11,811,046
Pennsylvania	542,297	682,821	6,700,759	85,983	11,829,367	5,042,625
Rhode Island	70,378	87,765	652,680	25,370	985,927	307,877
Washington	29,794	38,933	269,940	2,110	367,754	95,704
Other States [1]	1,427,075	3,776,997	40,713,660	882,115	65,181,412	23,585,637

[1] Alabama, 2 establishments; Colorado, 3; Connecticut, 3; Georgia, 1; Indiana, 5; Kansas, 3; Kentucky, 2; Louisiana, 1; Maryland, 2; Michigan, 3; Missouri, 5; Nevada, 1; Nebraska, 3; Oklahoma, 1; Oregon, 2; Texas, 2; Utah, 1; Wisconsin, 11.

[2] Value of products less cost of materials, supplies, containers for products, fuel, and power. (See secs. 18 and 21, pp. 9 and 10.)

103734—30——47

TANNING MATERIALS, NATURAL DYESTUFFS, MORDANTS AND ASSISTANTS, AND SIZES

[A preliminary report for this industry was issued under date of March 25, 1929]

Description of the industry.—This industry embraces establishments engaged primarily in the manufacture of tanning extracts and solutions, natural dyestuffs, mordants and assistants, and sizes. Natural dyestuffs are made from woods, barks, leaves, berries, and other forest and vegetable products. (Artificial or synthetic dyes are products of the "Chemicals, not elsewhere classified" industry.)

TABLE 1.—SUMMARY FOR THE UNITED STATES: 1919 TO 1927

[Data for establishments with products under $5,000 in value included for 1919 but not for subsequent years. See sec. 10, p. 6]

YEAR OR PERIOD	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, supplies, fuel, and power	Value of products	Value added by manufacture [1]	Horsepower
1927	122	2,414	$2,971,477	$23,073,925	$35,677,033	$12,603,108	29,172
1925	125	2,495	2,987,070	22,763,114	34,783,703	12,020,589	32,634
1923	125	3,243	3,800,783	24,033,018	35,971,612	11,938,594	32,833
1921	123	2,993	3,007,547	20,105,517	28,310,708	8,205,191	(2)
1919	144	4,342	4,734,614	34,592,698	53,744,283	19,151,585	34,295
	PER CENT OF INCREASE OR DECREASE (—)						
1925–1927	—2.4	—3.2	—0.5	1.4	2.6	4.8	—10.6
1923–1925	-------	—23.1	—21.4	—5.3	—3.3	.7	—.6
1923–1927	—2.4	—25.6	—21.8	—4.0	—.8	5.6	—11.2
1919–1927	—15.3	—44.4	—37.2	—33.3	—33.6	—34.2	—14.9

[1] Value of products less cost of materials, supplies, fuel, and power. (See secs. 18 and 21, pp. 9 and 10.)
[2] Not called for on schedule.

TABLE 2.—PRIME MOVERS, MOTORS, AND GENERATORS, BY TYPE, NUMBER, AND RATED CAPACITY, FOR THE UNITED STATES: 1927, 1925, AND 1923

TYPE	1927		1925		1923	
	Number	Capacity	Number	Capacity	Number	Capacity
		Horsepower		*Horsepower*		*Horsepower*
Prime movers, total	782	29,172	641	32,634	668	32,833
Steam engines	156	20,876	144	24,018	199	27,807
Steam turbines	11	2,418	14	2,739		
Internal-combustion engines	6	145	7	139	10	482
Water wheels and turbines	1	60	2	80	1	60
Electric motors driven by purchased current	608	5,673	474	5,658	458	4,484
Electric motors, total	1,046	11,629	892	12,500	923	13,229
Driven by purchased current	608	5,673	474	5,658	458	4,484
Driven by current generated in establishment reporting	438	5,956	418	6,842	465	8,745
		Kilowatts		*Kilowatts*		*Kilowatts*
Electric generators	44	6,556	44	5,748	(1)	(1)

[1] Not called for on schedule.

TABLE 3.—PRODUCTS, BY CLASS, KIND, QUANTITY, AND VALUE, FOR THE UNITED STATES: 1921 TO 1927

	1927	1925	1923	1921
1. Tanning materials and dyestuffs industry, all products, total value	$35,677,033	$34,783,703	$35,971,612	$28,310,708
2. Tanning materials, natural dyestuffs, mordants and assistants, and sizes	29,412,928	29,729,163	30,515,083	25,545,552
3. Other products (not normally belonging to the industry)	6,264,105	5,054,540	5,456,529	2,765,156
4. Tanning materials, natural dyestuffs, etc., made as secondary products in other industries, value	1,516,333	1,494,423	2,894,667	1,955,143
Tanning materials, natural dyestuffs, mordants and assistants, and sizes, all industries: Aggregate value (sum of 2 and 4)	$30,929,261	$31,223,586	$33,409,750	$27,500,695
Tanning materials [1]— Total value	$11,431,396	$10,742,176	$15,133,695	$11,866,290
Extracts—				
Chestnut, value	$5,312,807	$5,065,347	$8,410,259	$5,927,103
Number of establishments	23	21	36	28
Liquid—				
Pounds, total	260,902,854	246,148,153	321,154,855	145,937,290
North Carolina	69,693,106	61,411,185	113,596,849	(2)
Tennessee	66,963,127	91,253,954	92,999,696	49,140,838
Virginia	105,085,114	67,506,776	87,114,167	60,512,763
Other States	19,161,507	25,976,238	27,444,143	36,283,689
Value	$4,414,155	$4,011,954	$6,069,167	$2,962,379
Solid—				
Pounds	48,775,613	48,276,940	112,356,921	104,325,990
Value	$898,652	$1,053,393	$2,341,092	$2,964,724
Quebracho—				
Number of establishments	10	8	11	8
Pounds (liquid)	124,557,358	82,385,107	103,980,859	65,564,005
Value	$3,010,125	$2,395,123	$3,349,472	$2,447,081
Oak, value	$358,473	$287,880	$454,234	$428,175
Number of establishments	8	7	19	11
Liquid—				
Pounds, total	[3] 9,476,629	[3] 8,664,005	7,625,819	8,009,776
Virginia	6,132,860	3,655,887	7,625,819	8,009,776
Other States	3,343,769	5,008,118		
Value	[3] $358,473	[3] $287,880	$280,261	$293,131
Solid—				
Pounds	(4)	(4)	4,095,927	2,968,144
Value	(4)	(4)	$173,973	$135,044
Sumac—				
Number of establishments	4	6	5	4
Pounds, total	5,524,944	4,211,892	6,112,229	5,030,304
Liquid	5,524,944	4,211,892	5,040,789	2,621,004
Solid	----------	----------	1,071,440	2,409,300
Value	$276,553	$261,407	$309,379	$345,811
Hemlock—				
Number of establishments	9	6	9	7
Pounds, total	6,595,931	8,621,956	9,316,166	9,394,230
Liquid	[3] 6,595,931	[3] 8,621,956	7,369,425	9,073,624
Solid	(4)	(4)	1,946,741	320,606
Value	$209,756	$283,587	$287,135	$347,039
Myrobalans—				
Number of establishments	4	4		
Pounds (liquid)	3,476,552	4,427,127	$2,186,531	$2,371,081
Value	$113,995	$150,941		
Other extracts, including chrome tannage, value	$1,740,272	$1,889,040		
Other tanning materials	$409,415	$408,851	$136,685	----------
Natural dyestuffs— Total value	$2,068,893	$2,015,258	$2,938,970	$4,052,181
Extracts—				
Logwood—				
Number of establishments	7	7		
Liquid—				
Pounds	15,994,492	11,670,987	8	9
Value	$1,189,715	$919,551	26,149,907	22,946,479
Solid—			$1,973,529	$2,548,804
Pounds	2,162,333	2,026,727		
Value	$278,330	$285,454		

See footnotes at end of table.

TABLE 3.—PRODUCTS, BY CLASS, KIND, QUANTITY, AND VALUE, FOR THE UNITED STATES: 1921 TO 1927—Continued

	1927	1925	1923	1921
Tanning materials, etc.—Continued.				
Extracts—Continued.				
Fustic—				
Number of establishments	5	6		
Liquid—				
Pounds	2,619,794	3,306,572	5	5
Value	$194,908	$249,135	4,022,910	4,479,993
Solid—			$323,602	$489,800
Pounds	163,565	294,680		
Value	$24,445	$44,365		
Quercitron—				
Number of establishments	6	5	7	
Pounds (liquid)	[3] 4,069,449	[3] 4,174,435	5,674,734	2,193,591
Value	[3] $211,782	[3] $251,352	$322,699	$134,059
Brazilwood and other redwoods—				
Number of establishments	3	4		
Liquid—				
Pounds	305,743	352,202	4	3
Value	$30,923	$42,335	940,163	1,616,706
Solid—			$120,897	$120,125
Pounds	33,221	72,610		
Value	$6,464	$15,448		
Cutch—				
Number of establishments	3	5	4	6
Pounds (liquid)	[3] 454,951	[3] 852,795	508,295	912,377
Value	[3] $35,119	[3] $55,033	$38,597	$87,601
Osage orange—				
Number of establishments	3	4		
Pounds (liquid)	[3] 696,823	[3] 650,658	$128,938	$468,505
Value	[3] $44,397	[3] $47,456		
Other, value	$32,885	$60,801		
Ground, chipped, and dry—				
Pounds	920,576	1,226,185	1,748,535	7,324,155
Value	$19,925	$44,328	$30,708	$203,287
Mordants, total value	$959,195	$985,288	$800,821	$1,243,302
Tannic acid—				
Pounds	1,297,232	1,439,957	969,541	717,977
Value	$593,465	$585,951	$357,023	$286,869
Other, value	$365,730	$399,337	$443,798	$956,433
Assistants, total value	$5,182,479	$4,776,364	$5,457,081	$3,250,256
Turkey red oil—				
Pounds	15,579,781	14,338,241	23,740,633	10,413,592
Value	$1,560,366	$1,552,182	$2,309,469	$995,184
Softeners—				
Pounds	23,330,942	25,341,910	29,634,353	19,038,450
Value	$1,797,543	$2,008,641	$2,203,686	$1,322,868
Chrome compounds (not including chrome tanning solutions)—				
Pounds	1,443,360	1,452,430	2,322,055	
Value	$92,399	$91,516	$111,398	$932,204
Other, value	$1,732,171	$1,124,025	$832,528	
Sizes, total value	$11,287,298	$12,704,500	$9,079,183	$7,088,666
Rosin sizes—				
Pounds	157,690,794	146,858,732	103,702,087	59,994,929
Value	$5,869,298	$5,498,011	$2,765,583	$1,608,609
Dextrin sizes—				
Pounds	31,917,325	56,350,539	57,571,407	30,952,877
Value	$2,092,880	$3,335,876	$3,286,906	$1,642,230
Gum sizes, other than rosin—				
Pounds	16,042,060	44,357,864	12,716,394	13,160,892
Value	$919,939	$2,279,011	$843,239	$744,509
Other sizes (made of starch, glue, etc.)—				
Pounds	30,980,240	28,422,387	45,341,834	52,675,469
Value	$2,405,181	$1,591,602	$2,183,455	$3,093,318

[1] Not including tanning materials made and consumed in the same establishments.
[2] Included in figure for "Other States."
[3] Includes data for a small quantity of solid product.
[4] Not shown separately in order to avoid disclosing the production of individual establishments. See footnote 3.

TABLE 4.—GENERAL STATISTICS, BY STATES: 1927

[This table presents statistics for all States for which separate figures can be given without disclosing the data reported by individual establishments. Certain of the "Other States," however, reported larger values of products than some of the States shown separately]

STATE	Number of establishments	PERSONS ENGAGED IN THE INDUSTRY				Horsepower
		Total	Proprietors and firm members	Salaried officers and employees	Wage earners (average for the year)	
United States	122	3,249	28	807	2,414	29,172
Georgia	5	64	1	17	46	520
Massachusetts	24	301	11	91	199	1,008
New Jersey	17	512	--------	208	304	2,901
New York	8	398	--------	148	250	2,600
North Carolina	7	253	--------	19	234	5,812
Pennsylvania	15	361	5	106	250	3,512
Rhode Island	12	133	5	44	84	371
Tennessee	6	340	--------	25	315	4,040
Virginia	13	517	2	51	464	5,738
Other States [1]	15	370	4	98	268	2,670

STATE	Salaries	Wages	Cost of materials, supplies, fuel, and power		Value of products	Value added by manufacture [2]
			Materials and supplies	Fuel and power		
United States	$2,517,609	$2,971,477	$22,192,017	$881,908	$35,677,033	$12,603,108
Georgia	22,019	36,589	247,069	17,979	437,266	172,218
Massachusetts	248,385	296,221	2,946,193	55,752	4 260,988	1,259,043
New Jersey	628,459	518,589	4,383,821	101,597	7,681,523	3,196,105
New York	548,067	460,804	2,992,422	132,429	5,459,105	2,334,254
North Carolina	39,402	156,927	774,764	99,540	1,278,064	403,760
Pennsylvania	384,832	539,253	2,862,956	54,828	4,168,332	1,250,548
Rhode Island	148,672	125,585	811,253	20,358	1,345,668	514,057
Tennessee	60,782	259,611	920,461	140,895	1,526,105	464,749
Virginia	140,401	447,976	1,988,827	204,494	3,314,797	1,121,476
Other States [1]	296,590	329,922	4,264,251	54,036	6,205,185	1,886,898

[1] Alabama, 2 establishments; California, 1; Connecticut, 1; Delaware, 1; Florida, 2; Illinois, 1; Indiana, 1; Maryland, 1; Michigan, 2; South Carolina, 2; Wisconsin, 1.

[2] Value of products less cost of materials, supplies, fuel, and power. (See secs. 18 and 21, pp. 9 and 10.)

WOOD DISTILLATION AND CHARCOAL MANUFACTURE

[A preliminary report for this industry was issued under date of March 20, 1929]

Description of the industry.—This industry embraces three classes of establishments: (*a*) Those engaged in hardwood distillation; (*b*) those engaged in softwood distillation; (*c*) those engaged in charcoal manufacture by means of kilns or pits. The principal products of hardwood distillation, which is confined mainly to the Northern and Central States, are methanol, acetate of lime and its derivatives, charcoal, and tar. The principal products of softwood distillation, which is carried on chiefly in the South Atlantic and Gulf States, are turpentine, rosin, pine oil, tar, tar oils, and charcoal. Two distinct processes are employed in wood distillation, namely, destructive distillation and the steam process. In the former the wood is heated to such a temperature that the fiber is destroyed and new products are created. In the latter the volatile substances are removed from the wood by the use of steam, which does not destroy the fiber.

In the manufacture of charcoal by the carbonizing of wood in kilns or by the pit method (placing the wood in circular piles, covering it with earth, and allowing it to smolder after firing) the volatile substances are driven off and lost, leaving charcoal and wood tar as the only products.

Decrease in number of establishments.—In 1925 the industry was represented by 106 establishments, the decrease to 88 in 1927 being the net result of a loss of 23 establishments and a gain of 5. Of the 23 establishments lost to the industry, 13 had gone out of business before the beginning of 1927, 5 were idle throughout the year, and 5 reported products valued at less than $5,000. (See sec. 10, p. 6.)

TABLE 1.—SUMMARY FOR THE INDUSTRY, FOR THE UNITED STATES, 1919 TO 1927, AND FOR ITS BRANCHES, 1921 TO 1927

[Data for establishments with products under $5,000 in value included for 1919 but not for subsequent years. See sec. 10, p. 6]

YEAR OR PERIOD	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, supplies, fuel, and power	Value of products	Value added by manufacture [1]	Horsepower
THE INDUSTRY AS A WHOLE							
1927	88	4,537	$4,739,153	$15,422,575	$27,630,487	$12,207,912	16,833
1925	106	4,217	4,304,904	15,824,055	25,283,432	9,459,377	17,907
1923	123	4,123	4,324,848	17,268,950	29,695,423	12,426,473	14,910
1921	108	2,130	1,913,503	6,727,787	9,677,552	2,949,765	(2)
1919	156	5,155	5,465,761	20,319,973	33,134,732	12,814,759	15,320
Per cent of increase or decrease (−):							
1925-1927	−17.0	7.6	10.1	−2.5	9.3	29.1	−6.0
1923-1925	−13.8	2.3	−.5	−8.4	−14.9	−23.9	20.1
1923-1927	−28.5	10.0	9.6	−10.7	−7.0	−1.8	12.9
1919-1927	−43.6	−12.0	−13.3	−24.1	−16.6	−4.7	9.9

See footnotes at end of table.

TABLE 1.—SUMMARY FOR THE INDUSTRY, FOR THE UNITED STATES, 1919 TO 1927, AND FOR ITS BRANCHES, 1921 TO 1927—Continued

YEAR OR PERIOD	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, supplies, fuel, and power	Value of products	Value added by manufacture [1]	Horsepower
HARDWOOD DISTILLATION							
1927	57	2,898	$3,248,754	$10,821,568	$17,414,311	$6,592,743	9,755
1925	67	2,866	3,262,420	11,983,499	16,871,306	4,887,807	12,115
1923	76	2,933	3,330,742	14,335,736	24,262,546	9,926,810	9,040
1921	72	1,521	1,558,331	5,799,551	8,278,434	2,478,883	(2)
Per cent of increase or decrease (—):							
1925–1927	(3)	1.1	−0.4	−9.7	3.2	34.9	−19.5
1923–1925	(3)	−2.3	−2.1	−16.4	−30.5	−50.8	34.0
1923–1927	(3)	−1.2	−2.5	−24.5	−28.2	−33.6	7.9
1921–1927	(3)	90.5	108.5	86.6	110.4	166.0	----------
SOFTWOOD DISTILLATION							
1927	19	1,535	$1,380,333	$4,382,343	$9,799,993	$5,417,650	6,793
1925	19	1,192	913,820	3,530,731	7,735,117	4,204,386	5,412
1923	27	1,089	908,934	2,743,838	5,034,234	2,290,396	5,736
1921	15	340	247,702	675,202	980,044	304,842	(2)
Per cent of increase or decrease (—):							
1925–1927	(3)	28.8	51.1	24.1	26.7	28.9	25.5
1923–1925	(3)	9.5	.5	28.7	53.7	83.6	−5.6
1923–1927	(3)	41.0	51.9	59.7	94.7	136.5	18.4
1921–1927	(3)	351.5	457.3	549.0	900.0	(3)	----------
CHARCOAL MANUFACTURE							
1927	12	104	$110,066	$218,664	$416,183	$197,519	285
1925	20	159	128,664	309,825	677,009	367,184	380
1923	20	101	85,172	189,376	398,643	209,267	134
1921	21	269	107,470	253,034	419,074	166,040	(2)
Per cent of increase or decrease (—):							
1925–1927	(3)	−34.6	−14.5	−29.4	−38.5	−46.2	−25.0
1923–1925	(3)	57.4	51.1	63.6	69.8	75.5	183.6
1923–1927	(3)	3.0	29.2	15.5	4.4	−5.6	112.7
1921–1927	(3)	−61.3	2.4	−13.6	−.7	19.0	----------

[1] Value of products less cost of materials, supplies, fuel, and power. (See secs. 18 and 21, pp. 9 and 10.)
[2] Not called for on schedule.
[3] Per cent not computed where base is less than 100 or where percentage is more than 1,000.

TABLE 2.—PRIME MOVERS, MOTORS, AND GENERATORS, BY TYPE, NUMBER, AND RATED CAPACITY, FOR THE UNITED STATES, FOR THE INDUSTRY, 1927, 1925, AND 1923, AND FOR ITS BRANCHES, 1927

TYPE	1927			
	Number	Capacity	Number	Capacity
	THE INDUSTRY		HARDWOOD DISTILLATION	
Prime movers, total	443	*Horsepower* 16,833	338	*Horsepower* 9,755
Steam engines	109	7,467	81	4,960
Steam turbines	16	5,690	8	1,490
Internal-combustion engines	12	305	10	292
Water wheels and turbines	11	43	11	43
Electric motors driven by purchased current	295	3,328	228	2,970
Electric motors, total	1,116	16,538	799	9,981
Driven by purchased current	295	3,328	228	2,970
Driven by current generated in establishment reporting	821	13,210	571	7,011
Electric generators	51	*Kilowatts* 7,967	29	*Kilowatts* 4,107

TYPE	SOFTWOOD DISTILLATION		CHARCOAL MANUFACTURE	
Prime movers, total	49	*Horsepower* 6,793	56	*Horsepower* 285
Steam engines	28	2,507	----	----
Steam turbines	8	4,200	----	----
Internal-combustion engines	----	----	2	13
Electric motors driven by purchased current	13	86	54	272
Electric motors, total	263	6,285	54	272
Driven by purchased current	13	86	54	272
Driven by current generated in establishment reporting	250	6,199	----	----
Electric generators	22	*Kilowatts* 3,860	----	*Kilowatts* ----

TYPE	THE INDUSTRY			
	1925		1923	
	Number	Capacity	Number	Capacity
Prime movers, total	508	*Horsepower* 17,907	339	*Horsepower* 14,910
Steam engines	127	7,579	146	11,639
Steam turbines	17	5,359		
Internal-combustion engines	15	513	22	515
Water wheels and turbines	11	88	13	95
Electric motors driven by purchased current	338	4,368	158	2,661
Electric motors, total	830	13,425	330	8,004
Driven by purchased current	338	4,368	158	2,661
Driven by current generated in establishment reporting	492	9,057	172	5,343
Electric generators	58	*Kilowatts* 8,491	(1)	*Kilowatts* (1)

[1] Not called for on schedule.

TABLE 3.—PRODUCTS, BY CLASS, QUANTITY, AND VALUE, FOR THE UNITED STATES: 1921 TO 1927

	1927	1925	1923	1921
Wood-distillation and charcoal-manufacture industry, all products, total value	$27,630,487	$25,283,432	$29,695,423	$9,677,552
Wood-distillation products and charcoal	$27,564,074	$25,207,592	$29,676,392	$9,672,002
Other products	$66,413	$75,840	$19,031	$5,550
Wood-distillation products and charcoal made as secondary products in other industries, value	$6,429	$29,913	$84,532	$38,302
Wood-distillation products and charcoal, all industries, total value	$27,570,503	$25,237,505	$29,760,924	$9,710,304
Methanol (wood alcohol):				
Number of establishments	57	67	77	65
Crude, total production, gallons	8,008,838	8,643,848	9,128,852	3,964,430
Number of establishments	55	62	74	62
For sale—				
Gallons	5,732,699	5,848,645	7,037,433	3,289,308
Value	$2,072,101	$2,025,680	$4,108,512	$1,110,578
Made and consumed in same establishments, gallons	2,276,139	2,795,203	2,091,419	675,122
Refined—				
Number of establishments	9	13	11	11
Gallons	5,001,832	5,870,658	5,037,245	2,715,283
Value	$2,951,793	$3,390,223	$4,818,695	$1,924,396
Acetate of lime, total production, tons	78,140	81,723	80,788	30,658
Number of establishments	53	63	72	63
For sale—				
Tons	69,016	72,652	72,294	27,724
Value	$4,021,292	$3,437,384	$4,763,403	$737,018
Made and consumed in same establishments, tons	9,124	9,071	8,494	2,934
Methyl acetone:				
Number of establishments	6	6	5	5
Pounds	2,603,520	3,644,272	6,367,386	587,044
Value	$352,947	$457,589	$878,779	$58,968
Miscellaneous chemicals—Acetic acid,[1] ethyl acetate,[1] acetone oil, etc., value	$1,432,112	$1,355,155	$1,221,196	$351,180
Tar, total production, gallons	8,440,847	8,900,347	5,493,420	1,692,747
Number of establishments	19	22	21	18
For sale—				
Gallons	4,576,843	5,517,937	3,145,007	1,444,153
Value	$798,099	$839,578	$461,403	$197,927
Made and consumed in same establishments, gallons	3,864,004	3,382,410	2,348,413	248,594
Tar oils:				
Number of establishments	16	18	21	15
Gallons	1,560,730	1,425,086	1,192,507	401,414
Value	$322,926	$329,022	$217,209	$92,408
Pitch:				
Number of establishments	9	7	----------	----------
Pounds	19,604,571	26,437,865	(2)	(2)
Value	$375,608	$327,810	----------	----------
Turpentine, wood:[3]				
Number of establishments	15	15	21	13
Gallons	4,333,176	3,166,548	2,607,364	441,766
Value	$1,674,661	$2,078,879	$2,014,666	$233,212
Pine oil:				
Number of establishments	15	17	11	----------
Gallons	2,892,962	2,029,833	1,264,211	(2)
Value	$1,250,496	$826,648	$587,283	----------
Rosin, wood:[3]				
Number of establishments	10	8	8	5
Barrels (500 pounds)	452,187	286,988	200,771	29,347
Value	$5,232,361	$3,378,343	$1,368,085	$199,383

See footnotes at end of table.

TABLE 3.—PRODUCTS, BY CLASS, QUANTITY, AND VALUE, FOR THE UNITED STATES: 1921 TO 1927—Continued

	1927	1925	1923	1921
Wood-distillation products and charcoal—Con.				
Charcoal:				
Number of establishments	77	92	109	96
Total production for sale, bushels	42,306,506	43,835,846	46,966,598	22,703,345
Value	$6,274,151	$5,885,630	$8,986,665	$4,468,541
Hardwood distillation—				
Number of establishments	55	64		
Bushels	39,221,736	40,373,168		
Value	$5,690,767	$5,293,735	89	75
Softwood distillation—			45,102,823	19,898,345
Number of establishments	9	10	$8,601,923	$4,049,467
Bushels	1,601,626	1,983,590		
Value	$290,684	$303,101		
Kiln and pit plants—				
Number of establishments	13	18	20	21
Bushels	1,483,144	1,479,088	1,863,775	2,805,000
Value	$292,700	$288,794	$384,742	$419,074
Other wood products, value	$811,956	$905,564	$335,028	$336,693

[1] Acetic acid and ethyl acetate are made primarily by establishments in other industries. For total production of these commodities see report on chemicals.
[2] Not reported separately.
[3] Only small amounts of turpentine and rosin are produced in the wood-distillation industry, these commodities being distilled mainly from crude gum by establishments in the "Turpentine and rosin" industry. Such production for the crop year ended Mar. 31, 1928, amounted to 31,549,082 gallons of turpentine and 2,071,813 barrels of rosin.

TABLE 4.—PRINCIPAL PRODUCTS, BY CLASS, QUANTITY, AND VALUE, BY STATES: 1927, 1925, AND 1923

[This table presents statistics for all States for which separate figures can be given without disclosing the output of individual establishments. One of the "Other States," however, reported a larger production of refined methanol than Michigan, which is shown separately]

[Ton, 2,000 pounds]

PRODUCT AND STATE	1927		1925		1923	
	Quantity	Value	Quantity	Value	Quantity	Value
	Gallons		*Gallons*		*Gallons*	
Methanol (wood alcohol); refined, for sale	5,001,832	$2,951,793	5,870,658	$3,390,223	5,037,245	$4,818,695
Michigan	1,582,022	897,703	1,884,384	1,027,384	1,108,081	847,996
Other States	3,419,810	2,054,090	3,986,274	2,362,839	3,929,164	3,970,699
Methanol, crude, for sale	5,732,699	2,072,101	5,848,645	2,025,680	7,037,433	4,108,512
Pennsylvania	1,866,087	657,278	1,793,238	618,216	2,333,283	1,389,024
Michigan	1,673,265	575,804	1,859,159	690,474	2,350,827	1,402,165
New York	585,694	207,076	801,665	255,363	873,216	478,658
Other States	1,607,653	631,943	1,394,583	461,627	1,480,107	838,665
	Tons		*Tons*		*Tons*	
Acetate of lime	69,016	4,021,292	72,652	3,437,384	72,294	4,763,403
Michigan	25,965	1,437,224	27,818	1,240,084	24,796	1,462,164
Pennsylvania	17,157	1,063,791	20,440	1,046,242	26,207	1,876,123
New York	5,973	383,918	7,981	421,064	8,678	607,064
Tennessee	13,562	770,551	10,668	456,069	12,613	818,052
Other States	6,359	365,808	5,745	273,925		
	Bushels		*Bushels*		*Bushels*	
Charcoal	42,306,506	6,274,151	43,835,846	5,885,630	46,966,598	8,986,665
Michigan	16,409,432	1,858,298	19,258,818	2,131,655	20,199,282	3,687,195
Pennsylvania	9,559,374	1,675,772	9,030,914	1,266,508	11,628,341	2,498,358
New York	2,498,905	453,286	3,497,104	530,625	3,946,254	853,232
Tennessee	7,464,837	1,252,186	5,394,788	964,523	11,192,721	1,947,880
Other States	6,373,958	1,034,609	6,654,222	992,319		

TABLE 5.—WOOD CONSUMED IN DISTILLATION, BY STATES: 1921 TO 1927

[This table presents statistics for all States for which separate figures can be given without disclosing data for individual establishments]

	NUMBER OF ESTABLISHMENTS				WOOD CONSUMED (QUANTITY, CORDS)			
	1927	1925	1923	1921	1927	1925	1923	1921
United States	73	80	100	82	1,264,721	1,276,245	1,370,120	482,503
Hardwoods	55	63	74	68	822,303	911,646	1,030,337	433,223
Michigan	10	12	13	11	370,586	454,358	434,163	142,251
New York	11	13	17	15	60,908	81,161	98,049	55,371
Pennsylvania	25	28	33	32	209,629	203,228	336,817	175,235
Tennessee	3	3	2	1	118,008	111,213	64,932	21,170
Other States	[1] 6	7	9	9	63,172	61,686	96,376	39,196
Softwoods	18	17	26	14	442,418	[2] 364,599	339,783	49,280
Florida	4	4	4	3	108,295	109,517	97,865	10,447
Louisiana	3	3	5	4	106,878	91,111	77,317	9,197
Other States	[3] 11	10	17	7	227,245	163,971	164,601	29,636

[1] Kentucky, 1 establishment; Mississippi, 1; West Virginia, 2; Wisconsin, 2.
[2] Includes 182,284 tons (treated as equivalent to cords), distributed as follows: Florida, 72,319 tons; Louisiana, 65,632; "Other States," 44,333.
[3] Alabama, 2 establishments; Georgia, 4; Mississippi, 2; New York, 1; North Carolina, 2.

TABLE 6.—EQUIPMENT OF WOOD-DISTILLATION ESTABLISHMENTS, BY STATES: 1927

	Number	Total capacity, cords per day
RETORTS (NOT STEAM) AND OVENS	743	3,834
Hardwood distillation	530	3,540
Kentucky	4	36
Michigan	141	1,486
Mississippi	6	57
New York	94	365
Pennsylvania	215	965
Tennessee	42	395
West Virginia	16	144
Wisconsin	12	92
Softwood distillation	213	294
Alabama	15	15
Florida	58	135
Softwood distillation—Contd.		
Georgia	54	41
Louisiana	42	45
New York	8	10
North Carolina	36	48
STEAM EXTRACTORS (SOFTWOOD DISTILLATION)	118	1,307
Alabama	16	135
Florida	20	235
Georgia	30	450
Louisiana	21	261
Mississippi	31	226

TABLE 7.—GENERAL STATISTICS, BY STATES: 1927

[This table presents statistics for all States for which separate figures can be given without disclosing data for individual establishments. Certain of the "Other States," however, reported larger values of products than some of the States shown separately]

STATE	Number of establishments	PERSONS ENGAGED IN THE INDUSTRY				Horsepower
		Total	Proprietors and firm members	Salaried officers and employees	Wage earners (average for the year)	
United States	88	5,115	13	565	4,537	16,833
Hardwood distillation	57	3,217	8	311	2,898	9,755
Softwood distillation	19	1,770	3	232	1,535	6,793
Charcoal manufacture	12	128	2	22	104	285
Michigan	10	1,168	1	70	1,097	4,654
Mississippi	4	365	--------	44	321	1,883
New York	12	411	6	50	355	565
Pennsylvania	27	766	4	88	674	1,825
Tennessee	3	660	--------	93	567	2,404
Washington	3	40	--------	5	35	43
Other States [1]	29	1,705	2	215	1,488	5,459

STATE	Salaries	Wages	Cost of materials, supplies, fuel, and power		Value of products	Value added by manufacture [2]
			Materials and supplies	Fuel and power		
United States	$1,421,379	$4,739,153	$13,120,111	$2,302,464	$27,630,487	$12,207,912
Hardwood distillation	743,655	3,248,754	8,757,186	2,064,382	17,414,311	6,592,743
Softwood distillation	604,804	1,380,333	4,157,811	224,532	9,799,993	5,417,650
Charcoal manufacture	72,920	110,066	205,114	13,550	416,183	197,519
Michigan	175,863	1,538,502	3,282,638	877,003	6,535,715	2,376,074
Mississippi	103,809	252,145	879,702	55,067	1,926,572	991,803
New York	117,860	336,070	1,870,400	200,468	2,845,238	774,370
Pennsylvania	179,555	736,941	2,093,230	652,782	4,348,059	1,602,047
Tennessee	252,050	447,262	1,139,578	192,005	2,863,666	1,532,083
Washington	14,550	38,357	23,974	1,292	93,362	68,096
Other States [1]	577,692	1,389,876	3,830,589	323,847	9,017,875	4,863,439

[1] Alabama, 4 establishments; California, 2; Delaware, 1; Florida, 4; Georgia, 4; Illinois, 1; Kentucky, 1, Louisiana, 3; Massachusetts, 1; North Carolina, 2; Ohio, 1; Oklahoma, 1; West Virginia, 2; Wisconsin, 2.
[2] Value of products less cost of materials, supplies, fuel, and power. (See secs. 18 and 21, pp. 9 and 10.)

SUMMARY FOR INDUSTRIES IN GROUP 6 WHICH ARE NOT COVERED BY SEPARATE REPORTS, BY STATES

[This table presents summary statistics for the industries in Group 6 other than those for which separate reports are given on pp. 651–734. More detailed statistics for 1927 are given, for the United States as a whole, in Table II, p. 1316; and summaries for States and large cities, carrying statistics for these industries, in comparison with those for other industries, appear in Tables III and IV, pp. 1336 and 1416. See "General explanations," pp. 3–12; in particular, "Limitation of statistics to establishments reporting products valued at $5,000 or more," p. 6, "Power equipment," p. 7, "Cost of materials," etc., p. 8, "Value added by manufacture," p. 9, and "State and city statistics," p. 11]

YEAR AND STATE	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, supplies, fuel, and power	Value of products	Value added by manufacture	Horsepower
ALCOHOL, ETHYL							
[*Principal products:* Ethyl (grain) alcohol, pure or denatured. Methanol, or wood alcohol, is treated as a product of the "Wood distillation and charcoal manufacture" industry]							
United States							
1927	28	1,180	$1,704,518	$19,309,772	[1] $33,971,150	$14,661,378	7,261
1925	31	1,395	1,838,318	38,564,481	[1] 57,705,704	19,141,223	10,268
1923	30	1,062	1,474,166	17,770,264	[1] 33,000,099	15,229,835	8,129
1921	33	1,141	1,626,949	22,269,046	[1] 28,788,965	6,519,919	(2)
1919	34	1,380	1,716,699	19,655,522	[1] 31,854,085	12,198,563	16,494
States, 1927							
Louisiana	8	270	335,802	3,977,825	6,292,750	2,314,925	1,862
Pennsylvania	3	124	287,461	2,378,315	3,904,268	1,525,953	844
Other States [3]	17	786	1,081,255	12,953,632	23,774,132	10,820,500	4,555

[1] Does not include the following values of ethyl alcohol made as a secondary product by establishments in other industries: 1927, $1,097,739; 1925, $1,882,712; 1923, $1,132,802; 1921, $1,353,340; 1919, $964,880.
[2] Not called for on schedule.
[3] California, 2 establishments; Illinois, 2; Indiana, 2; Kentucky, 1; Maryland, 1; Massachusetts, 3; New Jersey, 3; New York, 2; Ohio, 1.

YEAR AND STATE	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, supplies, fuel, and power	Value of products	Value added by manufacture	Horsepower
BAKING POWDERS, YEAST, AND OTHER LEAVENING COMPOUNDS							
[*Principal products:* Baking powders, yeast, and other compounds used for leavening purposes. Many minor products, such as flavoring extracts, bakers' supplies, etc., were reported by manufacturers of baking powders, and yeast manufacturers reported, as secondary products, vinegar, alcohol, etc. Products in detail are shown on p. 742]							
[See "Baking powders, yeast, and other leavening compounds—Production, by kind, quantity, and value, for the United States: 1927, 1925, and 1923," p. 742]							
United States							
1927	47	3,032	$4,793,624	$24,619,450	$85,150,532	$60,531,082	42,816
1925	49	2,931	4,063,260	23,375,795	74,592,532	51,216,737	36,633
1923	57	3,507	4,919,858	21,656,521	51,691,123	30,034,602	35,845
1921	62	3,557	4,479,099	24,666,261	52,885,888	28,219,627	(1)
1919	88	3,331	3,554,534	26,635,429	46,230,312	19,594,883	20,071
States, 1927							
Illinois	12	1,035	1,863,467	11,064,864	37,897,230	26,832,366	14,198
Other States [2]	35	1,997	2,930,157	13,554,586	47,253,302	33,698,716	28,618

[1] Not called for on schedule.
[2] California, 3 establishments; District of Columbia, 1; Indiana, 1; Iowa, 1; Maryland, 3; Massachusetts, 1; Missouri, 1; New Jersey, 1; New York, 12; North Dakota, 1; Ohio, 3; Pennsylvania, 1; Rhode Island, 1; Virginia, 2; Washington, 1; Wisconsin, 2.

Summary for Industries in Group 6 Which Are Not Covered by Separate Reports, by States—Continued

[See note at head of this table, p. 735]

YEAR AND STATE	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, supplies, fuel, and power	Value of products	Value added by manufacture	Horsepower
BLACKING, STAINS, AND DRESSINGS							
[*Principal products:* Blackings, stains, polishes (including stove polish), dressings, etc., for leather, boots and shoes, automobile tops, and the like]							
United States							
1927	176	1,716	$2,180,733	$9,185,543	[1] $22,548,235	$13,362,692	4,005
1925	171	1,869	2,164,430	9,733,455	[1] 25,054,969	15,321,514	2,659
1923	175	2,165	2,170,138	10,253,195	[1] 25,821,709	15,568,514	2,792
1921	173	1,666	1,522,333	9,362,119	[1] 18,452,864	9,090,745	(2)
1919	220	2,455	2,109,103	14,041,840	[1] 25,284,072	11,242,232	2,446
States, 1927							
California	10	27	33,517	228,777	530,684	301,907	59
Illinois	17	58	82,327	318,881	807,738	488,857	76
Maryland	7	43	35,094	170,387	412,107	241,720	48
Massachusetts	62	429	558,140	2,309,608	5,272,363	2,962,755	519
Missouri	15	96	120,441	615,960	1,691,059	1,075,099	380
New Jersey	11	498	764,356	2,409,093	7,686,559	5,277,466	1,384
New York	22	163	179,635	952,311	2,252,685	1,300,374	192
Ohio	5	10	11,276	51,115	202,407	151,292	29
Pennsylvania	9	40	47,964	256,885	493,971	237,086	55
Wisconsin	5	29	44,980	241,938	476,813	234,875	114
Other States [3]	13	323	303,003	1,630,588	2,721,849	1,091,261	1,149

[1] Does not include the following values of blacking, stains, and dressings made as secondary products by establishments in other industries: 1927, $557,692; 1925, $637,933; 1923, $378,873; 1921, $645,793; 1919, $968,292.
[2] Not called for on schedule.
[3] Indiana, 2 establishments; Maine, 1; Michigan, 3; Nebraska, 1; New Hampshire, 1; North Carolina, 1; Rhode Island, 1; Texas, 2; Virginia, 1.

BLUING							
[*Principal product:* Laundry bluing, soluble and liquid]							
United States [1]							
1927	[2] 20	155	$151,364	$593,725	[3] $1,674,140	$1,080,415	363
1925	23	176	185,310	1,017,221	[3] 2,167,013	1,149,792	366
1923	25	188	187,901	800,293	[3] 1,643,186	842,893	296
1921	33	226	203,460	1,017,713	[3] 1,883,225	865,512	(4)
1919	57	360	285,063	1,542,954	[3] 2,731,277	1,188,323	423

[1] Statistics for States can not be given without disclosing data for individual establishments.
[2] California, 1 establishment; Illinois, 2; Indiana, 2; Massachusetts, 1; Michigan, 1; Minnesota, 1; Missouri, 2; New Jersey, 1; New York, 2; Pennsylvania, 2; Tennessee, 2; Texas, 1; Virginia, 1; Washington, 1.
[3] Includes the value of miscellaneous products, normally belonging to other industries, made as secondary products by establishments engaged primarily in the manufacture of bluing: 1927, $297,752; 1925, $354,709; statistics for earlier years not calculated. The total value of bluing manufactured, regardless of the classification of the establishments in which manufactured, so far as reported to the Bureau of the Census, was as follows: 1927, $1,632,371; 1925, $2,110,799.
[4] Not called for on schedule.

Summary for Industries in Group 6 Which Are Not Covered by Separate Reports, by States—Continued

[See note at head of this table, p. 735]

CANDLES

[*Principal products:* Candles of tallow, paraffin, stearin, or wax. Many of the candles are colored, painted, or otherwise decorated and are used for ornamental purposes as well as for lighting]

YEAR AND STATE	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, supplies, fuel, and power	Value of products	Value added by manufacture	Horsepower
United States							
1927	17	709	$761,464	$2,958,987	[1,2] $6,350,931	$3,391,944	996
1925	20	626	672,691	2,786,247	[1,2] 5,114,292	2,328,045	922
1923	21	746	753,919	2,392,948	[1,2] 5,079,884	2,686,936	912
1921	20	609	589,737	2,090,807	[2] 3,776,911	1,686,104	(3)
1919	19	541	437,581	2,178,528	[2] 3,350,806	1,172,278	597
States, 1927							
New York	11	614	654,890	2,596,159	5,662,668	3,066,509	870
Other States [4]	6	95	106,574	362,828	688,263	325,435	126

[1] For 1927: Candles, $5,610,068; other products, $740,863. For 1925: Candles, $4,784,995; other products, $329,297. For 1923: Candles, $4,424,202; other products, $655,682.
[2] Does not include the following values of candles made as a secondary product by establishments in other industries: 1927, $1,969,020; 1925, $2,463,938; 1923, $2,591,262; 1921, $2,492,108; 1919, $5,077,664.
[3] Not called for on schedule.
[4] Massachusetts, 2 establishments; Missouri, 2; New Jersey, 1; Ohio, 1.

CLEANING AND POLISHING PREPARATIONS

[*Principal products:* Washing, ironing, and sweeping compounds, laundry tablets, eyeglass and windshield cleaners, preparations for cleaning gloves and other wearing apparel, furniture polish, automobile body polish, floor and laundry wax, paint and varnish removers, etc. (Manufacturers of washing soda (sal soda) are allocated to the "Chemicals, not elsewhere classified" industry)]

[See "Cleaning and polishing preparations—Production, by kind and value: 1927, 1925, and 1923," p. 742]

United States							
1927	341	2,403	$2,988,430	$15,219,635	$41,234,466	$26,014,831	8,485
1925	299	2,161	2,659,767	12,707,370	34,020,384	21,313,014	6,279
1923	298	2,376	2,746,082	13,600,082	35,443,130	21,843,048	6,698
1921	279	1,687	1,884,922	10,959,174	23,177,721	12,218,547	(1)
1919	499	1,955	1,898,447	12,923,518	26,703,109	13,779,591	4,510
States, 1927							
California	16	43	57,324	387,753	798,267	410,514	240
Colorado	5	9	11,982	48,691	101,673	52,982	14
Illinois	53	312	420,464	1,751,594	5,247,844	3,496,250	746
Indiana	6	27	21,498	143,735	293,178	149,443	89
Iowa	6	12	16,231	90,528	231,486	140,958	95
Maryland	6	18	30,608	137,925	427,505	289,580	41
Massachusetts	24	74	83,541	396,665	1,001,506	604,841	127
Michigan	19	252	392,993	2,502,689	6,373,407	3,870,718	1,203
Minnesota	5	10	10,440	135,157	274,090	138,933	19
Missouri	18	78	83,757	543,574	1,636,395	1,092,821	131
New Jersey	17	75	90,401	696,781	1,799,613	1,102,832	185
New York	59	780	931,809	3,322,431	8,937,853	5,615,422	1,991
Ohio	32	239	261,134	2,105,692	5,118,932	3,013,240	738
Pennsylvania	26	166	200,731	1,254,489	3,199,165	1,944,676	474
Tennessee	4	14	9,855	50,108	121,368	71,260	62
Texas	6	16	14,236	52,006	149,748	97,142	29
Wisconsin	8	45	49,628	219,250	580,213	360,963	165
Other States [2]	31	233	301,788	1,379,967	4,942,223	3,562,256	2,136

[1] Not called for on schedule.
[2] Connecticut, 8 establishments; Delaware, 1; Florida, 2; Georgia, 1; Kansas, 1; Kentucky, 1; Maine, 3; Nebraska, 1; New Hampshire, 5; New Mexico, 1; North Carolina, 2; Oklahoma, 1; Rhode Island, 2; South Carolina, 1; Virginia, 1.

Summary for Industries in Group 6 Which Are Not Covered Reports, by States—Continued

[See note at head of this table, p. 735]

YEAR AND STATE	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, supplies, fuel, and power	Value of products	Value by ma tu
GLUE AND GELATIN						
[*Principal products:* Animal, vegetable, and other glues; edible and inedible ge						
[See "Glue and gelatin—Production, by kind, quantity, and value, for the United St and 1923," p. 743]						
United States						
1927	61	3,226	$4,524,232	$19,222,384	$31,195,807	$11,97
1925	55	3,325	3,976,383	15,337,870	25,763,977	10,42
1923	50	3,651	4,075,904	14,590,638	24,366,097	9,77
1921	47	2,915	3,573,149	13,401,858	21,342,004	7,94
1919	62	4,264	4,776,724	19,279,905	32,134,067	12,85
States, 1927						
Illinois	12	540	830,540	3,149,893	4,946,607	1,79
Massachusetts	12	775	1,042,950	4,242,898	6,830,569	2,58
Missouri	3	69	72,301	334,870	522,049	18
New York	8	463	546,399	3,159,094	5,180,637	2,02
Pennsylvania	8	678	1,077,242	4,498,840	7,344,798	2,84
Other States [2]	18	701	954,800	3,836,789	6,371,147	2,53

[1] Not called for on schedule.
[2] California, 3 establishments; Connecticut, 1; Indiana, 2; Maryland, 2; Michigan, 2; New Hampshire, 1; New Jersey, 2; Vermont, 1; Washington, 2; Wisconsin, 1.

GREASE AND TALLOW, NOT INCLUDING LUBRICATING GREASI						
[*Principal products:* Grease (including soap stock) chiefly from animal fat, bones, meat sc tallow rendered from fat. The by-products include hides, skins, bones, tankage, cra horns, fertilizer, poultry feed, etc., and form a considerable proportion of the products of Large quantities of grease and tallow are made as by-products by slaughtering and meat- lishments]						
United States						
1927	247	5,052	$7,402,936	$38,272,446	[1,2] $56,279,958	$18,007,
1925	263	5,303	7,508,013	33,713,150	[1,2] 51,442,186	17,729,
1923	254	5,248	7,004,170	31,274,806	[2] 48,633,681	17,358,
1921	265	4,428	5,428,939	17,786,592	[2] 27,206,011	9,419,
1919	482	6,647	7,954,378	47,756,341	[2] 67,265,206	19,508,
States, 1927						
California	12	202	331,606	1,971,078	2,726,197	755,
Colorado	7	56	72,062	192,624	377,390	184,
Illinois	18	934	1,466,980	8,931,498	11,916,958	2,985,
Indiana	17	81	99,013	300,926	569,187	268,
Iowa	15	84	99,791	296,600	589,742	293,
Kansas	3	75	106,801	345,148	694,949	349,
Maryland	6	104	139,575	497,706	752,454	254,
Massachusetts	18	669	868,911	3,735,317	5,764,754	2,029,
Michigan	11	246	470,061	821,727	1,971,506	1,149,
Minnesota	4	16	22,530	90,757	198,576	107,
Nebraska	3	16	21,225	119,233	195,742	76,
New Jersey	14	167	260,868	4,934,021	5,855,345	921,
New York	26	685	1,098,846	5,217,190	8,009,112	2,791,
Ohio	27	475	698,164	2,298,586	3,867,803	1,569,
Pennsylvania	29	628	920,900	4,597,417	6,439,841	1,842,
Virginia	3	145	163,500	770,218	1,120,070	349,
Other States [4]	34	469	562,103	3,152,400	5,230,332	2,077,

[1] For 1927: Grease, $6,892,862; tallow, $23,202,409; other products, $26,184,687; 1925: Grease tallow, $23,147,048; other products, $20,789,382.
[2] Does not include values of grease and tallow made as secondary products by establishme industries: For 1927—Grease, $15,810,767; tallow, $17,019,637. 1925—Grease, $19,323,530; tallow 1923, $32,473,996; 1921, $18,635,621.
[3] Not called for on schedule.
[4] Alabama, 1 establishment; Connecticut, 3; Delaware, 1; District of Columbia, 1; Georgia, 2; 5; Maine, 2; Missouri, 2; New Hampshire, 3; Rhode Island, 2; South Dakota, 1; Tennessee, Vermont, 1; Wisconsin, 7.

SUMMARY FOR INDUSTRIES IN GROUP 6 WHICH ARE NOT COVERED BY SEPARATE REPORTS, BY STATES—Continued

[See note at head of this table, p. 735]

YEAR AND STATE	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, supplies, fuel, and power	Value of products	Value added by manufacture	Horsepower
INK, PRINTING							
[*Principal products:* Printers' inks of various colors, gold and bronze ink, and lithographers' inks]							
United States							
1927	123	2,283	$3,665,199	$16,054,110	[1,2] $37,734,493	$21,680,383	18,901
1925	109	2,150	3,346,071	16,252,786	[2] 34,753,329	18,500,543	17,041
1923	99	1,975	2,858,742	14,779,289	[2] 29,412,122	14,632,833	14,703
1921	97	1,676	2,470,097	10,644,453	[2] 20,869,477	10,225,024	(3)
1919	90	1,988	2,574,920	14,661,115	[2] 26,244,470	11,583,355	10,229
States, 1927							
Illinois	22	246	356,098	1,849,400	4,745,532	2,896,132	2,117
Michigan	5	51	94,904	469,932	1,184,582	714,650	695
Missouri	7	48	55,604	404,986	833,877	428,891	281
New Jersey	11	286	474,701	2,010,866	4,911,174	2,900,308	3,310
New York	29	747	1,354,371	5,107,205	12,767,517	7,660,312	5,505
Ohio	14	435	675,044	2,580,640	5,652,000	3,071,360	2,618
Pennsylvania	14	238	288,605	1,416,838	2,662,539	1,245,701	1,407
Other States [4]	21	237	365,872	2,214,243	4,977,272	2,763,029	2,968

[1] Printing ink, $34,617,898; other products, $3,116,595.
[2] Does not include the following values of printing ink made as a secondary product by establishments in other industries: 1927, $855,060; 1925, $644,915; 1923, $69,413; no available data for prior years.
[3] Not called for on schedule.
[4] California, 4 establishments; Indiana, 2; Iowa, 1; Maryland, 1; Massachusetts, 6; Minnesota, 1; New Hampshire, 1; Texas, 2; Virginia, 2; Wisconsin, 1.

INK, WRITING							
[*Principal products:* Writing inks and fluids]							
United States							
1927	[2] 24	491	$576,091	$2,208,835	[3,4] $5,342,027	$3,133,192	743
1925	28	524	596,200	2,424,311	[4] 6,084,315	3,660,004	700
1923	31	578	634,874	2,653,486	[4] 6,107,379	3,453,893	695
1921	33	504	546,058	2,062,291	[4] 4,980,148	2,917,857	(5)
1919	61	702	596,168	3,320,346	[4] 6,433,041	3,113,595	610

[1] Statistics for States can not be given without disclosing data furnished by individual establishments.
[2] California, 2 establishments; Illinois, 4; Kentucky, 1; Massachusetts, 2; Missouri, 3; New York, 5; Ohio, 2; Pennsylvania, 2; Virginia, 1; Washington, 1; Wisconsin, 1.
[3] Writing ink, $3,301,411; other products (adhesives, carbon paper, etc.), $2,040,616.
[4] Does not include the following values of writing ink made as a secondary product by establishments engaged primarily in other industries: 1927, $1,431,351; 1925, $457,375; 1923, $685,637; 1921, $179,455; 1919, $1,037,676.
[5] Not called for on schedule.

LIQUORS, VINOUS							
[*Principal products:* Sacramental and medicinal wines, made chiefly from grapes]							
United States							
1927	13	150	$177,073	$1,206,217	[1] $2,692,856	$1,486,639	999
1925	27	265	262,343	1,764,623	[1] 3,435,657	1,671,034	1,499
1923	38	515	524,029	2,958,555	[1] 5,830,883	2,872,328	2,935
1921	72	415	417,005	1,692,750	[1] 4,757,334	3,064,584	(2)
1919	342	1,011	1,013,898	8,115,841	[1] 17,454,194	9,338,353	5,189
States, 1927							
California	9	76	99,255	743,836	1,506,337	762,501	777
Other States [3]	4	74	77,818	462,381	1,186,519	724,138	222

[1] Does not include the following values of vinous liquors made as a secondary product by establishments in other industries: 1927, $149,804; 1923, $37,000; 1921, $123,755; 1919, $56,140. No data for 1925.
[2] Not called for on schedule.
[3] New Jersey, 2 establishments; New York, 1; Ohio, 1.

Summary for Industries in Group 6 Which Are Not Covered by Separate Reports, by States—Continued

[See note at head of this table, p. 735]

MUCILAGE, PASTE, AND OTHER ADHESIVES, NOT ELSEWHERE CLASSIFIED

[*Principal products:* Sticking and gumming preparations, sealing wax, furniture and leather cement, etc. The statistics for 1923 and earlier years include data for establishments engaged primarily in the manufacture of rubber cement, now classified in the "Rubber goods, other than tires, inner tubes, and boots and shoes" industry. Such data have been deducted from the 1925 figures as previously published]

YEAR AND STATE	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, supplies, fuel, and power	Value of products	Value added by manufacture	Horsepower
United States							
1927	80	502	$679,468	$4,270,361	[1] $7,945,403	$3,675,042	2,219
1925	84	561	766,251	5,562,740	[1] 9,853,302	4,290,562	2,574
1923	101	663	883,331	5,975,892	[1] 10,621,218	4,645,326	3,204
1921	98	757	969,572	5,015,425	[1] 9,929,842	4,914,417	(2)
1919	127	803	850,382	7,092,728	[1] 11,230,253	4,137,525	3,202
States, 1927							
Illinois	9	60	102,963	571,034	991,341	420,307	256
Massachusetts	9	105	122,603	674,290	1,238,987	564,697	279
Michigan	4	21	30,552	173,968	302,730	128,762	62
New York	21	143	211,027	1,227,445	2,394,526	1,167,081	843
Ohio	8	49	62,767	547,885	1,003,788	455,903	258
Pennsylvania	7	22	26,752	180,338	332,454	152,116	91
Other States [3]	22	102	122,804	895,401	1,681,577	786,176	430

[1] Does not include the following values of mucilage, paste, and other adhesives made as secondary products by establishments in other industries: 1927, $2,309,479; 1925, $1,908,598; 1923, $1,680,393; 1921, $1,445,174; 1919, $1,396,955.
[2] Not called for on schedule.
[3] California, 5 establishments; Connecticut, 1; Indiana, 3; Iowa, 1; Maryland, 1; Minnesota, 2; Missouri, 2; New Jersey, 3; South Dakota, 2; Texas, 1; Wisconsin, 1.

OIL, CAKE, AND MEAL, COTTONSEED

[*Principal products:* Cottonseed oil (crude and refined), cake, meal, hulls, and linters]

[For the quantities and values of the several classes of products as compiled from the results of the monthly "Cottonseed and cottonseed products" inquiry, see "Cottonseed products, by kind, quantity, and value, for the United States: 1927, 1925, 1923, and 1921," p. 743]

United States							
1927	547	18,434	$14,258,555	$220,038,437	$276,338,488	$56,300,051	270,500
1925	535	16,215	11,411,854	244,315,214	295,684,526	51,369,312	239,005
1923	511	12,745	7,908,305	197,514,913	226,387,758	28,872,845	223,742
1921	610	16,163	12,339,895	194,864,331	217,225,030	22,360,699	(1)
1919	711	26,766	20,615,193	495,192,294	581,244,798	86,052,504	289,981
States, 1927							
Alabama	35	1,274	898,666	11,648,375	14,662,794	3,014,419	17,857
Arizona	6	128	124,642	1,385,327	2,272,201	886,874	2,141
Arkansas	30	1,348	1,081,940	13,615,547	17,268,695	3,653,148	19,546
California	10	255	310,095	2,990,932	4,511,661	1,520,729	5,441
Georgia	54	2,143	1,504,043	23,190,695	27,998,981	4,808,286	31,089
Louisiana	22	697	536,131	18,221,768	21,338,810	3,117,042	10,713
Mississippi	44	2,238	1,596,395	22,450,012	27,978,008	5,527,996	23,397
North Carolina	53	1,418	1,067,922	13,962,245	17,612,879	3,650,634	21,997
Oklahoma	45	1,226	1,111,099	14,647,421	20,295,804	5,648,383	17,363
South Carolina	41	1,126	652,667	9,985,170	12,608,931	2,623,761	19,661
Tennessee	21	1,378	949,477	11,756,280	15,256,533	3,500,253	18,776
Texas	175	4,675	3,903,169	61,937,294	78,324,499	16,387,205	73,656
Other States [2]	11	528	528,309	14,247,371	16,208,692	1,961,321	8,863

[1] Not called for on schedule.
[2] Florida, 1 establishment; Illinois, 3; Kentucky, 2; Missouri, 1; New Mexico, 3; Virginia, 1.

SUMMARY FOR INDUSTRIES IN GROUP 6 WHICH ARE NOT COVERED BY SEPARATE REPORTS, BY STATES—Continued

[See note at head of this table, p. 735]

YEAR AND STATE	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, supplies, fuel, and power	Value of products	Value added by manufacture	Horsepower
OIL, CAKE, AND MEAL, LINSEED							
[*Principal products:* Linseed oil and its natural by-products, cake and meal; ground flaxseed]							
[See "Oil, cake, and meal, linseed—Production by quantity and value, for the United States: 1927, 1925, and 1923," p. 744]							
United States							
1927	33	2,718	$4,324,938	$97,750,350	$111,543,845	$13,793,495	28,273
1925	33	2,692	4,290,063	121,762,284	140,513,542	18,751,258	25,869
1923	34	2,631	3,783,516	102,689,799	113,221,318	10,531,519	21,674
1921	28	2,073	3,019,376	58,452,351	71,032,261	12,579,910	(1)
1919	26	2,173	3,052,269	100,577,538	120,638,100	20,060,562	17,621
States, 1927							
Illinois	5	238	415,499	8,871,782	9,849,077	977,295	2,533
Minnesota	7	516	733,878	17,457,459	20,352,293	2,894,834	5,221
New York	6	523	890,452	19,161,973	21,543,452	2,381,479	7,458
Other States [2]	15	1,441	2,285,109	52,259,136	59,799,023	7,539,887	13,061

[1] Not called for on schedule.
[2] California, 2 establishments; Iowa, 1; Kansas, 1; New Jersey, 3; Ohio, 2; Oregon, 2; Pennsylvania, 1; Wisconsin, 3.

OILS, NOT ELSEWHERE CLASSIFIED							
[*Principal products:* Animal and vegetable oils, such as castor, oleo, fish and whale, neat's foot, coconut, wool, palm, and lard; compounded and blended animal, mineral, and vegetable oils for lubricating and other purposes. Oils of these classes are also manufactured largely as secondary products by establishments assigned to other industries. The refining of mineral oil is treated as a separate industry, "Petroleum refining"]							
United States							
1927	187	3,441	$4,976,600	$72,678,407	[1] $103,388,445	$30,710,038	20,686
1925	191	3,615	4,962,857	85,202,078	[1] 117,776,213	32,574,135	17,989
1923	211	4,271	5,460,451	84,201,415	[1] 118,158,270	33,956,855	18,431
1921	245	3,536	3,897,690	74,550,460	[1] 93,274,587	18,724,127	(2)
1919	280	5,930	6,141,145	119,270,586	[1] 156,479,654	37,209,068	30,067
States, 1927							
California	14	358	509,412	16,108,105	18,004,086	1,895,981	6,797
Colorado	3	8	10,562	105,525	211,435	105,910	52
Delaware	4	97	101,566	398,922	646,249	247,327	510
Illinois	17	125	201,743	4,342,121	6,169,627	1,827,506	920
Indiana	3	14	16,564	276,253	644,687	368,434	156
Kansas	9	37	51,633	735,441	1,146,170	410,729	104
Maryland	9	102	125,785	2,256,953	3,250,660	993,707	560
Massachusetts	12	78	110,429	1,831,461	2,620,735	789,274	478
Michigan	3	49	59,891	812,761	1,530,186	717,425	364
Missouri	5	21	26,417	348,872	537,969	189,097	76
New Jersey	20	1,096	1,622,487	20,589,381	31,081,998	10,492,617	3,249
New York	19	679	984,077	8,106,294	12,338,147	4,231,853	2,715
Ohio	15	137	219,930	1,383,819	2,522,859	1,139,040	537
Pennsylvania	28	327	507,186	7,387,102	11,940,456	4,553,354	1,538
Other States [3]	26	313	428,918	7,995,397	10,743,181	2,747,784	2,630

[1] In addition, oils belonging to this group are made to a considerable extent as secondary products (no data available as to quantities or values) by establishments in other industries.
[2] Not called for on schedule.
[3] Alabama, 1 establishment; District of Columbia, 1; Georgia, 4; Iowa, 2; Louisiana, 1; Maine, 2; Minnesota, 2; Montana, 1; Oklahoma, 1; Oregon, 2; Rhode Island, 2; South Dakota, 1; Tennessee, 1; Texas, 1; Washington, 2; Wisconsin, 2.

Summary for Industries in Group 6 Which Are Not Covered by Separate Reports, by States—Continued

[See note at head of this table, p. 735]

BAKING POWDERS, YEAST, AND OTHER LEAVENING COMPOUNDS—PRODUCTION, BY KIND, QUANTITY, AND VALUE, FOR THE UNITED STATES: 1927, 1925, AND 1923

[See "Baking powders, yeast, and other leavening compounds," p. 735]

KIND	1927	1925	1923
1. Baking powders, yeast, and other leavening compounds industry, all products, total value	$85, 150, 532	$74, 592, 532	$51, 691, 123
2. Baking powders, yeast, and other leavening compounds	$77, 246, 291	$68, 593, 014	$48, 305, 93
3. Other products (not normally belonging to the industry)	$7, 904, 241	$5, 999, 518	$3, 385, 1
4. Baking powders, yeast, and other leavening compounds made as secondary products in other industries, value	$1, 415, 900	$2, 229, 708	$3, 215, 230
Baking powders, yeast, and other leavening compounds, all industries: Aggregate value (sum of 2 and 4)	$78, 662, 191	$70, 822, 722	$51, 521, 164
Baking powders:			
Pounds	162, 907, 334		
Value	$30, 747, 969	(1)	$30, 676, 951
Yeast and other leavening compounds:			
Pounds	288, 195, 440		
Value	$47, 914, 222	(1)	$20, 844, 213

[1] Can not be shown without disclosing the production of individual establishments.

CLEANING AND POLISHING PREPARATIONS—PRODUCTION, BY KIND AND VALUE: 1927, 1925, AND 1923

[See "Cleaning and polishing preparations," p. 737]

KIND	1927	1925	1923
1. Cleaning and polishing industry, all products, total value	$41, 234, 466	$34, 020, 384	$35, 443, 130
2. Cleaning and polishing preparations	38, 769, 557	31, 527, 330	31, 961, 920
3. Other products (not normally belonging to the industry)	2, 464, 909	2, 493, 054	3, 481, 210
4. Cleaning and polishing preparations made as secondary products in other industries, value	10, 589, 047	4, 911, 733	3, 242, 940
Cleaning and polishing preparations, all industries: Aggregate value (sum of 2 and 4)	49, 358, 604	36, 439, 063	35, 204, 860
Cleaning preparations	32, 252, 813	24, 076, 649	20, 119, 354
Metal polish	2, 657, 979	2, 447, 242	3, 748, 479
Other polishing preparations	14, 447, 812	9, 915, 172	11, 337, 027

Summary for Industries in Group 6 Which Are Not Covered by Separate Reports, by States—Continued

[See note at head of this table, p. 735]

COTTONSEED PRODUCTS,[1] BY KIND, QUANTITY, AND VALUE, FOR THE UNITED STATES: 1927, 1925, 1923, AND 1921

[See "Oil, cake, and meal, cottonseed," p. 740]

KIND	1927	1925	1923	1921
Cottonseed, crushed, tons (2,000 pounds)	6,305,775	5,558,243	3,307,598	3,007,717
Crude cottonseed products, value	$240,284,000	$256,027,000	$182,137,000	$136,974,000
Oil:				
Pounds	1,887,910,155	1,617,014,721	979,617,065	930,474,738
Value	$142,242,000	$138,652,000	$88,093,000	$71,508,000
Cake and meal:				
Tons	2,840,084	2,596,715	1,517,859	1,354,604
Value	$72,476,000	$81,508,000	$59,300,000	$49,898,000
Hulls:				
Tons	1,854,389	1,547,351	941,030	936,990
Value	$8,882,000	$12,649,000	$12,737,000	$8,949,000
Linters:				
Bales (running bales)	1,041,864	1,044,495	639,540	382,375
Value	$16,684,000	$23,218,000	$22,007,000	$6,619,000
Cottonseed oil, cake, and meal industry, total value of products [2]	$276,338,488	$295,684,526	$226,387,758	$217,225,030

[1] From census bulletin 162, "Cotton Production and Distribution, Season of 1926-27," p. 66. Figures are given for years ended July 31 following the specified census years, and relate to products from crops grown in specified years, except the figures for 1927, which are for the year ended July 31, 1927 (crop of 1926).
[2] From reports of census of manufactures. Includes value of refined cottonseed oil and minor products other than cottonseed oil reported by establishments classified in the industry. (See "Assignment of establishments to industries," p. 17, and "Oil, cake, and meal, cottonseed," p. 740.)

GLUE AND GELATIN—PRODUCTION, BY KIND, QUANTITY, AND VALUE, FOR THE UNITED STATES: 1927, 1925, AND 1923

[See "Glue and gelatin," p. 738]

KIND	1927	1925	1923
1. Glue and gelatin industry, all products, total value	$31,195,807	$25,763,977	$24,366,097
2. Glue and gelatin	25,213,514	20,948,266	20,479,389
3. Other products (not normally belonging to the industry)	5,982,293	4,815,711	3,886,708
4. Glue and gelatin made as secondary products in other industries, value	5,538,704	5,136,802	5,977,131
Glue and gelatin, all industries: Aggregate value (sum of 2 and 4)	$30,752,218	$26,085,068	$26,456,520
Glues:			
Animal—			
Pounds	112,303,104		
Value	$15,549,399		
Fish—			
Pounds	5,490,787		
Value	$2,063,416		
Vegetable—			
Pounds	97,142,115		
Value	$4,972,481	$20,460,756	$22,674,469
Casein—			
Pounds	3,200,747		
Value	$472,508		
Flexible—			
Pounds	1,998,404		
Value	$248,756		
Kind not specified—			
Pounds	2,568,928		
Value	$294,269		
Gelatin:			
Edible—			
Pounds	17,605,423		
Value	$6,462,187	$5,624,312	$3,782,051
Inedible—			
Pounds	2,030,978		
Value	$689,202		

SUMMARY FOR INDUSTRIES IN GROUP 6 WHICH ARE NOT COVERED BY SEPARATE REPORTS, BY STATES—Continued

[See note at head of this table, p. 735]

OIL, CAKE, AND MEAL, LINSEED—PRODUCTION, BY QUANTITY AND VALUE, FOR THE UNITED STATES: 1927, 1925, AND 1923

[See "Oil, cake, and meal, linseed," p. 741]

KIND	1927	1925	1923
Linseed oil, cake, and meal industry, all products, total value	$111, 234, 271	$140, 513, 542	$113, 221, 000
Oil, cake, and meal	[1] $105, 441, 666	[1] $126, 422, 534	[1] $106, 011, 000
Other products	$5, 792, 605	$14, 091, 008	$7, 210, 000
Oil:			
Pounds	722, 046, 120	714, 714, 840	634, 815, 000
Value	$73, 367, 776	$94, 049, 549	$76, 752, 000
Cake and meal:			
Tons	713, 725	743, 562	613, 000
Value	$32, 073, 890	$32, 372, 985	$29, 259, 000

[1] Does not include data for linseed oil, cake, and meal made as secondary products in establishments classified in other industries: For 1927, linseed oil, 38,240,012 pounds, $4,523,419; cake and meal, 37,515 tons, $1,836,919; 1925, $2,269,693; 1923, $3,443,917.

Group 7.—PRODUCTS OF PETROLEUM AND COAL

THE GROUP AS A WHOLE

This is a new group made up of four industries formerly included in Group 6—"Chemicals and allied products," and one industry, "Fuel, manufactured," transferred from Group 16—"Miscellaneous industries."

The following table gives summary statistics for the group, and complete reports for the industries are found on pp. 746–778.

SUMMARY FOR GROUP 7.—PRODUCTS OF PETROLEUM AND COAL: 1921 TO 1927

[See "Regrouping of industries and renumbering of groups," p. 19]

[Four of the industries in this group were formerly included in Group 6; the remaining industry, "Fuel, manufactured," was transferred from Group 16]

INDUSTRY	Census year	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, supplies, fuel, and power	Value of products	Value added by manufacture	Horsepower
				Expressed in thousands of dollars [1]				
Total	1927	1,418	141,655	217,485	2,262,699	3,060,226	797,527	1,513,314
	1925	1,582	136,366	210,034	2,356,583	3,230,009	873,425	1,241,877
	1923	1,650	138,330	212,882	1,981,370	2,778,888	797,518	1,092,914
	1921	1,560	115,006	180,452	1,760,805	2,372,039	611,235	(2)
Coke, not including gas-house coke	1927	171	21,082	34,168	286,729	382,013	95,284	451,874
	1925	237	23,191	36,762	277,751	378,634	100,883	409,552
	1923	262	28,364	48,108	354,030	516,923	162,892	332,560
	1921	176	16,070	23,833	168,791	221,313	52,522	(2)
Fuel, manufactured	1927	20	274	446	4,873	7,203	2,330	9,594
	1925	14	246	369	3,936	6,019	2,084	6,573
	1923	15	364	511	3,907	5,584	1,677	7,623
	1921	14	371	484	2,280	3,178	897	(2)
Gas, manufactured, illuminating and heating	1927	828	48,497	68,356	211,786	516,705	304,920	496,014
	1925	919	46,998	67,436	178,423	455,460	277,037	428,132
	1923	939	42,282	59,600	191,120	450,097	258,977	358,605
	1921	954	34,956	53,306	202,253	411,196	208,942	(2)
Lubricating greases, not made in petroleum refineries	1927	45	568	799	6,314	11,656	5,342	3,181
	1925	53	607	820	6,796	13,239	6,443	3,867
	1923	52	603	829	7,260	12,584	5,324	2,972
	1921	50	420	534	5,309	8,912	3,603	(2)
Petroleum refining	1927	354	71,234	113,717	1,752,997	2,142,649	389,651	552,651
	1925	359	65,324	104,645	1,889,678	2,376,657	486,979	393,753
	1923	382	66,717	103,834	1,425,053	1,793,700	368,647	349,154
	1921	366	63,189	102,294	1,382,170	1,727,440	345,270	(2)

[1] Each total is the sum, expressed to the nearest thousand, of the individual items expressed in units. For this reason the totals in some cases may differ slightly from the sums of the items as here given.
[2] Not called for on schedule.

THE GAS AND COKE INDUSTRIES

Establishments engaged primarily in the manufacture of gas for illuminating and heating and those engaged primarily in the manufacture of coke are assigned to separate classifications for census purposes. The two industries are closely related, however, the products of both being gas, coke, and by-products resulting from the distillation of coal. For this reason the statistics for the two industries are here brought together and are preceded by tables giving combined summary statistics and combined statistics for products.

COMBINED SUMMARY FOR THE GAS AND COKE INDUSTRIES, AND SUMMARIES FOR THE SEPARATE INDUSTRIES, FOR THE UNITED STATES: 1919 TO 1927

Data for establishments with products under $5,000 in value included for 1919 but not for subsequent years. See sec. 10, p. 6]

YEAR OR PERIOD	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, supplies, fuel, and power	Value of products	Value added by manufacture [1]	Horsepower
GAS AND COKE INDUSTRIES							
1927	999	69,579	$102,524,140	$498,514,224	$898,717,787	$400,203,563	947,888
1925	1,156	70,189	104,198,844	456,173,820	834,093,580	377,919,760	837,684
1923	1,201	70,646	107,708,228	545,150,523	967,020,059	421,869,536	691,165
1921	1,130	51,026	77,139,353	371,044,343	632,508,866	261,464,523	(2)
1919	1,300	72,227	95,057,920	381,817,556	645,794,746	263,977,190	463,333
Per cent of increase or decrease (−):							
1925–1927	−13.6	−0.9	−1.6	9.3	7.7	5.9	13.2
1923–1925	−3.7	−.6	−3.3	−16.3	−13.7	−10.4	21.2
1923–1927	−16.8	−1.5	−4.8	−8.6	−7.1	−5.1	37.1
1919–1927	−23.2	−3.7	7.9	30.6	39.2	51.6	104.6
GAS INDUSTRY							
1927	828	48,497	$68,356,448	$211,785,523	$516,705,170	$304,919,647	496,014
1925	919	46,998	67,436,443	178,423,145	455,460,053	277,036,908	428,132
1923	939	42,282	59,600,334	191,120,082	450,097,161	258,977,079	358,605
1921	954	34,956	53,306,407	202,253,479	411,195,503	208,942,024	(2)
1919	1,022	42,908	52,758,628	157,550,882	329,278,908	171,728,026	238,454
COKE INDUSTRY							
1927	171	21,082	34,167,692	286,728,701	382,012,617	95,283,916	451,874
1925	237	23,191	36,762,401	277,750,675	378,633,527	100,882,852	409,552
1923	262	28,364	48,107,894	354,030,441	516,922,898	162,892,457	332,560
1921	176	16,070	23,832,946	168,790,864	221,313,363	52,522,499	(2)
1919	278	29,319	42,299,292	224,266,674	316,515,838	92,249,164	224,879

[1] Value of products less cost of materials, supplies, fuel, and power. (See secs. 18 and 21, pp. 9 and 10.)
[2] Not called for on schedule.

COMBINED STATISTICS OF PRODUCTS, BY CLASS, QUANTITY, AND VALUE, FOR THE GAS AND COKE INDUSTRIES, FOR THE UNITED STATES: 1927 AND 1925

PRODUCT	TOTAL		GAS INDUSTRY		COKE INDUSTRY	
	1927	1925	1927	1925	1927	1925
Aggregate value of products	$853,951,009	$792,377,749	$485,099,542	$426,851,205	$368,851,467	$365,526,544
Gas:						
Total production, M cu. ft	1,112,618,521	1,016,928,209	445,457,144	395,520,627	667,161,377	621,407,582
Sales—						
M cu. ft	767,784,515	684,482,494	412,236,133	359,401,849	355,548,382	32,080,645
Value	$499,969,340	$445,019,468	$446,244,677	$395,968,502	$53,724,663	$495,050,966
Coke:						
Total production, short tons	53,937,332	54,173,961	4,805,119	4,032,187	49,132,213	50,141,774
For sale—						
Short tons	52,109,519	52,540,165	2,977,306	2,398,391	49,132,213	50,141,774
Value	$272,701,918	$274,372,037	$25,514,288	$20,721,381	$247,187,630	$253,650,656
Screenings and breeze:						
Total production, short tons	4,602,442	4,181,667	562,669	475,080	4,039,773	3,706,587
Sales [1]—						
Short tons	837,539	969,752	85,627	62,697	751,912	907,055
Value	$2,435,587	$3,373,256	$321,554	$169,455	$2,114,033	$3,203,801
Tar:						
Total production, gallons	730,558,244	646,978,202	211,179,704	179,633,672	519,378,540	467,344,530
Sales [1]—						
Gallons	440,643,794	350,808,089	162,169,846	125,274,215	278,473,948	225,533,874
Value	$22,787,761	$17,247,940	$8,217,635	$6,140,784	$14,570,126	$11,107,156
Ammonia (NH_3 equivalent of all forms):						
Sales [1]—						
Pounds	378,433,348	335,084,676	28,814,232	24,339,955	349,619,116	310,744,721
Value	$27,993,272	$28,666,358	$1,753,432	$1,816,092	$26,239,840	$26,850,266
Crude light oil:						
Total production, gallons	169,829,737	154,979,812	7,873,042	9,693,925	161,956,695	145,285,887
Sales [1]—						
Gallons	9,714,215	11,621,856	1,449,672	1,901,864	8,264,543	9,719,992
Value	$1,070,427	$1,119,347	$115,792	$116,534	$954,635	$1,002,813
Light oil derivatives:						
Total production, gallons	135,775,211	118,540,727	7,782,920	2,654,910	127,992,291	115,885,817
Sales [1]—						
Gallons	127,581,668	114,662,731	3,759,894	2,109,847	123,821,774	112,552,884
Value	$24,542,176	$20,832,640	$660,419	$400,712	$23,881,757	$20,431,928
Drip and holder oil:						
Sales [1]—						
Gallons	4,614,884	4,354,206	4,614,884	4,354,206	----------	----------
Value	$351,880	$295,394	$351,880	$295,394	----------	----------
Naphthalene, crude:						
Total production, pounds	11,200,182	15,313,449	2,971,782	6,158,678	8,228,400	9,154,771
Sales [1]—						
Pounds	9,588,573	10,054,857	1,814,794	446,791	7,773,779	9,608,066
Value	$113,752	$93,905	$28,760	$2,537	$84,992	$91,368
Other by-products, value	$1,984,896	$1,357,404	$1,891,105	$1,219,814	$93,791	$137,590

[1] Products of the gas industry sold and available for sale from the production of the specified year; products of the coke industry sold within the specified year.