

## Group 15.—NONFERROUS METALS AND THEIR PRODUCTS

**The industries as a group.**—This group comprises industries engaged in the production of nonferrous metals from the ores or from scrap metals; in the refining or alloying of such metals; and in the manufacture, from these metals or alloys as basic materials, of finished products or products for use in further manufacturing processes.

The group figures for 1937 have been revised, on the one hand, to exclude data for the "Chemical Fire Extinguishers" and "Needles, Pins, Hooks and Eyes, Slide and Snap Fasteners" industries, also for establishments formerly classified in the "Jewelry" industry whose primary products were nonprecious jewelry, all of which were allocated to the "Miscellaneous Industries" group. On the other hand, the figures have been revised to include data for the "Lapidary Work" and "Engraving on Metal (Except for Printing Purposes)" industries, which were transferred from the "Miscellaneous Industries" and the "Printing, Publishing, and Allied Industries" groups, respectively, and also for establishments formerly a part of the "Chemicals, Not Elsewhere Classified" industry, which were engaged in the production of primary aluminum. The transfers of these industries and parts of industries were effective at

the 1939 census. Special tabulations were made in order that comparable figures for 1937 could be presented.

The principal metals or ores which form the basic materials used in these industries are copper, lead, zinc, tin, gold, silver, and aluminum. It should be noted, however, that these same basic metals are used to a large extent in certain industries assigned to other groups: for example, in the "Electrical Machinery" group and in industries of the "Machinery (Except Electrical)" group. A number of industries in Groups 14 and 20 also manufacture various commodities made wholly or partly from metals other than iron and steel.

Since the metals and alloys produced by the basic industries of Group 15 are used as materials by other industries in the group, the total cost of materials and the total value of products for the group as a whole include considerable amounts of duplication. (See "Duplication in cost of materials and value of products," p. 5.)

The basic industries that extract the metals from the ore or refine or alloy them usually add relatively little to the value of the raw materials which they use, while the more highly elaborated manufacturing processes employed by the industries that use these metals and alloys as materials add very considerably to their value.

SUMMARY FOR GROUP 15.—NONFERROUS METALS AND THEIR PRODUCTS: 1939 AND 1937

CENSUS YEAR	Number of establishments <sup>1</sup>	Wage earners (average for the year) <sup>2</sup>	Wages	Cost of materials, supplies, fuel, purchased electric energy, and contract work	Value of products	Value added by manufacture <sup>3</sup>	Horsepower of prime movers
1939 .....	5,600	228,753	\$299,219,667	\$1,748,501,574	\$2,572,854,496	\$824,262,922	671,692
1937 .....	5,173	255,767	336,348,936	1,934,185,300	2,779,961,323	845,776,023	(*)
SUBGROUPS, INDUSTRIES, AND CENSUS YEAR	SUMMARY FOR SUBGROUPS AND FOR INDIVIDUAL INDUSTRIES						
<b>PRIMARY SMELTING AND REFINING OF NONFERROUS METALS:</b>							
1939 .....	63	27,630	\$38,411,086	\$819,570,289	\$956,572,486	\$137,002,197	500,601
1937 .....	66	32,798	47,342,227	980,545,690	1,140,216,270	159,670,580	(*)
<b>ALLOYING AND ROLLING AND DRAWING:</b>							
Alloying and rolling and drawing of nonferrous metals, except aluminum—							
1939 .....	188	38,816	56,232,378	280,890,489	445,060,017	164,169,528	98,770
1937 .....	162	43,964	62,577,435	291,309,865	457,308,617	165,998,752	(*)
<b>SECONDARY SMELTING AND REFINING OF NONFERROUS METALS AND ALLOYS:</b>							
1939 .....	174	4,723	6,053,421	160,219,319	183,822,187	23,602,868	3,740
1937 .....	168	6,058	7,532,646	179,259,517	205,100,199	25,840,682	(*)
<b>Secondary smelting and refining, gold, silver, and platinum—</b>							
1939 .....	66	1,115	1,686,944	94,783,030	101,783,864	7,000,834	1,031
1937 .....	65	1,085	1,560,529	85,207,766	92,093,302	6,885,536	(*)
<b>Secondary smelting and refining of nonferrous metals, not elsewhere classified—</b>							
1939 .....	108	3,608	4,366,477	65,436,289	82,038,323	16,602,034	2,709
1937 .....	103	4,973	5,972,117	94,061,751	113,006,897	18,955,146	(*)

See footnotes at end of table.

SUMMARY FOR GROUP 15.—NONFERROUS METALS AND THEIR PRODUCTS: 1939 AND 1937—Continued

CENSUS YEAR	Number of establishments <sup>1</sup>	Wage earners (average for the year) <sup>2</sup>	Wages	Cost of materials, supplies, fuel, purchased electric energy, and contract work	Value of products	Value added by manufacture <sup>3</sup>	Horsepower of prime movers
SUMMARY FOR SUBGROUPS AND FOR INDIVIDUAL INDUSTRIES—continued							
SUBGROUPS, INDUSTRIES, AND CENSUS YEAR—continued							
CLOCKS AND WATCHES:							
1939.....	116	20,287	\$23,407,092	\$39,191,375	\$94,637,741	\$55,446,366	13,780
1937.....	104	25,674	30,714,975	42,626,318	108,291,420	65,665,102	( <sup>4</sup> )
Clocks, watches, and materials and parts (except watchcases)—							
1939.....	74	17,878	20,467,333	35,204,008	84,846,136	49,642,128	12,630
1937.....	75	23,223	27,558,699	38,444,435	97,933,776	59,489,341	( <sup>4</sup> )
Watchcases—							
1939.....	42	2,409	2,939,759	3,937,367	9,791,605	5,804,238	1,150
1937.....	29	2,451	3,156,276	4,181,833	10,357,644	6,175,761	( <sup>4</sup> )
JEWELRY:							
1939.....	1,058	14,438	17,608,573	52,845,662	99,036,553	46,190,891	517
1937.....	911	13,764	18,045,261	51,429,101	95,600,131	44,171,030	( <sup>4</sup> )
Jewelry (precious metals)—							
1939.....	886	11,358	14,243,142	34,596,938	71,418,667	36,821,729	517
1937.....	789	11,077	14,737,298	33,511,737	69,525,880	36,014,143	( <sup>4</sup> )
Jewelers' findings and materials—							
1939.....	82	2,813	2,974,875	14,493,387	22,488,960	7,995,573	-----
1937.....	71	2,470	3,001,845	14,574,315	21,683,664	7,109,349	( <sup>4</sup> )
Lapidary work—							
1939.....	90	267	390,556	3,755,337	5,128,926	1,373,589	-----
1937.....	51	217	306,118	3,343,049	4,390,587	1,047,538	( <sup>4</sup> )
SILVERWARE AND PLATED WARE:							
1939.....	150	12,105	15,304,394	24,787,356	62,771,158	37,983,802	12,852
1937.....	136	11,361	13,789,589	22,670,313	56,733,355	34,063,042	( <sup>4</sup> )
ENGRAVING ON METAL, PLATING, AND POLISHING:							
1939.....	737	9,625	11,249,258	8,978,108	34,031,721	25,053,613	2,829
1937.....	624	10,408	12,599,003	9,679,627	35,566,937	25,887,310	( <sup>4</sup> )
Engraving on metal (except for printing purposes)—							
1939.....	94	1,419	1,866,457	1,677,664	5,863,670	4,186,006	50
1937.....	77	2,152	2,771,226	2,864,991	8,880,526	6,015,535	( <sup>4</sup> )
Electroplating, plating, and polishing—							
1939.....	643	8,206	9,382,801	7,300,444	28,168,051	20,867,607	2,779
1937.....	547	8,256	9,827,777	6,814,636	26,686,411	19,871,775	( <sup>4</sup> )
LIGHTING FIXTURES:							
1939.....	568	20,477	23,238,474	59,850,505	124,581,725	64,731,220	2,872
1937.....	466	21,743	24,918,165	55,593,363	115,096,494	59,503,131	( <sup>4</sup> )
NONFERROUS METAL PRODUCTS NOT ELSEWHERE CLASSIFIED:							
1939.....	2,546	80,652	107,664,991	302,258,471	572,340,908	270,082,437	35,731
1937.....	2,536	89,997	118,829,635	301,071,506	566,047,900	264,976,394	( <sup>4</sup> )
Nonferrous-metal foundries (except aluminum)—							
1939.....	600	9,699	12,210,365	28,703,313	55,636,898	26,933,585	635
1937.....	545	11,032	14,098,780	37,982,771	69,528,424	31,545,653	( <sup>4</sup> )
Aluminum ware, kitchen, hospital, and household (except electrical appliances)—							
1939.....	32	6,297	7,774,778	17,206,914	37,124,898	19,917,984	1,775
1937.....	37	6,748	8,006,841	16,070,098	36,591,632	20,521,534	( <sup>4</sup> )
Aluminum products (including rolling and drawing and extruding), not elsewhere classified—							
1939.....	162	17,249	25,539,148	106,993,222	169,819,269	62,826,047	24,708
1937.....	116	16,947	23,881,605	80,033,637	120,051,643	49,018,006	( <sup>4</sup> )
Collapsible tubes—							
1939.....	14	1,933	1,903,311	4,935,815	9,471,836	4,536,021	400
1937.....	15	1,983	1,871,775	5,271,771	9,184,676	3,912,905	( <sup>4</sup> )
Gold and silver leaf and foil—							
1939.....	26	563	469,577	1,095,785	2,108,990	1,013,205	-----
1937.....	26	625	515,034	1,230,694	2,299,141	1,068,447	( <sup>4</sup> )
Tin and other foils (except gold and silver foil)—							
1939.....	12	1,828	1,937,721	10,337,645	19,071,847	8,734,202	-----
1937.....	9	1,669	2,353,745	11,157,194	17,759,896	6,602,702	( <sup>4</sup> )
Sheet-metal work not specifically classified—							
1939.....	1,262	18,749	23,078,689	70,981,079	137,341,231	66,360,152	2,160
1937.....	1,302	22,973	29,263,331	85,934,745	159,095,535	73,160,790	( <sup>4</sup> )
Nonferrous-metal products not elsewhere classified—							
1939.....	438	24,834	34,751,402	62,004,698	141,765,939	79,761,241	6,053
1937.....	396	28,020	38,838,524	63,390,596	142,536,953	79,146,357	( <sup>4</sup> )

<sup>1</sup> See GENERAL EXPLANATIONS—Definition of establishment.

<sup>2</sup> See GENERAL EXPLANATIONS—Wage earners and wages.

<sup>3</sup> Value of products less cost of materials, supplies, fuel, purchased electric energy, and contract work. See GENERAL EXPLANATIONS—Value added by manufacture.

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

## GENERAL STATISTICS IN DETAIL FOR THE GROUP, THE SUBGROUPS, AND FOR THE INDUSTRIES 1: 1939

ITEM	Aggregate for the group	1510	1520	SECONDARY SMELTING AND REFINING OF NONFERROUS METALS AND ALLOYS			CLOCKS AND WATCHES		
				Total	1531	1532	Total	1541	1542
Number of establishments <sup>2</sup> .....	5,600	63	188	174	66	108	116	74	42
Proprietors and firm members.....	3,839	1	28	96	43	53	56	29	27
Persons reported by manufacturing industries, total <sup>3</sup> .....	282,228	32,906	47,270	6,491	1,741	4,750	24,373	21,287	3,086
Salaried officers of corporations <sup>3</sup> .....	4,976	16	244	197	57	140	162	111	51
Manufacturing:									
Salaried employees <sup>3</sup> .....	28,836	3,701	5,119	797	181	616	1,964	1,615	349
Wage earners (average for the year) <sup>4</sup> .....	228,753	27,630	38,816	4,723	1,115	3,608	20,287	17,878	2,409
Distribution.....	14,030	14	1,540	634	342	292	1,461	1,273	188
Construction.....	3,479	659	1,441	56	-----	56	155	114	41
Other.....	2,154	886	110	84	46	38	344	296	48
Salaries and wages, total <sup>3</sup> .....	\$422,043,616	\$49,822,601	\$75,590,912	\$10,944,414	\$3,306,758	\$7,637,656	\$31,802,422	\$27,504,819	\$4,297,603
Salaried officers <sup>3</sup> .....	27,995,301	142,496	2,089,616	1,358,541	392,656	965,885	1,406,317	1,061,402	344,915
Manufacturing:									
Salaries <sup>3</sup> .....	58,077,808	8,913,869	11,145,685	1,926,510	455,366	1,471,144	3,618,309	3,068,850	549,459
Wages.....	299,219,667	38,411,086	56,282,378	6,053,421	1,686,944	4,866,477	23,407,092	20,467,333	2,939,759
Distribution.....	28,399,537	32,286	3,575,060	1,401,258	699,322	701,936	2,721,306	2,388,531	352,776
Construction.....	5,476,271	992,842	2,356,545	84,572	-----	84,572	261,058	208,861	55,197
Other.....	2,875,032	1,330,022	141,628	120,112	72,470	47,642	388,340	332,842	55,498
Cost of materials, supplies, containers, fuel, purchased electric energy, and contract work, total.....	1,748,591,574	819,570,289	280,890,469	160,219,319	94,783,030	65,436,289	39,191,375	35,204,008	3,987,367
Materials, supplies, and containers.....	1,688,447,257	791,402,032	270,120,291	158,445,396	94,485,005	63,960,391	38,397,908	34,592,070	3,805,838
Fuel.....	27,843,581	14,486,045	5,453,094	1,210,402	165,164	1,045,238	307,502	256,727	50,775
Purchased electric energy.....	25,051,566	11,640,971	4,817,294	444,573	92,173	352,400	317,439	248,973	68,466
Contract work.....	7,249,170	2,041,241	499,810	118,948	40,688	78,260	168,526	106,238	62,288
Value of products.....	2,572,854,496	956,572,486	445,060,017	183,822,187	101,783,864	82,038,323	94,637,741	84,846,136	9,791,605
Value added by manufacture <sup>5</sup> .....	824,262,922	137,002,197	164,169,528	23,602,868	7,000,834	16,602,034	55,446,366	49,642,128	5,804,238

ITEM	JEWELRY				1561	ENGRAVING ON METAL, PLATING, AND POLISHING			1580
	Total	1551	1552	1553		Total	1571	1572	
Number of establishments <sup>2</sup> .....	1,058	886	82	90	150	737	94	643	568
Proprietors and firm members.....	941	760	49	132	70	703	89	614	346
Persons reported by manufacturing industries, total <sup>3</sup> .....	18,787	15,058	3,412	317	14,712	11,336	1,683	9,653	25,686
Salaried officers of corporations <sup>3</sup> .....	734	622	94	18	215	418	48	370	650
Manufacturing:									
Salaried employees <sup>3</sup> .....	2,150	1,824	306	20	1,304	782	155	627	2,416
Wage earners (average for the year) <sup>4</sup> .....	14,438	11,358	2,813	267	12,105	9,625	1,419	8,206	20,477
Distribution.....	1,385	1,188	189	8	966	431	59	372	1,999
Construction.....	20	16	4	-----	60	45	-----	45	12
Other.....	60	50	6	4	62	35	2	33	132
Salaries and wages, total <sup>3</sup> .....	\$27,668,331	\$22,387,525	\$4,790,440	\$490,366	\$20,969,708	\$15,238,737	\$2,690,402	\$12,548,335	\$35,757,741
Salaried officers <sup>3</sup> .....	3,879,292	3,038,214	791,128	49,950	1,287,821	1,701,747	295,767	1,405,980	3,709,681
Manufacturing:									
Salaries <sup>3</sup> .....	3,430,774	2,785,467	618,979	26,328	2,319,206	1,390,094	278,292	1,111,802	4,604,120
Wages.....	17,608,573	14,243,142	2,974,875	390,556	15,304,394	11,249,258	1,866,457	9,382,801	23,238,474
Distribution.....	2,660,065	2,247,727	392,444	19,894	1,880,114	792,291	246,386	545,905	3,947,721
Construction.....	37,229	29,003	8,226	-----	110,801	59,901	-----	59,901	18,661
Other.....	52,398	43,972	4,788	3,638	67,372	45,446	3,500	41,946	239,084
Cost of materials, supplies, containers, fuel, purchased electric energy, and contract work, total.....	52,845,662	34,596,938	14,493,387	3,755,337	24,787,356	8,978,108	1,677,664	7,300,444	59,850,505
Materials, supplies, and containers.....	50,882,038	33,046,756	14,129,559	3,705,723	23,917,247	7,386,255	1,544,906	5,841,349	57,869,697
Fuel.....	170,834	108,159	61,818	857	398,031	385,656	33,048	352,608	627,286
Purchased electric energy.....	377,368	252,323	116,579	8,466	395,408	1,018,537	48,813	969,724	999,083
Contract work.....	1,415,422	1,189,700	185,431	40,291	76,670	187,660	50,897	136,763	354,439
Value of products.....	99,036,553	71,418,667	22,488,960	5,128,926	62,771,158	34,031,721	5,863,670	28,168,051	124,581,725
Value added by manufacture <sup>5</sup> .....	46,190,891	36,821,729	7,995,573	1,373,589	37,983,802	25,053,613	4,186,006	20,867,607	64,731,220

See footnotes at end of table.

NONFERROUS METALS AND THEIR PRODUCTS

GENERAL STATISTICS IN DETAIL FOR THE GROUP, THE SUBGROUPS, AND FOR THE INDUSTRIES 1: 1939—Con

ITEM	NONFERROUS METAL PRODUCTS NOT ELSEWHERE CLASSIFIED								
	Total	1591	1592	1593	1594	1595	1596	1597	1599
Number of establishments <sup>2</sup> .....	2,546	600	32	162	14	26	12	1,262	438
Proprietors and firm members.....	1,598	426	9	108	-----	30	2	1,262 798	225
Persons reported by manufacturing industries, total <sup>3</sup> .....	100,667	11,499	8,253	21,157	2,195	688	1,541	24,740	30,594
Salaried officers of corporations <sup>3</sup> .....	2,340	474	57	118	31	13	9	1,102	536
Manufacturing:									
Salaried employees <sup>3</sup> .....	10,603	936	831	2,865	171	51	131	2,296	3,322
Wage earners (average for the year) <sup>4</sup> .....	80,652	9,699	6,297	17,249	1,933	563	1,328	18,749	24,834
Distribution.....	5,600	294	1,026	247	41	60	67	2,470	1,395
Construction.....	1,031	38	4	603	16	-----	-----	26	344
Other.....	441	58	38	75	3	1	6	97	163
Salaries and wages, total <sup>3</sup> .....	\$154,248,750	\$16,682,104	\$12,350,800	\$33,596,933	\$2,094,672	\$800,198	\$2,403,476	\$36,727,272	\$48,993,295
Salaried officers <sup>3</sup> .....	12,419,790	1,982,857	569,061	750,730	329,201	105,762	69,137	4,792,146	3,820,896
Manufacturing:									
Salaries <sup>3</sup> .....	20,729,241	1,792,441	1,623,889	5,726,166	315,814	95,828	288,681	4,159,411	6,727,011
Wages.....	107,664,991	12,210,365	7,774,778	25,539,148	1,903,311	469,577	1,937,721	23,078,689	34,751,402
Distribution.....	11,389,436	560,999	2,340,139	475,186	114,958	127,009	100,737	4,569,783	3,100,625
Construction.....	1,554,662	71,974	6,623	995,646	27,538	-----	-----	34,542	418,339
Other.....	490,630	63,468	36,310	110,057	3,850	2,022	7,200	92,701	175,022
Cost of materials, supplies, containers, fuel, pur- chased electric energy, and contract work, total.....	302,258,471	28,703,313	17,206,914	106,993,222	4,935,815	1,095,785	10,337,645	70,981,079	62,004,698
Materials, supplies, and containers.....	290,026,393	26,873,748	16,637,286	103,513,455	4,821,294	1,062,992	10,019,946	69,254,520	57,843,152
Fuel.....	4,804,731	1,009,099	223,911	1,659,684	40,841	9,935	105,470	484,496	1,271,295
Purchased electric energy.....	5,040,893	562,854	322,191	1,551,137	73,680	15,508	212,229	732,493	1,570,801
Contract work.....	2,386,454	257,612	23,526	268,946	-----	7,350	-----	509,570	1,319,450
Value of products.....	572,340,908	55,636,898	37,124,898	169,819,269	9,471,836	2,108,990	19,071,847	137,341,231	141,765,939
Value added by manufacture <sup>5</sup> .....	270,082,437	26,933,585	19,917,984	62,826,047	4,536,021	1,013,205	8,734,202	66,360,152	79,761,241

<sup>1</sup> The numbers at the head of each column represent the following industries:

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|---|---|
| <p>1510. Primary smelting and refining of nonferrous metals.<br/>         1520. Alloying; and rolling and drawing of nonferrous metals, except aluminum.<br/>         1531. Secondary smelting and refining, gold, silver, and platinum.<br/>         1532. Secondary smelting and refining of nonferrous metals, not elsewhere classified.<br/>         1541. Clocks, watches, and materials and parts (except watchcases).<br/>         1542. Watchcases.<br/>         1551. Jewelry (precious metals).<br/>         1552. Jewelers' findings and materials.<br/>         1553. Lapidary work.<br/>         1561. Silverware and plated ware.<br/>         1571. Engraving on metal (except for printing purposes).</p> | <p>1572. Electroplating, plating, and polishing.<br/>         1580. Lighting fixtures.<br/>         1591. Nonferrous metal foundries (except aluminum).<br/>         1592. Aluminum ware, kitchen, hospital, and household (except electrical appliances).<br/>         1593. Aluminum products (including rolling and drawing and extruding), not else-<br/>         where classified.<br/>         1594. Collapsible tubes.<br/>         1595. Gold and silver leaf and foil.<br/>         1596. Tin and other foils (except gold and silver foil).<br/>         1597. Sheet-metal work not specifically classified.<br/>         1599. Nonferrous-metal products not elsewhere classified.</p> |
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<sup>2</sup> See GENERAL EXPLANATIONS—Definition of establishment.

<sup>3</sup> See GENERAL EXPLANATIONS—Persons engaged—general classification.

<sup>4</sup> See GENERAL EXPLANATIONS—Wage earners and wages.

<sup>5</sup> Value of products less cost of materials, supplies, fuel, purchased electric energy, and contract work. See GENERAL EXPLANATIONS—Value added by manufacture.

# PRIMARY SMELTING AND REFINING OF NONFERROUS METALS

[A preliminary report for this industry was issued December 13, 1940]

**Description of the industry.**—Establishments classified in this industry are engaged primarily in smelting copper, lead, zinc, and other nonferrous metals from the ore, and in refining of primary nonferrous metals. Considerable smelting and refining are done on a toll basis, but the cost of material reported for establishments that treat ore, matte, or bullion for others includes the estimated values of such materials treated, and the value of products reported for these establishments includes the values of the metals produced. Many of the plants classified as smelters and refineries produce considerable quantities of sulphuric acid, nickel and copper sulphate, lithopone, pigments, zinc oxide, and precious metals, the value of which are included in the "Value of products" item.

**Duplication in cost of materials and value of products.**—The total cost of materials and the total value of products include extensive duplications resulting from the use of the products of certain establishments as materials by others. For example, considerable quantities of the blister copper and lead bullion produced by smelters are used as materials by refineries. Thus the value of this blister copper and lead bullion, which represent intermediate states in the production of refined copper and lead from the ore, appears twice in the total value of products for the industry; and a corresponding duplication enters into the total cost of materials for the industry.

**Industry figures do not represent values of nonferrous metal production.**—The annual report of the Bureau of Mines, Department of the Interior, shows the quantities of the several classes of products of the "Primary smelting and refining of nonferrous metals" industry; but the value of products given in the following tables do not apply to quantities of copper, lead, and zinc reported by the Bureau of Mines, for the reason that the value of products of the industry necessarily includes the values of the incidental production within the industry of gold, silver, and certain chemicals, and because of the further fact that the value of products includes some duplications due to the use of the products of certain establishments (smelters) as materials by others (refineries).

TABLE 1.—SUMMARY FOR THE UNITED STATES: 1939 AND 1937

CENSUS YEAR	Number of establishments <sup>1</sup>	Wage earners (average for the year) <sup>2</sup>	Wages	Cost of materials, supplies, fuel, purchased electric energy, and contract work	Value of products	Value added by manufacture <sup>3</sup>	Horse-power of prime movers
1939.....	63	27,630	\$38,411,086	\$819,570,289	\$956,572,486	\$137,002,197	500,601
1937 <sup>4</sup> .....	66	32,798	47,342,227	980,545,690	1,140,216,270	159,670,580	(*)

<sup>1</sup> See GENERAL EXPLANATIONS—Definition of establishment.  
<sup>2</sup> See GENERAL EXPLANATIONS—Wage earners and wages.  
<sup>3</sup> Value of products less cost of materials, supplies, fuel, purchased electric energy, and contract work. See GENERAL EXPLANATIONS—Value added by manufacture.  
<sup>4</sup> No figures for earlier years available.  
<sup>5</sup> Not called for on schedule.

TABLE 2.—GENERAL STATISTICS IN DETAIL BY STATES: 1939

[See GENERAL EXPLANATIONS—Disclosure of data for individual establishments]

ITEM	United States	Arizona	Illinois	New Jersey	Oklahoma	Pennsylvania	Utah	Other States <sup>1</sup>
Number of establishments <sup>2</sup> .....	63	6	6	3	3	4	4	37
Proprietors and firm members.....	1							1
Persons reported by manufacturing establishments, total <sup>3</sup> .....	32,906	2,101	2,857	4,556	1,304	4,679	2,392	15,017
Salaried officers of corporations <sup>4</sup> .....	16		10					6
Manufacturing:								
Salaried employees <sup>4</sup> .....	3,701	259	206	610	71	289	312	1,954
Wage earners (average for the year) <sup>4</sup> .....	27,630	1,816	2,576	3,672	1,222	4,020	1,965	12,359
Distribution.....	14		13					1
Construction.....	659	7	48	230	11	66	59	238
Other.....	886	19	4	44		304	56	459
Salaries and wages, total <sup>5</sup> .....	\$49,822,601	\$3,273,976	\$4,041,588	\$7,519,998	\$1,791,926	\$7,340,032	\$3,345,502	\$22,509,579
Salaried officers <sup>2</sup> .....	142,496		107,530					34,966
Manufacturing:								
Salaries <sup>2</sup> .....	8,913,869	660,901	529,136	1,427,670	171,057	843,308	679,343	4,602,454
Wages.....	38,411,086	2,538,267	3,326,363	5,625,920	1,607,113	5,815,625	2,479,105	17,018,693
Distribution.....	32,286		31,870					416
Construction.....	992,842	25,737	41,350	388,463	13,756	77,482	101,959	344,095
Other.....	1,330,022	49,071	5,339	77,945		603,617	85,095	508,955
Cost of materials, supplies, containers, fuel, purchased electric energy, and contract work, total.....	819,570,289	45,681,671	19,768,334	237,486,580	6,269,516	16,492,189	66,328,546	427,543,463
Materials, supplies, and containers.....	791,402,032	43,249,080	17,741,749	235,589,744	5,678,856	13,862,523	65,175,526	410,104,554
Fuel.....	14,486,045	1,762,461	1,281,315	1,804,104	519,791	2,039,636	977,128	6,101,610
Purchased electric energy.....	11,640,971	504,305	174,530	92,732	70,869	590,030	175,892	10,032,613
Contract work.....	2,041,241	165,825	570,740					1,304,676
Value of products.....	956,572,486	61,523,402	26,358,656	246,917,393	9,122,686	30,975,564	74,469,864	507,204,921
Value added by manufacture <sup>6</sup> .....	137,002,197	15,841,731	6,590,322	9,430,813	2,853,170	14,483,375	8,141,318	79,661,468

<sup>1</sup> Arkansas, 2 establishments; California, 2; Colorado, 1; Idaho, 2; Indiana, 2; Kansas, 1; Maryland, 1; Michigan, 2; Missouri, 1; Montana, 6; Nebraska, 1; Nevada, 1; New Mexico, 1; New York, 3; North Carolina, 1; Ohio, 1; Tennessee, 2; Texas, 4; Washington, 1; West Virginia, 2.  
<sup>2</sup> See GENERAL EXPLANATIONS—Definition of establishment.  
<sup>3</sup> See GENERAL EXPLANATIONS—Persons engaged—general classification.  
<sup>4</sup> See GENERAL EXPLANATIONS—Wage earners and wages.  
<sup>5</sup> Value of products less cost of materials, supplies, containers, fuel, purchased electric energy, and contract work. See GENERAL EXPLANATIONS—Value added by manufacture.

PRIMARY SMELTING AND REFINING OF NONFERROUS METALS

TABLE 3.—VALUE OF PRODUCTS FOR THE UNITED STATES: 1939 AND 1937

TABLE 4.—PRODUCTS, BY KIND, QUANTITY, AND VALUE, FOR THE UNITED STATES: 1939 AND 1937

No detailed production data are compiled for this industry; therefore, no figures are available for the above tables. See third paragraph of text, p. 306.

TABLE 5.—WAGE EARNERS ENGAGED IN MANUFACTURING, BY MONTHS, FOR THE UNITED STATES, 1939 AND 1937, AND BY STATES, 1939

[See GENERAL EXPLANATIONS—Disclosure of data for individual establishments]

STATE	Average number employed during year	NUMBER RECEIVING PAY DURING NORMAL PAY-ROLL PERIOD ENDED NEAREST 15TH OF MONTH—											
		January	February	March	April	May	June	July	August	September	October	November	December
United States:													
1939	27,630	27,300	26,480	27,140	26,785	27,007	26,795	26,593	26,845	27,456	28,382	30,004	30,775
1937	32,798	30,266	29,731	30,884	31,900	33,038	33,600	34,453	34,604	35,210	34,813	35,053	32,026
Arizona	1,816	1,972	1,896	1,722	1,717	1,741	1,787	1,709	1,816	1,709	1,856	1,896	1,924
Illinois	2,876	2,450	2,504	2,509	2,467	2,400	2,484	2,506	2,534	2,602	2,756	2,859	2,833
New Jersey	3,672	3,634	3,574	3,767	3,634	3,705	3,643	3,477	3,587	3,552	3,729	3,689	4,118
Oklahoma	1,222	1,193	1,207	1,195	1,209	1,216	1,224	1,237	1,184	1,196	1,253	1,271	1,279
Pennsylvania	4,020	4,031	4,001	4,023	4,009	4,003	4,013	3,991	4,012	3,888	3,902	4,162	4,202
Texas	1,165	1,222	1,118	1,244	1,140	1,156	1,125	1,077	1,038	1,016	1,218	1,291	1,433
Utah	1,965	2,014	2,005	2,136	1,998	1,899	1,914	1,731	1,959	1,926	1,841	2,040	2,120

TABLE 6.—EXPENDITURES FOR PLANT AND EQUIPMENT: 1939

	1939
Number of establishments:	
Total for the industry	63
Reporting expenditures for plant and equipment	59
Value of products:	
Total for the industry	\$956,572,486
Reporting expenditures for plant and equipment	928,719,478
Expenditures for plant and equipment:	
Total for the industry	5,698,586
Expenditures for new construction or major alterations of buildings and other fixed plant and structures	3,819,086
Expenditures for new machinery and operating equipment	1,832,779
Expenditures for plant and equipment acquired in a "used" condition from other owners and expenditures for land	46,721

TABLE 7.—VALUE OF INVENTORIES OF MATERIALS AND FINISHED PRODUCTS, AND VALUE OF PRODUCTS: 1939 AND 1937

	1939	1937
Inventories:		
Beginning of year, total	\$158,621,856	\$136,732,946
Finished products	81,799,032	60,588,094
Materials, supplies, etc.	76,822,824	76,144,852
End of year, total	137,080,995	157,727,058
Finished products	50,731,830	76,304,591
Materials, supplies, etc.	86,349,165	81,422,467
Value of products for the industry, total	956,572,486	1,140,216,270
Value for establishments reporting inventories (includes value of products of establishments reporting no inventories on hand)	956,572,486	1,136,627,292
Value for establishments not reporting inventories		3,588,978

TABLE 8.—PRIME MOVERS, MOTORS, GENERATORS, AND ELECTRIC ENERGY: 1939<sup>1</sup>

	1939
Number of establishments	63
Number of establishments reporting power equipment	63
Prime movers, aggregate:	
Number	325
Horsepower	500,601
Prime movers, driving generators, total—	
Number	142
Horsepower	442,340
Steam engines—	
Number	55
Horsepower	33,445

TABLE 8.—PRIME MOVERS, MOTORS, GENERATORS, AND ELECTRIC ENERGY: 1939<sup>1</sup>—Continued

	1939
Prime movers—Continued.	
Prime movers, driving generators—Continued.	
Steam turbines—	
Number	62
Horsepower	206,870
Diesel and semi-Diesel engines—	
Number	3
Horsepower	7,500
Other internal-combustion engines <sup>2</sup> —	
Number	8
Horsepower	1,505
Hydroturbines and water wheels—	
Number	14
Horsepower	193,020
Prime movers, driving generators, ordinarily idle (included above), horsepower	72,008
Prime movers not driving generators, total—	
Number	183
Horsepower	58,261
Steam engines—	
Number	125
Horsepower	39,183
Steam turbines—	
Number	39
Horsepower	18,217
Internal-combustion engines, <sup>2</sup> other than Diesel and semi-Diesel—	
Number	19
Horsepower	861
Prime movers not driving generators, ordinarily idle (included above), horsepower	21,830
Generators, kilowatt rating, total	304,364
Generators, driven by—	
Steam engines, kilowatt rating	21,894
Steam turbines, kilowatt rating	144,225
Diesel and semi-Diesel engines, kilowatt rating	5,000
Other internal-combustion engines, <sup>2</sup> kilowatt rating	1,280
Hydroturbines and water wheels, kilowatt rating	131,965
Generators, ordinarily idle (included above), kilowatt rating	48,701
Electric motors, total:	
Number	17,964
Horsepower	448,772
Driven by purchased energy—	
Number	9,302
Horsepower	286,495
Driven by energy generated in establishments reporting—	
Number	8,662
Horsepower	163,277
Electric energy (kilowatt-hours):	
Generated in plant	1,232,358,237
Sold	304,883,296
Purchased	3,664,314,367

<sup>1</sup> Comparable data for 1929 not available.

<sup>2</sup> Gas, gasoline, etc.

# ALLOYING; AND ROLLING AND DRAWING OF NONFERROUS METALS, EXCEPT ALUMINUM

[A preliminary report for this industry was issued October 16, 1940]

**Description of the industry.**—This industry embraces establishments engaged primarily in the *alloying* of nonferrous metals (other than aluminum) from new metals, or from scrap metals; rolling, drawing, or extruding products of nonferrous metals (except aluminum or aluminum alloys), such as plates and sheets, rods, tubing, pipe, and wire. This industry classification does *not* include establishments engaged primarily in the *recovery* of nonferrous metals or nonferrous metal alloys from new or used scrap, nor the casting of such metals into ingots and pigs *without alloying*, although the figures given in table 4 for brass, bronze, and other alloys include the quantities and values of such metals.

**Statistics for prior census years.**—Prior to 1939 the establishments classified in this industry were combined with those of two other industries. Comparable

figures for 1937 were obtained by a special tabulation. No comparable data for earlier census years can be given.

TABLE 1.—SUMMARY FOR THE UNITED STATES: 1939 AND 1937

CENSUS YEAR	Number of establishments <sup>1</sup>	Wage-earners (average for the year) <sup>2</sup>	Wages	Cost of materials, supplies, fuel, purchased electric energy, and contract work	Value of products	Value added by manufacture <sup>3</sup>	Horse-power of prime movers
1939.....	188	38,816	\$56,282,378	\$280,890,489	\$445,060,017	\$164,169,528	98,770
1937 <sup>4</sup> .....	162	43,964	62,577,435	291,309,865	457,308,617	165,998,752	( <sup>5</sup> )

<sup>1</sup> See GENERAL EXPLANATIONS—Definition of establishment.

<sup>2</sup> See GENERAL EXPLANATIONS—Wage earners and wages.

<sup>3</sup> Value of products less cost of materials, supplies, fuel, purchased electric energy, and contract work. See GENERAL EXPLANATIONS—Value added by manufacture.

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

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

TABLE 2.—GENERAL STATISTICS IN DETAIL BY STATES: 1939

[See GENERAL EXPLANATIONS—Disclosure of data for individual establishments]

ITEM	United States	California	Connecticut	Illinois	Indiana	Maryland	Massachusetts
Number of establishments <sup>1</sup> .....	188	12	22	17	4	7	9
Proprietors and firm members.....	28	5		2			1
Persons reported by manufacturing establishments, total <sup>2</sup> .....	47,270	421	19,788	2,757	872	1,312	898
Salaried officers of corporations <sup>2</sup> .....	244	6	41	14		9	16
Manufacturing:							
Salaried employees <sup>2</sup> .....	5,119	69	2,037	301	159	187	130
Wage earners (average for the year) <sup>3</sup> .....	38,816	303	16,564	2,218	646	1,016	681
Distribution.....	1,640	14	328	178	36	89	71
Construction.....	1,441	25	812	46	22	11	
Other.....	110	4	6		9		
Salaries and wages, total <sup>2</sup> .....	\$75,590,912	\$711,081	\$31,374,806	\$4,319,991	\$1,491,039	\$1,827,151	\$1,375,343
Salaried officers <sup>2</sup> .....	2,089,616	20,292	473,723	122,269		46,647	90,935
Manufacturing:							
Salaries <sup>2</sup> .....	11,145,685	171,302	4,785,397	718,707	382,511	292,273	210,839
Wages.....	56,282,378	434,005	23,731,921	3,043,471	950,251	1,297,916	941,218
Distribution.....	3,575,060	39,320	1,031,504	359,398	115,625	167,744	132,351
Construction.....	2,356,545	41,620	1,342,061	76,146	28,533	22,571	
Other.....	141,628	4,542	10,200		14,219		
Cost of materials, supplies, containers, fuel, purchased electric energy, and contract work, total.....	280,890,489	5,187,554	72,569,745	22,205,051	9,057,103	7,428,497	3,418,026
Materials, supplies, and containers.....	270,120,291	5,112,524	68,411,904	21,746,696	8,797,951	7,132,743	3,234,784
Fuel.....	5,453,094	39,498	2,634,017	207,493	103,436	117,167	88,750
Purchased electric energy.....	4,817,294	35,532	1,473,552	250,862	109,649	138,301	78,061
Contract work.....	499,810		50,272		46,067	40,286	16,431
Value of products.....	445,060,017	6,857,577	140,235,936	31,477,533	11,586,509	11,176,598	6,236,745
Value added by manufacture <sup>4</sup> .....	164,169,528	1,670,023	67,666,191	9,272,482	2,529,406	3,748,101	2,818,719

See footnotes at end of table.

TABLE 2.—GENERAL STATISTICS IN DETAIL BY STATES: 1939—Continued

ITEM	Michigan	New Jersey	New York	Ohio	Pennsylvania	Rhode Island	Other States <sup>1</sup>
Number of establishments <sup>1</sup> .....	16	11	28	10	25	4	23
Proprietors and firm members.....	2	2	5	1	4	.....	8
Persons reported by manufacturing establishments, total <sup>2</sup> .....	3,735	3,054	6,118	1,752	2,260	1,196	3,106
Salaried officers of corporations <sup>2</sup> .....	29	7	45	11	46	8	12
Manufacturing:							
Salaried employees <sup>2</sup> .....	423	270	533	170	229	139	472
Wage earners (average for the year) <sup>3</sup> .....	3,020	2,626	4,912	1,550	1,815	982	2,482
Distribution.....	179	45	358	18	139	43	42
Construction.....	69	86	243	2	15	18	92
Other.....	15	20	27	1	16	6	6
Salaries and wages, total <sup>2</sup> .....	\$6,862,736	\$4,995,579	\$9,473,148	\$2,720,056	\$3,204,863	\$1,838,262	\$5,396,857
Salaried officers <sup>2</sup> .....	341,501	85,929	354,160	104,270	308,711	105,514	35,665
Manufacturing:							
Salaries <sup>2</sup> .....	930,126	566,766	1,052,602	316,637	398,489	281,473	1,038,563
Wages.....	4,976,485	4,101,057	6,919,250	2,280,180	2,260,783	1,300,045	4,045,796
Distribution.....	469,085	99,182	715,771	16,007	203,128	111,344	114,701
Construction.....	124,119	119,521	402,805	1,815	10,000	32,833	154,521
Other.....	21,420	23,124	28,560	1,147	23,752	7,053	7,611
Cost of materials, supplies, containers, fuel, purchased electric energy, and contract work, total.....	20,845,033	38,648,209	38,941,829	12,287,937	12,564,444	10,115,192	27,621,869
Materials, supplies, and containers.....	19,730,685	37,864,070	37,455,456	11,902,935	12,200,436	9,921,680	26,588,427
Fuel.....	427,609	310,465	563,182	182,651	190,509	90,591	497,726
Purchased electric energy.....	673,067	412,479	778,847	200,164	159,153	91,817	415,810
Contract work.....	13,672	41,195	144,344	2,187	14,346	11,104	119,906
Value of products.....	36,434,160	49,564,483	57,689,722	17,192,046	17,518,071	13,611,899	45,478,738
Value added by manufacture <sup>4</sup> .....	15,589,127	10,916,274	13,747,893	4,904,109	4,953,627	3,496,707	17,856,860

<sup>1</sup> See GENERAL EXPLANATIONS—Definition of establishment.

<sup>2</sup> See GENERAL EXPLANATIONS—Persons engaged—general classification.

<sup>3</sup> See GENERAL EXPLANATIONS—Wage earners and wages.

<sup>4</sup> Value of products less cost of materials, supplies, containers, fuel, purchased electric energy, and contract work. See GENERAL EXPLANATIONS—Value added by manufacture.

<sup>5</sup> Alabama, 1 establishment; Colorado, 1; Georgia, 2; Kansas, 1; Minnesota, 2; Missouri, 6; Montana, 1; Oregon, 1; Texas, 1; Virginia, 2; Washington, 1; West Virginia, 1; Wisconsin, 3.

TABLE 3.—VALUE OF PRODUCTS FOR THE UNITED STATES: 1939 AND 1937

ITEM	1939	1937
Alloying; and Rolling and Drawing of Nonferrous Metals, Except Aluminum industry, all products, total value.....	\$445,060,017	\$457,308,617
Nonferrous alloys and rolled and drawn nonferrous metals (except aluminum) made in this industry.....	392,191,910	427,406,999
Miscellaneous products not specified.....	538,976	
Receipts for contract work.....	1,696,616	29,901,618
Other products (not classified in this industry) <sup>1</sup> .....	33,713,446	(?)
Scrap and salable refuse.....	16,919,069	
Nonferrous alloys; and rolled and drawn nonferrous metals (except aluminum), total value.....	438,850,876	501,450,969
Nonferrous alloys and rolled and drawn nonferrous metals (except aluminum) made in this industry.....	392,191,910	427,406,999
Nonferrous alloys and rolled and drawn nonferrous metals (except aluminum) made as secondary products in other industries.....	46,658,966	74,043,970

<sup>1</sup> Value of nonferrous castings, valves, screw-machine products, forged and hot-pressed parts, stamped ware, extruded shapes and tubing made of aluminum.

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

TABLE 4.—PRODUCTS, BY KIND, QUANTITY, AND VALUE, FOR THE UNITED STATES: 1939 AND 1937  
[Tons, 2,000 pounds]

PRODUCT	1939	1937
Total value.....	\$438,850,876	\$501,450,969
Ingots and pigs, total value.....	\$76,328,711	\$99,225,620
Brass and bronze:		
Tons.....	114,208	138,762
Value.....	\$25,102,073	\$34,347,841
Antifriction-bearing metal:		
White-base—		
Tons.....	17,670	21,861
Value.....	\$6,591,221	\$7,801,832
Other—		
Tons.....	3,230	19,109
Value.....	\$847,534	\$3,871,836
Solders, all kinds:		
Tons.....	56,617	58,546
Value.....	\$25,409,190	\$28,621,593
Type metal:		
Tons.....	31,901	34,756
Value.....	\$5,673,467	\$6,237,621
Other and unclassified metals and alloys, value.....	\$12,705,226	\$18,324,847

TABLE 4.—PRODUCTS, BY KIND, QUANTITY, AND VALUE, FOR THE UNITED STATES: 1939 AND 1937—Continued

PRODUCT	1939	1937
Plates and sheets, total value.....	\$131,389,899	\$145,378,929
Brass and bronze, total tons.....	221,422	232,173
Made for sale—		
Tons.....	168,742	177,808
Value.....	\$62,618,557	\$72,389,569
Transferred to other plants of same company—		
Tons.....	17,806	18,014
Value.....	\$5,832,959	\$6,408,674
Produced and consumed in same works, tons.....	34,874	36,351
Copper, total tons.....	107,707	106,089
Made for sale and for interplant transfer—		
Tons.....	105,211	104,366
Value.....	\$36,281,606	\$36,349,958
Produced and consumed in same works, tons.....	2,496	1,723
Lead:		
Made for sale and for interplant transfer—		
Tons.....	23,407	22,503
Value.....	\$3,439,745	\$3,776,193
Produced and consumed in same works, tons.....	1,920	
Zinc:		
Made for sale and for interplant transfer—		
Tons.....	60,998	63,744
Value.....	\$10,026,587	\$12,341,911
Nickel-alloys, total tons.....	26,629	18,586
Made for sale and for interplant transfer—		
Tons.....	25,515	17,899
Value.....	\$12,145,267	\$10,795,234
Produced and consumed in same works, tons.....	1,114	687
Other metals, made for sale and for interplant transfer, value.....	\$1,045,178	\$3,317,390
Rods, total value.....	\$91,044,198	\$96,080,386
Brass and bronze, total tons.....	175,860	195,955
Made for sale and for interplant transfer—		
Tons.....	135,156	139,743
Value.....	\$36,949,316	\$43,240,291
Produced and consumed in same works, tons.....	40,704	56,212
Copper, total tons.....	318,821	354,537
Made for sale and interplant transfer—		
Tons.....	204,903	199,374
Value.....	\$45,364,254	\$44,080,424
Produced and consumed in same works, tons.....	113,918	155,163
Nickel-alloys and other nonferrous metals and alloys, made for sale and for interplant transfer, value.....	\$8,730,628	\$8,759,671

CENSUS OF MANUFACTURES: 1939

TABLE 4.—PRODUCTS, BY KIND, QUANTITY, AND VALUE, FOR THE UNITED STATES: 1939 AND 1937—Continued

PRODUCT	1939	1937
Extruded shapes, total value.....	\$4,568,449	\$6,076,799
Brass and bronze:		
Total tons.....	6,357	6,255
Total value.....	\$2,614,509	\$2,867,756
Made for sale—		
Tons.....	5,323	5,065
Value.....	\$2,251,876	\$2,450,111
Transferred to other plants of the same company—		
Tons.....	1,034	1,190
Value.....	\$362,633	\$417,645
Other metals, made for sale and for interplant transfer, value.....	\$1,953,940	\$3,209,043
Tubing (seamless) and pipe, total value.....	\$66,124,903	\$68,646,963
Brass and bronze, total tons.....	93,885	106,503
Made for sale and for interplant transfer—		
Tons.....	70,183	78,865
Value.....	\$29,734,744	\$34,869,555
Produced and consumed in same works, tons.....	23,702	27,643
Copper, total tons.....	72,795	57,999
Made for sale and for interplant transfer—		
Tons.....	67,330	57,999
Value.....	\$29,385,822	\$26,281,530
Produced and consumed in same works, tons.....	5,465	

TABLE 4.—PRODUCTS, BY KIND, QUANTITY, AND VALUE, FOR THE UNITED STATES: 1939 AND 1937—Continued

PRODUCT	1939	1937
Tubing (seamless) and pipe—Continued.		
Lead, total tons.....	18,963	23,168
Made for sale and for interplant transfer—		
Tons.....	17,923	22,965
Value.....	\$2,705,622	\$3,927,915
Produced and consumed in same works, tons.....	1,040	203
Nickel-alloys, total tons.....	2,478	1,987
Made for sale and for interplant transfer—		
Tons.....	2,478	1,918
Value.....	\$2,523,972	\$2,164,852
Produced and consumed in same works, tons.....		69
Other metals, made for sale and for interplant transfer, value.....	\$1,774,743	\$1,403,111
Tubing, other than seamless, including brazed:		
Tons.....	3,189	
Value.....	\$1,547,033	\$2,182,526
Wire and wire products, value <sup>1</sup> .....	\$67,847,683	\$83,859,746

<sup>1</sup> The figures given for this item represent the value reported by establishments classified in this industry only. For total production, regardless of industry classification, see report entitled "Wire drawn from purchased rods," p. 213.

TABLE 5.—WAGE EARNERS ENGAGED IN MANUFACTURING, BY MONTHS, FOR THE UNITED STATES, 1939 AND 1937, AND BY STATES, 1939

[See GENERAL EXPLANATIONS—Disclosure of data for individual establishments]

STATE	Average number employed during year	NUMBER RECEIVING PAY DURING NORMAL PAY-ROLL PERIOD ENDED NEAREST 15TH OF MONTH—											
		January	February	March	April	May	June	July	August	September	October	November	December
United States:													
1939.....	38,816	35,418	35,503	35,617	35,452	35,543	35,687	35,812	36,803	40,028	45,103	47,449	47,378
1937.....	43,964	44,887	46,419	47,386	48,356	47,667	46,627	44,713	44,220	42,909	41,401	38,568	34,451
California.....	303	226	249	295	288	309	310	296	331	349	309	344	335
Connecticut.....	16,564	15,222	15,267	15,234	15,262	15,357	15,350	15,381	15,678	16,832	19,044	20,086	20,062
Illinois.....	2,218	2,148	2,169	2,179	2,058	1,984	2,002	1,723	1,893	2,310	2,616	2,781	2,753
Indiana.....	646	595	532	588	604	628	621	642	638	677	676	748	805
Maryland.....	1,016	868	873	870	870	876	878	917	944	1,102	1,312	1,359	1,322
Massachusetts.....	681	637	637	643	639	636	635	650	677	705	759	785	774
Michigan.....	3,020	2,790	2,836	2,740	2,717	2,650	2,663	2,699	2,866	3,139	3,526	3,804	3,811
Missouri.....	158	149	153	152	145	145	154	163	160	168	170	165	171
New Jersey.....	2,626	2,528	2,503	2,442	2,425	2,444	2,442	2,456	2,552	2,695	2,891	3,087	3,047
New York.....	4,912	4,395	4,338	4,400	4,398	4,448	4,435	4,488	4,535	5,077	5,889	6,286	6,253
Ohio.....	1,550	1,391	1,406	1,399	1,406	1,391	1,393	1,489	1,532	1,643	1,780	1,866	1,905
Pennsylvania.....	1,815	1,656	1,666	1,710	1,686	1,679	1,684	1,712	1,728	1,781	2,051	2,185	2,240
Rhode Island.....	982	812	812	833	844	877	926	989	1,004	1,097	1,220	1,196	1,173
Wisconsin.....	1,045	922	942	954	929	917	924	965	986	1,098	1,299	1,320	1,282

TABLE 6.—EXPENDITURES FOR PLANT AND EQUIPMENT: 1939

	1939
Number of establishments:	
Total for the industry.....	188
Reporting expenditures for plant and equipment.....	135
Value of products:	
Total for the industry.....	\$445,060,017
Reporting expenditures for plant and equipment.....	423,098,665
Expenditures for plant and equipment:	
Total for the industry.....	8,096,207
Expenditures for new construction or major alterations of buildings and other fixed plant and structures.....	1,589,817
Expenditures for new machinery and operating equipment.....	6,344,476
Expenditures for plant and equipment acquired in a "used" condition from other owners and expenditures for land.....	161,914

TABLE 7.—VALUE OF INVENTORIES OF MATERIALS AND FINISHED PRODUCTS, AND VALUE OF PRODUCTS: 1939 AND 1937

	1939	1937
Inventories:		
Beginning of year, total.....	\$78,228,281	\$82,064,280
Finished products.....	21,233,517	16,714,928
Materials, supplies, etc.....	56,994,764	46,949,352
End of year, total.....	84,367,564	75,503,880
Finished products.....	21,130,089	19,994,583
Materials, supplies, etc.....	63,236,875	55,509,297
Value of products for the industry, total.....	445,060,017	457,308,617
Value for establishments reporting inventories (includes value of products of establishments reporting no inventories on hand).....	434,056,139	442,966,151
Value for establishments not reporting inventories.....	11,003,878	14,342,466

TABLE 8.—PRIME MOVERS, MOTORS, GENERATORS, AND ELECTRIC ENERGY: 1939<sup>1</sup>

	1939		1939
Number of establishments.....	188	Prime movers—Continued.	
Number of establishments reporting power equipment.....	185	Prime movers not driving generators—Continued.	
Prime movers, aggregate:		Internal-combustion engines, <sup>2</sup> other than Diesel and semi-Diesel—	
Number.....	81	Number.....	1
Horsepower.....	98,770	Horsepower.....	5
Prime movers, driving generators, total—		Hydroturbines and water wheels—	
Number.....	51	Number.....	3
Horsepower.....	85,460	Horsepower.....	100
Steam engines—		Prime movers not driving generators, ordinarily idle (included above), horsepower.....	340
Number.....	14	Generators, kilowatt rating, total.....	60,991
Horsepower.....	8,303	Generators, driven by—	
Steam turbines—		Steam engines, kilowatt rating.....	5,487
Number.....	34	Steam turbines, kilowatt rating.....	54,785
Horsepower.....	76,017	Hydroturbines and water wheels, kilowatt rating.....	719
Hydroturbines and water wheels—		Generators, ordinarily idle (included above), kilowatt rating.....	8,610
Number.....	3	Electric motors, total:	
Horsepower.....	1,140	Number.....	30,857
Prime movers, driving generators, ordinarily idle (included above), horsepower.....	12,220	Horsepower.....	501,008
Prime movers not driving generators, total—		Driven by purchased energy—	
Number.....	30	Number.....	24,153
Horsepower.....	13,310	Horsepower.....	376,024
Steam engines—		Driven by energy generated in establishments reporting—	
Number.....	23	Number.....	0,704
Horsepower.....	12,505	Horsepower.....	124,084
Steam turbines—		Electric energy (kilowatt-hours):	
Number.....	3	Generated in plant.....	172,363,431
Horsepower.....	640	Sold.....	647,062
		Purchased.....	504,020,184

<sup>1</sup> Comparable data for 1929 not available.

<sup>2</sup> Gas, gasoline, etc.

## SECONDARY SMELTING AND REFINING, GOLD, SILVER, AND PLATINUM

[A preliminary report for this industry was issued November 28, 1940]

**Description of the industry.**—This industry, as constituted for census purposes, consists in the refining and alloying of gold, silver, and platinum from bullion, sweepings, scrap, and old metal. The recovery of gold and silver in the refining of copper and lead is covered by the Primary Smelting and Refining of Nonferrous Metals industry. A small quantity of platinum is also obtained in the electrolytic refining of copper. The extraction of metals by washing and milling does not come within the scope of the Census of Manufactures.

TABLE 1.—SUMMARY FOR THE UNITED STATES: 1899 TO 1939

CENSUS YEAR	Number of establishments <sup>1</sup>	Wage earners (average for the year) <sup>2</sup>	Wages	Cost of materials, supplies, fuel, purchased electric energy, and contract work <sup>3</sup>	Value of products	Value added by manufacture <sup>4</sup>	Horse-power of prime movers
1939	66	1,115	\$1,686,944	\$94,783,030	\$101,783,864	\$7,000,834	1,031
1937	65	1,085	1,560,529	85,207,766	92,093,302	6,885,536	( <sup>5</sup> )
1935	88	1,002	1,317,833	71,791,480	78,018,054	6,229,574	( <sup>5</sup> )
1933	61	745	980,020	39,036,288	44,609,744	5,567,456	( <sup>5</sup> )
1931	63	803	1,185,570	36,892,897	41,397,662	4,918,765	( <sup>5</sup> )
1929	69	931	1,633,838	61,570,093	67,959,140	6,389,047	584
1927	57	801	1,434,620	58,877,476	62,647,127	3,769,651	1,068
1925	65	1,258	2,165,685	88,867,106	95,243,474	6,376,278	1,031
1923	76	901	1,361,237	65,088,918	71,920,702	6,831,784	( <sup>5</sup> )
1921	77	785	1,130,572	41,055,751	45,974,226	4,918,476	( <sup>5</sup> )
1919	87	644	843,608	49,736,978	55,483,215	5,746,237	1,171
1914	78	456	390,865	25,709,133	28,587,558	2,878,425	904
1909	62	456	345,738	21,983,709	23,611,764	1,628,055	( <sup>5</sup> )
1904	41	287	206,263	17,538,379	18,724,085	1,185,716	( <sup>5</sup> )
1899	57	219	141,400	10,932,361	11,811,537	879,176	( <sup>5</sup> )

<sup>1</sup> See GENERAL EXPLANATIONS—Definition of establishment.

<sup>2</sup> See GENERAL EXPLANATIONS—Wage earners and wages.

<sup>3</sup> Figures for years prior to 1935 do not include cost of contract work.

<sup>4</sup> Value of products less cost of materials, supplies, fuel, purchased electric energy, and contract work. See GENERAL EXPLANATIONS—Value added by manufacture.

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

<sup>6</sup> Data not available.

TABLE 2.—GENERAL STATISTICS IN DETAIL BY STATES: 1939

[See GENERAL EXPLANATIONS—Disclosure of data for individual establishments]

ITEM	United States	New Jersey	New York	Pennsylvania	Rhode Island	Other States <sup>1</sup>
Number of establishments <sup>2</sup> .....	66	14	19	4	10	19
Proprietors and firm members.....	43	4	12	2	10	15
Persons reported by manufacturing establishments, total <sup>3</sup> .....	1,741	1,036	170	125	57	353
Salaried officers of corporations <sup>3</sup> .....	57	18	13	3	8	15
Manufacturing:						
Salaried employees <sup>3</sup> .....	181	82	28	22	11	38
Wage earners (average for the year) <sup>4</sup> .....	1,115	679	93	81	29	233
Distribution.....	342	215	33	19	9	66
Construction.....						
Other.....	46	42	3			1
Salaries and wages, total <sup>3</sup> .....	\$3,306,758	\$2,000,162	\$365,087	\$156,316	\$123,867	\$661,326
Salaried officers <sup>3</sup> .....	392,656	163,993	87,403	11,620	37,160	92,480
Manufacturing:						
Salaries <sup>3</sup> .....	455,366	245,977	50,964	29,831	18,462	110,132
Wages <sup>3</sup> .....	1,686,944	1,064,132	148,785	83,493	39,386	340,598
Distribution.....	699,322	460,331	75,344	21,372	28,359	113,916
Construction.....						
Other.....	72,470	65,679	2,591			4,200
Cost of materials, supplies, containers, fuel, purchased electric energy, and contract work, total.....	94,783,030	49,444,923	20,165,738	781,156	1,972,863	22,418,350
Materials, supplies, and containers.....	94,485,005	49,295,998	20,145,795	763,158	1,951,494	22,328,560
Fuel.....	165,164	112,568	8,297	915	4,539	38,845
Purchased electric energy.....	92,173	36,297	11,646	10,103	2,539	31,597
Contract work.....	40,688	60		6,980	14,300	19,348
Value of products.....	101,783,864	53,400,001	21,026,954	1,024,896	2,282,450	24,049,563
Value added by manufacture <sup>4</sup> .....	7,000,834	3,955,078	861,216	243,740	309,587	1,631,213

<sup>1</sup> California, 3 establishments; Connecticut, 2; Illinois, 2; Massachusetts, 4; Missouri, 2; Ohio, 3; Washington, 2; Wisconsin, 1.

<sup>2</sup> See GENERAL EXPLANATIONS—Definition of establishment.

<sup>3</sup> See GENERAL EXPLANATIONS—Persons engaged—general classification.

<sup>4</sup> See GENERAL EXPLANATIONS—Wage earners and wages.

<sup>5</sup> Value of products less cost of materials, supplies, containers, fuel, purchased electric energy, and contract work. See GENERAL EXPLANATIONS—Value added by manufacture.

TABLE 3.—VALUE OF PRODUCTS FOR THE UNITED STATES: 1939 AND 1937

TABLE 4.—PRODUCTS, BY KIND, QUANTITY, AND VALUE, FOR THE UNITED STATES: 1939 AND 1937

No detailed production statistics were compiled for this industry; therefore, no figures are available for the above tables.

TABLE 5.—WAGE EARNERS ENGAGED IN MANUFACTURING, BY MONTHS, FOR THE UNITED STATES, 1939, 1937, AND 1929, AND BY STATES, 1939

[See GENERAL EXPLANATIONS—Disclosure of data for individual establishments]

STATE	Average number employed during year	NUMBER RECEIVING PAY DURING NORMAL PAY-ROLL PERIOD ENDED NEAREST 15TH OF MONTH—											
		January	February	March	April	May	June	July	August	September	October	November	December
United States:													
1939.....	1,115	1,021	1,021	1,055	1,086	1,084	1,097	1,106	1,110	1,137	1,212	1,223	1,225
1937.....	1,085	1,029	1,043	1,046	1,063	1,086	1,095	1,133	1,142	1,141	1,128	1,078	1,032
1929.....	931	875	887	898	929	928	912	924	940	968	985	965	957
California.....	24	23	23	23	23	24	24	24	24	24	24	24	24
Massachusetts.....	26	26	26	26	26	26	26	26	26	26	26	26	26
New Jersey.....	679	622	621	646	657	658	666	671	677	701	747	745	738
New York.....	93	90	90	90	90	90	92	93	92	95	98	97	98
Ohio.....	7	7	7	7	7	7	7	7	7	7	8	8	8
Pennsylvania.....	81	61	61	65	79	78	80	84	83	81	94	99	105
Rhode Island.....	29	29	28	29	29	28	28	28	28	29	29	29	29

TABLE 6.—EXPENDITURES FOR PLANT AND EQUIPMENT: 1939

	1939
Number of establishments:	
Total for the industry.....	66
Reporting expenditures for plant and equipment.....	31
Value of products:	
Total for the industry.....	\$101,783,864
Reporting expenditures for plant and equipment.....	93,428,631
Expenditures for plant and equipment:	
Total for the industry.....	277,987
Expenditures for new construction or major alterations of buildings and other fixed plant and structures.....	98,740
Expenditures for new machinery and operating equipment.....	173,542
Expenditures for plant and equipment acquired in a "used" condition from other owners and expenditures for land.....	5,705

TABLE 7.—VALUE OF INVENTORIES OF MATERIALS AND FINISHED PRODUCTS, AND VALUE OF PRODUCTS: 1939 AND 1937

	1939	1937
Inventories:		
Beginning of year, total.....	\$8,119,297	\$8,426,724
Finished products.....	973,652	3,928,449
Materials, supplies, etc.....	7,145,645	4,498,275
End of year, total.....	8,322,659	8,222,705
Finished products.....	951,271	4,010,716
Materials, supplies, etc.....	7,371,388	4,211,989
Value of products for the industry, total.....	101,783,864	92,093,302
Value for establishments reporting inventories (includes value of products of establishments reporting no inventories on hand).....	101,783,864	91,033,335
Value for establishments not reporting inventories.....		1,059,967

TABLE 8.—PRIME MOVERS, MOTORS, GENERATORS, AND ELECTRIC ENERGY: 1939 AND 1929

	1939	1929
Number of establishments.....	66	69
Number of establishments reporting power equipment.....	66	67
Prime movers, aggregate:		
Number.....	6	10
Horsepower.....	1,031	584

TABLE 8.—PRIME MOVERS, MOTORS, GENERATORS, AND ELECTRIC ENERGY: 1939 AND 1929—Continued

	1939	1929
Prime movers—Continued.		
Prime movers, driving generators, total—		
Number.....	3	110
Horsepower.....	990	1,584
Steam engines—		
Number.....	3	17
Horsepower.....	990	1,513
Steam turbines—		
Number.....		
Horsepower.....		
Diesel and semi-Diesel engines—		
Number.....		13
Other internal-combustion engines <sup>1</sup> —		171
Number.....		
Horsepower.....		
Prime movers, driving generators, ordinarily idle (included above), horsepower.....	300	
Prime movers not driving generators—		
Number.....	3	( <sup>2</sup> )
Horsepower.....	41	
Internal-combustion engines, <sup>3</sup> other than Diesel and semi-Diesel—		
Number.....	3	
Horsepower.....	41	
Generators, kilowatt rating, total.....	739	450
Generators, driven by—		
Steam engines, kilowatt rating.....	739	( <sup>4</sup> )
Generators, ordinarily idle (included above), kilowatt rating.....	240	( <sup>4</sup> )
Electric motors, total:		
Number.....	2,315	1,134
Horsepower.....	6,559	4,231
Driven by purchased energy—		
Number.....	2,104	1,055
Horsepower.....	5,387	3,646
Driven by energy generated in establishments reporting—		
Number.....	211	79
Horsepower.....	1,172	585
Electric energy (kilowatt-hours):		
Generated in plant.....	2,949,700	( <sup>4</sup> )
Purchased.....	3,773,959	2,593,540

<sup>1</sup> Includes data for prime movers not driving generators.  
<sup>2</sup> Gas, gasoline, etc.  
<sup>3</sup> Not called for on schedule.  
<sup>4</sup> Data not available.

## SECONDARY SMELTING AND REFINING OF NONFERROUS METALS, NOT ELSEWHERE CLASSIFIED

[A preliminary report for this industry was issued December 16, 1940]

**Description of the industry.**—The establishments classified in this industry are engaged primarily in the *recovery* of copper, lead, zinc, nickel, and alloys thereof from scrap and dross. The figures for alloys *recovered* are not shown in table 4 of this report but are combined with those *produced* in other industries in table 4 of the report for the Alloying; Rolling and Drawing of Nonferrous Metals, Except Aluminum industry. Some establishments of this industry are engaged primarily in the production of aluminum ingots and pigs from scrap. The data for these establishments are included in tables 1, 2, 5, 6, 7, and 8, but the production figures are included in the report for Aluminum Products (Including Rolling and Drawing and Extruding), Not Elsewhere Classified industry. The primary production of aluminum from bauxite is included in the Primary Smelting and Refining of Nonferrous Metals industry.

TABLE 1.—SUMMARY FOR THE UNITED STATES: 1899 'TO 1939

CENSUS YEAR	Number of establishments <sup>1</sup>	Wage earners (average for the year) <sup>2</sup>	Wages	Cost of materials, supplies, fuel, purchased electric energy, and contract work <sup>3</sup>	Value of products	Value added by manufacture <sup>4</sup>	Horse-power of prime movers
1939	108	3,608	\$4,366,477	\$65,436,289	\$82,038,323	\$16,602,034	2,709
1937	103	4,973	5,972,117	94,051,751	113,006,897	18,955,146	( <sup>5</sup> )
1935	99	3,762	3,609,908	52,009,093	62,622,781	10,613,688	( <sup>5</sup> )
1933	94	2,924	2,493,598	31,406,662	41,122,641	9,715,979	( <sup>5</sup> )
1931	88	2,626	3,162,187	28,545,523	34,695,360	6,149,837	( <sup>5</sup> )
1929	106	4,134	5,574,322	83,444,918	105,882,655	22,437,737	605
1927	102	2,776	4,230,291	68,894,494	80,770,546	11,876,052	1,463
1925	102	2,044	4,679,537	69,262,594	82,137,523	12,874,929	4,233
1923	41	1,587	2,223,917	29,049,188	35,785,501	6,736,313	( <sup>5</sup> )
1921	60	1,200	1,528,236	10,031,481	15,150,055	5,118,574	( <sup>5</sup> )
1919	81	2,167	3,093,140	40,675,880	50,246,088	9,570,208	3,025
1914	84	2,585	1,884,325	31,250,707	39,902,114	8,651,407	7,781
1909	89	2,147	1,281,124	23,162,419	28,072,041	4,909,622	( <sup>5</sup> )
1904	65	1,712	994,951	13,759,805	17,402,937	3,643,182	( <sup>5</sup> )
1899	61	983	532,068	5,899,935	7,784,695	1,884,760	( <sup>5</sup> )

<sup>1</sup> See GENERAL EXPLANATIONS—Definition of establishment.

<sup>2</sup> See GENERAL EXPLANATIONS—Wage earners and wages.

<sup>3</sup> Figures for years prior to 1935 do not include cost of contract work.

<sup>4</sup> Value of products less cost of materials, supplies, fuel, purchased electric energy, and contract work. <sup>5</sup> Not called for on schedule. <sup>6</sup> Data not available.

TABLE 2.—GENERAL STATISTICS IN DETAIL BY STATES: 1939

[See GENERAL EXPLANATIONS—Disclosure of data for individual establishments]

ITEM	United States	Illinois	Indiana	Massachusetts	New Jersey	New York	Ohio	Pennsylvania	Other States <sup>1</sup>
Number of establishments <sup>2</sup>	108	24	4	8	9	10	12	11	30
Proprietors and firm members	53	8	1	1	4	6	4	8	21
Persons reported by manufacturing establishments, total <sup>3</sup>	4,750	1,516	302	95	547	510	383	505	892
Salaried officers of corporations <sup>3</sup>	140	34	5	11	9	21	13	16	31
Manufacturing:									
Salaried employees <sup>3</sup>	616	169	32	13	111	34	56	71	130
Wage earners (average for the year) <sup>4</sup>	3,608	1,209	204	57	396	380	304	383	675
Distribution	292	70	45	14	20	70	8	27	38
Construction	56	22	11	8	8	7	1	1	14
Other	38	12	5	3	3	5	2	7	4
Salaries and wages, total <sup>5</sup>	\$7,637,656	\$2,372,842	\$447,914	\$188,940	\$910,799	\$996,151	\$587,175	\$860,157	\$1,273,678
Salaried officers <sup>3</sup>	965,885	309,176	30,216	67,030	65,351	123,431	128,870	116,786	125,025
Manufacturing:									
Salaries <sup>3</sup>	1,471,144	400,465	81,879	19,941	288,281	90,054	112,169	194,149	284,206
Wages	4,366,477	1,406,295	231,481	69,922	519,713	580,835	322,745	481,964	753,522
Distribution	701,936	196,833	84,464	32,047	26,778	196,631	19,391	59,403	86,389
Construction	84,572	44,849	14,100	6,163	6,163	7	1	896	18,564
Other	47,642	15,224	5,774	3	4,513	5,200	4,000	6,959	5,972
Cost of materials, supplies, containers, fuel, purchased electric energy, and contract work, total	65,436,289	23,352,956	3,970,315	1,290,885	7,489,228	8,461,124	6,727,543	6,584,016	7,560,222
Materials, supplies, and containers	63,960,391	22,914,280	3,850,396	1,270,041	7,346,888	8,266,058	6,621,604	6,410,403	7,280,721
Fuel	1,045,238	309,211	91,492	18,178	120,452	91,009	82,348	136,836	195,712
Purchased electric energy	352,400	116,009	28,427	2,666	21,888	51,761	23,552	36,777	71,330
Contract work	78,260	13,456	—	—	—	52,306	39	—	12,459
Value of products	82,038,323	28,362,453	5,063,359	1,642,638	9,448,112	10,701,919	7,835,130	8,430,861	10,553,851
Value added by manufacture <sup>6</sup>	16,602,034	5,009,497	1,093,044	351,753	1,958,884	2,240,795	1,107,587	1,846,845	2,993,629

<sup>1</sup> California, 3 establishments; Colorado, 2; Connecticut, 2; Delaware, 1; Florida, 2; Maryland, 1; Michigan, 6; Minnesota, 1; Missouri, 2; North Carolina, 1; Oklahoma, 1; Tennessee, 1; Texas, 2; Virginia, 1; Washington, 1; West Virginia, 1; Wisconsin, 2.

<sup>2</sup> See GENERAL EXPLANATIONS—Definition of establishment.

<sup>3</sup> See GENERAL EXPLANATIONS—Persons engaged—general classification.

<sup>4</sup> See GENERAL EXPLANATIONS—Wage earners and wages.

<sup>5</sup> Value of products less cost of materials, supplies, containers, fuel, purchased electric energy, and contract work. See GENERAL EXPLANATIONS—Value added by manufacture.

SECONDARY SMELTING AND REFINING—NONFERROUS METALS

TABLE 3.—VALUE OF PRODUCTS FOR THE UNITED STATES: 1939 AND 1937

	1939	1937
Secondary Smelting and Refining of Nonferrous Metals, Not Elsewhere Classified industry, all products, total value.....	\$82,038,323	\$113,006,897
Secondary smelting and refining of nonferrous metals, not elsewhere classified reported in this industry.....	29,993,455	36,342,527
Miscellaneous products not specified.....	1,082,665	76,664,370
Receipts for contract and repair work, and scrap and salable refuse.....	929,939	
Other products (not classified in this industry).....	150,032,264	
Secondary smelting and refining of nonferrous metals, not elsewhere classified, total value.....	39,373,625	39,554,206
Secondary smelting and refining of nonferrous metals, not elsewhere classified reported in this industry.....	29,993,455	36,342,527
Secondary smelting and refining of nonferrous metals, not elsewhere classified reported as secondary products in other industries.....	9,380,170	3,211,679

<sup>1</sup> Value of nonferrous alloys, gold, silver, and nonferrous products.

TABLE 4.—PRODUCTS, BY KIND, QUANTITY, AND VALUE, FOR THE UNITED STATES: 1939 AND 1937

[This table does not include data for the production of copper, lead, zinc, and other nonferrous metals from the ore, nor the production of secondary metals by establishments engaged in the primary smelting and refining of nonferrous metals. For statistics showing the total output of secondary metals, see reports of the Bureau of Mines]

[Tons, 2,000 pounds]

PRODUCT	1939	1937
Total value.....	\$39,373,625	\$39,554,206
Ingots and pigs:		
Copper—		
Tons.....	44,458	39,890
Value.....	\$9,827,435	\$9,499,136
Lead, antimonial—		
Tons.....	98,758	84,908
Value.....	\$10,650,663	\$11,362,973
Lead, common—		
Tons.....	50,064	40,612
Value.....	\$5,258,048	\$4,073,800
Zinc—		
Tons.....	44,485	47,918
Value.....	\$4,955,432	\$6,221,146
Tin—		
Tons.....	5,450	4,924
Value.....	\$5,422,074	\$4,982,784
Other metals, value.....	\$3,259,973	\$3,414,367

TABLE 5.—WAGE EARNERS ENGAGED IN MANUFACTURING, BY MONTHS, FOR THE UNITED STATES, 1939, 1937, AND 1929, AND BY STATES, 1939

[See GENERAL EXPLANATIONS—Disclosure of data for individual establishments]

STATE	Average number employed during year	NUMBER RECEIVING PAY DURING NORMAL PAY-ROLL PERIOD ENDED NEAREST 15TH OF MONTH—											
		January	February	March	April	May	June	July	August	September	October	November	December
United States:													
1939.....	3,608	3,321	3,343	3,509	3,395	3,444	3,475	3,549	3,704	3,774	3,829	4,086	3,869
1937.....	4,973	4,801	4,857	4,886	5,231	5,360	5,245	5,096	5,044	5,151	5,108	4,554	4,348
1929.....	4,134	3,945	4,123	4,217	4,232	4,168	4,172	4,191	4,241	4,199	4,129	4,099	3,896
California.....	106	107	102	102	101	95	103	97	106	108	101	123	121
Illinois.....	1,209	1,091	1,177	1,186	1,191	1,192	1,192	1,222	1,254	1,253	1,322	1,373	1,060
Indiana.....	204	206	213	202	186	199	188	194	208	209	221	207	216
Massachusetts.....	57	54	54	52	57	55	51	54	60	62	61	61	63
Michigan.....	102	81	92	99	92	101	95	106	115	104	103	121	117
New Jersey.....	396	353	330	373	335	360	390	402	410	408	418	427	550
New York.....	380	387	358	366	356	362	354	377	371	418	392	395	398
Ohio.....	304	260	266	298	284	251	248	285	310	331	342	381	386
Pennsylvania.....	383	338	335	365	357	361	347	317	366	379	405	518	507

TABLE 6.—EXPENDITURES FOR PLANT AND EQUIPMENT: 1939

	1939
Number of establishments:	
Total for the industry	108
Reporting expenditures for plant and equipment	69
Value of products:	
Total for the industry	\$82,038,323
Reporting expenditures for plant and equipment	66,975,279
Expenditures for plant and equipment:	
Total for the industry	1,182,179
Expenditures for new construction or major alterations of buildings and other fixed plant and structures	451,550
Expenditures for new machinery and operating equipment	721,682
Expenditures for plant and equipment acquired in a "used" condition from other owners and expenditures for land	8,947

TABLE 7.—VALUE OF INVENTORIES OF MATERIALS AND FINISHED PRODUCTS, AND VALUE OF PRODUCTS: 1939 AND 1937

	1939	1937
Inventories:		
Beginning of year, total	\$15,924,387	\$16,920,702
Finished products	6,994,445	6,082,522
Materials, supplies, etc.	8,929,942	10,838,180
End of year, total	14,401,865	18,081,093
Finished products	5,679,367	7,760,999
Materials, supplies, etc.	8,722,498	10,320,094
Value of products for the industry, total	82,038,323	113,006,897
Value for establishments reporting inventories (includes value of products of establishments reporting no inventories on hand)	81,589,487	112,228,632
Value for establishments not reporting inventories	448,836	778,265

TABLE 8.—PRIME MOVERS, MOTORS, GENERATORS, AND ELECTRIC ENERGY: 1939 AND 1929

	1939	1929		1939	1929
Number of establishments	108	106	Generators, kilowatt rating, total	1,432	2,926
Number of establishments reporting power equipment	107	85	Generators, driven by—		
Prime movers, aggregate:			Steam engines, kilowatt rating	1,000	(3)
Number	14	10	Diesel and semi-Diesel engines, kilowatt rating	368	
Horsepower	2,709	605	Other internal-combustion engines, <sup>2</sup> kilowatt rating	64	
Prime movers, driving generators, total—			Generators, ordinarily idle (included above), kilowatt rating	475	(4)
Number	12	110	Electric motors, total:		
Horsepower	2,693	1,605	Number	2,594	1,657
Steam engines—			Horsepower	21,212	17,569
Number	5	13	Driven by purchased energy—		
Horsepower	2,000	1,380	Number	2,426	1,657
Diesel and semi-Diesel engines—			Horsepower	20,186	17,569
Number	3		Driven by energy generated in establishments reporting—		
Horsepower	575	17	Number	168	
Other internal-combustion engines <sup>2</sup> —			Horsepower	1,076	
Number	4	225	Electric energy (kilowatt-hours):		
Horsepower	118		Generated in plant	3,513,292	(4)
Prime movers, driving generators, ordinarily idle (included above), horsepower	958		Purchased	22,572,947	27,785,651
Prime movers not driving generators, total—					
Number	2	(3)			
Horsepower	16				
Internal-combustion engines, <sup>2</sup> other than Diesel and semi-Diesel—					
Number	2				
Horsepower	16				

<sup>1</sup> Includes data for prime movers not driving generators.  
<sup>2</sup> Gas, gasoline, etc.

<sup>3</sup> Not called for on schedule.  
<sup>4</sup> Data not available.

# CLOCKS, WATCHES, AND MATERIALS AND PARTS (EXCEPT WATCHCASES)

[A preliminary report for this industry was issued October 16, 1940]

**Description of the industry.**—This industry embraces establishments engaged primarily in the manufacture of clocks (including electrical), watches, and other devices operated by a clockwork, such as time-recording instruments and stamps, time switches, locks, etc., and the manufacture of clock and watch parts and materials (not including watchcases or watch crystals). Establishments that install purchased movements or movements of their own manufacture in purchased cases or those that install purchased movements in purchased cases are classified as manufacturers of watches.

TABLE 1.—SUMMARY FOR THE UNITED STATES: 1899 TO 1939

CENSUS YEAR	Number of establishments <sup>1</sup>	Wage earners (average for the year) <sup>2</sup>	Wages	Cost of materials, supplies, fuel, purchased electric energy, and contract work <sup>3</sup>	Value of products	Value added by manufacture <sup>4</sup>	Horse-power of prime movers
1939	74	17,878	\$20,467,333	\$35,204,008	\$84,846,136	\$49,642,128	12,630
1937	75	23,223	27,558,699	38,444,435	97,933,776	59,489,341	( <sup>5</sup> )
1935	76	18,026	18,279,007	22,673,808	61,203,517	38,529,709	( <sup>5</sup> )
1933	53	12,850	10,003,392	9,468,454	31,656,023	22,187,569	( <sup>5</sup> )
1931	75	16,213	15,685,615	12,880,086	45,563,375	32,683,289	( <sup>5</sup> )
1929	81	21,450	25,750,088	21,388,018	77,467,111	56,079,093	14,581
1927	80	22,472	27,284,194	16,249,635	71,783,468	55,533,833	13,114
1925	83	22,361	26,274,163	15,474,281	66,996,518	51,522,237	16,392
1923	80	21,326	24,128,662	17,386,872	60,472,713	43,085,713	( <sup>5</sup> )
1921	77	19,099	20,534,778	12,108,389	43,233,020	31,124,631	( <sup>5</sup> )
1919	91	24,722	24,873,327	14,119,896	56,766,186	42,646,290	10,858
1914	88	19,814	11,556,906	7,019,896	26,321,548	19,301,652	10,408
1909	91	19,288	10,515,907	6,096,321	24,681,988	18,585,667	( <sup>5</sup> )
1904	69	18,358	9,721,060	5,443,618	21,163,092	15,719,474	7,527
1899	79	13,248	6,389,660	4,425,473	14,325,814	9,900,341	5,283

<sup>1</sup> See GENERAL EXPLANATIONS—Definition of establishment.

<sup>2</sup> See GENERAL EXPLANATIONS—Wage earners and wages.

<sup>3</sup> Figures for years prior to 1935 do not include cost of contract work.

<sup>4</sup> Value of products less cost of materials, supplies, fuel, purchased electric energy, and contract work. See GENERAL EXPLANATIONS—Value added by manufacture.

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

<sup>6</sup> Data not available.

TABLE 2.—GENERAL STATISTICS IN DETAIL BY STATES: 1939

[See GENERAL EXPLANATIONS—Disclosure of data for individual establishments]

ITEM	United States	Connecticut	Illinois	Massachusetts	New Jersey	New York	Other States <sup>1</sup>
Number of establishments <sup>2</sup>	74	8	14	8	4	24	16
Proprietors and firm members	29		3	4	4	15	3
Persons reported by manufacturing establishments, total <sup>3</sup>	21,287	7,563	5,747	3,405	409	1,550	2,614
Salaried officers of corporations <sup>3</sup>	111	31	12	20	7	16	25
Manufacturing:							
Salaried employees <sup>3</sup>	1,615	620	355	241	36	119	244
Wage earners (average for the year) <sup>4</sup>	17,878	6,558	4,851	2,758	342	1,342	2,028
Distribution	1,273	265	361	309	24	68	246
Construction	114	37	71				6
Other	296	52	97	77		5	65
Salaries and wages, total <sup>3</sup>	\$27,504,819	\$8,626,872	\$7,591,380	\$4,343,023	\$395,108	\$2,565,321	\$3,983,115
Salaried officers <sup>3</sup>	1,061,402	252,723	187,991	174,700	60,626	147,101	238,261
Manufacturing:							
Salaries <sup>3</sup>	3,068,850	1,035,940	736,589	511,749	50,583	272,448	461,541
Wages	20,467,333	6,771,146	5,780,514	3,218,044	236,578	2,066,311	2,404,740
Distribution	2,368,531	439,370	649,907	413,065	47,321	85,686	738,132
Construction	205,861	59,351	136,893				9,617
Other	332,842	68,342	99,486	25,465		3,775	135,774
Cost of materials, supplies, containers, fuel, purchased electric energy, and contract work, total	35,204,008	6,205,488	5,493,142	3,586,662	540,456	5,243,028	14,135,232
Materials, supplies, and containers	34,592,070	5,951,093	5,395,826	3,501,519	528,058	5,140,610	14,074,964
Fuel	256,727	121,929	78,193	36,190	1,016	3,743	15,651
Purchased electric energy	248,973	107,145	19,119	48,953	11,216	22,464	40,076
Contract work	106,238	25,321	4		166	76,206	4,541
Value of products	84,846,136	17,598,101	20,727,648	10,478,481	1,169,930	12,071,261	22,800,715
Value added by manufacture <sup>4</sup>	49,642,128	11,392,613	15,234,506	6,891,819	629,474	6,828,233	8,665,483

<sup>1</sup> California, 2 establishments; Indiana, 1; Michigan, 2; Ohio, 5; Oklahoma, 1; Pennsylvania, 3; Rhode Island, 1; Wisconsin, 1.

<sup>2</sup> See GENERAL EXPLANATIONS—Definition of establishment.

<sup>3</sup> See GENERAL EXPLANATIONS—Persons engaged—general classification.

<sup>4</sup> See GENERAL EXPLANATIONS—Wage earners and wages.

<sup>5</sup> Value of products less cost of materials, supplies, containers, fuel, purchased electric energy, and contract work. See GENERAL EXPLANATIONS—Value added by manufacture.

## CENSUS OF MANUFACTURES: 1939

TABLE 3.—VALUE OF PRODUCTS FOR THE UNITED STATES: 1939, 1937, AND 1929

	1939	1937	1929
Clocks, watches, and Materials and Parts (Except Watchcases) industry, all products, total value.....	\$84,846,136	\$97,933,776	\$77,467,111
Clocks, watches, and materials and parts made in this industry.....	79,702,246	92,758,981	(1)
Miscellaneous products.....	3,257,877	5,174,795	(1)
Receipts for contract and repair work and scrap and salable refuse. Other products (not classified in this industry).....	1,750,216 135,797		
Clocks, watches, and materials and parts, aggregate value.....	80,441,818	93,700,905	75,253,904
Made in this industry.....	79,702,246	92,758,981	(1)
Made as secondary products in other industries.....	739,572	941,924	(1)

1 No data.

2 Value of speedometers, tachometers, watchcases, etc.

TABLE 4.—PRODUCTS, BY KIND, QUANTITY, AND VALUE, FOR THE UNITED STATES: 1939, 1937, AND 1929

PRODUCT	1939	1937	1929	PRODUCT	1939	1937	1929
Aggregate value.....	\$80,441,818	\$93,700,905	\$75,253,904	Clock movements made for sale separately:			
Clocks, complete, for use as timepieces only:				Total number.....	1,324,234	1,441,801	907,714
Total number.....	15,895,530	16,416,314	(1)	Total value.....	\$1,587,045	\$1,754,575	\$2,303,465
Total value.....	\$22,869,681	\$24,658,477	\$25,512,288	Clock movements, complete, for use in time pieces only—			
Electric clocks—				Number.....	416,950	310,533	668,636
Total number.....	3,938,336	4,269,245	(1)	Value.....	\$443,594	\$274,710	\$729,935
Total value.....	\$10,451,028	\$12,651,716	\$5,193,243	Clock movements for use in recording instruments and gages, time stamps, time switches, time clocks, etc.—			
Frequency motor—				Number.....	907,275	1,131,268	239,078
Alarm—				Value.....	\$1,143,451	\$1,479,859	\$1,633,530
Number.....	929,336	734,494	(1)	Instruments and devices, complete, with clock-work mechanism:			
Value.....	\$2,057,724	\$1,694,281	(1)	Total number.....	117,595	475,216	176,693
Mantel—				Total value.....	\$2,959,453	\$4,284,125	\$6,950,294
Number.....	1,258,221	1,625,742	(1)	Time stamps, watchmen's clocks, time switches, time locks, interval timers, etc.—			
Value.....	\$3,031,356	\$3,675,262	(1)	Number.....	102,335	428,905	129,310
Wall—				Value.....	\$1,232,510	\$1,779,434	\$1,790,382
Number.....	699,496	516,575	(1)	Time-recording clocks:			
Value.....	\$1,058,772	\$1,552,712	(1)	Number.....	15,260	46,811	47,383
Other—				Value.....	\$1,726,943	\$2,504,691	\$5,159,912
Number.....	371,985	516,575	(1)	Clock materials and parts, including cases, for sale separately, value.....	\$973,112	\$933,030	\$1,071,430
Value.....	\$1,653,439	\$1,552,712	(1)	Watches, watch movements, and parts, except watchcases, total value.....	\$52,052,527	\$62,070,698	\$39,356,427
Motor-wound, including magnet-operated automobile clocks; master clocks (for electric clock systems) and magnet-operated secondary clocks—				Jeweled watches complete, and jeweled movements produced for sale, separately:			
Number.....	670,298	1,392,434	(1)	Total number.....	4,084,865	4,900,232	(1)
Value.....	\$2,649,737	\$5,729,461	(1)	Total value.....	\$43,104,233	\$50,148,059	(1)
Alarm clocks, except electric—				Movements produced and cases purchased (exclusive of jeweled clock movements)—			
Number.....	10,070,666	10,663,361	9,462,293	Number.....	1,345,893	(1)	(1)
Value.....	\$8,984,265	\$9,079,257	\$10,765,117	Value.....	\$19,163,800	(1)	(1)
Other clocks—				Both movements and cases purchased—			
Total number.....	1,856,528	1,483,708	2,386,284	Number.....	925,418	(1)	(1)
Total value.....	\$3,484,888	\$2,927,504	\$9,553,928	Value.....	\$10,182,419	(1)	(1)
With domestic movements—				Cases and movements produced by factory reporting; cases produced and movements purchased; and jeweled movements produced for sale separately—			
Total number.....	1,869,194	1,476,564	2,223,682	Number.....	1,813,554	(1)	(1)
Total value.....	\$3,175,811	\$2,854,445	\$8,358,042	Value.....	\$13,758,014	(1)	(1)
One-day clocks, including automobile—				Jeweled watches, complete, and jeweled movements, watch materials, and parts produced for sale as such, value.....			\$29,683,873
Number.....	1,532,232	1,011,169	970,522	Nonjeweled watches complete with cases:			
Value.....	\$1,672,622	\$1,193,109	\$2,319,197	Number.....	8,895,539	11,876,500	9,479,979
Eight-day clocks, except automobile and chime—				Value.....	\$7,597,136	\$10,395,029	\$9,672,554
Total number.....	308,367	444,677	1,186,875	Nonjeweled movements; watch materials and parts, except watchcases, value.....	\$1,351,158	\$1,527,610	(1)
Total value.....	\$1,071,645	\$1,387,430	\$5,012,880				
Mantel clocks—							
Number.....	161,034	(1)	(1)				
Value.....	\$718,114	(1)	(1)				
Wall clocks—							
Number.....	147,333	(1)	(1)				
Value.....	\$353,531	(1)	(1)				
Chime clocks—							
Number.....	28,595	20,718	66,285				
Value.....	\$431,544	\$273,906	\$1,025,965				
With imported movements—							
Number.....	17,334	7,144	162,602				
Value.....	\$308,577	\$73,059	\$1,195,886				

1 No comparable data.

TABLE 5.—WAGE EARNERS ENGAGED IN MANUFACTURING, BY MONTHS, FOR THE UNITED STATES, 1939, 1937, AND 1929, AND BY STATES, 1939

STATE	Average number employed during year	NUMBER RECEIVING PAY DURING NORMAL PAY-ROLL PERIOD ENDED NEAREST 15TH OF MONTH—											
		January	February	March	April	May	June	July	August	September	October	November	December
United States:													
1939.....	17, 878	16, 882	17, 238	17, 493	17, 472	17, 194	16, 751	17, 019	17, 776	18, 435	19, 069	19, 643	19, 559
1937.....	23, 223	22, 217	22, 608	23, 012	23, 128	23, 167	23, 094	23, 255	23, 640	24, 313	24, 342	23, 868	22, 030
1929.....	21, 450	21, 644	21, 511	21, 479	21, 301	21, 189	21, 131	21, 178	21, 360	21, 418	21, 846	21, 891	21, 454
Connecticut.....	6, 558	6, 434	6, 571	6, 586	6, 619	6, 404	5, 828	5, 924	6, 193	6, 610	6, 931	7, 309	7, 285
Illinois.....	4, 851	4, 852	4, 821	4, 833	4, 693	4, 620	4, 644	4, 714	4, 800	4, 909	5, 040	5, 152	5, 129
Massachusetts.....	2, 758	2, 122	2, 337	2, 523	2, 692	2, 725	2, 793	2, 819	2, 945	2, 926	3, 028	3, 114	3, 076
New Jersey.....	342	271	322	339	327	297	296	313	334	366	381	427	426
New York.....	1, 342	1, 265	1, 220	1, 230	1, 208	1, 252	1, 272	1, 255	1, 346	1, 446	1, 523	1, 555	1, 529
Ohio.....	182	157	157	157	149	143	149	189	201	196	230	233	222
Pennsylvania.....	1, 318	1, 315	1, 312	1, 305	1, 296	1, 309	1, 305	1, 325	1, 312	1, 312	1, 319	1, 345	1, 365

TABLE 6.—EXPENDITURES FOR PLANT AND EQUIPMENT: 1939

	1939
Number of establishments:	
Total for the industry.....	74
Reporting expenditures for plant and equipment.....	47
Value of products:	
Total for the industry.....	\$84, 846, 136
Reporting expenditures for plant and equipment.....	68, 507, 186
Expenditures for plant and equipment:	
Total for the industry.....	1, 341, 795
Expenditures for new construction or major alterations of buildings and other fixed plant and structures.....	65, 541
Expenditures for new machinery and operating equipment.....	1, 228, 573
Expenditures for plant and equipment acquired in a "used" condition from other owners and expenditures for land.....	47, 681

TABLE 7.—VALUE OF INVENTORIES OF MATERIALS AND FINISHED PRODUCTS, AND VALUE OF PRODUCTS: 1939 AND 1937

	1939	1937
Inventories:		
Beginning of year, total.....	\$20, 319, 490	\$20, 385, 071
Finished products.....	3, 957, 482	4, 541, 584
Materials, supplies, etc.....	16, 362, 008	15, 843, 487
End of year, total.....	20, 916, 510	25, 408, 497
Finished products.....	3, 805, 798	6, 709, 185
Materials, supplies, etc.....	17, 110, 712	18, 699, 312
Value of products for the industry, total.....	84, 846, 136	97, 933, 776
Value for establishments reporting inventories (includes value of products of establishments reporting no inventories on hand).....	84, 833, 837	95, 056, 100
Value for establishments not reporting inventories.....	12, 299	2, 877, 676

TABLE 8.—PRIME MOVERS, MOTORS, GENERATORS, AND ELECTRIC ENERGY: 1939 AND 1929

	1939	1929		1939	1929
Number of establishments.....	74	81	Prime movers—Continued.		
Number of establishments reporting power equipment.....	72	74	Prime movers, not driving generators—Continued.		
Prime movers, aggregate:			Steam engines—		
Number.....	25	41	Number.....	6	
Horsepower.....	12, 630	14, 581	Horsepower.....	1, 015	(*)
Prime movers, driving generators, total—			Steam turbines—		
Number.....	18	141	Number.....	1	
Horsepower.....	11, 365	14, 581	Horsepower.....	250	
Steam engines—			Generators, kilowatt rating, total.....	8, 290	9, 689
Number.....	14	134	Generators, driven by—		
Horsepower.....	7, 530	112, 191	Steam engines, kilowatt rating.....	5, 390	
Steam turbines—			Steam turbines, kilowatt rating.....	2, 825	(*)
Number.....	3	14	Hydroturbines and water wheels, kilowatt rating.....	45	
Horsepower.....	3, 775	12, 235	Generators, ordinarily idle (included above), kilowatt rating.....	3, 450	(*)
Diesel and semi-Diesel engines—			Electric motors, total:		
Number.....		11	Number.....	9, 296	6, 080
Horsepower.....		135	Horsepower.....	21, 981	18, 889
Other internal-combustion engines <sup>2</sup> —			Driven by purchased energy—		
Number.....			Number.....	5, 665	2, 369
Horsepower.....			Horsepower.....	12, 251	8, 213
Hydroturbines and water wheels—			Driven by energy generated in establishments reporting—		
Number.....	1	12	Number.....	3, 631	3, 711
Horsepower.....	60	1120	Horsepower.....	9, 730	10, 676
Prime movers, driving generators, ordinarily idle (included above), horsepower.....	4, 725		Electric energy (kilowatt-hours):		
Prime movers, not driving generators, total—		(*)	Generated in plant.....	7, 276, 557	(*)
Number.....	7		Purchased.....	12, 153, 769	6, 735, 247
Horsepower.....	1, 265				

<sup>1</sup>Includes data for prime movers not driving generators.  
<sup>2</sup>Gas, gasoline, etc.

<sup>3</sup>Not called for on schedule.  
<sup>4</sup>Data not available.

# WATCHCASES

[A preliminary report for this industry was issued December 4, 1940]

**Description of the industry.**—The establishments classified in this industry are engaged primarily in the manufacture of watchcases, *for sale as such*. Establishments that install purchased movements in cases of their own manufacture are assigned to the "Clocks, watches, and materials and parts (except watchcases)" industry, and their products are reported as watches.

**TABLE 1.—SUMMARY FOR THE UNITED STATES: 1899 TO 1939**

CENSUS YEAR	Number of establishments <sup>1</sup>	Wage earners (average for the year) <sup>2</sup>	Wages	Cost of materials, supplies, fuel, purchased electric energy, and contract work <sup>3</sup>	Value of products	Value added by manufacture <sup>4</sup>	Horse-power of prime movers
1899.....	42	2,409	\$2,939,759	\$3,987,367	\$9,791,605	\$5,804,238	1,150
1937.....	29	2,451	3,156,276	4,181,883	10,357,644	6,175,761	( <sup>5</sup> )
1935.....	29	2,016	2,328,602	2,776,494	6,982,892	4,206,398	( <sup>5</sup> )
1933.....	20	1,169	1,006,388	760,343	2,657,402	1,897,059	( <sup>5</sup> )
1931.....	31	1,669	1,766,749	1,361,195	4,219,133	2,857,938	( <sup>5</sup> )
1929.....	40	3,404	4,626,111	4,631,225	13,491,045	8,859,820	3,410
1927.....	40	3,360	4,326,393	5,310,674	13,724,703	8,414,029	2,717
1925.....	45	3,480	4,462,587	6,049,905	14,793,211	8,743,306	2,845
1923.....	57	4,325	5,414,232	7,498,768	17,817,046	10,318,278	( <sup>5</sup> )
1921.....	37	3,698	4,217,210	5,625,146	13,805,957	8,180,811	( <sup>5</sup> )
1919.....	33	3,900	4,000,727	8,205,754	19,618,773	11,413,019	3,294
1914.....	31	3,514	1,938,358	4,001,595	7,830,987	3,829,392	1,136
1909.....	29	4,569	2,428,262	5,034,377	10,514,854	5,480,477	( <sup>5</sup> )
1904.....	28	4,221	2,170,507	4,428,627	8,626,504	4,197,877	2,173
1899.....	30	3,907	1,924,847	4,393,647	7,783,960	3,390,313	1,570

<sup>1</sup> See GENERAL EXPLANATIONS—Definition of establishment.

<sup>2</sup> See GENERAL EXPLANATIONS—Wage earners and wages.

<sup>3</sup> Figures for years prior to 1935 do not include cost of contract work.

<sup>4</sup> Value of products less cost of materials, supplies, fuel, purchased electric energy, and contract work. See GENERAL EXPLANATIONS—Value added by manufacture.

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

<sup>6</sup> Data not available.

**TABLE 2.—GENERAL STATISTICS IN DETAIL BY STATES: 1939**

[See GENERAL EXPLANATIONS—Disclosure of data for individual establishments]

ITEM	United States	New York	Other States <sup>1</sup>
Number of establishments <sup>2</sup> .....	42	35	7
Proprietors and firm members.....	27	27	—
Persons reported by manufacturing establishments, total <sup>3</sup> .....	3,086	938	2,147
Salaried officers of corporations <sup>3</sup> .....	51	37	14
Manufacturing:			
Salaried employees <sup>3</sup> .....	349	79	270
Wage earners (average for the year) <sup>4</sup> .....	2,409	763	1,645
Distribution.....	188	59	129
Construction.....	41	—	41
Other.....	48	—	48
Salaries and wages, total <sup>3</sup> .....	\$4,297,603	\$1,508,811	\$2,788,792
Salaried officers <sup>3</sup> .....	344,915	207,143	137,772
Manufacturing:			
Salaries <sup>3</sup> .....	549,459	172,277	377,182
Wages.....	2,939,759	975,865	1,963,894
Distribution.....	352,775	153,626	199,249
Construction.....	55,197	—	55,197
Other.....	55,498	—	55,498
Cost of materials, supplies, containers, fuel, purchased electric energy, and contract work, total.....	3,987,367	1,829,517	2,157,850
Materials, supplies, and containers.....	3,805,838	1,776,089	2,029,749
Fuel.....	50,775	—	47,581
Purchased electric energy.....	68,466	26,272	42,194
Contract work.....	62,288	23,762	38,526
Value of products.....	9,791,605	4,048,671	5,742,934
Value added by manufacture <sup>5</sup> .....	5,804,238	2,219,154	3,585,084

<sup>1</sup> Connecticut, 2 establishments; Illinois, 1; Kentucky, 1; Michigan, 1; New Jersey, 1; Ohio, 1.

<sup>2</sup> See GENERAL EXPLANATIONS—Definition of establishment.

<sup>3</sup> See GENERAL EXPLANATIONS—Persons engaged—general classification.

<sup>4</sup> See GENERAL EXPLANATIONS—Wage earners and wages.

<sup>5</sup> Value of products less cost of materials, supplies, containers, fuel, purchased electric energy, and contract work. See GENERAL EXPLANATIONS—Value added by manufacture.

**TABLE 3.—VALUE OF PRODUCTS FOR THE UNITED STATES: 1939 AND 1937**

	1939	1937
Watchcases industry, all products, total value.....	\$9,791,605	\$10,357,644
Watchcases made in this industry.....	8,492,486	9,879,061
Miscellaneous products, not specified.....	1,016,009	—
Receipts for contract and repair work and scrap and salable refuse.....	174,873	478,583
Other products (not classified in this industry).....	1,088,237	—
Watchcases, total value.....	\$9,074,430	\$10,746,913
Made in this industry.....	8,492,486	9,879,061
Made as secondary products in other industries.....	581,944	867,852

<sup>1</sup> Value of clock cases, watch movements, and parts for watch movements.

**TABLE 4.—PRODUCTS, BY KIND, QUANTITY, AND VALUE, FOR THE UNITED STATES: 1939 AND 1937**

PRODUCT	1939	1937
Total value.....	\$9,074,430	\$10,746,913
Solid gold, platinum, or silver:		
Men's—		
Quantity reported—		
Number.....	69,357	55,459
Value.....	\$682,533	\$869,379
Quantity not reported, value.....	\$81,529	—
Women's—		
Quantity reported—		
Number.....	120,802	182,552
Value.....	\$841,912	\$1,276,655
Quantity not reported, value.....	\$290,343	—
Not specified, value.....	\$151,500	\$145,497
Gold-filled:		
Men's—		
Number.....	970,346	2,663,940
Value.....	\$2,158,417	\$2,791,829
Women's—		
Number.....	1,285,756	2,527,615
Value.....	\$1,623,069	\$1,971,645
Not specified.....	—	\$52,000
Base metals:		
Men's—		
Number.....	1,578,342	1,007,976
Value.....	\$1,055,254	\$516,898
Women's—		
Number.....	575,086	421,555
Value.....	\$308,643	\$177,971
Not specified, value.....	\$110,949	—
Other:		
Men's—		
Number.....	674,656	—
Value.....	\$672,843	—
Women's—		
Number.....	437,148	366,957
Value.....	\$380,438	\$370,678
Not reported by kind of metal, value.....	\$717,000	\$2,574,361

**TABLE 5.—WAGE EARNERS ENGAGED IN MANUFACTURING, BY MONTHS, FOR THE UNITED STATES, 1939, 1937, AND 1929, AND FOR NEW YORK, 1939**

STATE	Average number employed during year	NUMBER RECEIVING PAY DURING NORMAL PAY-ROLL PERIOD ENDED NEAREST 15TH OF MONTH—														
		January	February	March	April	May	June	July	August	September	October	November	December			
United States:																
1939.....	2,409	1,943	2,173	2,255	2,202	2,208	2,240	2,261	2,624	2,756	2,874	2,757	2,612	2,451	1,959	1,943
1937.....	2,451	1,959	2,162	2,322	2,328	2,440	2,419	2,242	2,537	2,715	2,882	2,846	2,565	2,409	2,016	2,016
1929.....	3,404	3,364	3,399	3,431	3,380	3,299	3,272	3,227	3,382	3,513	3,634	3,527	3,415	3,404	3,404	3,404
New York	763	613	655	709	689	684	695	674	835	910	1,009	860	823	763	763	763

TABLE 6.—EXPENDITURES FOR PLANT AND EQUIPMENT: 1939

	1939
Number of establishments:	
Total for the industry.....	42
Reporting expenditures for plant and equipment.....	23
Value of products:	
Total for the industry.....	\$9,791,605
Reporting expenditures for plant and equipment.....	7,998,451
Expenditures for plant and equipment:	
Total for the industry.....	202,177
Expenditures for new construction or major alterations of buildings and other fixed plant and structures.....	69,563
Expenditures for new machinery and operating equipment.....	130,972
Expenditures for plant and equipment acquired in a "used" condition from other owners and expenditures for land.....	1,642

TABLE 7.—VALUE OF INVENTORIES OF MATERIALS AND FINISHED PRODUCTS, AND VALUE OF PRODUCTS: 1939 AND 1937

	1939	1937
Inventories:		
Beginning of year, total.....	\$2,421,761	\$2,303,136
Finished products.....	701,478	578,538
Materials, supplies, etc.....	1,720,283	1,724,598
End of year, total.....	2,783,197	2,634,475
Finished products.....	759,292	817,454
Materials, supplies, etc.....	2,023,905	1,817,021
Value of products for the industry, total.....	9,791,605	10,357,644
Value for establishments reporting inventories (includes value of products of establishments reporting no inventories on hand).....	9,791,605	10,300,423
Value for establishments not reporting inventories.....		57,221

TABLE 8.—PRIME MOVERS, MOTORS, GENERATORS, AND ELECTRIC ENERGY: 1939 AND 1929

	1939	1929
Number of establishments.....	42	40
Number of establishments reporting power equipment.....	42	39
Prime movers, aggregate:		
Number.....	4	13
Horsepower.....	1,150	3,410
Prime movers, driving generators, total—		
Number.....	4	13
Horsepower.....	1,150	3,410
Steam engines—		
Number.....	2	18
Horsepower.....	900	12,800
Steam turbines—		
Number.....		1
Horsepower.....		150
Diesel and semi-Diesel engines—		
Number.....	1	
Horsepower.....	200	14
Other internal-combustion engines <sup>2</sup> —		
Number.....	1	1580
Horsepower.....	50	
Generators, kilowatt rating, total.....	760	1,950
Generators, driven by—		
Steam engines, kilowatt rating.....	600	
Diesel and semi-Diesel engines, kilowatt rating.....	125	
Other internal-combustion engines, <sup>2</sup> kilowatt rating.....	35	( <sup>3</sup> )
Electric motors, total:		
Number.....	2,478	1,467
Horsepower.....	4,680	4,896
Driven by purchased energy—		
Number.....	2,068	775
Horsepower.....	3,647	2,171
Driven by energy generated in establishments reporting—		
Number.....	410	692
Horsepower.....	1,033	2,725
Electric energy (kilowatt-hours):		
Generated in plant.....	944,710	( <sup>4</sup> )
Purchased.....	2,603,332	1,580,690

<sup>1</sup> Includes data for prime movers not driving generators.

<sup>2</sup> Gas, gasoline, etc.

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

<sup>4</sup> Data not available.

## JEWELRY (PRECIOUS METALS)

[A preliminary report for this industry was issued December 28, 1940]

**Description of the industry.**—The Jewelry industry embraces establishments engaged primarily in manufacturing articles chiefly for personal adornment, but it also includes related products such as cigarette cases and lighters, compacts, vanity cases, novelties, trophies, religious articles, chains, dress and bag ornaments, etc., made of precious and semiprecious metals, plain, engraved, or chased, and with or without precious or semiprecious stones.

Because of changes in classification for 1939, confining the products of the Jewelry industry to precious and semiprecious metals—gold, platinum, gold-filled, rolled gold-plated, and silver—a number of establishments whose figures were included in the reports for prior years were transferred to other industry classifications (principally to the "Costume jewelry and

costume novelties (jewelry other than fine jewelry)" industry. The figures for 1937 have been revised accordingly.

TABLE 1.—SUMMARY FOR THE UNITED STATES: 1939 AND 1937

CENSUS YEAR	Number of establishments <sup>1</sup>	Wage earners (average for the year) <sup>2</sup>	Wages	Cost of materials, supplies, fuel, purchased electric energy, and contract work	Value of products	Value added by manufacture <sup>3</sup>	Horsepower of prime movers
1939.....	886	11,358	\$14,243,142	\$34,596,938	\$71,418,667	\$36,821,729	517
1937 <sup>4</sup> .....	789	11,077	14,737,298	33,511,737	69,525,850	36,014,143	(*)

<sup>1</sup> See GENERAL EXPLANATIONS—Definition of establishment.

<sup>2</sup> See GENERAL EXPLANATIONS—Wage earners and wages.

<sup>3</sup> Value of products less cost of materials, supplies, fuel, purchased electric energy, and contract work. See GENERAL EXPLANATIONS—Value added by manufacture.

<sup>4</sup> No comparable figures for prior census years are available.

\* Not called for on schedule.

TABLE 2.—GENERAL STATISTICS IN DETAIL BY STATES: 1939

[See GENERAL EXPLANATIONS—Disclosure of data for individual establishments]

ITEM	United States	California	Colorado	District of Columbia	Illinois	Indiana	Louisiana	Maryland
Number of establishments <sup>1</sup> .....	886	66	5	3	48	8	4	7
Proprietors and firm members.....	761	80	6	3	26	5	.....	9
Persons reported by manufacturing establishments, total <sup>2</sup> .....	15,058	513	50	13	815	462	57	73
Salaried officers of corporations <sup>2</sup> .....	622	14	.....	2	58	8	.....	9
Manufacturing:								
Salaried employees <sup>3</sup> .....	1,824	76	4	1	48	136	6	5
Wage earners (average for the year) <sup>3</sup> .....	11,358	394	44	9	584	308	50	51
Distribution.....	1,188	22	2	1	124	9	1	8
Construction.....	16	.....	.....	.....	.....	.....	.....	.....
Other.....	50	7	.....	.....	1	.....	.....	.....
Salaries and wages, total <sup>2</sup> .....	\$22,387,525	\$858,730	\$46,430	\$24,452	\$1,206,111	\$817,566	\$65,238	\$98,804
Salaried officers <sup>2</sup> .....	3,038,214	48,669	.....	7,770	207,938	123,080	.....	25,187
Manufacturing:								
Salaries <sup>2</sup> .....	2,785,467	92,295	3,749	1,560	82,852	201,948	9,160	4,859
Wages.....	14,243,142	681,459	42,518	14,342	747,254	462,784	55,678	58,208
Distribution.....	2,247,727	31,203	163	780	167,443	23,289	400	10,550
Construction.....	29,003	.....	.....	.....	.....	1,465	.....	.....
Other.....	43,972	5,104	.....	.....	624	.....	.....	.....
Cost of materials, supplies, containers, fuel, purchased electric energy, and contract work, total.....	34,596,938	914,603	59,419	16,700	1,939,360	1,126,069	54,950	167,912
Materials, supplies, and containers.....	33,046,756	858,606	57,940	16,700	1,901,106	1,060,715	53,008	163,315
Fuel.....	108,159	2,133	374	.....	3,950	3,469	441	1,068
Purchased electric energy.....	252,323	5,181	817	.....	17,574	7,195	1,501	1,590
Contract work.....	1,189,700	48,683	288	.....	16,724	54,690	.....	1,939
Value of products.....	71,418,667	2,249,617	150,832	64,484	3,612,007	2,666,707	160,218	327,640
Value added by manufacture <sup>4</sup> .....	36,821,729	1,335,014	91,413	47,784	1,672,647	1,540,638	105,268	159,728

See footnotes at end of table.

JEWELRY (PRECIOUS METALS)

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TABLE 2.—GENERAL STATISTICS IN DETAIL BY STATES: 1939—Continued

ITEM	Massachu- setts	Michigan	Minnesota	Missouri	New Jersey	New York	Ohio	Oregon
Number of establishments <sup>1</sup> .....	48	11	10	16	65	402	30	6
Proprietors and firm members.....	18	7	9	19	32	376	29	7
Persons reported by manufacturing establishments, total <sup>2</sup> .....	2,314	153	351	234	2,044	3,624	360	37
Salaried officers of corporations <sup>3</sup> .....	49	9	14	13	88	244	16	-----
Manufacturing:								
Salaried employees <sup>2</sup> .....	366	16	7	29	291	370	23	4
Wage earners (average for the year) <sup>3</sup> .....	1,840	97	227	157	1,531	2,598	254	32
Distribution.....	47	29	98	34	126	399	59	1
Construction.....	6	2	2	1	8	13	2	-----
Other.....	6	2	3	1	8	13	2	-----
Salaries and wages, total <sup>2</sup> .....	\$3,159,250	\$295,515	\$622,090	\$323,105	\$3,347,881	\$6,302,715	\$496,358	\$44,402
Salaried officers <sup>2</sup> .....	283,346	40,298	106,898	36,976	606,151	1,023,077	53,366	-----
Manufacturing:								
Salaries <sup>2</sup> .....	492,093	31,478	22,807	45,923	477,752	606,371	41,549	3,401
Wages.....	2,212,140	153,033	353,087	188,484	1,854,764	3,917,843	312,542	40,169
Distribution.....	149,992	68,155	133,453	51,186	370,776	744,828	85,620	832
Construction.....	13,050	-----	2,530	-----	-----	-----	1,892	-----
Other.....	8,659	2,551	2,415	536	8,438	10,596	1,389	-----
Cost of materials, supplies, containers, fuel, purchased electric energy, and contract work, total.....	3,418,691	488,554	715,711	388,078	3,737,828	13,818,577	829,454	55,277
Materials, supplies, and containers.....	3,262,440	481,398	705,051	364,985	3,662,185	12,998,760	814,471	48,228
Fuel.....	30,311	1,058	1,147	631	17,477	17,635	1,700	169
Purchased electric energy.....	25,106	2,619	7,250	3,374	30,751	68,783	6,137	208
Contract work.....	100,825	3,483	2,263	19,088	27,415	733,409	7,146	6,672
Value of products.....	8,092,525	1,006,241	1,888,740	939,041	8,604,647	25,053,038	1,680,546	117,489
Value added by manufacture <sup>4</sup> .....	4,673,834	517,687	1,173,029	550,963	4,866,819	11,234,461	851,092	62,212

  

ITEM	Pennsylvania	Rhode Island	South Dakota	Texas	Utah	Washington	Wisconsin	Other States <sup>1</sup>
Number of establishments <sup>1</sup> .....	40	64	3	8	5	10	8	19
Proprietors and firm members.....	45	39	4	5	4	12	8	18
Persons reported by manufacturing establishments, total <sup>2</sup> .....	412	3,021	17	112	32	53	60	251
Salaried officers of corporations <sup>2</sup> .....	9	76	-----	-----	-----	-----	5	8
Manufacturing:								
Salaried employees <sup>2</sup> .....	55	304	1	17	12	5	9	34
Wage earners (average for the year) <sup>3</sup> .....	308	2,492	14	90	19	41	43	175
Distribution.....	38	142	2	5	1	7	3	30
Construction.....	6	-----	-----	-----	-----	-----	-----	-----
Other.....	2	1	-----	-----	-----	-----	-----	4
Salaries and wages, total <sup>2</sup> .....	\$555,815	\$3,518,749	\$17,492	\$150,540	\$24,643	\$70,037	\$78,305	\$263,297
Salaried officers <sup>2</sup> .....	50,375	391,533	-----	-----	-----	-----	8,403	25,147
Manufacturing:								
Salaries <sup>2</sup> .....	78,475	489,964	1,003	33,072	8,016	5,473	11,726	39,941
Wages.....	343,260	2,353,299	13,477	112,327	15,981	59,188	54,788	165,917
Distribution.....	82,569	273,215	3,012	5,141	646	5,376	3,388	30,740
Construction.....	9,766	-----	-----	-----	-----	-----	-----	-----
Other.....	1,136	972	-----	-----	-----	-----	-----	1,552
Cost of materials, supplies, containers, fuel, purchased electric energy, and contract work, total.....	875,294	5,273,025	27,477	282,559	31,469	67,936	58,228	249,767
Materials, supplies, and containers.....	841,256	5,058,188	26,588	279,915	29,839	63,573	53,474	245,018
Fuel.....	2,392	20,877	182	555	279	394	1,042	871
Purchased electric energy.....	7,397	57,414	707	2,089	1,351	721	1,194	3,364
Contract work.....	24,249	136,546	-----	-----	-----	3,248	2,518	514
Value of products.....	1,806,171	11,169,678	73,241	521,350	93,077	174,763	168,292	798,323
Value added by manufacture <sup>4</sup> .....	930,877	5,896,653	45,764	238,791	61,608	106,827	110,064	548,556

<sup>1</sup> See GENERAL EXPLANATIONS—Definition of establishment.  
<sup>2</sup> See GENERAL EXPLANATIONS—Persons engaged—general classification.  
<sup>3</sup> See GENERAL EXPLANATIONS—Wage earners and wages.  
<sup>4</sup> Value of products less cost of materials, supplies, containers, fuel, purchased electric energy, and contract work. See GENERAL EXPLANATIONS—Value added by manufacture.  
<sup>5</sup> Connecticut, 2 establishments; Florida, 1; Georgia, 2; Iowa, 3; Kansas, 1; Kentucky, 2; Maine, 1; Montana, 1; Nebraska, 2; Nevada, 1; New Mexico, 2; Oklahoma, 1.

TABLE 3.—VALUE OF PRODUCTS FOR THE UNITED STATES: 1939 AND 1937

	1939	1937
Jewelry (Precious Metals) industry, all products, total value.....	\$71,418,667	\$69,525,880
Jewelry (precious metals) made in this industry.....	59,780,260	60,069,973
Miscellaneous products not specified.....	2,390,316	-----
Receipts for contract and repair work and scrap and salable refuse.....	3,514,310	9,455,907
Other products (not classified in this industry).....	5,733,781	-----
Jewelry (precious metals), aggregate value.....	62,159,668	63,497,388
Jewelry (precious metals) made in this industry.....	59,780,260	60,069,973
Jewelry (precious metals) made as secondary products in other industries.....	2,390,408	3,427,415

<sup>1</sup> Value of nonprecious jewelry, jewelers' findings and materials, etc.

TABLE 4.—PRODUCTS, BY KIND AND VALUE, FOR THE UNITED STATES: 1939 AND 1937

PRODUCT	1939			1937
	Produced in the industry	Produced in other industries	Aggregate	
Total value.....	\$59,760,260	\$2,399,408	\$62,159,668	\$63,497,888
Rings, total.....	23,860,791	774,704	29,635,495	30,834,353
Platinum (solid).....	8,109,866	8,320	8,118,186	9,452,160
Gold (solid).....	19,300,613	479,912	19,780,525	19,833,567
Gold-filled and rolled gold-plated.....	553,936	127,411	681,347	449,739
Silver (sterling).....	896,376	159,061	1,055,437	1,098,887
Men's jewelry (collar and cuff buttons, studs, watch chains, bracelets, tie holders, etc.), total.....	4,671,630	336,786	5,008,416	3,481,083
Platinum (solid).....	235,909	500	236,409	213,645
Gold (solid).....	2,304,243	104,032	2,408,275	979,390
Gold-filled and rolled gold-plated.....	1,834,365	58,423	1,892,788	1,987,459
Silver (sterling).....	297,113	173,831	470,944	300,589
Fraternal, college, and school jewelry, and emblems, total.....	8,013,144	359,807	8,372,951	7,872,396
Platinum (solid).....	98,358	6,862	105,220	209,792
Gold (solid).....	5,175,019	220,247	5,395,266	4,873,396
Gold-filled and rolled gold-plated.....	2,119,868	100,373	2,220,241	1,674,539
Silver (sterling).....	619,899	32,325	652,224	614,169
Other jewelry (bracelets, brooches, necklaces, earrings, etc.), total.....	15,356,853	624,462	15,981,315	16,660,057
Platinum (solid).....	4,412,588	-----	4,412,588	6,237,069
Gold (solid).....	3,625,846	197,687	3,823,533	3,575,976
Gold-filled and rolled gold-plated.....	6,120,116	304,177	6,424,293	5,082,203
Silver (sterling).....	1,198,303	122,598	1,320,901	1,764,809
Other articles (cigarette cases and lighters, compacts, vanity cases, etc.), total.....	1,789,295	114,005	1,903,300	1,696,537
Platinum (solid).....	28,424	2,900	31,324	28,509
Gold (solid).....	488,030	16,945	504,975	392,414
Gold-filled and rolled gold-plated.....	979,840	74,000	1,053,840	984,284
Silver (sterling).....	293,001	20,160	313,161	291,330
Precious metal jewelry not reported separately by kind.....	1,068,547	189,644	1,258,191	3,452,962

TABLE 5.—WAGE EARNERS ENGAGED IN MANUFACTURING, BY MONTHS, FOR THE UNITED STATES, 1939 AND 1937, AND BY STATES, 1939

STATE	Average number employed during year	NUMBER RECEIVING PAY DURING NORMAL PAY-ROLL PERIOD ENDED NEAREST 15TH OF MONTH—											
		January	February	March	April	May	June	July	August	September	October	November	December
United States: 1939.....	11,358	10,974	11,203	11,184	10,875	10,678	10,813	10,666	11,329	11,832	12,143	12,564	12,034
1937.....	11,077	10,587	10,733	10,733	10,757	10,841	10,919	10,762	11,171	11,796	12,053	11,590	10,976
California.....	394	371	377	378	381	384	400	406	408	412	414	406	391
Colorado.....	44	41	41	41	42	42	43	44	47	47	47	47	47
District of Columbia.....	9	9	9	9	9	9	9	9	9	9	9	9	9
Illinois.....	584	505	481	489	518	563	583	588	586	587	628	729	748
Indiana.....	308	309	290	296	300	305	305	297	304	305	317	338	325
Iowa.....	19	19	19	19	19	19	19	19	19	19	19	21	21
Louisiana.....	50	50	50	50	50	50	50	50	50	50	50	50	50
Maryland.....	51	51	51	50	51	51	51	50	50	53	50	51	51
Massachusetts.....	1,840	1,786	1,826	1,802	1,773	1,747	1,768	1,762	1,853	1,911	1,974	2,027	1,848
Michigan.....	97	94	97	97	98	98	96	89	94	99	101	100	101
Minnesota.....	227	221	224	224	227	222	221	221	227	227	227	235	249
Missouri.....	157	156	153	157	156	155	156	154	158	162	155	158	163
New Jersey.....	1,531	1,437	1,458	1,484	1,422	1,450	1,484	1,481	1,528	1,604	1,705	1,714	1,629
New York.....	2,598	2,453	2,582	2,627	2,553	2,457	2,491	2,320	2,544	2,707	2,857	2,830	2,761
Ohio.....	254	249	249	247	249	250	252	250	256	255	261	263	267
Oregon.....	32	36	35	35	34	34	34	26	25	28	34	34	34
Pennsylvania.....	308	337	322	323	297	290	292	279	294	307	318	310	321
Rhode Island.....	2,492	2,513	2,617	2,557	2,382	2,235	2,248	2,250	2,484	2,658	2,562	2,819	2,585
South Dakota.....	14	14	14	14	14	14	14	14	14	14	14	14	14
Texas.....	90	89	82	80	78	78	52	89	97	96	117	111	111
Utah.....	19	19	19	19	20	20	20	19	18	18	20	19	19
Washington.....	41	42	42	41	41	40	40	40	40	41	41	41	44
Wisconsin.....	43	43	43	43	44	43	43	41	41	43	41	42	44

TABLE 6.—EXPENDITURES FOR PLANT AND EQUIPMENT: 1939

	1939
<b>Number of establishments:</b>	
Total for the industry.....	886
Reporting expenditures for plant and equipment.....	247
<b>Value of products:</b>	
Total for the industry.....	\$71, 418, 667
Reporting expenditures for plant and equipment.....	40, 955, 083
<b>Expenditures for plant and equipment:</b>	
Total for the industry.....	447, 050
Expenditures for new construction or major alterations of buildings and other fixed plant and structures.....	138, 834
Expenditures for new machinery and operating equipment.....	272, 651
Expenditures for plant and equipment acquired in a "used" condition from other owners and expenditures for land.....	35, 565

TABLE 7.—VALUE OF INVENTORIES OF MATERIALS AND FINISHED PRODUCTS, AND VALUE OF PRODUCTS: 1939 AND 1937

	1939	1937
<b>Inventories:</b>		
Beginning of year, total.....	\$17, 341, 190	\$15, 570, 153
Finished products.....	10, 649, 540	9, 989, 665
Materials, supplies, etc.....	6, 691, 650	5, 580, 488
End of year, total.....	18, 968, 222	16, 379, 315
Finished products.....	11, 093, 762	10, 814, 472
Materials, supplies, etc.....	7, 872, 460	5, 564, 843
<b>Value of products for the industry, total.....</b>	<b>71, 418, 667</b>	<b>69, 525, 880</b>
Value for establishments reporting inventories (includes value of products of establishments reporting no inventories on hand).....	70, 747, 957	64, 353, 974
Value for establishments not reporting inventories.....	670, 710	5, 171, 906

TABLE 8.—PRIME MOVERS, MOTORS, GENERATORS, AND ELECTRIC ENERGY: 1939 <sup>1</sup>

	1939
Number of establishments.....	886
Number of establishments reporting power equipment.....	883
<b>Prime movers, aggregate:</b>	
Number.....	15
Horsepower.....	517
<b>Prime movers, driving generators, total—</b>	
Number.....	9
Horsepower.....	465
<b>Steam engines—</b>	
Number.....	4
Horsepower.....	255
<b>Steam turbines—</b>	
Number.....	1
Horsepower.....	130
<b>Internal-combustion engines, other than Diesel and semi-Diesel <sup>2</sup>—</b>	
Number.....	3
Horsepower.....	60
Hydroturbines and water wheels—	
Number.....	1
Horsepower.....	20
Prime movers, driving generators, ordinarily idle (included above), horsepower.....	115
<b>Prime movers not driving generators, steam engines—</b>	
Number.....	6
Horsepower.....	52
<b>Generators, kilowatt rating, total.....</b>	<b>262</b>
Generators, driven by—	
Steam engines, kilowatt rating.....	123
Steam turbines, kilowatt rating.....	90
Internal-combustion engines, <sup>2</sup> other than Diesel and semi-Diesel, kilowatt rating.....	35
Hydroturbines and water wheels, kilowatt rating.....	14
Generators, ordinarily idle (included above), kilowatt rating.....	65
<b>Electric motors, total:</b>	
Number.....	7, 776
Horsepower.....	8, 537
<b>Driven by purchased energy—</b>	
Number.....	7, 682
Horsepower.....	8, 389
<b>Driven by energy generated in establishments reporting—</b>	
Number.....	94
Horsepower.....	148
<b>Electric energy (kilowatt-hours):</b>	
Generated in plant.....	230, 404
Purchased.....	6, 833, 682

<sup>1</sup> Comparable data for 1929 not available.

<sup>2</sup> Gas, gasoline, etc.

## JEWELERS' FINDINGS AND MATERIALS

[A preliminary report for this industry was issued December 28, 1940]

**Description of the industry.**—This industry covers the manufacture of jewelers' findings—unassembled parts except gems and stones—and jewelers' materials or stock-shop products.

**TABLE 1.—SUMMARY FOR THE UNITED STATES: 1931 TO 1939**

CENSUS YEAR.	Number of establishments <sup>1</sup>	Wage earners (average for the year) <sup>2</sup>	Wages	Cost of materials, supplies, fuel, purchased electric energy, and contract work <sup>3</sup>	Value of products	Value added by manufacture <sup>4</sup>	Horse-power of prime movers
1939	82	2,813	\$2,974,875	\$14,493,387	\$22,488,960	\$7,995,573	—
1937	71	2,470	3,001,845	14,574,315	21,683,664	7,109,349	( <sup>5</sup> )
1935	73	2,669	2,728,445	10,991,209	17,170,409	6,179,260	( <sup>5</sup> )
1933	60	1,811	1,934,012	5,503,051	9,249,919	3,746,868	( <sup>5</sup> )
1931 <sup>7</sup>	99	1,899	2,343,295	7,120,906	11,975,592	4,854,686	( <sup>5</sup> )

<sup>1</sup> See GENERAL EXPLANATIONS—Definition of establishment.  
<sup>2</sup> See GENERAL EXPLANATIONS—Wage earners and wages.  
<sup>3</sup> Figures for years prior to 1935 do not include cost of contract work.  
<sup>4</sup> Value of products less cost of materials, supplies, fuel, purchased electric energy, and contract work. See GENERAL EXPLANATIONS—Value added by manufacture.  
<sup>5</sup> Not called for on schedule.  
<sup>6</sup> Data not available.  
<sup>7</sup> No data for years prior to 1931.

**TABLE 2.—GENERAL STATISTICS IN DETAIL BY STATES: 1939**

ITEM	United States	Massachusetts	New Jersey	New York	Rhode Island
Number of establishments <sup>1</sup> .....	82	20	7	12	43
Proprietors and firm members...	49	11	4	8	26

**TABLE 2.—GENERAL STATISTICS IN DETAIL BY STATES: 1939—Continued**

ITEM	United States	Massachusetts	New Jersey	New York	Rhode Island
Persons reported by manufacturing establishments, total <sup>2</sup> .....	3,412	949	330	259	1,874
Salaried officers of corporations <sup>2</sup> .....	94	21	7	13	53
Manufacturing: Salaried employees <sup>2</sup> .....	306	87	23	18	178
Wage earners (average for the year) <sup>3</sup> .....	2,813	813	265	193	1,542
Distribution.....	189	26	35	31	97
Construction.....	4	2	—	—	2
Other.....	6	—	—	4	2
Salaries and wages, total <sup>2</sup> .....	\$4,790,440	\$1,596,748	\$536,387	\$466,138	\$2,191,167
Salaried officers <sup>2</sup> .....	791,128	218,176	76,732	92,052	404,168
Manufacturing: Salaries <sup>2</sup> .....	618,979	255,402	45,415	39,657	278,505
Wages.....	2,974,875	1,034,057	361,349	255,548	1,323,921
Distribution.....	392,444	83,558	52,891	76,881	179,114
Construction.....	8,226	5,555	—	—	2,671
Other.....	4,788	—	—	2,000	2,788
Cost of materials, supplies, containers, fuel, purchased electric energy, and contract work, total.....	14,493,387	7,183,707	1,722,042	1,806,080	3,780,958
Materials, supplies, and containers.....	14,129,559	7,040,844	1,689,557	1,728,631	3,670,527
Fuel.....	61,818	24,081	6,719	2,532	28,486
Purchased electric energy.....	116,579	51,605	8,430	9,530	47,014
Contract work.....	185,431	67,177	17,336	65,987	34,931
Value of products.....	22,488,960	9,903,104	2,507,388	2,648,852	7,429,616
Value added by manufacture <sup>4</sup> .....	7,995,573	2,719,397	785,346	842,172	3,648,658

<sup>1</sup> See GENERAL EXPLANATIONS—Definition of establishment.  
<sup>2</sup> See GENERAL EXPLANATIONS—Persons engaged—general classification.  
<sup>3</sup> See GENERAL EXPLANATIONS—Wage earners and wages.  
<sup>4</sup> Value of products less cost of materials, supplies, containers, fuel, purchased electric energy, and contract work. See GENERAL EXPLANATIONS—Value added by manufacture.

**TABLE 3.—VALUE OF PRODUCTS FOR THE UNITED STATES: 1939 AND 1937**

	1939	1937
Jewelers' Findings and Materials industry, all products, total value.....	\$22,488,960	\$21,683,664
Jewelers' findings and materials made in this industry.....	20,946,176	19,771,236
Miscellaneous products not specified.....	552,763	—
Receipts for contract and repair work and scrap and salable refuse.....	232,890	1,912,428
Other products (not classified in this industry).....	1,757,125	—
Jewelers' findings and materials, aggregate value.....	22,296,395	20,537,291
Made in this industry.....	20,946,176	19,771,236
Made as secondary products in other industries.....	1,350,219	766,055
Findings (unassembled parts, except gems, stones, and stock-shop products).....	9,187,604	7,234,960
Materials, other than findings.....	13,108,791	13,302,331

<sup>1</sup> Chiefly value of jewelry.

**TABLE 4.—PRODUCTS, BY KIND, QUANTITY, AND VALUE, FOR THE UNITED STATES: 1939 AND 1937**

All data on production are included in table 3.

TABLE 5.—WAGE EARNERS ENGAGED IN MANUFACTURING, BY MONTHS, FOR THE UNITED STATES, 1939 AND 1937, AND BY STATES, 1939

STATE	Average number employed during year	NUMBER RECEIVING PAY DURING NORMAL PAY-ROLL PERIOD ENDED NEAREST 15TH OF MONTH—											
		January	February	March	April	May	June	July	August	September	October	November	December
United States:													
1939.....	2, 813	2, 627	2, 580	2, 597	2, 525	2, 540	2, 572	2, 625	2, 881	3, 120	3, 354	3, 295	3, 042
1937.....	2, 470	2, 254	2, 295	2, 382	2, 380	2, 389	2, 386	2, 432	2, 618	2, 674	2, 752	2, 666	2, 411
Massachusetts.....	813	748	754	768	762	702	769	772	841	851	913	928	890
New Jersey.....	265	254	260	268	267	260	250	257	271	276	275	270	274
New York.....	193	173	175	171	175	176	179	171	194	209	252	238	201
Rhode Island.....	1, 542	1, 452	1, 391	1, 390	1, 321	1, 342	1, 374	1, 425	1, 575	1, 784	1, 914	1, 859	1, 677

TABLE 6.—EXPENDITURES FOR PLANT AND EQUIPMENT: 1939

	1939
Number of establishments:	
Total for the industry.....	82
Reporting expenditures for plant and equipment.....	51
Value of products:	
Total for the industry.....	\$22, 488, 960
Reporting expenditures for plant and equipment.....	20, 236, 662
Expenditures for plant and equipment:	
Total for the industry.....	319, 175
Expenditures for new construction or major alterations of buildings and other fixed plant and structures.....	72, 145
Expenditures for new machinery and operating equipment.....	216, 113
Expenditures for plant and equipment acquired in a "used" condition from other owners and expenditures for land.....	30, 917

TABLE 7.—VALUE OF INVENTORIES OF MATERIALS AND FINISHED PRODUCTS, AND VALUE OF PRODUCTS: 1939 AND 1937

	1939	1937
Inventories:		
Beginning of year, total.....	\$2, 952, 057	\$3, 633, 044
Finished products.....	898, 791	1, 529, 927
Materials, supplies, etc.....	2, 053, 266	2, 103, 117

TABLE 7.—VALUE OF INVENTORIES OF MATERIALS AND FINISHED PRODUCTS, AND VALUE OF PRODUCTS: 1939 AND 1937—Con.

	1939	1937
Inventories—Continued.		
End of year, total.....	\$3, 328, 040	\$3, 300, 597
Finished products.....	924, 371	1, 393, 324
Materials, supplies, etc.....	2, 403, 669	1, 907, 273
Value of products for the industry, total.....	22, 488, 960	21, 683, 664
Value for establishments reporting inventories (includes value of products of establishments reporting no inventories on hand).....	22, 488, 960	21, 314, 320
Value for establishments not reporting inventories.....		369, 344

TABLE 8.—POWER—ELECTRIC MOTORS AND ELECTRIC ENERGY PURCHASED: 1939<sup>1</sup>

	1939
Number of establishments.....	82
Number of establishments reporting power equipment.....	81
Electric motors driven by purchased energy:	
Number.....	1, 266
Horsepower.....	5, 053
Electric energy purchased (kilowatt-hours).....	4, 031, 005

<sup>1</sup> Comparable data for 1929 not available.

# LAPIDARY WORK

[A preliminary report for this industry was issued December 31, 1940]

**Description of the industry.**—This industry embraces establishments engaged primarily in the cutting, recutting, polishing, and setting of diamonds and other precious and semiprecious stones, the drilling of pearls, the preparation of jewels for watches and chronometers and for surveyors' instruments, and the preparation of real and imitation stones for emblems. This work is done to some extent on a contract basis on materials owned by others, and the establishments that operate on this basis report their receipts for work done as "Value of products." Some jewelry manufacturers cut stones for their own use, but do not report the value of such work separately; consequently some overlapping occurs between the "Jewelry (precious metals)" and "Lapidary work" industries.

TABLE 1.—SUMMARY FOR THE UNITED STATES: 1899 TO 1939

CENSUS YEAR	Number of establishments <sup>1</sup>	Wage earners (average for the year) <sup>2</sup>	Wages	Cost of materials, supplies, fuel, purchased electric energy, and contract work <sup>3</sup>	Value of products	Value added by manufacture <sup>4</sup>	Horsepower of prime movers
1899	90	267	\$390,556	\$3,755,337	\$5,128,926	\$1,373,589	
1907	51	217	306,118	3,343,049	4,390,587	1,047,538	(5)
1915	60	153	200,787	1,243,756	2,049,813	806,057	(6)
1923	34	107	124,428	483,058	822,873	339,815	(5)
1931	53	205	339,503	1,378,233	2,474,998	1,096,765	(5)
1929	100	506	1,001,706	8,234,889	11,942,421	3,707,532	5
1927	92	547	1,220,647	9,133,050	12,351,503	3,218,444	13
1925	83	589	1,284,991	7,272,868	10,122,732	2,849,914	3
1923	87	644	1,286,291	5,887,061	9,129,842	3,242,781	(5)
1921	64	399	737,922	2,840,309	4,345,214	1,504,905	(6)
1919	124	1,155	2,837,811	19,363,004	30,051,460	10,688,456	6
1914	89	584	641,444	3,940,761	5,360,064	1,419,303	9
1909	77	627	889,485	6,560,449	9,172,332	2,612,383	(5)
1904	54	607	656,627	6,223,675	7,646,814	1,423,139	(6)
1899	60	498	498,715	4,655,765	5,786,281	1,130,516	(6)

<sup>1</sup> See GENERAL EXPLANATIONS—Definition of establishment.  
<sup>2</sup> See GENERAL EXPLANATIONS—Wage earners and wages.  
<sup>3</sup> The figures for years prior to 1935 do not include cost of contract work.  
<sup>4</sup> Value of products less cost of materials, supplies, fuel, purchased electric energy, and contract work. See GENERAL EXPLANATIONS—Value added by manufacture.  
<sup>5</sup> Not called for on schedule. <sup>6</sup> Data not available.

TABLE 2.—GENERAL STATISTICS IN DETAIL BY STATES: 1939

[See GENERAL EXPLANATIONS—Disclosure of data for individual establishments]

ITEM	United States	California	Illinois	New York	Pennsylvania	Other States <sup>1</sup>
Number of establishments <sup>2</sup>	90	5	6	63	7	9
Proprietors and firm members	132	10	4	99	9	10
Persons reported by manufacturing establishments, total <sup>3</sup>	317	7	19	170	14	107
Salaried officers of corporations <sup>3</sup>	18		5	6		7
Manufacturing:						
Salaried employees <sup>3</sup>	20	1		9		10
Wage earners (average for the year) <sup>4</sup>	267	5	12	150	14	85
Distribution	8		2	4		2
Construction						
Other	4	1		1		2
Salaries and wages, total <sup>5</sup>	\$490,366	\$11,941	\$34,691	\$305,799	\$20,879	\$117,056
Salaried officers <sup>3</sup>	49,950		12,912	17,605		19,438
Manufacturing:						
Salaries <sup>3</sup>	26,328	936		9,803		15,589
Wages	390,556	10,183	18,971	273,510	20,879	67,013
Distribution	19,894		2,808	4,665		12,421
Construction						
Other	3,638	822		216		2,600
Cost of materials, supplies, containers, fuel, purchased electric energy, and contract work, total	3,755,337	37,582	19,710	3,045,829	130,703	521,513
Materials, supplies, and containers	3,705,723	36,796	18,895	3,001,723	130,099	518,210
Fuel	857		52	248	9	548
Purchased electric energy	8,466	25	763	4,590	595	2,493
Contract work	40,291	761		39,268		262
Value of products	5,128,926	78,677	66,830	4,035,690	213,038	734,691
Value added by manufacture <sup>6</sup>	1,373,589	41,085	47,120	989,861	82,335	213,178

<sup>1</sup> Colorado, 1 establishment; Massachusetts, 2; Michigan, 1; New Jersey, 3; Ohio, 1; Rhode Island, 1.  
<sup>2</sup> See GENERAL EXPLANATIONS—Definition of establishment.  
<sup>3</sup> See GENERAL EXPLANATIONS—Persons engaged—general classification.  
<sup>4</sup> See GENERAL EXPLANATIONS—Wage earners and wages.  
<sup>5</sup> Value of products less cost of materials, supplies, containers, fuel, purchased electric energy, and contract work. See GENERAL EXPLANATIONS—Value added by manufacture.

TABLE 3.—VALUE OF PRODUCTS FOR THE UNITED STATES: 1939 AND 1937

TABLE 4.—PRODUCTS, BY KIND, QUANTITY, AND VALUE: 1939 AND 1937

No detailed production statistics were collected for this industry.

LAPIDARY WORK

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TABLE 5.—WAGE EARNERS ENGAGED IN MANUFACTURING, BY MONTHS, FOR THE UNITED STATES, 1939, 1937, AND 1929, AND BY STATES, 1939

STATE	Average number employed during year	NUMBER RECEIVING PAY DURING NORMAL PAY-ROLL PERIOD ENDED NEAREST 15TH OF MONTH—											
		January	February	March	April	May	June	July	August	September	October	November	December
United States:													
1939.....	267	250	242	252	246	247	264	268	267	278	292	298	304
1937.....	217	200	208	209	217	216	210	218	228	227	229	226	221
1929.....	506	576	560	575	511	508	484	531	565	477	422	447	410
California.....	5	5	5	5	5	5	5	5	5	6	6	6	5
Illinois.....	12	12	12	12	12	12	12	12	12	12	12	12	12
New Jersey.....	66	63	61	65	67	65	65	63	64	67	70	72	74
New York.....	150	139	134	139	130	134	150	157	156	158	166	165	166
Pennsylvania.....	14	13	13	13	13	13	14	14	13	14	15	15	17

TABLE 6.—EXPENDITURES FOR PLANT AND EQUIPMENT: 1939

	1939
Number of establishments:	
Total for the industry.....	90
Reporting expenditures for plant and equipment.....	23
Value of products:	
Total for the industry.....	\$5, 128, 926
Reporting expenditures for plant and equipment.....	2, 230, 152
Expenditures for plant and equipment:	
Total for the industry.....	34, 390
Expenditures for new construction or major alterations of buildings and other fixed plant and structures.....	23, 238
Expenditures for new machinery and operating equipment.....	9, 505
Expenditures for plant and equipment acquired in a "used" condition from other owners and expenditures for land.....	1, 647

TABLE 7.—VALUE OF INVENTORIES OF MATERIALS AND FINISHED PRODUCTS, AND VALUE OF PRODUCTS: 1939 AND 1937

	1939	1937
Inventories:		
Beginning of year, total.....	\$1, 446, 871	\$1, 016, 452
Finished products.....	920, 955	845, 287
Materials, supplies, etc.....	525, 916	171, 165
End of year, total.....	1, 990, 289	1, 188, 221
Finished products.....	1, 309, 727	979, 018
Materials, supplies, etc.....	680, 562	209, 203

TABLE 7.—VALUE OF INVENTORIES OF MATERIALS AND FINISHED PRODUCTS, AND VALUE OF PRODUCTS: 1939 AND 1937—Continued

	1939	1937
Value of products for the industry, total.....	\$5, 128, 926	\$4, 390, 587
Value for establishments reporting inventories (includes value of products of establishments reporting no inventories on hand).....	5, 108, 930	4, 015, 810
Value for establishments not reporting inventories.....	19, 996	374, 777

TABLE 8.—PRIME MOVERS, MOTORS, AND ELECTRIC ENERGY: 1939 AND 1929

	1939	1929
Number of establishments.....	90	100
Number of establishments reporting power equipment.....	90	96
Prime movers, aggregate:		
Number.....	1	1
Horsepower.....	5	5
Prime movers, driving generators, total—		
Number.....		1
Horsepower.....		5
Diesel and semi-Diesel engines—		
Number.....		
Horsepower.....		
Other internal-combustion engines <sup>1</sup> —		
Number.....		1
Horsepower.....		5
Electric motors driven by purchased energy:		
Number.....	449	662
Horsepower.....	240	469
Purchased electric energy (kilowatt-hours).....	172, 499	305, 212

<sup>1</sup> Includes data for prime movers driving generators. <sup>2</sup> Gas, gasoline, etc.

## SILVERWARE AND PLATED WARE

[A preliminary report for this industry was issued December 13, 1940]

**Description of the industry.**—This industry embraces establishments engaged primarily in the manufacture of hollow ware and flatware, toilet articles, ornaments, novelties, etc.; of solid silver; of metal plated with silver, gold, or other metal; of nickel silver; or of pewter.

It does not cover the production of electrical household appliances nor of jewelry, which are assigned to separate industry classifications, "Electrical appliances," "Jewelry (precious metals)," and "Costume jewelry and costume novelties (jewelry other than fine jewelry)."

TABLE 1.—SUMMARY FOR THE UNITED STATES: 1899 TO 1939

CENSUS YEAR	Number of establishments <sup>1</sup>	Wage earners (average for the year) <sup>2</sup>	Wages	Cost of materials, supplies, fuel, purchased electric energy, and contract work <sup>3</sup>	Value of products	Value added by manufacture <sup>4</sup>	Horse-power of prime movers
1939	150	12,105	\$15,304,394	\$24,787,356	\$62,771,158	\$37,983,802	12,852
1937	136	11,351	13,789,589	22,670,313	56,733,355	34,063,042	( <sup>5</sup> )
1935	139	10,194	11,078,434	15,298,032	43,371,697	28,073,665	( <sup>5</sup> )
1933	126	9,177	8,228,642	12,425,202	34,332,544	21,907,342	( <sup>5</sup> )
1931	163	11,077	12,712,986	11,792,370	45,814,831	34,022,461	( <sup>5</sup> )
1929	179	15,735	22,577,965	26,885,693	85,882,325	58,996,632	12,393
1927	178	16,719	23,944,684	31,377,409	87,424,200	56,046,791	13,285
1925	183	16,877	23,843,592	33,177,087	86,861,703	53,684,606	13,946
1923	181	17,090	22,970,937	30,672,998	81,105,227	50,432,229	( <sup>5</sup> )
1921	169	14,822	17,814,839	21,373,548	58,354,945	36,981,397	( <sup>5</sup> )
1919	167	15,945	18,272,500	30,827,465	70,760,718	39,933,253	12,812
1914	180	15,787	9,795,723	16,579,546	38,270,552	21,691,007	13,203
1909	183	16,610	10,281,761	18,332,107	42,228,547	23,896,440	11,832
1904	158	14,861	8,625,474	14,458,705	32,859,539	18,380,884	9,259
1899	109	12,205	6,591,366	11,658,957	26,114,353	14,455,396	7,209

<sup>1</sup> See GENERAL EXPLANATIONS—Definition of establishment.

<sup>2</sup> See GENERAL EXPLANATIONS—Wage earners and wages.

<sup>3</sup> Figures for years 1939, 1937, and 1935 include those for contract work. Prior years do not.

<sup>4</sup> Value of products less cost of materials, supplies, fuel, purchased electric energy, and contract work. See GENERAL EXPLANATIONS—Value added by manufacture.

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

<sup>6</sup> Data not available.

TABLE 2.—GENERAL STATISTICS IN DETAIL BY STATES: 1939

[See GENERAL EXPLANATIONS—Disclosure of data for individual establishments]

ITEM	United States	California	Illinois	Maryland	Massachusetts	New Jersey	New York	Ohio	Pennsylvania	Other States <sup>1</sup>
Number of establishments <sup>2</sup>	150	5	6	7	28	18	45	3	7	31
Proprietors and firm members	70	1	3	5	8	7	29		8	9
Persons reported by manufacturing establishments, total <sup>3</sup>	14,712	192	206	283	1,916	759	4,091	106	67	7,092
Salaried officers of corporations <sup>4</sup>	215	5	4	8	39	25	76	4	3	51
Manufacturing:										
Salaried employees <sup>4</sup>	1,304	9	11	22	267	90	301	2	4	598
Wage earners (average for the year) <sup>4</sup>	12,105	152	154	223	1,416	618	3,184	82	56	6,220
Distribution	966	25	35	18	154	26	523	18	4	163
Construction	60		1	4						55
Other	62	1	1	8	40		7			6
Salaries and wages, total <sup>5</sup>	\$20,969,708	\$300,158	\$328,721	\$436,583	\$2,933,278	\$1,130,059	\$5,958,801	\$119,995	\$79,281	\$9,682,832
Salaried officers <sup>4</sup>										
Manufacturing:										
Salaries <sup>4</sup>	2,319,206	14,784	23,862	30,543	466,691	183,855	555,039	6,043	5,021	1,033,368
Wages	15,304,394	228,266	209,185	281,731	1,647,445	740,109	4,033,105	79,191	58,987	8,028,395
Distribution	1,880,114	30,808	69,333	27,683	453,291	109,661	955,496	20,961	5,874	207,007
Construction	110,801		2,880	6,447						101,494
Other	67,372	1,000	1,100	6,485	50,803		5,797			2,187
Cost of materials, supplies, containers, fuel, purchased electric energy, and contract work, total	24,787,356	248,172	230,313	543,456	2,774,844	1,034,636	5,724,684	48,591	50,739	14,131,891
Materials, supplies, and containers	23,917,247	233,284	218,867	529,210	2,656,662	971,694	5,465,636	41,022	44,799	13,756,073
Fuel	398,031	2,641	1,693	3,806	47,804	19,552	104,610	2,822	2,016	213,087
Purchased electric energy	395,408	6,647	9,424	10,470	51,942	34,967	137,900	4,747	2,803	136,508
Contract work	76,670	5,600	329		18,436	8,423	16,538		1,121	26,223
Value of products	62,771,158	746,329	751,092	1,305,254	7,646,613	2,567,022	15,846,869	194,203	167,510	33,546,266
Value added by manufacture <sup>6</sup>	37,983,802	498,157	520,779	761,768	4,871,769	1,532,386	10,122,185	145,612	116,771	19,414,375

<sup>1</sup> Connecticut, 21 establishments; Indiana, 2; New Hampshire, 1; Rhode Island, 4; Virginia, 2; Washington, 1.

<sup>2</sup> See GENERAL EXPLANATIONS—Definition of establishment.

<sup>3</sup> See GENERAL EXPLANATIONS—Persons engaged—general classification.

<sup>4</sup> See GENERAL EXPLANATIONS—Wage earners and wages.

<sup>5</sup> Value of products less cost of materials, supplies, containers, fuel, purchased electric energy, and contract work. See GENERAL EXPLANATIONS—Value added by manufacture.

SILVERWARE AND PLATED WARE

TABLE 3.—VALUE OF PRODUCTS FOR THE UNITED STATES: 1939, 1937, AND 1929

	1939	1937	1929
Silverware and Plated Ware industry, all products, total value.....	\$62, 771, 158	\$56, 733, 355	\$85, 882, 325
Silverware and plated ware made in this industry.....	59, 312, 229	55, 152, 902	(1)
Miscellaneous products.....	2, 561, 379	1, 580, 453	(1)
Receipts for contract and repair work and scrap and salable refuse.....	619, 471		(1)
Other products (not classified in this industry).....	278, 079		(1)
Silverware and plated ware, total value.....	59, 709, 608	57, 372, 680	78, 670, 407
Made in this industry.....	59, 312, 229	55, 152, 902	(1)
Made as secondary products in other industries.....	397, 379	2, 219, 778	(1)

<sup>1</sup> No comparable data.

<sup>2</sup> Value of jewelry, electrical household appliances, etc.

TABLE 4.—PRODUCTS, BY KIND AND VALUE, FOR THE UNITED STATES: 1939, 1937, AND 1929

PRODUCT	1939	1937	1929
Total value.....	\$59, 709, 608	\$57, 372, 680	\$78, 670, 407
Silverware (sterling), total value.....	17, 109, 164	17, 639, 564	26, 167, 556
Flatware (including cutlery).....	9, 897, 223	9, 506, 202	11, 254, 910
Hollow ware <sup>1</sup> .....	5, 263, 073	6, 100, 017	10, 432, 147
Novelties.....	706, 210	838, 347	1, 241, 315
Toiletware.....	532, 122	795, 224	1, 749, 957
Loving cups and other trophies.....	171, 482	40, 151	1, 489, 227
Ecclesiastical ware.....	212, 299	342, 026	
Other articles.....	276, 755	47, 597	
Electrosilver-plated ware, total value.....	32, 745, 454	34, 864, 654	44, 623, 305
Flatware, hotel patterns (including cutlery).....	2, 411, 123	2, 641, 706	2, 679, 941
Flatware, commercial patterns (including cutlery).....	23, 008, 519	22, 054, 893	27, 092, 136
Hollow ware, hotel service <sup>1</sup> .....	1, 020, 696	1, 200, 054	2, 522, 418
Hollow ware, commercial lines <sup>1</sup> .....	4, 666, 416	6, 193, 389	9, 121, 972
Novelties and toiletware.....	756, 703	1, 148, 877	3, 206, 788
Loving cups and other trophies.....	536, 136	635, 205	
Ecclesiastical ware.....	345, 861	607, 809	
Other articles.....		382, 531	
Nickel silver, not plated, total value.....	777, 580	1, 474, 822	4, 941, 305
Flatware (including cutlery).....	376, 181	510, 218	2, 378, 497
Hollow ware <sup>1</sup> .....		320, 665	1, 239, 979
Toiletware.....	401, 399	643, 939	355, 206
Other articles.....			467, 623
Pewter.....	125, 462	102, 434	2, 938, 241
Other metals, total value.....	4, 415, 690	( <sup>2</sup> )	( <sup>2</sup> )
Flatware (including cutlery).....	2, 890, 601	( <sup>2</sup> )	( <sup>2</sup> )
Hollow ware <sup>1</sup> .....	518, 386		
Novelties.....	229, 486		
Toiletware, loving cups, ecclesiastical ware, and other articles.....	777, 217		
Other plated ware <sup>1</sup> .....	4, 536, 258	3, 291, 206	
Silverware not separately reported or not specified above.....			

<sup>1</sup> Not including electrical household appliances.

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

TABLE 5.—WAGE EARNERS ENGAGED IN MANUFACTURING, BY MONTHS, FOR THE UNITED STATES, 1939, 1937, AND 1929, AND BY STATES, 1939

STATE	Average number employed during year	NUMBER RECEIVING PAY DURING NORMAL PAY-ROLL PERIOD ENDED NEAREST 15TH OF MONTH—											
		January	February	March	April	May	June	July	August	September	October	November	December
United States:													
1939.....	12, 105	11, 569	11, 550	11, 895	11, 551	11, 725	11, 593	11, 449	11, 921	12, 424	12, 999	13, 360	13, 228
1937.....	11, 361	10, 729	10, 845	11, 071	11, 169	11, 205	11, 232	11, 062	11, 623	11, 947	12, 244	11, 958	11, 351
1929.....	15, 735	15, 265	15, 493	15, 651	15, 555	15, 566	15, 547	15, 484	15, 575	15, 996	16, 387	16, 379	15, 914
California.....	152	149	152	151	148	154	150	140	142	146	161	169	166
Connecticut.....	4, 727	4, 522	4, 737	4, 817	4, 736	4, 731	4, 648	4, 544	4, 598	4, 643	4, 840	4, 931	4, 973
Illinois.....	154	145	153	154	149	151	145	148	155	157	162	167	166
Maryland.....	223	232	218	219	217	214	217	219	215	219	227	234	242
Massachusetts.....	1, 416	1, 221	1, 277	1, 353	1, 383	1, 354	1, 387	1, 358	1, 453	1, 478	1, 519	1, 619	1, 593
New Jersey.....	618	536	561	601	521	575	569	529	557	694	749	777	749
New York.....	3, 184	3, 196	2, 863	2, 982	2, 762	2, 895	2, 846	2, 943	3, 217	3, 458	3, 671	3, 747	3, 623
Ohio.....	82	67	83	84	83	82	84	65	82	85	93	92	87
Pennsylvania.....	56	56	57	57	58	55	53	52	56	56	55	59	59
Rhode Island.....	896	880	871	892	900	905	893	875	863	897	915	931	933

TABLE 6.—EXPENDITURES FOR PLANT AND EQUIPMENT: 1939

	1939
Number of establishments:	
Total for the industry.....	150
Reporting expenditures for plant and equipment.....	76
Value of products:	
Total for the industry.....	\$62,771,158
Reporting expenditures for plant and equipment.....	56,850,196
Expenditures for plant and equipment:	
Total for the industry.....	1,178,445
Expenditures for new construction or major alterations of buildings and other fixed plant and structures.....	128,961
Expenditures for new machinery and operating equipment.....	862,018
Expenditures for plant and equipment acquired in a "used" condition from other owners and expenditures for land.....	187,471

TABLE 7.—VALUE OF INVENTORIES OF MATERIALS AND FINISHED PRODUCTS, AND VALUE OF PRODUCTS: 1939 AND 1937

	1939	1937
Inventories:		
Beginning of year, total.....	\$13,808,263	\$13,107,932
Finished products.....	5,976,241	5,752,432
Materials, supplies, etc.....	7,832,022	7,355,500
End of year, total.....	14,693,955	15,129,151
Finished products.....	6,086,526	7,156,269
Materials, supplies, etc.....	8,607,429	7,972,882
Value of products for the industry, total.....	62,771,158	56,733,355
Value for establishments reporting inventories (includes value of products of establishments reporting no inventories on hand).....	62,771,158	55,708,779
Value for establishments not reporting inventories.....		1,024,576

TABLE 8.—PRIME MOVERS, MOTORS, GENERATORS, AND ELECTRIC ENERGY: 1939 AND 1929

	1939	1929
Number of establishments.....	150	179
Number of establishments reporting power equipment.....	149	172
Prime movers, aggregate:		
Number.....	30	59
Horsepower.....	12,852	12,393

TABLE 8.—PRIME MOVERS, MOTORS, GENERATORS, AND ELECTRIC ENERGY: 1939 AND 1929—Continued

	1939	1929
Prime movers—Continued.		
Prime movers, driving generators, total—		
Number.....	22	159
Horsepower.....	12,500	112,393
Steam engines—		
Number.....	13	132
Horsepower.....	2,455	15,661
Steam turbines—		
Number.....	8	110
Horsepower.....	10,000	16,003
Diesel and semi-Diesel engines—		
Number.....		
Horsepower.....		14
Other internal-combustion engines <sup>1</sup> —		
Number.....		178
Horsepower.....		
Hydroturbines and water wheels—		
Number.....	1	113
Horsepower.....	45	1651
Prime movers, driving generators, ordinarily idle (included above), horsepower.....	935	
Prime movers not driving generators, steam engines—		
Number.....	8	( <sup>3</sup> )
Horsepower.....	352	
Prime movers not driving generators, ordinarily idle (included above), horsepower.....	25	( <sup>3</sup> )
Generators, kilowatt rating, total.....	9,249	8,186
Generators, driven by—		
Steam engines, kilowatt rating.....	1,804	
Steam turbines, kilowatt rating.....	7,420	
Hydroturbines and water wheels, kilowatt rating.....	25	( <sup>3</sup> )
Generators, ordinarily idle (included above), kilowatt rating.....	658	
Electric motors, total:		
Number.....	8,606	6,003
Horsepower.....	33,632	28,492
Driven by purchased energy—		
Number.....	6,448	4,976
Horsepower.....	27,166	23,831
Driven by energy generated in establishments reporting—		
Number.....	2,158	1,027
Horsepower.....	6,466	4,661
Electric energy (kilowatt-hours):		
Generated in plant.....	14,390,230	( <sup>4</sup> )
Sold.....	6,200,300	( <sup>3</sup> )
Purchased.....	21,366,671	21,184,251

<sup>1</sup> Includes data for prime movers not driving generators.<sup>2</sup> Gas, gasoline, etc.<sup>3</sup> Not called for on schedule.<sup>4</sup> Data not available.

# ENGRAVING ON METAL (EXCEPT FOR PRINTING PURPOSES)

[A preliminary report for this industry was issued December 4, 1940]

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

TABLE 1.—SUMMARY FOR THE UNITED STATES: 1899 TO 1939

CENSUS YEAR	Number of establishments <sup>1</sup>	Wage earners (average for the year) <sup>2</sup>	Wages	Cost of materials, supplies, fuel, purchased electric energy, and contract work <sup>3</sup>	Value of products	Value added by manufacture <sup>4</sup>	Horse-power of prime movers
1939.....	94	1,419	\$1,866,457	\$1,677,664	\$5,863,670	\$4,186,006	50
1937.....	77	2,152	2,771,226	2,864,991	8,880,526	6,015,555	(5)
1935.....	101	2,199	2,448,951	2,751,775	7,661,089	4,909,314	(5)
1933.....	77	1,089	1,093,607	920,685	3,425,494	2,504,809	(5)
1931.....	133	1,407	2,047,611	1,439,812	5,607,496	4,167,684	(5)
1929.....	189	2,240	3,211,743	2,583,039	10,933,741	8,350,702	-----
1927.....	173	1,805	2,612,434	2,078,190	7,930,688	5,852,528	100
1925.....	188	1,827	2,690,808	2,177,251	8,022,823	6,445,572	100
1923.....	210	1,887	2,853,125	2,820,179	9,121,446	6,301,267	(5)
1921.....	193	1,276	1,760,335	1,397,020	4,849,882	3,452,862	(5)
1919.....	478	1,878	2,391,504	1,927,323	7,350,602	5,423,279	238
1914.....	486	1,536	1,075,721	590,107	3,133,791	2,537,684	236
1909.....	253	1,308	821,472	350,764	2,249,861	1,890,097	280
1904.....	305	1,573	1,032,232	376,409	2,422,487	2,046,078	459
1899.....	277	964	543,004	203,046	1,468,202	1,265,156	297

- <sup>1</sup> See GENERAL EXPLANATIONS—Definition of establishment.  
<sup>2</sup> See GENERAL EXPLANATIONS—Wage earners and wages.  
<sup>3</sup> Figures for years prior to 1935 do not include cost of contract work.  
<sup>4</sup> Value of products less cost of materials, supplies, fuel, purchased electric energy, and contract work. See GENERAL EXPLANATIONS—Value added by manufacture.  
<sup>5</sup> Not called for on schedule.  
<sup>6</sup> Data not available.

TABLE 2.—GENERAL STATISTICS IN DETAIL BY STATES: 1939

[See GENERAL EXPLANATIONS—Disclosure of data for individual establishments]

ITEM	United States	California	Illinois	Maryland	Massachusetts	New Jersey	New York	Ohio	Rhode Island	Other States <sup>1</sup>
Number of establishments <sup>2</sup> .....	94	4	12	3	17	5	29	6	4	14
Proprietors and firm members.....	89	2	7	3	15	4	34	5	3	16
Persons reported by manufacturing establishments, total <sup>3</sup> .....	1,683	21	322	7	127	36	994	40	40	96
Salaried officers of corporations <sup>3</sup> .....	48	2	16	1	6	3	12	4	1	3
Manufacturing:										
Salaried employees <sup>3</sup> .....	155	2	36	-----	16	1	83	9	2	6
Wage earners (average for the year) <sup>4</sup> .....	1,419	16	245	6	104	29	872	24	37	86
Distribution.....	59	1	25	-----	1	3	25	3	-----	1
Construction.....	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Other.....	2	-----	-----	-----	-----	-----	2	-----	-----	-----
Salaries and wages, total <sup>5</sup> .....	\$2,690,402	\$23,324	\$518,059	\$10,147	\$198,950	\$67,556	\$1,549,073	\$72,749	\$77,986	\$172,558
Salaried officers <sup>3</sup> .....	295,767	2,436	114,867	3,100	18,800	17,488	99,626	22,902	9,298	7,250
Manufacturing:										
Salaries <sup>3</sup> .....	278,292	1,858	68,413	-----	23,107	3,400	153,658	13,124	4,159	10,573
Wages.....	1,866,457	18,477	293,789	7,047	156,313	43,216	1,094,693	33,723	64,529	154,670
Distribution.....	246,386	553	40,990	-----	730	3,452	197,596	3,000	-----	65
Construction.....	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Other.....	3,500	-----	-----	-----	-----	-----	3,500	-----	-----	-----
Cost of materials, supplies, containers, fuel, purchased electric energy, and contract work, total.....	1,677,664	9,866	270,585	4,504	56,159	6,252	1,232,687	65,723	6,339	25,549
Materials, supplies, and containers.....	1,544,906	9,041	244,834	4,188	51,521	4,625	1,160,402	44,140	4,190	21,965
Fuel.....	33,048	141	6,597	179	240	183	22,335	492	1,445	1,436
Purchased electric energy.....	48,813	391	10,795	137	1,402	619	32,424	608	704	1,793
Contract work.....	50,897	293	8,359	-----	2,996	825	17,626	20,483	-----	415
Value of products.....	5,863,670	49,082	1,068,722	32,541	373,709	102,884	3,620,890	193,895	109,322	312,625
Value added by manufacture <sup>6</sup> .....	4,186,006	39,216	798,137	28,037	317,550	96,632	2,388,203	128,172	102,983	287,076

- <sup>1</sup> Connecticut, 1 establishment; Indiana, 1; Kentucky, 1; Michigan, 3; Nebraska, 1; Oregon, 2; Pennsylvania, 2; Texas, 1; Wisconsin, 2.  
<sup>2</sup> See GENERAL EXPLANATIONS—Definition of establishment.  
<sup>3</sup> See GENERAL EXPLANATIONS—Persons engaged—general classification.  
<sup>4</sup> See GENERAL EXPLANATIONS—Wage earners and wages.  
<sup>5</sup> Value of products less cost of materials, supplies, containers, fuel, purchased electric energy, and contract work. See GENERAL EXPLANATIONS—Value added by manufacture.

## CENSUS OF MANUFACTURES: 1939

TABLE 3.—VALUE OF PRODUCTS FOR THE UNITED STATES: 1939 AND 1937

TABLE 4.—PRODUCTION, BY KIND, QUANTITY, AND VALUE, FOR THE UNITED STATES: 1939 AND 1937

No detailed production statistics were collected for this industry.

TABLE 5.—WAGE EARNERS ENGAGED IN MANUFACTURING, BY MONTHS, FOR THE UNITED STATES, 1939, 1937, AND 1929, AND BY STATES, 1939

STATE	Average number employed during year	NUMBER RECEIVING PAY DURING NORMAL PAY-ROLL PERIOD ENDED NEAREST 15TH OF MONTH—											
		January	February	March	April	May	June	July	August	September	October	November	December
United States:													
1939.....	1,419	1,387	1,355	1,325	1,382	1,335	1,335	1,351	1,446	1,445	1,514	1,572	1,585
1937.....	2,152	2,267	2,263	2,264	2,171	1,632	2,054	2,227	2,240	2,348	2,325	2,076	1,957
1929.....	2,240	2,169	2,215	2,230	2,257	2,261	2,241	2,305	2,272	2,284	2,262	2,214	2,165
California.....	16	20	18	15	15	13	14	16	15	15	17	16	16
Illinois.....	245	225	242	255	264	232	225	235	242	236	242	269	274
Maryland.....	6	6	6	5	6	6	6	5	6	6	5	6	6
Massachusetts.....	104	101	98	92	95	98	102	106	103	109	113	119	116
Michigan.....	49	44	48	44	46	47	48	49	49	51	53	55	56
New Jersey.....	29	30	29	29	29	29	29	29	29	29	29	29	30
New York.....	872	861	810	790	819	814	823	819	891	899	951	987	1,000
Ohio.....	24	24	24	24	24	24	24	24	24	24	24	24	24
Rhode Island.....	37	39	43	34	47	35	27	32	51	40	44	30	21

TABLE 6.—EXPENDITURES FOR PLANT AND EQUIPMENT: 1939

	1939
Number of establishments:	
Total for the industry.....	94
Reporting expenditures for plant and equipment.....	33
Value of products:	
Total for the industry.....	\$5,863,670
Reporting expenditures for plant and equipment.....	4,918,800
Expenditures for plant and equipment:	
Total for the industry.....	173,063
Expenditures for new construction or major alterations of buildings and other fixed plant and structures.....	55,756
Expenditures for new machinery and operating equipment.....	109,969
Expenditures for plant and equipment acquired in a "used" condition from other owners and expenditures for land.....	7,338

TABLE 7.—VALUE OF INVENTORIES OF MATERIALS AND FINISHED PRODUCTS, AND VALUE OF PRODUCTS: 1939 AND 1937

	1939	1937
Inventories:		
Beginning of year, total.....	\$492,449	\$340,768
Finished products.....	98,348	60,270
Materials, supplies, etc.....	394,101	280,498
End of year, total.....	539,836	416,424
Finished products.....	93,456	120,672
Materials, supplies, etc.....	446,380	295,752

TABLE 7.—VALUE OF INVENTORIES OF MATERIALS AND FINISHED PRODUCTS, AND VALUE OF PRODUCTS: 1939 AND 1937—Con.

	1939	1937
Value of products for the industry, total.....	\$5,863,670	\$8,880,526
Value for establishments reporting inventories (includes value of products of establishments reporting no inventories on hand).....	5,769,334	3,907,896
Value for establishments not reporting inventories.....	94,336	4,972,630

TABLE 8.—PRIME MOVERS, MOTORS, GENERATORS, AND ELECTRIC ENERGY: 1939 AND 1929

	1939	1929
Number of establishments.....	94	212
Number of establishments reporting power equipment.....	94	182
Prime movers driving generators (hydroturbines or water wheels):		
Number.....	1	-----
Horsepower.....	50	-----
Generators, driven by hydroturbines or water wheels, kilowatt rating.....	35	-----
Electric motors, total:		
Number.....	949	1,656
Horsepower.....	2,356	3,857
Driven by purchased energy—		
Number.....	869	1,656
Horsepower.....	2,216	3,857
Driven by energy generated in establishments reporting—		
Number.....	80	-----
Horsepower.....	140	-----
Electric energy (kilowatt-hours):		
Generated in plant.....	28,166	(1)
Purchased.....	1,666,407	2,826,424

<sup>1</sup> Data not available.

# ELECTROPLATING, PLATING, AND POLISHING

[A preliminary report for this industry was issued December 23, 1940]

**Description of the industry.**—The establishments classified in this industry are engaged primarily in the plating, by electrolysis, of various metal articles, such as motor-vehicle accessories, lighting fixtures, musical instruments, and jewelry, with gold, silver, chromium, copper, nickel, and zinc. The "Value of products" represents, to a large extent, receipts for electroplating done on articles owned by others. Many establishments that manufacture jewelry and other commodities do their own electroplating and do not report its value separately, and therefore the report for this industry does not cover all the electroplating done.

**TABLE 1.—SUMMARY FOR THE UNITED STATES: 1899 TO 1939**

CENSUS YEAR	Number of establishments <sup>1</sup>	Wage earners (average for the year) <sup>2</sup>	Wages	Cost of materials, supplies, fuel, purchased electric energy, and contract work <sup>3</sup>	Value of products	Value added by manufacture <sup>4</sup>	Horse-power of prime movers
1939	643	8,206	\$9,382,801	\$7,300,444	\$28,168,051	\$20,867,607	2,779
1937	547	8,256	9,827,777	6,814,636	26,686,411	19,871,775	(5)
1935	553	6,238	6,941,180	4,648,783	18,327,692	13,678,909	(6)
1933	423	3,956	3,715,379	2,352,202	10,032,076	7,679,874	(6)
1931	464	4,107	5,641,654	2,802,451	13,084,240	10,281,789	(6)
1929	534	5,928	9,536,800	4,798,667	23,727,916	18,929,249	277
1927	419	3,556	5,629,104	3,335,140	13,930,321	10,595,181	271
1925	449	3,337	5,253,8+5	2,541,165	12,440,510	9,899,345	391
1923	446	3,374	5,195,183	2,612,673	12,297,333	9,684,660	(6)
1921	392	2,460	3,562,980	1,959,639	8,040,954	6,081,315	(6)
1919	515	3,024	3,793,605	2,639,248	10,339,617	7,750,369	768
1914	479	2,584	1,712,922	1,335,662	4,773,309	3,437,647	1,783
1909	461	2,717	1,652,315	1,205,185	4,509,559	3,304,374	1,480
1904	312	1,943	1,092,835	747,331	2,965,014	2,217,683	1,248
1899	302	2,086	949,062	783,854	2,719,961	1,936,107	1,235

<sup>1</sup> See GENERAL EXPLANATIONS—Definition of establishment.  
<sup>2</sup> See GENERAL EXPLANATIONS—Wage earners and wages.  
<sup>3</sup> Figures for years prior to 1935 do not include cost of contract work.  
<sup>4</sup> Value of products less cost of materials, supplies, fuel, purchased electric energy, and contract work. See GENERAL EXPLANATIONS—Value added by manufacture.  
<sup>5</sup> Not called for on schedule.  
<sup>6</sup> Data not available.

**TABLE 2.—GENERAL STATISTICS IN DETAIL BY STATES: 1939**

[See GENERAL EXPLANATIONS—Disclosure of data for individual establishments]

ITEM	United States	California	Connecticut	District of Columbia	Florida	Illinois	Indiana	Iowa
Number of establishments <sup>1</sup>	643	66	17	3	3	84	20	4
Proprietors and firm members	614	81	10	3	5	99	8	4
Persons reported by manufacturing establishments, total <sup>2</sup>	9,653	560	482	24	11	2,027	288	51
Salaried officers of corporations <sup>3</sup>	370	17	15	—	—	50	21	—
Manufacturing:								
Salaried employees <sup>3</sup>	627	42	55	1	—	109	21	3
Wage earners (average for the year) <sup>3</sup>	8,206	476	395	21	10	1,740	241	48
Distribution	372	22	13	2	1	113	4	—
Construction	45	—	4	—	—	9	1	—
Other	33	3	—	—	—	6	—	—
Salaries and wages, total <sup>3</sup>	\$12,548,335	\$799,801	\$588,666	\$31,898	\$14,403	\$2,744,400	\$382,706	\$56,313
Salaried officers <sup>3</sup>	1,405,980	58,874	69,411	—	—	276,491	84,498	—
Manufacturing:								
Salaries <sup>3</sup>	1,111,802	56,347	92,599	2,600	—	229,396	31,319	3,062
Wages	9,382,801	640,873	391,239	26,538	13,363	2,053,525	261,729	53,221
Distribution	545,905	39,417	26,207	2,760	1,040	166,647	4,478	—
Construction	59,901	—	9,210	—	—	11,933	682	—
Other	41,948	4,290	—	—	—	6,408	—	—
Cost of materials, supplies, containers, fuel, purchased electric energy, and contract work, total	7,300,444	337,213	579,673	10,683	5,554	1,895,698	168,452	43,162
Materials, supplies, and containers	5,841,349	265,615	516,819	8,109	3,830	1,537,802	121,534	36,296
Fuel	352,608	15,060	19,076	1,314	310	71,378	13,892	2,898
Purchased electric energy	969,724	52,073	43,216	718	1,414	222,179	28,154	3,968
Contract work	136,763	4,465	562	542	—	64,339	6,872	—
Value of products	28,168,051	1,713,587	1,710,454	60,089	36,000	6,443,751	768,639	113,925
Value added by manufacture <sup>4</sup>	20,867,607	1,376,374	1,130,781	49,406	30,446	4,543,053	600,187	70,763

See footnotes at end of table.

## CENSUS OF MANUFACTURES: 1939

TABLE 2.—GENERAL STATISTICS IN DETAIL BY STATES: 1939—Continued

ITEM	Louisiana	Maryland	Massachusetts	Michigan	Minnesota	Missouri	New Jersey	New York
Number of establishments <sup>1</sup> .....	3	8	50	42	11	20	30	130
Proprietors and firm members.....	3	8	47	41	13	18	27	128
Persons reported by manufacturing establishments, total <sup>2</sup> .....	12	45	596	941	105	242	262	1,655
Salaried officers of corporations <sup>2</sup> .....		4	21	34	2	13	14	86
Manufacturing:								
Salaried employees <sup>2</sup> .....		3	40	61	6	16	12	88
Wage earners (average for the year) <sup>3</sup> .....	11	36	518	811	94	195	231	1,384
Distribution.....	1	2	15	25	3	16	5	81
Construction.....			2	7				7
Other.....				3		2		9
Salaries and wages, total <sup>2</sup> .....	\$9,765	\$54,082	\$875,112	\$1,290,286	\$135,576	\$296,383	\$314,074	\$2,151,976
Salaried officers <sup>2</sup> .....		5,335	50,784	117,058	11,400	39,841	35,378	288,836
Manufacturing:								
Salaries <sup>2</sup> .....		3,016	57,148	152,235	10,918	25,566	15,749	134,932
Wages.....	8,933	43,001	549,574	970,879	112,336	210,102	256,561	1,584,053
Distribution.....	832	2,730	15,454	36,622	922	19,604	6,386	122,377
Construction.....			2,152	9,943				12,333
Other.....				3,549		1,270		9,445
Cost of materials, supplies, containers, fuel, purchased electric energy, and contract work, total.....	4,241	16,272	366,636	719,677	73,780	158,530	154,142	969,308
Materials, supplies, and containers.....	2,855	12,236	299,960	557,175	51,505	122,058	115,979	745,875
Fuel.....	501	1,259	18,685	37,068	7,669	10,698	13,826	37,305
Purchased electric energy.....	885	2,777	43,336	106,884	14,273	23,908	24,337	169,348
Contract work.....			4,655	18,550	333	1,866		16,780
Value of products.....	25,708	100,999	1,502,348	2,753,925	296,622	658,596	737,839	4,383,216
Value added by manufacture <sup>4</sup> .....	21,467	84,727	1,135,712	2,034,248	222,842	500,066	583,697	3,413,908

  

ITEM	Ohio	Oklahoma	Oregon	Pennsylvania	Rhode Island	Texas	Washington	Wisconsin	Other States <sup>5</sup>
Number of establishments <sup>1</sup> .....	62	3	3	33	15	8	3	14	11
Proprietors and firm members.....	50	1	3	30	9	10	3	5	8
Persons reported by manufacturing establishments, total <sup>2</sup> .....	1,183	18	13	586	147	57	18	203	128
Salaried officers of corporations <sup>2</sup> .....	44	2		15	6	2	1	19	4
Manufacturing:									
Salaried employees <sup>2</sup> .....	79	3	1	60	9	1		13	4
Wage earners (average for the year) <sup>3</sup> .....	1,033	13	10	469	130	50	17	162	112
Distribution.....	22		2	23	2	4		8	8
Construction.....	2			12				1	
Other.....	3			7					
Salaries and wages, total <sup>2</sup> .....	\$1,609,058	\$26,584	\$14,679	\$660,726	\$183,311	\$57,736	\$29,358	\$271,328	\$150,114
Salaried officers <sup>2</sup> .....	177,127	3,000		61,977	38,530	3,480	1,200	63,510	19,250
Manufacturing:									
Salaries <sup>2</sup> .....	157,367	5,046	645	87,980	19,176	1,080		21,301	4,290
Wages.....	1,227,467	18,538	12,338	457,748	122,725	49,178	28,158	174,168	116,554
Distribution.....	41,243		1,696	29,842	2,880	3,998		10,750	10,020
Construction.....	2,619			9,430				1,599	
Other.....	3,235			13,749					
Cost of materials, supplies, containers, fuel, purchased electric energy, and contract work, total.....	853,401	16,174	6,255	587,671	112,820	19,792	12,573	122,745	65,992
Materials, supplies, and containers.....	661,211	14,580	4,621	498,504	103,965	14,016	10,063	86,220	50,521
Fuel.....	46,013	1,305	309	30,995	1,875	2,419	1,206	12,623	4,924
Purchased electric energy.....	135,511	289	1,325	55,348	5,867	3,110	1,304	22,278	9,222
Contract work.....	10,666			2,824	1,113	247		1,624	1,325
Value of products.....	3,497,705	51,496	33,594	1,847,260	409,159	129,652	61,929	527,974	303,534
Value added by manufacture <sup>4</sup> .....	2,644,304	35,322	27,339	1,259,589	296,339	109,860	49,356	405,229	237,592

<sup>1</sup> See GENERAL EXPLANATIONS—Definition of establishment.<sup>2</sup> See GENERAL EXPLANATIONS—Persons engaged—general classification.<sup>3</sup> See GENERAL EXPLANATIONS—Wage earners and wages.<sup>4</sup> Value of products less cost of materials, supplies, containers, fuel, purchased electric energy, and contract work. See GENERAL EXPLANATIONS—Value added by manufacture.<sup>5</sup> Colorado, 2 establishments; Delaware, 1; Georgia, 3; Kentucky, 1; Nebraska, 1; New Hampshire, 1; Tennessee, 1; Virginia, 1.

TABLE 3.—VALUE OF PRODUCTS FOR THE UNITED STATES: 1939 AND 1937

TABLE 4.—PRODUCTS, BY KIND, QUANTITY, AND VALUE, FOR THE UNITED STATES: 1939 AND 1937

No detailed production statistics collected for this industry.

TABLE 5.—WAGE EARNERS ENGAGED IN MANUFACTURING, BY MONTHS, FOR THE UNITED STATES, 1939  
1937, AND 1929, AND BY STATES, 1939

STATE	Average number employed during year	NUMBER RECEIVING PAY DURING NORMAL PAY-ROLL PERIOD ENDED NEAREST 15TH OF MONTH—											
		January	February	March	April	May	June	July	August	September	October	November	December
United States:													
1939	8,206	7,390	7,571	7,650	7,688	7,698	7,554	7,585	8,040	8,559	9,147	9,738	9,852
1937	8,256	7,749	7,887	7,995	8,335	8,532	8,643	8,233	8,135	8,414	8,950	8,471	7,730
1929	5,928	5,504	5,803	5,969	6,256	6,235	6,135	5,977	6,007	6,088	6,120	5,764	5,275
California	476	444	449	459	450	467	472	471	487	490	503	507	510
Connecticut	395	348	374	380	381	401	394	393	387	382	398	438	450
District of Columbia	21	19	20	20	20	20	21	21	20	20	20	23	28
Florida	10	10	10	10	8	9	11	9	10	10	12	12	12
Illinois	1,740	1,608	1,620	1,633	1,648	1,683	1,656	1,675	1,728	1,802	1,896	2,013	1,902
Indiana	241	212	212	216	225	232	213	200	229	244	265	297	345
Iowa	48	46	42	44	47	49	47	47	50	51	53	50	47
Louisiana	11	11	11	11	11	11	11	11	11	11	10	10	10
Maryland	36	34	33	31	33	36	37	39	37	37	36	37	39
Massachusetts	518	451	468	483	476	471	481	497	536	537	591	617	587
Michigan	811	821	796	746	748	672	599	623	698	860	1,013	1,068	1,091
Minnesota	94	84	92	106	106	100	88	87	87	96	94	84	104
Missouri	195	179	186	196	190	195	195	197	197	202	198	206	200
New Jersey	231	213	215	221	227	221	233	222	230	225	231	260	269
New York	1,384	1,104	1,236	1,293	1,303	1,337	1,313	1,327	1,411	1,477	1,568	1,607	1,546
Ohio	1,033	844	925	895	895	863	890	833	924	1,097	1,199	1,439	1,602
Oklahoma	13	13	13	13	13	13	13	13	13	13	13	13	13
Oregon	10	9	10	10	10	10	10	10	10	10	10	10	10
Pennsylvania	469	423	429	441	451	465	454	455	467	452	499	522	572
Rhode Island	130	116	110	94	100	116	107	118	158	166	172	168	133
Texas	50	48	47	49	49	50	50	50	50	51	51	50	51
Washington	17	15	15	15	17	17	17	16	19	19	16	19	17
Wisconsin	162	142	151	152	156	150	144	152	165	170	193	180	185

TABLE 6.—EXPENDITURES FOR PLANT AND EQUIPMENT: 1939

	1939
Number of establishments:	
Total for the industry	643
Reporting expenditures for plant and equipment	316
Value of products:	
Total for the industry	\$28,168,051
Reporting expenditures for plant and equipment	19,681,908
Expenditures for plant and equipment:	
Total for the industry	777,190
Expenditures for new construction or major alterations of buildings and other fixed plant and structures	148,806
Expenditures for new machinery and operating equipment	499,960
Expenditures for plant and equipment acquired in a "used" condition from other owners and expenditures for land	128,424

TABLE 7.—VALUE OF INVENTORIES OF MATERIALS AND FINISHED PRODUCTS, AND VALUE OF PRODUCTS: 1939 AND 1937

	1939	1937
Inventories:		
Beginning of year, total	\$1,514,831	\$1,192,514
Finished products	288,412	246,831
Materials, supplies, etc.	1,226,419	945,683
End of year, total	1,682,482	1,366,362
Finished products	308,145	224,282
Materials, supplies, etc.	1,374,337	1,142,080
Value of products for the industry, total	28,168,051	26,686,411
Value for establishments reporting inventories (includes value of products of establishments reporting no inventories on hand)	28,143,542	24,138,656
Value for establishments not reporting inventories	24,509	2,547,755

TABLE 8.—PRIME MOVERS, MOTORS, GENERATORS, AND ELECTRIC ENERGY: 1939 AND 1929

	1939	1929
Number of establishments	643	534
Number of establishments reporting power equipment	642	513
Prime movers, aggregate:		
Number	35	12
Horsepower	2,779	277

TABLE 8.—PRIME MOVERS, MOTORS, GENERATORS, AND ELECTRIC ENERGY: 1939 AND 1929—Continued

	1939	1929
Prime movers—Continued.		
Prime movers, driving generators, total—		
Number	30	112
Horsepower	2,319	1,277
Steam engines—		
Number	4	19
Horsepower	565	1,222
Diesel and semi-Diesel engines—		
Number	24	13
Horsepower	1,494	155
Other internal-combustion engines <sup>2</sup> —		
Number	2	
Horsepower	260	
Prime movers, driving generators, ordinarily idle (included above), horsepower	604	
Prime movers not driving generators, total—		
Number	5	(1)
Horsepower	460	
Steam engines—		
Number	2	
Horsepower	165	
Diesel and semi-Diesel engines—		
Number	1	
Horsepower	180	
Other internal-combustion engines <sup>2</sup> —		
Number	2	
Horsepower	115	
Prime movers not driving generators, ordinarily idle (included above), horsepower	90	(3)
Generators, kilowatt rating, total	1,545	159
Generators, driven by—		
Steam engines, kilowatt rating	373	
Diesel and semi-Diesel engines, kilowatt rating	1,007	(3)
Other internal-combustion engines, <sup>2</sup> kilowatt rating	165	
Generators, ordinarily idle (included above), kilowatt rating	410	(4)
Electric motors, total:		
Number	7,040	3,464
Horsepower	39,697	23,934
Driven by purchased energy—		
Number	6,807	3,451
Horsepower	38,517	23,738
Driven by energy generated in establishments reporting—		
Number	233	13
Horsepower	1,180	196
Electric energy (kilowatt-hours):		
Generated in plant	2,284,556	(4)
Purchased	38,869,317	18,315,202

<sup>1</sup> Includes data for prime movers not driving generators.<sup>2</sup> Gas, gasoline, etc.<sup>3</sup> Not called for on schedule.<sup>4</sup> Data not available.

# LIGHTING FIXTURES

[A preliminary report for this industry was issued November 15, 1940]

**Description of the industry.**—This industry embraces establishments engaged primarily in the production of lighting equipment, chiefly by assembling purchased parts and partly manufactured materials. The products include all types of lighting equipment, such as lighting fixtures for residences and other buildings, portable lamps and lanterns (kerosene, gasoline, etc., as well as electric), motor-vehicle lamps, marine lighting equipment, searchlights and floodlights, and miners' lamps. Some of the manufacturers in the industry make metal reflectors, gas mantles, and similar accessories. This classification does not cover the manufacture of generating apparatus, incandescent lamps (bulbs), therapeutic lamps, glass lighting equipment and parts, such as lamp bodies and chimneys, lantern globes, glass shades and bowls, and so-called "lenses" for headlights, nor paper, parchment, and fabric lamp shades. Much of the material used in the "Lighting fixtures" industry comes in the form of sheets, tubing, and spun metal, from manufacturers in the "Alloying; and rolling and drawing of nonferrous metals, except aluminum" and "Nonferrous-metal products not elsewhere classified" industries.

**TABLE 1.—SUMMARY FOR THE UNITED STATES: 1899 TO 1939**

CENSUS YEAR	Number of establishments <sup>1</sup>	Wage earners (average for the year) <sup>2</sup>	Wages	{Cost of materials, supplies, fuel, purchased electric energy, and contract work <sup>3</sup>	Value of products	Value added by manufacture <sup>4</sup>	Horse-power of prime movers
1899.....	568	20,477	\$23,238,474	\$59,850,505	\$124,581,725	\$64,731,220	2,872
1937.....	466	21,743	24,918,165	55,593,363	115,096,494	59,503,131	( <sup>5</sup> )
1935.....	501	16,677	17,231,798	40,113,680	85,700,128	45,586,448	( <sup>5</sup> )
1933.....	357	10,538	9,506,299	19,240,956	46,173,480	26,932,624	( <sup>5</sup> )
1931.....	523	14,790	18,150,368	30,312,448	75,050,429	44,737,981	( <sup>5</sup> )
1929.....	614	23,580	33,268,595	57,918,407	144,965,706	87,047,299	4,224
1927.....	481	21,030	29,206,824	55,608,545	127,802,407	72,193,862	4,873
1925.....	517	22,334	31,072,058	57,770,318	129,698,389	71,527,571	7,149
1923.....	535	22,919	29,097,143	52,639,539	118,978,627	66,338,058	( <sup>5</sup> )
1921.....	465	15,866	18,523,190	32,801,606	72,054,398	39,252,792	( <sup>5</sup> )
1919.....	512	18,155	19,094,877	38,687,571	80,366,870	41,679,299	7,435
1914.....	611	18,047	10,677,034	22,101,898	45,378,224	23,276,326	9,007
1909.....	619	18,861	10,393,078	20,467,357	45,057,372	24,590,015	8,714
1904.....	405	12,570	6,407,984	11,077,758	26,560,260	15,482,502	6,212
1899.....	370	11,238	5,188,063	7,961,965	19,821,334	11,859,369	5,280

<sup>1</sup> See GENERAL EXPLANATIONS—Definition of establishment.

<sup>2</sup> See GENERAL EXPLANATIONS—Wage earners and wages.

<sup>3</sup> Figures for years prior to 1935 do not include cost of contract work.

<sup>4</sup> Value of products less cost of materials, supplies, fuel, purchased electric energy, and contract work. See GENERAL EXPLANATIONS—Value added by manufacture.

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

<sup>6</sup> Data not available.

**TABLE 2.—GENERAL STATISTICS IN DETAIL BY STATES: 1939**

[See GENERAL EXPLANATIONS—Disclosure of data for individual establishments]

ITEM	United States	California	Connecticut	Illinois	Maryland	Massachusetts	Michigan	Minnesota
Number of establishments <sup>1</sup> .....	568	82	15	97	4	18	6	3
Proprietors and firm members.....	346	87	5	46	4	13	1	2
Persons reported by manufacturing establishments, total <sup>2</sup> .....	25,686	902	1,510	5,200	23	766	850	21
Salaried officers of corporations <sup>2</sup> .....	650	52	25	124	2	14	9	4
Manufacturing:.....								
Salaried employees <sup>2</sup> .....	2,416	78	179	412	3	104	48	4
Wage earners (average for the year) <sup>3</sup> .....	20,477	661	1,146	3,027	18	589	778	10
Distribution.....	1,999	104	138	703		10	15	3
Construction.....	12	1	7	7				
Other.....	132	6	22	27		49		
Salaries and wages, total <sup>3</sup> .....	\$35,757,741	\$1,224,777	\$2,013,343	\$7,267,152	\$24,259	\$983,228	\$1,505,841	\$34,279
Salaried officers <sup>2</sup> .....	3,709,681	166,053	162,625	910,926	7,551	66,906	60,160	12,700
Manufacturing:.....								
Salaries <sup>2</sup> .....	4,604,120	147,358	351,385	764,274	3,585	154,276	103,735	5,692
Wages.....	23,238,474	726,554	1,177,837	4,004,321	13,123	618,005	1,303,645	12,673
Distribution.....	3,947,721	178,136	243,502	1,449,950		53,575	38,301	3,214
Construction.....	18,661	1,398		10,751				
Other.....	239,084	5,278	77,994	36,930		90,466		
Cost of materials, supplies, containers, fuel, purchased electric energy, and contract work, total.....	59,850,505	2,061,093	2,319,237	10,583,664	18,593	1,315,851	3,559,762	40,212
Materials, supplies, and containers.....	57,869,697	1,998,881	2,178,760	10,194,770	17,352	1,256,276	3,471,699	25,831
Fuel.....	627,286	6,226	52,026	144,363	294	12,805	24,294	
Purchased electric energy.....	999,083	22,361	69,451	163,133	597	33,728	52,570	620
Contract work.....	354,439	33,625	18,100	81,398	350	13,042	11,299	13,761
Value of products.....	124,581,725	4,269,935	5,350,852	23,079,003	61,394	2,989,154	5,773,191	116,286
Value added by manufacture <sup>4</sup> .....	64,731,220	2,208,842	3,031,615	12,495,339	42,801	1,673,303	2,213,429	76,074

See footnotes at end of table.

# LIGHTING FIXTURES

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TABLE 2.—GENERAL STATISTICS IN DETAIL BY STATES: 1939—Continued

ITEM	Missouri	New Jersey	New York	Ohio	Pennsylvania	Wisconsin	Other States <sup>4</sup>
Number of establishments <sup>1</sup> .....	12	21	191	37	45	12	25
Proprietors and firm members.....	9	9	102	24	38	4	11
Persons reported by manufacturing establishments, total <sup>2</sup> .....	692	1,399	5,685	3,283	1,469	354	3,532
Salaried officers of corporations <sup>2</sup> .....	32	30	242	33	34	19	30
Manufacturing:							
Salaried employees <sup>2</sup> .....	67	150	540	320	89	40	382
Wage earners (average for the year) <sup>2</sup> .....	488	1,181	4,390	2,754	1,222	267	3,046
Distribution.....	98	38	505	170	119	27	69
Construction.....	7	2	2	1	5	1	1
Other.....	7	6	6	5	5	1	4
Salaries and wages, total <sup>2</sup> .....	\$1,039,957	\$2,021,947	\$8,087,803	\$4,573,097	\$1,692,973	\$424,621	\$4,864,464
Salaried officers <sup>2</sup> .....	171,549	235,675	1,239,514	296,657	197,061	72,240	110,064
Manufacturing:							
Salaries <sup>2</sup> .....	144,146	338,269	881,881	632,671	148,351	58,578	869,919
Wages.....	534,168	1,361,356	5,001,303	3,273,925	1,158,996	208,559	3,754,009
Distribution.....	182,032	86,647	955,848	362,579	181,799	84,767	127,371
Construction.....	8,062	4,400	4,857	1,250	6,766	477	862
Other.....	8,062	4,857	4,857	6,015	6,766	477	2,239
Cost of materials, supplies, containers, fuel, purchased electric energy, and contract work, total.....	1,070,468	3,072,413	15,705,666	8,764,767	3,699,748	564,450	7,074,581
Materials, supplies, and containers.....	1,025,810	3,006,734	15,243,073	8,542,985	3,629,827	532,397	6,745,402
Fuel.....	8,369	18,265	102,539	71,936	26,727	4,734	153,808
Purchased electric energy.....	29,040	47,261	228,373	134,879	35,494	11,443	170,133
Contract work.....	7,249	153	131,681	14,967	7,700	15,876	5,238
Value of products.....	2,769,628	6,146,613	30,466,997	18,196,062	6,920,140	1,286,960	17,155,510
Value added by manufacture <sup>4</sup> .....	1,699,160	3,074,200	14,761,331	9,431,295	3,220,392	722,510	10,080,929

<sup>1</sup> See GENERAL EXPLANATIONS—Definition of establishment.

<sup>2</sup> See GENERAL EXPLANATIONS—Wage earners and wages.

<sup>3</sup> Value of products less cost of materials, supplies, containers, fuel, purchased electric energy, and contract work. See GENERAL EXPLANATIONS—Value added by manufacture.

<sup>4</sup> Alabama, 1 establishment; Colorado, 1; Indiana, 10; Iowa, 3; Kentucky, 2; Louisiana, 1; New Mexico, 1; Oklahoma, 1; Oregon, 1; Rhode Island, 1; Texas, 1; Utah, 1; Washington, 1.

<sup>2</sup> See GENERAL EXPLANATIONS—Persons engaged—general classification.

TABLE 3.—VALUE OF PRODUCTS FOR THE UNITED STATES: 1939, 1937, AND 1929

ITEM	1939	1937	1929
Lighting Fixtures industry, all products, total value.....	\$124,581,725	\$115,096,494	\$144,965,706
Lighting fixtures.....	110,600,755	103,625,785	138,894,751
Miscellaneous products not specified.....	2,341,876		
Merchandising.....	133,126		
Scrap and salable refuse.....	868,455	11,470,709	6,070,955
Receipts for contract and repair work.....	716,100		
Other products (not classified in this industry).....	1,921,413		
Lighting fixtures, aggregate value.....	124,885,244	122,591,328	155,783,895
Lighting fixtures made in this industry.....	110,600,755	103,625,785	138,894,751
Lighting fixtures made as secondary products in other industries.....	14,284,489	18,965,543	16,889,144

<sup>1</sup> Value of switch boxes, switchboard panels and cabinets, time switches, metal smoking stands, etc.

<sup>2</sup> Revised.

TABLE 4.—PRODUCTS, BY KIND AND VALUE, FOR THE UNITED STATES: 1939, 1937, AND 1929

PRODUCT	1939	1937	1929
Aggregate value.....	\$124,885,244	\$122,591,328	\$155,783,895
Electric lighting fixtures, total value.....	113,207,082	106,803,273	129,325,883
Residence fixtures:			
Ceiling or chandelier type, except kitchen units.....	10,437,543	9,643,002	16,611,810
Wall or bracket type, except kitchen units.....	2,889,472	3,155,208	7,094,845
Kitchen units.....	1,470,632	844,414	1,539,841
Portable lamps (table, boudoir, bridge, and floor).....	25,780,800	23,301,204	19,787,570
Candelabra, candlesticks, and electric candles (except battery).....	616,892	92,044	739,886
Lanterns and other outdoor fixtures, including out-outs, but not including transformers.....	1,202,739	1,822,197	1,763,093
Other residence fixtures.....	869,038	2,032,185	3,719,735
Commercial fixtures:			
Auditorium, church, and theater.....	2,320,800	2,965,446	5,878,962
Public building, bank, store, office building, school, etc. (other than window and showcase).....	8,468,738	6,199,615	8,455,257

TABLE 4.—PRODUCTS, BY KIND AND VALUE, FOR THE UNITED STATES: 1939, 1937, AND 1929—Continued

PRODUCT	1939	1937	1929
Electric lighting fixtures—Continued.			
Commercial fixtures—Continued.			
Window, showcase, and display lighting equipment—			
Interior floodlights without reflectors.....	\$222,222	\$122,031	(1)
Interior floodlights with reflectors.....	206,618	77,409	(1)
Show-window reflectors, glass.....	488,193	481,846	(1)
Show-window reflectors, metal.....	552,391	423,455	(1)
Interior directional signs.....	88,814	66,850	(1)
Photographing, photoengraving, and blueprinting.....	239,727	423,823	\$490,738
Industrial fixtures:			
Porcelain-enameled fixtures (including reflectors and shades)—			
Factory.....	2,737,314	2,019,972	1,630,983
Explosion-proof, dust-tight, and vapor-proof lighting units.....	390,305	296,739	(1)
All other (including reflectors and shades).....	637,224	622,161	(1)
Miscellaneous electric-lighting equipment:			
Arc electric lamps (except therapeutic).....	735,493	1,148,087	(1)
Desk and reading lamps.....	1,309,254	719,843	1,077,356
Motor-vehicle lamps, complete.....	26,556,656	29,862,690	36,384,191
Marine lighting equipment.....	1,372,197	1,076,658	(1)
Floodlights, searchlights, and spotlights.....	5,663,384	4,899,436	(1)
Street and highway lighting fixtures (except traffic signals).....	3,319,625	2,650,343	7,337,243
Flashlight cases, including candle type.....	4,915,842	5,772,351	(1)
Other electric lighting equipment.....	9,715,169	6,084,264	16,814,373
Kerosene and gasoline lamps and lanterns.....	3,150,120	3,944,455	5,676,259
Reflectors and fittings:			
Metal reflectors—			
Porcelain-enameled.....	575,511	1,437,719	3,683,071
Paint-enameled and all other.....	762,506	964,071	1,277,742
Glass reflectors.....	390,964	230,815	(1)
Incandescent mantles.....	243,986	538,910	1,595,978
Carbide lamps.....	390,561	779,175	751,504
Gas fixtures.....	116,320	296,355	(1)
Other lighting fixtures and equipment.....	1,055,222	1,151,950	3,785,530
Parts.....	4,265,011	3,842,549	4,767,217
Lighting equipment not reported by kind.....	727,961	2,602,056	4,920,711

<sup>1</sup> No comparable data.

<sup>2</sup> Classified in Electrical Machinery group for 1929. The value reported for that year is given as \$7,050,437.

<sup>3</sup> Reported as "All-glass and all-porcelain" for 1929.

TABLE 5.—WAGE EARNERS ENGAGED IN MANUFACTURING, BY MONTHS, FOR THE UNITED STATES, 1939, 1937, AND 1929, AND BY STATES, 1939

[See GENERAL EXPLANATIONS—Disclosure of data for individual establishments]

STATE	Average number employed during year	NUMBER RECEIVING PAY DURING NORMAL PAY-ROLL PERIOD ENDED NEAREST 15TH OF MONTH—											
		January	February	March	April	May	June	July	August	September	October	November	December
United States:													
1939.....	20,477	18,964	19,785	19,745	18,929	17,902	17,533	17,941	19,774	22,280	24,177	24,583	24,111
1937.....	21,743	19,365	22,146	22,507	21,693	21,353	21,217	20,910	21,157	23,028	24,508	23,346	19,686
1929.....	23,580	23,097	23,693	23,804	24,141	24,101	23,672	23,339	23,999	24,613	24,348	22,696	21,461
California.....	661	647	672	651	614	636	637	623	687	695	661	702	706
Connecticut.....	1,146	1,094	1,064	1,083	1,074	1,065	1,065	1,000	1,155	1,215	1,299	1,329	1,307
Illinois.....	3,927	3,599	3,807	3,779	3,389	3,276	3,452	3,658	3,900	4,275	4,634	4,920	4,432
Indiana.....	2,877	2,846	2,830	2,769	2,591	2,349	2,311	2,049	2,428	3,071	3,718	3,922	3,642
Iowa.....	36	27	28	29	28	33	33	33	36	35	47	57	46
Maryland.....	18	15	16	19	19	19	18	20	19	20	20	20	17
Massachusetts.....	589	615	622	614	608	596	535	519	545	571	581	624	633
Michigan.....	778	782	778	783	728	341	337	750	693	934	1,010	1,083	1,112
Minnesota.....	10	9	9	10	10	10	10	10	11	11	11	11	11
Missouri.....	458	474	458	450	443	452	462	479	503	514	517	548	555
New Jersey.....	1,181	765	1,065	1,103	1,155	1,162	1,111	1,181	1,299	1,315	1,336	1,363	1,316
New York.....	4,390	3,882	4,111	4,185	4,040	3,785	3,683	3,718	4,274	4,634	5,285	5,620	5,459
Ohio.....	2,754	2,870	2,795	2,712	2,703	2,667	2,411	2,369	2,568	3,212	3,222	2,450	3,072
Pennsylvania.....	1,222	1,002	1,137	1,166	1,121	1,123	1,087	1,121	1,245	1,352	1,456	1,512	1,348
Wisconsin.....	267	240	267	265	279	262	254	270	272	284	242	266	304

TABLE 6.—EXPENDITURES FOR PLANT AND EQUIPMENT: 1939

	1939
Number of establishments:	
Total for the industry.....	568
Reporting expenditures for plant and equipment.....	279
Value of products:	
Total for the industry.....	\$124,581,725
Reporting expenditures for plant and equipment.....	97,498,833
Expenditures for plant and equipment:	
Total for the industry.....	1,675,916
Expenditures for new construction or major alterations of buildings and other fixed plant and structures.....	190,193
Expenditures for new machinery and operating equipment.....	1,356,504
Expenditures for plant and equipment acquired in a "used" condition from other owners and expenditures for land.....	129,219

TABLE 7.—VALUE OF INVENTORIES OF MATERIALS AND FINISHED PRODUCTS, AND VALUE OF PRODUCTS: 1939 AND 1937

	1939	1937
Inventories:		
Beginning of year, total.....	\$16,149,931	\$16,210,997
Finished products.....	6,397,519	6,772,070
Materials, supplies, etc.....	9,752,412	9,438,927
End of year, total.....	18,313,508	18,278,018
Finished products.....	6,420,828	7,792,833
Materials, supplies, etc.....	11,892,680	10,485,185
Value of products for the industry, total.....	124,581,725	115,096,494
Value for establishments reporting inventories (includes value of products of establishments reporting no inventories on hand).....	124,255,340	108,857,533
Value for establishments not reporting inventories.....	326,385	6,238,961

TABLE 8.—PRIME MOVERS, MOTORS, GENERATORS, AND ELECTRIC ENERGY: 1939 AND 1929

	1939	1929
Number of establishments.....	568	614
Number of establishments reporting power equipment.....	566	564
Prime movers, aggregate:		
Number.....	21	34
Horsepower.....	2,872	4,224
Prime movers, driving generators, total—		
Number.....	12	134
Horsepower.....	2,253	14,224
Steam engines—		
Number.....	2	125
Horsepower.....	194	13,260

TABLE 8.—PRIME MOVERS, MOTORS, GENERATORS, AND ELECTRIC ENERGY: 1939 AND 1929—Continued

	1939	1929
Prime movers—Continued.		
Prime movers, driving generators—Continued.		
Steam turbines—		
Number.....	1	11
Horsepower.....	500	1,125
Diesel and semi-Diesel engines—		
Number.....	5	14
Horsepower.....	495	189
Other internal-combustion engines <sup>2</sup> —		
Number.....	2	189
Horsepower.....	64	
Hydroturbines and water wheels—		
Number.....	2	14
Horsepower.....	1,000	1,750
Prime movers, driving generators, ordinarily idle (included above), horsepower.....	664	
Prime movers not driving generators, total—		
Number.....	9	
Horsepower.....	619	
Steam engines—		
Number.....	4	(3)
Horsepower.....	486	
Diesel and semi-Diesel engines—		
Number.....	1	
Horsepower.....	35	
Other internal-combustion engines <sup>2</sup> —		
Number.....	3	
Horsepower.....	63	
Hydroturbines and water wheels—		
Number.....	1	
Horsepower.....	35	
Generators, kilowatt rating, total.....	1,610	2,885
Generators, driven by—		
Steam engines, kilowatt rating.....	145	
Steam turbines, kilowatt rating.....	375	
Diesel and semi-Diesel engines, kilowatt rating.....	350	(9)
Other internal-combustion engines, <sup>2</sup> kilowatt rating.....	40	
Hydroturbines and water wheels, kilowatt rating.....	700	
Generators, ordinarily idle (included above), kilowatt rating.....	490	(9)
Electric motors, total:		
Number.....	12,976	7,948
Horsepower.....	64,351	37,034
Driven by purchased energy—		
Number.....	12,835	7,715
Horsepower.....	63,871	35,985
Driven by energy generated in establishments reporting—		
Number.....	141	233
Horsepower.....	480	1,049
Electric energy (kilowatt-hours):		
Generated in plant.....	1,299,670	(9)
Purchased.....	54,437,716	45,002,670

<sup>1</sup> Includes data for prime movers not driving generators.  
<sup>2</sup> Gas, gasoline, etc.  
<sup>3</sup> Not called for on schedule.  
<sup>4</sup> Data not available.

## NONFERROUS-METAL FOUNDRIES (EXCEPT ALUMINUM)

[A preliminary report for this industry was issued October 28, 1940]

**Description of the industry.**—This industry embraces nonferrous-metal foundries primarily engaged in manufacturing castings, for sale as such (not including die castings), of all nonferrous metals except aluminum.

Prior to 1939 nonferrous-metal foundries were part of the "Nonferrous-metal alloys; nonferrous products, except aluminum, not elsewhere classified" industry. Figures comparable with those for 1939 have been prepared for 1937, but no comparable figures for earlier census years are available.

TABLE 1.—SUMMARY FOR THE UNITED STATES: 1939 AND 1937

CENSUS YEAR	Number of establishments <sup>1</sup>	Wage earners (average for the year) <sup>2</sup>	Wages	Cost of materials, supplies, fuel, purchased electric energy, and contract work	Value of products	Value added by manufacture <sup>3</sup>	Horse-power of prime movers
1939	600	9,699	\$12,210,365	\$28,703,313	\$55,636,898	\$26,933,585	635
1937	545	11,032	14,098,780	37,982,771	69,528,424	31,545,653	(4)

<sup>1</sup> See GENERAL EXPLANATIONS—Definition of establishment.  
<sup>2</sup> See GENERAL EXPLANATIONS—Wage earners and wages.  
<sup>3</sup> Value of products less cost of materials, supplies, fuel, purchased electric energy, and contract work. See GENERAL EXPLANATIONS—Value added by manufacture.  
<sup>4</sup> Not called for on schedule.

TABLE 2.—GENERAL STATISTICS IN DETAIL BY STATES: 1939

[See GENERAL EXPLANATIONS—Disclosure of data for individual establishments]

ITEM	United States	California	Connecticut	Georgia	Illinois	Indiana	Iowa	Kentucky	Massachusetts	Michigan	Minnesota	Missouri
Number of establishments <sup>1</sup> .....	600	64	22	5	58	15	5	4	41	25	6	13
Proprietors and firm members.....	426	68	8	3	42	10	3	1	37	10	4	5
Persons reported by manufacturing establishments, total <sup>2</sup> .....	11,499	802	441	62	1,427	192	126	71	423	725	95	560
Salaried officers of corporations <sup>2</sup> .....	474	27	26	1	50	15	3	6	25	24	7	18
Manufacturing:												
Salaried employees <sup>2</sup> .....	936	59	23	10	96	15	12	7	27	91	5	58
Wage earners (average for the year) <sup>2</sup> .....	9,699	682	384	50	1,236	155	108	58	363	582	81	470
Distribution.....	294	33	7	1	37	1	3	5	5	19	1	13
Construction.....	38	1	1	1	3	1	3	3	3	8	1	1
Other.....	58	1	1	1	5	6	6	6	3	1	2	1
Salaries and wages, total <sup>2</sup> .....	\$16,682,104	\$1,148,936	\$556,225	\$72,479	\$1,890,698	\$226,627	\$122,253	\$92,013	\$682,474	\$1,127,695	\$155,547	\$884,203
Salaried officers <sup>2</sup> .....	1,982,857	87,842	85,837	1,463	228,671	32,946	15,756	5,400	94,010	78,441	33,452	132,864
Manufacturing:												
Salaries <sup>2</sup> .....	1,792,441	111,612	38,753	20,875	183,294	21,158	22,978	16,821	48,192	143,830	10,619	148,836
Wages.....	12,210,365	889,680	422,762	48,391	1,418,695	165,507	80,688	69,792	520,656	861,008	110,314	564,179
Distribution.....	560,999	59,242	7,563	1,750	51,670	1,800	2,831	2,831	16,531	41,216	1	36,883
Construction.....	71,974	-----	-----	-----	4,800	-----	-----	-----	3,085	2,160	-----	-----
Other.....	63,468	560	1,310	-----	3,668	5,216	-----	-----	-----	1,040	1,162	1,441
Cost of materials, supplies, fuel, purchased electric energy, and contract work, total.....	28,703,313	2,439,816	746,358	112,594	2,950,744	351,190	235,576	116,929	1,004,674	1,143,909	351,019	2,391,058
Materials and supplies.....	26,873,748	2,337,937	684,421	103,948	2,730,256	323,612	219,168	101,909	936,230	1,031,808	329,063	2,314,646
Fuel.....	1,009,099	45,444	36,497	6,033	131,149	16,314	10,140	9,452	51,161	49,130	15,375	45,386
Purchased electric energy.....	562,854	27,297	15,506	2,326	61,859	9,518	6,268	5,568	17,060	41,154	5,759	24,738
Contract work.....	257,612	29,138	9,934	287	27,480	1,746	-----	-----	223	21,817	822	6,288
Value of products.....	55,636,898	4,216,666	1,541,777	211,141	5,888,774	709,703	475,756	301,460	2,001,624	2,643,480	627,800	3,998,928
Value added by manufacture <sup>4</sup> .....	26,933,585	1,776,850	795,419	98,547	2,938,030	358,513	240,180	184,531	996,950	1,499,571	276,781	1,607,870

See footnotes at end of table.

CENSUS OF MANUFACTURES: 1939

TABLE 2.—GENERAL STATISTICS IN DETAIL BY STATES: 1939—Continued

ITEM	New Hampshire	New Jersey	New York	Ohio	Oregon	Pennsylvania	Rhode Island	Texas	Washington	West Virginia	Wisconsin	Other States <sup>1</sup>
Number of establishments <sup>1</sup> .....	4	33	64	74	6	61	8	12	14	4	23	39
Proprietors and firm members.....	2	28	38	50	4	39	12	6	8	4	12	32
Persons reported by manufacturing establishments, total <sup>2</sup> .....	26	399	1,224	1,933	51	1,255	42	239	107	63	637	697
Salaried officers of corporations <sup>3</sup> .....	2	12	64	65	4	56	1	6	15	4	25	18
Manufacturing:												
Salaried employees <sup>3</sup> .....	2	34	87	145	7	95	2	22	9	7	63	60
Wage earners (average for the year) <sup>3</sup> .....	22	339	1,041	1,638	40	1,073	38	199	74	48	414	602
Distribution.....		10	17	49		28	1	12	7	4	32	16
Construction.....			2	21		1						
Other.....		4	13	15		2			2		3	2
Salaries and wages, total <sup>3</sup> .....	\$32,864	\$569,071	\$1,762,410	\$2,966,432	\$79,259	\$1,814,279	\$55,071	\$327,013	\$178,818	\$101,634	\$900,113	\$936,000
Salaried officers <sup>2</sup> .....	2,024	53,285	298,865	268,688	11,850	236,052	3,176	29,586	54,818	17,955	130,127	79,749
Manufacturing:												
Salaries <sup>2</sup> .....	3,862	55,572	147,901	309,923	14,021	172,757	3,758	56,504	10,773	10,913	117,442	122,047
Wages.....	26,968	430,592	1,274,794	2,216,274	53,388	1,350,645	46,983	226,944	96,501	65,628	558,980	711,086
Distribution.....		20,130	28,013	92,641		52,369	1,154	13,979	14,780	7,138	89,833	21,476
Construction.....			767	59,707		1,455						
Other.....		9,492	12,070	19,199		1,001			1,946		3,731	1,632
Cost of materials, supplies, fuel, purchased electric energy, and contract work, total.....	138,218	1,403,209	2,685,420	4,120,082	155,103	4,041,963	116,540	396,899	166,867	138,289	1,110,597	2,386,259
Materials and supplies.....	130,368	1,334,300	2,460,028	3,894,485	143,681	3,793,373	107,894	369,887	145,490	127,670	983,916	2,269,678
Fuel.....	5,748	45,061	124,653	136,511	7,783	115,231	6,427	12,822	4,854	5,422	60,085	68,421
Purchased electric energy.....	2,102	23,848	52,899	86,639	3,639	94,237	1,741	14,210	3,658	5,197	29,653	27,928
Contract work.....			47,840	2,397		39,122	478		12,865		36,943	20,232
Value of products.....	192,435	2,506,159	5,637,077	8,019,890	274,949	7,405,622	222,033	1,100,820	416,180	338,758	2,466,131	3,839,735
Value added by manufacture <sup>4</sup> .....	54,217	1,102,950	2,951,657	4,499,808	119,846	3,363,659	105,493	703,921	249,313	200,469	1,355,534	1,453,476

<sup>1</sup> See GENERAL EXPLANATIONS—Definition of establishment.

<sup>2</sup> See GENERAL EXPLANATIONS—Persons engaged—general classification.

<sup>3</sup> See GENERAL EXPLANATIONS—Wage earners and wages.

<sup>4</sup> Value of products less cost of materials, supplies, fuel, purchased electric energy, and contract work. See GENERAL EXPLANATIONS—Value added by manufacture.

<sup>5</sup> Alabama, 2 establishments; Arkansas, 2; Colorado, 6; Delaware, 1; Florida, 1; Kansas, 2; Louisiana, 2; Maine, 2; Maryland, 7; Nebraska, 1; North Carolina, 1; Oklahoma, 4; South Carolina, 1; Tennessee, 3; Utah, 2; Vermont, 2.

TABLE 3.—VALUE OF PRODUCTS FOR THE UNITED STATES: 1939 AND 1937

	1939	1937
Nonferrous-Metal Foundries (Except Aluminum) industry, all products, total value.....	\$55,636,898	\$69,523,424
Nonferrous-metal castings, rough (except aluminum).....	38,649,041	46,296,011
Miscellaneous products not specified.....	3,136,369	23,232,413
Scrap and salable refuse.....	194,046	
Receipts for contract work.....	627,064	
Other products (not classified in this industry).....	1,030,378	
Nonferrous-metal castings, etc., aggregate value.....	51,711,178	63,211,051
Nonferrous-metal castings, etc., made in this industry.....	38,649,041	46,296,011
Nonferrous-metal castings, etc., made as secondary products in other industries.....	13,062,137	16,915,040

<sup>1</sup> Value of bearings and bushings, die castings, forged and hot-pressed parts, and hardware.

TABLE 4.—PRODUCTS, BY KIND, QUANTITY, AND VALUE, FOR THE UNITED STATES: 1939 AND 1937

PRODUCT	1939			1937
	Produced in the industry	Produced in other industries	Aggregate	
Total value.....	\$38,649,041	\$13,062,137	\$51,711,178	\$63,211,051
Castings, rough:				
Brass and bronze—				
Pounds.....	158,370,732	28,370,566	186,741,298	252,561,807
Value.....	\$31,634,678	\$6,077,379	\$37,712,057	\$49,354,200
Copper—				
Pounds.....	6,475,707	116,547	6,592,254	7,801,328
Value.....	\$1,745,207	\$31,829	\$1,777,036	\$2,214,418
Nickel alloys, other than heat-corrosion resistant—				
Pounds.....	1,719,891	558,655	2,278,546	3,026,851
Value.....	\$753,267	\$333,538	\$1,086,805	\$1,469,903
Other nonferrous (except aluminum) and those not specified by kind of metal, value.....	\$4,384,429	\$6,605,691	\$10,990,120	\$10,014,554
Bells.....	\$131,460	\$13,700	\$145,160	<sup>1</sup> \$157,976

<sup>1</sup> Revised; represents value of cast bells only.

NONFERROUS-METAL FOUNDRIES

TABLE 5.—WAGE EARNERS ENGAGED IN MANUFACTURING, BY MONTHS, FOR THE UNITED STATES, 1939 AND 1937, AND BY STATES, 1939

[See GENERAL EXPLANATIONS—Disclosure of data for individual establishments]

STATE	Average number employed during year	NUMBER RECEIVING PAY DURING NORMAL PAY-ROLL PERIOD ENDED NEAREST 15TH OF MONTH—											
		January	February	March	April	May	June	July	August	September	October	November	December
United States:													
1939.....	9,699	8,436	8,708	9,028	9,177	9,352	9,437	9,504	9,581	9,907	10,589	11,189	11,480
1937.....	11,032	10,818	11,118	11,355	11,467	11,633	11,561	11,485	11,286	11,266	10,739	10,035	9,623
California.....	682	573	633	654	652	681	713	700	708	729	725	726	685
Colorado.....	119	105	110	108	107	112	110	110	118	124	148	147	133
Connecticut.....	384	344	347	360	357	355	355	372	373	388	415	463	485
Georgia.....	50	44	43	45	45	57	53	45	47	50	52	58	55
Illinois.....	1,236	1,049	1,096	1,170	1,194	1,221	1,191	1,199	1,204	1,287	1,352	1,416	1,459
Indiana.....	155	142	139	144	145	153	153	150	158	164	177	171	169
Iowa.....	108	89	89	97	100	99	103	108	115	118	126	128	126
Kentucky.....	58	51	49	54	50	47	48	52	56	54	72	80	87
Maryland.....	137	83	124	147	135	129	119	116	131	147	169	171	174
Massachusetts.....	363	307	328	340	341	348	360	365	366	368	393	425	419
Michigan.....	582	463	479	476	522	554	587	595	543	618	704	659	790
Minnesota.....	81	71	79	76	77	84	81	84	82	83	86	86	86
Missouri.....	470	466	457	458	445	447	440	447	454	474	512	520	522
New Hampshire.....	22	22	23	22	22	22	22	22	22	23	22	22	22
New Jersey.....	339	299	305	315	315	315	323	342	349	357	374	389	387
New York.....	1,041	987	986	976	1,007	1,021	1,010	1,019	1,016	1,024	1,106	1,156	1,185
Ohio.....	1,638	1,295	1,320	1,457	1,498	1,558	1,594	1,575	1,638	1,667	1,775	2,093	2,180
Oklahoma.....	31	31	31	31	31	31	31	31	31	31	31	31	31
Oregon.....	40	40	39	34	33	37	41	43	42	37	43	44	45
Pennsylvania.....	1,073	942	979	997	1,008	994	1,036	1,060	1,074	1,100	1,189	1,240	1,254
Rhode Island.....	38	34	37	34	35	37	37	39	39	40	39	43	42
Tennessee.....	92	89	90	97	103	96	84	88	86	76	89	104	103
Texas.....	199	207	215	216	202	201	193	182	186	200	196	194	198
Washington.....	74	69	76	74	80	80	77	74	71	69	72	74	76
West Virginia.....	48	44	46	46	43	44	45	43	45	46	59	56	56
Wisconsin.....	414	368	365	387	406	408	413	415	414	418	449	460	465

TABLE 6.—EXPENDITURES FOR PLANT AND EQUIPMENT: 1939

	1939
Number of establishments:	
Total for the industry.....	600
Reporting expenditures for plant and equipment.....	308
Value of products:	
Total for the industry.....	\$55,636,898
Reporting expenditures for plant and equipment.....	35,713,415
Expenditures for plant and equipment:	
Total for the industry.....	1,100,343
Expenditures for new construction or major alterations of buildings and other fixed plant and structures.....	273,377
Expenditures for new machinery and operating equipment.....	691,602
Expenditures for plant and equipment acquired in a "used" condition from other owners and expenditures for land.....	135,364

TABLE 7.—VALUE OF INVENTORIES OF MATERIALS AND FINISHED PRODUCTS, AND VALUE OF PRODUCTS: 1939 AND 1937

	1939	1937
Inventories:		
Beginning of year, total.....	\$7,946,931	\$9,473,298
Finished products.....	1,844,424	3,314,848
Materials, supplies, etc.....	6,102,507	6,158,450
End of year, total.....	9,153,495	8,437,066
Finished products.....	1,952,419	3,522,494
Materials, supplies, etc.....	7,201,076	4,914,572
Value of products for the industry, total.....	55,636,898	69,528,424
Value for establishments reporting inventories (includes value of products of establishments reporting no inventories on hand).....	54,420,448	64,320,827
Value for establishments not reporting inventories.....	1,216,450	5,207,597

TABLE 8.—PRIME MOVERS, MOTORS, GENERATORS, AND ELECTRIC ENERGY: 1939<sup>1</sup>

	1939	1939
Number of establishments.....	600	
Number of establishments reporting power equipment.....	598	
Prime movers, aggregate:		
Number.....	9	
Horsepower.....	635	
Prime movers, driving generators, total—		
Number.....	7	
Horsepower.....	565	
Steam engines—		
Number.....	1	
Horsepower.....	75	
Diesel and semi-Diesel engines—		
Number.....	5	
Horsepower.....	465	
Hydroturbines and water wheels—		
Number.....	1	
Horsepower.....	25	
Prime movers not driving generators, total—		
Number.....	2	
Horsepower.....	70	
Internal-combustion engines, <sup>2</sup> other than Diesel and semi-Diesel—		
Number.....	2	
Horsepower.....	70	
Generators, kilowatt rating, total.....		405
Generators, driven by—		
Steam engines, kilowatt rating.....		125
Diesel and semi-Diesel engines, kilowatt rating.....		265
Hydroturbines and water wheels, kilowatt rating.....		15
Electric motors, total:		
Number.....		7,730
Horsepower.....		34,458
Driven by purchased energy—		
Number.....		7,675
Horsepower.....		34,115
Driven by energy generated in establishments reporting—		
Number.....		55
Horsepower.....		343
Electric energy (kilowatt-hours):		
Generated in plant.....		209,120
Purchased.....		31,267,504

<sup>1</sup> Comparable data for 1929 not available.

<sup>2</sup> Gas, gasoline, etc.

# ALUMINUM WARE, KITCHEN, HOSPITAL, AND HOUSEHOLD (EXCEPT ELECTRICAL APPLIANCES)

[A preliminary report for this industry was issued October 29, 1940]

**Description of the industry.**—This industry, as constituted for census purposes, embraces establishments primarily engaged in the manufacture of aluminum cooking ware, stamped, spun, or cast (except electrical appliances), and other ware, for use in kitchen, hospital, and household.

Prior to 1939 the establishments in this industry were a part of the former "Aluminum products" industry. A segregation of the 1937 figures has been made to obtain figures comparable with those for 1939, but comparable figures for earlier years are not available.

**TABLE 1.—SUMMARY FOR THE UNITED STATES: 1937 AND 1939**

CENSUS YEAR	Number of establishments <sup>1</sup>	Wage earners (average for the year) <sup>2</sup>	Wages	Cost of materials, supplies, fuel, purchased electric energy, and contract work	Value of products	Value added by manufacture <sup>3</sup>	Horsepower of prime movers
1939.....	32	6,297	\$7,774,778	\$17,206,914	\$37,124,898	\$19,917,984	1,775
1937.....	37	6,748	8,006,841	16,070,098	36,591,632	20,521,534	(4)

<sup>1</sup> See GENERAL EXPLANATIONS—Definition of establishment.  
<sup>2</sup> See GENERAL EXPLANATIONS—Wage earners and wages.  
<sup>3</sup> Value of products less cost of materials, supplies, fuel, purchased electric energy, and contract work. See GENERAL EXPLANATIONS—Value added by manufacture.  
<sup>4</sup> Not called for on schedule.

**TABLE 2.—GENERAL STATISTICS IN DETAIL BY STATES: 1939**  
 [See GENERAL EXPLANATIONS—Disclosure of data for individual establishments]

ITEM	United States	Ohio	Wisconsin	Other States <sup>1</sup>
Number of establishments <sup>2</sup> .....	32	9	11	12
Proprietors and firm members.....	9	5	-----	4
Persons reported by manufacturing establishments, total <sup>3</sup> .....	8,253	1,493	4,137	2,622
Salaried officers of corporations <sup>4</sup> .....	57	18	21	18
Manufacturing: Salaried employees <sup>5</sup> .....	831	128	471	232
Wage earners (average for the year) <sup>6</sup> .....	6,297	1,187	3,250	1,859
Distribution.....	1,026	155	362	509
Construction.....	4	2	2	-----
Other.....	38	3	31	4
Salaries and wages, total <sup>7</sup> .....	\$12,350,800	\$2,162,792	\$5,747,829	\$4,440,179
Salaried officers <sup>8</sup> .....	569,061	176,194	257,525	135,342
Manufacturing: Salaries <sup>9</sup> .....	1,623,889	235,096	801,026	587,767
Wages.....	7,774,778	1,472,481	3,702,067	2,600,230
Distribution.....	2,340,139	273,190	983,561	1,083,388
Construction.....	6,623	2,973	3,650	-----
Other.....	36,310	2,858	-----	33,452

**TABLE 2.—GENERAL STATISTICS IN DETAIL BY STATES: 1939—Continued**

ITEM	United States	Ohio	Wisconsin	Other States <sup>1</sup>
Cost of materials, supplies, containers, fuel, purchased electric energy, and contract work, total.....	\$17,206,914	\$3,296,131	\$7,164,159	\$6,746,624
Materials, supplies, and containers.....	16,637,286	3,160,486	6,839,321	6,637,479
Fuel.....	223,911	58,706	147,246	17,959
Purchased electric energy.....	322,191	67,939	172,578	81,674
Contract work.....	23,526	9,000	5,014	9,512
Value of products.....	37,124,898	6,478,264	17,583,854	13,062,780
Value added by manufacture <sup>2</sup> .....	19,917,984	3,182,133	10,419,695	6,316,156

<sup>1</sup> California, 2 establishments; Georgia, 1; Illinois, 4; Michigan, 1; New Jersey, 1; New York, 1; Pennsylvania, 2.  
<sup>2</sup> See GENERAL EXPLANATIONS—Definition of establishment.  
<sup>3</sup> See GENERAL EXPLANATIONS—Persons engaged—general classification.  
<sup>4</sup> See GENERAL EXPLANATIONS—Wage earners and wages.  
<sup>5</sup> Value of products less cost of materials, supplies, containers, fuel, purchased electric energy, and contract work. See GENERAL EXPLANATIONS—Value added by manufacture.

**TABLE 3.—VALUE OF PRODUCTS FOR THE UNITED STATES: 1939 AND 1937**

	1939	1937
Aluminum Ware, Kitchen, Hospital, and Household (Except Electrical Appliances) industry, all products, total value.....	\$37,124,898	\$36,591,632
Aluminum ware, kitchen, hospital, and household (except electrical) made in this industry.....	31,586,065	34,715,080
Miscellaneous products, not specified.....	546,622	-----
Receipts for contract and repair work and scrap and salable refuse.....	121,509	1,876,552
Other products (not classified in this industry).....	4,870,702	-----
Aluminum ware, kitchen, hospital, and household (except electrical), aggregate value.....	\$34,727,547	\$36,671,639
Aluminum ware, kitchen, hospital, and household (except electrical) made in this industry.....	31,586,065	34,715,080
Aluminum ware, kitchen, hospital, and household (except electrical) made as secondary products in other industries.....	3,141,482	1,956,559

<sup>1</sup> Value of die castings, stamped and spun ware other than aluminum, and rough aluminum castings.

**TABLE 4.—PRODUCTS, BY KIND AND VALUE, FOR THE UNITED STATES: 1939 AND 1937**

PRODUCT	1939	1937
Total value.....	\$34,727,547	\$36,671,639
Stamped cooking utensils.....	22,668,686	24,790,495
Spun ware other than cooking.....	1,143,441	582,976
Cast cooking utensils.....	6,804,933	5,164,788
Other aluminum ware.....	4,110,487	6,133,370

ALUMINUM WARE, KITCHEN, HOSPITAL, AND HOUSEHOLD

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TABLE 5.—WAGE EARNERS ENGAGED IN MANUFACTURING, BY MONTHS, FOR THE UNITED STATES, 1939 AND 1937, AND BY STATES, 1939

[See GENERAL EXPLANATIONS—Disclosure of data for individual establishments]

STATE	Average number employed during year	NUMBER RECEIVING PAY DURING NORMAL PAY-ROLL PERIOD ENDED NEAREST 15TH OF MONTH—											
		January	February	March	April	May	June	July	August	September	October	November	December
United States:													
1939.....	6,297	6,063	6,194	6,374	6,485	6,382	6,301	6,213	6,313	6,214	6,163	6,305	6,550
1937.....	6,748	7,018	7,161	7,252	7,157	6,937	6,870	6,807	6,893	6,818	4,938	6,748	6,376
Illinois.....	154	167	166	176	162	157	146	135	141	144	149	151	156
Ohio.....	1,187	1,356	1,334	1,331	1,218	972	954	981	1,130	1,191	1,208	1,273	1,304
Wisconsin.....	3,250	3,022	3,196	3,276	3,321	3,374	3,362	3,292	3,284	3,122	3,170	3,261	3,325

TABLE 6.—EXPENDITURES FOR PLANT AND EQUIPMENT: 1939

	1939
Number of establishments:	
Total for the industry.....	32
Reporting expenditures for plant and equipment.....	24
Value of products:	
Total for the industry.....	\$37,124,898
Reporting expenditures for plant and equipment.....	36,357,486
Expenditures for plant and equipment:	
Total for the industry.....	576,365
Expenditures for new construction or major alterations of buildings and other fixed plant and structures.....	18,239
Expenditures for new machinery and operating equipment.....	553,019
Expenditures for plant and equipment acquired in a "used" condition from other owners and expenditures for land.....	5,107

TABLE 7.—VALUE OF INVENTORIES OF MATERIALS AND FINISHED PRODUCTS, AND VALUE OF PRODUCTS: 1939 AND 1937

	1939	1937
Inventories:		
Beginning of year, total.....	\$11,298,984	\$8,693,085
Finished products.....	6,498,633	4,082,398
Materials, supplies, etc.....	4,800,351	4,610,687
End of year, total.....	12,890,702	10,356,565
Finished products.....	7,401,602	5,303,373
Materials, supplies, etc.....	5,489,100	5,053,192
Value of products for the industry, total.....	37,124,898	36,591,632
Value for establishments reporting inventories (includes value of products of establishments reporting no inventories on hand).....	37,124,898	36,502,465
Value for establishments not reporting inventories.....		89,167

TABLE 8.—PRIME MOVERS, MOTORS, GENERATORS, AND ELECTRIC ENERGY: 1939<sup>1</sup>

	1939
Number of establishments.....	32
Number of establishments reporting power equipment.....	30
Prime movers, aggregate:	
Number.....	4
Horsepower.....	1,775
Prime movers, steam engines, driving generators—	
Number.....	3
Horsepower.....	1,700
Prime movers, steam engines, not driving generators—	
Number.....	1
Horsepower.....	75
Prime movers not driving generators, ordinarily idle (included above), horsepower.....	75
Generators, driven by steam engines, kilowatt rating.....	559
Electric motors, driven by purchased energy:	
Number.....	5,019
Horsepower.....	30,787
Electric energy (kilowatt-hours):	
Generated in plant.....	610,420
Purchased.....	26,348,672

<sup>1</sup> Comparable data for 1929 not available.

# ALUMINUM PRODUCTS (INCLUDING ROLLING AND DRAWING AND EXTRUDING), NOT ELSEWHERE CLASSIFIED

[A preliminary report for this industry was issued October 29, 1940]

**Description of the industry.**—This industry embraces establishments engaged primarily in the production of aluminum ingots (from pig and scrap), castings, plates and sheets, rods, wire, extruded shapes, tubing, powder, and other aluminum products not elsewhere classified. The industry does not include the primary production of the metal (the reduction of bauxite) nor the recovery of aluminum from scrap, the former being treated as a part of the "Primary smelting and refining of nonferrous metals" industry, and the latter being assigned to the "Secondary smelting and refining of nonferrous metals, not elsewhere classified" industry. Data for aluminum ingots and castings made from scrap are, however, included in the figures for "Ingots produced for sale (from pig and scrap)," and "Castings, rough, produced for sale" in table 4.

Prior to 1939 the data in this industry were included in the former "Aluminum products" industry. The 1937 reports were retabulated to obtain figures for this industry comparable with the 1939 figures.

**TABLE 1.—SUMMARY FOR THE UNITED STATES: 1939 AND 1937**

CENSUS YEAR	Number of establishments <sup>1</sup>	Wage earners (average for the year) <sup>2</sup>	Wages	Cost of materials, supplies, fuel, purchased electric energy, and contract work	Value of products	Value added by manufacture <sup>3</sup>	Horse-power of prime movers
1939.....	162	17, 249	\$25, 539, 148	\$106, 993, 222	\$169, 819, 269	\$62, 826, 047	24, 708
1937.....	116	16, 947	23, 881, 605	80, 033, 637	129, 051, 643	49, 018, 008	(4)

<sup>1</sup> See GENERAL EXPLANATIONS—Definition of establishment.  
<sup>2</sup> See GENERAL EXPLANATIONS—Wage earners and wages.  
<sup>3</sup> Value of products less cost of materials, supplies, fuel, purchased electric energy, and contract work. See GENERAL EXPLANATIONS—Value added by manufacture.  
<sup>4</sup> Not called for on schedule.

**TABLE 2.—GENERAL STATISTICS IN DETAIL BY STATES: 1939**

[See GENERAL EXPLANATIONS—Disclosure of data for individual establishments]

ITEM	United States	California	Illinois	Indiana	Michigan	Minnesota	Wisconsin	Other States <sup>1</sup>
Number of establishments <sup>2</sup> .....	162	19	10	8	18	3	6	98
Proprietors and firm members.....	108	25	5	6	9	1	2	60
Persons reported by manufacturing establishments, total <sup>3</sup> .....	21, 157	550	809	1, 182	2, 286	22	235	16, 073
Salaried officers of corporations <sup>3</sup> .....	118	3	13	7	14	2	11	68
Manufacturing:								
Salaried employees <sup>3</sup> .....	2, 865	69	54	157	295		19	2, 271
Wage earners (average for the year) <sup>4</sup> .....	17, 249	460	644	992	1, 960	20	200	12, 973
Distribution.....	247	18	96	18	12		4	99
Construction.....	603			8	5		1	589
Other.....	75		2					73
Salaries and wages, total <sup>3</sup> .....	\$33, 596, 933	\$853, 048	\$1, 465, 737	\$1, 665, 539	\$3, 746, 174	\$22, 351	\$327, 093	\$25, 516, 941
Salaried officers <sup>3</sup> .....	750, 730	23, 400	136, 533	148, 028	72, 633	3, 015	44, 370	322, 751
Manufacturing:								
Salaries <sup>3</sup> .....	5, 726, 166	127, 373	123, 127	254, 570	601, 464		28, 483	4, 591, 149
Wages.....	25, 539, 148	676, 293	1, 003, 975	1, 220, 889	3, 039, 343	19, 336	237, 140	19, 342, 172
Distribution.....	475, 186	18, 751	199, 142	30, 602	22, 461		14, 100	190, 130
Construction.....	995, 646	7, 231		11, 450	10, 273		3, 000	963, 692
Other.....	110, 057		3, 010					107, 047
Cost of materials, supplies, containers, fuel, purchased electric energy, and contract work, total.....	106, 993, 222	743, 473	1, 690, 204	3, 641, 415	7, 791, 569	51, 246	413, 325	92, 661, 900
Materials, supplies, and containers.....	103, 513, 455	697, 917	1, 611, 199	3, 406, 031	7, 427, 201	49, 369	392, 676	89, 929, 062
Fuel.....	1, 659, 684	15, 118	44, 336	53, 345	193, 713	1, 388	8, 871	1, 342, 913
Purchased electric energy.....	1, 551, 137	23, 678	34, 769	101, 165	163, 980	489	11, 778	1, 215, 283
Contract work.....	268, 946	6, 760		80, 874	6, 675			174, 637
Value of products.....	169, 819, 269	2, 435, 921	3, 923, 237	6, 649, 178	13, 748, 213	75, 016	940, 855	142, 046, 849
Value added by manufacture <sup>5</sup> .....	62, 826, 047	1, 692, 448	2, 232, 943	3, 007, 763	5, 956, 644	23, 770	527, 530	49, 384, 949

<sup>1</sup> Colorado, 2 establishments; Connecticut, 9; Iowa, 2; Kentucky, 4; Massachusetts, 4; Missouri, 5; Nebraska, 2; New Jersey, 9; New York, 18; Ohio, 22; Oklahoma, 2; Pennsylvania, 12; Rhode Island, 1; Tennessee, 1; Texas, 1; Utah, 1; Washington, 2; West Virginia, 1.

<sup>2</sup> See GENERAL EXPLANATIONS—Definition of establishment.

<sup>3</sup> See GENERAL EXPLANATIONS—Persons engaged—general classification.

<sup>4</sup> See GENERAL EXPLANATIONS—Wage earners and wages.

<sup>5</sup> Value of products less cost of materials, supplies, containers, fuel, purchased electric energy, and contract work. See GENERAL EXPLANATIONS—Value added by manufacture.

## ALUMINUM PRODUCTS

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**TABLE 3.—VALUE OF PRODUCTS FOR THE UNITED STATES: 1939 AND 1937**

	1939	1937
<b>"Aluminum Products (including Rolling and Drawing and Extruding), Not Elsewhere Classified" industry, all products, total value</b> .....	\$169,819,269	\$129,051,643
Aluminum products (including rolled, drawn, and extruded) made in this industry.....	155,959,002	119,982,549
Miscellaneous products not specified.....	3,798,221	
Receipts for contract and repair work and scrap and salable refuse.....	1,784,406	3,473,463
Other products (not classified in this industry).....	18,277,640	5,595,631
<b>Aluminum products (including rolled, drawn, and extruded), aggregate value</b> .....	<b>194,385,799</b>	<b>139,818,734</b>
Aluminum products (including rolled, drawn, and extruded) made in this industry.....	155,959,002	119,982,549
Aluminum products (including rolled, drawn, and extruded) made as secondary products in other industries.....	38,426,797	19,836,185

<sup>1</sup> Value of bearings and bushings, cooking utensils (cast, stamped, and spun), aluminum ware, rough castings (other than aluminum), etc.

**TABLE 4.—PRODUCTS, BY KIND, QUANTITY, AND VALUE, FOR THE UNITED STATES: 1939 AND 1937**

PRODUCT	1939	1937
<b>Total value</b> .....	<b>\$194,385,799</b>	<b>\$139,818,734</b>
Ingot produced for sale (from pig and scrap):		
Pounds.....	271,639,772	151,304,856
Value.....	\$50,422,251	\$27,307,529
Castings, rough, produced for sale:		
Pounds.....	65,422,222	46,629,634
Value.....	\$28,509,167	\$20,998,938
Die castings.....	\$8,850,817	\$6,163,031
Powder.....	\$4,922,806	
Other aluminum products.....	\$101,680,758	\$85,344,236

<sup>1</sup> Includes value of rolled and drawn forms (bars and rods, tubing, extruded shapes, plates and sheets, wire), etc.

**TABLE 5.—WAGE EARNERS ENGAGED IN MANUFACTURING, BY MONTHS, FOR THE UNITED STATES, 1939 AND 1937, AND BY STATES, 1939**

[See GENERAL EXPLANATIONS—Disclosure of data for individual establishments]

STATE	Average number employed during year	NUMBER RECEIVING PAY DURING NORMAL PAY-ROLL PERIOD ENDED NEAREST 15TH OF MONTH—											
		January	February	March	April	May	June	July	August	September	October	November	December
<b>United States:</b>													
1939.....	17,249	14,076	14,699	15,629	16,031	16,320	16,390	16,798	17,204	17,366	19,269	21,239	21,968
1937.....	16,947	16,839	17,902	18,201	18,295	18,151	14,946	17,441	17,305	17,205	16,843	15,893	14,343
California.....	460	327	448	457	446	387	411	434	381	453	533	593	649
Connecticut.....	726	547	574	611	618	614	732	722	758	779	836	941	983
Illinois.....	644	606	621	664	600	567	572	575	597	673	716	766	769
Indiana.....	992	645	802	894	985	964	999	998	963	917	1,034	1,239	1,465
Massachusetts.....	32	23	23	24	29	32	31	32	33	38	41	41	31
Michigan.....	1,960	2,013	2,115	1,987	1,751	1,786	1,666	1,790	1,985	1,935	1,991	2,197	2,309
Minnesota.....	20	20	18	18	19	19	19	24	23	19	22	18	18
Missouri.....	246	213	233	239	240	244	250	262	259	263	257	250	245
New Jersey.....	2,065	1,580	1,700	1,810	1,873	1,933	1,953	1,954	2,135	2,201	2,418	2,586	2,642
New York.....	1,680	1,456	1,506	1,598	1,696	1,590	1,604	1,653	1,690	1,669	1,867	1,920	1,906
Ohio.....	1,684	1,334	1,407	1,520	1,595	1,540	1,497	1,581	1,528	1,621	1,962	2,263	2,364
Pennsylvania.....	3,193	2,631	2,531	2,687	2,849	3,256	3,288	3,254	3,238	3,107	3,318	4,015	4,137
Wisconsin.....	200	178	183	194	205	211	225	200	188	174	199	225	216

**TABLE 6.—EXPENDITURES FOR PLANT AND EQUIPMENT: 1939**

	1939
<b>Number of establishments:</b>	
Total for the industry.....	162
Reporting expenditures for plant and equipment.....	94
<b>Value of products:</b>	
Total for the industry.....	\$169,819,269
Reporting expenditures for plant and equipment.....	165,412,806
<b>Expenditures for plant and equipment:</b>	
Total for the industry.....	7,128,601
Expenditures for new construction or major alterations of buildings and other fixed plant and structures.....	574,989
Expenditures for new machinery and operating equipment.....	6,305,852
Expenditures for plant and equipment acquired in a "used" condition from other owners and expenditures for land.....	247,760

**TABLE 7.—VALUE OF INVENTORIES OF MATERIALS AND FINISHED PRODUCTS, AND VALUE OF PRODUCTS: 1939 AND 1937**

	1939	1937
<b>Inventories:</b>		
Beginning of year, total.....	\$34,326,488	\$20,930,511
Finished products.....	8,279,636	3,962,690
Materials, supplies, etc.....	26,046,852	16,967,821
End of year, total.....	39,411,986	23,062,629
Finished products.....	12,577,042	5,101,253
Materials, supplies, etc.....	26,834,944	17,961,376
<b>Value of products for the industry, total</b> .....	<b>169,819,269</b>	<b>129,051,643</b>
Value for establishments reporting inventories (includes value of products of establishments reporting no inventories on hand).....	169,769,088	114,178,042
Value for establishments not reporting inventories.....	50,181	14,873,601

**TABLE 8.—PRIME MOVERS, MOTORS, GENERATORS, AND ELECTRIC ENERGY: 1939<sup>1</sup>**

	1939
<b>Number of establishments</b> .....	162
<b>Number of establishments reporting power equipment</b> .....	157
<b>Prime movers, aggregate:</b>	
Number.....	14
Horsepower.....	24,708
<b>Prime movers, steam turbines, driving generators—</b>	
Number.....	6
Horsepower.....	24,025
<b>Prime movers not driving generators, total—</b>	
Number.....	8
Horsepower.....	683
<b>Steam engines—</b>	
Number.....	3
Horsepower.....	243
<b>Steam turbines—</b>	
Number.....	5
Horsepower.....	440
<b>Generators, driven by steam turbines, kilowatt rating</b> .....	17,500
<b>Electric motors, total:</b>	
Number.....	11,898
Horsepower.....	159,761
<b>Driven by purchased energy—</b>	
Number.....	10,466
Horsepower.....	135,364
<b>Driven by energy generated in establishments reporting—</b>	
Number.....	1,432
Horsepower.....	24,397
<b>Electric energy (kilowatt-hours):</b>	
Generated in plant.....	28,744,740
Purchased.....	215,673,898

<sup>1</sup> Comparable data for 1929 not available.

# COLLAPSIBLE TUBES

[A preliminary report for this industry was issued November 26, 1940]

**Description of the industry.**—This industry embraces establishments whose principal products are collapsible tubes, made chiefly of tin, lead, and aluminum, for use as containers for toilet preparations, adhesives, etc. This report does not cover the production of collapsible tubes for use as containers for products made by the same manufacturers.

**TABLE 1.—SUMMARY FOR THE UNITED STATES: 1925 TO 1939**

CENSUS YEAR	Number of establishments <sup>1</sup>	Wage earners (average for the year) <sup>2</sup>	Wages	Cost of materials, supplies, fuel, purchased electric energy, and contract work <sup>3</sup>	Value of products	Value added by manufacture <sup>4</sup>	Horse-power of prime movers
1939.....	14	1,933	\$1,903,311	\$4,935,815	\$9,471,836	\$4,536,021	400
1937.....	15	1,983	1,871,775	5,271,771	9,184,676	5,912,905	(5)
1935.....	16	1,961	1,749,674	4,965,729	8,505,190	3,539,461	(6)
1933.....	17	1,750	1,482,341	3,834,460	6,924,109	3,089,649	(7)
1931.....	17	1,737	1,634,463	4,142,410	7,634,190	3,491,780	(8)
1929.....	17	1,821	1,782,024	5,885,906	8,912,977	3,527,071	540
1927.....	17	1,984	1,918,055	7,103,927	11,350,710	4,246,783	603
1925 <sup>7</sup> .....	16	1,948	1,876,526	5,693,610	9,449,026	3,755,419	478

<sup>1</sup> See GENERAL EXPLANATIONS—Definition of establishment.  
<sup>2</sup> See GENERAL EXPLANATIONS—Wage earners and wages.  
<sup>3</sup> Figures for years prior to 1935 do not include cost of contract work.  
<sup>4</sup> Value of products less cost of materials, supplies, fuel, purchased electric energy, and contract work. See GENERAL EXPLANATIONS—Value added by manufacture.  
<sup>5</sup> Not called for on schedule.  
<sup>6</sup> Data not available.  
<sup>7</sup> No comparable figures for prior years.

**TABLE 2.—GENERAL STATISTICS IN DETAIL BY STATES: 1939**  
 [See GENERAL EXPLANATIONS—Disclosure of data for individual establishments]

ITEM	United States	New Jersey	Other States <sup>1</sup>
Number of establishments <sup>2</sup> .....	14	6	8
Proprietors and firm members.....			
Persons reported [by manufacturing establishments, total] <sup>3</sup> .....	2,195	743	1,453
Salaried officers of corporations <sup>4</sup> .....	31	14	17
Manufacturing:			
Salaried employees <sup>5</sup> .....	171	49	122
Wage earners (average for the year) <sup>6</sup> .....	1,933	651	1,283
Distribution.....	41	23	18
Construction.....	16	3	13
Other.....	3	3	

**TABLE 2.—GENERAL STATISTICS IN DETAIL BY STATES: 1939—Continued**

ITEM	United States	New Jersey	Other States <sup>1</sup>
Salaries and wages, total <sup>2</sup> .....	\$2,694,672	\$1,000,000	\$1,694,672
Salaried officers <sup>3</sup> .....	329,201	180,736	148,465
Manufacturing:			
Salaries <sup>4</sup> .....	315,814	118,882	196,932
Wages.....	1,903,311	626,535	1,276,776
Distribution.....	114,958	63,389	51,569
Construction.....	27,538	6,608	20,930
Other.....	3,850	3,850	
Cost of materials, supplies, containers, fuel, purchased electric energy, and contract work, total.....	4,935,815	2,201,957	2,733,858
Materials, supplies, and containers.....	4,821,294	2,160,404	2,660,890
Fuel.....	40,841	13,355	27,486
Purchased electric energy.....	73,680	28,198	45,482
Contract work.....			
Value of products.....	9,471,836	3,996,485	5,475,351
Value added by manufacture <sup>5</sup> .....	4,536,021	1,794,523	2,741,493

<sup>1</sup> Connecticut, 1 establishment; Illinois, 1; New York, 2; Pennsylvania, 2; Rhode Island, 1; and West Virginia, 1.  
<sup>2</sup> See GENERAL EXPLANATIONS—Definition of establishment.  
<sup>3</sup> See GENERAL EXPLANATIONS—Persons engaged—general classification.  
<sup>4</sup> See GENERAL EXPLANATIONS—Wage earners and wages.  
<sup>5</sup> Value of products less cost of materials, supplies, containers, fuel, purchased electric energy, and contract work. See GENERAL EXPLANATIONS—Value added by manufacture.

**TABLE 3.—VALUE OF PRODUCTS FOR THE UNITED STATES: 1939 AND 1937**

No figures can be shown for table 3.

**TABLE 4.—COLLAPSIBLE TUBES—PRODUCTION FOR SALE, BY QUANTITY AND VALUE, FOR THE UNITED STATES: 1939, 1937, AND 1929**

[The figures given in this table cover the total production, for sale separately, of collapsible tubes, including those made as secondary products by establishments classified in other industries]

	1939	1937	1929
Production of collapsible tubes for sale: <sup>1</sup>			
Gross.....	3,994,339	3,940,179	3,447,938
Value.....	\$8,398,240	\$8,146,643	\$8,564,450

<sup>1</sup> These figures include data for collapsible tubes made in the "Collapsible tubes" industry and those made as secondary products in other industries, but they do not include data for products other than collapsible tubes made in the industry. The values, therefore, differ from the "Value of products" for the industry.

TABLE 5.—WAGE EARNERS ENGAGED IN MANUFACTURING, BY MONTHS, FOR THE UNITED STATES, 1939, 1937, AND 1929, AND FOR NEW JERSEY, 1939

[See GENERAL EXPLANATIONS—Disclosure of data for individual establishments]

STATE	Average number employed during year	NUMBER RECEIVING PAY DURING NORMAL PAY-ROLL PERIOD ENDED NEAREST 15TH OF MONTH—											
		January	February	March	April	May	June	July	August	September	October	November	December
United States:													
1939	1,933	1,874	1,840	1,894	1,898	1,861	1,906	1,884	1,920	2,005	2,047	2,109	1,960
1937	1,983	1,979	2,045	2,064	2,034	2,073	1,847	1,993	1,946	1,988	2,045	1,995	1,786
1929	1,821	1,773	1,841	1,969	1,965	1,932	1,883	1,838	1,824	1,790	1,709	1,660	1,674
New Jersey, 1939	651	612	628	633	655	629	645	629	646	655	666	702	706

TABLE 6.—EXPENDITURES FOR PLANT AND EQUIPMENT: 1939

	1939
Number of establishments:	
Total for the industry	14
Reporting expenditures for plant and equipment	13
Value of products:	
Total for the industry	\$9,471,836
Reporting expenditures for plant and equipment	9,226,304
Expenditures for plant and equipment:	
Total for the industry	268,326
Expenditures for new construction or major alterations of buildings and other fixed plant and structures	23,084
Expenditures for new machinery and operating equipment	200,138
Expenditures for plant and equipment acquired in a "used" condition from other owners and expenditures for land	45,104

TABLE 7.—VALUE OF INVENTORIES OF MATERIALS AND FINISHED PRODUCTS, AND VALUE OF PRODUCTS: 1939 AND 1937

	1939	1937
Inventories:		
Beginning of year, total	\$1,223,808	\$1,448,837
Finished products	389,348	436,590
Materials, supplies, etc.	834,460	1,012,247
End of year, total	1,270,529	1,390,253
Finished products	369,713	406,634
Materials, supplies, etc.	900,816	983,619
Value of products for the industry, total	9,471,836	9,184,676
Value for establishments reporting inventories (includes value of products of establishments reporting no inventories on hand)	9,471,836	9,184,676
Value for establishments not reporting inventories		

TABLE 8.—PRIME MOVERS, MOTORS, GENERATORS, AND ELECTRIC ENERGY: 1939 AND 1929

	1939	1929
Number of establishments	14	17
Number of establishments reporting power equipment	14	17
Prime movers, aggregate:		
Number	5	8
Horsepower	400	540
Prime movers, driving generators, total—		
Number	5	18
Horsepower	400	1,540
Diesel and semi-Diesel engines—		
Number		18
Horsepower		1,540
Other internal-combustion engines <sup>2</sup> —		
Number	5	
Horsepower	400	
Generators driven by internal-combustion engines, <sup>2</sup> other than Diesel and semi-Diesel, kilowatt rating	300	320
Electric motors, total:		
Number	1,620	475
Horsepower	4,262	2,010
Driven by purchased energy—		
Number	1,525	458
Horsepower	3,962	1,732
Driven by energy generated in establishments reporting—		
Number	95	17
Horsepower	300	278
Electric energy (kilowatt-hours):		
Generated in plant	1,080,000	( <sup>3</sup> )
Purchased	8,469,031	1,689,747

<sup>1</sup> Includes data for prime movers not driving generators.

<sup>2</sup> Gas, gasoline, etc.

<sup>3</sup> Data not available.

# GOLD AND SILVER LEAF AND FOIL

[A preliminary report for this industry was issued November 23, 1940]

**Description of the industry.**—This industry, as constituted for census purposes, embraces manufacturers generally known as gold beaters, and covers the production of gold leaf (or silver) both in packs and in rolls.

**TABLE 1.—SUMMARY FOR THE UNITED STATES: 1899 TO 1939**

CENSUS YEAR	Number of establishments <sup>1</sup>	Wage earners (average for the year) <sup>2</sup>	Wages	Cost of materials, supplies, fuel, purchased electric energy, and contract work <sup>3</sup>	Value of products	Value added by manufacture <sup>4</sup>	Horse-power of prime movers
1939	26	503	\$469,577	\$1,095,785	\$2,108,990	\$1,013,205	7
1937	26	625	515,034	1,230,694	2,299,141	1,068,447	8
1935	27	557	402,521	900,815	1,782,599	821,784	18
1933	31	608	348,000	683,757	1,401,556	717,799	( <sup>5</sup> )
1931	48	805	630,784	1,015,086	2,217,366	1,202,280	( <sup>5</sup> )
1929	75	1,177	1,134,044	1,932,667	3,978,024	2,045,357	7
1927	77	1,146	1,120,434	1,721,174	3,571,190	1,850,016	8
1925	84	1,148	1,112,635	1,838,611	3,745,807	1,907,196	18
1923	64	918	933,591	1,896,806	3,551,856	1,665,050	( <sup>5</sup> )
1921	72	1,104	1,042,028	4,994,718	7,014,496	2,019,778	( <sup>5</sup> )
1919	87	950	983,600	2,655,335	4,461,568	1,806,233	91
1914	79	1,135	498,273	1,452,429	2,432,145	979,716	154
1909	88	1,333	636,967	1,517,874	2,630,500	1,112,626	130
1904	83	1,402	662,813	1,476,111	2,695,298	1,219,187	192
1899	93	1,103	498,692	1,604,018	2,666,224	1,062,211	85

<sup>1</sup> See GENERAL EXPLANATIONS—Definition of establishment.  
<sup>2</sup> See GENERAL EXPLANATIONS—Wage earners and wages.  
<sup>3</sup> Figures for years prior to 1935 do not include cost of contract work.  
<sup>4</sup> Value of products less cost of materials, supplies, fuel, purchased electric energy, and contract work. See GENERAL EXPLANATIONS—Value added by manufacture.  
<sup>5</sup> Not called for on schedule.  
<sup>6</sup> Data not available.

**TABLE 2.—GENERAL STATISTICS IN DETAIL BY STATES: 1939**

[See GENERAL EXPLANATIONS—Disclosure of data for individual establishments]

ITEM	United States	Massachusetts	New York	Other States <sup>1</sup>
Number of establishments <sup>1</sup>	26	5	8	13
Proprietors and firm members	30	8	9	13
Persons reported by manufacturing establishments, total <sup>2</sup>	688	11	136	541
Salaried officers of corporations <sup>3</sup>	13	—	4	9
Manufacturing:				
Salaried employees <sup>3</sup>	51	1	3	47
Wage earners (average for the year) <sup>4</sup>	563	10	114	439
Distribution	60	—	14	46
Construction	—	—	—	—
Other	1	—	1	—

**TABLE 2.—GENERAL STATISTICS IN DETAIL BY STATES: 1939—Continued**

ITEM	United States	Massachusetts	New York	Other States <sup>1</sup>
Salaries and wages, total <sup>2</sup>	\$800,198	\$6,220	\$188,901	\$605,077
Salaried officers <sup>3</sup>	105,762	—	41,740	64,022
Manufacturing:				
Salaries <sup>3</sup>	95,828	225	15,800	79,743
Wages	469,577	5,995	105,023	358,559
Distribution	127,009	—	24,256	102,753
Construction	—	—	—	—
Other	2,022	—	2,022	—
Cost of materials, supplies, containers, fuel, purchased electric energy, and contract work, total	1,095,785	23,511	324,109	748,165
Materials, supplies, and containers	1,062,992	22,080	318,926	721,986
Fuel	9,935	210	1,381	8,344
Purchased electric energy	15,508	151	3,802	11,555
Contract work	7,350	1,070	—	6,280
Value of products	2,108,990	41,294	573,017	1,494,679
Value added by manufacture <sup>4</sup>	1,013,205	17,783	248,908	746,514

<sup>1</sup> California, 1 establishment; Connecticut, 1; Illinois, 3; New Jersey, 4; Pennsylvania, 3; Rhode Island, 1.  
<sup>2</sup> See GENERAL EXPLANATIONS—Definition of establishment.  
<sup>3</sup> See GENERAL EXPLANATIONS—Persons engaged—general classification.  
<sup>4</sup> See GENERAL EXPLANATIONS—Wage earners and wages.  
<sup>5</sup> Value of products less cost of materials, supplies, containers, fuel, purchased electric energy, and contract work. See GENERAL EXPLANATIONS—Value added by manufacture.

**TABLE 3.—VALUE OF PRODUCTS FOR THE UNITED STATES: 1939 AND 1937**

Gold and silver leaf and foil were not reported as produced outside the industry. Production is shown in table 4.

**TABLE 4.—PRODUCTS, BY KIND, QUANTITY, AND VALUE, FOR THE UNITED STATES: 1939 AND 1937**

PRODUCT	1939	1937
Total value	\$2,108,990	\$2,299,141
Gold leaf	\$1,487,432	\$1,768,014
In packs of 500 sheets:		
Number	86,264	89,481
Value	\$1,234,540	\$1,339,126
In rolls, sized and unsized 100' x 1'':		
Number	176,616	196,752
Value	\$252,892	\$428,888
Imitation gold, aluminum, and colored leaf (rolls, 100' x 1''):		
Number	1,959,475	1,368,381
Value	\$458,720	\$428,148
Value of aluminum, silver, and other leaf, and other products of the industry	\$162,838	\$102,979

<sup>1</sup> Includes number of rolls of 67' x 1" converted to 100' x 1".

TABLE 5.—WAGE EARNERS ENGAGED IN MANUFACTURING, BY MONTHS, FOR THE UNITED STATES, 1939, 1937, AND 1929, AND BY STATES, 1939

[See GENERAL EXPLANATIONS—Disclosure of data for individual establishments]

STATE	Average number employed during year	NUMBER RECEIVING PAY DURING NORMAL PAY-ROLL PERIOD ENDED NEAREST 15TH OF MONTH—											
		January	February	March	April	May	June	July	August	September	October	November	December
United States:													
1939	563	607	602	535	548	547	517	515	518	516	604	612	633
1937	625	577	617	617	625	634	625	625	619	645	643	642	628
1929	1,177	1,154	1,187	1,193	1,193	1,190	1,187	1,171	1,139	1,173	1,172	1,172	1,188
Illinois	44	51	46	52	44	41	41	41	41	44	40	40	44
Massachusetts	10	11	11	11	10	10	9	10	11	10	10	10	10
New Jersey	24	26	26	24	24	24	24	24	23	24	24	24	25
New York	114	115	119	109	117	120	93	100	106	118	115	124	126

TABLE 6.—EXPENDITURES FOR PLANT AND EQUIPMENT: 1939

	1939
Number of establishments:	
Total for the industry	26
Reporting expenditures for plant and equipment	6
Value of products:	
Total for the industry	\$2,108,990
Reporting expenditures for plant and equipment	1,542,640
Expenditures for plant and equipment:	
Total for the industry	15,136
Expenditures for new construction or major alterations of buildings and other fixed plant and structures	1,599
Expenditures for new machinery and operating equipment	13,249
Expenditures for plant and equipment acquired in a "used" condition from other owners and expenditures for land	288

TABLE 7.—VALUE OF INVENTORIES OF MATERIALS AND FINISHED PRODUCTS, AND VALUE OF PRODUCTS: 1939 AND 1937

	1939	1937
Inventories:		
Beginning of year, total	\$629,298	\$508,052
Finished products	240,635	233,935
Materials, supplies, etc.	388,663	274,117
End of year, total	652,827	586,381
Finished products	263,599	310,234
Materials, supplies, etc.	389,228	276,147

TABLE 7.—VALUE OF INVENTORIES OF MATERIALS AND FINISHED PRODUCTS, AND VALUE OF PRODUCTS: 1939 AND 1937—Continued

	1939	1937
Value of products for the industry, total	\$2,108,990	\$2,299,141
Value for establishments reporting inventories (includes value of products of establishments reporting no inventories on hand)	2,082,746	2,144,276
Value for establishments not reporting inventories	26,244	154,865

TABLE 8.—PRIME MOVERS, MOTORS, AND ELECTRIC ENERGY: 1939 AND 1929

	1939	1929
Number of establishments	26	75
Number of establishments reporting power equipment	19	52
Prime movers, aggregate:		
Number		2
Horsepower		7
Prime movers not driving generators, total—		
Number		2
Horsepower		7
Diesel and semi-Diesel engines—		
Number		2
Horsepower		
Other internal-combustion engines—		
Number		7
Horsepower		
Electric motors, total:		
Number	312	200
Horsepower	497	376
Driven by purchased energy—		
Number	312	200
Horsepower	497	376
Electric energy purchased (kilowatt-hours)	510,795	310,156

<sup>1</sup> Gas, gasoline, etc.

## TIN AND OTHER FOILS (EXCEPT GOLD AND SILVER FOIL)

[A preliminary report for this industry was issued November 8, 1940]

**Description of the industry.**—The establishments classified in this industry are engaged primarily in the manufacture of tin, lead, aluminum, and composition foils.

**Omission of State statistics.**—In order to avoid disclosing data for individual establishments, no State statistics are given for the industry.

**TABLE 1.—SUMMARY FOR THE UNITED STATES: 1925 TO 1939**

CENSUS YEAR	Number of establishments <sup>1</sup>	Wage earners (average for the year) <sup>2</sup>	Wages	Cost of materials, supplies, fuel, purchased electric energy, and contract work <sup>3</sup>	Value of products	Value added by manufacture <sup>4</sup>	Horse-power of prime movers
1939.....	12	1,328	\$1,937,721	\$10,337,645	\$19,071,847	\$8,734,202	
1937.....	9	1,669	2,353,745	11,157,194	17,759,896	6,602,702	( <sup>5</sup> )
1935.....	11	1,831	1,899,016	9,226,421	14,533,139	5,306,718	( <sup>6</sup> )
1933.....	7	1,337	1,189,058	7,680,282	11,330,927	3,650,645	( <sup>6</sup> )
1931.....	8	1,218	997,847	7,382,938	12,225,641	4,842,703	( <sup>6</sup> )
1929.....	7	1,710	1,856,371	13,548,399	20,954,849	7,406,450	( <sup>6</sup> )
1927.....	10	1,658	2,083,578	15,350,016	20,951,679	5,601,663	( <sup>6</sup> )
1925 <sup>7</sup> .....	10	1,670	2,124,422	15,648,376	20,611,277	4,962,901	750

<sup>1</sup> See GENERAL EXPLANATIONS—Definition of establishment.

<sup>2</sup> See GENERAL EXPLANATIONS—Wage earners and wages.

<sup>3</sup> Figures for years prior to 1935 do not include cost of contract work.

<sup>4</sup> Value of products less cost of materials, supplies, fuel, purchased electric energy, and contract work. See GENERAL EXPLANATIONS—Value added by manufacture.

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

<sup>6</sup> Data not available.

<sup>7</sup> No data for years prior to 1925.

**TABLE 2.—GENERAL STATISTICS FOR THE UNITED STATES: 1939**

ITEM	1939
Number of establishments <sup>1</sup> .....	12
Proprietors and firm members.....	2
Persons reported by manufacturing establishments, total <sup>2</sup> .....	1,541
Salaried officers of corporations <sup>3</sup> .....	9
Manufacturing:.....	
Salaried employees <sup>4</sup> .....	131
Wage earners (average for the year) <sup>4</sup> .....	1,328
Distribution.....	67
Construction.....	
Other.....	6

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**TABLE 2.—GENERAL STATISTICS FOR THE UNITED STATES: 1939—Continued**

ITEM	1939
Salaries and wages, total <sup>2</sup> .....	\$2,403,476
Salaried officers <sup>3</sup> .....	69,137
Manufacturing:.....	
Salaries <sup>3</sup> .....	288,681
Wages.....	1,937,721
Distribution.....	100,737
Construction.....	
Other.....	7,200
Cost of materials, supplies, containers, fuel, purchased electric energy, and contract work, total.....	10,337,645
Materials, supplies, and containers.....	10,019,946
Fuel.....	105,470
Purchased electric energy.....	212,229
Contract work.....	
Value of products.....	19,071,847
Value added by manufacture <sup>4</sup> .....	8,734,202

<sup>1</sup> See GENERAL EXPLANATIONS—Definition of establishment.

<sup>2</sup> California, 1 establishment; Illinois, 1; Kentucky, 2; Missouri, 1; New Jersey, 1; New York, 3; Pennsylvania, 1; Virginia, 2. See GENERAL EXPLANATIONS—Disclosure of data for individual establishments.

<sup>3</sup> See GENERAL EXPLANATIONS—Persons engaged—general classification.

<sup>4</sup> See GENERAL EXPLANATIONS—Wage earners and wages.

<sup>5</sup> Value of products less cost of materials, supplies, containers, fuel, purchased electric energy, and contract work. See GENERAL EXPLANATIONS—Value added by manufacture.

**TABLE 3.—VALUE OF PRODUCTS FOR THE UNITED STATES: 1939 AND 1937**

The secondary products of other industries cannot be shown separately; therefore, all data on production of tin and other foils (except gold and silver) are shown in table 4.

**TABLE 4.—PRODUCTS, BY KIND, QUANTITY, AND VALUE, FOR THE UNITED STATES: 1939, 1937, AND 1929**

[These data cover the production of tin and other foils (except gold and silver) made in the "Tin and other foils (except gold and silver foil)" industry and tin and other foils made as secondary products in other industries; they do not, however, cover the value of other products made in the industry. The figures, therefore, do not agree with the value of products for the industry as shown in table 1]

PRODUCT	1939	1937	1929
Total value <sup>1</sup> .....	\$18,858,176	\$18,252,734	\$21,862,284
Tin and other foils (except gold and silver foil):			
Quantity reported—			
Pounds.....	80,745,600	80,639,557	96,183,682
Value.....	\$17,485,648	\$18,252,734	\$21,862,284
Quantity not reported, value.....	\$1,372,528		

<sup>1</sup> See headline.

TABLE 5.—WAGE EARNERS ENGAGED IN MANUFACTURING, BY MONTHS, FOR THE UNITED STATES, 1939, 1937, AND 1929

[See GENERAL EXPLANATIONS—Disclosure of data for individual establishments]

STATE	Average number employed during year	NUMBER RECEIVING PAY DURING NORMAL PAY-ROLL PERIOD ENDED NEAREST 15TH OF MONTH—											
		January	February	March	April	May	June	July	August	September	October	November	December
United States:													
1939.....	1,328	1,203	1,232	1,256	1,289	1,237	1,230	1,278	1,290	1,373	1,515	1,528	1,509
1937.....	1,669	833	907	1,743	1,836	1,958	1,884	1,876	1,907	1,945	1,842	1,716	1,535
1929.....	1,710	1,544	1,638	1,682	1,719	1,701	1,779	1,849	1,871	1,909	1,845	1,554	1,430

TABLE 6.—EXPENDITURES FOR PLANT AND EQUIPMENT: 1939

	1939
Number of establishments:	
Total for the industry.....	12
Reporting expenditures for plant and equipment.....	12
Value of products:	
Total for the industry.....	\$19,071,847
Reporting expenditures for plant and equipment.....	19,071,847
Expenditures for plant and equipment:	
Total for the industry.....	359,447
Expenditures for new construction or major alterations of buildings and other fixed plant and structures.....	58,901
Expenditures for new machinery and operating equipment.....	269,869
Expenditures for plant and equipment acquired in a "used" condition from other owners and expenditures for land.....	30,677

TABLE 7.—VALUE OF INVENTORIES OF MATERIALS AND FINISHED PRODUCTS, AND VALUE OF PRODUCTS: 1939 AND 1937—CON.

	1939	1937
Inventories—Continued.		
End of year, total.....	\$2,953,344	\$3,322,975
Finished products.....	602,590	414,230
Materials, supplies, etc.....	2,350,754	2,908,745
Value of products for the industry, total.....	19,071,847	17,759,896
Value for establishments reporting inventories (includes value of products of establishments reporting no inventories on hand).....	19,071,847	17,759,896

TABLE 7.—VALUE OF INVENTORIES OF MATERIALS AND FINISHED PRODUCTS, AND VALUE OF PRODUCTS: 1939 AND 1937

	1939	1937
Inventories:		
Beginning of year, total.....	\$2,664,323	\$3,862,849
Finished products.....	525,724	360,756
Materials, supplies, etc.....	2,138,599	3,502,093

TABLE 8.—POWER—MOTORS AND ELECTRIC ENERGY: 1939 AND 1929

	1939	1929
Number of establishments.....	12	7
Number of establishments reporting power equipment.....	11	7
Electric motors driven by purchased energy, total:		
Number.....	1,418	982
Horsepower.....	26,092	18,642
Driven by purchased energy—		
Number.....	1,418	982
Horsepower.....	26,092	18,642
Electric energy purchased (kilowatt-hours).....	17,399,271	12,550,750

# SHEET-METAL WORK NOT SPECIFICALLY CLASSIFIED

[A preliminary report for this industry was issued December 28, 1940]

**Description of the industry.**—The establishments classified in this industry are engaged in the production, *in the shop*, of cornices, ventilators, skylights, gutters, and other types of sheet-metal work for buildings (but not fabrication work done by construction contractors at the place of construction), and manufacture of sheet-metal stove pipes, air ducts, tanks, bins, furnace casings, etc.

**TABLE 1.—SUMMARY FOR THE UNITED STATES: 1904 TO 1939**

CENSUS YEAR	Number of establishments <sup>1</sup>	Wage earners (average for the year) <sup>2</sup>	Wages	Cost of materials, supplies, fuel, purchased electric energy, and contract work <sup>3</sup>	Value of products	Value added by manufacture <sup>4</sup>	Horsepower of prime movers
1939	1,262	18,749	\$23,078,689	\$70,981,079	\$137,341,231	\$66,360,152	2,160
1937	1,392	22,973	29,263,331	85,934,745	159,065,535	73,160,790	(*)
1935	1,400	17,569	19,550,967	58,123,011	109,332,596	51,209,585	(*)
1933	1,229	13,050	12,657,804	35,463,376	68,807,223	33,343,847	(*)
1931	1,762	19,365	25,158,017	56,341,919	110,442,534	60,100,615	(*)
1929	2,161	28,593	43,254,611	112,648,112	222,484,625	109,836,513	4,597
1927	1,951	24,527	38,667,690	98,385,897	191,128,636	92,742,739	3,636
1925	2,107	24,996	37,524,995	84,079,626	175,042,925	90,963,299	5,061
1923	2,524	28,832	42,445,932	93,507,014	188,908,028	95,401,014	(*)
1921	3,105	25,172	36,561,785	75,896,102	148,776,164	72,880,062	(*)
1919	4,796	27,640	33,866,823	80,898,528	160,313,945	79,415,417	4,982
1914	4,527	28,714	20,517,568	50,174,216	94,890,599	44,716,383	5,462
1909	3,671	28,448	19,367,740	46,933,262	89,387,570	42,454,308	(*)
1904 <sup>7</sup>	1,989	22,556	13,765,688	27,147,964	56,082,029	28,934,065	(*)

<sup>1</sup> See GENERAL EXPLANATIONS—Definition of establishment.

<sup>2</sup> See GENERAL EXPLANATIONS—Wage earners and wages.

<sup>3</sup> Figures for years prior to 1935 do not include cost of contract work.

<sup>4</sup> Value of products less cost of materials, supplies, fuel, purchased electric energy, and contract work. See GENERAL EXPLANATIONS—Value added by manufacture.

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

<sup>6</sup> Data not available.

<sup>7</sup> No comparable data for earlier years.

**TABLE 2.—GENERAL STATISTICS IN DETAIL BY STATES: 1939**

[See GENERAL EXPLANATIONS—Disclosure of data for individual establishments]

ITEM	United States	Ala-bama	Calif-ornia	Colo-rado	Conn-ecticut	Flori-da	Georg-ia	Illino-is	Indiana	Iowa	Kansa-s	Ken-tucky	Louis-iana
Number of establishments <sup>1</sup> .....	1,262	5	170	5	18	15	11	107	29	26	9	10	14
Proprietors and firm members.....	798	.....	188	5	18	7	9	55	12	12	8	12	8
Persons reported by manufacturing establishments, total <sup>2</sup> .....	24,740	105	2,076	280	231	122	285	2,622	819	594	148	180	258
Salaried officers of corporations <sup>2</sup> .....	1,102	2	62	8	17	8	15	104	38	26	6	5	15
Manufacturing:													
Salaried employees <sup>2</sup> .....	2,286	9	201	12	24	17	18	237	92	68	14	29	34
Wage earners (average for the year) <sup>3</sup> .....	18,749	72	1,591	209	168	83	201	2,050	613	462	94	118	185
Distribution.....	2,470	22	217	51	21	14	44	219	65	43	33	26	21
Construction.....	26	.....	3	.....	.....	.....	.....	2	.....	5	.....	2	.....
Other.....	97	.....	2	.....	1	.....	7	10	.....	11	.....	.....	3
Salaries and wages, total <sup>2</sup> .....	\$36,727,272	\$106,093	\$3,184,450	\$407,119	\$332,663	\$151,384	\$376,194	\$4,001,719	\$1,017,962	\$705,312	\$204,353	\$241,561	\$318,539
Salaried officers <sup>2</sup> .....	4,792,146	10,000	248,456	43,704	62,984	27,233	73,428	576,549	136,714	85,082	20,998	20,940	49,981
Manufacturing:													
Salaries <sup>2</sup> .....	4,159,411	13,904	365,704	22,350	34,074	19,287	24,972	385,927	136,699	104,376	22,053	59,658	51,253
Wages.....	23,078,689	48,856	2,216,168	240,785	201,719	82,127	164,414	2,580,863	599,554	438,248	103,293	113,657	175,187
Distribution.....	4,560,783	33,333	348,652	100,280	32,866	22,737	108,190	443,517	134,970	74,096	57,489	44,311	39,778
Construction.....	34,542	.....	3,901	.....	.....	.....	.....	4,925	.....	3,510	.....	.....	.....
Other.....	92,701	.....	1,669	.....	1,020	.....	5,190	9,938	10,025	3,510	.....	.....	2,340
Cost of materials, supplies, fuel, purchased electric energy, and contract work, total.....	70,981,079	575,188	4,876,467	996,898	387,147	579,953	1,070,477	7,865,093	1,696,612	1,409,979	472,537	493,394	543,442
Materials and supplies.....	69,254,520	572,089	4,763,841	978,145	375,397	576,121	1,059,942	7,549,673	1,668,872	1,376,430	463,613	485,089	535,347
Fuel.....	484,496	762	15,205	5,050	5,068	291	2,740	46,241	10,791	14,411	2,909	2,230	1,620
Purchased electric energy.....	732,493	2,337	48,332	13,703	5,130	3,541	7,333	87,470	16,342	14,061	5,515	5,199	6,475
Contract work.....	509,570	.....	49,089	.....	952	.....	462	181,709	607	5,077	500	876	.....
Value of products.....	137,341,231	775,425	10,067,199	1,611,739	856,159	894,348	1,695,196	15,738,824	3,443,389	2,798,446	873,443	885,608	958,024
Value added by manufacture <sup>4</sup> .....	66,360,152	200,237	5,190,732	614,841	469,012	314,395	824,719	7,873,731	1,746,777	1,388,467	400,906	392,214	414,582

See footnotes at end of table.

TABLE 2.—GENERAL STATISTICS IN DETAIL BY STATES: 1939—Continued

ITEM	Maryland	Massachusetts	Michigan	Minnesota	Missouri	Montana	Nebraska	New Jersey	New York	North Carolina	North Dakota	Ohio	Oklahoma
Number of establishments <sup>1</sup> .....	20	76	46	38	43	6	10	68	133	6	3	98	8
Proprietors and firm members.....	17	42	38	24	9	4	3	27	63	2	1	49	9
Persons reported by manufacturing establishments, total <sup>2</sup> .....	487	915	974	753	899	43	232	1,612	2,229	53	47	2,804	71
Salaried officers of corporations <sup>3</sup> .....	40	68	45	34	59	1	12	80	154	2	4	106	1
Manufacturing:													
Salaried employees <sup>3</sup> .....	37	72	116	53	81	6	25	162	145	4	8	243	10
Wage earners (average for the year) <sup>3</sup> .....	383	709	757	551	680	34	173	1,273	1,564	35	23	2,201	58
Distribution.....	25	64	53	114	73	2	22	94	345	12	12	243	2
Construction.....	2		3										
Other.....		2		1	6			3	21				11
Salaries and wages, total <sup>3</sup> .....	\$686,646	\$1,382,041	\$1,404,162	\$1,179,040	\$1,329,772	\$57,654	\$291,524	\$2,584,018	\$3,497,246	\$65,903	\$56,157	\$4,063,248	\$73,338
Salaried officers <sup>3</sup> .....	119,177	263,129	201,702	124,651	258,340	5,415	44,110	368,430	597,170	7,500	10,200	613,357	5,200
Manufacturing:													
Salaries <sup>3</sup> .....	46,468	118,179	182,397	106,590	157,212	11,580	36,546	316,831	242,171	7,030	9,694	481,203	11,048
Wages.....	480,411	884,782	889,248	775,935	824,778	34,807	166,988	1,701,166	2,071,151	28,718	26,683	2,487,621	52,584
Distribution.....	38,058	114,218	127,818	170,720	84,643	5,852	43,880	195,469	564,017	22,655	9,580	471,149	4,506
Construction.....	2,532		2,997					1,202					
Other.....		1,733		1,144	4,799			920	22,737			9,918	
Cost of materials, supplies, fuel, purchased electric energy, and contract work, total.....	865,486	1,830,063	2,179,102	2,094,822	2,077,896	208,009	859,190	3,584,470	4,781,030	324,780	110,646	11,954,883	136,224
Materials and supplies.....	813,792	1,758,358	2,092,935	2,036,198	2,036,903	204,892	847,548	3,489,959	4,623,849	323,534	109,191	11,799,317	158,674
Fuel.....	6,369	21,241	23,622	21,361	15,494	787	3,621	27,663	42,543	250	615	54,958	762
Purchased electric energy.....	9,243	32,158	33,023	35,300	25,476	1,402	7,294	54,440	66,194	996	840	82,178	2,472
Contract work.....	36,082	18,306	29,522	1,963	23	928	727	12,408	48,444			18,430	1,316
Value of products.....	2,081,131	4,023,840	4,551,342	4,167,922	4,244,976	402,900	1,614,530	7,433,043	10,325,895	435,924	202,165	20,220,512	302,642
Value added by manufacture <sup>4</sup> .....	1,215,645	2,193,777	2,372,240	2,073,100	2,167,080	194,891	755,340	3,848,573	5,544,865	111,144	91,519	8,265,629	139,418

  

ITEM	Oregon	Pennsylvania	Rhode Island	South Carolina	Tennessee	Texas	Utah	Vermont	Virginia	Washington	West Virginia	Wisconsin	Other States <sup>5</sup>
Number of establishments <sup>1</sup> .....	22	74	11	3	6	39	6	5	11	31	5	45	21
Proprietors and firm members.....	16	51	4	4	1	34	3	3	4	28	6	15	12
Persons reported by manufacturing establishments, total <sup>2</sup> .....	432	1,844	107	31	75	385	75	68	169	312	227	1,901	286
Salaried officers of corporations <sup>3</sup> .....	12	44	10		4	8	4	4	13	11	4	63	13
Manufacturing:													
Salaried employees <sup>3</sup> .....	22	235	14	3	7	27	6	10	12	33	11	167	32
Wage earners (average for the year) <sup>3</sup> .....	363	1,460	75	28	46	331	51	38	125	246	195	1,308	209
Distribution.....	33	98	3		16	18	14	6	19	22	17	356	31
Construction.....	2		5									1	
Other.....		7			2	1						8	1
Salaries and wages, total <sup>3</sup> .....	\$546,523	\$3,075,233	\$145,474	\$25,133	\$91,926	\$490,422	\$117,645	\$72,118	\$192,331	\$436,192	\$304,957	\$3,085,990	\$425,230
Salaried officers <sup>3</sup> .....	42,661	182,028	23,186		17,531	19,023	24,538	10,456	47,165	40,192	17,196	311,389	82,331
Manufacturing:													
Salaries <sup>3</sup> .....	47,492	617,652	21,202	3,227	9,908	41,705	9,103	15,410	14,016	42,024	20,308	297,315	52,848
Wages.....	386,620	2,075,078	37,585	21,906	40,946	382,467	49,996	37,546	107,416	316,403	245,376	1,708,384	229,243
Distribution.....	65,845	190,715	7,271		21,410	47,187	34,008	8,706	23,734	37,573	22,077	757,821	60,662
Construction.....	3,905		6,250									1,800	
Other.....		9,760			2,131	40						9,281	156
Cost of materials, supplies, fuel, purchased electric energy, and contract work, total.....	1,198,212	6,320,100	147,776	81,293	472,831	1,069,297	428,844	140,906	551,254	619,324	568,951	5,985,798	1,395,705
Materials and supplies.....	1,177,084	6,118,055	140,575	80,364	470,217	1,058,030	426,761	138,360	530,380	608,716	553,404	5,868,781	1,384,084
Fuel.....	5,336	54,289	3,786		704	2,367	485	1,523	1,157	1,209	10,965	71,470	3,992
Purchased electric energy.....	14,536	65,783	2,415	929	1,910	8,854	1,610	1,023	4,309	8,217	4,582	44,342	7,629
Contract work.....	1,256	81,973	1,000			46	88		15,408	1,182		1,196	
Value of products.....	2,190,064	13,639,709	364,739	148,367	655,936	1,878,249	702,872	277,800	909,188	1,331,565	1,118,835	11,159,026	2,360,260
Value added by manufacture <sup>4</sup> .....	991,852	7,319,609	216,963	67,074	183,105	808,951	274,028	136,894	357,934	712,241	549,884	5,173,228	964,555

<sup>1</sup> See GENERAL EXPLANATIONS—Definition of establishment.

<sup>2</sup> See GENERAL EXPLANATIONS—Wage earners and wages.

<sup>3</sup> Value of products less cost of materials, supplies, fuel, purchased electric energy, and contract work. See GENERAL EXPLANATIONS—Value added by manufacture.

<sup>4</sup> Arizona, 1 establishment; Arkansas, 4; Delaware, 1; District of Columbia, 2; Idaho, 3; Maine, 2; Mississippi, 2; Nevada, 1; New Hampshire, 1; South Dakota, 4.

<sup>5</sup> See GENERAL EXPLANATIONS—Persons engaged—general classification.

TABLE 3.—VALUE OF PRODUCTS FOR THE UNITED STATES: 1939 AND 1937

	1939	1937
Sheet-Metal Work Not Specifically Classified industry, all products, total value.....	\$137,341,231	\$159,095,585
Sheet-metal work not specifically classified made in this industry.....	115,519,747	132,719,527
Miscellaneous products not specified.....	5,607,702	
Receipts for contract and repair work and scrap and salable refuse.....	1,077,993	26,376,008
Other products (not classified in this industry).....	15,135,789	
Sheet-metal work not specifically classified, aggregate value.....	128,499,017	144,601,104
Sheet-metal work not specifically classified made in this industry.....	115,519,747	132,719,527
Sheet-metal work not specifically classified made as secondary products in other industries.....	12,979,270	11,881,577

<sup>1</sup> Value of steel barrels, dairy milk cans, metal furniture, incubators, brooders, etc

TABLE 4.—PRODUCTS, BY KIND AND VALUE, FOR THE UNITED STATES: 1939 AND 1937

PRODUCT	1939			1937
	Produced in the industry	Produced in other industries	Total	
Total value.....	\$115,519,747	\$12,979,270	\$128,499,017	\$144,601,104
Gutters, downspouts, cornices, ventilators, etc.....	18,051,467	1,387,194	19,438,661	23,025,809
Culverts, flumes, irrigation pipe, etc.....	16,059,729	1,192,608	17,252,337	16,316,981
Stove and furnace pipe and flue and air ducts.....	16,379,146	5,375,200	21,754,346	16,904,301
Tanks and bins.....	10,471,336	1,500,399	11,971,735	6,203,501
Pans, vats, and stills.....	3,661,303	185,698	3,847,001	1,901,686
Portable steel buildings.....	1,600,947	518,952	2,119,899	1,484,659
Sheet-metal products not specifically classified.....	49,295,819	2,819,219	52,115,038	78,764,167

TABLE 5.—PRINCIPAL MATERIALS CONSUMED IN THE "SHEET-METAL WORK NOT SPECIFICALLY CLASSIFIED" INDUSTRY

	1939	1939	1939
Steel sheets, plates and strip—hot-rolled (except stainless):		Terneplate:	
Quantity reported—		Quantity reported—	
Tons (2,000 pounds).....	331,161	Tons (2,000 pounds).....	4,889
Cost.....	\$22,656,672	Cost.....	\$454,566
Quantity not reported, cost.....	\$3,854,752	Quantity not reported, cost.....	\$41,219
Steel sheets and strip—cold-rolled (except stainless and vitreous-enamelled):		Block plate:	
Quantity reported—		Quantity reported—	
Tons (2,000 pounds).....	103,211	Tons (2,000 pounds).....	15,144
Cost.....	\$7,930,705	Cost.....	\$901,344
Quantity not reported, cost.....	\$1,053,158	Quantity not reported, cost.....	\$150,692
Vitreous-enamelled steel sheets:		Copper:	
Quantity reported—		Quantity reported—	
Tons (2,000 pounds).....	3,786	Tons (2,000 pounds).....	5,407
Cost.....	\$346,742	Cost.....	\$1,992,926
Quantity not reported, cost.....	\$45,517	Quantity not reported, cost.....	\$293,308
Stainless-steel sheets and strip:		Aluminum:	
Quantity reported—		Quantity reported—	
Tons (2,000 pounds).....	2,823	Tons (2,000 pounds).....	1,388
Cost.....	\$1,665,045	Cost.....	\$977,689
Quantity not reported, cost.....	\$357,146	Quantity not reported, cost.....	\$105,166
Tin plate:		Brass and bronze:	
Quantity reported—		Quantity reported—	
Tons (2,000 pounds).....	11,847	Tons (2,000 pounds).....	1,044
Cost.....	\$1,049,997	Cost.....	\$424,867
Quantity not reported, cost.....	\$482,217	Quantity not reported, cost.....	\$40,470
		Zinc:	
		Quantity reported—	
		Tons (2,000 pounds).....	2,334
		Cost.....	\$269,210
		Quantity not reported, cost.....	\$447,048

TABLE 6.—WAGE EARNERS ENGAGED IN MANUFACTURING, BY MONTHS, FOR THE UNITED STATES, 1939, 1937, AND 1929, AND BY STATES, 1939

[See GENERAL EXPLANATIONS—Disclosure of data for individual establishments]

STATE	Average number employed during year	NUMBER RECEIVING PAY DURING NORMAL PAY-ROLL PERIOD ENDED NEAREST 15TH OF MONTH—											
		January	February	March	April	May	June	July	August	September	October	November	December
United States:													
1939.....	18,749	16,499	16,792	17,105	17,655	17,993	18,184	18,662	19,514	20,966	21,763	20,085	19,788
1937.....	22,973	22,283	22,787	23,266	23,878	23,853	23,597	23,554	23,824	23,467	23,128	21,633	20,108
1929.....	28,593	26,423	26,357	26,041	27,798	28,701	28,897	29,327	29,955	30,148	30,452	29,820	28,322
Alabama.....	72	46	36	48	55	48	49	46	58	106	144	150	75
Arkansas.....	78	76	76	77	77	78	81	79	82	78	78	77	76
California.....	1,591	1,464	1,498	1,535	1,622	1,639	1,619	1,608	1,586	1,612	1,641	1,662	1,610
Colorado.....	209	160	152	168	179	215	215	207	220	245	254	238	253
Connecticut.....	168	154	155	168	165	156	159	167	165	175	180	186	187
Florida.....	83	88	83	82	78	76	72	78	76	78	88	96	107
Georgia.....	201	215	209	206	206	194	187	190	198	193	197	196	217
Idaho.....	8	8	7	6	3	12	8	8	10	8	8	6	7
Illinois.....	2,050	1,695	1,790	1,824	1,893	1,869	1,853	1,898	2,043	2,668	2,705	2,167	2,160
Indiana.....	613	607	665	674	668	668	487	529	562	572	608	630	681
Iowa.....	452	436	430	426	430	447	467	453	442	430	458	510	501
Kansas.....	94	88	89	83	93	110	110	101	94	96	92	84	90
Kentucky.....	118	113	111	114	117	122	127	126	118	120	120	117	108
Louisiana.....	185	165	170	167	172	183	199	190	197	205	195	180	195
Maryland.....	353	343	365	361	378	396	393	401	399	372	399	384	395
Massachusetts.....	709	676	699	686	674	701	750	746	713	705	730	726	698
Michigan.....	757	622	600	611	597	607	730	592	973	842	944	817	791
Minnesota.....	551	432	480	405	516	549	577	567	576	612	618	621	574
Missouri.....	680	611	628	635	656	708	659	692	720	721	735	740	663
Montana.....	34	28	27	25	32	30	38	42	37	33	40	39	37
Nebraska.....	173	119	113	123	142	157	147	135	153	305	386	150	150
New Jersey.....	1,273	1,213	1,193	1,188	1,225	1,202	1,258	1,249	1,358	1,341	1,323	1,350	1,371
New York.....	1,564	1,428	1,397	1,465	1,478	1,478	1,542	1,551	1,625	1,669	1,710	1,724	1,711
North Carolina.....	35	27	27	29	36	33	42	43	37	36	40	41	34
North Dakota.....	23	11	16	15	18	22	30	27	27	26	26	29	26
Ohio.....	2,201	1,833	1,984	1,968	2,020	1,905	1,925	1,997	2,314	2,942	3,074	2,186	2,213
Oklahoma.....	58	43	48	48	52	54	52	58	58	69	69	66	64
Oregon.....	363	296	313	312	342	396	427	390	377	380	420	374	329
Pennsylvania.....	1,460	1,212	1,207	1,240	1,273	1,349	1,399	1,509	1,549	1,541	1,623	1,785	1,831
Rhode Island.....	75	86	73	71	70	72	71	75	70	76	78	81	76
South Carolina.....	28	23	25	21	24	29	44	45	22	26	26	26	26
South Dakota.....	47	25	26	28	42	46	28	34	74	132	88	23	20
Tennessee.....	46	46	47	46	45	42	43	45	49	48	48	49	45
Texas.....	331	345	309	327	340	359	359	365	348	329	329	299	262
Utah.....	51	43	39	49	56	64	64	63	49	46	46	45	45
Vermont.....	38	40	39	40	39	36	34	34	34	37	39	42	42
Virginia.....	125	132	138	150	122	99	115	105	113	122	157	142	107
Washington.....	246	222	198	208	215	240	237	258	278	265	286	279	272
West Virginia.....	195	177	190	174	193	191	194	203	204	191	213	214	162
Wisconsin.....	1,306	1,030	1,080	1,148	1,254	1,256	1,315	1,368	1,406	1,421	1,463	1,468	1,460

TABLE 7.—EXPENDITURES FOR PLANT AND EQUIPMENT: 1939

	1939
Number of establishments:	
Total for the industry.....	1,262
Reporting expenditures for plant and equipment.....	689
Value of products:	
Total for the industry.....	\$137,341,231
Reporting expenditures for plant and equipment.....	109,515,151
Expenditures for plant and equipment:	
Total for the industry.....	2,644,613
Expenditures for new construction or major alterations of buildings and other fixed plant and structures.....	745,951
Expenditures for new machinery and operating equipment.....	1,591,111
Expenditures for plant and equipment acquired in a "used" condition from other owners and expenditures for land.....	307,551

TABLE 8.—VALUE OF INVENTORIES OF MATERIALS AND FINISHED PRODUCTS, AND VALUE OF PRODUCTS: 1939 AND 1937

	1939	1937
Inventories:		
Beginning of year, total.....	\$18,987,955	\$19,391,127
Finished products.....	5,311,570	6,947,715
Materials, supplies, etc.....	13,676,385	12,443,412
End of year, total.....	22,768,581	22,934,210
Finished products.....	5,839,716	8,700,809
Materials, supplies, etc.....	16,928,865	14,233,401
Value of products for the industry, total.....	137,341,231	159,095,535
Value for establishments reporting inventories (includes value of products of establishments reporting no inventories on hand).....	136,474,982	142,076,534
Value for establishments not reporting inventories.....	866,249	17,019,001

TABLE 9.—PRIME MOVERS, MOTORS, GENERATORS, AND ELECTRIC ENERGY: 1939 AND 1929

	1939	1929
Number of establishments.....	1,262	2,161
Number of establishments reporting power equipment.....	1,252	1,482
Prime movers, aggregate:		
Number.....	29	65
Horsepower.....	2,160	4,597

TABLE 9.—PRIME MOVERS, MOTORS, GENERATORS, AND ELECTRIC ENERGY: 1939 AND 1929—Continued

	1939	1929
Prime movers—Continued.		
Prime movers, driving generators, total—		
Number.....	25	165
Horsepower.....	2,055	14,597
Steam engines—		
Number.....	6	117
Horsepower.....	1,353	12,027
Diesel and semi-Diesel engines—		
Number.....	5	
Horsepower.....	440	1 <sup>48</sup>
Other internal-combustion engines <sup>2</sup> —		
Number.....	14	12,570
Horsepower.....	262	
Prime movers, driving generators, ordinarily idle (included above), horsepower.....	235	
Prime movers not driving generators, total—		
Number.....	4	(3)
Horsepower.....	105	
Internal-combustion engines, <sup>2</sup> other than Diesel and semi-Diesel—		
Number.....	4	
Horsepower.....	105	
Generators, kilowatt rating, total.....	1,414	2,104
Generators, driven by—		
Steam engines, kilowatt rating.....	870	
Diesel and semi-Diesel engines, kilowatt rating.....	271	(3)
Other internal-combustion engines, <sup>2</sup> kilowatt rating.....	273	
Generators, ordinarily idle (included above), kilowatt rating.....	245	(4)
Electric motors, total:		
Number.....	12,965	9,416
Horsepower.....	56,449	51,200
Driven by purchased energy—		
Number.....	12,777	9,111
Horsepower.....	53,988	49,152
Driven by energy generated in establishments reporting—		
Number.....	188	305
Horsepower.....	2,461	2,048
Electric energy (kilowatt-hours):		
Generated in plant.....	1,392,830	(1)
Sold.....	40,000	(2)
Purchased.....	26,062,606	28,479,534

<sup>1</sup> Includes data for prime movers not driving generators.

<sup>2</sup> Gas, gasoline, etc.

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

<sup>4</sup> Data not available.

## NONFERROUS-METAL PRODUCTS NOT ELSEWHERE CLASSIFIED

[A preliminary report for this industry was issued October 31, 1940]

**Description of the industry.**—The establishments classified in this industry are engaged primarily in the production, from nonferrous metals, other than aluminum, of bearings and bushings, die castings, forged and hot-pressed parts, spun ware, and other nonferrous products not elsewhere classified.

Prior to 1939 the establishments of this industry formed a part of the "Nonferrous-metal alloys; nonferrous products, except aluminum, not elsewhere classified" industry. Figures comparable with those for 1939 have been prepared for 1937, but comparable figures for earlier census years are not available.

**TABLE 1.—SUMMARY FOR THE UNITED STATES: 1937 AND 1939**

CENSUS YEAR	Number of establishments <sup>1</sup>	Wage earners (average for the year) <sup>2</sup>	Wages	Cost of materials, supplies, fuel, purchased electric energy, and contract work	Value of products	Value added by manufacture <sup>3</sup>	Horse-power of prime movers
1939.....	438	24,834	\$34,751,402	\$62,004,698	\$141,765,939	\$79,761,241	6,053
1937.....	396	28,020	38,838,524	63,390,596	142,636,953	79,146,357	(4)

<sup>1</sup> See GENERAL EXPLANATIONS—Definition of establishment.

<sup>2</sup> See GENERAL EXPLANATIONS—Wage earners and wages.

<sup>3</sup> Value of products less cost of materials, supplies, fuel, purchased electric energy, and contract work. See GENERAL EXPLANATIONS—Value added by manufacture.

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

**TABLE 2.—GENERAL STATISTICS IN DETAIL BY STATES: 1939**

[See GENERAL EXPLANATIONS—Disclosure of data for individual establishments]

ITEM	United States	California	Connecticut	Illinois	Indiana	Maryland	Massachusetts	Michigan
Number of establishments <sup>1</sup> .....	438	35	10	54	9	9	25	37
Proprietors and firm members.....	225	33	2	25	-----	6	14	11
Persons reported by manufacturing establishments, total <sup>2</sup> .....	30,594	407	2,686	4,198	956	54	618	5,068
Salaried officers of corporations <sup>2</sup> .....	536	12	13	67	20	2	27	67
Manufacturing:								
Salaried employees <sup>2</sup> .....	3,322	27	331	356	118	5	49	557
Wage earners (average for the year) <sup>3</sup> .....	24,834	337	2,059	3,443	737	47	494	4,285
Distribution.....	1,395	26	146	236	41	-----	45	139
Construction.....	344	3	136	85	25	-----	-----	1
Other.....	163	2	1	11	15	-----	3	19
Salaries and wages, total <sup>2</sup> .....	\$48,993,295	\$598,998	\$3,651,614	\$6,132,463	\$1,290,221	\$56,008	\$879,180	\$8,613,108
Salaried officers <sup>2</sup> .....	3,820,896	54,691	121,432	489,971	177,988	5,750	154,658	605,545
Manufacturing:								
Salaries <sup>2</sup> .....	6,727,011	48,301	612,279	690,741	173,735	5,488	95,756	1,273,420
Wages.....	34,751,402	453,444	2,411,837	4,432,700	836,060	44,770	528,904	6,448,378
Distribution.....	3,100,625	34,044	324,818	456,089	59,406	-----	97,326	270,343
Construction.....	418,339	4,878	179,785	48,313	35,095	-----	-----	1,688
Other.....	176,022	3,640	1,463	14,649	6,137	-----	2,476	13,734
Cost of materials, supplies, containers, fuel, purchased electric energy, and contract work, total.....	62,004,698	612,345	4,988,295	7,263,935	1,653,671	40,966	1,261,611	11,086,974
Materials, supplies, and containers.....	57,843,152	580,289	4,800,354	6,661,613	1,566,793	36,568	1,218,662	10,501,195
Fuel.....	1,271,295	10,269	34,016	181,623	31,869	1,626	14,834	240,542
Purchased electric energy.....	1,570,801	11,380	90,071	215,775	51,913	1,544	23,760	306,814
Contract work.....	1,319,450	10,407	63,854	204,924	3,096	1,228	4,355	38,423
Value of products.....	141,765,939	1,658,093	11,352,340	16,582,581	4,182,869	122,335	2,651,063	25,314,091
Value added by manufacture <sup>4</sup> .....	79,761,241	1,045,748	6,364,045	9,318,646	2,629,198	81,369	1,389,452	14,227,117

See footnotes at end of table.

NONFERROUS-METAL PRODUCTS

TABLE 2.—GENERAL STATISTICS IN DETAIL BY STATES: 1939—Continued

ITEM	Minnesota	Missouri	New Jersey	New York	Ohio	Pennsylvania	Washington	Wisconsin	Other States <sup>1</sup>
Number of establishments <sup>1</sup> .....	6	9	30	110	42	24	5	12	21
Proprietors and firm members.....	4	6	13	51	25	13	7	1	14
Persons reported by manufacturing establishments, total <sup>2</sup> .....	122	221	1,538	4,445	6,975	2,333	47	597	320
Salaried officers of corporations <sup>2</sup> .....	5	10	38	131	76	28	1	24	15
Manufacturing:									
Salaried employees <sup>2</sup> .....	11	31	216	553	731	229	2	77	29
Wage earners (average for the year) <sup>3</sup> .....	90	172	1,206	3,378	5,841	1,986	38	472	249
Distribution.....	12	8	46	289	279	75	3	21	29
Construction.....			13	57	7	14		3	
Other.....	4		19	37	41	1	3		7
Salaries and wages, total <sup>2</sup> .....	\$229,702	\$355,549	\$2,566,057	\$6,734,885	\$12,449,747	\$3,891,563	\$66,860	\$1,045,619	\$431,721
Salaried officers <sup>2</sup> .....	44,543	80,075	242,174	572,695	779,555	256,527	10,000	170,943	54,349
Manufacturing:									
Salaries <sup>2</sup> .....	29,183	57,953	471,105	1,013,501	1,568,588	484,950	3,740	143,444	54,827
Wages.....	110,812	188,607	1,684,725	4,456,344	9,317,673	2,851,049	43,948	668,026	272,505
Distribution.....	38,969	28,854	106,760	550,438	739,017	284,473	6,557	58,216	45,315
Construction.....			27,607	89,274	11,994	13,815		4,990	
Other.....	6,195		33,686	52,633	32,920	149	2,615		4,725
Cost of materials, supplies, containers, fuel, purchased electric energy, and contract work, total.....	498,151	551,059	4,975,475	8,142,852	13,989,109	4,200,488	61,587	1,313,795	1,364,385
Materials, supplies, and containers.....	478,628	534,506	4,717,518	7,310,989	12,948,217	3,895,556	57,523	1,210,245	1,324,496
Fuel.....	10,708	8,031	103,280	194,465	127,438	801		34,698	20,790
Purchased electric energy.....	6,642	8,522	130,570	180,292	376,794	131,064	2,387	23,030	10,243
Contract work.....	2,173		24,107	457,106	407,793	46,430	876	45,822	8,856
Value of products.....	908,452	1,152,476	10,748,023	19,090,102	32,725,989	9,823,960	178,935	2,884,718	2,389,912
Value added by manufacture <sup>4</sup> .....	410,301	601,417	5,772,548	10,947,250	18,736,880	5,623,472	117,348	1,570,923	1,025,527

<sup>1</sup> See GENERAL EXPLANATIONS—Definition of establishment.

<sup>2</sup> See GENERAL EXPLANATIONS—Persons engaged—general classification.

<sup>3</sup> See GENERAL EXPLANATIONS—Wage earners and wages.

<sup>4</sup> Value of products less cost of materials, supplies, containers, fuel, purchased electric energy, and contract work. See GENERAL EXPLANATIONS—Value added by manufacture.

<sup>5</sup> Colorado, 2 establishments; Delaware, 1; Florida, 2; Kansas, 1; Kentucky, 2; Nebraska, 1; Oklahoma, 1; Oregon, 4; Tennessee, 1; Texas, 2; Utah, 1; Virginia, 1; West Virginia, 1; Wyoming, 1.

TABLE 3.—VALUE OF PRODUCTS FOR THE UNITED STATES: 1939 AND 1937

	1939	1937
Nonferrous-Metal Products Not Elsewhere Classified industry, all products, total value.....	\$141,765,939	\$142,536,953
Nonferrous-metal products not elsewhere classified.....	92,288,183	88,636,634
Miscellaneous products not specified.....	3,854,672	53,900,319
Scrap and salable refuse.....	1,268,947	
Receipts for contract and repair work, and merchandising.....	1,010,013	
Other products (not classified in this industry).....	143,344,124	
Nonferrous-metal products not elsewhere classified, aggregate value.....	115,468,207	109,649,523
Nonferrous-metal products, etc., made in this industry.....	92,288,183	88,636,634
Nonferrous-metal products, etc. made as secondary products in other industries.....	23,180,024	21,012,889

<sup>1</sup> Value of rods, tubing, rough castings, valves, screw-machine products, etc.

TABLE 4.—PRODUCTS, BY KIND AND VALUE, FOR THE UNITED STATES: 1939 AND 1937

PRODUCT	1939			1937
	Produced in the industry	Produced in other industries	Total	
Total value.....	\$92,288,183	\$23,180,024	\$115,468,207	\$109,649,523
Bearings and bushings (including anti-friction linings).....	28,079,971	9,112,492	37,192,463	43,254,886
Die castings.....	27,405,707	1,153,627	28,559,334	28,072,634
Finished castings:				
Cooking utensils.....	252,349		252,349	420,000
Other.....	2,255,827	1,319,756	3,575,583	3,055,259
Forged and hot-pressed parts.....	3,072,199	2,858,449	5,930,648	6,837,465
Fittings.....	9,247,003		9,247,003	6,093,641
Spun ware.....	3,455,574	101,535	3,557,109	2,320,913
Powder.....	1,521,708	270,730	1,792,438	( <sup>1</sup> )
Other nonferrous products classified in this industry.....	16,997,845	8,363,435	25,361,280	19,594,825

<sup>1</sup> Value of fittings reported by establishments classified in this industry only.

<sup>2</sup> No comparable data.

TABLE 5.—WAGE EARNERS ENGAGED IN MANUFACTURING, BY MONTHS, FOR THE UNITED STATES, 1939 AND 1937, AND BY STATES, 1939

[See GENERAL EXPLANATIONS.—Disclosure of data for individual establishments]

STATE	Average number employed during year	NUMBER RECEIVING PAY DURING NORMAL PAY-ROLL PERIOD ENDED NEAREST 15TH OF MONTH—											
		January	February	March	April	May	June	July	August	September	October	November	December
United States:													
1939.....	24,834	22,561	22,801	23,051	23,015	22,914	22,713	22,628	23,813	25,933	28,893	30,155	29,534
1937.....	28,020	27,876	28,322	28,652	29,164	29,471	29,017	28,503	28,213	28,547	28,609	28,809	23,053
California.....	337	296	278	286	303	315	329	342	343	351	368	413	425
Connecticut.....	2,059	1,938	1,937	1,832	1,953	1,946	1,941	1,958	1,950	2,075	2,229	2,492	2,430
Illinois.....	3,443	3,193	3,189	3,163	3,249	3,255	2,973	2,936	2,794	4,058	4,365	4,334	4,104
Indiana.....	737	598	634	664	659	652	683	750	823	832	898	912	785
Maryland.....	47	45	45	46	42	46	47	47	49	47	48	49	48
Massachusetts.....	494	475	527	522	502	522	504	487	464	465	472	497	495
Michigan.....	4,285	3,780	3,818	3,817	4,030	3,997	4,093	4,020	4,295	4,264	4,868	5,254	5,085
Minnesota.....	90	83	85	87	86	88	89	94	95	91	94	94	93
Missouri.....	172	125	157	171	169	161	126	150	165	191	212	218	221
New Jersey.....	1,206	1,167	1,161	1,146	1,132	1,111	1,171	1,126	1,212	1,172	1,362	1,371	1,344
New York.....	3,378	3,003	3,068	3,151	3,124	3,065	3,012	3,091	3,270	3,480	3,913	4,118	4,241
Ohio.....	5,841	5,400	5,434	5,520	5,246	5,247	5,218	5,339	5,662	6,166	6,946	7,024	6,887
Oregon.....	41	40	41	41	43	42	40	42	42	39	39	40	41
Pennsylvania.....	1,986	1,763	1,783	1,843	1,808	1,754	1,798	1,855	1,896	1,976	2,319	2,486	2,516
Washington.....	38	36	38	38	40	43	37	38	41	39	36	37	37
Wisconsin.....	472	423	405	423	433	425	439	451	463	477	514	594	615

## CENSUS OF MANUFACTURES: 1939

TABLE 6.—EXPENDITURES FOR PLANT AND EQUIPMENT: 1939

	1939
Number of establishments:	
Total for the industry.....	438
Reporting expenditures for plant and equipment.....	249
Value of products:	
Total for the industry.....	\$141,765,939
Reporting expenditures for plant and equipment.....	128,859,932
Expenditures for plant and equipment:	
Total for the industry.....	4,732,525
Expenditures for new construction or major alterations of buildings and other fixed plant and structures.....	1,091,550
Expenditures for new machinery and operating equipment.....	3,413,120
Expenditures for plant and equipment acquired in a "used" condition from other owners and expenditures for land.....	227,855

TABLE 7.—VALUE OF INVENTORIES OF MATERIALS AND FINISHED PRODUCTS, AND VALUE OF PRODUCTS: 1939 AND 1937

	1939	1937
Inventories:		
Beginning of year, total.....	\$20,035,384	\$18,757,399
Finished products.....	8,812,462	6,711,725
Materials, supplies, etc.....	11,222,922	12,045,674
End of year, total.....	22,983,607	22,216,239
Finished products.....	9,451,524	8,511,182
Materials, supplies, etc.....	13,532,083	13,705,057
Value of products for the industry, total.....	141,765,939	142,536,953
Value for establishments reporting inventories (includes value of products of establishments reporting no inventories on hand).....	140,753,401	133,749,170
Value for establishments not reporting inventories.....	1,012,538	8,787,783

TABLE 8.—PRIME MOVERS, MOTORS, GENERATORS, AND ELECTRIC ENERGY: 1939<sup>1</sup>

	1939		1939
Number of establishments.....	438	Prime movers—Continued.	
Number of establishments reporting power equipment.....	437	Prime movers not driving generators—Continued.	
Prime movers, aggregate:		Diesel and semi-Diesel engines—	
Number.....	29	Number.....	3
Horsepower.....	6,053	Horsepower.....	285
Prime movers, driving generators, total—		Other internal-combustion engines <sup>2</sup> —	
Number.....	16	Number.....	6
Horsepower.....	4,615	Horsepower.....	178
Steam engines—		Prime movers not driving generators, ordinarily idle (included above), horsepower.....	452
Number.....	6	Generators, kilowatt rating, total.....	3,101
Horsepower.....	2,570	Generators, driven by—	
Steam turbines—		Steam engines, kilowatt rating.....	1,713
Number.....	2	Steam turbines, kilowatt rating.....	1,000
Horsepower.....	1,500	Diesel and semi-Diesel engines, kilowatt rating.....	172
Diesel and semi-Diesel engines—		Other internal-combustion engines, <sup>2</sup> kilowatt rating.....	91
Number.....	3	Hydroturbines and water wheels, kilowatt rating.....	125
Horsepower.....	300	Generators, ordinarily idle (included above), kilowatt rating.....	1,065
Other internal-combustion engines <sup>2</sup> —		Electric motors, total:	
Number.....	4	Number.....	17,774
Horsepower.....	150	Horsepower.....	83,606
Hydroturbines and water wheels—		Driven by purchased energy—	
Number.....	1	Number.....	15,718
Horsepower.....	95	Horsepower.....	78,675
Prime movers, driving generators, ordinarily idle (included above), horsepower.....	1,515	Driven by energy generated in establishments reporting—	
Prime movers not driving generators, total—		Number.....	2,056
Number.....	13	Horsepower.....	4,931
Horsepower.....	1,438	Electric energy (kilowatt-hours):	
Steam engines—		Generated in plant.....	4,110,734
Number.....	4	Purchased.....	106,022,842
Horsepower.....	975		

<sup>1</sup> Comparable data for 1929 not available.<sup>2</sup> Gas, gasoline, etc.

## Group 16.—ELECTRICAL MACHINERY

**Description of the group of industries.**—This group of industries embraces establishments engaged primarily in the manufacture of machinery, apparatus, and supplies for employment directly in the generation, storage, transmission, or utilization of electric energy. The group includes the "Radios, radio tubes, and phonographs" industry, but it does not cover establishments whose principal products are electric-lighting fixtures, electric signs or motor-driven tools, mechanical refrigerators, washing machines, and other machines and appliances constructed with built-in motors or other electrical equipment (such machines and appliances being classified for census purposes in other industries), unless the electrical equipment is made in the same plants by the same manufacturers and contributes at least one-half of the total value of the machines or appliances. (See second table, page 402.) The number of establishments shown in this report is therefore considerably smaller than the total number of manufacturers commonly thought of as manufacturing electrical equipment.

The following individual industries were combined to make up the electrical machinery group in the Census of Manufactures for 1939:

1. Wiring devices and supplies.
2. Carbon products for the electrical industry, and manufactures of carbon or artificial graphite.
3. Electrical measuring instruments.
4. Generating, distribution, and industrial apparatus, and apparatus for incorporation in manufactured products, not elsewhere classified.
5. Electrical appliances.
6. Insulated wire and cable.
7. Automotive electrical equipment.
8. Electric lamps.
9. Radios, radio tubes, and phonographs.
10. Communication equipment.
11. Batteries, storage and primary (dry and wet).
12. X-ray and therapeutic apparatus and electronic tubes.
13. Electrical products not elsewhere classified.

With the exception of the "Radios, radio tubes, and phonographs" industry, which has been a separate industry beginning with the 1931 census, they were all combined in the single industry "Electrical machinery, apparatus, and supplies" at the censuses for 1931, 1933, 1935, and 1937. Prior to the 1931 Census for Manufactures, radios and radio tubes were included in the "Electrical machinery, apparatus, and supplies" industry, but "Phonographs" was a separate industry classification.

## CENSUS OF MANUFACTURES: 1939

## SUMMARY FOR GROUP 16.—ELECTRICAL MACHINERY: 1899 TO 1939

CENSUS YEAR	Number of establishments	Wage earners (average for the year)	Wages	Cost of materials, supplies, fuel, purchased electric energy, and contract work <sup>1</sup>	Value of products	Value added by manufacture <sup>2</sup>	Horsepower of prime movers
1939	2,014	256,467	\$335,819,534	\$727,436,259	\$1,727,389,949	\$999,953,690	354,449
1937	1,597	306,003	407,960,508	797,772,309	1,899,905,431	1,102,133,122	( <sup>3</sup> )
1935	1,589	224,437	240,952,287	475,686,936	1,161,402,923	685,715,987	( <sup>4</sup> )
1933	1,365	163,736	145,403,985	271,034,296	675,233,061	404,198,765	( <sup>5</sup> )
1931	1,596	216,596	239,633,618	425,527,392	1,188,153,058	762,625,666	( <sup>6</sup> )
1929	1,861	343,138	474,203,484	1,008,340,760	2,397,764,620	1,389,423,860	312,280
1927	1,837	255,782	356,414,958	683,229,410	1,732,603,172	1,049,373,762	279,722
1925 <sup>6</sup>	1,807	251,188	337,979,496	661,539,170	1,601,059,188	939,520,018	174,494
1923	1,782	255,383	330,424,948	593,877,000	1,400,313,036	806,436,036	209,546
1921	1,487	179,142	216,016,107	385,127,471	932,198,227	547,070,756	( <sup>7</sup> )
1919	1,570	241,095	272,152,000	484,838,416	1,156,515,989	671,677,573	224,991
1914	1,048	127,459	80,147,824	161,776,116	362,286,110	200,509,994	161,819
1909	1,027	92,455	52,221,648	111,665,795	233,034,559	121,368,764	113,618
1904	798	63,863	33,525,424	70,998,062	151,046,444	80,048,382	83,094
1899	592	43,280	21,187,684	50,285,801	94,680,709	44,394,908	37,593
SUBGROUPS, INDUSTRIES, AND CENSUS YEAR							
SUMMARY FOR SUBGROUPS AND FOR INDIVIDUAL INDUSTRIES: 1939 AND 1937							
<b>ELECTRICAL EQUIPMENT FOR INDUSTRIAL USE:</b>							
1939	727	95,130	\$135,354,244	\$250,618,216	\$624,940,790	\$374,322,574	172,811
1937	585	122,196	178,405,706	276,677,786	736,881,390	460,203,604	( <sup>8</sup> )
<b>Wiring devices and supplies—</b>							
1939	146	14,564	16,905,970	44,505,642	94,305,273	49,799,631	3,725
1937	124	17,301	19,884,343	46,905,677	95,390,598	48,484,921	( <sup>9</sup> )
<b>Carbon products for the electrical industry, and manufactures of carbon or artificial graphite—</b>							
1939	31	3,189	4,483,609	6,681,438	18,375,580	11,694,142	1,200
1937	20	4,098	5,776,458	9,074,872	23,390,063	14,315,191	( <sup>9</sup> )
<b>Electrical measuring instruments—</b>							
1939	59	6,976	9,881,124	12,104,664	41,797,495	29,692,831	555
1937	33	6,935	10,101,959	10,266,628	40,415,677	30,159,049	( <sup>9</sup> )
<b>Generating, distribution, and industrial apparatus, and apparatus for incorporation in manufactured products, not elsewhere classified—</b>							
1939	491	70,401	104,083,541	187,326,472	470,462,442	283,135,970	167,331
1937	398	93,862	142,642,946	210,440,609	577,685,052	367,244,443	( <sup>9</sup> )
<b>ELECTRICAL APPLIANCES:</b>							
1939	138	19,890	25,408,770	58,081,360	145,696,194	87,614,834	5,309
1937	107	20,605	27,172,152	57,529,655	129,514,525	71,984,870	( <sup>9</sup> )
<b>INSULATED WIRE AND CABLE:</b>							
1939	79	15,696	18,687,729	70,124,571	120,390,050	50,265,479	32,215
1937	57	16,913	20,683,021	73,170,200	134,633,318	61,463,118	( <sup>9</sup> )
<b>AUTOMOTIVE ELECTRICAL EQUIPMENT:</b>							
1939	84	17,495	24,896,474	42,040,931	109,761,620	67,720,689	19,794
1937	61	23,103	32,899,301	61,394,712	137,711,837	76,817,125	( <sup>9</sup> )
<b>ELECTRIC LAMPS:</b>							
1939	55	9,622	10,689,019	28,571,141	84,827,985	56,256,844	550
1937	41	8,984	10,163,343	26,190,196	82,538,153	56,847,957	( <sup>9</sup> )
<b>COMMUNICATION EQUIPMENT AND RELATED PRODUCTS:</b>							
1939	451	75,627	91,470,037	194,201,853	467,196,654	272,994,801	105,026
1937	349	89,324	107,328,394	220,086,181	505,331,071	285,244,890	( <sup>9</sup> )
<b>Radios, radio tubes, and phonographs—</b>							
1939	224	43,508	47,025,658	145,850,163	275,870,165	130,020,002	23,354
1937	162	48,343	52,001,898	154,905,616	277,807,140	122,901,524	( <sup>9</sup> )
<b>Communication equipment—</b>							
1939	227	32,119	44,444,379	48,351,690	191,326,489	142,974,799	82,272
1937	187	40,981	55,326,496	65,180,565	227,523,931	162,343,366	( <sup>9</sup> )
<b>ELECTRICAL PRODUCTS NOT ELSEWHERE CLASSIFIED:</b>							
1939	480	23,007	29,363,261	83,798,187	174,576,656	90,778,469	18,144
1937	397	24,878	31,308,591	82,723,579	173,295,137	90,571,558	( <sup>9</sup> )
<b>Batteries, storage and primary (dry and wet)—</b>							
1939	221	15,034	19,209,426	63,176,798	117,582,712	54,405,914	17,932
1937	184	14,571	18,831,906	59,208,704	108,157,842	48,949,138	( <sup>9</sup> )
<b>X-ray and therapeutic apparatus and electronic tubes—</b>							
1939	84	1,959	2,744,251	5,754,928	17,945,038	12,190,110	-----
1937	46	1,936	2,759,908	5,236,157	17,148,233	11,912,076	( <sup>9</sup> )
<b>Electrical products not elsewhere classified—</b>							
1939	175	6,014	7,409,584	14,866,461	39,048,906	24,182,445	212
1937	167	8,371	9,716,777	18,278,718	47,989,062	29,710,344	( <sup>9</sup> )

<sup>1</sup> Cost of contract work is included in the figures for 1939, 1937, and 1935, but is not included in those for prior years.<sup>2</sup> Value of products less cost of materials, supplies, fuel, purchased electric energy, and contract work. See GENERAL EXPLANATIONS—Value added by manufacture.<sup>3</sup> Not called for on schedule.<sup>4</sup> Data not available.<sup>5</sup> The figures for "Refrigerators, mechanical" for the years prior to 1927 are included in part in those for this group and in part in those for the former "Foundry and machine-shop products, not elsewhere classified" industry.

# ELECTRICAL MACHINERY

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GENERAL STATISTICS IN DETAIL FOR THE GROUP, THE SUBGROUPS, AND FOR THE INDUSTRIES:<sup>1</sup> 1939

ITEM	Total for the group	ELECTRICAL EQUIPMENT FOR INDUSTRIAL USE				1620	1630
		1611	1612	1613	1619		
Number of establishments.....	2, 014	146	31	59	491	138	79
Proprietors and firm members.....	640	29	16	22	153	30	15
Persons reported by manufacturing industries, total.....	335, 248	17, 960	4, 053	9, 318	96, 324	25, 062	19, 233
Salaried officers of corporations.....	2, 759	260	50	86	736	206	118
Manufacturing:							
Salaried employees.....	54, 769	1, 999	642	1, 719	20, 618	2, 744	2, 480
Wage earners (average for the year).....	256, 467	14, 504	3, 189	6, 976	70, 401	19, 890	15, 696
Distribution.....	17, 973	1, 075	147	450	3, 643	2, 164	700
Construction.....	2, 109	45	24	65	421	25	126
Other.....	1, 171	17	1	22	505	33	113
Salaries and wages, total.....	\$519, 867, 970	\$25, 093, 614	\$6, 675, 430	\$15, 222, 595	\$104, 254, 954	\$36, 979, 276	\$26, 788, 398
Salaried officers.....	20, 452, 662	2, 008, 032	466, 972	705, 374	5, 617, 784	1, 356, 851	930, 787
Manufacturing:							
Salaries.....	119, 162, 064	3, 779, 729	1, 358, 202	3, 616, 751	44, 457, 168	5, 677, 989	5, 497, 320
Wages.....	335, 819, 534	16, 905, 970	4, 483, 609	9, 881, 124	104, 083, 541	25, 408, 770	18, 637, 729
Distribution.....	38, 572, 775	2, 232, 816	393, 970	881, 568	8, 553, 674	4, 459, 028	1, 355, 695
Construction.....	4, 138, 706	89, 638	29, 477	102, 393	767, 336	41, 316	204, 169
Other.....	1, 722, 229	17, 429	200	35, 385	775, 451	35, 322	162, 668
Cost of materials, supplies, containers, fuel, purchased electric energy, and contract work, total.....	727, 436, 259	44, 505, 642	6, 681, 438	12, 104, 664	187, 326, 472	58, 081, 360	70, 124, 571
Materials, supplies, and containers.....	702, 716, 203	43, 158, 537	5, 208, 075	11, 708, 639	180, 975, 920	56, 082, 581	67, 898, 210
Fuel.....	9, 597, 325	665, 295	545, 406	110, 192	3, 065, 396	585, 281	783, 776
Purchased electric energy.....	11, 860, 954	621, 267	755, 780	242, 025	2, 933, 020	1, 022, 141	1, 061, 874
Contract work.....	3, 261, 777	60, 543	172, 177	42, 908	352, 136	391, 357	880, 711
Value of products.....	1, 727, 389, 949	94, 305, 273	18, 375, 580	41, 797, 495	470, 462, 442	145, 696, 194	120, 390, 050
Value added by manufacture.....	999, 953, 690	49, 799, 631	11, 694, 142	29, 692, 831	283, 135, 970	87, 614, 834	50, 265, 479

ITEM	1640	1650	COMMUNICATION EQUIPMENT AND RELATED PRODUCTS		ELECTRICAL PRODUCTS NOT ELSEWHERE CLASSIFIED		
			1661	1662	1691	1692	1699
Number of establishments.....	84	55	224	227	221	84	175
Proprietors and firm members.....	24	7	62	64	120	36	62
Persons reported by manufacturing industries, total.....	20, 977	11, 587	55, 924	44, 844	18, 666	3, 009	8, 291
Salaried officers of corporations.....	100	49	361	365	161	104	163
Manufacturing:							
Salaried employees.....	2, 755	1, 364	7, 391	8, 935	2, 204	588	1, 330
Wage earners (average for the year).....	17, 495	9, 622	43, 608	32, 119	15, 034	1, 969	6, 014
Distribution.....	546	491	3, 901	2, 630	1, 149	354	723
Construction.....	6	45	640	617	40	-----	55
Other.....	75	16	123	178	78	4	6
Salaries and wages, total.....	\$32, 556, 000	\$15, 309, 066	\$75, 606, 501	\$76, 677, 486	\$27, 244, 913	\$5, 132, 848	\$12, 326, 919
Salaried officers.....	628, 471	370, 701	3, 013, 462	2, 911, 873	957, 689	630, 402	854, 264
Manufacturing:							
Salaries.....	5, 880, 841	3, 119, 529	14, 836, 322	22, 413, 219	4, 403, 914	1, 184, 935	2, 936, 145
Wages.....	24, 896, 474	10, 689, 019	47, 025, 658	44, 444, 379	19, 209, 426	2, 744, 251	7, 409, 584
Distribution.....	1, 009, 633	1, 025, 974	9, 435, 495	5, 240, 942	2, 474, 326	565, 685	940, 969
Construction.....	9, 349	97, 001	1, 119, 052	1, 425, 824	76, 018	-----	177, 133
Other.....	131, 232	6, 842	176, 512	241, 249	128, 540	7, 575	8, 824
Cost of materials, supplies, containers, fuel, purchased electric energy, and contract work, total.....	42, 040, 931	28, 571, 141	145, 850, 163	48, 351, 690	63, 176, 798	5, 754, 928	14, 866, 461
Materials, supplies, and containers.....	40, 569, 713	27, 535, 078	142, 915, 417	46, 410, 243	60, 596, 351	5, 565, 585	14, 091, 854
Fuel.....	636, 702	376, 926	723, 182	866, 146	957, 416	38, 345	243, 262
Purchased electric energy.....	740, 416	628, 023	1, 117, 375	707, 663	1, 526, 435	91, 326	412, 709
Contract work.....	94, 100	31, 114	1, 094, 189	307, 638	96, 596	59, 672	118, 636
Value of products.....	109, 761, 620	84, 827, 985	275, 870, 165	191, 326, 489	117, 582, 712	17, 945, 038	39, 048, 906
Value added by manufacture.....	67, 720, 689	56, 256, 844	130, 020, 002	142, 974, 799	54, 405, 914	12, 190, 110	24, 182, 445

<sup>1</sup> The numbers at the head of each column represent the following industries:

- 1611, Wiring devices and supplies.
- 1612, Carbon products for the electrical industry, and manufactures of carbon or artificial graphite.
- 1613, Electrical measuring instruments.

1619, Generating, distribution, and industrial apparatus, and apparatus for incorporation in manufactured products, not elsewhere classified.

- 1620, Electrical appliances.
- 1630, Insulated wire and cable.
- 1640, Automotive electrical equipment.
- 1650, Electric lamps.

- 1661, Radios, radio tubes, and phonographs.
- 1662, Communication equipment.
- 1691, Batteries, storage and primary (dry and wet).
- 1692, X-ray and therapeutic apparatus and electronic tubes.
- 1699, Electrical products not elsewhere classified.

## WIRING DEVICES AND SUPPLIES

[A preliminary report for this industry was issued October 23, 1940]

**Description of the industry.**—The establishments classified in this industry are engaged primarily in the manufacture of wiring devices, wiring supplies, insulation and insulating materials, conduits and fittings, and lightning arresters. Establishments whose major products are decorative lighting outfits are included in the "Lighting fixtures" industry and porcelain "insulators" are included in the "Porcelain electrical supplies" industry.

**Statistics for prior census years.**—No statistics, other than those for products, are available prior to 1937 for the "Wiring devices and supplies" industry. A special tabulation was made of the report for this industry for 1937 in order to obtain figures comparable with 1939.

**TABLE 1.—SUMMARY FOR THE UNITED STATES: 1939 AND 1937**

CENSUS YEAR	Number of establishments <sup>1</sup>	Wage earners (average for the year) <sup>2</sup>	Wages	Cost of materials, supplies, fuel, purchased electric energy, and contract work	Value of products	Value added by manufacture <sup>3</sup>	Horse-power of prime movers
1939.....	146	14,564	\$16,905,970	\$44,505,642	\$94,305,273	\$49,799,631	3,725
1937.....	124	17,301	19,884,343	46,905,677	95,390,598	48,484,921	(4)

<sup>1</sup> See GENERAL EXPLANATIONS—Definition of establishment.

<sup>2</sup> See GENERAL EXPLANATIONS—Wage earners and wages.

<sup>3</sup> Value of products less cost of materials, supplies, fuel, purchased electric energy, and contract work. See GENERAL EXPLANATIONS—Value added by manufacture.

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

**TABLE 2.—GENERAL STATISTICS IN DETAIL BY STATES: 1939**

[See GENERAL EXPLANATIONS—Disclosure of data for individual establishments]

ITEM	United States	California	Connecticut	Illinois	Indiana	Massachusetts	Missouri	New Jersey	New York	Ohio	Pennsylvania	Other States <sup>1</sup>
Number of establishments <sup>2</sup> .....	146	6	15	23	3	8	4	9	27	14	18	19
Proprietors and firm members.....	29	4	1	8	-----	1	1	1	7	1	1	4
Persons reported by manufacturing establishments, total <sup>3</sup> .....	17,960	181	3,709	2,494	371	875	394	848	4,356	989	2,248	1,495
Salaried officers of corporations <sup>3</sup> .....	260	6	34	30	5	14	13	16	47	25	48	22
Manufacturing:												
Salaried employees <sup>3</sup> .....	1,999	24	461	186	38	74	52	70	479	155	298	162
Wage earners (average for the year) <sup>4</sup> .....	14,564	122	2,928	2,156	316	764	300	667	3,552	777	1,689	1,293
Distribution.....	1,075	29	281	120	7	23	27	93	257	32	192	14
Construction.....	45	-----	4	2	-----	-----	1	2	15	-----	17	4
Other.....	17	-----	1	-----	5	-----	1	-----	6	-----	4	-----
Salaries and wages, total <sup>5</sup> .....	\$25,093,614	\$316,448	\$5,314,418	\$3,571,725	\$508,337	\$1,069,913	\$468,414	\$1,084,442	\$5,515,871	\$1,605,598	\$3,835,466	\$1,802,932
Salaried officers <sup>3</sup> .....	2,008,032	35,700	323,350	235,333	24,088	129,229	64,300	123,759	349,404	130,929	509,952	81,088
Manufacturing:												
Salaries <sup>3</sup> .....	3,779,729	51,434	723,356	458,396	70,045	155,426	64,335	128,142	864,358	324,142	634,626	305,469
Wages.....	16,905,970	169,057	3,583,886	2,660,122	383,042	749,251	281,990	670,589	3,706,007	1,090,570	2,218,954	1,392,502
Distribution.....	2,292,816	60,257	671,707	214,104	25,162	36,007	54,589	140,355	567,380	59,957	442,720	20,588
Construction.....	89,638	-----	10,157	3,770	-----	-----	1,000	21,597	23,593	-----	26,186	3,835
Other.....	17,429	-----	1,962	-----	5,110	-----	2,200	-----	5,129	-----	3,028	-----
Cost of materials, supplies, containers, fuel, purchased electric energy, and contract work, total.....	44,505,642	626,650	6,486,298	6,620,817	827,562	1,057,118	558,590	2,204,975	7,823,246	1,908,031	9,149,316	7,243,039
Materials, supplies, and containers.....	43,158,537	610,031	6,314,759	6,438,961	800,766	997,926	533,460	2,167,781	7,533,059	1,769,469	8,903,206	7,089,119
Fuel.....	665,295	8,608	58,877	63,491	12,546	35,854	12,610	11,956	178,923	72,453	128,973	81,004
Purchased electric energy.....	621,267	8,011	80,990	101,273	14,250	23,388	12,520	24,843	111,264	64,609	107,253	72,910
Contract work.....	60,543	-----	31,672	17,092	-----	-----	-----	395	-----	1,500	9,884	-----
Value of products.....	94,305,273	1,529,967	16,352,132	15,628,532	1,499,505	3,023,323	1,976,609	4,330,189	17,287,579	5,421,545	15,339,211	11,916,631
Value added by manufacture <sup>5</sup> .....	49,799,631	903,317	9,865,834	9,007,765	671,943	1,966,205	1,418,019	2,125,214	9,464,333	3,513,514	6,189,895	4,673,592

<sup>1</sup> Alabama, 1 establishment; Colorado, 1; Georgia, 1; Iowa, 1; Kentucky, 1; Maryland, 1; Michigan, 2; Minnesota, 1; New Hampshire, 1; Rhode Island, 2; Tennessee, 1; West Virginia, 4; Wisconsin, 2.

<sup>2</sup> See GENERAL EXPLANATIONS—Definition of establishment.

<sup>3</sup> See GENERAL EXPLANATIONS—Persons engaged—general classification.

<sup>4</sup> See GENERAL EXPLANATIONS—Wage earners and wages.

<sup>5</sup> Value of products less cost of materials, supplies, containers, fuel, purchased electric energy, and contract work. See GENERAL EXPLANATIONS—Value added by manufacture.

WIRING DEVICES AND SUPPLIES

TABLE 3.—VALUE OF PRODUCTS FOR THE UNITED STATES: 1939 AND 1937

	1939	1937
Wiring Devices and Supplies industry, all products, total value.....	\$94,305,273	\$95,390,598
Wiring devices and supplies made in this industry.....	80,188,171	76,997,551
Miscellaneous products not specified.....	251,274	1,141,926
Receipts for contract and repair work.....	58,435	82,613
Other products (not classified in this industry).....	<sup>1</sup> 13,807,393	17,168,508
Wiring devices and supplies, aggregate value.....	109,139,523	109,529,152
Wiring devices and supplies made in this industry.....	80,188,171	76,997,551
Wiring devices and supplies made as secondary products in other industries.....	28,951,352	32,531,601

<sup>1</sup> Value of lighting fixtures, insulated wire, resistance wire, appliance and extension cords, distribution cut-outs and fuse links, telephone apparatus, etc.

TABLE 4.—PRODUCTS, BY KIND, QUANTITY, AND VALUE, FOR THE UNITED STATES: 1939 AND 1937

PRODUCT	1939				1937
	Produced in the industry	Produced in other industries within the electrical group	Produced in other industries outside the electrical group	Aggregate	
Total value.....	\$80,188,171	\$16,767,900	\$12,183,452	\$109,139,523	\$109,529,152
Wiring devices:					
Attachment plugs and caps—					
Number reported—					
Number.....	39,841,751	9,020,916	—	48,862,667	47,374,594
Value.....	\$1,308,490	\$414,850	—	\$1,723,340	\$2,049,742
Number not reported, value.....	\$1,244,899	\$6,439	\$16,000	\$1,267,338	\$1,697,754
Convenience outlets—					
Number reported—					
Number.....	20,591,751	2,997,467	—	23,589,218	16,409,593
Value.....	\$1,781,587	\$294,205	—	\$2,075,792	\$1,422,807
Number not reported, value.....	\$1,394,232	—	—	\$1,394,232	\$1,025,875
Brass shell sockets (standard base)—					
Number reported—					
Number.....	18,554,087	386,295	—	18,940,382	24,830,061
Value.....	\$1,842,776	\$49,805	—	\$1,892,581	\$2,142,428
Number not reported, value.....	\$2,488,926	—	—	\$2,488,926	\$2,787,609
All other lamp sockets and receptacles (all bases), value.....	\$4,220,067	\$956,908	—	\$5,176,975	\$4,958,138
Snap switches, all types and sizes, value.....	\$7,453,677	\$696,859	—	\$8,150,536	\$9,470,688
Face plates, metal and composition—					
Number reported—					
Number.....	16,455,752	1,071,159	—	17,526,911	15,036,382
Value.....	\$884,015	\$49,180	—	\$933,195	\$916,570
Number not reported, value.....	\$374,911	—	—	\$374,911	\$487,213
Miscellaneous wiring devices, not elsewhere specified.....	\$4,576,846	\$2,651,228	\$2,081,750	\$9,309,824	\$5,604,426
Wiring supplies:					
Pole-line hardware, value.....	\$16,305,651	\$411,592	\$396,666	\$17,613,909	\$16,894,146
Conductor connectors—					
Solderless service connectors.....	\$1,578,563	\$968,667	—	\$2,547,230	\$1,739,044
Industrial solderless connectors.....	\$898,495	\$208,835	\$7,143	\$1,174,473	\$872,664
Splicing sleeves.....	\$951,763	\$17,372	\$15,631	\$984,766	\$905,672
Soldering lugs.....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	\$384,079	—
All overhead trolley-line material for street railways, mines, industrial haulage, and electrified steam railroads, excluding wire and cable, poles, and pole-line hardware.....	\$1,449,661	\$290,183	—	\$1,739,844	\$3,255,322
Rail bonds for both propulsion and signal circuits.....	\$654,588	—	—	\$654,588	—
Insulators and insulating materials <sup>2</sup> .....	\$3,187,525	\$679,652	\$56,491	\$3,923,668	\$6,343,917
Conduits and fittings:					
Flexible steel conduit.....	\$919,787	\$387,406	\$94,787	\$1,401,980	\$1,880,717
Standard weight conduit, including elbows and couplings.....	\$7,942,429	\$1,976,277	\$8,530,694	\$18,449,400	\$20,127,110
Conduit fittings excluding elbows and couplings.....	\$4,788,441	\$6,529	—	\$4,794,970	\$5,465,108
Thin-wall conduit and fittings.....	( <sup>1</sup> )	( <sup>1</sup> )	—	\$2,318,892	( <sup>1</sup> )
Cast-metal outlet conduit fittings—					
Watertight and marine fittings.....	—	—	—	—	\$531,016
Industrial plugs and receptacles.....	\$3,265,986	\$151,212	\$7,010	\$3,424,208	\$490,963
Hazardous-location, vapor-proof, and all other.....	—	—	—	—	\$5,156,212
Switch boxes, outlet boxes, and covers.....	\$4,069,891	( <sup>1</sup> )	( <sup>1</sup> )	\$5,991,207	\$4,666,584
Other (not including armored conductor).....	\$1,769,100	\$332,089	\$15,000	\$2,116,189	\$1,125,600
Lightning arresters and choke coils:					
Radio and telephone.....	\$61,807	\$133,313	—	\$195,120	\$57,305
Other.....	\$1,429,366	\$3,787,134	—	\$5,216,500	\$5,926,034
Relays (excluding industrial motor-control and telephone).....	\$442,076	\$978,774	—	\$1,420,850	\$2,088,438

<sup>1</sup> Figures not shown separately to avoid disclosing, exactly or approximately, data reported by individual establishments.

<sup>2</sup> Includes porcelain and trolley-line insulators for 1937 but not for 1939; for 1939 these are included in the Porcelain Electrical Supplies industry. Production of insulators was reported for 1939 by the Porcelain Electrical Supplies industry as follows: Insulators, total value, \$7,443,762; suspension type, \$2,196,295; knobs, tubes, and cleats, \$1,303,761; and other insulators, \$3,943,706.

<sup>3</sup> No data.

CENSUS OF MANUFACTURES: 1939

TABLE 5.—WAGE EARNERS ENGAGED IN MANUFACTURING, BY MONTHS, FOR THE UNITED STATES, 1939 AND 1937, AND BY STATES, 1939

STATE	Average number employed during year	NUMBER RECEIVING PAY DURING NORMAL PAY-ROLL PERIOD ENDED NEAREST 15TH OF MONTH—											
		January	February	March	April	May	June	July	August	September	October	November	December
United States:													
1939.....	14,564	13,555	13,691	13,918	14,015	13,979	13,835	13,737	14,243	14,809	15,797	16,434	10,749
1937.....	17,301	17,025	17,836	18,411	18,477	18,401	17,628	17,271	17,097	17,245	16,902	15,907	15,413
California.....	122	119	113	118	108	126	112	119	125	130	131	132	123
Connecticut.....	2,923	2,777	2,827	2,904	2,943	2,979	2,857	2,880	2,843	2,851	2,977	3,070	3,230
Illinois.....	2,156	1,934	1,940	1,976	2,014	2,048	1,994	1,930	2,118	2,311	2,398	2,591	2,623
Indiana.....	316	315	305	317	319	314	311	307	305	311	333	325	324
Massachusetts.....	764	645	712	716	722	637	667	689	800	811	917	904	953
Missouri.....	300	275	270	284	296	299	305	306	309	309	311	319	314
New Jersey.....	667	628	633	665	669	618	615	632	650	696	699	750	747
New York.....	3,552	3,421	3,449	3,456	3,463	3,419	3,411	3,300	3,370	3,512	3,878	3,964	3,981
Ohio.....	777	730	719	721	720	727	733	723	735	739	842	953	978
Pennsylvania.....	1,689	1,512	1,495	1,580	1,622	1,679	1,682	1,683	1,694	1,726	1,767	1,899	1,917
West Virginia.....	247	232	238	225	215	233	241	236	228	239	279	308	287

TABLE 6.—EXPENDITURES FOR PLANT AND EQUIPMENT: 1939

	1939
Number of establishments:	
Total for the industry.....	146
Reporting expenditures for plant and equipment.....	111
Value of products:	
Total for the industry.....	\$94,305,273
Reporting expenditures for plant and equipment.....	90,702,038
Expenditures for plant and equipment:	
Total for the industry.....	1,936,535
Expenditures for new construction or major alterations of buildings and other fixed plant and structures.....	247,628
Expenditures for new machinery and operating equipment.....	1,607,955
Expenditures for plant and equipment acquired in a "used" condition from other owners and expenditures for land.....	80,952

TABLE 7.—VALUE OF INVENTORIES OF MATERIALS AND FINISHED PRODUCTS, AND VALUE OF PRODUCTS: 1939 AND 1937

	1939	1937
Inventories:		
Beginning of year, total.....	\$20,147,718	\$18,726,229
Finished products.....	11,546,743	9,981,251
Materials, supplies, etc.....	8,600,975	8,744,978
End of year, total.....	21,399,628	24,145,229
Finished products.....	11,147,334	13,940,561
Materials, supplies, etc.....	10,252,294	10,204,668
Value of products for the industry, total.....	94,305,273	95,380,598
Value for establishments reporting inventories (includes value of products of establishments reporting no inventories on hand).....	94,092,275	94,629,299
Value for establishments not reporting inventories.....	212,998	751,299

TABLE 8.—PRIME MOVERS, MOTORS, GENERATORS, AND ELECTRIC ENERGY: 1939

	1939
Number of establishments.....	146
Number of establishments reporting power equipment.....	146
Prime movers, aggregate:	
Number.....	20
Horsepower.....	3,725

TABLE 8.—PRIME MOVERS, MOTORS, GENERATORS, AND ELECTRIC ENERGY: 1939—Continued

	1939
Prime movers—Continued.	
Prime movers, driving generators, total—	
Number.....	15
Horsepower.....	3,115
Steam engines—	
Number.....	10
Horsepower.....	2,571
Steam turbines—	
Number.....	1
Horsepower.....	115
Diesel and semi-Diesel engines—	
Number.....	3
Horsepower.....	420
Other internal-combustion engines <sup>1</sup> —	
Number.....	1
Horsepower.....	9
Prime movers, driving generators, ordinarily idle (included above), horsepower.....	769
Prime movers not driving generators, total—	
Number.....	5
Horsepower.....	610
Steam engines—	
Number.....	4
Horsepower.....	550
Diesel and semi-Diesel engines—	
Number.....	1
Horsepower.....	60
Prime movers not driving generators, ordinarily idle (included above), horsepower.....	200
Generators, kilowatt rating, total.....	2,160
Generators, driven by—	
Steam engines, kilowatt rating.....	1,800
Steam turbines, kilowatt rating.....	75
Diesel and semi-Diesel engines, kilowatt rating.....	280
Other internal-combustion engines, <sup>1</sup> kilowatt rating.....	5
Generators, ordinarily idle (included above), kilowatt rating.....	550
Electric motors, total:	
Number.....	11,478
Horsepower.....	42,892
Driven by purchased energy—	
Number.....	11,102
Horsepower.....	41,126
Driven by energy generated in establishments reporting—	
Number.....	376
Horsepower.....	1,766
Electric energy (kilowatt-hours):	
Generated in plant.....	1,701,780
Sold.....	16,522
Purchased.....	36,655,040

<sup>1</sup> Gas, gasoline, etc.

# CARBON PRODUCTS FOR THE ELECTRICAL INDUSTRY, AND MANUFACTURES OF CARBON OR ARTIFICIAL GRAPHITE

[A preliminary report for this industry was issued September 10, 1940]

**Description of the industry.**—The establishments in this industry are engaged primarily in the manufacture of carbons; carbon, graphite, and metal-graphite brushes; plates, rods, and powder for making brushes; electrodes, and miscellaneous carbon, graphite, and metal-graphite specialties, including rings for steam seal.

**Statistics for prior census years.**—No statistics, other than those for products, are available for years prior to 1937 for the "Carbon products for the electrical industry, and manufactures of carbon or artificial graphite" industry. A special tabulation was made of the reports for 1937 in order to obtain figures comparable with those for 1939.

TABLE 1.—SUMMARY FOR THE UNITED STATES: 1939 AND 1937

CENSUS YEAR	Number of establishments <sup>1</sup>	Wage earners (average for the year) <sup>2</sup>	Wages	Cost of materials, supplies, fuel, purchased electric energy, and contract work	Value of products	Value added by manufacture <sup>3</sup>	Horse-power of prime movers
1939.....	31	3,189	\$4,483,609	\$6,681,438	\$18,375,580	\$11,694,142	1,200
1937.....	30	4,098	5,776,458	9,074,872	23,390,063	14,315,191	( <sup>4</sup> )

<sup>1</sup> See GENERAL EXPLANATIONS—Definition of establishment.

<sup>2</sup> See GENERAL EXPLANATIONS—Wage earners and wages.

<sup>3</sup> Value of products less cost of materials, supplies, fuel, purchased electric energy, and contract work. See GENERAL EXPLANATIONS—Value added by manufacture.

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

TABLE 2.—GENERAL STATISTICS IN DETAIL BY STATES: 1939

[See GENERAL EXPLANATIONS—Disclosure of data for individual establishments]

ITEM	United States	New York	Ohio	Pennsylvania	Other States <sup>1</sup>
Number of establishments <sup>2</sup> .....	31	7	5	7	12
Proprietors and firm members.....	16	2	1	1	12
Persons reported by manufacturing establishments, total <sup>3</sup> .....	4,053	1,027	1,198	1,096	732
Salaried officers of corporations <sup>4</sup> .....	50	8	14	18	10
Manufacturing:					
Salaried employees <sup>3</sup> .....	642	171	179	178	114
Wage earners (average for the year) <sup>4</sup> .....	3,189	803	947	884	555
Distribution.....	147	45	41	12	49
Construction.....	24		16	4	4
Other.....	1		1		
Salaries and wages, total <sup>5</sup> .....	\$6,675,430	\$1,829,148	\$1,914,054	\$1,808,588	\$1,123,640
Salaried officers <sup>2</sup> .....	466,972	57,146	136,301	190,631	82,894
Manufacturing:					
Salaries <sup>2</sup> .....	1,358,202	403,534	363,410	367,058	224,200
Wages.....	4,483,609	1,243,210	1,326,619	1,223,206	690,574
Distribution.....	336,970	125,258	60,914	25,657	125,141
Construction.....	29,477		26,610	2,036	831
Other.....	200		200		
Cost of materials, supplies, containers, fuel, purchased electric energy, and contract work, total.....	6,681,438	2,733,731	1,520,539	1,092,382	1,334,786
Materials, supplies, and containers.....	5,208,075	2,018,691	1,248,896	844,894	1,095,594
Fuel.....	545,406	147,670	149,123	158,664	89,959
Purchased electric energy.....	755,780	425,322	92,391	88,834	149,233
Contract work.....	172,177	142,048	30,129		
Value of products.....	18,375,580	6,672,308	4,514,881	3,828,373	3,360,018
Value added by manufacture <sup>6</sup> .....	11,694,142	3,988,577	2,994,342	2,785,991	2,025,232

<sup>1</sup> Alabama, 2 establishments; California, 1; Illinois, 1; Michigan, 2; New Jersey, 2; Tennessee, 1; West Virginia, 1; Wisconsin, 2.

<sup>2</sup> See GENERAL EXPLANATIONS—Definition of establishment.

<sup>3</sup> See GENERAL EXPLANATIONS—Persons engaged—general classification.

<sup>4</sup> See GENERAL EXPLANATIONS—Wage earners and wages.

<sup>5</sup> Value of products less cost of materials, supplies, containers, fuel, purchased electric energy, and contract work. See GENERAL EXPLANATIONS—Value added by manufacture.

TABLE 3.—VALUE OF PRODUCTS, FOR THE UNITED STATES: 1939 AND 1937

	1939	1937
Carbon Products for the Electrical Industry, and Manufactures of Carbon or Artificial Graphite industry, all products, total value.....	\$18,375,580	\$23,390,063
Carbon products and manufactures of carbon or artificial graphite made in this industry.....	16,841,577	19,735,327
Receipts for contract and repair work.....	71,575	
Other products (not classified in this industry).....	1,462,428	3,654,736
Carbon products for the electrical industry, and manufactures of carbon or artificial graphite, aggregate value.....	18,584,882	20,432,212
Carbon products and manufactures of carbon or artificial graphite made in this industry.....	16,841,577	19,735,327
Carbon products made as secondary products in other industries.....	1,743,305	696,885

<sup>1</sup> Value of stove polish, paint, grease, molded vinylite products, and miscellaneous radio parts.

TABLE 4.—PRODUCTS, BY KIND AND VALUE, FOR THE UNITED STATES: 1939 AND 1937

PRODUCT	1939				1937
	Produced in the industry	Produced in other industries within the electrical group	Produced in other industries outside the electrical group	Aggregate	
Total value.....	\$16,841,577	\$553,214	\$1,190,091	\$18,584,882	\$20,432,212
Brushes (carbon, graphite, and metal-graphite):					
With shunts.....	2,485,988	( <sup>1</sup> )	( <sup>1</sup> )	3,236,067	6,511,333
Without shunts.....	1,073,599	( <sup>1</sup> )	( <sup>1</sup> )	1,417,640	
Carbon plates, rods, and powder for making brushes.....	676,041			676,041	
Electrodes (carbon or graphite):					
For electric furnaces.....	6,880,331			6,880,331	13,920,879
For all other purposes.....	3,068,356	153,633		3,221,989	
Miscellaneous carbon, graphite, and metal-graphite specialties for electrical uses, including packing rings for steam seal.....	2,657,262	( <sup>1</sup> )	( <sup>1</sup> )	3,152,814	

<sup>1</sup> Figures not shown separately to avoid disclosing, exactly or approximately, data reported by individual establishments.

TABLE 5.—WAGE EARNERS ENGAGED IN MANUFACTURING, BY MONTHS, FOR THE UNITED STATES, 1939 AND 1937, AND BY STATES, 1939

STATE	Average number employed during year	NUMBER RECEIVING PAY DURING NORMAL PAY-ROLL PERIOD ENDED NEAREST 16TH OF MONTH—											
		January	February	March	April	May	June	July	August	September	October	November	December
United States:													
1939.....	3,189	3,003	3,018	3,004	2,997	2,979	3,031	3,011	3,106	3,081	3,500	3,759	3,774
1937.....	4,098	3,903	3,978	4,008	4,047	4,154	4,290	4,379	4,341	4,297	4,142	3,929	3,710
New York.....	803	788	788	783	793	780	790	791	791	780	832	848	874
Ohio.....	947	849	898	900	885	890	882	855	904	887	1,074	1,186	1,159
Pennsylvania.....	884	825	794	791	788	776	833	836	871	882	1,022	1,092	1,066

TABLE 6.—EXPENDITURES FOR PLANT AND EQUIPMENT: 1939

	1939
Number of establishments:	
Total for the industry.....	31
Reporting expenditures for plant and equipment.....	21
Value of products:	
Total for the industry.....	\$18,375,580
Reporting expenditures for plant and equipment.....	15,798,092
Expenditures for plant and equipment:	
Total for the industry.....	648,234
Expenditures for new construction or major alterations of buildings and other fixed plant and structures.....	226,623
Expenditures for new machinery and operating equipment.....	351,190
Expenditures for plant and equipment acquired in a "used" condition from other owners and expenditures for land.....	70,421

TABLE 7.—VALUE OF INVENTORIES OF MATERIALS AND FINISHED PRODUCTS, AND VALUE OF PRODUCTS: 1939 AND 1937

	1939	1937
Inventories:		
Beginning of year, total.....	\$5,588,649	\$4,859,422
Finished products.....	1,482,226	1,275,394
Materials, supplies, etc.....	4,106,423	3,584,028
End of year, total.....	5,734,797	6,550,350
Finished products.....	1,323,847	1,806,177
Materials, supplies, etc.....	4,410,950	4,744,173

TABLE 7.—VALUE OF INVENTORIES OF MATERIALS AND FINISHED PRODUCTS, AND VALUE OF PRODUCTS: 1939 AND 1937—Continued

	1939	1937
Value of products for the industry, total.....	\$18,375,580	\$23,390,063
Value for establishments reporting inventories (includes value of products of establishments reporting no inventories on hand).....	18,375,580	23,390,063
Value for establishments not reporting inventories.....		

TABLE 8.—PRIME MOVERS, MOTORS, AND ELECTRIC ENERGY: 1939

	1939
Number of establishments.....	31
Number of establishments reporting power equipment.....	31
Prime movers, total:	
Number.....	1
Horsepower.....	1,200
Prime movers not driving generators (steam engines)—	
Number.....	1
Horsepower.....	1,200
Prime movers not driving generators, ordinarily idle (included above), horsepower.....	1,200
Electric motors, driven by purchased energy:	
Number.....	4,480
Horsepower.....	26,697
Electric energy purchased (kilowatt-hours).....	165,436,946

# ELECTRICAL MEASURING INSTRUMENTS

[A preliminary report for this industry was issued September 12, 1940]

**Description of the industry.**—The establishments in this industry are primarily engaged in the manufacture of measuring instruments, meter transformers, and indicating instruments such as switchboard instruments, graphic recording meters, and portable meters.

**Statistics for prior census years.**—No statistics, other than those for products, are available for years prior to 1937, for the "Electrical measuring instruments" industry. A special tabulation was made of the reports for 1937 in order to obtain figures comparable with those for 1939.

**TABLE 1.—SUMMARY FOR THE UNITED STATES: 1939 AND 1937**

CENSUS YEAR	Number of establishments <sup>1</sup>	Wage earners (average for the year) <sup>2</sup>	Wages	Cost of materials, supplies, fuel, purchased electric energy, and contract work	Value of products	Value added by manufacture <sup>3</sup>	Horse-power of prime movers
1939.....	59	6,976	\$9,881,124	\$12,104,664	\$41,797,495	\$29,692,831	555
1937.....	33	6,935	10,101,959	10,256,628	40,415,677	30,159,049	( <sup>4</sup> )

<sup>1</sup> See GENERAL EXPLANATIONS—Definition of establishment.

<sup>2</sup> See GENERAL EXPLANATIONS—Wage earners and wages.

<sup>3</sup> Value of products less cost of materials, supplies, fuel, purchased electric energy, and contract work. See GENERAL EXPLANATIONS—Value added by manufacture.

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

**TABLE 2.—GENERAL STATISTICS IN DETAIL BY STATES: 1939**

[See GENERAL EXPLANATIONS—Disclosure of data for individual establishments]

ITEM	United States	California	Illinois	New Hampshire	New York	Ohio	Other States <sup>1</sup>
Number of establishments <sup>2</sup> .....	59	3	12	3	9	8	24
Proprietors and firm members.....	22	1	5	3	5	1	7
Persons reported by manufacturing establishments, total <sup>3</sup> .....	9,318	27	1,675	190	123	501	6,802
Salaried officers of corporations <sup>3</sup> .....	86	4	18	2	4	9	49
Manufacturing:							
Salaried employees <sup>3</sup> .....	1,719	6	235	9	20	58	1,391
Wage earners (average for the year) <sup>4</sup> .....	6,976	12	1,324	172	70	412	4,986
Distribution.....	450	5	95	7	29	22	292
Construction.....	65		1				64
Other.....	22		2				20
Salaries and wages, total <sup>3</sup> .....	\$15,222,595	\$48,200	\$2,630,663	\$135,759	\$151,927	\$507,785	\$11,748,261
Salaried officers <sup>3</sup> .....	703,797	21,112	119,679	( <sup>5</sup> )	27,200	33,772	502,034
Manufacturing:							
Salaries <sup>3</sup> .....	3,618,328	9,488	499,764	<sup>5</sup> 10,224	30,195	76,363	2,992,294
Wages.....	9,881,124	12,185	1,773,994	112,176	55,632	368,041	7,559,096
Distribution.....	881,568	5,415	232,124	13,359	38,900	29,609	562,161
Construction.....	102,393		1,201				101,192
Other.....	35,385		3,901				31,484
Cost of materials, supplies, containers, fuel, purchased electric energy, and contract work, total.....	12,104,664	38,917	1,937,408	125,882	356,564	437,262	9,208,631
Materials, supplies, and containers.....	11,708,639	38,537	1,882,702	121,734	327,665	426,337	8,911,664
Fuel.....	110,192	37	14,241	1,199	603	2,823	91,239
Purchased electric energy.....	242,925	343	35,740	2,949	1,921	8,102	193,870
Contract work.....	42,908		4,725		26,375		11,808
Value of products.....	41,797,495	111,333	6,285,792	350,674	762,630	1,446,209	32,840,857
Value added by manufacture <sup>6</sup> .....	29,692,831	72,416	4,348,384	224,792	406,066	1,008,947	23,632,226

<sup>1</sup> Connecticut, 2 establishments; Indiana, 2; Kansas, 1; Massachusetts, 3; Michigan, 2; Minnesota, 1; Mississippi, 1; New Jersey, 8; Pennsylvania, 4.

<sup>2</sup> See GENERAL EXPLANATIONS—Definition of establishment.

<sup>3</sup> See GENERAL EXPLANATIONS—Persons engaged—general classification.

<sup>4</sup> See GENERAL EXPLANATIONS—Wage earners and wages.

<sup>5</sup> Salaries of salaried officers withheld from publication to avoid disclosing salaries reported by individual establishments; included in figure for "Salaries" of manufacturing employees.

<sup>6</sup> Value of products less cost of materials, supplies, containers, fuel, purchased electric energy, and contract work. See GENERAL EXPLANATIONS—Value added by manufacture.

**TABLE 3.—VALUE OF PRODUCTS, FOR THE UNITED STATES: 1939 AND 1937**

	1939	1937
Electrical Measuring Instruments industry, all products, total value.....	\$41,797,495	\$40,415,677
Electrical measuring instruments made in this industry.....	33,613,608	33,948,250
Miscellaneous products not specified.....	232,280	73,375
Receipts for contract and repair work.....	489,424	416,969
Other products (not classified in this industry).....	<sup>1</sup> 7,462,183	5,977,083
Electrical measuring instruments, aggregate value.....	37,144,732	39,025,516
Electrical measuring instruments made in this industry.....	33,613,608	33,948,250
Electrical measuring instruments made as secondary products in other industries.....	3,531,124	5,077,266

<sup>1</sup> Value of rectifying apparatus, relays, switches, charts, and rolls for recording instruments, and radio parts.

TABLE 4.—PRODUCTS, BY KIND, QUANTITY, AND VALUE, FOR THE UNITED STATES: 1939 AND 1937

PRODUCT	1939			Aggregate	1937
	Produced in the industry	Produced in other industries within the electrical group	Produced in other industries outside the electrical group		
Total value.....	\$33,613,608	\$3,292,748	\$238,376	\$37,144,732	\$39,025,516
Measuring instruments and meters:					
Demand meters—					
Number.....	49,804			49,804	74,214
Value.....	\$1,484,868			\$1,484,868	\$1,907,550
Watt-hour meters, alternating-current—					
Number.....	1,895,887	6		1,895,893	2,060,685
Value.....	\$17,616,430	\$60		\$17,616,490	\$21,249,268
Watt-hour meters, direct-current, and ampere-hour meters, value.....	\$108,756	\$3,683	\$19,479	\$131,918	\$420,462
Indicating instruments—					
Switchboard—					
Number.....	65,437	1,392		66,829	77,387
Value.....	\$984,556	\$40,814		\$1,025,370	\$1,654,506
Graphic recording meters—					
Number.....	3,794	2,018		5,812	7,402
Value.....	\$432,547	\$120,690		\$553,237	\$658,924
Portable meters (not including pocket meters for battery or radio testing)—					
Number.....	22,477	5,018		27,495	27,653
Value.....	\$652,971	\$108,843		\$761,814	\$808,116
Miniature meters, 3½ inches and under (not including meters for motor vehicles)—					
Number.....	662,819	29,152		691,971	338,031
Value.....	\$2,115,409	\$57,132		\$2,172,541	\$1,957,665
Laboratory testing and scientific instruments and other indicating instruments, including pocket and motor-vehicle meters, value.....					
Instrument and meter transformers, value.....					
Analyzers for testing the electrical and other equipment of internal-combustion engines and radio apparatus:					
For internal-combustion engines, etc., value.....	\$1,984,745	\$34,944		\$2,019,689	\$651,823
For radio apparatus—					
Tube checkers, value.....	\$519,090	\$65,375		\$584,465	
Set analyzers, value.....	\$852,825	\$130,660		\$983,485	\$1,495,588
Other, value.....	\$806,321	\$61,982		\$868,303	

TABLE 5.—WAGE EARNERS ENGAGED IN MANUFACTURING, BY MONTHS, FOR THE UNITED STATES, 1939 AND 1937, AND BY STATES, 1939

STATE	Average number employed during year	NUMBER RECEIVING PAY DURING NORMAL PAY-ROLL PERIOD ENDED NEAREST 15TH OF MONTH—												
		January	February	March	April	May	June	July	August	September	October	November	December	
United States:														
1939.....	6,976	6,390	6,392	6,498	6,612	6,651	6,671	6,797	6,913	7,185	7,602	7,944	8,053	
1937.....	6,935	6,719	6,808	6,874	6,956	6,993	6,874	6,932	6,995	7,191	7,207	6,988	6,683	
California.....	12	12	13	13	11	7	12	13	11	11	12	12	11	
Illinois.....	1,324	1,083	1,094	1,218	1,290	1,302	1,300	1,336	1,337	1,398	1,472	1,530	1,525	
Massachusetts.....	2,092	2,032	2,019	1,993	2,000	2,001	1,995	2,003	1,991	2,085	2,183	2,363	2,434	
New Hampshire.....	172	178	175	175	173	174	173	171	170	165	169	172	173	
New Jersey.....	2,391	2,131	2,146	2,154	2,201	2,213	2,223	2,279	2,385	2,503	2,727	2,841	2,890	
New York.....	70	68	68	69	69	71	68	70	72	74	75	71	68	
Ohio.....	412	410	403	405	392	394	395	400	421	428	432	433	426	
Pennsylvania.....	37	38	36	35	35	34	35	36	38	38	38	38	41	

TABLE 6.—EXPENDITURES FOR PLANT AND EQUIPMENT: 1939

	1939
Number of establishments:	
Total for the industry.....	59
Reporting expenditures for plant and equipment.....	33
Value of products:	
Total for the industry.....	\$41,797,495
Reporting expenditures for plant and equipment.....	40,073,943
Expenditures for plant and equipment:	
Total for the industry.....	1,327,629
Expenditures for new construction or major alterations of buildings and other fixed plant and structures.....	297,430
Expenditures for new machinery and operating equipment.....	1,027,947
Expenditures for plant and equipment acquired in a "used" condition from other owners and expenditures for land.....	2,252

TABLE 7.—VALUE OF INVENTORIES OF MATERIALS AND FINISHED PRODUCTS, AND VALUE OF PRODUCTS: 1939 AND 1937—Con.

	1939	1937
Value of products for the industry, total.....	\$41,797,495	\$40,415,677
Value for establishments reporting inventories (includes value of products of establishments reporting no inventories on hand).....	41,694,247	40,322,177
Value for establishments not reporting inventories.....	103,248	93,500

TABLE 7.—VALUE OF INVENTORIES OF MATERIALS AND FINISHED PRODUCTS, AND VALUE OF PRODUCTS: 1939 AND 1937

	1939	1937
Inventories:		
Beginning of year, total.....	\$9,015,642	\$8,939,174
Finished products.....	2,760,126	3,090,243
Materials, supplies, etc.....	6,255,516	5,848,931
End of year, total.....	10,304,510	11,452,507
Finished products.....	2,983,785	3,995,300
Materials, supplies, etc.....	7,320,725	7,457,207

TABLE 8.—PRIME MOVERS, MOTORS, GENERATORS, AND ELECTRIC ENERGY: 1939

	1939
Number of establishments.....	59
Number of establishments reporting power equipment.....	59
Prime movers, steam engines, driving generators:	
Number.....	2
Horsepower.....	555
Generators, driven by steam engines, kilowatt rating.....	450
Electric motors, total:	
Number.....	7,285
Horsepower.....	13,050
Driven by purchased energy—	
Number.....	7,135
Horsepower.....	12,384
Driven by energy generated in establishments reporting—	
Number.....	150
Horsepower.....	666
Electric energy (kilowatt-hours):	
Generated in plant.....	709,644
Purchased.....	21,291,854

# GENERATING, DISTRIBUTION, AND INDUSTRIAL APPARATUS, AND APPARATUS FOR INCORPORATION IN MANUFACTURED PRODUCTS, NOT ELSEWHERE CLASSIFIED

[A preliminary report for this industry was issued October 28, 1940]

**Description of the industry.**—The establishments in this industry are primarily engaged in the manufacture of electrical prime movers and other electric power equipment, including steam-turbine generator sets, for employment in the generation, transmission, or utilization of electric energy. Products of this industry include motors, generators, transformers, switchboards, panelboards, and other transmission accessories (except insulated wire and conduit), welding apparatus, etc. The production of machines operated by detachable electric motors is included in the "Machinery (except electrical)" group.

**Statistics for prior census years.**—No statistics, other than those for products, are available prior to 1937 for the "Generating, distribution, and industrial apparatus, and apparatus for incorporation in manu-

factured products, not elsewhere classified" industry. A special tabulation was made of the reports for 1937 in order to obtain figures comparable with those for 1939.

TABLE 1.—SUMMARY FOR THE UNITED STATES: 1939 AND 1937

CENSUS YEAR	Number of establishments <sup>1</sup>	Wage earners (average for the year) <sup>2</sup>	Wages	Cost of materials, supplies, fuel, purchased electric energy, and contract work	Value of products	Value added by manufacture <sup>3</sup>	Horse-power of prime movers
1939.....	491	70,401	\$104,083,541	\$187,326,472	\$470,462,442	\$283,135,970	167,331
1937.....	398	93,862	142,642,946	210,440,609	577,685,052	367,244,443	( <sup>4</sup> )

<sup>1</sup> See GENERAL EXPLANATIONS—Definition of establishment.

<sup>2</sup> See GENERAL EXPLANATIONS—Wage earners and wages.

<sup>3</sup> Value of products less cost of materials, supplies, fuel, purchased electric energy, and contract work. See GENERAL EXPLANATIONS—Value added by manufacture.

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

TABLE 2.—GENERAL STATISTICS IN DETAIL BY STATES: 1939

[See GENERAL EXPLANATIONS—Disclosure of data for individual establishments]

ITEM	United States	California	Connecticut	Illinois	Maryland	Michigan	Minnesota	Missouri
Number of establishments <sup>1</sup> .....	491	49	15	52	3	31	20	27
Proprietors and firm members.....	183	33	1	18	.....	15	17	5
Persons reported by manufacturing establishments, total <sup>2</sup> .....	96,324	2,085	1,909	3,697	264	3,488	550	7,574
Salaried officers of corporations <sup>2</sup> .....	786	39	29	84	9	39	33	73
Manufacturing:								
Salaried employees <sup>2</sup> .....	20,618	402	462	448	62	455	108	968
Wage earners (average for the year) <sup>2</sup> .....	70,401	1,484	1,256	2,913	182	2,727	341	5,973
Distribution.....	3,643	155	161	280	11	254	68	500
Construction.....	421	.....	.....	.....	.....	10	.....	48
Other.....	505	6	1	22	.....	3	.....	12
Salaries and wages, total <sup>2</sup> .....	\$164,254,954	\$3,596,456	\$3,127,128	\$5,026,823	\$469,163	\$5,555,856	\$962,785	\$11,290,769
Salaried officers <sup>2</sup> .....	5,610,984	288,018	196,872	479,767	87,727	343,051	130,386	927,225
Manufacturing:								
Salaries <sup>2</sup> .....	44,463,968	768,207	925,441	889,871	104,099	896,784	213,791	1,839,591
Wages.....	104,083,541	2,186,033	1,618,740	3,194,612	242,315	3,674,596	525,959	7,020,294
Distribution.....	8,553,674	347,850	384,417	440,884	35,022	621,643	92,649	1,370,029
Construction.....	787,336	.....	.....	.....	.....	17,127	.....	118,291
Other.....	775,451	6,348	1,658	21,689	.....	2,655	.....	15,339
Cost of materials, supplies, containers, fuel, purchased electric energy, and contract work, total.....	187,326,472	5,673,870	2,947,888	6,505,110	409,835	7,279,146	1,554,908	16,375,383
Materials, supplies, and containers.....	180,975,920	5,558,066	2,821,067	6,327,469	403,078	7,105,040	1,522,929	16,038,758
Fuel.....	3,065,396	11,636	37,159	46,298	1,063	57,512	9,770	93,379
Purchased electric energy.....	2,933,020	58,368	38,912	102,056	5,478	99,786	22,169	227,880
Contract work.....	352,136	45,800	50,750	29,287	216	16,808	40	15,366
Value of products.....	470,462,442	12,821,019	8,169,819	15,975,362	1,111,002	16,598,561	3,107,588	35,600,888
Value added by manufacture <sup>4</sup> .....	283,135,970	7,147,149	5,221,931	9,470,252	701,167	9,319,415	1,552,680	19,225,505

See footnotes at end of table.

## CENSUS OF MANUFACTURES: 1939

TABLE 2.—GENERAL STATISTICS IN DETAIL BY STATES: 1939—Continued

ITEM	New Jersey	Ohio	Oregon	Pennsylvania	Texas	Washington	Wisconsin	Other States <sup>6</sup>
Number of establishments <sup>1</sup> .....	31	62	4	34	4	6	30	123
Proprietors and firm members.....	3	3	4	9	1	1	6	37
Persons reported by manufacturing establishments, total <sup>2</sup> .....	4,838	10,646	66	19,656	96	123	5,932	35,401
Salaried officers of corporations <sup>2</sup> .....	45	120	3	59	2	8	45	148
Manufacturing:								
Salaried employees <sup>2</sup> .....	929	1,851	12	4,818	20	31	1,211	8,841
Wage earners (average for the year) <sup>3</sup> .....	3,602	8,106	51	14,176	66	80	4,271	25,174
Distribution.....	249	441	-----	548	8	4	323	691
Construction.....	5	81	-----	19	-----	-----	12	246
Other.....	8	47	-----	36	-----	-----	70	301
Salaries and wages, total <sup>2</sup> .....	\$8,150,950	\$16,424,168	\$82,078	\$35,795,359	\$137,733	\$213,861	\$10,052,007	\$63,369,818
Salaried officers <sup>2</sup> .....	346,070	986,852	5,765	881,095	( <sup>6</sup> )	18,010	471,829	948,317
Manufacturing:								
Salaries <sup>2</sup> .....	1,901,504	3,382,382	16,244	10,443,812	* 51,148	61,866	2,425,649	20,543,579
Wages.....	5,318,271	10,767,944	60,069	28,623,942	74,984	127,880	6,132,043	39,515,859
Distribution.....	569,266	1,016,436	-----	1,278,646	11,601	6,105	920,750	1,458,376
Construction.....	7,463	193,227	-----	23,436	-----	-----	15,922	391,870
Other.....	8,376	77,327	-----	44,428	-----	-----	85,814	611,817
Cost of materials, supplies, containers, fuel, purchased electric energy, and contract work, total.....	9,841,295	24,718,500	100,612	39,115,875	408,319	450,722	8,084,230	63,860,779
Materials, supplies, and containers.....	9,530,596	24,107,149	97,514	38,081,357	403,106	444,461	7,763,518	60,771,812
Fuel.....	127,104	207,530	436	527,690	611	1,690	167,889	1,775,429
Purchased electric energy.....	151,945	345,817	2,522	448,774	4,352	4,571	134,541	1,285,849
Contract work.....	31,650	58,004	140	57,854	250	-----	18,282	27,689
Value of products.....	24,997,846	54,315,310	220,412	97,959,558	728,441	913,803	24,093,132	173,849,701
Value added by manufacture <sup>4</sup> .....	15,156,551	29,596,810	119,800	58,843,683	320,122	463,081	16,008,902	109,988,922

<sup>1</sup> See GENERAL EXPLANATIONS—Definition of establishment.<sup>2</sup> See GENERAL EXPLANATIONS—Persons engaged—general classification.<sup>3</sup> See GENERAL EXPLANATIONS—Wage earners and wages.<sup>4</sup> Value of products less cost of materials, supplies, containers, fuel, purchased electric energy, and contract work. See GENERAL EXPLANATIONS—Value added by manufacture.<sup>5</sup> Alabama, 1 establishment; Colorado, 1; District of Columbia, 1; Georgia, 2; Indiana, 8; Iowa, 9; Kentucky, 3; Louisiana, 1; Massachusetts, 32; New Hampshire, 2; New York, 56; North Carolina, 1; North Dakota, 1; Oklahoma, 3; Rhode Island, 1; West Virginia, 1.<sup>6</sup> Salaries of salaried officers withheld from publication to avoid disclosing salaries reported by individual establishments; included in figure for "Salaries" of manufacturing employees.

TABLE 3.—VALUE OF PRODUCTS FOR THE UNITED STATES: 1939 AND 1937

	1939	1937
Generating, Distribution, and Industrial Apparatus, and Apparatus for Incorporation in Manufactured Products, not Elsewhere Classified industry, all products, total value.....	\$470,462,442	\$577,685,052
Generating, distribution, and industrial apparatus, and apparatus for incorporation in manufactured products, not elsewhere classified.....	362,389,833	434,811,717
Miscellaneous products not specified.....	1,604,981	6,888,874
Receipts for contract and repair work.....	13,289,261	13,670,861
Other products (not classified in this industry).....	193,178,367	122,313,600
Generating, distribution, and industrial apparatus, and apparatus for incorporation in manufactured products, not elsewhere classified, aggregate value.....	404,583,333	492,734,627
Generating, distribution, and industrial apparatus, and apparatus for incorporation in manufactured products, not elsewhere classified, made in this industry.....	362,389,833	434,811,717
Generating, distribution, and industrial apparatus, and apparatus for incorporation in manufactured products, not elsewhere classified, made as secondary products in other industries.....	42,193,500	57,922,910

<sup>1</sup> Value of automotive parts, mechanical drive turbines, reduction gears, heating and cooking equipment, radio apparatus, and refrigerator units.

TABLE 4.—PRODUCTS, BY KIND, QUANTITY, AND VALUE, FOR THE UNITED STATES: 1939 AND 1937

PRODUCT	1939				1937
	Produced in the industry	Produced in other industries within the electrical group	Produced in other industries outside the electrical group	Aggregate	
Total value.....	\$362,389,833	\$13,867,155	\$28,326,345	\$404,583,333	\$492,734,627
Generating apparatus and parts, except railway and vehicle power generators:					
Steam-turbine generator sets, axle-driven generators for railway-car lighting, generators for electroplating purposes, and wind-driven generators, value.....	\$20,707,414	\$31,979	\$5,142,353	\$25,881,746	} \$49,660,075
Self-contained power and lighting outfits, comprising engine and generator, value.....	(1)		(1)	\$3,363,245	
Generators, steam-turbine-driven.....	\$2,095,277		\$12,564	\$2,107,841	
Generators, water-wheel-driven.....	(1)		(1)	\$5,273,311	
Synchronous condensers and frequency and phase converters.....	\$839,054	\$83,130		\$922,184	
Generators, other drives—					
Direct-current, not including arc welding sets—					
Under 1 kw.—					
Number.....	1,404	16	46	1,466	9,936
Value.....	\$71,558	\$940	\$3,300	\$75,798	\$233,952
1 kw. up to and including 150 kw.—					
Number.....	3,823	131	209	4,163	3,016
Value.....	\$794,082	\$25,200	\$98,212	\$917,494	\$695,854
Over 150 kw.—					
Number.....	103		29	132	185
Value.....	\$1,131,876		\$838,767	\$1,970,643	\$2,307,838
Alternating-current—					
Under 1 kv.-a.—					
Number.....	300	45		345	631
Value.....	\$21,730	\$1,805		\$23,535	\$46,271
1 kv.-a. up to and including 150 kv.-a.—					
Number.....	1,485	(1)	(1)	2,282	1,766
Value.....	\$1,043,879	(1)	(1)	\$1,215,616	\$868,351
Over 150 kv.-a.—					
Number.....	331		15	346	513
Value.....	\$1,002,801		\$94,101	\$1,096,902	\$1,336,744
Parts and supplies, value.....	\$3,072,902	\$4,245	\$924,723	\$4,001,870	\$5,753,149
Transformers, current-limiting reactors, and feeder-voltage regulators (except measuring-instrument transformers):					
Natural-draft air-cooled transformers—					
Ignition and luminous-tube transformers—					
Number reported—					
Number.....	764,266	76,101		840,367	638,693
Value.....	\$3,783,690	\$249,827		\$4,033,517	\$3,445,310
Number not reported, value.....	\$131,201	\$224,323		\$355,524	\$1,256,469
Signaling, doorbell, and toy transformers—					
Number.....	570,795	285,499	3,000	839,294	667,518
Value.....	\$738,915	\$194,836	\$5,000	\$938,751	\$784,727
Street-lighting transformers—					
Constant-current and regulating transformers, value.....	\$566,690	(1)	(1)	\$1,201,292	} \$988,850
Series lamp-insulating, individual lamp-insulating, and auto-transformers, value.....	\$284,163	\$4,999		\$289,162	
General-purpose and miscellaneous transformers, value.....	\$2,740,541	\$339,863	\$537	\$3,080,931	\$3,607,939
Transformers employing oil or other insulating liquid, and air-blast transformers—					
Distribution transformers, 1½ to 500 kv.-a., value.....	\$37,533,111	\$200,489	\$10,132	\$37,743,732	\$45,383,069
Power transformers, 501 kv.-a. and over—					
Number reported—	(1)		(1)	1,665	2,029
Value.....	(1)		(1)	\$13,260,662	\$19,440,750
Number not reported, value.....					\$3,029,079
All other transformers, current-limiting reactors, feeder voltage regulators and boosters, value.....	\$4,052,867	\$13,884	\$93,637	\$4,160,288	\$5,677,157
Rotating converting apparatus:					
Motor-generator sets and dynamotors (not including arc welding sets)—					
1 to 150 kw., inclusive—					
Number.....	10,910	11		10,921	20,455
Value.....	\$3,290,756	\$225		\$3,290,981	\$5,308,920
Over 150 kw., value.....	\$1,414,596			\$1,414,596	\$5,523,505
Synchronous converters and double-current generators, value.....	\$110,044			\$110,044	\$96,000
Motors, except railway and vehicle motors (not including starters and controllers):					
Fractional-horsepower—					
Under ½ hp. (toy motors and other fractional-hp. motors not having definite commercial rating in accordance with A. I. E. E. standards)—					
Number.....	4,490,479	81,343	270,158	4,841,980	11,665,867
Value.....	\$6,975,432	\$335,558	\$428,744	\$7,739,734	\$9,639,472
A. C. synchronous timing motors—					
Number.....	191,226	115,235		306,461	106,749
Value.....	\$310,510	\$82,791		\$393,301	\$254,719
½ hp. and over but under 1 hp. (on frames smaller than 1 hp. at 1,700-1,750 r. p. m.)—					
Universal—					
Number.....	492,597	7,959		500,556	1,884,144
Value.....	\$2,144,258	\$34,281		\$2,178,539	\$4,480,139
Split-phase—					
Number.....	(1)		(1)	3,649,491	4,159,238
Value.....	(1)		(1)	\$20,211,348	\$23,964,162
Capacitor type—					
Number.....	758,211	(1)	(1)	1,108,955	1,671,747
Value.....	\$7,261,241	(1)	(1)	\$10,352,423	\$14,538,967
Repulsion-induction—					
Number.....	491,692	(1)	(1)	526,536	712,627
Value.....	\$7,348,443	(1)	(1)	\$7,797,470	\$10,023,509
Direct-current—					
Number.....	82,673	(1)	(1)	128,877	218,855
Value.....	\$1,613,954	(1)	(1)	\$2,253,884	\$3,097,374
Polyphase—					
Number.....	164,375	(1)	(1)	187,740	237,647
Value.....	\$3,562,314	(1)	(1)	\$3,932,987	\$5,444,699
Fractional-hp. motors built on frames as large as, or larger than, those for 1 hp. open-type motors—					
Number.....	5,295	8		5,303	8,828
Value.....	\$176,679	\$250		\$176,929	\$280,057
1 hp. and over—					
Direct-current—					
1 hp. to 200 hp., inclusive, value.....					} \$13,227,847
Over 200 hp., value.....	\$10,099,732	\$1,326,617	\$248,415	\$11,674,764	

See footnotes at end of table.

TABLE 4.—PRODUCTS, BY KIND, QUANTITY, AND VALUE, FOR THE UNITED STATES: 1939 AND 1937—Continued

PRODUCT	1939				1937
	Produced in the industry	Produced in other industries within the electrical group	Produced in other industries outside the electrical group	Aggregate	
Motors, except railway and vehicle motors (not including starters and controllers)—Con.					
1 hp. and over—Continued.					
Alternating-current—					
Single-phase—					
Repulsion-induction—					
Number.....	79,109	16		79,125	84,048
Value.....	\$3,305,306	\$725		\$3,306,031	\$3,557,613
Capacitor type—					
Number.....	(1)		(1)	6,059	4,039
Value.....	(1)		(1)	\$320,474	\$166,334
Polyphase-induction—					
1 hp. to 200 hp., inclusive—					
Number.....	347,884	(1)	(1)	366,214	426,129
Value.....	\$31,294,417	(1)	(1)	\$32,291,757	\$40,302,466
Over 200 hp.—					
Number.....	(1)		(1)	367	889
Value.....	(1)		(1)	\$1,396,968	\$2,941,722
Synchronous motors (except fractional-hp. motors)—					
1 hp. to 200 hp., inclusive—					
Number.....	(1)		(1)	4,774	4,758
Value.....	(1)		(1)	\$1,691,819	\$1,496,207
Over 200 hp.—					
Number.....	(1)		(1)	398	919
Value.....	(1)		(1)	\$1,367,572	\$3,307,087
Other motors, all sizes and kinds, value.....	\$915,491	\$120,389	\$4,828,466	\$5,864,346	\$4,482,726
Parts and supplies, value.....	\$8,454,421	\$1,155,361	\$490,334	\$10,100,116	\$9,689,110
Control apparatus (except railway and vehicle controllers, all types):					
Industrial magnetic control for a. c. motors—					
Number reported—					
Number.....	301,165	(1)	(1)	332,986	390,496
Value.....	\$7,782,913	(1)	(1)	\$7,911,146	\$9,085,465
Number not reported, value.....	\$6,247,826			\$6,247,826	\$7,651,163
Industrial magnetic control for d. c. motors—					
Number reported—					
Number.....	31,196	564		31,760	38,588
Value.....	\$3,098,468	\$44,918		\$3,143,386	\$5,109,335
Number not reported, value.....	\$927,825			\$927,825	\$709,612
Industrial manual control for a. c. motors—					
Number reported—					
Number.....	494,882	9,338		504,220	268,427
Value.....	\$1,895,761	\$52,375		\$1,948,136	\$2,788,860
Number not reported, value.....	\$859,324			\$859,324	\$977,104
Industrial manual control for d. c. motors—					
Number.....	8,558	6		8,564	136,009
Value.....	\$348,821	\$120		\$348,941	\$928,711
Other control apparatus, value.....	\$23,547,896	\$365,853	\$739,686	\$24,653,435	\$20,137,260
Fuses and fuse blocks (except high-voltage and power types, 2,300 volts and over):					
Enclosed fuses, for voltages under 125—					
Auto—					
Number.....	6,783,332	(1)	(1)	15,871,332	
Value.....	\$57,786	(1)	(1)	\$149,654	
Radio and other enclosed fuses for voltages under 125, and renewable and multiple plug fuses, 125 volts, value.....	\$531,909	\$3,557		\$535,466	\$656,805
Nonrenewable plug fuses, 125 volts—					
15 amperes or less—					
Number.....	44,356,398	10,137,496		54,493,894	
Value.....	\$900,748	\$223,423		\$1,124,171	79,950,333
More than 15 amperes—					
Number.....	33,008,668	9,195,528		42,204,196	\$1,878,189
Value.....	\$614,657	\$185,119		\$799,776	
Enclosed renewable fuses, 250 volts—					
15 amperes or less—					
Number.....	467,888	7,769		475,652	
Value.....	\$136,196	\$1,198		\$137,394	
16 to 30 amperes—					
Number.....	3,649,539	109,951		3,759,490	
Value.....	\$682,372	\$26,141		\$708,513	
31 to 60 amperes—					
Number.....	594,450	49,956		644,406	4,123,301
Value.....	\$284,777	\$17,953		\$302,730	\$2,026,514
61 amperes and over—					
Number.....	344,108	17,897		362,005	
Value.....	\$382,409	\$34,130		\$416,539	
Renewals for fuses, 250 volts—					
Number.....	14,935,913	1,020,584		15,956,497	
Value.....	\$320,369	\$3,591		\$323,960	\$863,587
Enclosed nonrenewable fuses, 250 volts—					
Number.....	11,785,714	2,261,045		14,046,759	
Value.....	\$756,049	\$177,025		\$933,074	
All other fuses (including all 600-volt fuses).....	\$929,712	\$89,901		\$1,019,613	\$1,114,402
Open-fuse material, value.....	\$40,957	\$4,651		\$45,608	\$74,260
Fuse blocks for plug fuses—					
Number.....	(1)	(1)		527,559	
Value.....	(1)	(1)		\$110,636	\$195,429
Fuse blocks, clips, and bases, for ferrule-contact and knife-blade fuses, 250 volts, value.....	\$90,702	\$41,007	\$6,927	\$138,636	
Fuse blocks, clips, and bases, for fuses 600 volts and higher, value.....	\$23,478	\$3,613		\$27,091	\$308,019
All other fuse blocks, value.....	(1)	(1)		\$101,623	
Industrial and commercial apparatus and appliances:					
Furnaces, electric—					
Arc furnaces, value.....					\$233,929
Induction furnaces, value.....	\$721,053			\$721,053	\$413,831
Resistance and resistor furnaces, other than heat-treating—					
Number reported—					
Number.....	(1)		(1)	1,252	1,187
Value.....	(1)		(1)	\$770,538	\$2,511,551
Number not reported, value.....	(1)		(1)	\$747,670	\$517,005
Ovens (electric) for heat-treating, annealing, enameling, conditioning, baking, etc.—					
Number.....	1,405	40	16	1,461	(1)
Value.....	\$1,889,174	\$12,015	\$13,359	\$1,914,548	(1)

See footnotes at end of table.

TABLE 4.—PRODUCTS, BY KIND, QUANTITY, AND VALUE, FOR THE UNITED STATES: 1939 AND 1937—Continued

PRODUCT	1939			Aggregate	1937
	Produced in the industry	Produced in other industries within the electrical group	Produced in other industries outside the electrical group		
Industrial and commercial apparatus and appliances—Continued.					
Heating units and devices (electric), industrial—					
Strip, space, and ring heaters, value.....	\$2,477,553	\$45,573		\$2,523,126	\$1,837,784
Cartridge and tubular heaters, value.....					\$541,412
Immersion heaters, water and oil, value.....	\$503,857	\$79,337		\$583,194	\$379,217
Metal pots and metal-immersion heaters, value.....	\$102,536	\$1,695		\$104,231	\$94,147
Glue and compound pots, value.....	\$60,203	\$18,946		\$79,149	\$108,635
Air and oven heaters, not included above, value.....	\$190,500	\$9,350		\$199,850	\$134,102
Other heating units and devices, value.....	\$897,214	\$223,034		\$1,120,248	\$1,540,584
Welding apparatus, welding wire, and electrodes—					
Alternating-current transformer arc welders—					
Number.....	8,597	(1)	(1)	9,924	13,334
Value.....	\$894,482	(1)	(1)	\$1,039,812	\$1,678,835
Direct-current arc welding apparatus, not including accessories—					
Gas-engine-driven—					
Number.....	2,251	4		2,255	1,857
Value.....	\$1,855,743	\$3,265		\$1,859,008	\$1,743,656
Motor-driven—					
Number.....	12,406	(1)	(1)	13,070	13,041
Value.....	\$3,414,025	(1)	(1)	\$3,672,459	\$5,902,202
Other drives, value.....	\$719,933	\$1,875		\$721,808	\$484,203
Accessories for above, including electrode holders, protective devices, etc., value.....	\$1,265,035	\$9,474	\$56,018	\$1,330,527	\$237,618
Resistance welding apparatus—					
Spot welders—					
Number reported—	2,227	149		2,376	
Value.....	\$1,897,895	\$40,089		\$1,937,984	
Number not reported, value.....	\$1,560,355		\$10,699	\$1,571,054	\$7,183,293
Seam welders—					
Number.....	581	48		629	
Value.....	\$616,557	\$17,390		\$633,947	
Arc-welding electrodes—					
Coated electrodes, value.....	\$8,132,627	(1)	(1)	\$9,291,326	\$9,637,721
Bare electrodes, value.....	\$294,687	\$1,150,350		\$1,445,037	\$351,082
Other welding wire and electrodes, value.....					\$141,923
Rectifying apparatus—					
Power mercury arc rectifiers, value.....					\$2,660,994
Other rectifying apparatus (not including tubes), value.....	\$1,402,408	\$381,668	\$850,237	\$2,634,313	\$2,363,567
Switchboard apparatus (circuit breakers, panelboards, switchboards, and switches):					
Panelboards and distribution boards—					
Panelboards, including enclosing cabinets (fuse-only type panelboards; combination switch and fuse panelboards, all types; circuit breakers, panelboards, all types)—					
Number reported—	138,638	45		138,683	107,727
Value.....	\$4,023,685	\$3,125		\$4,026,810	\$3,068,950
Number not reported, value.....	\$4,390,989	\$5,292		\$4,396,281	\$6,387,519
Enclosed branch-circuit cut-outs, not including load centers, value.....	\$607,112	\$3,163	\$5,000	\$615,275	\$775,105
Distribution switchboards, value.....	\$2,872,142			\$2,872,142	\$2,814,805
Theater switchboards, value.....	\$373,573			\$373,573	\$229,031
Other, value.....	\$1,615,799	\$16,154	\$535,297	\$2,167,250	\$3,417,064
Knife switches (600 volts and under), open and enclosed, value.....	\$8,505,287	\$366,040		\$8,871,327	\$8,554,817
Time switches, value.....	\$784,121	\$960,920	\$29,425	\$1,774,466	\$2,020,700
Other switches, value.....	\$2,670,196	\$1,656,560	\$474,241	\$4,800,997	\$3,073,420
Circuit breakers, including attachments and parts—					
Indoor oil circuit breakers, all voltages, and oilless circuit breakers over 1,200 volts, value.....					
	\$3,435,860			\$3,435,860	\$5,006,643
Outdoor oil and oilless circuit breakers, 34,500 volts and below, value.....					
	\$3,590,765			\$3,590,765	\$5,860,544
Outdoor oil and oilless circuit breakers, over 34,500 volts, value.....					
	\$5,292,694			\$5,292,694	\$5,351,921
Air circuit breakers, 1,200 volts and under—					
Air circuit breakers in supporting and enclosing housings of insulation materials, with interrupting ratings of 10,000 amperes and under for circuit ratings up to and including 100 amperes in frames not exceeding that rating—					
Number.....	349,058			349,058	1,027,738
Value.....	\$2,392,055			\$2,392,055	\$1,537,035
Air circuit breakers in supporting and enclosing housings of insulation materials, with interrupting ratings of 10,000 amperes and over in frame sizes over 100 amperes—					
Number.....	14,322			14,322	8,557
Value.....	\$1,022,062			\$1,022,062	\$405,719
Air circuit breakers with interrupting ratings of 10,000 amperes and over, not enclosed and in individual enclosures, generally of steel—					
Number.....	4,068			4,068	
Value.....	\$1,417,432			\$1,417,432	\$4,289,748
All other, value.....	\$48,264			\$48,264	
Power switchboards and parts—					
Automatic and manual panels—					
Number.....	9,107	(1)	(1)	9,188	
Value.....	\$6,260,670	(1)	(1)	\$6,508,005	\$17,506,777
Metal-enclosed switchgear (using oil and oilless circuit breakers and metal-enclosed bus-bar structures made for sale separately—					
Number.....	(1)		(1)	4,377	
Value.....	(1)		(1)	\$8,440,372	
Relays, regulators, and miscellaneous switchboard devices made for sale separately, value.....	\$2,586,756	(1)	(1)	\$3,184,833	\$3,714,046
Power switching equipment including power high-voltage fuses above 600 volts—					
Outdoor, value.....	\$4,533,580	\$170,288		\$4,703,868	\$6,242,521
Indoor, value.....	\$1,367,469			\$1,367,469	\$2,217,907
Power connectors, value.....	\$782,188			\$782,188	\$991,606
Distribution cut-outs and fuse links for 2,300 to 15,000 volts, a. c. service, value.....	\$3,871,127	\$1,027,646		\$4,898,773	\$5,277,488

<sup>1</sup> Figures not shown separately to avoid disclosing data reported by individual establishments.

<sup>2</sup> Does not include \$22,359,248, the value of automotive generators for battery charging, which amount appears for 1937 in the report for "Automotive electrical equipment" industry for 1939.

<sup>3</sup> Includes value of motors which were not classified by kind or size.

<sup>4</sup> Includes fuses for 600 volts.

<sup>5</sup> Ovens (electric) for heat treating, annealing, enameling, conditioning, baking, etc., included with "Other heating units and devices."

<sup>6</sup> Classified as resistance welding apparatus and accessories, butt, spot, and line.

<sup>7</sup> Includes value of resistance welding electrodes, carbon and graphite welding electrodes, and gas welding wire.

TABLE 5.—WAGE EARNERS ENGAGED IN MANUFACTURING, BY MONTHS, FOR THE UNITED STATES, 1939 AND 1937, AND BY STATES, 1939

STATE	Average number employed during year	NUMBER RECEIVING PAY DURING NORMAL PAY-ROLL PERIOD ENDED NEAREST 15TH OF MONTH—											
		January	February	March	April	May	June	July	August	September	October	November	December
United States: 1939.....	70,401	62,712	63,531	65,725	66,763	67,275	68,167	69,135	70,417	72,464	76,296	80,213	82,118
1937.....	93,862	85,286	87,815	88,731	92,234	95,338	100,000	101,465	101,027	100,399	97,760	92,267	84,016
California.....	1,484	1,297	1,326	1,325	1,356	1,388	1,426	1,473	1,570	1,597	1,670	1,694	1,687
Connecticut.....	1,256	1,099	1,097	1,147	1,164	1,160	1,175	1,181	1,286	1,347	1,392	1,507	1,523
Illinois.....	2,913	2,584	2,672	2,696	2,682	2,781	2,868	2,951	3,032	3,025	3,264	3,239	3,165
Indiana.....	3,984	3,354	3,628	4,008	4,083	3,818	3,949	3,937	3,809	4,021	4,261	4,474	4,465
Iowa.....	304	289	286	297	272	287	278	275	308	308	299	372	391
Kentucky.....	184	187	194	184	176	175	179	177	177	179	191	200	202
Maryland.....	182	173	171	172	167	166	175	184	182	190	202	198	204
Massachusetts.....	8,206	6,672	6,831	7,363	7,702	7,807	7,814	7,979	8,414	8,824	9,414	9,789	9,858
Michigan.....	2,727	2,153	2,036	2,092	2,141	2,125	2,346	2,645	3,038	3,352	3,554	3,664	3,583
Minnesota.....	341	289	288	316	330	319	333	365	357	369	367	371	390
Missouri.....	5,973	5,550	5,574	5,613	5,716	6,160	6,418	6,175	5,704	5,717	6,186	6,375	6,486
New Jersey.....	3,602	3,424	3,405	3,426	3,368	3,357	3,423	3,477	3,606	3,701	3,833	4,033	4,171
New York.....	12,178	11,602	11,660	11,809	11,803	11,831	12,106	12,105	12,029	12,129	12,398	13,041	13,533
Ohio.....	8,106	7,144	7,262	7,469	7,670	7,817	7,952	8,062	8,187	8,417	8,667	9,192	9,494
Oklahoma.....	34	29	31	28	30	29	30	32	35	45	40	38	41
Oregon.....	51	56	57	47	48	50	55	52	50	49	50	53	49
Pennsylvania.....	14,175	12,597	12,715	13,091	13,428	13,326	13,377	13,652	14,121	14,501	15,411	16,538	17,341
Texas.....	66	61	52	53	57	64	65	74	69	72	67	78	83
Washington.....	80	67	69	74	71	75	78	81	94	94	91	84	83
Wisconsin.....	4,271	3,816	3,907	4,164	4,260	4,285	3,845	3,989	4,087	4,247	4,624	4,934	5,088

TABLE 6.—EXPENDITURES FOR PLANT AND EQUIPMENT: 1939

	1939
Number of establishments:	
Total for the industry.....	491
Reporting expenditures for plant and equipment.....	329
Value of products:	
Total for the industry.....	\$470,462,442
Reporting expenditures for plant and equipment.....	455,220,832
Expenditures for plant and equipment:	
Total for the industry.....	12,821,091
Expenditures for new construction or major alterations of buildings and other fixed plant and structures.....	1,776,721
Expenditures for new machinery and operating equipment.....	10,704,828
Expenditures for plant and equipment acquired in a "used" condition from other owners and expenditures for land.....	339,542

TABLE 7.—VALUE OF INVENTORIES OF MATERIALS AND FINISHED PRODUCTS, AND VALUE OF PRODUCTS: 1939 AND 1937

	1939	1937
Inventories:		
Beginning of year, total.....	\$131,644,969	\$119,329,422
Finished products.....	46,384,294	37,223,036
Materials, supplies, etc.....	85,260,675	82,106,386
End of year, total.....	144,267,577	173,901,927
Finished products.....	41,573,065	52,482,466
Materials, supplies, etc.....	102,694,512	121,419,461
Value of products for the industry, total.....	470,462,442	577,685,052
Value for establishments reporting inventories (includes value of products of establishments reporting no inventories on hand).....	469,835,914	576,601,108
Value for establishments not reporting inventories.....	626,528	1,083,944

TABLE 8.—PRIME MOVERS, MOTORS, GENERATORS, AND ELECTRIC ENERGY: 1939

	1939
Number of establishments.....	491
Number of establishments reporting power equipment.....	487
Prime movers, aggregate:	
Number.....	69
Horsepower.....	167,331
Prime movers, driving generators, total—	
Number.....	57
Horsepower.....	164,855

TABLE 8.—PRIME MOVERS, MOTORS, GENERATORS, AND ELECTRIC ENERGY: 1939—Continued

	1939
Prime movers—Continued	
Prime movers, driving generators—Continued.	
Steam engines—	
Number.....	10
Horsepower.....	5,151
Steam turbines—	
Number.....	30
Horsepower.....	155,250
Diesel and semi-Diesel engines—	
Number.....	12
Horsepower.....	4,158
Other internal-combustion engines <sup>1</sup> —	
Number.....	3
Horsepower.....	105
Hydroturbines and water wheels—	
Number.....	2
Horsepower.....	191
Prime movers, driving generators, ordinarily idle (included above), horsepower.....	9,490
Prime movers not driving generators, total—	
Number.....	12
Horsepower.....	2,476
Steam engines—	
Number.....	10
Horsepower.....	2,391
Internal-combustion engines, other than Diesel and semi-Diesel—	
Number.....	2
Horsepower.....	85
Prime movers not driving generators, ordinarily idle (included above), horsepower.....	131
Generators, kilowatt rating, total.....	122,167
Generators, driven by—	
Steam engines, kilowatt rating.....	3,340
Steam turbines, kilowatt rating.....	115,405
Diesel and semi-Diesel engines, kilowatt rating.....	3,211
Other internal-combustion engines, <sup>1</sup> kilowatt rating.....	61
Hydroturbines and water wheels, kilowatt rating.....	150
Generators, ordinarily idle (included above), kilowatt rating.....	6,990
Electric motors, total:	
Number.....	78,954
Horsepower.....	382,509
Driven by purchased energy—	
Number.....	49,219
Horsepower.....	197,242
Driven by energy generated in establishments reporting—	
Number.....	29,735
Horsepower.....	185,267
Electric energy (kilowatt-hours):	
Generated in plant.....	249,793,881
Sold.....	23,518,751
Purchased.....	237,145,983

<sup>1</sup> Gas, gasoline, etc.

## ELECTRICAL APPLIANCES

[A preliminary report for this industry was issued November 5, 1940]

**Description of the industry.**—The establishments classified in this industry are engaged primarily in the manufacture of household electrical appliances used for heating, cooking, cleaning, etc. Products of this industry include electric fans, electric water heaters, irons, mixers, percolators, hot plates, vacuum cleaners, etc., except electric refrigerators.

**Statistics for prior census years.**—No statistics, other than those for products, are available for years prior to 1937 for the "Electrical appliances" industry. A special tabulation was made of the reports for 1937 in order to obtain figures comparable with 1939.

TABLE 1.—SUMMARY FOR THE UNITED STATES: 1939 AND 1937

CENSUS YEAR	Number of establishments <sup>1</sup>	Wage earners (average for the year) <sup>2</sup>	Wages	Cost of materials, supplies, fuel, purchased electric energy, and contract work	Value of products	Value added by manufacture <sup>3</sup>	Horse-power of prime movers
1939.....	138	19,890	\$25,408,770	\$58,081,360	\$145,696,194	\$87,614,834	5,309
1937.....	107	20,605	27,172,152	57,529,655	129,514,525	71,984,870	(4)

<sup>1</sup> See GENERAL EXPLANATIONS—Definition of establishment.

<sup>2</sup> See GENERAL EXPLANATIONS—Wage earners and wages.

<sup>3</sup> Value of products less cost of materials, supplies, fuel, purchased electric energy, and contract work. See GENERAL EXPLANATIONS—Value added by manufacture.

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

TABLE 2.—GENERAL STATISTICS IN DETAIL BY STATES: 1939

[See GENERAL EXPLANATIONS—Disclosure of data for individual establishments]

ITEM	United States	California	Connecticut	Illinois	Indiana	Michigan	Mis-souri	New Jersey	New York	Ohio	Pennsylv-ania	Wash-ington	Other States <sup>1</sup>
Number of establishments <sup>2</sup> .....	138	8	12	25	7	10	6	6	17	18	6	7	16
Proprietors and firm members.....	30	6	-----	1	-----	1	1	1	9	3	1	3	4
Persons reported by manufacturing establishments, total <sup>3</sup> .....	25,062	695	3,927	5,922	196	725	954	140	712	7,708	370	43	3,670
Salaried officers of corporations <sup>4</sup> .....	206	5	18	44	10	17	10	10	23	40	11	6	12
Manufacturing:													
Salaried employees <sup>4</sup> .....	2,744	94	356	865	18	79	75	11	42	667	35	2	500
Wage earners (average for the year) <sup>4</sup> .....	19,890	584	3,200	4,519	140	534	824	106	518	6,152	318	32	2,993
Distribution.....	2,164	12	333	488	28	88	42	13	129	830	6	2	193
Construction.....	25	-----	7	4	-----	6	-----	-----	-----	8	-----	-----	-----
Other.....	33	-----	13	2	-----	1	3	-----	-----	11	-----	1	2
Salaries and wages, total <sup>5</sup> .....	\$36,979,276	\$991,572	\$4,688,382	\$9,697,658	\$248,524	\$1,126,564	\$1,070,844	\$162,792	\$811,768	\$11,715,126	\$543,728	\$53,835	\$5,868,483
Salaried officers <sup>4</sup> .....	1,356,851	36,200	139,503	363,933	28,189	120,952	104,061	33,362	138,212	283,813	40,046	9,525	59,055
Manufacturing:													
Salaries <sup>4</sup> .....	5,677,989	202,558	596,917	2,089,567	25,139	149,291	124,328	11,682	81,332	1,245,003	81,551	2,364	1,068,257
Wages.....	25,408,770	736,313	3,364,245	6,313,315	152,814	659,895	736,035	101,845	465,327	8,150,362	404,427	39,038	4,285,154
Distribution.....	4,459,028	16,501	558,461	921,677	42,382	184,354	104,057	15,903	126,897	2,014,614	17,704	1,800	454,678
Construction.....	41,316	-----	15,542	6,559	-----	11,072	-----	-----	-----	8,143	-----	-----	-----
Other.....	35,322	-----	13,714	2,607	-----	1,000	2,363	-----	-----	13,191	-----	1,108	1,339
Cost of materials, supplies, containers, fuel, purchased electric energy, and contract work, total.....	58,081,360	1,767,186	7,756,925	13,755,196	566,394	1,525,526	2,402,700	355,861	1,295,541	21,205,077	925,016	96,038	6,429,900
Materials, supplies, and containers.....	56,082,581	1,707,920	7,525,938	13,298,737	547,494	1,439,097	2,285,586	344,172	1,138,419	20,741,339	906,318	94,420	6,053,141
Fuel.....	585,281	13,761	80,561	142,226	4,787	30,208	12,938	3,554	12,429	165,539	5,451	228	113,549
Purchased electric energy.....	1,022,141	38,292	142,523	248,209	14,113	47,084	26,181	6,038	26,711	289,522	13,247	1,390	168,231
Contract work.....	391,357	7,213	7,903	66,024	-----	8,537	77,995	2,097	117,982	8,627	-----	-----	94,979
Value of products.....	145,696,194	3,579,215	30,184,280	33,899,814	821,736	3,549,238	4,365,502	601,504	2,394,237	43,946,975	1,980,727	167,927	20,205,039
Value added by manufacture <sup>6</sup> .....	87,614,834	1,812,029	22,427,356	20,144,618	255,342	2,023,712	1,962,802	245,643	1,098,696	22,741,898	1,055,711	71,889	13,775,139

<sup>1</sup> Alabama, 1 establishment; Massachusetts, 5; Minnesota, 1; Oregon, 1; Tennessee, 4; Wisconsin, 4.

<sup>2</sup> See GENERAL EXPLANATIONS—Definition of establishment.

<sup>3</sup> See GENERAL EXPLANATIONS—Persons engaged—general classification.

<sup>4</sup> See GENERAL EXPLANATIONS—Wage earners and wages.

<sup>5</sup> Value of products less cost of materials, supplies, containers, fuel, purchased electric energy, and contract work. See GENERAL EXPLANATIONS—Value added by manufacture.

TABLE 3.—VALUE OF PRODUCTS FOR THE UNITED STATES: 1939 AND 1937

	1939	1937
Electrical Appliances industry, all products, total value.....	\$145,696,194	\$129,514,525
Electrical appliances made in this industry.....	106,566,784	106,045,426
Miscellaneous products not specified.....	1,191,392	354,456
Receipts for contract and repair work.....	663,483	494,767
Other products (not classified in this industry).....	1 37,274,535	22,619,876
Electrical appliances, aggregate value.....	124,326,641	130,783,243
Electrical appliances made in this industry.....	106,566,784	106,045,426
Electrical appliances made as secondary products in other industries.....	17,759,857	24,737,817

<sup>1</sup> Value of refrigerators, electric washing and ironing machines, commercial food and drink mixers and coolers, and air-conditioning.

TABLE 4.—PRODUCTS, BY KIND, QUANTITY, AND VALUE, FOR THE UNITED STATES: 1939 AND 1937

PRODUCT	1939				1937
	Produced in the industry	Produced in other industries within the electrical group	Produced in other industries outside the electrical group	Aggregate	
Total value.....	\$106,566,784	\$8,763,955	\$8,995,902	\$124,326,641	\$130,783,243
Fans (direct motor-driven):					
Ceiling fans—					
Number.....	11,053	13,013	877	24,943	116,048
Value.....	\$182,979	\$221,418	\$8,364	\$412,761	\$988,088
Air circulators, 18 inches and larger, value.....	\$1,223,115	\$589,072	\$245,398	\$2,057,585	\$3,879,106
Desk fans—					
10 inches and under—					
Number.....	647,270	175,032	5,797	828,099	
Value.....	\$1,195,238	\$754,232	\$26,280	\$1,975,750	1,913,834
Over 10 inches—					
Number.....	461,321	212,214	186	673,721	\$10,698,020
Value.....	\$1,527,576	\$2,307,958	\$4,406	\$3,839,940	
Domestic cooking and heating equipment and other household appliances:					
Heaters, water (for permanent installation)—					
Storage water heaters (complete)—					
Number.....	78,931	( <sup>1</sup> )	( <sup>1</sup> )	81,741	115,03
Value.....	\$3,210,205	( <sup>1</sup> )	( <sup>1</sup> )	\$3,339,535	\$5,891,785
Side-arm, auxiliary, and nonpressure heaters, value.....	\$111,959	\$1,932		\$113,891	\$75,146
Accessories and parts, value.....					\$138,091
Cooking and heating appliances—					
Coffee makers, pots, and urns, 600 watts or less—					
Glass—					
Number.....	1,037,949	92,402		1,130,351	950,032
Value.....	\$2,032,444	\$216,642		\$2,249,086	\$2,246,657
Metal—					
Number reported—					
Number.....	534,033	9,366		543,399	428,096
Value.....	\$1,040,028	\$33,430		\$1,073,458	\$1,357,812
Number not reported, value.....		\$34,530	\$218,007	\$252,537	\$301,993
Curling irons, value.....	\$122,059	\$35,061		\$157,120	\$291,528
Flatirons—					
Traveler or boudoir—					
Number.....	212,868	2,528		215,396	145,723
Value.....	\$179,305	\$3,365		\$182,670	\$132,610
Standard household—					
Automatic (under 5 lb.)—					
Number.....	1,065,051	500		1,065,551	860,389
Value.....	\$3,862,992	\$1,719		\$3,864,711	\$3,275,258
Automatic (5 lb. and over)—					
Number.....	1,159,309	114,998		1,274,307	1,006,920
Value.....	\$2,742,800	\$30,203		\$2,773,003	\$2,981,569
Nonautomatic (all sizes), value.....	\$2,863,976	\$25,691	\$5,631	\$2,895,298	\$2,519,941
Heaters, air—					
Convactor type—					
Number.....	187,307	7,570		194,877	179,363
Value.....	\$481,697	\$30,140		\$511,837	\$671,023
Radiant type—					
Number.....	282,501	( <sup>1</sup> )	( <sup>1</sup> )	330,088	303,531
Value.....	\$402,166	( <sup>1</sup> )	( <sup>1</sup> )	\$546,632	\$529,516
Heaters, immersion—					
Number.....	335,547	500		336,047	138,106
Value.....	\$352,485	\$700		\$353,185	\$319,293
Heating pads and blankets—					
Number.....	900,005	3,496	280	903,781	1,013,550
Value.....	\$1,575,130	\$18,430	\$1,397	\$1,594,957	\$1,480,850
Ranges, disk stoves, hot plates, cookers and casseroles, 2½ kw. and under, value.....	\$1,281,293	\$143,760	\$1,181,804	\$2,606,857	\$2,698,818
Ranges, electric household, 2¼ kw. and over—					
Number.....	218,963		18,165	237,128	340,821
Value.....	\$14,922,263		\$1,259,519	\$16,181,782	\$23,742,816
Roasters—					
Number.....	135,553	( <sup>1</sup> )	( <sup>1</sup> )	152,638	176,686
Value.....	\$1,462,817	( <sup>1</sup> )	( <sup>1</sup> )	\$1,669,612	\$1,857,111
Sandwich toasters and grills—					
Number.....	717,039	1,800		718,839	938,311
Value.....	\$1,482,933	\$3,782		\$1,486,715	\$1,588,422
Toasters—					
Automatic—					
Number.....	908,564	51,895		960,459	659,991
Value.....	\$5,706,466	\$372,720		\$6,079,186	\$4,269,799
Nonautomatic—					
Number.....	1,435,169	42,295		1,477,464	1,563,070
Value.....	\$1,749,765	\$67,708		\$1,817,473	\$2,052,206
Waffle irons and griddles—					
Number.....	635,231	72,443		707,674	940,373
Value.....	\$1,896,714	\$249,765		\$2,146,479	\$2,398,109
Mixers, whippers, and juicers—					
Number.....	914,742	( <sup>1</sup> )	( <sup>1</sup> )	1,085,889	1,082,720
Value.....	\$5,135,703	( <sup>1</sup> )	( <sup>1</sup> )	\$6,546,264	\$7,372,149
Vacuum cleaners—					
Floor cleaners, bag and tank types—					
Number.....	1,021,786	68,749	1,300	1,091,835	\$1,122,782
Value.....	\$40,459,204	\$1,323,338	\$39,403	\$41,821,945	\$33,016,817
Hand dusters—					
Number.....	238,549	( <sup>1</sup> )	( <sup>1</sup> )	353,423	392,077
Value.....	\$1,427,811	( <sup>1</sup> )	( <sup>1</sup> )	\$2,337,674	\$3,011,830
Miscellaneous domestic cooking and heating equipment and appliances not included above, value.....	\$4,276,632	\$380,575	\$4,989,074	\$9,646,331	\$8,529,854
Commercial cooking apparatus:					
Griddles—					
Number.....					12,928
Value.....	\$425,077	\$3,540	\$5,092	\$433,709	\$165,548
Grills, including sandwich-toasters, and toasters, value.....	\$119,626	\$60		\$119,686	\$696,984
Waffle bakers, value.....	\$1,176,730	\$4,580		\$1,181,310	\$135,149
Coffee makers (3 gallons and under) and urns (hotel type), value <sup>2</sup> .....					\$420,343
Ranges (hotel)—					
Number.....					2,079
Value.....	\$918,467	\$20,637	\$5,000	\$944,104	\$410,232
Broilers and ovens (roasting), value.....	\$580,645	\$74,779		\$655,424	\$125,803
Other, value.....					\$810,853
Commercial or domestic appliances (except fans):					
Driers, hair and other (small blowers, with or without heating element) and blowers, portable, for use in cleaning, heating, paint spraying, etc., value.....	\$438,434	\$12,698	\$7,002	\$458,134	\$302,114

<sup>1</sup> Figures not shown separately to avoid disclosing, exactly or approximately, data reported by individual establishments. <sup>2</sup> Revised.  
<sup>3</sup> Includes miscellaneous electric counter appliances. <sup>4</sup> Value reported for 1,466 ranges and 67,156 broilers and ovens for 1939.

ELECTRICAL APPLIANCES

TABLE 5.—WAGE EARNERS ENGAGED IN MANUFACTURING, BY MONTHS, FOR THE UNITED STATES, 1939 AND 1937, AND BY STATES, 1939

STATE	Average number employed during year	NUMBER RECEIVING PAY DURING NORMAL PAY-ROLL PERIOD ENDED NEAREST 15TH OF MONTH—											
		January	February	March	April	May	June	July	August	September	October	November	December
United States:													
1939.....	19,800	18,100	19,279	20,043	20,081	19,364	18,889	19,406	19,801	20,059	20,545	21,506	21,607
1937.....	20,605	18,744	18,629	20,268	20,713	21,101	21,345	20,932	21,296	22,048	21,990	20,380	18,817
California.....	584	432	430	457	440	446	484	608	668	734	789	789	722
Connecticut.....	3,200	3,099	3,073	3,103	3,167	3,148	3,003	3,112	3,240	3,260	3,382	3,457	3,360
Illinois.....	4,519	3,816	4,222	4,446	4,409	3,897	3,952	4,398	4,659	4,941	5,134	5,314	5,043
Indiana.....	140	83	95	118	149	179	164	157	152	152	144	145	144
Massachusetts.....	2,321	2,139	2,604	2,811	2,653	2,556	2,402	2,371	2,165	2,104	1,914	1,931	2,197
Michigan.....	534	438	522	578	609	629	578	507	575	401	415	502	568
Missouri.....	824	756	788	817	837	739	760	780	846	870	899	894	904
New Jersey.....	106	121	116	94	94	88	86	87	108	115	125	121	122
New York.....	518	472	524	550	503	504	515	493	452	458	504	616	620
Ohio.....	6,152	5,900	6,098	6,265	6,401	6,358	6,162	5,980	5,958	5,894	5,992	6,214	6,596
Pennsylvania.....	318	240	219	218	232	240	237	240	246	366	426	652	501
Tennessee.....	27	24	22	20	24	24	25	30	33	26	27	33	31
Washington.....	32	29	30	29	28	33	33	33	36	36	31	32	30
Wisconsin.....	599	544	529	529	517	505	469	499	642	682	743	785	748

TABLE 6.—EXPENDITURES FOR PLANT AND EQUIPMENT: 1939

	1939
Number of establishments:	
Total for the industry.....	138
Reporting expenditures for plant and equipment.....	92
Value of products:	
Total for the industry.....	\$145,696,194
Reporting expenditures for plant and equipment.....	138,824,453
Expenditures for plant and equipment:	
Total for the industry.....	2,278,948
Expenditures for new construction or major alterations of buildings and other fixed plant and structures.....	446,778
Expenditures for new machinery and operating equipment.....	1,677,080
Expenditures for plant and equipment acquired in a "used" condition from other owners and expenditures for land.....	155,090

TABLE 7.—VALUE OF INVENTORIES OF MATERIALS AND FINISHED PRODUCTS, AND VALUE OF PRODUCTS: 1939 AND 1937

	1939	1937
Inventories:		
Beginning of year, total.....	\$28,994,104	\$28,099,151
Finished products.....	16,896,681	14,455,032
Materials, supplies, etc.....	12,097,423	13,644,119
End of year, total.....	27,123,503	37,575,766
Finished products.....	12,829,745	21,454,761
Materials, supplies, etc.....	14,293,758	16,121,005
Value of products for the industry, total.....	145,696,194	129,514,525
Value for establishments reporting inventories (includes value of products of establishments reporting no inventories on hand).....	145,696,194	129,403,031
Value for establishments not reporting inventories.....		111,494

TABLE 8.—PRIME MOVERS, MOTORS, GENERATORS, AND ELECTRIC ENERGY: 1939

	1939
Number of establishments.....	138
Number of establishments reporting power equipment.....	137
Prime movers, aggregate:	
Number.....	21
Horsepower.....	5,309
Prime movers, driving generators, total—	
Number.....	10
Horsepower.....	4,407

TABLE 8.—PRIME MOVERS, MOTORS, GENERATORS, AND ELECTRIC ENERGY: 1939—Continued

	1939
Prime movers—Continued.	
Prime movers, driving generators—Continued.	
Steam engines—	
Number.....	3
Horsepower.....	2,021
Steam turbines—	
Number.....	3
Horsepower.....	2,200
Diesel and semi-Diesel engines—	
Number.....	2
Horsepower.....	65
Hydroturbines and water wheels—	
Number.....	2
Horsepower.....	121
Prime movers, driving generators, ordinarily idle (included above), horsepower.....	525
Prime movers not driving generators, total—	
Number.....	11
Horsepower.....	902
Steam engines—	
Number.....	3
Horsepower.....	575
Steam turbines—	
Number.....	5
Horsepower.....	213
Diesel and semi-Diesel engines—	
Number.....	
Horsepower.....	
Other internal-combustion engines <sup>1</sup> —	
Number.....	2
Horsepower.....	39
Hydroturbines and water wheels—	
Number.....	1
Horsepower.....	75
Generators, kilowatt rating, total.....	3,688
Generators, driven by—	
Steam engines, kilowatt rating.....	1,850
Steam turbines, kilowatt rating.....	1,700
Diesel and semi-Diesel engines, kilowatt rating.....	48
Hydroturbines and water wheels, kilowatt rating.....	90
Generators, ordinarily idle (included above), kilowatt rating.....	350
Electric motors, total:	
Number.....	15,487
Horsepower.....	57,966
Driven by purchased energy—	
Number.....	14,077
Horsepower.....	53,971
Driven by energy generated in establishments reporting—	
Number.....	1,410
Horsepower.....	3,995
Electric energy (kilowatt-hours):	
Generated in plant.....	5,807,867
Purchased.....	77,595,117

<sup>1</sup> Gas, gasoline, etc.

## INSULATED WIRE AND CABLE

[A preliminary report for this industry was issued October 23, 1940]

**Description of the industry.**—The establishments classified in this industry are engaged primarily in the manufacture of insulated or armored wire and cable for transmitting electrical energy. The manufacture of uninsulated wire is included in the "Wire drawn from purchased rods" industry.

**Statistics for prior census years.**—No statistics, other than those for products, are available for years prior to 1937 for the "Insulated wire and cable" industry. A special tabulation was made of the reports for this industry for 1937 in order to obtain figures comparable with 1939.

TABLE 1.—SUMMARY FOR THE UNITED STATES: 1939 AND 1937

CENSUS YEAR	Number of establishments <sup>1</sup>	Wage earners (average for the year) <sup>2</sup>	Wages	Cost of materials, supplies, fuel, purchased electric energy, and contract work	Value of products	Value added by manufacture <sup>3</sup>	Horse-power of prime movers
1939.....	79	15,696	\$18,637,729	\$70,124,571	\$120,390,050	\$50,265,479	32,215
1937.....	57	16,913	20,683,021	73,170,200	134,633,318	61,463,118	( <sup>4</sup> )

<sup>1</sup> See GENERAL EXPLANATIONS—Definition of establishment.  
<sup>2</sup> See GENERAL EXPLANATIONS—Wage earners and wages.  
<sup>3</sup> Value of products less cost of materials, supplies, fuel, purchased electric energy, and contract work. See GENERAL EXPLANATIONS—Value added by manufacture.  
<sup>4</sup> Not called for on schedule.

TABLE 2.—GENERAL STATISTICS IN DETAIL BY STATES: 1939

[See GENERAL EXPLANATIONS—Disclosure of data for individual establishments]

ITEM	United States	California	Illinois	Indiana	Missouri	New Jersey	New York	Pennsylvania	Rhode Island	Other States <sup>1</sup>
Number of establishments <sup>2</sup> .....	79	6	8	4	4	6	15	6	9	21
Proprietors and firm members.....	15	1	-----	-----	1	-----	7	2	1	3
Persons reported by manufacturing establishments, total <sup>3</sup> .....	19,233	214	587	2,515	142	851	1,751	1,942	1,759	9,472
Salaried officers of corporations <sup>3</sup> .....	118	4	19	4	7	14	16	11	9	34
Manufacturing:										
Salaried employees <sup>3</sup> .....	2,480	28	24	175	30	72	208	159	186	1,598
Wage earners (average for the year) <sup>4</sup> .....	15,696	173	502	2,219	93	736	1,458	1,606	1,497	7,412
Distribution.....	700	5	41	117	12	26	59	160	28	252
Construction.....	126	-----	-----	-----	-----	3	-----	4	39	80
Other.....	113	4	1	-----	-----	-----	10	2	-----	96
Salaries and wages, total <sup>5</sup> .....	\$26,788,368	\$284,419	\$690,000	\$2,682,847	\$188,064	\$1,093,355	\$2,461,392	\$2,784,941	\$1,997,980	\$14,605,370
Salaried officers <sup>5</sup> .....	930,787	23,749	153,475	55,096	36,267	92,418	93,554	94,641	107,350	274,237
Manufacturing:										
Salaries <sup>5</sup> .....	5,497,320	57,435	60,898	281,038	43,249	162,926	367,961	344,082	291,447	3,888,284
Wages.....	18,637,729	183,978	410,676	2,232,622	82,389	782,542	1,898,031	1,938,494	1,478,350	9,630,647
Distribution.....	1,355,695	13,541	64,585	114,091	26,159	48,874	92,069	396,964	72,815	526,597
Construction.....	204,169	-----	-----	-----	-----	6,595	-----	8,960	48,018	140,596
Other.....	162,668	5,716	366	-----	-----	-----	9,777	1,800	-----	145,099
Cost of materials, supplies, containers, fuel, purchased electric energy, and contract work, total.....	70,124,571	758,744	1,205,370	8,050,699	399,714	4,567,165	10,242,279	7,290,391	6,673,632	30,936,577
Materials, supplies, and containers.....	67,898,210	743,643	1,150,016	7,861,350	392,128	4,432,621	9,996,674	7,071,100	6,465,753	29,784,920
Fuel.....	783,776	6,498	19,398	70,072	2,355	70,392	81,163	103,604	41,606	388,688
Purchased electric energy.....	1,061,874	8,078	28,969	119,277	5,231	64,152	164,442	114,623	166,273	390,829
Contract work.....	380,711	520	6,987	-----	-----	-----	-----	1,064	-----	372,140
Value of products.....	120,390,050	1,652,155	2,233,857	12,359,611	799,717	6,574,043	15,008,764	10,544,475	10,661,075	60,655,753
Value added by manufacture <sup>5</sup> .....	50,265,479	893,411	1,028,487	4,308,912	400,003	2,007,478	4,766,485	3,254,084	3,987,443	29,619,176

<sup>1</sup> Connecticut, 8 establishments; Maryland, 1; Massachusetts, 8; Michigan, 1; New Hampshire, 1; Ohio, 2.  
<sup>2</sup> See GENERAL EXPLANATIONS—Definition of establishment.  
<sup>3</sup> See GENERAL EXPLANATIONS—Persons engaged—general classification.  
<sup>4</sup> See GENERAL EXPLANATIONS—Wage earners and wages.  
<sup>5</sup> Value of products less cost of materials, supplies, containers, fuel, purchased electric energy, and contract work. See GENERAL EXPLANATIONS—Value added by manufacture.

TABLE 3.—VALUE OF PRODUCTS FOR THE UNITED STATES: 1939 AND 1937

	1939	1937
Insulated Wire and Cable industry, all products, total value.....	\$120,390,050	\$134,633,318
Insulated wire and cable.....	90,102,454	101,058,540
Miscellaneous products not specified.....	261,053	2,610,097
Receipts for contract and repair work.....	6,446	88,086
Other products (not classified in this industry).....	130,020,097	30,871,595
Insulated wire and cable, aggregate value.....	204,429,884	245,341,635
Insulated wire and cable made in this industry.....	90,102,454	101,058,540
Insulated wire and cable made as secondary products in other industries.....	114,327,430	144,283,095

<sup>1</sup> Value of telephone apparatus, washing machines, switches, switch boxes, wiring devices, conduits.

TABLE 4.—PRODUCTS, BY KIND, AND VALUE, FOR THE UNITED STATES: 1939 AND 1937

PRODUCT	1939				1937
	Produced in the industry	Produced in other industries within the electrical group	Produced in other industries outside the electrical group	Aggregate	
Total value.....	\$90,102,454	\$27,029,349	\$87,298,081	\$204,429,884	\$245,341,635
Rubber insulated:					
Lighting and power circuit—					
Braided.....	19,734,915	271,904	18,747,068	38,753,887	46,991,147
Leaded.....	1,810,453	4,806	3,512,205	5,327,464	14,845,464
Telephone.....	6,584,469		766,749	7,351,218	9,562,309
Flexible cord (rubber insulation, cotton, silk, and rayon covered).....	13,867,609	25,336	2,109,702	16,002,647	19,033,044
Cotton-insulated, including weatherproof and slow-burning.....	1,897,313	1,371,397	17,587,634	20,856,344	22,680,226
Paper-insulated:					
Lighting and power circuit.....	(1)	(1)	(1)	7,710,053	33,420,257
Telephone and telegraph cable (including submarine).....	(1)	(1)	(1)	13,073,422	
Varnished-cambric insulated.....	1,834,857	(1)	(1)	5,796,351	9,140,468
Asbestos.....	2,982,668	103,710	1,390,035	4,476,413	6,529,516
Magnet:					
Cotton, silk and rayon covered.....	1,364,001	927,444	10,679,516	12,970,961	15,515,204
Enamelled.....	1,429,048	2,627,113	8,404,010	12,460,171	14,290,085
Armored cable or conductor.....	7,950,587	1,918,919	3,115,242	12,984,748	8,916,756
Appliance and extension cords, with attachments, complete.....	4,413,996	1,064,997	361,060	5,840,053	4,285,407
Ignition-cable sets or wire assemblies for internal-combustion engines.....	3,037,500	(1)	(1)	7,714,216	13,889,216
All other.....	17,004,662	6,306,991	9,800,283	33,111,936	26,742,536

<sup>1</sup> Figures not shown separately to avoid disclosing, exactly or approximately, data reported by individual establishments.

TABLE 5.—WAGE EARNERS ENGAGED IN MANUFACTURING, BY MONTHS, FOR THE UNITED STATES, 1939 AND 1937, AND BY STATES, 1939

STATE	Average number employed during year	NUMBER RECEIVING PAY DURING NORMAL PAY-ROLL PERIOD ENDED NEAREST 15TH OF MONTH—											
		January	February	March	April	May	June	July	August	September	October	November	December
United States:													
1939.....	15,696	14,767	14,719	13,963	13,660	13,874	14,474	14,599	15,326	16,596	18,675	19,254	18,443
1937.....	16,913	15,811	16,187	16,739	17,351	17,154	16,967	17,139	17,414	18,493	18,584	17,411	13,719
California.....	173	154	162	160	184	168	174	164	161	176	179	191	207
Connecticut.....	4,736	4,167	4,038	3,964	3,829	4,188	4,694	4,691	4,825	5,194	5,922	5,950	5,371
Illinois.....	502	491	494	466	418	448	454	468	481	540	576	599	593
Indiana.....	2,219	2,343	2,386	1,882	1,957	1,958	1,929	1,885	1,799	2,339	2,693	2,759	2,697
Massachusetts.....	715	684	670	690	639	617	638	616	666	708	883	907	865
Missouri.....	93	83	83	85	80	80	83	100	115	111	115	95	86
New Jersey.....	736	720	654	656	622	716	628	701	732	654	865	941	941
New York.....	1,458	1,407	1,413	1,399	1,428	1,399	1,308	1,347	1,407	1,513	1,561	1,654	1,656
Pennsylvania.....	1,606	1,431	1,532	1,478	1,501	1,328	1,533	1,557	1,631	1,650	1,845	1,921	1,865
Rhode Island.....	1,497	1,293	1,334	1,234	1,178	1,240	1,296	1,354	1,541	1,693	1,910	2,010	1,880

TABLE 6.—EXPENDITURES FOR PLANT AND EQUIPMENT: 1939

	1939
Number of establishments:	
Total for the industry.....	79
Reporting expenditures for plant and equipment.....	60
Value of products:	
Total for the industry.....	\$120,390,050
Reporting expenditures for plant and equipment.....	118,764,552
Expenditures for plant and equipment:	
Total for the industry.....	2,594,507
Expenditures for new construction or major alterations of buildings and other fixed plant and structures.....	436,542
Expenditures for new machinery and operating equipment.....	2,058,509
Expenditures for plant and equipment acquired in a "used" condition from other owners and expenditures for land.....	99,456

TABLE 7.—VALUE OF INVENTORIES OF MATERIALS AND FINISHED PRODUCTS, AND VALUE OF PRODUCTS: 1939 AND 1937

	1939	1937
Inventories:		
Beginning of year, total.....	\$30,023,281	\$23,238,334
Finished products.....	15,857,623	10,229,873
Materials, supplies, etc.....	14,165,658	13,008,461
End of year, total.....	32,167,551	34,649,455
Finished products.....	14,723,066	17,440,942
Materials, supplies, etc.....	17,444,485	17,208,513
Value of products for the industry, total.....	120,390,050	134,633,318
Value for establishments reporting inventories (includes value of products of establishments reporting no inventories on hand).....	120,390,050	130,463,492
Value for establishments not reporting inventories.....		4,169,826

TABLE 8.—PRIME MOVERS, MOTORS, GENERATORS, AND ELECTRIC ENERGY: 1939

	1939
Number of establishments.....	79
Number of establishments reporting power equipment.....	75
Prime movers, aggregate:	
Number.....	25
Horsepower.....	32,215
Prime movers, driving generators, total—	
Number.....	15
Horsepower.....	31,880

TABLE 8.—PRIME MOVERS, MOTORS, GENERATORS, AND ELECTRIC ENERGY: 1939—Continued

	1939
Prime movers—Continued.	
Prime movers, driving generators—Continued.	
Steam engines—	
Number.....	4
Horsepower.....	1,003
Steam turbines—	
Number.....	6
Horsepower.....	30,510
Diesel and semi-Diesel engines—	
Number.....	1
Horsepower.....	180
Other internal-combustion engines <sup>1</sup> —	
Number.....	1
Horsepower.....	2
Hydroturbines and water wheels—	
Number.....	3
Horsepower.....	185
Prime movers, driving generators, ordinarily idle (included above), horsepower.....	725
Prime movers not driving generators, total—	
Number.....	10
Horsepower.....	335
Steam engines—	
Number.....	8
Horsepower.....	235
Steam turbines—	
Number.....	1
Horsepower.....	60
Diesel and semi-Diesel engines—	
Number.....	1
Horsepower.....	40
Prime movers not driving generators, ordinarily idle (included above), horsepower.....	30
Generators, kilowatt rating, total.....	21,243
Generators, driven by—	
Steam engines, kilowatt rating.....	625
Steam turbines, kilowatt rating.....	20,337
Diesel and semi-Diesel engines, kilowatt rating.....	120
Other internal-combustion engines, <sup>1</sup> kilowatt rating.....	1
Hydroturbines and water wheels, kilowatt rating.....	160
Generators, ordinarily idle (included above), kilowatt rating.....	495
Electric motors, total:	
Number.....	15,820
Horsepower.....	94,413
Driven by purchased energy—	
Number.....	11,360
Horsepower.....	75,819
Driven by energy generated in establishments reporting—	
Number.....	4,460
Horsepower.....	18,594
Electric energy (kilowatt-hours):	
Generated in plant.....	31,402,900
Sold.....	1,475,200
Purchased.....	80,616,362

<sup>1</sup> Gas, gasoline, etc.

# AUTOMOTIVE ELECTRICAL EQUIPMENT

[A preliminary report for this industry was issued October 17, 1940]

**Description of the industry.**—The establishments classified in this industry are engaged primarily in the manufacture of automotive electrical equipment such as ignition apparatus, spark plugs, starters, generators, etc.

**Statistics for prior census years.**—No statistics, other than those for products, are available for years prior to 1937 for the "Automotive electrical equipment" industry. A special tabulation was made of the reports for this industry for 1937 in order to obtain figures comparable with 1939.

**TABLE 1.—SUMMARY FOR THE UNITED STATES: 1939 AND 1937**

CENSUS YEAR	Number of establishments <sup>1</sup>	Wage earners (average for the year) <sup>2</sup>	Wages	Cost of materials, supplies, fuel, purchased electric energy, and contract work	Value of products	Value added by manufacture <sup>3</sup>	Horsepower of prime movers
1939.....	84	17,495	\$24,896,474	\$42,040,931	\$109,761,620	\$67,720,689	19,794
1937.....	61	23,103	\$2,899,301	\$1,394,712	\$137,711,837	\$76,317,125	( <sup>4</sup> )

<sup>1</sup> See GENERAL EXPLANATIONS—Definition of establishment.

<sup>2</sup> See GENERAL EXPLANATIONS—Wage earners and wages.

<sup>3</sup> Value of products less cost of materials, supplies, fuel, purchased electric energy, and cost of contract work. See GENERAL EXPLANATIONS—Value added by manufacture.

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

**TABLE 2.—GENERAL STATISTICS IN DETAIL BY STATES: 1939**

[See GENERAL EXPLANATIONS—Disclosure of data for individual establishments]

ITEM	United States	Illinois	New Jersey	New York	Wisconsin	Other States <sup>1</sup>
Number of establishments <sup>2</sup> .....	84	12	8	14	3	47
Proprietors and firm members.....	24	8	1	1		14
Persons reported by manufacturing establishments, total <sup>3</sup> .....	20,977	571	370	2,080	276	17,680
Salaried officers of corporations <sup>4</sup> .....	100	17	15	20	3	45
Manufacturing:						
Salaried employees <sup>5</sup> .....	2,755	95	42	327	43	2,248
Wage earners (average for the year) <sup>6</sup> .....	17,495	389	270	1,631	206	14,999
Distribution.....	546	65	35	96	24	326
Construction.....	6	3		3		
Other.....	75	2	8	3		62
Salaries and wages, total <sup>7</sup> .....	\$32,556,000	\$816,397	\$526,717	\$2,851,425	\$277,071	\$28,084,390
Salaried officers <sup>8</sup> .....	628,471	88,486	58,647	158,786	24,623	297,929
Manufacturing:						
Salaries <sup>9</sup> .....	5,880,841	154,131	82,556	589,391	64,900	4,989,863
Wages.....	24,896,474	456,556	297,795	1,891,103	142,220	22,108,800
Distribution.....	1,009,633	110,495	63,060	203,545	45,328	587,205
Construction.....	9,349	4,649		4,700		
Other.....	131,232	2,080	24,659	3,900		100,593
Cost of materials, supplies, containers, fuel, purchased electric energy, and contract work, total.....	42,040,931	1,608,116	536,369	3,233,833	406,883	36,255,730
Materials, supplies, and containers.....	40,569,713	1,518,324	513,227	3,130,860	396,489	35,010,813
Fuel.....	636,702	23,248	6,519	17,713	3,743	585,479
Purchased electric energy.....	740,416	44,469	16,623	64,497	6,651	608,176
Contract work.....	94,100	22,075		20,763		51,262
Value of products.....	109,761,620	3,097,411	1,241,668	7,762,575	794,489	96,865,477
Value added by manufacture <sup>10</sup> .....	67,720,689	1,489,295	705,299	4,528,742	387,606	60,609,747

<sup>1</sup> California, 2 establishments; Connecticut, 1; Indiana, 4; Massachusetts, 3; Michigan, 7; Minnesota, 1; Missouri, 3; Nebraska, 1; Ohio, 16; Pennsylvania, 6; Rhode Island, 1; Texas, 1; Vermont, 1.

<sup>2</sup> See GENERAL EXPLANATIONS—Definition of establishment.

<sup>3</sup> See GENERAL EXPLANATIONS—Persons engaged—general classification.

<sup>4</sup> See GENERAL EXPLANATIONS—Wage earners and wages.

<sup>5</sup> Value of products less cost of materials, supplies, containers, fuel, purchased electric energy, and contract work. See GENERAL EXPLANATIONS—Value added by manufacture.

**TABLE 3.—VALUE OF PRODUCTS, FOR THE UNITED STATES: 1939 AND 1937**

	1939	1937
Automotive Electrical Equipment industry, all products, total value.....	\$109,761,620	\$137,711,837
Automotive electrical equipment made in the industry.....	88,666,821	97,196,170
Miscellaneous products not specified.....	877,588	720,149
Receipts for contract and repair work.....	340,020	1,588,773
Other products (not classified in this industry).....	19,877,191	38,206,745
Automotive electrical equipment, aggregate value.....	106,634,406	114,149,355
Automotive electrical equipment made in this industry.....	88,666,821	97,196,170
Automotive electrical equipment made as secondary products in other industries.....	17,967,585	16,953,185

<sup>1</sup> Value of fractional horsepower motors, insulated wire and cable, automotive switches, electric locomotives, klaxon horns.

CENSUS OF MANUFACTURES: 1939

TABLE 4.—PRODUCTS, BY KIND, QUANTITY, AND VALUE, FOR THE UNITED STATES: 1939 AND 1937

PRODUCT	1939				1937
	Produced in the industry	Produced in other industries within the electrical group	Produced in other industries outside the electrical group	Aggregate	
Total value.....	\$88,666,821	\$7,570,675	\$10,396,910	\$106,634,406	\$114,149,355
Automotive electrical equipment:					
Automotive generators for battery charging (not including automotive starter-motors), value.....	(1)	(1)	(1)	\$14,948,913	\$22,359,248
Automotive starter-motors (not including vehicle motors or control switches).....	\$17,765,319	\$3,424,304	\$768,664	\$21,958,287	\$33,589,524
Railway motors and control equipment.....					
Motors, generators, and control equipment for gasoline-electric and oil-electric buses, trucks, and locomotives, and for storage battery trucks.....					
Ignition apparatus for internal-combustion engines—					
Coils—					
Number reported—					
Number.....	7,275,929	(1)	(1)	8,486,518	5,726,941
Value.....	\$5,174,446	(1)	(1)	\$5,850,326	\$6,115,784
Number not reported, value.....	\$426,048	\$213,659		\$639,707	\$1,854,561
Magnetos—					
Number.....	372,993	(1)	(1)	503,441	514,315
Value.....	\$5,448,506	(1)	(1)	\$7,168,386	\$6,818,406
Spark plugs—					
Number.....	76,927,161	(1)	(1)	118,404,150	109,963,509
Value.....	\$17,561,224	(1)	(1)	\$24,347,200	\$22,507,352
Distributors (timers), value.....	(1)		(1)	\$7,251,739	\$10,488,500
All other, including magneto generators, value.....	\$22,776,148	\$1,684,658	\$109,042	\$24,469,848	\$10,416,030

1 Figures not shown separately to avoid disclosing, exactly or approximately, data reported by individual establishments.

TABLE 5.—WAGE EARNERS ENGAGED IN MANUFACTURING, BY MONTHS, FOR THE UNITED STATES, 1939 AND 1937, AND BY STATES, 1939

STATE	Average number employed during year	NUMBER RECEIVING PAY DURING NORMAL PAY-ROLL PERIOD ENDED NEAREST 15TH OF MONTH—											
		January	February	March	April	May	June	July	August	September	October	November	December
United States:													
1939.....	17,495	17,217	17,110	16,738	16,768	16,753	16,526	16,041	16,797	18,032	19,210	18,306	20,437
1937.....	23,163	18,441	23,931	23,865	23,347	24,547	24,085	23,826	24,180	24,701	23,990	21,974	20,345
Illinois.....	389	356	362	356	379	381	381	391	380	389	436	434	417
Indiana.....	6,246	6,457	6,322	6,316	6,132	6,079	6,046	5,740	5,960	6,067	6,292	6,612	6,929
Massachusetts.....	1,021	863	934	937	975	1,025	989	982	919	929	1,039	1,258	1,396
Michigan.....	826	808	781	797	810	801	813	791	617	756	964	979	993
Missouri.....	95	79	99	86	86	76	97	94	92	120	125	92	91
New Jersey.....	270	261	260	261	262	262	263	265	279	259	275	292	305
New York.....	1,631	1,260	1,421	1,491	1,496	1,565	1,658	1,680	1,702	1,662	1,811	1,851	1,977
Ohio.....	4,879	5,171	5,011	4,557	4,659	4,613	4,387	4,213	4,854	5,726	5,858	4,093	5,410
Pennsylvania.....	1,830	1,676	1,634	1,647	1,644	1,637	1,599	1,614	1,681	1,783	2,057	2,353	2,633
Wisconsin.....	206	189	192	197	226	217	198	165	208	233	232	230	186

**AUTOMOTIVE ELECTRICAL EQUIPMENT**

**TABLE 6.—EXPENDITURES FOR PLANT AND EQUIPMENT: 1939**

	1939
Number of establishments:	
Total for the industry.....	84
Reporting expenditures for plant and equipment.....	47
Value of products:	
Total for the industry.....	\$109,761,620
Reporting expenditures for plant and equipment.....	105,682,477
Expenditures for plant and equipment:	
Total for the industry.....	2,676,894
Expenditures for new construction or major alterations of buildings and other fixed plant and structures.....	200,381
Expenditures for new machinery and operating equipment.....	2,449,157
Expenditures for plant and equipment acquired in a "used" condition from other owners and expenditures for land.....	27,356

**TABLE 7.—VALUE OF INVENTORIES OF MATERIALS AND FINISHED PRODUCTS, AND VALUE OF PRODUCTS: 1939 AND 1937**

	1939	1937
Inventories:		
Beginning of year, total.....	\$18,342,492	\$18,620,829
Finished products.....	6,321,699	6,910,680
Materials, supplies, etc.....	12,020,793	11,710,149
End of year, total.....	23,569,003	26,830,341
Finished products.....	5,433,397	10,682,396
Materials, supplies, etc.....	18,135,606	16,147,945
Value of products for the industry, total.....	109,761,620	137,711,837
Value for establishments reporting inventories (includes value of products of establishments reporting no inventories on hand).....	109,761,620	137,690,249
Value for establishments not reporting inventories.....		21,588

**TABLE 8.—PRIME MOVERS, MOTORS, GENERATORS, AND ELECTRIC ENERGY: 1939**

	1939
Number of establishments.....	84
Number of establishments reporting power equipment.....	84
Prime movers, aggregate:	
Number.....	13
Horsepower.....	19,794
Prime movers, driving generators, total—	
Number.....	9
Horsepower.....	18,594
Steam turbines—	
Number.....	3
Horsepower.....	15,415
Diesel and semi-Diesel engines—	
Number.....	1
Horsepower.....	40
Other internal-combustion engines <sup>1</sup> —	
Number.....	1
Horsepower.....	160
Hydroturbines and water wheels—	
Number.....	4
Horsepower.....	2,979
Prime movers, driving generators, ordinarily idle (included above), horsepower.....	3,476
Prime movers not driving generators, (steam engines)—	
Number.....	4
Horsepower.....	1,200
Generators, kilowatt rating, total.....	13,831
Generators, driven by—	
Steam turbines, kilowatt rating.....	11,500
Diesel and semi-Diesel engines, kilowatt rating.....	25
Other internal-combustion engines, <sup>1</sup> kilowatt rating.....	100
Hydroturbines and water wheels, kilowatt rating.....	2,208
Generators, ordinarily idle (included above), kilowatt rating.....	2,580
Electric motors, total:	
Number.....	22,251
Horsepower.....	105,723
Driven by purchased energy—	
Number.....	17,184
Horsepower.....	54,652
Driven by energy generated in establishments reporting—	
Number.....	5,067
Horsepower.....	51,071
Electric energy (kilowatt-hours):	
Generated in plant.....	44,679,181
Sold.....	28,283,262
Purchased.....	56,653,675

<sup>1</sup> Gas, gasoline, etc.

## ELECTRIC LAMPS

[A preliminary report for this industry was issued September 11, 1940]

**Description of the industry.**—The establishments classified in this industry are engaged primarily in the manufacture of incandescent filament, vapor, photo-flood, and photoflash lamps. The term "lamps," as used in this report, refers to the items commonly known as bulbs or tubes. Lighting fixtures such as household lamps, lanterns, headlights, searchlights, floodlights, etc., are included in the "Lighting fixtures" industry.

**Statistics for prior census years.**—No statistics, other than those for products, are available, for years prior to 1937 for the "Electric lamps" industry. A special tabulation was made of the reports for 1937 in order to obtain figures comparable with 1939.

**TABLE 1.—SUMMARY FOR THE UNITED STATES: 1939 AND 1937**

CENSUS YEAR	Number of establishments <sup>1</sup>	Wage earners (average for the year) <sup>2</sup>	Wages	Cost of materials, supplies, fuel, purchased electric energy, and contract work	Value of products	Value added by manufacture <sup>3</sup>	Horse-power of prime movers
1939.....	55	9,622	\$10,689,019	\$28,571,141	\$84,827,985	\$56,256,844	550
1937.....	41	8,984	10,163,343	26,190,196	82,538,153	56,347,957	( <sup>4</sup> )

<sup>1</sup> See GENERAL EXPLANATIONS—Definition of establishment.  
<sup>2</sup> See GENERAL EXPLANATIONS—Wage earners and wages.  
<sup>3</sup> Value of products less cost of materials, supplies, fuel, purchased electric energy, and contract work. See GENERAL EXPLANATIONS—Value added by manufacture.  
<sup>4</sup> Not called for on schedule.

**TABLE 2.—GENERAL STATISTICS IN DETAIL BY STATES: 1939**  
 [See GENERAL EXPLANATIONS—Disclosure of data for individual establishments]

ITEM	United States	Illinois	Massachusetts	New Jersey	Other States <sup>1</sup>
Number of establishments <sup>2</sup> .....	55	4	5	21	25
Proprietors and firm members.....	7	—	—	3	4
Persons reported by manufacturing establishments, total.....	11,587	166	1,003	6,063	4,355
Salaried officers of corporations <sup>3</sup> .....	49	4	4	26	15
Manufacturing:					
Salaried employees <sup>3</sup> .....	1,364	13	178	805	368
Wage earners (average for the year) <sup>4</sup> .....	9,622	140	766	4,822	3,894

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**TABLE 2.—GENERAL STATISTICS IN DETAIL BY STATES: 1939—Continued**

Item	United States	Illinois	Massachusetts	New Jersey	Other States <sup>1</sup>
Persons reported by manufacturing establishments—Con.					
Distribution.....	491	5	55	374	57
Construction.....	45	4	—	36	5
Other.....	16	—	—	—	16
Salaries and wages, total <sup>2</sup> .....	\$15,309,066	\$188,192	\$1,294,524	\$8,516,135	\$5,310,215
Salaried officers <sup>3</sup> .....	370,701	26,800	39,519	197,545	106,837
Manufacturing:					
Salaries.....	3,119,529	25,181	363,635	1,856,751	873,962
Wages.....	10,689,019	117,034	768,335	5,608,920	4,194,730
Distribution.....	1,025,974	12,661	123,035	767,714	122,564
Construction.....	97,001	6,616	—	85,205	5,280
Other.....	6,842	—	—	—	6,842
Cost of materials, supplies, containers, fuel, purchased electric energy, and contract work, total.....	28,571,141	175,262	2,824,271	10,259,057	15,312,551
Materials, supplies, and containers.....	27,535,078	167,178	2,710,492	9,756,168	14,901,240
Fuel.....	376,926	2,216	42,329	159,840	172,541
Purchased electric energy.....	628,023	5,868	69,627	313,758	238,770
Contract work.....	31,114	—	1,823	20,291	—
Value of products.....	\$4,827,985	452,661	6,793,667	32,547,781	45,063,876
Value added by manufacture <sup>4</sup> .....	56,256,844	277,399	3,969,396	22,288,724	29,721,325

<sup>1</sup> California, 1 establishment; Indiana, 1; Kentucky, 1; Missouri, 2; New York, 9; Ohio, 8; Pennsylvania, 3.  
<sup>2</sup> See GENERAL EXPLANATIONS—Definition of establishments.  
<sup>3</sup> See GENERAL EXPLANATIONS—Persons engaged—general classification.  
<sup>4</sup> See GENERAL EXPLANATIONS—Wage earners and wages.  
<sup>5</sup> Value of products less cost of materials, supplies, containers, fuel, purchased electric energy, and contract work. See GENERAL EXPLANATIONS—Value added by manufacture.

**TABLE 3.—VALUE OF PRODUCTS FOR THE UNITED STATES: 1939 AND 1937**

	1939	1937
Electric Lamps industry, all products, total value.....	\$84,827,985	\$82,538,153
Electric lamps made in the industry.....	78,674,080	77,146,371
Other products (not classified in this industry) <sup>1</sup> .....	6,153,905	5,391,782
Electric lamps, aggregate value.....	79,303,644	77,891,415
Electric lamps made in this industry.....	78,674,080	77,146,371
Electric lamps made as secondary products in other industries.....	629,564	745,044

<sup>1</sup> Value of coils for incandescent lamps, industrial lighting fixtures, radio receiving tubes, X-ray tubes, ultraviolet health lamps, mercury pool lamps.

TABLE 4.—PRODUCTS, BY KIND, QUANTITY, AND VALUE, FOR THE UNITED STATES: 1939 AND 1937

PRODUCT	1939			Aggregate	1937
	Produced in the industry	Produced in other industries within the electrical group	Produced in other industries outside the electrical group		
Total value.....	\$78,674,080	\$568,915	\$60,649	\$79,303,644	\$77,891,415
Electric lamps (not including sockets and other fittings):					
Incandescent-filament lamps—					
Large tungsten—					
Number.....	516,656,048	5,000		516,661,048	500,534,548
Value.....	\$58,378,740	\$1,000		\$58,379,740	\$59,140,140
Miniature tungsten—					
Motor-vehicle—					
Number.....	136,553,456			136,553,456	176,356,972
Value.....	\$7,240,976			\$7,240,976	\$8,822,490
Christmas-tree, flashlight, and miscellaneous miniature tungsten lamps, value.....	(1)	(1)	(1)	\$7,105,175	\$5,961,389
Carbon—					
Number.....	(1)	(1)	(1)	1,639,015	2,322,098
Value.....	(1)	(1)	(1)	\$392,638	\$379,598
Vapor and photoflash lamps, value.....	\$5,321,689	\$7,860	\$29,615	\$5,359,164	
Photohood lamps:					
Number.....	1,885,793			1,885,793	2,587,798
Value.....	\$340,440			\$340,440	
Other lamps, value.....	\$354,951	\$114,371	\$16,189	\$485,511	

<sup>1</sup> Figures not shown separately to avoid disclosing, exactly or approximately, data reported by individual establishments.

<sup>2</sup> Combined to avoid disclosing, exactly or approximately, production reported by individual establishments.

TABLE 5.—WAGE EARNERS ENGAGED IN MANUFACTURING, BY MONTHS, FOR THE UNITED STATES, 1939 AND 1937, AND BY STATES, 1939

STATE	Average number employed during year	NUMBER RECEIVING PAY DURING NORMAL PAY-ROLL PERIOD ENDED NEAREST 15TH OF MONTH—											
		January	February	March	April	May	June	July	August	September	October	November	December
United States:													
1939.....	9,622	8,796	9,081	9,420	9,351	9,340	9,472	7,244	9,796	10,227	10,609	11,069	11,057
1937.....	8,984	8,808	8,780	8,860	9,004	9,030	9,088	9,043	9,159	9,319	9,185	8,970	8,563
Illinois.....	140	122	125	127	131	132	140	141	147	145	153	171	149
Massachusetts.....	766	639	654	687	697	714	737	750	791	799	808	912	1,008
New Jersey.....	4,822	4,654	4,825	4,915	4,896	4,831	4,841	2,573	4,944	5,176	5,310	5,444	5,449
New York.....	738	656	665	682	658	659	690	693	732	833	859	895	828
Ohio.....	2,575	2,164	2,241	2,434	2,387	2,428	2,487	2,512	2,597	2,687	2,886	3,055	3,019
Pennsylvania.....	144	119	122	127	133	145	149	140	151	152	161	162	168

TABLE 6.—EXPENDITURES FOR PLANT AND EQUIPMENT: 1939

	1939
Number of establishments:	
Total for the industry.....	55
Reporting expenditures for plant and equipment.....	38
Value of products:	
Total for the industry.....	\$84,827,985
Reporting expenditures for plant and equipment.....	83,488,824
Expenditures for plant and equipment:	
Total for the industry.....	2,646,550
Expenditures for new construction or major alterations of buildings and other fixed plant and structures.....	185,410
Expenditures for new machinery and operating equipment.....	2,450,327
Expenditures for plant and equipment acquired in a "used" condition from other owners and expenditures for land.....	10,813

TABLE 7.—VALUE OF INVENTORIES OF MATERIALS AND FINISHED PRODUCTS, AND VALUE OF PRODUCTS: 1939 AND 1937—Con.

	1939	1937
Value of products for the industry, total.....	\$84,827,985	\$82,538,153
Value for establishments reporting inventories (includes value of products of establishments reporting no inventories on hand).....	84,827,985	82,491,197
Value for establishments not reporting inventories.....		46,956

TABLE 8.—PRIME MOVERS, MOTORS, GENERATORS, AND ELECTRIC ENERGY: 1939

	1939
Number of establishments.....	55
Number of establishments reporting power equipment.....	50
Prime movers, steam engines, driving generators:	
Number.....	1
Horsepower.....	550
Prime movers, driving generators, ordinarily idle (included above), horsepower.....	550
Generators (ordinarily idle), kilowatt rating.....	337
Electric motors, driven by purchased energy:	
Number.....	16,214
Horsepower.....	21,414
Electric energy purchased (kilowatt-hours).....	48,046,567

TABLE 7.—VALUE OF INVENTORIES OF MATERIALS AND FINISHED PRODUCTS, AND VALUE OF PRODUCTS: 1939 AND 1937

	1939	1937
Inventories:		
Beginning of year, total.....	\$8,000,001	\$6,374,020
Finished products.....	4,106,351	3,627,998
Materials, supplies, etc.....	3,893,650	2,746,022
End of year, total.....	8,766,436	8,388,670
Finished products.....	4,146,082	5,029,545
Materials, supplies, etc.....	4,620,354	3,359,125

# RADIOS, RADIO TUBES, AND PHONOGRAPHS

[A preliminary report for this industry was issued December 19, 1940]

**Description of the industry.**—The establishments classified in this industry are engaged primarily in the manufacture of radio receiving sets, radio transmitters, television sets, radio receiving and transmitting tubes, phonographs, and accessories.

**Statistics for prior census years.**—No statistics, other than those for products, are available for years prior to 1931 for the "Radios, radio tubes, and phonographs" industry. This industry was first established as a separate industry at the census for 1931. Prior to that time, phonographs were classified as a separate industry, while radios and radio tubes were included as a part of the "Electrical machinery, apparatus, and supplies" industry.

TABLE 1.—SUMMARY FOR THE UNITED STATES: 1931 TO 1939

CENSUS YEAR	Number of establishments <sup>1</sup>	Wage earners (average for the year) <sup>2</sup>	Wages	Cost of materials, supplies, fuel, purchased electric energy, and contract work	Value of products	Value added by manufacture <sup>3</sup>	Horse-power of prime movers
1939-----	224	43,508	\$47,025,658	\$145,850,163	\$275,870,165	\$130,020,002	23,354
1937-----	162	48,343	52,001,898	154,905,616	277,807,140	122,901,624	(4)
1935-----	196	44,796	42,906,018	103,686,049	200,972,523	97,286,474	(6)
1933-----	156	32,879	29,654,376	88,402,858	121,801,611	63,281,024	(4)
1931-----	217	36,490	35,145,577	88,402,858	193,142,845	104,739,987	(4)

<sup>1</sup> See GENERAL EXPLANATIONS—Definition of establishment.

<sup>2</sup> See GENERAL EXPLANATIONS—Wage earners and wages.

<sup>3</sup> Value of products less cost of materials, supplies, fuel, purchased electric energy, and contract work. Contract work not included prior to 1935. See GENERAL EXPLANATIONS—Value added by manufacture.

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

<sup>5</sup> Data not available.

TABLE 2.—GENERAL STATISTICS IN DETAIL BY STATES: 1939

[See GENERAL EXPLANATIONS—Disclosure of data for individual establishments]

ITEM	United States	California	Illinois	Indiana	Massachusetts	Michigan	Minnesota	New York	Ohio	Washington	Other States <sup>1</sup>
Number of establishments <sup>2</sup> .....	224	32	41	9	9	6	4	64	10	4	45
Proprietors and firm members.....	62	14	11	-----	-----	-----	-----	24	3	-----	10
Persons reported by manufacturing establishments, total <sup>3</sup> .....	55,924	827	12,326	3,690	3,286	1,125	139	6,458	2,354	20	25,699
Salaried officers of corporations <sup>4</sup> .....	361	28	74	13	16	12	7	91	18	3	99
Manufacturing:											
Salaried employees <sup>5</sup> .....	7,391	101	1,269	610	310	107	8	1,016	224	3	3,743
Wage earners (average for the year) <sup>4</sup> .....	43,508	620	10,353	2,893	2,824	879	107	4,873	1,936	11	19,012
Distribution.....	3,901	76	550	174	68	124	17	434	158	3	2,297
Construction.....	640	2	47	-----	64	3	-----	28	6	-----	490
Other.....	123	-----	33	-----	4	-----	-----	16	12	-----	58
Salaries and wages, total <sup>5</sup> .....	\$75,606,501	\$1,171,080	\$14,653,391	\$4,481,812	\$3,418,897	\$1,346,244	\$136,420	\$9,037,702	\$2,565,553	\$33,163	\$38,762,239
Salaried officers <sup>3</sup> .....	3,013,462	123,095	688,415	143,546	132,403	64,351	18,977	712,873	96,211	8,250	1,025,341
Manufacturing:											
Salaries <sup>3</sup> .....	14,836,322	170,042	2,415,823	1,049,252	576,748	177,064	13,611	1,893,626	361,066	5,164	8,173,926
Wages.....	47,025,658	744,433	10,103,532	2,923,029	2,418,368	864,578	79,619	5,652,620	1,840,275	13,370	22,385,834
Distribution.....	9,435,495	130,058	1,344,706	365,985	160,962	237,593	24,213	715,172	244,185	6,379	6,206,242
Construction.....	1,119,052	3,452	67,530	-----	126,100	2,658	-----	44,801	9,216	-----	875,295
Other.....	176,512	-----	43,385	-----	4,316	-----	-----	18,610	14,600	-----	95,601
Cost of materials, supplies, containers, fuel, purchased electric energy, and contract work, total.....	\$145,850,163	\$3,135,425	\$46,047,152	\$11,222,136	\$3,793,014	\$3,749,608	\$360,769	\$22,239,236	\$6,895,882	\$32,780	\$47,474,161
Materials, supplies, and containers.....	142,915,417	2,920,131	46,650,043	11,008,108	3,647,067	3,696,018	342,611	21,172,935	6,832,266	31,390	46,614,798
Fuel.....	723,182	8,916	78,949	63,005	43,982	14,897	2,237	86,657	36,581	525	387,433
Purchased electric energy.....	1,117,375	19,433	208,594	132,291	93,106	24,956	3,921	154,508	24,035	865	455,666
Contract work.....	1,094,189	136,895	9,566	18,732	8,859	13,737	12,000	825,136	3,000	-----	16,264
Value of products.....	\$275,870,165	\$5,534,773	\$74,654,751	\$17,422,539	\$9,209,244	\$6,539,938	\$589,286	\$40,995,021	\$11,435,027	\$81,099	\$109,378,487
Value added by manufacture <sup>4</sup> .....	130,020,002	2,399,348	27,737,599	6,200,403	5,416,230	2,790,330	228,517	18,755,785	4,539,145	48,319	61,904,326

<sup>1</sup> Connecticut, 6 establishments; Florida, 2; Iowa, 2; Kansas, 1; Kentucky, 1; Maryland, 2; Missouri, 2; Nebraska, 2; New Jersey, 17; Oregon, 1; Pennsylvania, 4; Rhode Island, 2; Texas, 1; Wisconsin, 2.

<sup>2</sup> See GENERAL EXPLANATIONS—Definition of establishment.

<sup>3</sup> See GENERAL EXPLANATIONS—Persons engaged—general classification.

<sup>4</sup> See GENERAL EXPLANATIONS—Wage earners and wages.

<sup>5</sup> Value of products less cost of materials, supplies, containers, fuel, purchased electric energy, and contract work. See GENERAL EXPLANATIONS—Value added by manufacture.

TABLE 3.—VALUE OF PRODUCTS, FOR THE UNITED STATES: 1939 AND 1937

	1939	1937
Radios, Radio Tubes, and Phonographs industry, all products, total value.....	\$275,870,165	\$277,807,140
Radios, radio tubes, and phonographs made in this industry.....	264,030,370	260,984,593
Miscellaneous products not specified.....	340,988	717,487
Receipts for contract and repair work.....	515,104	607,745
Other products (not classified in this industry).....	110,983,703	15,597,315
Radios, radio tubes, and phonographs, aggregate value.....	284,476,109	288,619,884
Radios, radio tubes, and phonographs made in this industry.....	264,030,370	260,984,593
Radios, radio tubes, and phonographs made as secondary products in other industries.....	20,445,739	27,635,291

<sup>1</sup> Value of condensers, electronic tubes, coin-operated games, cameras, photophone equipment, and telephone apparatus.

# RADIOS, RADIO TUBES, AND PHONOGRAPHS

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TABLE 4.—PRODUCTS, BY KIND, QUANTITY, AND VALUE, FOR THE UNITED STATES: 1939 AND 1937

PRODUCT	1939				1937
	Produced in the industry	Produced in other industries within the electrical group	Produced in other industries outside the electrical group	Aggregate	
Total value.....	\$264,030,370	\$2,876,400	\$17,569,339	\$284,476,109	\$288,619,884
Receiving sets, complete (cabinet, chassis, speaker, and tubes): For home and general use (except radio-phonograph combinations and audio-tele- vision)—					
Consoles, number.....	1,185,933		104,591	1,291,088	1,612,378
Table models, number.....	6,644,375	(1) 564	(1)	6,965,162	4,231,191
Covering standard broadcast band—					
Socket-power-operated—					
Factory price not over \$11—					
Number.....	3,635,984			3,635,984	916,720
Value.....	\$26,024,130			\$26,024,130	\$6,702,504
Over \$11 but not over \$18—					
Number.....	428,077		141	428,218	666,702
Value.....	\$5,503,446	\$1,959		\$5,505,405	\$8,877,070
Over \$18 but not over \$30—					
Number.....	116,282			116,282	294,663
Value.....	\$2,730,865			\$2,730,865	\$6,682,158
Over \$30 but not over \$45—					
Number.....	23,762			23,762	
Value.....	\$884,844			\$884,844	
Over \$45—					
Number.....	3,463	(1)	(1)	4,368	167,188
Value.....	\$206,351	(1)	(1)	\$290,837	\$7,267,449
Battery-operated (excluding batteries)—					
Factory price not over \$11—					
Number.....	242,943			242,943	54,183
Value.....	\$2,134,392			\$2,134,392	\$571,622
Over \$11 but not over \$18—					
Number.....	377,140			377,140	119,787
Value.....	\$4,954,263			\$4,954,263	\$1,591,455
Over \$18 but not over \$30—					
Number.....	32,283			32,283	50,044
Value.....	\$665,075			\$665,075	\$1,033,579
Over \$30—					
Number.....					11,035
Value.....					\$468,196
Portable sets, all price classes—					
Number.....	500,369			500,369	(1)
Value.....	\$5,228,618			\$5,228,618	(2)
Extending beyond standard broadcast band—					
Socket-power-operated—					
Factory price not over \$18—					
Number.....	(1)		(1)	1,260,473	1,192,725
Value.....	(1)		(1)	\$14,082,843	\$14,086,013
Over \$18 but not over \$30—					
Number.....	(1)		(1)	647,599	820,083
Value.....	(1)		(1)	\$15,350,894	\$18,677,625
Over \$30 but not over \$45—					
Number.....	(1)		(1)	700,337	827,954
Value.....	(1)		(1)	\$25,821,589	\$30,053,486
Over \$45 but not over \$65—					
Number.....	48,618		307	48,925	319,058
Value.....	\$2,581,950		15,103	\$2,597,053	\$17,166,136
Over \$65—					
Number.....	25,366			25,366	130,263
Value.....	\$2,471,914			\$2,471,914	\$11,489,152
Battery-operated (excluding batteries)—					
Factory price not over \$18—					
Number.....	(1)		(1)	49,912	43,272
Value.....	(1)		(1)	\$692,182	\$656,020
Over \$18 but not over \$30—					
Number.....	29,571			29,571	162,408
Value.....	\$678,783			\$678,783	\$3,827,670
Over \$30—					
Number.....	(1)		(1)	132,718	67,484
Value.....	(1)		(1)	\$1,733,962	\$2,376,033
Portable sets, all price classes.....	(1)		(1)		(2)
Radio-phonograph combinations—					
Factory price not over \$50—					
Number.....	(1)		(1)	380,107	24,977
Value.....	(1)		(1)	\$8,567,371	\$855,008
Over \$50 but not over \$150—					
Number.....	(1)		(1)	109,062	29,144
Value.....	(1)		(1)	\$7,368,328	\$2,551,775
Over \$150—					
Number.....	5,654			5,654	3,686
Value.....	\$1,257,709			\$1,257,709	\$1,160,559
Automobile sets, including all accessory equipment—					
For general use—					
Number.....	1,582,785			1,582,785	1,884,572
Value.....	\$27,443,528			\$27,443,528	\$38,303,872
For police use—					
Number.....	4,212		230	4,442	6,269
Value.....	\$222,458		\$49,893	\$272,351	\$375,273
Aircraft sets, including all accessory equipment except batteries, value.....	(1)		(1)	\$1,260,476	\$1,133,795
Television sets or kits, complete, with or without audio assembly and facsimile sets—					
Number.....	2,981		1,110	4,091	(2)
Value.....	\$560,968		\$244,662	\$805,630	(2)
Commercial receiving sets—					
Number.....	(1)		(1)	30,474	* 10,182
Value.....	(1)		(1)	\$1,402,793	* \$607,057
All other receiving sets (not specified above) and central receivers for simultaneously servicing numerous outlets, value.....	\$629,435	(1)	(1)	\$1,165,243	\$221,987

See footnotes at end of table.

TABLE 4.—PRODUCTS, BY KIND, QUANTITY, AND VALUE, FOR THE UNITED STATES: 1939 AND 1937—Continued

PRODUCT	1939				1937
	Produced in the industry	Produced in other industries within the electrical group	Produced in other industries outside the electrical group	Aggregate	
Tubes, radio (made for own use or for sale):					
Radio receiving tubes for use as initial equipment—					
Alternating-current, glass and metal—					
Number.....	(1)	(1)		63,902,062	62,828,604
Value.....	(1)	(1)		\$18,261,479	\$21,099,996
Direct-current—					
Number.....	6,305,133			6,305,133	3,136,568
Value.....	\$2,045,292			\$2,045,292	\$1,067,048
Rectifiers (intended primarily for use with receiving sets) and television (neon and converters)—					
Number.....	7,986,568			7,986,568	4,780,440
Value.....	\$2,628,216			\$2,628,216	\$1,600,967
Radio receiving tubes for renewal and replacement—					
Alternating-current—					
Number.....	24,337,561			24,337,561	30,289,150
Value.....	\$7,746,342			\$7,746,342	\$11,301,580
Direct-current—					
Number.....	2,972,299			2,972,299	7,005,255
Value.....	\$995,655			\$995,655	\$2,419,978
Rectifiers (intended primarily for use with receiving sets)—					
Number.....	4,017,270			4,017,270	4,178,024
Value.....	\$1,269,756			\$1,269,756	\$1,760,360
Radio transmitting tubes for initial equipment and for replacement—					
Triodes, air-cooled, plate dissipation 50 watts and less—					
Number.....	168,486	(1)	(1)	168,524	
Value.....	\$272,005	(1)	(1)	\$272,128	
Triodes, air-cooled, plate dissipation 51 watts to 200 watts (inclusive)—					
Number.....	60,557	(1)	(1)	64,110	
Value.....	\$526,908	(1)	(1)	\$559,010	
Triodes, air-cooled, plate dissipation more than 200 watts—					
Number.....	13,780	(1)	(1)	14,452	
Value.....	\$290,808	(1)	(1)	\$356,133	\$3,004,509
Four or more electrodes, air-cooled—					
Number.....	67,729	(1)	(1)	70,192	
Value.....	\$450,874	(1)	(1)	\$502,749	
All water-cooled types except rectifier tubes—					
Number.....	874	(1)	(1)	1,460	
Value.....	\$302,794	(1)	(1)	\$577,836	
Rectifiers, 10,000 volts, peak inverse, and less—					
Number.....	99,253	(1)	(1)	99,749	\$70,657
Value.....	\$175,225	(1)	(1)	\$178,837	\$300,033
Rectifiers, more than 10,000 volts, peak inverse—					
Number.....	31,133	(1)	(1)	31,842	\$41,603
Value.....	\$93,581	(1)	(1)	\$181,837	\$242,006
Transmitters (including all associated equipment except tubes):					
Broadcast type—					
1,000-watt output and under—					
Number.....	930	400		1,330	(7)
Value.....	\$483,784	\$4,000		\$487,784	\$836,668
Over 1,000-watt output—					
Number.....	(1)		(1)	32	(7)
Value.....	(1)		(1)	\$468,177	\$1,073,350
Aircraft transmitters—					
Number.....	(1)		(1)	3,586	(7)
Value.....	(1)		(1)	\$2,092,628	\$3,206,418
Direction finders and radio beacons—					
Number.....	1,214			1,214	(7)
Value.....	\$1,107,184			\$1,107,184	\$402,341
Ship transmitters for communication or navigational purposes—					
Number.....	762	(1)	(1)	1,149	540
Value.....	\$855,160	(1)	(1)	\$1,496,115	\$1,770,221
Automobile transmitters (including those for police):					
Number.....	349		249	598	563
Value.....	\$232,920		\$73,784	\$306,654	\$238,348
Short-wave (high-frequency) broadcasting transmitters—					
Number.....	(1)		(1)	223	(7)
Value.....	(1)		(1)	\$184,168	
Other transmitters for use at fixed locations, value.....	\$1,119,904		\$70,500	\$1,190,404	\$1,348,172
Phonographs and accessories:					
Phonographs for—					
Mechanical reproduction of records, including cabinets, value.....	\$1,585,969		\$90,610	\$1,676,579	\$7,086,391
Electrical reproduction of records, including cabinets, amplifying units, and tubes, value.....	(1)		(1)	\$19,055,276	(7)
Electrical record players for use with radio receiving sets, value.....	(1)		(1)	\$1,774,144	(7)
Dictating machines (including cabinets) and amplifying units for sale separately as such, value.....	\$6,033,104		\$11,079	\$6,044,183	(7)
Records and blanks—					
Disk records, not including electrical transcriptions, value.....	\$15,980,130			\$15,980,130	\$4,755,877
Electrical transcriptions, value.....	\$2,023,857			\$2,023,857	\$1,613,530
Other records and blanks, value.....	\$1,757,897			\$1,757,897	\$1,453,785
Needles, value.....	\$523,300		\$81,627	\$604,927	\$583,472
Miscellaneous—					
Receiving-set chassis for sale separately as such, value.....	\$6,583,550		\$24,054	\$6,607,604	\$5,484,645
Loud speakers and units, value.....	\$9,509,345	(1)	(1)	\$9,817,607	\$9,212,600
Microphones (all types), value.....	(1)		(1)	\$354,214	\$695,038
Public-address and music-distribution apparatus, value.....	\$1,647,531		\$46,251	\$1,693,782	\$3,695,537
Receiver antenna and ground equipment or kits, value.....	\$615,088		\$90,302	\$705,390	(7)
Automatic tuning and remote control units for receiving sets, for sale separately as such, value.....	\$145,013			\$145,013	(7)
Intercommunicating equipment using loud speakers (exclusive of nonautomatic internal telephone apparatus), value.....	\$241,531			\$241,531	(7)
Other apparatus and products associated with radio equipment, value.....	\$8,623,855		\$2,570,658	\$11,194,513	25,631,811

1 Figures not shown separately to avoid disclosing the operations of individual establishments.

2 Not reported separately for 1937.

3 Includes direction finders.

4 Because of changes in classifications, no comparable figures can be given for items for 1937.

5 Classified as "Low-power, 500 watts and under."

6 Classified as "High-power, above 500 watts."

7 Data incomplete.

RADIOS, RADIO TUBES, AND PHONOGRAPHS

TABLE 5.—WAGE EARNERS ENGAGED IN MANUFACTURING, BY MONTHS, FOR THE UNITED STATES, 1939 AND 1937, AND BY STATES, 1939

STATE	Average number employed during year	NUMBER RECEIVING PAY DURING NORMAL PAY-ROLL PERIOD ENDED NEAREST 15TH OF MONTH—											
		January	February	March	April	May	June	July	August	September	October	November	December
United States: 1939	43,508	29,123	37,865	36,654	35,207	35,868	39,024	41,757	44,278	48,576	55,493	56,334	51,916
1937	48,343	49,564	45,785	45,800	46,151	42,721	52,895	54,101	56,095	56,893	52,855	41,731	35,621
California	620	541	479	483	521	521	518	620	637	749	761	831	777
Connecticut	698	569	575	583	604	567	555	562	599	898	935	945	980
Illinois	10,353	9,223	9,270	8,046	6,927	7,688	9,092	10,134	10,406	11,695	14,067	14,010	13,072
Indiana	2,893	2,451	2,430	2,316	2,210	2,139	2,229	2,248	2,917	3,616	4,109	4,084	3,971
Massachusetts	2,824	2,499	2,600	2,589	2,393	2,356	2,526	2,736	3,089	3,007	3,523	3,547	3,027
Michigan	879	558	534	748	835	893	900	846	862	884	1,123	1,138	1,221
Minnesota	107	71	91	92	139	135	110	111	115	97	93	110	116
New Jersey	11,803	10,731	10,656	10,570	10,288	10,149	10,367	10,952	11,640	12,933	14,308	14,928	14,118
New York	4,873	4,324	4,071	4,299	4,582	4,349	4,704	5,259	5,504	5,739	5,598	5,126	4,807
Ohio	1,936	2,298	1,440	1,407	1,315	1,435	1,578	1,882	1,794	2,066	2,783	2,907	2,331
Pennsylvania	3,956	3,499	3,128	2,909	3,002	3,266	3,883	3,881	4,162	4,281	5,486	5,304	4,570
Washington	11	11	10	14	14	12	10	10	10	10	15	10	11

TABLE 6.—EXPENDITURES FOR PLANT AND EQUIPMENT: 1939

	1939
Number of establishments:	
Total for the industry	224
Reporting expenditures for plant and equipment	152
Value of products:	
Total for the industry	\$275,870,165
Reporting expenditures for plant and equipment	262,892,939
Expenditures for plant and equipment:	
Total for the industry	4,912,141
Expenditures for new construction or major alterations of buildings and other fixed plant and structures	946,801
Expenditures for new machinery and operating equipment	3,783,551
Expenditures for plant and equipment acquired in a "used" condition from other owners and expenditures for land	181,789

TABLE 7.—VALUE OF INVENTORIES OF MATERIALS AND FINISHED PRODUCTS, AND VALUE OF PRODUCTS: 1939 AND 1937

	1939	1937
Inventories:		
Beginning of year, total	\$32,772,226	\$35,743,496
Finished products	15,171,465	14,443,600
Materials, supplies, etc.	17,600,761	21,299,896
End of year, total	43,670,864	40,812,038
Finished products	18,887,085	20,705,292
Materials, supplies, etc.	24,783,779	20,106,746
Value of products for the industry, total	275,870,165	277,807,140
Value for establishments reporting inventories (includes value of products of establishments reporting no inventories on hand)	274,593,677	277,725,070
Value for establishments not reporting inventories	1,276,488	82,070

TABLE 8.—PRIME MOVERS, MOTORS, GENERATORS, AND ELECTRIC ENERGY: 1939

	1939
Number of establishments	224
Number of establishments reporting power equipment	223
Prime movers, aggregate:	
Number	24
Horsepower	23,354
Prime movers, driving generators, total—	
Number	15
Horsepower	22,454
Steam engines—	
Number	6
Horsepower	1,885
Steam turbines—	
Number	9
Horsepower	20,569
Prime movers, driving generators, ordinarily idle (included above), horsepower	125
Prime movers not driving generators, total—	
Number	9
Horsepower	900
Steam engines—	
Number	9
Horsepower	900
Generators, kilowatt rating, total	16,075
Generators, driven by—	
Steam engines, kilowatt rating	1,325
Steam turbines, kilowatt rating	15,350
Generators, ordinarily idle (included above), kilowatt rating	75
Electric motors, total:	
Number	25,247
Horsepower	76,090
Driven by purchased energy—	
Number	20,077
Horsepower	49,700
Driven by energy generated in establishments reporting—	
Number	5,170
Horsepower	27,200
Electric energy (kilowatt-hours):	
Generated in plant	38,067,010
Purchased	70,921,839

## COMMUNICATION EQUIPMENT

[A preliminary report for this industry was issued October 17, 1940]

**Description of the industry.**—The establishments classified in this industry are engaged primarily in the manufacture of telephone and telegraph equipment; electric signaling apparatus (other than railway); signals and attachments (railway); and miscellaneous radio parts except loud speakers and microphones which are included in the "Radios, radio tubes, and phonographs" industry. Electric signs are classified in the "Signs, advertising displays, and advertising novelties" industry.

**Statistics for prior census years.**—No statistics, other than those for products, are available for years prior to 1937 for the "Communication equipment" industry. A special tabulation was made of the

reports for 1937 in order to obtain figures comparable with those for 1939.

**TABLE 1.—SUMMARY FOR THE UNITED STATES: 1939 AND 1937**

CENSUS YEAR	Num-ber of estab-lish-ments <sup>1</sup>	Wage earners (aver-age for the year) <sup>2</sup>	Wages	Cost of ma-terials, sup-plies, fuel, pur-chased elec-tric en-ergy, and con-tract work	Value of products	Value added by manu-fac-ture <sup>3</sup>	Horse-power of prime movers
1939.....	227	32,119	\$44,444,379	\$48,351,690	\$191,326,489	\$142,974,799	82,272
1937.....	187	40,981	55,326,496	65,180,565	227,523,931	162,343,366	(4)

<sup>1</sup> See GENERAL EXPLANATIONS—Definition of establishment.

<sup>2</sup> See GENERAL EXPLANATIONS—Wage earners and wages.

<sup>3</sup> Value of products less cost of materials, supplies, fuel, purchased electric energy, and contract work. See GENERAL EXPLANATIONS—Value added by manufacture.

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

**TABLE 2.—GENERAL STATISTICS IN DETAIL BY STATES: 1939**

[See GENERAL EXPLANATIONS—Disclosure of data for individual establishments]

ITEM	United States	Califor-nia	Connecti-cut	Massachu-setts	Min-nesota	New Jersey	New York	Ohio	Pennsyl-vania	Other States <sup>1</sup>
Number of establishments <sup>2</sup> .....	227	21	7	14	5	26	56	16	16	66
Proprietors and firm members.....	64	16		1	2	7	17	2	3	16
Persons reported by manufacturing estab-lish-ments, total <sup>3</sup> .....	44,844	228	742	3,195	218	9,988	3,333	1,491	2,940	22,700
Salaried officers of corporations <sup>3</sup> .....	365	8	17	30	6	25	83	29	37	130
Manufacturing:										
Salaried employees <sup>3</sup> .....	8,935	38	118	471	12	2,169	513	209	624	4,781
Wage earners (average for the year) <sup>4</sup> .....	32,119	170	523	2,580	104	7,030	2,494	1,173	1,981	16,064
Distribution.....	2,630	9	75	89	96	502	236	79	234	1,310
Construction.....	617	3	9	22		198	1	1	64	319
Other.....	178			3		64	6			105
Salaries and wages, total <sup>5</sup> .....	\$76,677,486	\$278,409	\$1,098,294	\$3,876,340	\$356,354	\$17,658,819	\$4,615,648	\$1,851,259	\$4,503,870	\$42,438,403
Salaried officers <sup>3</sup> .....	2,911,873	19,728	167,115	320,866	33,880	199,079	523,211	222,099	292,727	1,133,168
Manufacturing:										
Salaries <sup>5</sup> .....	22,413,219	51,792	210,970	814,010	23,876	6,169,716	1,023,780	303,193	1,230,856	12,585,026
Wages.....	44,444,379	191,914	569,395	2,478,020	119,669	9,642,293	2,674,792	1,188,761	2,299,230	25,280,305
Distribution.....	5,240,942	11,096	148,739	222,272	178,929	1,046,273	385,058	136,006	596,599	2,515,905
Construction.....	1,425,824	3,879	2,075	38,483		503,453	2,371	1,200	84,458	789,905
Other.....	241,249			2,689		98,000	6,436			134,124
Cost of materials, supplies, containers, fuel, pur-chased elec-tric en-ergy, and con-tract work, total.....	48,351,690	260,213	568,205	4,237,733	223,715	10,743,516	4,192,964	2,294,655	2,215,275	23,615,414
Materials, supplies, and containers.....	46,410,243	252,371	532,099	4,095,319	218,098	10,263,525	4,014,159	2,262,382	2,089,400	22,682,800
Fuel.....	866,146	1,028	21,216	45,503	2,512	218,491	47,978	13,429	52,088	463,901
Purchased electric energy.....	707,663	4,879	14,536	91,852	3,105	110,700	120,319	18,844	71,581	271,847
Contract work.....	307,638	1,935	354	5,059		150,800	10,508		2,206	196,770
Value of products.....	191,326,489	718,465	2,228,334	9,714,532	905,147	38,275,287	10,674,799	5,648,428	8,531,988	114,629,509
Value added by manufacture <sup>6</sup> .....	142,974,799	458,252	1,660,129	5,476,799	681,432	27,531,771	6,481,835	3,353,773	6,316,713	91,014,095

<sup>1</sup> Colorado, 1 establishment; District of Columbia, 1; Georgia, 1; Illinois, 46; Indiana, 4; Iowa, 1; Louisiana, 1; Michigan, 2; Missouri, 2; North Dakota, 1; Oregon, 1; Texas, 1; Wisconsin, 4.

<sup>2</sup> See GENERAL EXPLANATIONS—Definition of establishment.

<sup>3</sup> See GENERAL EXPLANATIONS—Persons engaged—general classification.

<sup>4</sup> See GENERAL EXPLANATIONS—Wage earners and wages.

<sup>5</sup> Value of products less cost of materials, supplies, containers, fuel, purchased electric energy, and contract work. See GENERAL EXPLANATIONS—Value added by manufacture.

# COMMUNICATION EQUIPMENT

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**TABLE 3.—VALUE OF PRODUCTS FOR THE UNITED STATES: 1939 AND 1937**

	1939	1937
Communication Equipment industry, all products, total value.....	\$191,326,489	\$227,523,931
Communication equipment made in the industry.....	150,862,615	167,560,396
Miscellaneous products not specified.....	4,018,760	14,856,630
Receipts for contract and repair work.....	347,660	91,029
Other products (not classified in this industry).....	136,097,454	45,015,876
Communication equipment, aggregate value.....	166,867,338	193,611,196
Communication equipment made in this industry.....	150,862,615	167,560,396
Communication equipment made as secondary products in other industries.....	16,004,723	26,050,800

<sup>1</sup> Value of ignition apparatus, insulated wire, telephone and telegraph cable, laboratory testing instruments, resistance welding electrodes, transformers.

**TABLE 4.—PRODUCTS, BY KIND, QUANTITY, AND VALUE, FOR THE UNITED STATES: 1939 AND 1937**

PRODUCT	1939				1937
	Produced in the industry	Produced in other industries within the electrical group	Produced in other industries outside the electrical group	Aggregate	
Total value.....	\$150,862,615	\$10,730,831	\$5,273,892	\$166,867,338	\$193,611,196
Radio apparatus:					
Miscellaneous parts, value.....	\$39,800,891	\$3,720,026	\$2,093,145	\$46,514,062	\$47,328,415
Radio transformers—					
For receiving sets—					
Number reported—					
Number.....	6,257,819	1,793,263		8,051,082	8,850,645
Value.....	\$2,021,721	\$1,507,522		\$3,529,243	\$4,479,608
Number not reported, value.....	\$1,884,764	\$44,247	\$2,800	\$1,931,811	\$3,389,605
For transmitting sets, value.....	\$472,298	\$135,485		\$607,783	\$487,630
Signaling apparatus, electric (other than railway):					
Audible signals.....	\$3,792,654	\$201,553	\$262,521	\$4,256,728	\$3,162,475
Burglar-alarm and hold-up apparatus.....	\$794,897	\$47,275	\$4,500	\$846,672	\$1,007,687
Contact devices.....	\$242,817	\$43,913		\$286,730	\$239,887
Electric street traffic-signal apparatus and accessories.....	\$562,267	\$831,758	\$3,151	\$1,397,176	\$1,243,950
Fire and watch-signal apparatus.....	\$810,432	\$900	\$71,215	\$882,547	\$495,954
Hospital signaling apparatus.....	\$132,896	\$578,734	\$46,791	\$758,421	\$452,920
Nonautomatic internal telephone apparatus.....	\$395,434			\$395,434	\$383,812
Relays.....	\$186,339	\$99,110		\$285,449	\$288,112
Visible signals.....	\$317,680	\$31,818	\$17,002	\$416,500	\$420,701
Municipal fire and police signaling systems, and sprinkler supervisory and automatic fire-detecting devices.....	\$1,007,870	\$2,995		\$1,010,865	(1)
Railroad highway grade crossing signals (exclusive of relays and other control apparatus).....	\$1,453,044		\$1,200	\$1,454,244	(1)
Other <sup>2</sup> .....	\$7,725,126	\$19,552	\$53,250	\$7,797,928	\$14,347,792
Telephone and telegraph apparatus (not including wireless).....	\$89,261,485	\$3,415,943	\$1,818,317	\$94,495,745	\$115,882,648

<sup>1</sup> Figures included in "Other" electrical signaling apparatus in 1937.

<sup>2</sup> Figures include laboratory electrical test equipment, and railway signals and attachments (including automatic train controls), and visual and audible code-calling systems for 1939 and 1937. See also items covered by footnote 1.

**TABLE 5.—WAGE EARNERS ENGAGED IN MANUFACTURING, BY MONTHS, FOR THE UNITED STATES, 1939 AND 1937, AND BY STATES, 1939**

STATE	Average number employed during year	NUMBER RECEIVING PAY DURING NORMAL PAY-ROLL PERIOD ENDED NEAREST 15TH OF MONTH—											
		January	February	March	April	May	June	July	August	September	October	November	December
United States:													
1939.....	32,119	28,662	28,517	28,529	28,148	29,099	30,338	31,546	33,183	34,789	38,537	38,785	35,297
1937.....	40,981	35,950	36,892	39,175	40,482	42,286	43,721	44,265	46,050	45,892	43,475	39,031	34,553
California.....	170	148	142	150	152	154	166	155	157	178	185	223	227
Connecticut.....	523	382	381	386	436	437	435	527	572	628	690	727	672
Illinois.....	14,566	13,527	13,543	13,537	13,414	13,708	13,953	14,106	14,652	15,032	16,359	16,861	16,103
Indiana.....	1,201	1,097	1,012	971	941	1,004	1,156	1,137	1,207	1,365	1,563	1,642	1,323
Massachusetts.....	2,580	2,138	1,963	2,021	1,883	2,107	2,433	2,688	2,790	3,212	3,642	3,446	2,643
Minnesota.....	104	112	113	98	111	100	105	104	108	102	96	96	100
New Jersey.....	7,030	5,982	6,048	6,013	5,833	6,175	6,499	7,179	7,784	7,768	8,871	8,702	7,506
New York.....	2,494	2,268	2,358	2,419	2,395	2,417	2,408	2,313	2,418	2,556	2,842	2,776	2,760
Ohio.....	1,173	1,085	974	940	990	999	1,025	1,080	1,143	1,365	1,492	1,585	1,398
Pennsylvania.....	1,981	1,692	1,728	1,710	1,724	1,732	1,851	1,943	2,035	2,238	2,432	2,395	2,295
Wisconsin.....	244	181	208	234	217	213	252	260	258	289	313	280	218

TABLE 6.—EXPENDITURES FOR PLANT AND EQUIPMENT: 1939

	1939
Number of establishments:	
Total for the industry.....	227
Reporting expenditures for plant and equipment.....	172
Value of products:	
Total for the industry.....	\$191,326,489
Reporting expenditures for plant and equipment.....	178,684,456
Expenditures for plant and equipment:	
Total for the industry.....	4,215,838
Expenditures for new construction or major alterations of buildings and other fixed plant and structures.....	401,260
Expenditures for new machinery and operating equipment.....	3,603,808
Expenditures for plant and equipment acquired in a "used" condition from other owners and expenditures for land.....	210,770

TABLE 7.—VALUE OF INVENTORIES OF MATERIALS AND FINISHED PRODUCTS, AND VALUE OF PRODUCTS: 1939 AND 1937

	1939	1937
Inventories:		
Beginning of year, total.....	\$70,499,802	\$36,700,091
Finished products.....	42,120,544	10,140,250
Materials, supplies, etc.....	28,379,258	26,559,841
End of year, total.....	59,767,094	45,313,363
Finished products.....	30,504,913	11,017,829
Materials, supplies, etc.....	29,262,181	34,295,534
Value of products for the industry, total.....	191,326,489	227,523,931
Value for establishments reporting inventories (includes value of products of establishments reporting no inventories on hand).....	191,314,739	225,152,540
Value for establishments not reporting inventories.....	11,750	2,371,391

TABLE 8.—PRIME MOVERS, MOTORS, GENERATORS, AND ELECTRIC ENERGY: 1939

	1939
Number of establishments.....	227
Number of establishments reporting power equipment.....	227
Prime movers, aggregate:	
Number.....	45
Horsepower.....	82,272

TABLE 8.—PRIME MOVERS, MOTORS, GENERATORS, AND ELECTRIC ENERGY: 1939—Continued

	1939
Prime movers—Continued.	
Prime movers, driving generators—	
Number.....	26
Horsepower.....	80,134
Steam engines—	
Number.....	3
Horsepower.....	610
Steam turbines—	
Number.....	16
Horsepower.....	78,414
Diesel and semi-Diesel engines—	
Number.....	5
Horsepower.....	735
Hydroturbines and water wheels—	
Number.....	2
Horsepower.....	375
Prime movers, driving generators, ordinarily idle (included above), horsepower.....	475
Prime movers not driving generators, total—	
Number.....	19
Horsepower.....	2,138
Steam engines—	
Number.....	6
Horsepower.....	694
Steam turbines—	
Number.....	11
Horsepower.....	1,375
Internal-combustion engines, <sup>1</sup> other than Diesel and semi-Diesel—	
Number.....	2
Horsepower.....	69
Prime movers not driving generators, ordinarily idle (included above), horsepower.....	654
Generators, kilowatt rating, total.....	55,807
Generators, driven by—	
Steam engines, kilowatt rating.....	357
Steam turbines, kilowatt rating.....	54,650
Diesel and semi-Diesel engines, kilowatt rating.....	460
Hydroturbines and water wheels, kilowatt rating.....	340
Generators, ordinarily idle (included above), kilowatt rating.....	282
Electric motors, total:	
Number.....	28,022
Horsepower.....	97,133
Driven by purchased energy—	
Number.....	12,030
Horsepower.....	41,183
Driven by energy generated in establishments reporting—	
Number.....	15,992
Horsepower.....	55,950
Electric energy (kilowatt-hours):	
Generated in plant.....	83,096,307
Purchased.....	39,678,136

<sup>1</sup> Gas, gasoline, etc.

# BATTERIES, STORAGE AND PRIMARY (DRY AND WET)

[A preliminary report for this industry was issued September 24, 1940]

**Description of the industry.**—The establishments classified in this industry are engaged primarily in the manufacture of storage batteries, dry batteries and wet primary batteries, and parts and supplies for batteries.

**Statistics for prior census years.**—No statistics, other than those for products, are available for years prior to 1937 for the "Batteries, storage and primary (dry and wet)" industry. A special tabulation was made of the reports for 1937 in order to obtain figures comparable with 1939.

TABLE 1.—SUMMARY FOR THE UNITED STATES: 1939 AND 1937

CENSUS YEAR	Number of establishments <sup>1</sup>	Wage earners (average for the year) <sup>2</sup>	Wages	Cost of materials, supplies, fuel, purchased electric energy, and contract work	Value of products	Value added by manufacture <sup>3</sup>	Horse-power of prime movers
1939	221	15,034	\$19,209,426	\$63,176,798	\$117,582,712	\$54,405,914	17,932
1937	184	14,571	18,831,906	59,208,704	108,157,842	48,949,138	(4)

<sup>1</sup> See GENERAL EXPLANATIONS—Definition of establishment.

<sup>2</sup> See GENERAL EXPLANATIONS—Wage earners and wages.

<sup>3</sup> Value of products less cost of materials, supplies, fuel, purchased electric energy, and contract work. See GENERAL EXPLANATIONS—Value added by manufacture.

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

TABLE 2.—GENERAL STATISTICS IN DETAIL BY STATES: 1939

[See GENERAL EXPLANATIONS—Disclosure of data for individual establishments]

ITEM	United States	California	Florida	Illinois	Michigan	Minnesota	New Jersey	New York
Number of establishments <sup>1</sup>	221	30	6	25	7	7	11	10
Proprietors and firm members	120	19	5	5	10	3	1	1
Persons reported by manufacturing establishments, total <sup>2</sup>	18,666	702	33	1,126	50	320	2,033	1,142
Salaried officers of corporations <sup>2</sup>	161	15	1	32		4	9	8
Manufacturing:								
Salaried employees <sup>2</sup>	2,204	69	5	92	5	24	194	147
Wage earners (average for the year) <sup>3</sup>	15,034	646	24	810	38	272	1,648	935
Distribution	1,149	71	3	188	5	20	178	45
Construction	40			4			3	3
Other	78	1			2		1	4
Salaries and wages, total <sup>2</sup>	\$27,244,913	\$1,066,077	\$31,407	\$1,535,829	\$60,062	\$456,043	\$3,365,297	\$1,416,924
Salaried officers <sup>2</sup>	957,689	88,649	2,600	117,103		21,500	55,855	32,171
Manufacturing:								
Salaries <sup>2</sup>	4,403,914	127,953	5,818	154,711	7,998	38,019	449,059	241,663
Wages	19,209,426	723,578	21,274	956,751	43,124	365,372	2,310,552	1,028,622
Distribution	2,474,326	124,697	1,715	301,210	8,640	31,152	539,718	104,228
Construction	76,018			6,054			8,265	6,240
Other	123,540	1,200			300		1,848	4,000
Cost of materials, supplies, containers, fuel, purchased electric energy, and contract work, total	63,176,798	3,919,627	67,907	3,921,229	252,156	1,471,044	6,514,654	4,275,508
Materials, supplies, and containers	60,506,351	3,812,931	62,393	3,790,724	244,475	1,418,625	6,027,388	4,121,647
Fuel	957,416	16,915	1,497	58,625	2,397	13,695	224,487	47,087
Purchased electric energy	1,526,435	89,717	4,017	91,880	5,284	43,724	262,779	106,774
Contract work	96,596	64						
Value of products	117,582,712	5,582,010	169,387	7,018,481	374,968	2,248,045	12,965,408	6,622,618
Value added by manufacture <sup>4</sup>	54,405,914	1,862,383	101,480	3,087,262	122,812	777,001	6,450,754	2,347,110

ITEM	Ohio	Oregon	Pennsylvania	Tennessee	Texas	Washington	Wisconsin	Other States <sup>5</sup>
Number of establishments <sup>1</sup>	18	4	17	4	15	4	8	55
Proprietors and firm members	7	3	13	2	9	1	5	36
Persons reported by manufacturing establishments, total <sup>2</sup>	4,006	24	3,401	126	460	43	1,758	3,442
Salaried officers of corporations <sup>2</sup>	15	4	18	5	7	2	16	25
Manufacturing:								
Salaried employees <sup>2</sup>	541	2	501	13	45	5	278	283
Wage earners (average for the year) <sup>3</sup>	3,330	16	2,647	96	365	33	1,537	2,937
Distribution	70	2	215	12	40	3	114	183
Construction			8		2		13	7
Other	50		12		1			7
Salaries and wages, total <sup>2</sup>	\$6,250,533	\$30,872	\$5,248,390	\$130,667	\$544,035	\$69,768	\$2,704,728	\$4,334,281
Salaried officers <sup>2</sup>	123,434	8,739	193,400	7,864	38,114	9,662	195,205	63,393
Manufacturing:								
Salaries <sup>2</sup>	1,208,889	1,277	990,770	24,034	79,806	11,588	571,038	491,291
Wages	4,645,234	18,229	3,482,739	82,725	357,482	44,285	1,703,841	3,425,618
Distribution	185,345	2,627	535,797	16,044	64,242	4,233	218,498	336,180
Construction			25,603		3,843		16,146	9,862
Other	87,631		20,081		543			7,937
Cost of materials, supplies, containers, fuel, purchased electric energy, and contract work, total	12,234,479	85,807	10,778,618	588,521	2,043,455	199,349	4,550,775	12,273,669
Materials, supplies, and containers	11,825,921	81,910	10,308,761	568,603	1,975,708	191,264	4,423,320	11,747,681
Fuel	165,116	874	182,096	3,479	12,477	2,645	44,784	201,242
Purchased electric energy	228,625	3,023	213,885	16,439	55,270	5,440	82,671	316,907
Contract work	14,817		73,876					7,839
Value of products	24,661,269	152,437	20,617,110	942,164	3,634,699	277,668	10,649,621	21,666,827
Value added by manufacture <sup>4</sup>	12,426,790	66,630	9,838,492	353,643	1,591,244	78,319	6,098,846	9,393,158

<sup>1</sup> See GENERAL EXPLANATIONS—Definition of establishment.

<sup>2</sup> See GENERAL EXPLANATIONS—Persons engaged—general classification.

<sup>3</sup> See GENERAL EXPLANATIONS—Wage earners and wages.

<sup>4</sup> Value of products less cost of materials, supplies, containers, fuel, purchased electric energy, and contract work. See GENERAL EXPLANATIONS—Value added by manufacture.

<sup>5</sup> Alabama, 3 establishments; Arkansas, 1; Colorado, 1; Connecticut, 5; District of Columbia, 1; Georgia, 2; Indiana, 7; Iowa, 5; Kansas, 1; Kentucky, 4; Louisiana, 2; Maryland, 1; Massachusetts, 5; Missouri, 6; Nebraska, 2; North Carolina, 1; Oklahoma, 2; Rhode Island, 2; South Dakota, 1; Virginia, 1; West Virginia, 2.

## CENSUS OF MANUFACTURES: 1939

TABLE 3.—VALUE OF PRODUCTS FOR THE UNITED STATES: 1939 AND 1937

	1939	1937
Batteries, Storage and Primary (Dry and Wet) industry, all products, total value.....	\$117,582,712	\$108,157,842
Batteries, storage and primary.....	110,598,636	101,228,373
Miscellaneous products not specified.....	215,229	71,437
Receipts for contract and repair work.....	65,406	16,669
Other products (not classified in this industry).....	1 6,703,441	6,841,363
Batteries, storage and primary, aggregate value.....	111,217,143	102,877,043
Batteries, storage and primary (dry and wet) made in this industry.....	110,598,636	101,228,373
Batteries, storage and primary (dry and wet) made as secondary products in other industries.....	618,507	1,648,670

<sup>1</sup> Value of flashlight cases, spark plugs, cooling-system cleaner, roller skates, automobile brake and oil tubing.

TABLE 4.—PRODUCTS, BY KIND, QUANTITY, AND VALUE, FOR THE UNITED STATES: 1939 AND 1937

PRODUCT	1939				1937
	Produced in the industry	Produced in other industries within the electrical group	Produced in other industries outside the electrical group	Aggregate	
Total value.....	\$110,598,636	\$397,524	\$220,983	\$111,217,143	\$102,877,043
Storage batteries, complete units:					
Automotive (SLI)—					
Number reported—	17,378,446	13,861		17,392,307	16,054,634
Value.....	\$63,525,330	\$49,346		\$63,574,676	\$60,715,206
Number not reported, value.....	\$1,243,115			\$1,243,115	\$2,013,825
Radio (receiving)—					
Number.....	129,638			129,638	330,080
Value.....	\$343,715			\$343,715	\$1,091,809
Other types, value.....	\$13,001,140	\$22,472		\$13,023,612	\$12,154,806
Parts and supplies, value.....	( <sup>1</sup> )		( <sup>1</sup> )	\$2,937,121	\$2,274,575
Dry batteries (cells):					
6-inch 1.5-volt dry cells, value.....	\$2,527,485			\$2,527,485	\$2,609,460
Flashlight, value.....	( <sup>1</sup> )	( <sup>1</sup> )		\$9,903,213	\$18,070,418
Other, value.....	\$13,388,959	\$79,918		\$13,468,877	\$3,102,318
Wet primary batteries, value.....	\$3,269,288	\$35,788		\$3,305,076	\$844,626
Parts and supplies for dry batteries and wet primary batteries, value.....	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	\$890,253	

<sup>1</sup> Figures not shown separately to avoid disclosing, exactly or approximately, data reported by individual establishments.

TABLE 5.—WAGE EARNERS ENGAGED IN MANUFACTURING, BY MONTHS, FOR THE UNITED STATES: 1939 AND 1937, AND BY STATES, 1939

STATE	Average number employed during year	NUMBER RECEIVING PAY DURING NORMAL PAY-ROLL PERIOD ENDED NEAREST 15TH OF MONTH—											
		January	February	March	April	May	June	July	August	September	October	November	December
United States:													
1939.....	15,034	13,657	13,726	14,269	13,690	13,616	13,818	14,309	15,504	16,423	17,827	17,359	16,207
1937.....	14,571	12,954	14,445	14,157	13,988	13,984	14,233	14,878	15,568	15,846	15,869	14,907	14,018
Alabama.....	24	23	25	24	24	24	25	25	26	24	24	27	22
California.....	546	525	501	463	455	485	533	565	592	628	654	594	548
Connecticut.....	688	672	690	677	652	643	596	616	650	710	793	769	783
Florida.....	24	22	22	22	23	23	23	24	25	26	26	27	27
Illinois.....	810	746	705	763	690	687	760	819	827	898	971	1,016	838
Indiana.....	1,128	1,105	1,095	1,097	1,013	962	1,023	1,036	1,175	1,262	1,289	1,239	1,215
Iowa.....	498	408	454	457	436	435	432	480	504	546	607	600	619
Kentucky.....	78	51	43	45	41	77	115	127	127	113	88	60	45
Massachusetts.....	75	62	56	52	51	53	54	71	83	106	118	109	82
Michigan.....	38	36	35	32	33	32	33	35	37	40	46	47	45
Minnesota.....	272	279	254	191	206	238	251	296	329	321	326	299	275
Missouri.....	127	116	97	118	98	119	128	136	140	148	148	143	136
New Jersey.....	1,648	1,575	1,558	1,577	1,496	1,502	1,475	1,507	1,555	1,731	1,920	1,975	1,901
New York.....	935	806	775	783	778	782	792	830	926	1,024	1,218	1,266	1,237
Ohio.....	3,380	3,028	3,287	3,546	3,257	3,018	3,009	3,011	3,268	3,445	3,912	3,787	3,397
Oregon.....	16	16	12	12	12	13	14	17	17	19	20	20	20
Pennsylvania.....	2,647	2,518	2,530	2,491	2,525	2,556	2,482	2,526	2,701	2,805	2,885	2,926	2,816
Tennessee.....	96	92	85	84	85	89	96	102	105	103	107	104	102
Texas.....	365	356	295	308	293	339	331	409	424	432	440	376	332
Washington.....	33	31	28	29	30	29	30	30	36	37	45	42	33
Wisconsin.....	1,337	925	930	1,253	1,221	1,232	1,270	1,333	1,578	1,586	1,752	1,534	1,432

TABLE 6.—EXPENDITURES FOR PLANT AND EQUIPMENT: 1939

	1939
Number of establishments:	
Total for the industry.....	221
Reporting expenditures for plant and equipment.....	138
Value of products:	
Total for the industry.....	\$117,582,712
Reporting expenditures for plant and equipment.....	113,117,878
Expenditures for plant and equipment:	
Total for the industry.....	2,319,018
Expenditures for new construction or major alterations of buildings and other fixed plant and structures.....	371,723
Expenditures for new machinery and operating equipment.....	1,893,666
Expenditures for plant and equipment acquired in a "used" condition from other owners and expenditures for land.....	53,629

TABLE 7.—VALUE OF INVENTORIES OF MATERIALS AND FINISHED PRODUCTS, AND VALUE OF PRODUCTS: 1939 AND 1937

	1939	1937
Inventories:		
Beginning of year, total.....	\$18,796,117	\$19,463,685
Finished products.....	5,923,119	6,215,725
Materials, supplies, etc.....	12,872,998	13,247,960
End of year, total.....	23,109,063	22,560,738
Finished products.....	6,837,371	7,352,548
Materials, supplies, etc.....	16,271,692	15,208,190
Value of products for the industry, total.....	117,582,712	108,157,842
Value for establishments reporting inventories (includes value of products of establishments reporting no inventories on hand).....	117,526,892	106,863,517
Value for establishments not reporting inventories.....	55,820	1,294,325

TABLE 8.—PRIME MOVERS, MOTORS, GENERATORS, AND ELECTRIC ENERGY: 1939

	1939
Number of establishments.....	221
Number of establishments reporting power equipment.....	219
Prime movers, aggregate:	
Number.....	56
Horsepower.....	17,932
Prime movers, driving generators, total—	
Number.....	52
Horsepower.....	17,421
Steam engines—	
Number.....	11
Horsepower.....	6,974
Steam turbines—	
Number.....	4
Horsepower.....	8,510
Diesel and semi-Diesel engines—	
Number.....	15
Horsepower.....	1,058
Other internal-combustion engines <sup>1</sup> —	
Number.....	21
Horsepower.....	819
Hydroturbines and water wheels—	
Number.....	1
Horsepower.....	60
Prime movers, driving generators, ordinarily idle (included above), horsepower.....	7,439
Prime movers not driving generators, steam engines—	
Number.....	4
Horsepower.....	511
Generators, kilowatt rating, total.....	12,192
Generators, driven by—	
Steam engines, kilowatt rating.....	4,622
Steam turbines, kilowatt rating.....	6,300
Diesel and semi-Diesel engines, kilowatt rating.....	752
Other internal-combustion engines, <sup>1</sup> kilowatt rating.....	478
Hydroturbines and water wheels <sup>1</sup> kilowatt rating.....	40
Generators, ordinarily idle (included above), kilowatt rating.....	5,143
Electric motors, total:	
Number.....	10,074
Horsepower.....	72,675
Driven by purchased energy—	
Number.....	8,673
Horsepower.....	65,211
Driven by energy generated in establishments reporting—	
Number.....	1,401
Horsepower.....	7,464
Electric energy (kilowatt-hours):	
Generated in plant.....	14,650,508
Purchased.....	141,979,589

<sup>1</sup> Gas, gasoline, etc.

# X-RAY AND THERAPEUTIC APPARATUS AND ELECTRONIC TUBES

[A preliminary report for this industry was issued September 26, 1940]

**Description of the industry.**—The establishments classified in this industry are engaged primarily in the manufacture of electrotherapeutic and electromedical apparatus, X-ray apparatus (exclusive of tubes), non-radio electronic tubes, and X-ray tubes.

**Statistics for prior census years.**—No statistics, other than those for products, are available for years prior to 1937 for the "X-ray and therapeutic apparatus and electronic tubes" industry. A special tabulation was made of the reports for 1937 in order to obtain figures comparable with 1939.

**TABLE 1.—SUMMARY FOR THE UNITED STATES: 1939 AND 1937**

CENSUS YEAR	Number of establishments <sup>1</sup>	Wage earners (average for the year) <sup>2</sup>	Wages	Cost of materials, supplies, fuel, purchased electric energy, and contract work	Value of products	Value added by manufacture <sup>3</sup>	Horse-power of prime movers
1939.....	84	1,959	\$2,744,251	\$5,754,928	\$17,945,038	\$12,190,110	.....
1937.....	46	1,936	2,759,908	5,236,157	17,148,233	11,912,076	( <sup>4</sup> )

<sup>1</sup> See GENERAL EXPLANATIONS—Definition of establishment.  
<sup>2</sup> See GENERAL EXPLANATIONS—Wage earners and wages.  
<sup>3</sup> Value of products less cost of materials, supplies, fuel, purchased electric energy, and contract work. See GENERAL EXPLANATIONS—Value added by manufacture.  
<sup>4</sup> Not called for on schedule.

**TABLE 2.—GENERAL STATISTICS IN DETAIL BY STATES: 1939**

[See GENERAL EXPLANATIONS—Disclosure of data for individual establishments]

ITEM	United States	California	Illinois	Michigan	New York	Ohio	Other States <sup>1</sup>
Number of establishments <sup>2</sup> .....	84	15	17	3	18	8	23
Proprietors and firm members.....	36	14	10	1	3	1	7
Persons reported by manufacturing establishments, total <sup>3</sup> .....	3,009	120	1,240	23	543	338	740
Salaried officers of corporations <sup>4</sup> .....	104	13	22	2	25	13	29
Manufacturing:							
Salaried employees <sup>5</sup> .....	588	23	246	5	128	56	130
Wage earners (average for the year) <sup>6</sup> .....	1,959	64	871	13	350	224	437
Distribution.....	354	19	101	3	45	42	144
Construction.....							
Other.....	4	1				3	
Salaries and wages, total <sup>7</sup> .....	\$5,132,848	\$193,111	\$1,990,881	\$26,045	\$949,556	\$615,957	\$1,357,208
Salaried officers <sup>8</sup> .....	630,402	50,278	154,557	4,900	87,479	146,850	186,338
Manufacturing:							
Salaries <sup>9</sup> .....	1,184,935	39,334	494,751	4,545	234,103	151,952	260,250
Wages.....	2,744,251	81,015	1,184,149	13,721	543,271	255,096	666,009
Distribution.....	565,685	18,284	137,424	2,879	84,703	58,684	243,711
Construction.....							
Other.....	7,575	4,200				3,375	
Cost of materials, supplies, containers, fuel, purchased electric energy, and contract work, total.....	5,754,928	374,612	1,919,390	35,862	1,178,792	687,625	1,558,447
Materials, supplies, and containers.....	5,565,585	362,856	1,847,339	35,069	1,136,196	665,604	1,518,521
Fuel.....	38,345	410	13,252		5,903	2,797	15,983
Purchased electric energy.....	91,326	1,681	40,921	436	18,296	5,895	24,007
Contract work.....	59,672	9,665	17,878	357	18,397	13,329	46
Value of products.....	17,945,038	939,233	9,059,044	84,614	2,462,956	1,724,844	3,674,347
Value added by manufacture <sup>10</sup> .....	12,190,110	564,621	7,139,654	48,752	1,284,164	1,037,219	2,115,700

<sup>1</sup> Connecticut, 2 establishments; Florida, 1; Indiana, 2; Kentucky, 1; Massachusetts, 1; Minnesota, 1; New Jersey, 5; Pennsylvania, 4; Rhode Island, 1; Tennessee, 1; Wisconsin, 4.  
<sup>2</sup> See GENERAL EXPLANATIONS—Definition of establishment.  
<sup>3</sup> See GENERAL EXPLANATIONS—Persons engaged—general classification.  
<sup>4</sup> See GENERAL EXPLANATIONS—Wage earners and wages.  
<sup>5</sup> Value of products, less cost of materials, supplies, containers, fuel, purchased electric energy, and contract work. See GENERAL EXPLANATIONS—Value added by manufacture.

**TABLE 3.—VALUE OF PRODUCTS, FOR THE UNITED STATES: 1939 AND 1937**

	1939	1937
X-ray and Therapeutic Apparatus and Electronic Tubes industry, all products, total value.....	\$17,945,038	\$17,148,233
X-ray and therapeutic apparatus and electronic tubes made in this industry.....	16,654,261	16,982,373
Receipts for contract and repair work.....	66,388	18,108
Other products (not classified in this industry).....	1,224,389	147,752
X-ray and therapeutic apparatus and electronic tubes, aggregate value.....	21,431,451	20,397,319
X-ray and therapeutic apparatus and electronic tubes made in this industry.....	16,654,261	16,982,373
X-ray and therapeutic apparatus and electronic tubes made as secondary products in other industries.....	4,777,190	3,414,946

<sup>1</sup> Value of miscellaneous X-ray accessories, control apparatus, dental apparatus, electrodes, and sprinkler systems.

TABLE 4.—PRODUCTS, BY KIND AND VALUE, FOR THE UNITED STATES: 1939 AND 1937

PRODUCT	1939				1937
	Produced in the industry	Produced in other industries within the electrical group	Produced in other industries outside the electrical group	Aggregate	
Total value.....	\$16,654,261	\$3,580,826	\$1,226,364	\$21,431,451	\$20,397,319
Electrotherapeutic and electromedical apparatus:					
"Health" lamps, ultra-violet.....	1,005,123	531,638	66,293	1,603,054	1,177,866
"Health" lamps, infra-red.....	138,138	94,307	-----	232,445	723,293
High-frequency apparatus.....	1,324,978	25,889	-----	1,350,867	1,606,890
Vibrators, and other motor-driven devices.....	116,052	311,273	75,113	502,438	431,473
Physico-therapy equipment.....	1,352,380	47,256	-----	1,399,636	1,993,787
All other electromedical and electrotherapeutic apparatus, including electrocardiographs.....	1,206,928	26,106	4,339	1,237,373	601,015
X-ray apparatus (exclusive of X-ray tubes but inclusive of X-ray tables, tube stands, etc.):					
For general medical use.....	8,193,197	-----	67,553	8,260,750	8,040,250
For commercial use.....	714,592	-----	15,000	729,592	1,048,038
For dental use.....	517,098	-----	998,066	1,515,164	676,589
Nonradio electronic tubes, excluding X-ray use:					
Light sensitive tubes and cells (all sizes, all purposes).....	(1)	(1)	-----	170,110	190,043
All other <sup>1</sup> .....	(1)	(1)	-----	2,317,080	935,109
X-ray tubes:					
Rectifying-valve.....	340,008	62,624	-----	402,632	863,675
Other types.....	(1)	(1)	-----	1,710,310	2,109,291

<sup>1</sup> Figures not shown separately to avoid disclosing, exactly or approximately, data reported by individual establishments.  
<sup>2</sup> Tubes intended primarily for use in industrial control apparatus, including rectifier tubes used for battery charging.

TABLE 5.—WAGE EARNERS ENGAGED IN MANUFACTURING, BY MONTHS, FOR THE UNITED STATES, 1939 AND 1937, AND BY STATES, 1939

STATE	Average number employed during year	NUMBER RECEIVING PAY DURING NORMAL PAY-ROLL PERIOD ENDED NEAREST 15TH OF MONTH—											
		January	February	March	April	May	June	July	August	September	October	November	December
United States:													
1939.....	1,959	1,922	1,929	1,916	1,896	1,881	1,889	1,886	1,917	1,993	2,016	2,117	2,147
1937.....	1,936	1,794	1,910	1,939	1,960	1,979	1,899	1,997	2,007	2,020	1,965	1,881	1,878
California.....	64	65	87	82	59	60	62	56	66	66	64	75	76
Illinois.....	871	823	842	852	851	842	834	842	861	899	914	941	951
New Jersey.....	113	119	119	116	114	111	111	112	114	106	110	110	110
New York.....	350	378	377	348	332	321	326	321	320	349	354	380	390
Ohio.....	224	212	210	213	213	221	228	223	211	229	231	246	254
Pennsylvania.....	27	27	27	27	25	25	26	26	29	30	27	28	28
Wisconsin.....	51	51	51	51	51	51	51	51	51	51	51	51	51

TABLE 6.—EXPENDITURES FOR PLANT AND EQUIPMENT: 1939

	1939
Number of establishments:	
Total for the industry.....	84
Reporting expenditures for plant and equipment.....	50
Value of products:	
Total for the industry.....	\$17,945,038
Reporting expenditures for plant and equipment.....	16,702,544
Expenditures for plant and equipment:	
Total for the industry.....	294,045
Expenditures for new construction or major alterations of buildings and other fixed plant and structures.....	106,905
Expenditures for new machinery and operating equipment.....	171,952
Expenditures for plant and equipment acquired in a "used" condition from other owners and expenditures for land.....	15,188

TABLE 7.—VALUE OF INVENTORIES OF MATERIALS AND FINISHED PRODUCTS, AND VALUE OF PRODUCTS: 1939 AND 1937—Continued

	1939	1937
Inventories—Continued.		
End of year, total.....	\$4,779,850	\$3,857,933
Finished products.....	2,193,831	1,859,333
Materials, supplies, etc.....	2,586,019	1,998,600
Value of products for the industry, total.....	17,945,038	17,148,233
Value for establishments reporting inventories (includes value of products of establishments reporting no inventories on hand).....	17,897,602	16,429,096
Value for establishments not reporting inventories.....	47,436	719,137

TABLE 7.—VALUE OF INVENTORIES OF MATERIALS AND FINISHED PRODUCTS, AND VALUE OF PRODUCTS: 1939 AND 1937

	1939	1937
Inventories:		
Beginning of year, total.....	\$4,375,673	\$3,048,462
Finished products.....	2,144,196	1,471,726
Materials, supplies, etc.....	2,231,477	1,576,736

TABLE 8.—POWER—MOTORS, AND ELECTRIC ENERGY PURCHASED: 1939

	1939
Number of establishments.....	84
Number of establishments reporting power equipment.....	84
Electric motors, driven by purchased energy:	
Number.....	1,858
Horsepower.....	3,119
Electric energy purchased (kilowatt-hours).....	3,840,373

# ELECTRICAL PRODUCTS NOT ELSEWHERE CLASSIFIED

[A preliminary report for this industry was issued October 21, 1940]

**Description of the industry.**—The establishments classified in this industry are engaged primarily in the manufacture of miscellaneous electrical equipment such as aircraft parts, including superchargers, capacitors and network protectors, automotive switches and current regulators, klaxon horns, electric windshield wipers, etc.

**Statistics for prior census years.**—No statistics, other than those for products, are available for years prior to 1937 for the "Electrical products not elsewhere classified" industry. A special tabulation was made of the reports for 1937 in order to obtain figures comparable with those for 1939.

**TABLE 1.—SUMMARY FOR THE UNITED STATES: 1939 AND 1937**

CENSUS YEAR	Number of establishments <sup>1</sup>	Wage earners (average for the year) <sup>2</sup>	Wages	Cost of materials, supplies, fuel, purchased electric energy, and contract work	Value of products	Value added by manufacture <sup>3</sup>	Horse-power of prime movers
1939.....	175	6,014	\$7,409,584	\$14,866,461	\$39,048,906	\$24,182,445	212
1937.....	167	8,371	9,716,777	18,273,718	47,989,062	29,710,344	(*)

<sup>1</sup> See GENERAL EXPLANATIONS—Definition of establishment.  
<sup>2</sup> See GENERAL EXPLANATIONS—Wage earners and wages.  
<sup>3</sup> Value of products less cost of materials, supplies, fuel, purchased electric energy, and contract work. See GENERAL EXPLANATIONS—Value added by manufacture.  
<sup>4</sup> Not called for on schedule.

**TABLE 2.—GENERAL STATISTICS IN DETAIL BY STATES: 1939**

[See GENERAL EXPLANATIONS—Disclosure of data for individual establishments]

ITEM	United States	California	Connecticut	Illinois	Iowa	Maryland	Massachusetts	Michigan
Number of establishments <sup>1</sup> .....	175	7	4	23	3	6	8	10
Proprietors and firm members.....	62	9	7	7	4	4	3	2
Persons reported by manufacturing establishments, total <sup>2</sup> .....	8,291	27	269	715	19	180	216	570
Salaried officers of corporations <sup>2</sup> .....	163		8	31		3	3	11
Manufacturing:								
Salaried employees <sup>2</sup> .....	1,330	4	33	82	3	43	23	49
Wage earners (average for the year) <sup>3</sup> .....	6,014	21	219	557	12	132	181	439
Distribution.....	723	2	3	45	4	2	9	71
Construction.....	55		6					
Other.....	6							
Salaries and wages, total <sup>2</sup> .....	\$12,326,919	\$36,615	\$262,460	\$1,063,312	\$10,323	\$252,843	\$317,111	\$649,114
Salaried officers <sup>2</sup> .....	854,264		36,223	230,803		4,656	15,342	37,604
Manufacturing:								
Salaries <sup>2</sup> .....	2,936,145	7,233	42,111	167,710	3,121	85,504	31,515	143,583
Wages.....	7,409,584	27,182	169,212	574,780	6,271	158,159	249,390	391,260
Distribution.....	940,969	2,200	7,859	90,019	936	4,524	20,864	76,667
Construction.....	177,133		7,055					
Other.....	8,824							
Cost of materials, supplies, containers, fuel, purchased electric energy, and contract work, total.....	14,866,461	87,925	376,406	1,503,478	23,336	633,728	264,239	1,240,432
Materials, supplies, and containers.....	14,091,854	87,141	361,705	1,474,537	22,593	618,343	243,471	1,196,675
Fuel.....	243,262	51	2,347	7,761	405	7,578	7,173	10,053
Purchased electric energy.....	412,709	733	12,354	20,786	333	7,807	12,345	18,361
Contract work.....	118,636			404			1,250	15,343
Value of products.....	39,048,906	203,223	818,905	3,435,119	53,979	1,052,774	734,538	2,392,123
Value added by manufacture <sup>4</sup> .....	24,182,445	115,298	442,499	1,931,641	30,643	419,046	470,299	1,151,691

ITEM	Minnesota	Missouri	New Jersey	New York	Pennsylvania	Wisconsin	Other States <sup>1</sup>
Number of establishments <sup>1</sup> .....	3	5	15	28	13	10	40
Proprietors and firm members.....	3	1	3	9		7	10
Persons reported by manufacturing establishments, total <sup>2</sup> .....	20	57	2,562	1,240	390	201	1,825
Salaried officers of corporations <sup>2</sup> .....	1	8	20	20	22	10	26
Manufacturing:							
Salaried employees <sup>2</sup> .....	5	12	563	168	58	29	258
Wage earners (average for the year) <sup>3</sup> .....	14	36	1,481	979	294	151	1,498
Distribution.....		1	459	73	15	11	28
Construction.....			39				9
Other.....							6
Salaries and wages, total <sup>2</sup> .....	\$20,076	\$95,764	\$4,410,465	\$1,515,700	\$803,256	\$303,462	\$2,786,413
Salaried officers <sup>2</sup> .....	2,450	28,577	104,566	101,258	125,671	67,920	99,194
Manufacturing:							
Salaries <sup>2</sup> .....	6,208	17,686	1,372,832	353,238	106,879	46,316	552,209
Wages.....	11,418	49,145	2,264,481	933,222	340,407	178,928	2,055,729
Distribution.....		356	512,474	127,982	29,699	10,298	57,091
Construction.....			156,112		600		13,366
Other.....							8,824
Cost of materials, supplies, containers, fuel, purchased electric energy, and contract work, total.....	12,455	124,330	3,421,547	1,995,466	528,455	446,357	4,208,307
Materials, supplies, and containers.....	11,824	118,800	3,250,664	1,931,076	500,468	403,060	3,871,492
Fuel.....	346	1,448	57,891	22,877	8,316	3,720	113,306
Purchased electric energy.....	285	2,712	112,992	33,137	19,671	7,456	163,737
Contract work.....		1,370		8,376		32,121	59,772
Value of products.....	38,784	258,955	10,731,055	4,036,487	1,430,012	922,307	12,940,645
Value added by manufacture <sup>4</sup> .....	26,329	134,625	7,309,508	2,041,021	901,557	475,950	8,732,338

<sup>1</sup> See GENERAL EXPLANATIONS—Definition of establishment.  
<sup>2</sup> See GENERAL EXPLANATIONS—Persons engaged—general classification.  
<sup>3</sup> See GENERAL EXPLANATIONS—Wage earners and wages.  
<sup>4</sup> Value of products less cost of materials, supplies, containers, fuel, purchased electric energy, and contract work. See GENERAL EXPLANATIONS—Value added by manufacture.  
<sup>5</sup> Alabama, 1 establishment; Colorado, 1; District of Columbia, 1; Georgia, 1; Indiana, 3; Kentucky, 1; Nebraska, 1; North Carolina, 1; Ohio, 18; Oregon, 3; Rhode Island, 3; Texas, 1; Utah, 1; Virginia, 1; Washington, 1; West Virginia, 2.

# ELECTRICAL PRODUCTS NOT ELSEWHERE CLASSIFIED

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**TABLE 3.—VALUE OF PRODUCTS FOR THE UNITED STATES: 1939 AND 1937**

	1939	1937
"Electrical Products Not Elsewhere Classified" industry, total value.....	\$39,048,906	\$47,989,062
Electrical products not elsewhere classified.....	30,182,550	38,749,842
Miscellaneous products not specified.....	350,205	767,407
Receipts for contract and repair work.....	2,213,405	3,429,817
Other products (not classified in this industry).....	1 6,302,746	5,041,996
Electrical products not elsewhere classified, aggregate value.....	85,928,439	100,461,085
Electrical products not elsewhere classified made in this industry.....	30,182,550	38,749,842
Electrical products not elsewhere classified made as secondary products in other industries.....	55,745,889	61,701,243
Produced in other industries within the electrical group.....	50,474,541	(?)
Produced in industries outside the electrical group.....	5,271,348	(?)

<sup>1</sup> Value of generators, transformers, arc-welding electrodes, time switches, relays, vacuum cleaners, etc.  
<sup>2</sup> No data.

**TABLE 4.—PRODUCTS BY KIND, QUANTITY, AND VALUE FOR THE UNITED STATES: 1939 AND 1937**

All data available for table 4 are shown in table 3.

**TABLE 5.—WAGE EARNERS ENGAGED IN MANUFACTURING, BY MONTHS, FOR THE UNITED STATES, 1939 AND 1937, AND BY STATES, 1939**

STATE	Average number employed during year	NUMBER RECEIVING PAY DURING NORMAL PAY-ROLL PERIOD ENDED NEAREST 15TH OF MONTH—											
		January	February	March	April	May	June	July	August	September	October	November	December
United States:													
1939.....	6,014	5,643	5,742	5,858	5,832	5,904	6,021	5,494	5,965	6,352	6,419	6,399	6,543
1937.....	8,371	7,893	7,926	8,238	8,085	7,874	8,124	8,224	8,435	8,763	9,066	8,937	8,891
California.....	21	21	21	21	20	19	19	19	22	21	24	24	24
Connecticut.....	219	228	210	177	123	122	246	195	229	212	261	319	306
Illinois.....	557	519	517	513	530	542	543	537	573	587	622	637	569
Indiana.....	34	26	24	26	24	25	35	42	55	62	30	29	28
Iowa.....	12	15	10	9	10	11	13	12	14	13	13	13	13
Maryland.....	132	45	88	109	119	133	140	147	149	148	162	175	172
Massachusetts.....	180	170	170	165	175	173	170	183	197	187	174	196	201
Michigan.....	439	489	480	383	415	432	410	415	419	422	464	467	471
Minnesota.....	14	14	14	14	14	14	14	14	14	14	14	14	14
Missouri.....	36	29	30	33	35	38	40	44	42	37	34	32	32
New Jersey.....	1,481	1,289	1,291	1,414	1,449	1,509	1,570	1,402	1,527	1,515	1,585	1,583	1,629
New York.....	979	1,190	1,196	1,164	1,093	1,041	943	621	835	1,120	925	711	913
Ohio.....	877	790	841	882	840	832	844	850	859	891	929	971	992
Oregon.....	13	14	13	14	13	14	13	13	13	13	12	9	10
Pennsylvania.....	294	247	259	282	278	280	309	305	311	302	306	329	321
Rhode Island.....	426	316	341	386	402	405	388	393	406	501	549	543	478
Wisconsin.....	151	112	112	133	153	178	180	147	138	145	141	176	190

**TABLE 6.—EXPENDITURES FOR PLANT AND EQUIPMENT: 1939**

	1939
Number of establishments:	
Total for the industry.....	175
Reporting expenditures for plant and equipment.....	111
Value of products:	
Total for the industry.....	\$39,048,906
Reporting expenditures for plant and equipment.....	32,646,125
Expenditures for plant and equipment:	
Total for the industry.....	1,296,917
Expenditures for new construction or major alterations of buildings and other fixed plant and structures.....	173,312
Expenditures for new machinery and operating equipment.....	1,062,247
Expenditures for plant and equipment acquired in a "used" condition from other owners and expenditures for land.....	61,358

**TABLE 7.—VALUE OF INVENTORIES OF MATERIALS AND FINISHED PRODUCTS, AND VALUE OF PRODUCTS: 1939 AND 1937**

	1939	1937
Inventories:		
Beginning of year, total.....	\$8,226,552	\$7,224,171
Finished products.....	2,569,327	2,765,695
Materials, supplies, etc.....	5,657,225	4,458,476
End of year, total.....	10,315,200	8,714,413
Finished products.....	2,593,338	3,286,276
Materials, supplies, etc.....	7,716,862	5,428,137
Value of products for the industry, total.....	39,048,906	47,989,062
Value for establishments reporting inventories (includes value of products of establishments reporting no inventories on hand).....	38,711,571	47,632,589
Value for establishments not reporting inventories.....	337,335	356,473

TABLE 8.—PRIME MOVERS, MOTORS, GENERATORS, AND ELECTRIC ENERGY: 1939

	1939
Number of establishments	175
Number of establishments reporting power equipment	175
Prime movers, aggregate:	
Number	5
Horsepower	212
Prime movers, driving generators, total—	
Number	4
Horsepower	207
Steam engines—	
Number	1
Horsepower	130
Internal-combustion engines, <sup>1</sup> other than Diesel and semi-Diesel—	
Number	2
Horsepower	37
Hydroturbines and water wheels—	
Number	1
Horsepower	40
Prime movers, driving generators, ordinarily idle (included above), horsepower	27
Prime movers, steam engines, not driving generators—	
Number	1
Horsepower	5
Generators, kilowatt rating, total	147
Generators, driven by—	
Steam engines, kilowatt rating	90
Internal-combustion engines, <sup>1</sup> other than Diesel and semi-Diesel, kilowatt rating	27
Hydroturbines and water wheels, kilowatt rating	30
Generators, ordinarily idle (included above), kilowatt rating	20
Electric motors, total:	
Number	12,790
Horsepower	22,296
Driven by purchased energy—	
Number	12,765
Horsepower	22,266
Driven by energy generated in establishments reporting—	
Number	25
Horsepower	30
Electric energy (kilowatt-hours):	
Generated in plant	147,970
Purchased	34,981,614

<sup>1</sup> Gas, gasoline, etc.

ELECTRICAL EQUIPMENT CLASSIFIED IN INDUSTRIES OUTSIDE THIS GROUP—PRODUCTION, BY KIND, NUMBER, AND VALUE: 1933 TO 1939

	1939	1937	1935	1933
Portable electric tools (metalworking):				
Drills—				
Number reported—				
Number	90,846	104,084	( <sup>1</sup> )	( <sup>1</sup> )
Value	\$3,671,603	\$4,152,509	\$2,558,080	\$569,526
Number not reported, value	\$366,767			
Grinders—				
Number	34,268	31,402	( <sup>1</sup> )	( <sup>1</sup> )
Value	\$1,218,567	\$1,374,959	\$1,019,194	\$260,566
Hammers (chipping, riveting, calking, etc.)—				
Number reported—				
Number	1,757	2,802	( <sup>1</sup> )	( <sup>1</sup> )
Value	\$158,153	\$324,535	\$115,932	\$60,821
Number not reported, value	\$81,550			
Washing machines for household use (electric):				
Number	1,352,162	1,478,480	1,192,142	* 1,003,322
Value	\$48,512,215	\$53,759,751	\$43,048,375	\$37,540,023
Ironing machines for household use (electric):				
Number	129,293	159,089	147,700	( <sup>2</sup> )
Value	\$4,719,993	\$6,405,210	\$4,615,056	( <sup>2</sup> )
Electric signs:				
Neon, value	\$21,960,650	\$21,934,242	\$17,469,619	\$12,198,756
Other, value	\$3,545,868	\$1,970,560	\$1,904,797	
Electric-lighting equipment, value	\$113,207,082	\$106,803,273	\$70,884,225	\$36,527,488
Electric refrigerators, domestic:				
Units complete with cabinets—				
Number reported—				
Number	1,773,091	2,096,150	* 1,423,393	956,356
Value	\$142,771,398	\$182,839,921	\$118,513,808	\$75,459,555
Number not reported, value		\$734,097	* \$1,358,711	
Units complete without cabinets—				
Number reported—				
Number	205,491	279,645	242,240	37,748
Value	\$8,060,305	\$11,686,201	\$11,046,989	\$1,658,519
Number not reported—	\$864,226			

<sup>1</sup> Figures not available.<sup>2</sup> The number of washing machines is incomplete; the value includes \$495,670 for which no number was reported.<sup>3</sup> No data.<sup>4</sup> Revised.