

KAOLIN AND BALL CLAY

The "kaolin and ball clay" industry in the United States produced 1,050,000 short tons of clay in 1939, valued at \$7,214,000.¹ The value of all products of the industry was \$7,239,000.

The industry comprises 95 pits or mines and 53 associated preparation plants located in 19 States. Operations in Georgia reported almost half the total output of the industry; those in South Carolina and California were the next largest producers. The major part of the crude material was mined from open pits; in addition, there were five small underground and combination underground and open-pit operations, one hydraulicking, and one dredge operation. About 73 percent of the clay produced was reported as a prepared product; the remaining 27 percent was crude clay.

Approximately three-fourths, or 751,000 tons, of the clay produced by the industry was kaolin. Georgia, the principal producing State, accounted for more than two-thirds of this kaolin output. Other States in which kaolin was produced in 1939, in order of importance, are South Carolina, Pennsylvania, Florida, California, and North Carolina; small quantities were also produced in Alabama, Delaware, and Virginia. The largest part of the output is used as a paper filler and coating; considerable quantities are consumed for making whiteware and high-grade tile. Kaolin is also used in the manufacture of rubber, linoleum, oil cloth, paint, refractory cement, and other products.

The industry's production of ball clay in 1939 totaled 127,000 tons, or approximately 12 percent of its total output of clay. The principal producing area is a belt extending from Graves County in southwestern Kentucky to Weakley, Henry, and Carroll Counties in Tennessee. Smaller quantities are produced in Maryland, New Jersey, and Nevada. Most of the ball clay produced is used in the manufacture of whiteware, high-grade tile, and other pottery; small quantities are used in making architectural terra cotta, linoleum, and enameling.

About 11 percent (117,000 tons) of the clay produced by the industry was rotary-drilling mud used for drilling oil and gas wells. The mud is prepared from fine-grained clays, and is used alone or mixed with bentonite. Clay used for drilling mud was produced principally in California, with small amounts being mined in Mississippi, Texas, and Louisiana.

Other clays produced by operations in the industry include small amounts of slip clay, pottery clay, and other special-purpose clays. In addition, fire and stoneware clays and common clay and shale were produced in 1939 as secondary clay products. The fire clay produced by the industry occurs chiefly in association with ball-clay deposits in Kentucky, Tennessee, and Maryland.

PRINCIPAL EXPENSES

The industry paid \$1,830,000 in wages in 1939 to an average of 3,168 wage earners. Salaried employees, of whom 266 were

¹As defined for census purposes, the industry covers clay-producing operations (mines or pits and preparation plants operated together), including those conducted by manufacturers of clay products, that produced principally kaolin, ball clay, slip clay, rotary-drilling mud, and other clays except common clay and shale (for heavy-clay products), fire clay and stoneware clay, fuller's earth, and bentonite. Operations producing principally these excepted clays are classified in other industries for which statistics are summarized in separate reports.

reported for October, were paid \$637,000. Expenditures for supplies and materials amounted to \$896,000; fuel, \$530,000; purchased electric energy, \$241,000; and contract work, \$135,000. These reported principal expenses aggregated \$4,269,000. The cost of buildings, machinery, and equipment during 1939 was \$1,220,000.

EMPLOYMENT AND WORKING TIME

About 60 percent of the average of 3,168 wage earners were employed at operations in Georgia. The number reported for a single month ranged, for the industry as a whole, from 2,931 in January to 3,478 in November. Wage earners worked a total of 5,987,000 man-hours—an average of 7.3 hours per man per shift. Operations were active the equivalent of 280 full days during the year. Continuous operation in clay preparation was characteristic of the large kaolin preparation plants. Eighteen plants worked 24 hours per day, 3 of them working four shifts. One rotary-mud preparation plant operated on a three-shift basis, as did the hydraulicking operation that produced only crude clay.

Of the total number of man-hours worked by wage earners, about 40 percent was expended in or about pits or mines and 60 percent at preparation plants. Operations in Georgia accounted for about 60 percent of all man-hours worked. Average wage payments per man-hour were 31 cents for the industry as a whole; they ranged from 27 to 39 cents in southeastern States and from 55 to 62 cents in Rocky Mountain and Pacific Coast States.

POWER EQUIPMENT

Power equipment in use or available for use at the end of the year had an aggregate rated capacity of 33,000 horsepower. About 60 percent of the total available horsepower reported was for driving stationary or fixed equipment such as electric generators and crushing, pulverizing, mixing, screening, and washing equipment; the remainder was for driving mobile equipment such as power shovels, trucks, and tractors. Almost all of the electric motors were for driving stationary equipment; about 30 percent of the horsepower of prime movers was for this purpose. The horsepower rating of power equipment per wage earner averaged 10 for all operations and ranged from 5 in Kentucky to 38 in California.

Eighty-seven units of power loading equipment were reported, including 58 power shovels and 16 dragline excavators. Except for one unit, power shovels and draglines had dipper or bucket capacities of less than 3 cubic yards. Four of the loading machines were powered by electricity, 24 by steam, and 59 by internal-combustion engines.

The industry consumed 23,808,000 kilowatt-hours of electric energy in 1939, of which 83 percent was purchased and 17 percent generated by the reporting companies for their own use. Fuels consumed by the industry included 35,000 tons of bituminous coal, 2,200 tons of anthracite, 12,000 barrels of fuel oil, 453,000 gallons of gasoline and kerosene, and 1,330,000 thousand cubic feet of natural gas. The latter was used primarily in plants in Georgia.

MINERAL INDUSTRIES

TABLE 1.—PRINCIPAL STATISTICS FOR THE KAOLIN AND BALL-CLAY AND FIRE-CLAY INDUSTRIES
IN THE UNITED STATES: 1939, 1929, 1919, 1909, and 1902¹

(For producing operations only)

ITEM	1939	1929	1919	1909	1902
Number of operating companies ² -----	273	(³)	(³)	261	203
Number of pits and mines-----	401	236	350	336	205
Production of clay (tons of 2,000 pounds)-----	5,250,539	4,310,172	(³)	(³)	1,416,200
Value of products, total-----	\$14,417,162	\$10,753,445	\$10,086,296	\$2,945,948	\$2,061,072
Clay produced-----	\$14,088,426	\$10,716,822	\$9,712,641	(³)	\$2,025,116
Other products and services rendered-----	\$328,736	\$36,623	\$372,657	(³)	\$35,956
Number of persons engaged, total-----	7,478	4,574	6,087	3,742	4,261 ⁸
Wage earners (average for the year, including inactive periods)-----	6,823	4,159	5,453	3,262	2,433 ⁵
Salaried employees-----	521	363	447	236	185
Proprietors and firm members-----	134	72	187	244	(³)
Performing manual labor-----	44	(³)	48	77	(³)
Principal expenses designated below, total-----	\$9,143,769	\$6,862,393	\$8,205,344	\$2,023,919	\$1,795,461 ⁴
Wages-----	\$5,195,569	\$3,757,998	\$5,367,082	\$1,361,622	\$952,692
Salaries-----	\$1,135,905	\$841,015	\$842,519	\$224,867	\$150,505
Supplies and materials-----	\$1,518,370	\$1,493,992	\$1,416,999	\$280,953	(³)
Fuel-----	\$645,432	\$524,782	\$397,655	(³)	\$272,823 ⁶
Purchased electric energy-----	\$370,612	\$244,548	\$54,934	\$108,389	(³)
Contract work-----	\$277,881	\$20,058	\$126,355	\$48,066	\$13,241
Cost of machinery and equipment erected or installed during year-----	\$1,189,756	\$458,753	(³)	(³)	(³)
Horsepower rating of power equipment, total-----	64,617	31,877	21,243	8,868	4,478
Per wage earner-----	9.5	7.7	3.9	2.7	1.8
Prime movers-----	37,398	20,837	16,932	8,309	4,478
Electric motors driven by purchased energy-----	27,219	11,040	64,311	559	(³)
Horsepower rating of electric motors driven by energy generated by reporting companies-----	3,411	1,011	1,815	(³)	(³)
Fuels consumed:					
Anthracite (tons of 2,000 pounds)-----	2,192	702	386	(³)	(³)
Bituminous coal (tons of 2,000 pounds)-----	46,399	115,248	84,065	(³)	(³)
Fuel oils (barrels of 42 gallons)-----	16,766	3,037	51,646	(³)	(³)
Gasoline and kerosene (gallons)-----	976,213	445,982	76,398	(³)	(³)
Natural gas (thousands of cubic feet)-----	1,334,289	10,230	9,009	(³)	(³)
Electric energy consumed (thousands of kw.-hrs.), total-----	29,884	14,590	(³)	(³)	(³)
Purchased-----	25,405	14,349	(³)	(³)	(³)
Generated by reporting companies-----	4,479	241	(³)	(³)	(³)

¹Statistics for 1939 cover operations engaged principally in the production of kaolin, ball clay, slip clay, rotary-drilling mud, fire clay, stoneware clay, and other clays except common clay and shale (for heavy-clay products), fuller's earth, and bentonite; figures for 1939 thus represent the "Kaolin and ball clay" and "Fire clay" industries combined. For 1929 and earlier years, statistics are for enterprises engaged in the production of clay (china, paper, ball, slip, fire, and other clay), and whose product was sold as clay, either crude or beneficiated. Statistics for 1929, 1919, and 1909 exclude data for the production of clay by clay-products manufacturers, whether used in their own manufacture of clay products, or sold as raw clay to others. Statistics for 1929 include data for production of clay (1,442,098 short tons valued at about \$672,600) by "cement manufacturers whose operations were conducted as distinct units, and for which separate and complete reports were filed." Figures for 1939 cover only those producing operations (mines, plants, or mines and plants operated together) for which the value of products, reported principal expenses, or cost of buildings, machinery, and equipment erected or installed during the year amounted to at least \$2,500. Figures for 1929 cover only "enterprises" for which the value of products or cost of development work amounted to at least \$2,500; the corresponding minimum for 1919 was \$500 for value of products and \$5,000 for cost of development work. No minimum was placed on the size of operations included for 1909 and 1902.

²For 1939 and 1909, companies that submitted more than one report are counted only once in the totals.

³Not available.

⁴Excludes statistics for items for which information was not available as indicated by footnotes.

⁵On schedules for 1902 census concerns were instructed that "The average number employed during the year is the number that would be required, at continuous employment for the twelve months, to produce the quantity of products reported." "In editing the schedules ... the figures for the average number of employees were reduced to a 300-day basis whenever the schedules showed them to be the average number for a shorter period; when it was evident that the employees had worked more than 300 days, the average number for the longer period was allowed to stand."

⁶Statistics for cost of purchased power were not explicitly requested for 1902 but probably are included in part in the figures reported for supplies and materials.

⁷Includes amounts paid for purchased power other than electric.

⁸Includes 40 horsepower for equipment operated by purchased power other than electric.

TABLE 2.—PRINCIPAL STATISTICS FOR THE KAOLIN AND BALL CLAY INDUSTRY IN THE UNITED STATES, BY STATE AND BY TYPE OF OPERATION: 1939¹

ITEM	STATE						
	United States	Alabama, Florida, Louisiana, Mississippi ²	California	Colorado and Nevada	Delaware, Maryland, and Virginia ³	Georgia	Kentucky
Number of operating companies ⁴ -----	75	7	16	3	4	19	4
Number of pits and mines ⁵ -----	95	6	17	3	4	21	4
Number of preparation plants-----	53	6	10	-----	2	12	2
Number of persons engaged, total-----	63,460	155	114	7	55	1,970	161
Wage earners (average for the year)-----	3,168	143	101	6	49	1,882	139
Salaried employees-----	256	11	6	-----	5	88	21
Proprietors and firm members-----	26	1	7	1	1	5	1
Performing manual labor-----	3	-----	1	-----	-----	1	-----
Production of all clays:							
Tons of 2,000 pounds-----	1,049,810	32,847	116,062	3,995	25,092	514,795	85,896
Value at pits or mines-----	\$7,214,453	\$355,918	\$427,583	\$16,807	\$141,346	\$3,697,436	\$597,659
Value of all products-----	\$7,238,690	\$358,790	\$445,267	\$16,907	\$141,397	\$3,697,436	\$597,659
Principal expenses designated below, total-----	\$4,268,960	\$222,337	\$209,475	\$5,548	\$58,979	\$2,270,248	\$220,531
Wages-----	\$1,829,731	\$74,685	\$118,910	\$5,055	\$28,926	\$1,032,153	\$96,011
Salaries-----	\$637,399	\$20,582	\$19,557	-----	\$7,966	\$188,051	\$50,905
Supplies and materials-----	\$896,311	\$56,796	\$27,161	\$75	\$3,992	\$538,903	\$12,591
Fuel-----	\$530,026	\$34,524	\$25,577	\$358	\$5,073	\$356,470	\$8,078
Purchased electric energy-----	\$240,878	\$32,090	\$12,292	-----	\$7,952	\$120,579	\$2,143
Contract work-----	\$134,615	\$8,658	\$5,978	\$60	\$5,070	\$25,092	\$55,803
Cost of buildings, machinery, and equipment erected or installed during year-----	\$1,219,504	\$26,215	\$26,981	-----	\$1,888	\$1,026,666	\$13,455
Buildings-----	\$202,574	\$7,973	\$3,057	-----	\$408	\$178,242	\$311
Machinery and equipment, total-----	\$1,016,930	\$18,242	\$23,924	-----	\$1,480	\$848,424	\$12,544
Purchased in new condition-----	\$958,032	\$17,717	\$23,654	-----	\$1,480	\$825,988	\$12,544
Purchased in used condition-----	\$58,898	\$525	\$270	-----	-----	\$22,436	-----
Total number of man-shifts worked by wage earners-----	825,190	36,457	24,091	1,137	10,290	546,414	30,751
Total number of man-hours worked by wage earners-----	5,987,209	260,392	192,734	9,099	82,320	3,799,316	249,128
Average number of hours worked per shift-----	7.3	7.1	8.0	8.0	8.0	7.0	8.1
Average hourly earning of wage earners-----	\$0.31	\$0.29	\$0.62	\$0.56	\$0.35	\$0.27	\$0.39
Tons of clay produced per man-hour-----	0.18	0.13	0.60	0.44	0.30	0.14	0.34
Average number of equivalent full days operations were active-----	280	248	175	103	158	332	248
Horsepower rating of power equipment, total-----	32,777	2,696	3,823	156	763	13,013	677
Per wage earner-----	10.3	18.9	37.9	26.0	15.6	6.9	4.9
Stationary equipment ⁶ -----	19,536	2,304	2,165	-----	621	7,923	425
Mobile equipment ⁷ -----	13,241	392	1,658	156	142	5,090	252
Electric energy consumed (thousands of kw.-hrs.), total-----	23,608	2,135	1,082	-----	497	15,043	78
Purchased-----	19,596	1,944	1,082	-----	497	11,380	78
Generated by reporting companies-----	4,012	191	-----	-----	-----	3,663	-----

¹The industry includes clay-producing operations engaged primarily in the production of kaolin, ball clay, slip clay, rotary-drilling mud, and other clays except common clay and shale (for heavy-clay products), fire clay and stoneware clay, bentonite, and fuller's earth. Operations engaged primarily in producing these excepted clays are classified in the "Common clay and shale," "Fire clay," "Bentonite," and "Fuller's earth" industries, statistics for which are summarized in other tables. No preparation plants independently operated were reported for 1939. Twelve smaller producing operations, statistics for which are excluded, reported the production in 1939 of 3,780 short tons of clay valued at \$10,192. Other clay industries reported the production in 1939 of 5,895 short tons of clay (valued at \$28,813) of the types classified as primary products of the "Kaolin and ball clay" industry; statistics for this production are included in the figures for those industries rather than in the figures for the "Kaolin and ball clay" industry. See also table 1, footnote 1.

²Alabama, 1 mine and 1 preparation plant; Florida, 2 mines and 2 plants; Louisiana, 2 mines and 2 plants; and Mississippi, 1 mine and 1 plant.

³Delaware, 1 mine and 1 preparation plant; Maryland, 2 mines; and Virginia, 1 mine and 1 plant.

⁴Companies with operations in more than 1 State or more than 1 type of operation are counted only once in the totals.

⁵With the 7 exceptions specified, all operations used open-pit mining methods: California, 1 underground mine and 1 hydraulicking operation; Colorado, 1 combination open-pit and underground mine; Delaware, 1 underground mine; Florida, 1 dredge operation; Pennsylvania, 1 underground mine and 1 combination open-pit and underground mine. The 2 combination mines and 3 underground mines produced a total of 29,903 tons in 1939.

⁶Includes statistics for 2 central-office employees paid \$4,968 in Ohio.

⁷Includes, in addition to the value of clays produced, \$24,227 representing the value of secondary products (crushed sandstone, sand and gravel, and mica).

⁸Of this number, 111,738 were worked in the 2 combination and 3 underground mines.

⁹Aggregate horsepower rating of engines, motors, etc. for driving stationary or fixed equipment such as electric generators and crushing, pulverizing, mixing, screening, washing, and flotation equipment.

¹⁰Aggregate horsepower rating of engines, motors, etc. for driving mobile equipment such as power shovels, scraper loaders, tractors, and trucks.

MINERAL INDUSTRIES

TABLE 2.—PRINCIPAL STATISTICS FOR THE KAOLIN AND BALL CLAY INDUSTRY IN THE UNITED STATES, BY STATE
AND BY TYPE OF OPERATION: 1939¹—Continued

ITEM	STATE—Continued						TYPE OF OPERATION	
	New Jersey and New York ¹¹	North Carolina	Pennsyl- vania	South Carolina	Tennessee	Texas	Mines only	Mines and preparation plants operated together
Number of operating companies ⁴ -----	3	3	6	6	3	6	31	46
Number of pits and mines ⁵ -----	3	5	6	12	8	6	37	58
Number of preparation plants-----		5	5	7		4		53
Number of persons engaged, total-----	73	154	94	449	151	75	405	3,055
Wage earners (average for the year)-----	10	139	83	419	136	61	356	2,812
Salaried employees-----	61	15	6	29	15	12	41	225
Proprietors and firm members-----	2		5	1		2	8	18
Performing manual labor-----	1						2	1
Production of all clays: Tons of 2,000 pounds-----	3,135	10,921	46,440	134,938	61,528	14,561	215,836	833,974
Value at pits or mines-----	\$22,284	\$154,267	\$183,450	\$1,093,396	\$423,783	\$100,524	\$1,115,475	\$6,098,978
Value of all products-----	\$22,284	\$155,937	\$185,250	\$1,093,396	\$423,783	\$100,524	\$1,218,523	\$6,020,157
Principal expenses designated below, total-----	\$203,137	\$148,405	\$106,142	\$593,181	\$163,622	\$62,387	\$466,112	\$3,802,848
Wages-----	\$8,825	\$72,774	\$51,285	\$232,150	\$83,364	\$25,593	\$235,329	\$1,594,402
Salaries-----	\$192,907	\$20,744	\$10,679	\$64,845	\$39,423	\$16,772	\$87,403	\$549,996
Supplies and materials-----	\$400	\$16,662	\$19,498	\$180,908	\$26,326	\$12,997	\$46,847	\$849,454
Fuel-----	\$300	\$29,132	\$10,457	\$47,084	\$12,584	\$6,389	\$28,039	\$501,987
Purchased electric energy-----		\$5,967	\$4,509	\$52,785	\$1,925	\$636	\$4,404	\$236,474
Contract work-----	\$705	\$3,126	\$9,714	\$15,409			\$64,090	\$70,525
Cost of buildings, machinery, and equipment erected or installed during year-----	\$150	\$12,188	\$683	\$57,940	\$19,823	\$83,515	\$42,878	\$1,176,625
Buildings-----								
Machinery and equipment, total-----	\$150	\$12,188	\$683	\$4,455	\$3,655	\$3,280	\$5,484	\$197,090
Purchased in new condition-----				\$53,485	\$16,158	\$30,235	\$37,394	\$979,536
Purchased in used condition-----	\$150	\$6,388		\$47,105	\$15,936	\$7,120	\$32,072	\$925,960
Total number of man-shifts worked by wage earners-----	2,375	30,446	17,048	91,348	26,644	8,189	69,443	755,747
Total number of man-hours worked by wage earners-----	18,124	229,390	137,874	719,246	224,168	65,418	565,377	5,421,832
Average number of hours worked per shift-----	7.6	7.5	8.1	7.9	8.4	8.0	8.1	7.2
Average hourly earning of wage earners-----	\$0.49	\$0.32	\$0.37	\$0.32	\$0.37	\$0.39	\$0.42	\$0.29
Tons of clay produced per man-hour-----	0.17	0.05	0.34	0.19	0.27	0.22	0.38	0.15
Average number of equivalent full days operations were active-----	170	195	185	242	210	161	192	292
Horsepower rating of power equipment, total-----	74	1,411	1,335	5,329	2,818	682	6,207	26,570
Per wage earner-----	7.4	10.2	16.1	12.7	20.7	11.2	17.4	9.4
Stationary equipment ⁹ -----		1,225	567	3,283	543	480	1,648	17,838
Mobile equipment ¹⁰ -----	74	186	768	2,046	2,275	202	4,559	8,682
Electric energy consumed (thousands of kw.-hrs.), total-----		356	137	4,167	97	16	187	23,421
Purchased-----								
Generated by reporting companies-----		275	130	4,097	97	16	187	19,409
		81	7	70				4,012

¹The industry includes clay-producing operations engaged primarily in the production of kaolin, ball clay, slip clay, rotary-drilling mud, and other clays except common clay and shale (for heavy-clay products), fire clay and stoneware clay, bentonite, and fuller's earth. Operations engaged primarily in producing these excepted clays are classified in the "Common clay and shale," "Fire clay," "Bentonite," and "Fuller's earth" industries, statistics for which are summarized in other tables. No preparation plants independently operated were reported for 1939. Twelve smaller producing operations, statistics for which are excluded, reported the production in 1939 of 3,780 short tons of clay valued at \$10,192. Other clay industries reported the production in 1939 of 5,995 short tons of clay (valued at \$28,813) of the types classified as primary products of the "Kaolin and ball clay" industry; statistics for this production are included in the figures for those industries rather than in the figures for the "Kaolin and ball clay" industry. See also table 1, footnote 1.

⁴Companies with operations in more than 1 State or more than 1 type of operation are counted only once in the totals.

⁵With the 7 exceptions specified, all operations used open-pit mining methods: California, 1 underground mine and 1 hydraulic mining operation; Colorado, 1 combination open-pit and underground mine; Delaware, 1 underground mine; Florida, 1 dredge operation; Pennsylvania, 1 underground mine and 1 combination open-pit and underground mine. The 2 combination mines and 3 underground mines produced a total of 29,903 tons in 1939.

⁹Aggregate horsepower rating of engines, motors, etc. for driving stationary or fixed equipment such as electric generators and crushing, pulverizing, mixing, screening, washing, and flotation equipment.

¹⁰Aggregate horsepower rating of engines, motors, etc. for driving mobile equipment such as power shovels, scraper loaders, tractors, and trucks.

¹¹New Jersey, 1 mine and New York, 2 mines.

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TABLE 3.—QUANTITY AND VALUE OF PRODUCTS OF THE KAOLIN AND BALL CLAY INDUSTRY IN THE UNITED STATES, BY KIND AND BY STATE: 1939¹

PRODUCT	United States	Alabama, Florida, Louisiana, and Mississippi	California	Colorado and Nevada	Delaware, Maryland, and Virginia	Georgia	Kentucky	New Jersey and New York	North Carolina	Pennsylvania	South Carolina	Tennessee	Texas
Value of all products—	\$7,238,680	\$358,790	\$445,267	\$16,907	\$141,397	\$3,697,436	\$597,659	\$22,284	\$155,987	\$185,250	\$1,093,398	\$423,783	\$100,524
Production of clays—													
Kaolin:													
Prepared—													
Tons of 2,000 pounds—	656,447	20,238	13,800		7,656	457,140			10,921	13,377	133,315		
Value—	\$5,401,567	\$247,114	\$150,246		\$71,000	\$3,601,397			\$154,267	\$87,192	\$1,090,351		
Unprepared—													
Tons of 2,000 pounds—	94,418	663	3,424			57,655				31,053	1,623		
Value—	\$201,936	\$995	\$20,169			\$96,039				\$81,686	\$3,045		
Ball clay:													
Prepared—													
Tons of 2,000 pounds—	1,312						1,512						
Value—	\$14,975						\$14,975						
Unprepared—													
Tons of 2,000 pounds—	125,981			1,542	10,931		65,206	500				47,802	
Value—	\$909,031			\$4,748	\$40,193		\$494,459	\$4,500				\$365,133	
Rotary drilling mud:													
Prepared—													
Tons of 2,000 pounds—	102,342	11,946	84,207										6,189
Value—	\$386,845	\$107,809	\$231,143										\$47,893
Unprepared—													
Tons of 2,000 pounds—	14,691		14,051										840
Value—	\$25,225		\$20,185										\$5,040
Fire clay and stoneware clay:													
Prepared—													
Tons of 2,000 pounds—	1,145		280				865						
Value—	\$9,627		\$2,240				\$7,387						
Unprepared—													
Tons of 2,000 pounds—	38,877			633	6,505		18,013					13,726	
Value—	\$171,730			\$2,089	\$30,153		\$80,836					\$58,650	
Other clays: ²													
Prepared—													
Tons of 2,000 pounds—	5,698		300							2,010			3,368
Value—	\$50,892		\$3,600							\$14,570			\$32,722
Unprepared—													
Tons of 2,000 pounds—	8,699			1,820				2,635					4,244
Value—	\$42,625			\$9,372				\$17,764					\$14,869
Value of secondary products ³	\$24,227	\$2,872	\$17,684	\$100	\$51				\$1,720	\$1,800			

¹For definition of the industry see table 2, footnote 1.²Represents common clay, slip clay, shale, and other special clays.³Represents crushed sandstone, common sand and gravel, foundry sand, and mica.TABLE 4.—NUMBER OF WAGE EARNERS IN THE KAOLIN AND BALL CLAY INDUSTRY IN THE UNITED STATES, BY TYPE OF OPERATION, BY STATE, AND BY MONTH: 1939¹

TYPE OF OPERATION AND STATE	Average for the 12 months	NUMBER RECEIVING PAY DURING PAY-ROLL PERIOD ENDING NEAREST THE 15TH OF THE MONTH											
		January	February	March	April	May	June	July	August	September	October	November	December
United States, total—	3,168	2,931	2,985	3,001	3,041	3,143	3,070	3,075	3,165	3,343	3,411	3,478	3,378
TYPE OF OPERATION													
Mines only, total—	356	309	303	316	308	343	342	382	394	402	407	391	374
Open pits—	347	300	294	307	299	334	333	373	385	393	398	382	365
Underground mines—	5	5	5	5	5	5	5	5	5	5	5	5	5
Combination (open-pit and underground) mines—	4	4	4	4	4	4	4	4	4	4	4	4	4
Mines and preparation plants operated together, total—	2,812	2,622	2,682	2,685	2,733	2,800	2,728	2,693	2,769	2,941	3,004	3,067	3,004
Open pits—	2,750	2,559	2,628	2,622	2,667	2,729	2,657	2,631	2,712	2,879	2,946	3,028	2,945
Underground mines—	15	15	15	16	16	16	14	14	16	16	15	16	16
Combination (open-pit and underground) mines—	47	48	39	47	50	55	57	48	41	46	43	43	43
STATE													
Alabama, Florida, Louisiana, and Mississippi—	143	128	123	121	124	119	157	157	163	145	165	164	153
California—	101	108	141	80	97	89	94	75	76	110	123	113	101
Colorado and Nevada—	6	4	4	4	4	4	4	4	6	11	11	6	6
Delaware, Maryland, and Virginia—	49	53	48	40	53	49	47	41	43	54	50	57	58
Georgia—	1,862	1,772	1,784	1,817	1,769	1,859	1,827	1,911	1,904	1,986	1,959	1,994	1,985
Kentucky—	139	126	130	137	135	137	129	130	136	143	156	155	153
New Jersey and New York—	10	5	6	5	3	11	14	15	15	15	16	10	11
North Carolina—	139	74	108	140	184	174	103	54	105	187	188	204	147
Pennsylvania—	83	84	66	76	76	88	95	84	80	84	94	99	69
South Carolina—	419	407	410	419	407	425	402	381	390	393	438	475	485
Tennessee—	136	107	102	105	107	126	141	166	181	154	154	138	145
Texas—	61	63	63	57	62	62	57	57	64	61	57	65	64

¹For definition of the industry see table 2, footnote 1.

MINERAL INDUSTRIES

TABLE 5.—EMPLOYMENT AND WORKING TIME IN THE KAOLIN AND BALL CLAY INDUSTRY IN THE UNITED STATES,
BY DEPARTMENT AND BY STATE: 1939¹

DEPARTMENT	United States	Alabama, Florida, Louisiana, and Mississippi	California	Colorado and Nevada	Delaware, Maryland, and Virginia	Georgia	Kentucky	New Jersey and New York	North Carolina	Pennsylvania	South Carolina	Tennessee	Texas
Average number of wage earners on active days, total	2,934	146	137	11	65	1,641	124	14	156	90	372	127	51
At mines, total	1,237	64	75	11	32	487	119	14	72	45	162	127	29
Open pits	1,108	64	70	11	26	436	106	14	68	19	141	122	29
Underground	34		5		6					23			
Surface shops and yards	95					51	11		4	3	21	5	
At preparation plants	1,697	82	62		33	1,154	5		84	45	210		22
Average number of equivalent full days operations were active	280	246	175	103	158	332	248	170	195	185	242	210	161
At mines, total	236	221	171	103	208	283	251	170	168	205	210	210	177
Open pits	233	221	172	103	219	281	255	170	165	104	206	211	177
Underground	240		156		160					279			
Surface shops and yards	264					299	208		206	277	232	171	
At preparation plants	312	269	180		110	353	162		219	165	267		139
Number of man-shifts worked by wage earners, total	825,190	36,457	24,091	1,137	10,290	546,414	30,751	2,375	30,446	17,046	91,348	26,644	8,169
On active days, total	821,834	36,226	24,001	1,137	10,290	545,051	30,751	2,375	30,446	16,642	90,082	26,644	8,169
At mines, total	291,848	14,163	12,850	1,137	6,646	137,773	29,840	2,375	12,060	9,223	34,009	26,644	5,128
Open pits	258,658	14,163	12,070	1,137	5,686	122,526	27,555	2,375	11,256	1,978	29,017	25,787	5,128
Underground	8,154		780		960					6,414			
Surface shops and yards	25,086					15,247	2,285		824	831	4,992	857	
At preparation plants	529,986	22,063	11,151		3,644	407,278	911		18,366	7,419	56,073		3,061
On inactive days	3,358	251	90			1,363				406	1,266		
Number of man-hours worked by wage earners, total	5,987,209	280,392	192,734	9,099	82,320	3,799,316	249,128	16,124	229,390	137,874	719,246	224,168	65,418
On active days, total	5,958,519	258,624	192,014	9,099	82,320	3,786,410	249,128	16,124	229,390	134,826	707,198	224,168	65,418
At mines, total	2,306,546	109,608	102,802	9,099	53,169	1,068,723	241,728	18,124	90,790	73,863	273,424	224,168	40,928
Open pits	2,041,026	109,608	96,562	9,099	45,489	946,746	223,445	18,124	84,198	16,027	233,488	217,312	40,928
Underground	85,229		6,240		7,680					51,509			
Surface shops and yards	200,291					121,977	18,283		6,592	6,647	39,956	6,856	
At preparation plants	3,651,973	149,016	89,212		29,151	2,719,687	7,400		136,600	60,643	435,774		24,490
On inactive days	28,690	1,768	720			10,906				3,248	12,048		

¹For definition of the industry see table 2, footnote 1.TABLE 6.—NUMBER OF OPERATIONS IN THE KAOLIN AND BALL CLAY INDUSTRY IN THE UNITED STATES WORKING ONE, TWO, OR THREE SHIFTS
AND NUMBER OF MAN-SHIFTS WORKED, BY SHIFT AND BY STATE: 1939¹

SHIFT	UNITED STATES		Alabama, Florida, Louisiana, and Mississippi	California	Colorado and Nevada	Delaware, Maryland, and Virginia	Georgia	Kentucky	New Jersey and New York	North Carolina	Pennsylvania	South Carolina	Tennessee	Texas
	Number	Percent of total												
Number of operations, total	95	100.0	6	17	3	4	21	4	3	5	6	12	8	6
Working 1 shift	69	72.6	3	14	3	3	15	4	3	4	5	1	8	6
Working 2 shifts	3	3.2	1	1						1				
Working 3 shifts	20	21.0	2	2		1	5				1	9		
Working 4 shifts	3	3.2					1					2		
Number of man-shifts worked by wage earners on active days, total	821,834	100.0	36,226	24,001	1,137	10,290	545,051	30,751	2,375	30,446	16,642	90,082	26,644	8,169
During first shift	462,710	56.3	20,476	19,076	1,137	8,840	240,808	30,751	2,375	30,334	12,265	61,815	26,644	8,169
During second shift	169,974	20.7	8,402	2,523		1,287	140,888			112	2,334	14,428		
During third shift	150,777	18.3	7,348	2,402		163	125,736				2,043	12,485		
During fourth shift	38,973	4.7					37,619					1,354		
At pits and mines, total	291,848	100.0	14,163	12,850	1,137	6,646	137,773	29,840	2,375	12,060	9,223	34,009	26,644	5,128
During first shift	250,450	85.8	9,387	12,073	1,137	6,646	106,347	29,840	2,375	12,018	4,846	34,009	26,644	5,128
During second shift	28,682	9.8	2,608	409			23,289			42	2,334			
During third shift	12,716	4.4	2,168	368			8,137				2,043			
At preparation plants, total	529,986	100.0	22,063	11,151		3,644	407,278	911		16,386	7,419	56,073		3,061
During first shift	212,260	40.0	11,089	7,003		2,194	134,461	911		16,316	7,419	27,806		3,061
During second shift	141,292	26.7	5,794	2,114		1,287	117,599			70		14,428		
During third shift	137,461	25.9	5,180	2,034		163	117,599					12,485		
During fourth shift	38,973	7.4					37,619					1,354		

¹For definition of the industry see table 2, footnote 1.

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TABLE 7.—QUANTITY OF FUEL AND ELECTRIC ENERGY CONSUMED IN THE KAOLIN AND BALL CLAY INDUSTRY IN THE UNITED STATES, BY TYPE OF OPERATION AND BY STATE: 1939¹

TYPE OF OPERATION AND STATE	FUEL					ELECTRIC ENERGY (thousands of kilowatt-hours)		
	Anthracite (tons of 2,000 pounds)	Bituminous coal (tons of 2,000 pounds)	Fuel oils (barrels of 42 gallons)	Gasoline and kerosene (gallons)	Natural gas (thousands of cubic feet)	Total	Purchased	Generated by reporting companies
United States, total-----	2,192	34,885	12,075	452,996	1,330,280	23,508	19,596	4,012
TYPE OF OPERATION								
Mines only, total-----	56	1,320	562	99,251	46,981	187	187	-----
Mines and preparation plants operated together, total-----	2,136	33,565	11,513	353,745	1,283,299	23,421	19,409	4,012
STATE								
Alabama, Florida, Louisiana, and Mississippi-----	-----	2,275	182	14,519	89,100	2,135	1,944	191
California-----	-----	-----	812	62,271	115,333	1,082	1,082	-----
Colorado and Nevada-----	-----	-----	-----	1,790	-----	-----	-----	-----
Delaware, Maryland, and Virginia-----	-----	481	-----	14,070	-----	497	497	-----
Georgia-----	2,192	18,352	5,391	182,503	1,159,317	15,043	11,880	3,663
Kentucky-----	-----	33	493	10,433	-----	78	78	-----
New Jersey and New York-----	-----	6,745	-----	18,554	-----	356	275	81
North Carolina-----	-----	845	3,010	5,758	-----	137	130	7
Pennsylvania-----	-----	5,155	1,222	101,505	-----	4,167	4,097	70
South Carolina-----	-----	988	423	48,470	-----	97	97	-----
Tennessee-----	-----	-----	582	10,423	16,530	16	16	-----
Texas-----	-----	-----	-----	-----	-----	-----	-----	-----

¹ For definition of the industry see table 2, footnote 1.TABLE 8.—NUMBER AND HORSEPOWER RATING OF PRIME MOVERS AND ELECTRIC MOTORS IN THE KAOLIN AND BALL CLAY INDUSTRY IN THE UNITED STATES, BY TYPE OF OPERATION AND BY STATE: 1939¹

TYPE OF OPERATION, STATE, AND TYPE OF EQUIPMENT	PRIME MOVERS AND ELECTRIC MOTORS DRIVEN BY PURCHASED ENERGY										ELECTRIC MOTORS DRIVEN BY ENERGY GENERATED BY REPORTING COMPANIES		
	Aggre- gate horse- power	Prime movers								Electric motors driven by pur- chased energy		Number	Horsepower
		Total		Driving generators		Not driving generators		Ordinarily idle (included in pre- ceding columns)		Number	Horse- power		
		Number	Horse- power	Number	Horse- power	Number	Horse- power	Number	Horse- power				
United States, total-----	32,777	295	18,143	14	3,033	281	15,110	13	980	999	14,634	282	2,463
Stationary-----	19,536	56	5,328	14	3,033	42	2,295	3	490	989	14,208	282	2,463
Mobile-----	13,241	239	12,815	-----	-----	239	12,815	10	490	10	426	-----	-----
TYPE OF OPERATION													
Mines only, total-----	6,207	96	5,257	-----	-----	96	5,257	6	300	70	950	-----	-----
Stationary-----	1,648	12	708	-----	-----	12	708	-----	-----	69	940	-----	-----
Mobile-----	4,559	84	4,549	-----	-----	84	4,549	6	300	1	10	-----	-----
Mines and preparation plants operated together, total-----	26,570	199	12,886	14	3,033	185	9,853	7	680	929	13,684	282	2,463
Stationary-----	17,888	44	4,620	14	3,033	30	1,587	3	490	920	13,268	282	2,463
Mobile-----	8,682	155	8,266	-----	-----	155	8,266	4	190	9	416	-----	-----
STATE													
Alabama, Florida, Louisiana, and Mississippi, total-----	2,696	11	1,392	2	850	9	542	1	350	72	1,304	8	143
Stationary-----	2,304	5	1,000	2	850	3	150	1	350	72	1,304	8	143
Mobile-----	392	6	392	-----	-----	6	392	-----	-----	-----	-----	-----	-----
California, total-----	3,823	39	2,378	-----	-----	39	2,378	1	40	61	1,445	-----	-----
Stationary-----	2,165	11	720	-----	-----	11	720	-----	-----	61	1,445	-----	-----
Mobile-----	1,658	28	1,658	-----	-----	28	1,658	1	40	-----	-----	-----	-----
Colorado and Nevada ² -----	156	2	156	-----	-----	2	156	-----	-----	-----	-----	-----	-----
Delaware, Maryland, and Virginia, total-----	763	14	418	-----	-----	14	418	2	140	9	345	-----	-----
Stationary-----	621	6	276	-----	-----	6	276	2	140	9	345	-----	-----
Mobile-----	142	8	142	-----	-----	8	142	-----	-----	-----	-----	-----	-----
Georgia, total-----	13,013	90	6,178	2	1,009	88	5,169	-----	-----	518	6,835	175	1,200
Stationary-----	7,923	13	1,461	2	1,009	11	452	-----	-----	512	6,462	175	1,200
Mobile-----	5,090	77	4,717	-----	-----	77	4,717	-----	-----	6	373	-----	-----
Kentucky, total-----	677	9	294	-----	-----	9	294	1	60	34	383	-----	-----
Stationary-----	425	1	50	-----	-----	1	50	-----	-----	32	375	-----	-----
Mobile-----	252	8	244	-----	-----	8	244	1	60	2	8	-----	-----
New Jersey and New York ² -----	74	1	74	-----	-----	1	74	-----	-----	-----	-----	-----	-----
North Carolina, total-----	1,411	11	1,100	8	914	3	186	-----	-----	60	311	79	655
Stationary-----	1,225	8	914	8	914	-----	-----	-----	-----	60	311	79	655
Mobile-----	186	3	186	-----	-----	3	186	-----	-----	-----	-----	-----	-----
Pennsylvania, total-----	1,335	13	1,102	1	80	12	1,022	-----	-----	16	233	-----	-----
Stationary-----	567	5	334	1	80	4	254	-----	-----	16	233	-----	-----
Mobile-----	768	8	768	-----	-----	8	768	-----	-----	-----	-----	-----	-----
South Carolina, total-----	5,329	53	2,199	1	180	52	2,019	4	190	184	3,130	20	465
Stationary-----	3,283	2	188	1	180	1	8	-----	-----	183	3,095	20	465
Mobile-----	2,046	51	2,011	-----	-----	51	2,011	4	190	1	35	-----	-----
Tennessee, total-----	2,818	43	2,265	-----	-----	43	2,265	4	200	41	553	-----	-----
Stationary-----	543	-----	-----	-----	-----	-----	-----	-----	-----	40	543	-----	-----
Mobile-----	2,275	43	2,265	-----	-----	43	2,265	4	200	1	10	-----	-----
Texas, total-----	682	9	587	-----	-----	9	587	-----	-----	4	95	-----	-----
Stationary-----	480	5	385	-----	-----	5	385	-----	-----	4	95	-----	-----
Mobile-----	202	4	202	-----	-----	4	202	-----	-----	-----	-----	-----	-----

¹ For definition of the industry see table 2, footnote 1. For definition of the terms "Stationary" and "Mobile" see table 2, footnotes 10 and 11.² Mobile only; no stationary equipment was reported.

TABLE 9.—NUMBER OF SURFACE POWER-LOADING MACHINES IN THE KAOLIN AND BALL CLAY INDUSTRY IN THE UNITED STATES, BY TYPE, BY KIND OF POWER USED, BY SIZE, AND BY STATE: 1939¹

TYPE OF MACHINE, KIND OF POWER USED, AND SIZE	United States	Alabama, Florida, Louisiana, and Mississippi	California	Colorado and Nevada	Delaware, Maryland, and Virginia	Georgia	Kentucky	New Jersey and New York	North Carolina	Pennsylvania	South Carolina	Tennessee	Texas
Power shovels, total ²	58	-----	5	-----	2	32	1	1	3	3	5	6	-----
Kind of power used:													
Steam	19	-----	-----	-----	2	13	-----	-----	-----	-----	2	2	-----
Electric	4	-----	-----	-----	-----	3	-----	-----	-----	-----	1	-----	-----
Internal-combustion engine	35	-----	5	-----	-----	16	1	1	3	3	2	4	-----
Dragline excavators, total	16	4	2	-----	1	4	2	-----	-----	1	-----	1	1
Kind of power used:													
Steam	5	-----	-----	-----	-----	2	1	-----	-----	1	-----	1	-----
Internal-combustion engine	11	4	2	-----	1	2	1	-----	-----	-----	-----	-----	1
Bucket capacity (cu. yds.):													
Less than 3	15	4	2	-----	1	3	2	-----	-----	1	-----	1	1
3 to 5	1	-----	-----	-----	-----	1	-----	-----	-----	-----	-----	-----	-----
Scraper loaders, total ³	7	-----	2	-----	-----	-----	-----	-----	-----	-----	1	3	1
Horsepower rating of hoists:													
Less than 10	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	1	-----	-----
10 to 25	3	-----	2	-----	-----	-----	-----	-----	-----	-----	-----	-----	1
26 to 100	3	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	3	-----
Other types, total ⁴	6	-----	3	-----	-----	-----	1	-----	-----	-----	-----	1	1

¹No underground power-loading machines were reported. For definition of the industry see table 2, footnote 1.²Dipper capacity less than 3 cubic yards.³Operated by internal-combustion engines.⁴Represents 1 clamshell loader, 3 bulldozers, 1 truck loader, and 1 tractor and scraper.TABLE 10.—SELECTED STATISTICS FOR INCORPORATED AND FOR UNINCORPORATED OPERATING COMPANIES IN THE KAOLIN AND BALL CLAY INDUSTRY IN THE UNITED STATES, BY STATE: 1939¹

TYPE OF OWNERSHIP AND STATE	Number of operating companies ²	Number of pits and mines	Number of prepara- tion plants	Production of clay (tons of 2,000 pounds)	Value of all products	NUMBER OF PERSONS ENGAGED					Wages	Salaries
						Total	Wage earners (average for the year)	Salaried employees	Proprietors and firm members			
									Total	Performing manual labor		
United States, total-----	75	95	53	1,049,210	\$7,238,680	33,460	3,168	3266	26	3	\$1,829,731	\$637,399
Incorporated-----	50	68	37	905,573	6,535,334	33,182	2,942	3240	26	3	1,691,628	596,379
Unincorporated-----	25	27	16	144,237	703,346	278	226	26	26	3	138,103	41,020
Alabama, Florida, Louisiana, and Mississippi ⁴	7	6	6	32,847	358,790	155	143	11	1	-----	74,685	20,582
California, total-----	16	17	10	116,062	445,267	114	101	6	7	1	118,910	19,557
Incorporated-----	10	10	3	79,564	253,529	58	56	2	-----	-----	74,959	13,237
Unincorporated-----	6	7	7	36,498	191,738	56	45	4	7	1	43,951	6,320
Colorado and Nevada ⁵ -----	3	3	-----	3,995	16,907	7	6	-----	1	-----	5,055	-----
Delaware, Maryland, and Virginia ⁴ -----	4	4	2	25,092	141,397	55	49	5	1	-----	28,926	7,966
Georgia, total-----	19	21	12	514,795	3,697,436	1,970	1,862	83	5	1	1,032,153	186,051
Incorporated-----	15	17	10	497,890	3,645,942	1,940	1,859	81	-----	-----	1,023,472	186,245
Unincorporated-----	4	4	2	16,905	51,494	30	23	2	5	1	8,681	1,806
Kentucky ⁴ -----	4	4	2	85,396	597,659	161	139	21	1	-----	96,011	50,905
New Jersey and New York ⁵ -----	3	3	-----	3,135	22,284	73	10	61	2	1	8,825	182,907
North Carolina ⁶ -----	3	5	5	10,921	155,987	154	139	15	-----	-----	72,774	20,744
Pennsylvania, total-----	6	6	5	46,440	185,250	94	83	6	5	-----	51,285	10,679
Incorporated-----	3	3	2	13,198	65,139	29	25	4	-----	-----	18,795	6,085
Unincorporated-----	3	3	3	33,242	120,111	65	58	2	5	-----	32,490	4,594
South Carolina ⁴ -----	6	12	7	134,938	1,093,396	449	419	29	1	-----	232,150	64,845
Tennessee ⁶ -----	3	8	-----	61,528	423,763	151	136	15	-----	-----	83,364	39,423
Texas ⁷ -----	6	6	4	14,661	100,524	75	61	12	2	-----	25,593	16,772

¹For definition of the industry see table 2, footnote 1.²Companies with operations in more than 1 State are counted only once in the totals.³Includes statistics for 2 central-office employees paid \$4,968 in Ohio.⁴Includes statistics for only 1 unincorporated company.⁵Includes statistics for only 1 incorporated company.⁶Incorporated only; no unincorporated companies were reported.⁷Includes statistics for only 2 unincorporated companies.

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TABLE 11.—SELECTED STATISTICS FOR KAOLIN AND BALL CLAY OPERATIONS IN THE UNITED STATES, CLASSIFIED BY VALUE OF PRODUCTS AND BY STATE: 1939¹

STATE AND VALUE OF PRODUCTS	Number of pits and mines	Number of preparation plants	Production of clay (tons of 2,000 pounds)	Value of all products	NUMBER OF PERSONS ENGAGED					Wages	Salaries
					Total	Wage earners (average for the year)	Salaries employees	Proprietors and firm members	Performing manual labor		
United States, total-----	95	53	1,049,810	\$7,238,680	2,460	3,168	² 266	26	3	\$1,829,781	² \$637,399
\$1 - \$19,999-----	40	17	154,442	372,489	248	209	24	15	3	119,615	32,583
\$20,000 - \$49,999-----	17	15	77,372	610,833	332	297	30	5	-----	178,002	50,359
\$50,000 - \$99,999-----	8	5	92,935	580,817	182	165	13	4	-----	124,165	26,466
\$100,000 - \$249,999-----	10	9	220,362	1,548,716	659	622	36	1	-----	373,807	75,799
\$250,000 - \$499,999-----	2	1	-----	-----	-----	-----	-----	-----	-----	-----	-----
\$500,000 - \$999,999-----	2	2	410,401	3,412,456	1,702	1,636	66	-----	-----	903,174	167,651
\$1,000,000 - \$2,499,999-----	1	1	-----	-----	-----	-----	-----	-----	-----	-----	-----
Unclassified-----	15	3	94,298	718,369	² 337	239	² 97	1	-----	130,968	² 284,561
Alabama, Florida, Louisiana, and Mississippi, total-----	6	6	32,847	358,790	155	143	11	1	-----	74,685	20,582
\$1 - \$19,999-----	2	2	-----	6,471	38	30	3	-----	-----	18,705	7,922
\$20,000 - \$49,999-----	1	1	-----	-----	-----	-----	-----	-----	-----	-----	-----
\$50,000 - \$99,999-----	2	2	-----	26,376	122	113	8	1	-----	55,980	12,660
\$100,000 - \$249,999-----	1	1	-----	-----	-----	-----	-----	-----	-----	-----	-----
California, total-----	17	10	116,062	445,267	114	101	6	7	1	118,910	19,557
\$1 - \$19,999-----	11	5	68,012	119,149	36	30	3	3	1	33,199	5,125
\$20,000 - \$49,999-----	4	4	-----	48,050	78	71	3	4	-----	85,711	14,432
\$50,000 - \$99,999-----	2	1	-----	-----	-----	-----	-----	-----	-----	-----	-----
Colorado and Nevada, total-----	3	-----	3,995	16,907	7	6	-----	1	-----	5,055	-----
\$1 - \$19,999-----	1	-----	-----	3,995	7	6	-----	1	-----	5,055	-----
Unclassified-----	2	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Delaware, Maryland, and Virginia, total-----	4	2	25,092	141,397	55	49	5	1	-----	28,926	7,966
\$1 - \$19,999-----	2	1	-----	25,092	55	49	5	1	-----	28,926	7,966
\$50,000 - \$99,999-----	2	1	-----	-----	-----	-----	-----	-----	-----	-----	-----
Georgia, total-----	21	12	514,795	3,697,436	1,970	1,882	83	5	1	1,032,153	189,051
\$1 - \$19,999-----	12	3	48,466	77,763	77	66	7	4	1	25,474	6,701
\$20,000 - \$49,999-----	1	1	-----	-----	-----	-----	-----	-----	-----	-----	-----
\$100,000 - \$249,999-----	4	4	107,503	612,820	289	270	18	1	-----	168,403	33,227
\$250,000 - \$499,999-----	1	1	-----	-----	-----	-----	-----	-----	-----	-----	-----
\$500,000 - \$999,999-----	2	2	358,826	3,006,853	1,604	1,546	58	-----	-----	838,276	148,123
\$1,000,000 - \$2,499,999-----	1	1	-----	-----	-----	-----	-----	-----	-----	-----	-----
Kentucky, total-----	4	2	85,896	597,659	161	139	21	1	-----	96,011	50,905
\$20,000 - \$49,999-----	2	1	-----	85,896	157	139	17	1	-----	96,011	41,713
\$100,000 - \$249,999-----	1	1	-----	-----	-----	-----	-----	-----	-----	-----	-----
\$250,000 - \$499,999-----	1	-----	-----	-----	4	-----	4	-----	-----	-----	9,192
Unclassified-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
New Jersey and New York, total-----	3	-----	3,135	22,284	73	10	61	2	1	8,825	192,907
\$1 - \$19,999-----	3	-----	3,135	22,284	15	10	3	2	1	8,825	2,740
Unclassified-----	-----	-----	-----	-----	58	-----	58	-----	-----	-----	190,167
North Carolina ³ -----	5	5	10,921	155,987	154	139	15	-----	-----	72,774	20,744
Pennsylvania, total-----	6	5	46,440	185,250	94	83	6	5	-----	51,285	10,679
\$1 - \$19,999-----	4	3	-----	46,440	94	83	6	5	-----	51,285	10,679
\$20,000 - \$49,999-----	1	1	-----	-----	-----	-----	-----	-----	-----	-----	-----
\$50,000 - \$99,999-----	1	1	-----	-----	-----	-----	-----	-----	-----	-----	-----
South Carolina, total-----	12	7	134,938	1,093,396	449	419	29	1	-----	232,150	64,845
\$1 - \$19,999-----	1	1	-----	-----	-----	-----	-----	-----	-----	-----	-----
\$100,000 - \$249,999-----	3	3	134,938	1,093,396	449	419	29	1	-----	232,150	64,845
Unclassified-----	8	3	-----	-----	-----	-----	-----	-----	-----	-----	-----
Tennessee, total-----	8	-----	61,528	423,783	151	136	15	-----	-----	83,364	39,423
\$20,000 - \$49,999-----	1	-----	-----	36,062	118	111	7	-----	-----	63,922	11,705
\$50,000 - \$99,999-----	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
\$100,000 - \$249,999-----	1	-----	-----	25,466	38	25	8	-----	-----	19,442	27,718
Unclassified-----	5	-----	-----	-----	-----	-----	-----	-----	-----	25,593	16,772
Texas, total-----	6	4	14,661	100,524	75	61	12	2	-----	25,593	3,900
\$1 - \$19,999-----	4	2	-----	14,661	66	61	3	2	-----	25,593	3,900
\$20,000 - \$49,999-----	2	-----	-----	-----	9	-----	9	-----	-----	-----	12,872
Unclassified-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

¹ For definition of the industry see table 2, footnote 1. Reports classified by value of products represent a single pit or mine, or a single pit or mine and a single preparation plant reported together. Statistics shown for "Unclassified" represent reports for more than one pit, mine, or preparation plant, and reports for central offices reported separately from their associated kaolin and ball clay operations.

² Includes statistics for 2 central-office employees paid \$4,968 in Ohio.

³ Classified in the \$20,000 through \$49,999 class interval.

MINERAL INDUSTRIES

TABLE 12.—SELECTED STATISTICS FOR KAOLIN AND BALL CLAY OPERATIONS IN THE UNITED STATES, CLASSIFIED BY QUANTITY OF CLAY PRODUCED AND BY STATE: 1939¹

STATE AND QUANTITY OF CLAY PRODUCED (tons of 2,000 pounds)	Number of pits and mines	Number of preparation plants	Production of clay (tons of 2,000 pounds)	Value of all products	NUMBER OF PERSONS ENGAGED				Wages	Salaries
					Total	Wage earners (average for the year)	Salaried employees	Proprietors and firm members		
								Total Performing manual labor		
United States, total-----	95	53	1,049,810	\$7,238,680	3,460	3,168	² 266	26	3	\$1,829,731 ² \$637,399
1 - 999-----	4	1	3,111	20,507	20	15	3	2	1	7,924 3,572
1,000 - 1,999-----	11	7	14,668	115,448	83	71	10	2	-----	41,988 17,170
2,000 - 4,999-----	24	13	79,577	384,273	233	205	19	9	2	117,943 28,626
5,000 - 9,999-----	18	11	125,110	622,531	264	238	25	6	-----	156,787 47,617
10,000 - 14,999-----	4	2	52,706	457,715	151	141	10	-----	-----	72,008 15,747
15,000 - 24,999-----	7	5	143,693	842,749	365	346	15	4	-----	286,014 81,413
25,000 - 34,999-----	4	4	120,634	573,891	230	214	16	-----	-----	121,827 35,018
35,000 - 49,999-----	1	1	-----	-----	-----	-----	-----	-----	-----	-----
50,000 - 99,999-----	2	1	410,401	3,412,456	1,702	1,636	66	-----	-----	903,174 167,651
100,000 and over-----	2	2	-----	-----	-----	-----	-----	-----	-----	-----
Unclassified-----	18	6	99,910	809,110	² 412	307	² 102	3	-----	172,071 ² 290,585
Alabama, Florida, Louisiana, and Mississippi, total-----	6	6	32,847	358,790	155	143	11	1	-----	74,685 20,582
1,000 - 1,999-----	2	2	-----	5,471	33	30	3	-----	-----	18,705 7,922
2,000 - 4,999-----	1	1	-----	-----	-----	-----	-----	-----	-----	-----
5,000 - 9,999-----	2	2	26,375	302,070	122	113	8	1	-----	55,980 12,660
10,000 - 14,999-----	1	1	-----	-----	-----	-----	-----	-----	-----	-----
California, total-----	17	10	116,062	445,287	114	101	6	7	1	118,910 19,557
1,000 - 1,999-----	3	1	4,458	32,060	12	11	1	-----	-----	7,566 2,925
2,000 - 4,999-----	5	2	18,788	81,250	17	14	-----	3	1	15,270 1,920
5,000 - 9,999-----	6	5	42,685	185,874	55	48	4	3	-----	59,293 13,512
15,000 - 24,999-----	1	-----	-----	-----	-----	-----	-----	-----	-----	-----
25,000 - 34,999-----	1	1	50,131	145,083	30	28	1	1	-----	36,681 1,200
Unclassified-----	1	1	-----	-----	-----	-----	-----	-----	-----	-----
Colorado and Nevada, total-----	3	-----	3,995	16,907	7	6	-----	1	-----	5,055 -----
1 - 999-----	1	-----	3,995	16,907	7	6	-----	1	-----	5,055 -----
Unclassified-----	2	-----	-----	-----	-----	-----	-----	-----	-----	-----
Delaware, Maryland, and Virginia, total-----	4	2	25,092	141,397	55	49	5	1	-----	28,926 7,966
1,000 - 1,999-----	1	1	-----	-----	-----	-----	-----	-----	-----	-----
5,000 - 9,999-----	2	1	25,092	141,397	55	49	5	1	-----	28,926 7,966
10,000 - 14,999-----	1	-----	-----	-----	-----	-----	-----	-----	-----	-----
Georgia, total-----	21	12	514,795	3,697,436	1,970	1,882	83	5	1	1,032,153 188,051
1 - 999-----	1	1	3,125	14,058	22	17	4	1	-----	6,740 4,750
1,000 - 1,999-----	2	2	-----	-----	-----	-----	-----	-----	-----	-----
2,000 - 4,999-----	6	-----	21,928	31,986	23	19	1	3	1	7,528 606
5,000 - 9,999-----	4	1	29,413	66,219	43	39	3	1	-----	15,805 2,585
15,000 - 24,999-----	2	2	101,503	578,320	277	260	17	-----	-----	163,803 32,027
25,000 - 34,999-----	2	2	-----	-----	-----	-----	-----	-----	-----	-----
35,000 - 49,999-----	1	1	-----	-----	-----	-----	-----	-----	-----	-----
50,000 - 99,999-----	1	1	358,826	3,006,853	1,605	1,547	58	-----	-----	838,276 148,123
100,000 and over-----	2	2	-----	-----	-----	-----	-----	-----	-----	-----
Kentucky, total-----	4	2	85,396	597,659	161	139	21	1	-----	96,011 50,905
5,000 - 9,999-----	2	1	85,396	597,659	157	139	17	1	-----	96,011 41,713
15,000 - 24,999-----	1	1	-----	-----	-----	-----	-----	-----	-----	-----
50,000 - 99,999-----	1	-----	-----	-----	-----	-----	-----	-----	-----	-----
Unclassified-----	-----	-----	-----	-----	4	-----	4	-----	-----	9,192
New Jersey and New York, total-----	3	-----	3,135	22,284	73	10	61	2	1	8,825 192,907
1 - 999-----	1	-----	3,135	22,284	15	10	3	2	1	8,825 2,740
1,000 - 1,999-----	2	-----	-----	-----	-----	-----	-----	-----	-----	-----
Unclassified-----	-----	-----	-----	-----	58	-----	58	-----	-----	190,167
North Carolina, total-----	5	5	10,921	155,987	154	139	15	-----	-----	72,774 20,744
1,000 - 1,999-----	1	1	-----	-----	-----	-----	-----	-----	-----	-----
2,000 - 4,999-----	3	3	10,921	155,987	154	139	15	-----	-----	72,774 20,744
Unclassified-----	1	1	-----	-----	-----	-----	-----	-----	-----	-----
Pennsylvania, total-----	6	5	46,440	185,250	94	83	6	5	-----	51,285 10,679
2,000 - 4,999-----	4	3	-----	-----	-----	-----	-----	-----	-----	-----
5,000 - 9,999-----	1	1	46,440	185,250	94	83	6	5	-----	51,285 10,679
15,000 - 24,999-----	1	1	-----	-----	-----	-----	-----	-----	-----	-----
South Carolina, total-----	12	7	134,338	1,093,396	449	419	29	1	-----	232,150 64,845
2,000 - 4,999-----	1	1	-----	-----	-----	-----	-----	-----	-----	-----
10,000 - 14,999-----	1	1	69,158	559,189	224	210	13	1	-----	124,965 25,201
15,000 - 24,999-----	1	1	-----	-----	-----	-----	-----	-----	-----	-----
25,000 - 34,999-----	1	1	-----	-----	-----	-----	-----	-----	-----	-----
Unclassified-----	8	3	65,780	534,207	225	209	16	-----	-----	107,185 39,644
Tennessee, total-----	8	-----	61,528	423,783	151	136	15	-----	-----	88,364 39,423
5,000 - 9,999-----	1	-----	-----	-----	-----	-----	-----	-----	-----	-----
10,000 - 14,999-----	1	-----	36,062	250,457	118	111	7	-----	-----	63,922 11,705
15,000 - 24,999-----	1	-----	-----	-----	-----	-----	-----	-----	-----	-----
Unclassified-----	5	-----	25,466	173,326	38	25	8	-----	-----	19,442 27,718
Texas, total-----	6	4	14,661	100,524	75	61	12	2	-----	25,598 16,772
1 - 999-----	1	-----	-----	-----	-----	-----	-----	-----	-----	-----
2,000 - 4,999-----	4	3	14,661	100,524	75	61	12	2	-----	25,598 16,772
Unclassified-----	1	1	-----	-----	-----	-----	-----	-----	-----	-----

¹ For definition of the industry see table 2, footnote 1. Reports classified by quantity of clay produced represent a single pit or mine, or a single pit or mine and a single preparation plant reported together. Statistics shown for "Unclassified" represent reports for more than 1 pit, mine, or preparation plant; reports on which figures were inadequately reported to permit classification; and reports for central offices reported separately from their associated kaolin and ball clay operations.

² Includes statistics for 2 central-office employees paid \$4,968 in Ohio.

KAOLIN AND BALL CLAY

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TABLE 13.—SELECTED STATISTICS FOR KAOLIN AND BALL CLAY OPERATIONS IN THE UNITED STATES, CLASSIFIED BY NUMBER OF WAGE EARNERS AND BY STATE: 1939¹

STATE AND NUMBER OF WAGE EARNERS	Number of pits and mines	Number of preparation plants	Production of clay (tons of 2,000 pounds)	Value of all products	NUMBER OF PERSONS ENGAGED					Wages	Salaries
					Total	Wage earners (average for the year)	Salaried employees	Proprietors and firm members	Performing manual labor		
United States, total	95	53	1,049,810	\$7,238,680	3,480	3,168	266	26	3	\$1,829,731	\$2,637,399
1 - 5	27	9	144,124	334,362	118	95	13	10	3	82,483	14,738
6 - 20	24	18	127,700	768,152	324	281	31	12	-----	162,431	55,212
21 - 50	12	11	123,332	961,115	441	406	32	3	-----	237,640	60,553
51 - 100	6	4	156,785	1,115,731	487	462	25	-----	-----	291,857	51,932
101 - 250	2	2	-----	-----	-----	-----	-----	-----	-----	-----	-----
251 - 500	2	2	391,694	3,256,740	1,717	1,652	65	-----	-----	899,801	164,781
501 - 1,000	1	1	-----	-----	-----	-----	-----	-----	-----	-----	-----
Unclassified	21	6	106,175	802,580	2,373	272	2100	1	-----	155,519	2,291,483
Alabama, Florida, Louisiana, and Mississippi, total	6	6	32,847	358,790	155	143	11	1	-----	74,685	20,582
6 - 20	2	2	-----	-----	-----	-----	-----	-----	-----	-----	-----
21 - 50	1	1	13,040	143,103	57	50	6	1	-----	28,497	9,883
51 - 100	1	1	19,807	215,687	98	93	5	-----	-----	46,188	10,699
Unclassified	2	2	-----	-----	-----	-----	-----	-----	-----	-----	-----
California, total	17	10	116,062	445,287	114	101	6	7	1	118,910	19,557
1 - 5	12	6	94,528	230,034	44	37	4	3	1	49,274	6,125
6 - 20	3	3	-----	-----	-----	-----	-----	-----	-----	-----	-----
21 - 50	1	1	21,534	215,233	70	64	2	4	-----	69,636	13,432
Unclassified	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Colorado and Nevada, unclassified only	3	-----	3,985	16,907	7	6	-----	1	-----	5,055	-----
Delaware, Maryland, and Virginia, total	4	2	25,092	141,397	55	49	5	1	-----	28,926	7,966
6 - 20	3	1	-----	-----	-----	-----	-----	-----	-----	-----	-----
21 - 50	1	1	25,092	141,397	55	49	5	1	-----	28,926	7,966
Georgia, total	21	12	514,795	3,697,436	1,970	1,862	83	5	1	1,032,153	186,051
1 - 5	8	1	36,103	53,617	37	30	4	3	1	14,023	3,129
6 - 20	4	3	16,247	51,406	49	43	4	2	-----	14,631	4,772
21 - 50	1	1	-----	-----	-----	-----	-----	-----	-----	-----	-----
51 - 100	3	3	137,477	830,138	426	404	22	-----	-----	215,809	41,709
101 - 250	1	1	-----	-----	-----	-----	-----	-----	-----	-----	-----
251 - 500	2	2	-----	-----	-----	-----	-----	-----	-----	-----	-----
501 - 1,000	1	1	324,988	2,762,275	1,458	1,405	53	-----	-----	787,690	138,441
Unclassified	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Kentucky, total	4	2	85,396	597,659	161	139	21	1	-----	96,011	50,905
6 - 20	3	2	-----	-----	-----	-----	-----	-----	-----	-----	-----
51 - 100	1	-----	85,396	597,659	157	139	17	1	-----	96,011	41,713
Unclassified	-----	-----	-----	-----	4	-----	4	-----	-----	-----	9,192
New Jersey and New York, total	3	-----	3,135	22,284	73	10	61	2	1	8,825	192,907
1 - 5	3	-----	3,135	22,284	15	10	3	2	1	8,825	2,740
Unclassified	-----	-----	-----	-----	58	-----	58	-----	-----	-----	190,167
North Carolina, total	5	5	10,921	155,987	154	139	15	-----	-----	72,774	20,744
6 - 20	1	1	-----	-----	-----	-----	-----	-----	-----	-----	-----
21 - 50	4	4	10,921	155,987	154	139	15	-----	-----	72,774	20,744
Pennsylvania, total	6	5	46,440	185,250	94	83	6	5	-----	51,285	10,679
1 - 5	2	1	-----	-----	-----	-----	-----	-----	-----	-----	-----
6 - 20	3	3	46,440	185,250	94	83	6	5	-----	51,285	10,679
21 - 50	1	1	-----	-----	-----	-----	-----	-----	-----	-----	-----
South Carolina, total	12	7	134,938	1,093,396	449	419	29	1	-----	232,150	64,845
6 - 20	1	1	-----	-----	-----	-----	-----	-----	-----	-----	-----
21 - 50	2	2	69,198	559,189	224	210	13	1	-----	124,965	25,201
101 - 250	1	1	-----	-----	-----	-----	-----	-----	-----	-----	-----
Unclassified	8	3	65,780	534,207	225	209	16	-----	-----	107,185	39,644
Tennessee, total	8	-----	61,528	423,783	151	136	15	-----	-----	83,364	39,423
6 - 20	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
21 - 50	1	-----	36,062	250,457	118	111	7	-----	-----	63,922	11,705
51 - 100	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Unclassified	5	-----	25,466	173,326	33	25	8	-----	-----	19,442	27,718
Texas, total	6	4	14,661	100,524	75	61	12	2	-----	25,593	16,772
1 - 5	2	1	-----	-----	-----	-----	-----	-----	-----	-----	-----
6 - 20	3	2	14,661	100,524	75	61	12	2	-----	25,593	16,772
Unclassified	1	1	-----	-----	-----	-----	-----	-----	-----	-----	-----

¹ For definition of the industry see table 2, footnote 1. Reports classified by average number of wage earners employed during the year represent a single pit or mine, or a single pit or mine and a single preparation plant reported together. Statistics shown for "Unclassified" represent: Reports for more than one pit, mine, or preparation plant; and reports on which number of wage earners, by month, was not adequately reported, and reports for central offices reported separately from their associated kaolin and ball clay operations.

² Includes statistics for 2 central-office employees paid \$4,968 in Ohio.

TABLE 14.—SELECTED STATISTICS FOR KAOLIN AND BALL CLAY OPERATIONS IN THE UNITED STATES, CLASSIFIED BY HOURS PER WAGE EARNER IN THE FULL-TIME WORKWEEK AND BY STATE: 1939¹

STATE AND HOURS PER WEEK	Number of pits and mines	Number of preparation plants	Production of clay (tons of 2,000 pounds)	Value of all products	NUMBER OF PERSONS ENGAGED					Wages	Salaries
					Total	Wage earners (average for the year)	Salaried employees	Proprietors and firm members			
								Total	Performing manual labor		
United States, total-----	95	53	1,049,810	\$7,238,680	² 3,460	3,168	² 266	26	3	\$1,829,731	² \$637,399
1 - 34-----	2	-----	56,709	115,763	15	13	-----	2	1	19,987	-----
36 - 39-----	2	1	-----	-----	-----	-----	-----	-----	-----	-----	-----
40-----	23	13	121,612	599,397	357	318	31	8	1	187,859	55,247
41 - 42-----	27	20	436,116	3,829,116	1,635	1,550	81	4	-----	882,725	195,249
43 - 44-----	11	5	308,007	2,012,033	1,122	1,069	52	1	-----	608,492	129,034
48-----	7	4	58,273	271,098	71	56	9	6	1	39,916	15,507
54 - 59-----	2	2	-----	-----	-----	-----	-----	-----	-----	-----	-----
Unclassified-----	21	8	69,093	411,273	² 260	162	² 93	5	-----	90,752	² 242,362
Alabama, Florida, Louisiana, and Mississippi, total-----	6	6	32,847	358,790	155	143	11	1	-----	74,685	20,582
41 - 42-----	3	3	21,073	262,258	118	110	8	-----	-----	51,239	13,260
48-----	1	1	11,774	96,532	37	33	3	1	-----	23,446	7,322
Unclassified-----	2	2	-----	-----	-----	-----	-----	-----	-----	-----	-----
California, total-----	17	10	116,062	445,267	114	101	6	7	1	118,910	19,557
36 - 39-----	2	1	-----	-----	-----	-----	-----	-----	-----	-----	-----
40-----	3	2	57,237	293,074	77	71	3	3	-----	87,204	16,357
41 - 42-----	2	2	-----	-----	-----	-----	-----	-----	-----	-----	-----
48-----	2	2	24,781	64,214	17	11	3	3	1	13,095	3,200
54 - 59-----	2	2	-----	-----	-----	-----	-----	-----	-----	-----	-----
Unclassified-----	6	1	24,044	87,979	20	19	-----	1	-----	18,611	-----
Colorado and Nevada, total-----	3	-----	3,995	16,907	7	6	-----	1	-----	5,055	-----
40-----	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
48-----	1	-----	3,995	16,907	7	6	-----	1	-----	5,055	-----
Unclassified-----	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Delaware, Maryland, and Virginia, total-----	4	2	25,092	141,397	55	49	5	1	-----	28,926	7,966
40-----	3	2	25,092	141,397	55	49	5	1	-----	28,926	7,966
43 - 44-----	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Georgia, total-----	21	12	514,795	3,697,436	1,970	1,882	83	5	1	1,032,153	188,051
1 - 34-----	2	-----	54,731	191,442	145	132	9	4	1	69,342	13,537
40-----	8	5	-----	-----	-----	-----	-----	-----	-----	-----	-----
41 - 42-----	5	4	190,867	1,716,399	763	730	32	1	-----	394,039	78,681
43 - 44-----	5	3	269,197	1,789,595	1,062	1,020	42	-----	-----	568,772	95,833
Unclassified-----	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Kentucky, total-----	4	2	85,396	597,659	161	139	21	1	-----	96,011	50,905
40-----	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
41 - 42-----	1	-----	85,396	597,659	157	139	17	1	-----	96,011	41,713
43 - 44-----	1	1	-----	-----	-----	-----	-----	-----	-----	-----	-----
48-----	1	1	-----	-----	-----	-----	-----	-----	-----	-----	-----
Unclassified-----	-----	-----	-----	-----	4	-----	4	-----	-----	-----	9,192
New Jersey and New York, total-----	3	-----	3,135	22,284	73	10	61	2	1	8,825	192,907
40-----	1	-----	3,135	22,284	73	10	61	2	1	8,825	192,907
Unclassified-----	2	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
North Carolina, total-----	5	5	10,921	155,987	154	139	15	-----	-----	72,774	20,744
40-----	1	1	10,921	155,987	154	139	15	-----	-----	72,774	20,744
41 - 42-----	4	4	-----	-----	-----	-----	-----	-----	-----	-----	-----
Pennsylvania, total-----	6	5	46,440	185,250	94	83	6	5	-----	51,285	10,679
40-----	4	3	46,440	185,250	94	83	6	5	-----	51,285	10,679
41 - 42-----	1	1	-----	-----	-----	-----	-----	-----	-----	-----	-----
43 - 44-----	1	1	-----	-----	-----	-----	-----	-----	-----	-----	-----
South Carolina, total-----	12	7	134,938	1,093,396	449	419	29	1	-----	232,150	64,845
41 - 42-----	8	5	118,919	961,698	371	351	20	-----	-----	201,208	53,589
Unclassified-----	4	2	16,019	131,698	78	68	9	1	-----	30,942	11,256
Tennessee, total-----	8	-----	61,528	423,783	151	136	15	-----	-----	83,364	39,423
41 - 42-----	2	-----	43,802	313,751	123	114	9	-----	-----	75,388	24,561
43 - 44-----	3	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
48-----	2	-----	17,726	110,032	28	22	6	-----	-----	7,976	4,862
Unclassified-----	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Texas, total-----	6	4	14,661	100,524	75	61	12	2	-----	25,593	16,772
40-----	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
41 - 42-----	1	1	14,661	100,524	75	61	12	2	-----	25,593	16,772
Unclassified-----	4	3	-----	-----	-----	-----	-----	-----	-----	-----	-----

¹ For definition of the industry see table 2, footnote 1. Reports were classified by number of hours in the full-time workweek reported for wage earners in that department of the operation for which the largest number of man-hours worked was reported. Statistics shown for "Unclassified" represent reports on which number of hours was not reported and reports for central offices reported separately from their associated kaolin and ball clay operations.

² Includes statistics for 2 central-office employees paid \$4,968 in Ohio.

TABLE 15.—SELECTED STATISTICS FOR KAOLIN AND BALL CLAY OPERATIONS IN THE UNITED STATES,
CLASSIFIED BY NUMBER OF DAYS ACTIVE DURING THE YEAR: 1939 ¹

NUMBER OF DAYS ACTIVE DURING YEAR	Number of pits and mines	Number of preparation plants	Production of clay (tons of 2,000 pounds)	Value of all products	NUMBER OF PERSONS ENGAGED					Wages	Salaries
					Total	Wage earners (average for the year)	Salaried employees	Proprietors and firm members			
								Total	Performing manual labor		
United States, total-----	95	53	1,049,610	\$7,238,680	3,460	3,168	266	26	3	\$1,829,731	\$637,399
1 - 49-----	4	1	39,555	31,857	13	12	1	-----	-----	11,096	265
50 - 99-----	1	1	38,038	92,890	104	89	11	4	2	40,719	17,982
100 - 149-----	9	2									
150 - 199-----	15	9	67,005	325,240	183	164	14	5	1	96,187	19,161
200 - 224-----	10	6	53,757	331,561	151	128	20	3	-----	67,844	35,457
225 - 249-----	14	12	185,381	1,293,611	576	536	36	4	-----	357,072	74,593
250 - 274-----	2	2									
275 - 299-----	3	2	103,284	744,807	222	204	18	-----	-----	138,994	37,978
300 - 324-----	9	9	293,692	2,637,534	1,220	1,163	51	6	-----	627,393	124,875
325 and over-----	3	1	146,316	875,693	572	560	12	-----	-----	311,635	35,460
Unclassified-----	25	8	122,762	907,487	419	312	103	4	-----	178,791	291,628

¹For definition of the industry see table 2, footnote 1. Reports classified by number of days active represent a single pit or mine, or a single pit or mine and a single preparation plant reported together; such reports were classified by number of days the pit or mine was in operation for production or development purposes during the year. Statistics shown for "Unclassified" represent: Reports for more than one pit, mine, or preparation plant; reports on which number of days active was not reported; and reports for central offices reported separately from their associated kaolin and ball clay operations.

TABLE 16.—SELECTED STATISTICS FOR KAOLIN AND BALL CLAY OPERATIONS IN THE UNITED STATES, CLASSIFIED BY OUTPUT PER MAN-HOUR AND BY STATE: 1939¹

STATE AND TONS (2,000 POUNDS) OF CLAY PER MAN-HOUR	Number of pits and mines	Number of preparation plants	Production of clay (tons of 2,000 pounds)	Value of all products	NUMBER OF PERSONS ENGAGED					Wages	Salaries
					Total	Wage earners (average for the year)	Salaried employees	Proprietors and firm members			
								Total	Performing manual labor		
United States, total-----	95	53	1,049,810	\$7,238,680	² 3,460	3,168	² 286	26	3	\$1,829,731	² \$637,399
Less than 0.20-----	28	21	415,552	3,376,830	1,818	1,733	81	4	1	1,013,683	198,172
0.20 - 0.39-----	11	7	97,654	700,442	287	267	18	2	-----	146,083	37,853
0.40 - 0.59-----	11	3	68,346	368,390	99	79	17	3	-----	55,223	47,768
0.60 - 0.79-----	1	-----	24,262	82,554	42	37	4	1	-----	11,049	2,951
0.80 - 0.99-----	2	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
1.00 - 1.49-----	5	1	31,996	50,195	16	14	2	-----	-----	13,147	1,714
1.50 - 1.99-----	2	-----	43,744	42,353	14	12	1	1	-----	11,155	621
3.00 - 6.99-----	2	1	-----	-----	-----	-----	-----	-----	-----	-----	-----
Unclassified-----	33	20	368,256	2,617,916	² 1,184	1,026	² 143	15	2	579,391	² \$50,315
Alabama, Florida, Louisiana, and Mississippi, total-----	6	6	32,847	358,790	155	143	11	1	-----	74,685	20,582
Less than 0.20-----	3	3	13,040	143,103	57	50	6	1	-----	28,497	9,883
Unclassified-----	3	3	19,807	215,687	98	93	5	-----	-----	46,188	10,699
California, total-----	17	10	116,062	445,267	114	101	6	7	1	118,910	19,557
Less than 0.20-----	2	2	14,869	107,964	41	37	3	1	-----	46,619	14,237
0.40 - 0.59-----	1	1	-----	-----	-----	-----	-----	-----	-----	-----	-----
1.00 - 1.49-----	3	1	50,156	53,188	12	11	1	-----	-----	14,244	1,000
3.00 - 6.99-----	1	1	-----	-----	-----	-----	-----	-----	-----	-----	-----
Unclassified-----	10	5	51,037	294,115	61	53	2	6	1	58,047	4,320
Colorado and Nevada, total-----	3	-----	3,995	16,907	7	6	-----	1	-----	5,055	-----
Less than 0.20-----	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
1.50 - 1.99-----	1	-----	3,995	16,907	7	6	-----	1	-----	5,055	-----
Unclassified-----	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Delaware, Maryland, and Virginia, total-----	4	2	25,092	141,397	55	49	5	1	-----	28,926	7,966
Less than 0.20-----	2	2	25,092	141,397	55	49	5	1	-----	28,926	7,966
Unclassified-----	2	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Georgia, total-----	21	12	514,795	3,697,436	1,970	1,882	83	5	1	1,032,153	188,051
Less than 0.20-----	7	7	292,096	2,292,996	1,303	1,260	42	1	-----	715,620	108,642
0.20 - 0.39-----	3	2	22,437	59,694	49	44	3	2	-----	13,024	2,994
0.80 - 0.99-----	2	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
1.00 - 1.49-----	2	-----	25,085	32,172	15	13	2	-----	-----	9,257	1,335
1.50 - 1.99-----	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
3.00 - 6.99-----	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Unclassified-----	5	3	177,177	1,312,574	603	565	36	2	1	294,252	75,080
Kentucky, total-----	4	2	85,396	597,659	161	139	21	1	-----	96,011	50,905
0.40 - 0.59-----	2	1	85,396	597,659	161	139	21	1	-----	96,011	50,905
Unclassified-----	2	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
New Jersey and New York, total-----	3	-----	3,135	22,284	73	10	61	2	1	8,825	192,907
Less than 0.20-----	2	-----	3,135	22,284	73	10	61	2	1	8,825	192,907
Unclassified-----	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
North Carolina, total-----	5	5	10,921	155,987	154	139	15	-----	-----	72,774	20,744
Less than 0.20-----	2	2	10,921	155,987	154	139	15	-----	-----	72,774	20,744
Unclassified-----	3	3	-----	-----	-----	-----	-----	-----	-----	-----	-----
Pennsylvania, total-----	6	5	46,440	185,250	94	83	6	5	-----	51,285	10,879
Less than 0.20-----	1	1	14,335	72,721	32	27	4	1	-----	20,985	8,299
0.20 - 0.39-----	2	2	-----	-----	-----	-----	-----	-----	-----	-----	-----
0.40 - 1.59-----	2	1	32,105	112,529	62	56	2	4	-----	30,300	2,360
Unclassified-----	1	1	-----	-----	-----	-----	-----	-----	-----	-----	-----
South Carolina, total-----	12	7	134,938	1,093,396	449	419	29	1	-----	232,150	64,845
Less than 0.20-----	5	3	57,052	480,862	194	180	14	-----	-----	102,883	33,698
0.20 - 0.39-----	6	3	77,886	612,534	255	239	15	1	-----	129,287	30,947
Unclassified-----	1	1	-----	-----	-----	-----	-----	-----	-----	-----	-----
Tennessee, total-----	8	-----	61,528	423,783	151	136	15	-----	-----	83,364	39,423
Less than 0.20-----	2	-----	61,528	423,783	151	136	15	-----	-----	83,364	39,423
0.40 - 0.59-----	5	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
0.60 - 0.79-----	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Texas, total-----	6	4	14,661	100,524	75	61	12	2	-----	25,593	16,772
Less than 0.20-----	1	1	-----	-----	-----	-----	-----	-----	-----	-----	-----
0.40 - 0.59-----	1	-----	14,661	100,524	75	61	12	2	-----	25,593	16,772
Unclassified-----	4	3	-----	-----	-----	-----	-----	-----	-----	-----	-----

¹For definition of the industry see table 2, footnote 1. Reports classified by output per man-hour represent a single pit or mine, or a single pit or mine and a single preparation plant reported together. Statistics shown for "Unclassified" represent: Reports for more than 1 pit or mine; reports on which figures were inadequately reported to permit classification; and reports for central offices reported separately from their associated kaolin and ball clay operations.

²Includes statistics for 2 central-office employees paid \$4,968 in Ohio.

FIRE CLAY

The fire-clay industry in the United States had an output in 1939 valued at \$7,178,000 at points of production. The industry produced a total of 4,074,000 tons of fire clay and 27,000 tons of stoneware clay. The value of other types of clay, secondary products (including coal, sand, and stone), and receipts for services performed for others, amounted to \$304,000.

Fire clay or refractory clay has its chief use in the manufacture of clay products capable of withstanding high temperature. It is used principally in the manufacture of refractory products such as firebrick, furnace linings, retorts, and crucibles and hence is important in the iron and steel industries and in coke making. Clays classed as fire clay include refractory clays of the types known as plastic, flint, diaspore, and burley but exclude kaolin and ball clay which, though used to some extent for refractory products, are used primarily for other purposes.

PRINCIPAL EXPENSES

The industry paid a total of \$3,366,000 in wages in 1939 to an average of 3,655 wage earners. Salaried employees, of whom 255 were reported for October, were paid \$500,000. Expenditures for supplies and materials amounted to \$622,000; for fuel, \$115,000; and for purchased electric energy, \$130,000. In addition, \$143,000 was paid for work done on contract. These reported expenses totaled \$4,875,000. The cost of new buildings erected and machinery and equipment installed in 1939 was \$187,000.

PRODUCTION

Fire clay was produced in 1939 at 308 operations in 19 States, with operations in Pennsylvania, Ohio, Missouri, Kentucky, and West Virginia accounting for about 80 percent of the total output. Pennsylvania ranked first with 26 percent of the total, Ohio second with 23 percent, and Missouri third with 17 percent. Pennsylvania accounted for 29 percent of the value of all products of the industry. Other States having operations engaged principally in producing fire clay were Alabama, California, Colorado, Idaho, Illinois, Indiana, Maryland, Michigan, New Jersey, New Mexico, North Dakota, Texas, Utah, and Washington. Underground mines accounted for almost half the total output, about 10 percent was recovered from operations combining open-pit and underground methods, and the remainder came from open pits. About 80 percent of the total tonnage reported was crude clay; about 20 percent was treated in preparation plants at the pits or mines.

EMPLOYMENT AND WORKING TIME

The average of 3,655 wage earners employed in the industry in 1939 worked a total of 5,642,000 man-hours—3,159,000 at underground mines, 1,862,000 at open pits, and 621,000 at mines using a combination of underground and open-pit mining methods. Operations in Pennsylvania employed 1,164 wage earners—almost one-third of the total; operations in Ohio employed 531 wage earners; those in Missouri and Kentucky, 476 and 449, respectively. Monthly employment ranged from a low of 3,255 wage earners in February to a peak of 4,205 in November. For the country as a whole, operations were active the equivalent of 181 full days during the year, but there was considerable variation among the individual States. Operations in Alabama and Maryland were active 136 and 147 full days, respectively; those in Pennsylvania, 164; in Ohio, 189; in New Jersey, 234; and in West Virginia, 253. The average length of shift worked by wage earners was 7.9 hours.

Output of clay per man-hour at all operations averaged 0.74 ton. For the four most important States output per man-hour was as follows: 0.64 ton in Pennsylvania, 1.13 tons in Ohio, 0.87 ton in Missouri, and 0.43 ton in Kentucky. The output per man-hour was highest at open-pit operations, averaging 0.95 ton. The figure for combination mines was 0.70 ton; for underground mines, 0.63 ton. The average hourly earning of wage earners was 80 cents, ranging from 32 cents in Alabama to 71 cents in Pennsylvania. Hourly earnings in other principal producing States were 61 cents in Ohio, 45 cents in Missouri, 59 cents in Kentucky, and 68 cents in West Virginia.

POWER EQUIPMENT

Power equipment in use or available for use at the end of the year had an aggregate rated capacity of 32,000 horsepower. About 59 percent of the total was for driving mobile equipment such as power shovels, locomotives, trucks, and drills; the remaining 41 percent was for driving stationary equipment such as generators, grinding equipment, and hoists. Operations in Pennsylvania reported 6,091 horsepower, those in Ohio 5,195 horsepower, and those in Missouri 5,122 horsepower. Together, these three States accounted for more than half the total horsepower reported. The horsepower rating of power equipment per wage earner was 8.7 for all operations; Illinois ranked first with 37.7 and California second with 32.7. The figure for Pennsylvania was 5.2 horsepower; for Ohio, 9.8; for Missouri, 10.8; for Kentucky, 2.7; and for West Virginia, 9.9.

The industry consumed 6,276,000 kilowatt-hours of electric energy, of which only 467,000 were generated by the reporting companies for their own use. Operations in Pennsylvania used 1,637,000 kilowatt-hours; in Ohio, 1,133,000; and in Illinois, 966,000. Fuels consumed by the industry included 12,000 tons of bituminous coal, 4,700 barrels of fuel oils, 524,000 gallons of gasoline and kerosene, and 4,000,000 cubic feet of natural gas.

LOADING MACHINES

Power-loading machines in use or available for use at the end of 1939 totaled 133 units, of which 25 were driven by electric power, 33 by steam, and 75 by internal-combustion engines. Of the 133 units reported, 107 were power shovels, 57 of which were driven by internal-combustion engines. Other types of loading equipment included 10 draglines, 6 clamshells or orange peels, 4 cranes and hoists, and 2 underground conveyor loaders. Operators in Ohio reported the largest number of power units—32 power shovels, 2 draglines, and 1 scraper loader. Operations in Pennsylvania, largely underground mines, had 15 power shovels and 1 hoist. Missouri had 17 power shovels and 2 hoists; Kentucky and West Virginia, 2 power shovels each. Except for 2 steam and 2 electric shovels in Illinois, which had dipper capacities of 3 to 5 cubic yards, all the power shovels and draglines had capacities of less than 3 cubic yards.

OPERATIONS COVERED

The statistics here summarized cover pits or mines and associated preparation plants engaged primarily in the production of fire clay and stoneware clay, and include pits or mines and associated preparation plants operated by manufacturers of clay products. They do not cover 158,721 tons of fire and stoneware clay, valued at \$283,668, produced by the kaolin and ball clay, common clay and shale, bituminous-coal, and other industries. Also excluded are statistics for clay-preparation operations not carried on in connection with mines or pits; these are included in reports for clay-products manufacturing industries.

MINERAL INDUSTRIES

TABLE 1.—PRINCIPAL STATISTICS FOR THE FIRE-CLAY INDUSTRY IN THE UNITED STATES, BY STATE: 1939¹

(For producing operations only)

ITEM	United States	Ala-bama	Cali-fornia	Colo-rado	Illi-nois	Indiana	Ken-tucky	Mary-land	Mis-souri	New Jersey	Ohio	Pennsyl-vania	Texas	West Vir-ginia	Other States ²
Number of operating companies-----	3200	4	14	8	8	9	10	5	40	15	36	45	3	7	10
Number of pits and mines-----	506	4	21	10	10	9	14	6	68	19	46	76	3	7	13
Number of preparation plants-----	44	---	2	1	3	1	---	1	2	6	11	11	1	3	2
Number of persons engaged, total-----	4,018	86	102	50	116	70	473	181	533	342	580	1,258	20	145	62
Wage earners (average for the year)-----	3,655	81	84	44	99	65	449	175	476	281	531	1,164	18	135	55
Salaried employees-----	255	4	12	2	13	4	13	4	21	57	38	80	---	7	---
Proprietors and firm members-----	108	1	6	4	4	1	11	---	36	4	11	14	2	5	7
Performing manual labor-----	41	---	5	1	5	---	---	1	19	2	4	2	---	2	4
Production of clay: Tons of 2,000 pounds, total ³ -----	4,200,729	64,900	158,279	57,120	205,301	92,988	304,887	72,027	711,818	123,460	953,029	1,071,957	41,299	265,958	79,706
From underground mines-----	1,997,753	(⁵)	(⁵)	57,120	(⁵)	(⁵)	(⁵)	(⁵)	100,428	---	409,361	700,479	---	(⁵)	(⁵)
From open pits-----	1,770,066	(⁵)	128,572	---	147,150	(⁵)	(⁵)	(⁵)	611,390	123,460	493,886	106,305	41,299	---	53,537
From combination (underground and open-pit) mines-----	452,910	---	(⁵)	---	(⁵)	---	---	---	---	---	49,782	285,173	---	(⁵)	(⁵)
Value at pits and mines ⁴ -----	\$6,873,973	\$60,364	\$328,545	\$69,538	\$306,004	\$117,437	\$548,018	\$172,952	\$959,772	\$543,489	\$1,145,606	\$2,052,567	\$45,433	\$411,635	\$112,813
Value of all products ⁵ -----	\$7,178,482	\$63,918	\$335,712	\$70,258	\$308,719	\$119,287	\$548,018	\$172,952	\$965,608	\$735,619	\$1,175,976	\$2,114,436	\$45,433	\$411,786	\$112,813
Principal expenses designated below, total-----	\$4,874,809	\$35,534	\$175,436	\$50,630	\$201,810	\$75,794	\$486,932	\$125,942	\$557,063	\$432,161	\$846,604	\$1,590,056	\$13,486	\$218,769	\$64,592
Wages-----	\$3,365,858	\$25,877	\$104,171	\$32,121	\$103,166	\$58,201	\$410,900	\$96,680	\$365,894	\$242,251	\$515,164	\$1,178,898	\$12,731	\$166,379	\$50,425
Salaries-----	\$498,506	\$4,800	\$25,230	\$4,500	\$41,482	\$5,005	\$22,173	\$4,285	\$29,966	\$99,968	\$95,097	\$154,018	---	\$11,982	---
Supplies and materials-----	\$622,059	\$4,082	\$25,630	\$10,512	\$35,364	\$9,708	\$41,212	\$18,033	\$75,489	\$46,024	\$144,581	\$177,377	\$100	\$30,162	\$6,037
Fuel-----	\$115,406	\$775	\$15,158	\$2,525	\$7,879	\$250	\$6,800	\$1,587	\$20,938	\$24,179	\$13,869	\$15,362	\$655	\$3,419	\$2,210
Purchased electric energy-----	\$129,734	---	\$3,454	\$1,172	\$15,919	\$2,632	\$1,448	\$5,357	\$10,969	\$13,581	\$25,235	\$41,178	---	\$3,827	\$4,962
Contract work-----	\$143,266	---	\$1,793	---	---	---	\$4,599	---	\$53,807	\$6,178	\$52,708	\$23,223	---	---	\$959
Cost of buildings, machinery, and equipment erected or installed during year-----	\$186,696	\$1,461	\$6,897	\$795	\$32,143	\$440	\$13,173	\$1,260	\$45,230	\$19,112	\$20,339	\$26,493	---	\$18,675	\$678
Buildings-----	\$33,870	\$646	\$1,397	\$200	\$713	---	\$9,013	---	\$9,163	\$376	\$805	\$10,066	---	\$1,451	\$40
Machinery and equipment, total-----	\$152,826	\$815	\$5,500	\$595	\$31,430	\$440	\$4,160	\$1,260	\$36,067	\$18,736	\$19,534	\$16,427	---	\$17,224	\$658
Purchased in new condition-----	\$111,579	\$315	\$4,000	\$100	\$11,517	\$440	\$2,360	\$1,260	\$31,527	\$18,736	\$13,535	\$12,427	---	\$14,824	\$538
Purchased in used condition-----	\$41,247	\$500	\$1,500	\$495	\$19,913	---	\$1,800	---	\$4,540	---	\$5,999	\$4,000	---	\$2,400	\$100
Total number of man-shifts worked by wage earners-----	713,698	11,149	20,338	9,186	22,117	13,683	87,634	25,463	100,724	56,750	106,682	211,266	4,275	33,400	11,231
Total number of man-hours worked by wage earners-----	5,641,778	80,208	160,371	68,141	176,461	107,185	701,081	203,704	816,547	450,543	845,665	1,663,309	30,816	247,885	89,844
Average number of hours worked per shift-----	7.9	7.2	7.9	7.4	8.0	7.8	8.0	8.0	8.1	7.9	7.9	7.9	7.2	7.4	8.0
Average hourly earning of wage earners-----	\$0.60	\$0.52	\$0.65	\$0.47	\$0.58	\$0.54	\$0.59	\$0.47	\$0.45	\$0.54	\$0.61	\$0.71	\$0.41	\$0.68	\$0.56
Tons of clay produced per man-hour-----	0.74	0.81	0.99	0.84	1.15	0.87	0.43	0.35	0.87	0.27	1.13	0.64	1.34	1.07	0.89
At underground mines-----	0.63	(⁵)	(⁵)	0.84	(⁵)	(⁵)	(⁵)	(⁵)	0.52	---	0.91	0.63	---	(⁵)	(⁵)
At open pits-----	0.95	(⁵)	1.48	---	1.48	(⁵)	(⁵)	(⁵)	0.98	0.27	1.57	0.66	1.34	---	0.99
At combination mines-----	0.70	---	(⁵)	---	(⁵)	---	---	---	---	---	0.62	0.67	---	(⁵)	(⁵)
Average number of equivalent full days operations were active-----	181	136	207	173	205	200	171	147	191	234	189	164	194	253	160
Underground mines-----	170	134	228	173	139	206	170	146	172	---	173	163	---	250	185
Open pits-----	208	180	190	---	225	125	226	197	198	234	223	184	194	---	164
Combination mines-----	174	---	231	---	202	---	---	---	---	---	177	162	---	275	76
Horsepower rating of power equipment, total-----	31,840	352	2,750	607	3,729	189	1,231	1,192	5,122	3,120	5,195	6,091	153	1,320	789
Per wage earner-----	8.7	4.3	32.7	13.8	37.7	2.9	2.7	6.8	10.8	11.1	9.8	5.2	8.5	9.9	14.3
Stationary equipment ⁷ -----	12,915	30	804	203	1,718	144	113	1,065	1,060	1,411	2,155	3,147	---	922	345
Mobile equipment ⁸ -----	18,925	322	2,146	404	2,011	45	1,118	127	4,062	1,709	3,042	2,944	153	398	444
Electric energy consumed (thousands of kw.-hrs.), total-----	6,276	---	180	27	966	90	50	444	776	524	1,133	1,637	---	219	250
Purchased-----	5,809	---	178	27	960	90	50	444	776	524	1,033	1,313	---	184	230
Generated by reporting companies-----	467	---	2	---	6	---	---	---	---	---	100	324	---	35	---

¹ The statistics presented cover pits or mines and preparation plants engaged principally in the production of fire clay and stoneware clay, and include such pits or mines and associated preparation plants operated by manufacturers of clay products. Figures cover only those producing operations whose reported value of products, principal expenses, or cost of buildings, machinery, and equipment amounted to at least \$2,500 during the year. No preparation plants not operated in conjunction with mines were reported. Two nonproducing operations with development or maintenance costs of \$2,500 or over were reported, but statistics for these operations are not included. The 53 operations too small to come within the scope of the census canvass reported a total production of 38,906 tons, valued at \$62,408.

² Pits or mines: Idaho, 1; Michigan, 1 (and 1 plant); New Mexico, 1; North Dakota, 1 (and 1 plant); Utah, 4; and Washington, 5.

³ One company had operations in 5 of the designated States; 2, in 4 of the States; and 4, in 2 of the States.

⁴ Includes 4,074,294 tons of fire clay valued at \$6,731,919, 27,004 tons of stoneware clay valued at \$63,853, and 99,431 tons of other clay produced as a secondary product and valued at \$78,201. On the other hand, 158,721 tons of fire and stoneware clay, valued at \$285,668, were produced by operations classified in other industries, chiefly operations producing other special clays or bituminous coal.

⁵ Not shown separately.

⁶ Includes secondary products valued at \$275,073, representing principally bituminous coal and sand and gravel, and small amounts of stone. Includes also \$31,456 received for custom milling and other services performed for other concerns. Except for New Jersey, where the value of secondary products and work done for others amounted to 26 percent of the total value of all products, these items amounted to 5 percent or less of the total value of products of each State.

⁷ Aggregate horsepower rating of engines, motors, etc. used for driving stationary or fixed equipment such as grinding and crushing equipment, stationary loading equipment, generators, mine hoists, etc.

⁸ Aggregate horsepower rating of engines, motors, etc. used for driving mobile equipment such as power shovels, scraper loaders, tractors, trucks, locomotives, drills, etc.

FIRE CLAY

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TABLE 2.—PRINCIPAL STATISTICS FOR THE FIRE-CLAY INDUSTRY IN THE UNITED STATES, BY TYPE OF OPERATION: 1939¹

(For producing operations only)

ITEM	All types	MINES ONLY				MINES AND PREPARATION PLANTS OPERATED TOGETHER			
		Total	Underground mines	Open pits	Combination (underground and open-pit) mines	Total	Underground mines	Open pits	Combination (underground and open-pit) mines
Number of operating companies ² -----	200	160	87	93	18	44	18	21	5
Number of pits and mines-----	308	282	113	121	28	44	18	21	5
Number of preparation plants-----	44	-----	-----	-----	-----	44	18	21	5
Number of persons engaged, total-----	³ 4,018	3,138	2,012	810	316	874	306	440	128
Wage earners (average for the year)-----	3,655	2,909	1,900	715	294	746	275	359	112
Salaried employees-----	255	134	83	36	15	115	22	79	14
Proprietors and firm members-----	108	95	29	59	7	13	9	2	2
Performing manual labor-----	41	35	10	22	3	6	4	2	-----
Production of clay:-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Tons of 2,000 pounds-----	4,200,729	3,292,880	1,663,318	1,348,174	281,388	907,849	334,435	421,892	151,522
From underground mines-----	1,997,753	1,663,318	1,663,318	-----	-----	334,435	334,435	-----	-----
From open pits-----	1,770,066	1,348,174	-----	1,348,174	-----	421,892	-----	421,892	-----
From combination (underground and open-pit) mines-----	432,910	281,388	-----	-----	281,388	151,522	-----	-----	151,522
Value at pits and mines-----	\$8,873,973	\$4,858,929	\$2,739,084	\$1,597,586	\$522,259	\$2,015,044	\$876,494	\$1,115,081	\$223,469
Value of all products-----	\$7,178,482	\$4,966,857	\$2,809,796	\$1,633,718	\$523,143	\$2,211,825	\$877,580	\$1,310,846	\$223,619
Principal expenses designated below, total-----	³ \$4,874,809	\$5,522,196	\$2,244,706	\$880,207	\$417,283	\$1,337,378	\$427,735	\$748,586	\$161,077
Wages-----	\$3,365,838	\$2,635,142	\$1,740,517	\$572,587	\$322,038	\$730,696	\$275,694	\$351,753	\$103,249
Salaries-----	³ \$498,506	\$233,590	\$154,868	\$54,024	\$24,698	\$249,681	\$51,783	\$177,159	\$20,759
Supplies and materials-----	\$622,059	\$410,129	\$274,862	\$89,409	\$45,858	\$211,930	\$89,850	\$116,213	\$25,867
Fuel-----	\$115,406	\$72,553	\$18,801	\$46,904	\$8,848	\$42,853	\$4,180	\$35,529	\$3,174
Purchased electric energy-----	\$129,734	\$58,427	\$45,439	\$8,432	\$4,556	\$71,307	\$17,421	\$48,886	\$5,028
Contract work-----	\$143,266	\$112,355	\$12,219	\$88,851	\$11,285	\$30,911	\$8,857	\$19,054	\$3,000
Cost of buildings, machinery, and equipment erected or installed during the year-----	\$186,696	\$113,080	\$36,974	\$71,547	\$4,659	\$73,616	\$12,793	\$59,187	\$21,636
Buildings-----	\$33,870	\$21,874	\$11,537	\$10,297	\$40	\$11,996	\$1,097	\$4,957	\$5,942
Machinery and equipment, total-----	\$152,826	\$91,206	\$25,337	\$61,250	\$4,619	\$61,620	\$11,696	\$34,230	\$15,694
Purchased in new condition-----	\$111,579	\$78,908	\$22,634	\$52,797	\$3,477	\$32,671	\$5,068	\$11,909	\$15,694
Purchased in used condition-----	\$41,247	\$12,298	\$2,703	\$8,453	\$1,142	\$28,949	\$6,628	\$22,321	-----
Number of man-shifts worked by wage earners-----	713,898	555,129	352,200	148,281	54,648	158,769	51,406	83,222	24,141
Number of man-hours worked by wage earners-----	5,641,778	4,385,790	2,763,738	1,192,186	429,666	1,255,988	395,283	669,727	190,978
Average number of hours worked per shift-----	7.9	7.9	7.8	8.0	7.9	7.9	7.7	8.0	7.9
Average hourly earning of wage earners-----	\$0.60	\$0.60	\$0.63	\$0.48	\$0.75	\$0.58	\$0.70	\$0.55	\$0.54
Tons of clay produced per man-hour-----	0.74	0.75	0.80	1.13	0.65	0.72	0.85	0.63	0.79
At underground mines-----	0.63	0.60	0.60	-----	-----	0.85	0.85	-----	-----
At open pits-----	0.95	1.13	-----	1.13	-----	0.63	-----	0.63	-----
At combination mines-----	0.70	0.85	-----	-----	0.65	0.79	-----	-----	0.79
Average number of equivalent full days operations were active-----	181	173	189	189	164	215	177	253	203
Underground mines-----	170	169	169	-----	-----	177	177	-----	-----
Open pits-----	206	189	-----	189	-----	253	-----	253	-----
Combination mines-----	174	164	-----	-----	164	203	-----	-----	203
Horsepower rating of power equipment, total-----	31,840	19,963	6,493	11,311	2,159	11,877	2,742	7,843	1,292
Per wage earner-----	8.7	6.9	3.4	15.8	7.3	15.9	10.0	21.8	11.5
Stationary equipment-----	12,915	5,485	3,659	1,003	803	7,450	2,437	4,245	768
Mobile equipment-----	18,925	14,498	2,834	10,308	1,356	4,427	305	3,598	524
Electric energy consumed (thousands of kw.-hrs.), total-----	6,276	2,750	1,938	724	88	3,526	702	2,133	691
Purchased-----	5,809	2,717	1,905	724	88	3,092	623	2,123	346
Generated by reporting companies-----	467	33	33	-----	-----	434	79	10	345

¹ For definition of the industry see table 1, footnote 1.² Companies with operations in more than 1 type of operation are counted only once in the totals.³ Includes statistics for central office employees not distributed by type of operation.

MINERAL INDUSTRIES

TABLE 3.—QUANTITY AND VALUE OF PRODUCTS OF THE FIRE-CLAY INDUSTRY IN THE UNITED STATES, BY KIND AND BY STATE: 1939¹

(For producing operations only)

PRODUCT	United States	Alabama	California	Colorado	Illinois	Indiana	Kentucky	Maryland	Missouri	New Jersey	Ohio	Pennsylvania	Texas	West Virginia	Other States ²
Value of all products-----	\$7,178,482	\$63,918	\$333,712	\$70,253	\$308,719	\$119,237	\$548,018	\$172,952	\$965,608	\$735,619	\$1,175,976	\$2,114,438	\$45,433	\$411,785	\$112,813
MAJOR PRODUCTS															
Fire clay:															
Prepared—															
Tons of 2,000 pounds-----	825,670		5,566	1,546	113,264	19,230	1,728	659	25,446	37,699	243,171	169,657	27,879	160,876	18,949
Value-----	\$1,918,710		\$36,378	\$3,506	\$232,119	\$31,730	\$7,776	\$5,316	\$41,728	\$284,115	\$551,473	\$356,740	\$27,879	\$319,070	\$15,880
Unprepared—															
Tons of 2,000 pounds-----	3,248,624	64,900	139,585	55,574	56,280	70,088	303,159	71,268	686,372	75,483	665,956	894,853	12,625	105,082	45,399
Value-----	\$4,813,209	\$60,364	\$274,974	\$61,032	\$50,504	\$77,568	\$540,242	\$167,436	\$918,044	\$207,724	\$575,680	\$1,684,827	\$16,362	\$92,565	\$85,887
Classified by type:															
Plastic fire clay:															
Prepared—															
Tons of 2,000 pounds-----	774,647		5,566		113,264	19,230		659	7,117	37,699	225,751	169,657	27,879	160,876	6,949
Value-----	\$1,804,925		\$36,378		\$232,119	\$31,730		\$5,316	\$14,234	\$284,115	\$490,395	\$356,740	\$27,879	\$319,070	\$6,949
Unprepared—															
Tons of 2,000 pounds-----	1,798,675	52,900	121,552	31,628	56,280	61,611	47,861	16,639	328,135	73,983	436,188	409,886	12,625	105,082	42,405
Value-----	\$2,215,911	\$51,364	\$201,974	\$33,101	\$50,504	\$71,136	\$33,750	\$39,836	\$327,055	\$203,724	\$398,944	\$618,585	\$16,362	\$92,565	\$77,011
Flint fire clay:															
Prepared—															
Tons of 2,000 pounds-----	756			1,546			1,728		18,329		6,153				
Value-----	\$87,954			\$3,506			\$7,776		\$27,494		\$44,178				
Unprepared—															
Tons of 2,000 pounds-----	1,159,898		18,033	23,946			255,298	54,629	312,579		60,188	433,425			1,600
Value-----	\$2,240,174		\$73,000	\$27,931			\$506,492	\$127,600	\$425,657		\$79,496	\$996,148			\$8,850
Fire clay unspecified:															
Prepared—															
Tons of 2,000 pounds-----	23,257										11,267				12,000
Value-----	\$25,831										\$16,900				\$8,931
Unprepared—															
Tons of 2,000 pounds-----	244,593	12,000				8,577				1,500	169,580	51,542			1,394
Value-----	\$191,792	\$9,000				\$6,432				\$4,000	\$97,240	\$70,094			\$5,026
Diaspora (or burley): ³															
Tons of 2,000 pounds-----	15,658								45,658						
Value-----	\$165,332								\$165,332						
Stoneware clay:															
Prepared—															
Tons of 2,000 pounds-----	253										253				
Value-----	\$1,400										\$1,400				
Unprepared—															
Tons of 2,000 pounds-----	26,751		365		6,872	3,670				6,830	7,807	1,207			
Value-----	\$62,453		\$1,351		\$13,116	\$8,139				\$28,000	\$8,407	\$3,440			
Common clay: ⁴															
Tons of 2,000 pounds-----	19,599		12,763									6,041	795		
Value-----	\$28,732		\$15,842									\$6,598	\$1,192		
Shale:															
Prepared—															
Tons of 2,000 pounds-----	35,730				23,730										12,000
Value-----	\$17,752				\$3,821										\$8,931
Unprepared—															
Tons of 2,000 pounds-----	40,608				1,155						36,095				3,358
Value-----	\$13,605				\$1,444						\$10,046				\$2,115
Other clays: ⁴															
Prepared—															
Tons of 2,000 pounds-----	399										399				
Value-----	\$3,502										\$3,502				
Unprepared—															
Tons of 2,000 pounds-----	3,095							100		2,796		199			
Value-----	\$19,610							\$200		\$18,748		\$662			
SECONDARY PRODUCTS AND RECEIPTS FOR SERVICES															
Bituminous coal:															
Tons of 2,000 pounds-----	50,236	1,415			4,909	1,590			822		15,417	26,023		60	
Value-----	\$97,257	\$3,554			\$2,715	\$1,800			\$2,456		\$18,787	\$57,784		\$151	
Common sand and gravel:															
Tons of 2,000 pounds-----	197,986		935							197,051					
Value-----	\$166,860		\$748							\$166,112					
Foundry sand:															
Tons of 2,000 pounds-----	10,633									4,797		5,836			
Value-----	\$10,317									\$6,030		\$4,287			
Limestone:															
Tons of 2,000 pounds-----	1,496										1,496				
Value-----	\$3,545										\$3,545				
Sandstone:															
Tons of 2,000 pounds-----	613				613										
Value-----	\$675				\$675										
Unspecified products, value-----	\$4,419		\$4,419												
Receipts for services performed for others, including milling and other mineral preparation on a custom basis-----	\$31,436				\$40				\$3,370	\$19,988	\$8,088				

¹For definition of the industry see table 1, footnote 1.²Represents Idaho, Michigan, New Mexico, North Dakota, Utah, and Washington.³Unprepared only; none was reported as prepared.⁴Represents kaolin, ball clay, and other special clays.

FIRE CLAY

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TABLE 4.—QUANTITY AND VALUE OF PRODUCTS OF THE FIRE-CLAY INDUSTRY IN THE UNITED STATES, BY KIND AND BY TYPE OF OPERATION: 1939¹
(For producing operations only)

PRODUCT	All types	MINES ONLY				MINES AND PREPARATION PLANTS OPERATED TOGETHER			
		Total	Underground mines	Open pits	Combination (underground and open-pit) mines	Total	Underground mines	Open pits	Combination (underground and open-pit) mines
Value of all products-----	\$7,178,482	\$4,966,657	\$2,809,796	\$1,635,719	\$523,143	\$2,211,825	\$877,380	\$1,310,846	\$223,619
MAJOR PRODUCTS									
Fire clay:									
Prepared--									
Tons of 2,000 pounds-----	825,870	25,979	25,114	865		798,691	318,046	353,851	127,792
Value-----	\$1,918,710	\$53,295	\$54,548	\$8,747		\$1,855,415	\$653,975	\$986,792	\$214,648
Unprepared--									
Tons of 2,000 pounds-----	3,248,624	3,184,289	1,628,534	1,286,307	269,448	64,335	10,709	53,626	
Value-----	\$4,813,209	\$4,692,597	\$2,870,397	\$1,523,044	\$499,156	\$120,612	\$17,690	\$102,922	
Classified by type:									
Plastic fire clay:									
Prepared--									
Tons of 2,000 pounds-----	774,847	24,251	23,386	865		750,396	299,032	323,522	127,792
Value-----	\$1,804,925	\$55,519	\$46,772	\$8,747		\$1,749,406	\$584,391	\$950,367	\$214,648
Unprepared--									
Tons of 2,000 pounds-----	1,798,675	1,744,001	882,949	753,094	107,958	54,674	1,048	53,626	
Value-----	\$2,215,911	\$2,111,416	\$1,152,386	\$841,900	\$117,130	\$104,495	\$1,573	\$102,922	
Flint fire clay:									
Prepared--									
Tons of 2,000 pounds-----	27,756	1,728	1,728			26,028	7,699	18,329	
Value-----	\$87,954	\$7,776	\$7,776			\$80,178	\$52,664	\$27,494	
Unprepared--									
Tons of 2,000 pounds-----	1,159,898	1,150,037	676,328	312,219	161,490	9,661	9,661		
Value-----	\$2,240,174	\$2,224,057	\$1,430,923	\$411,108	\$382,026	\$16,117	\$16,117		
Fire clay unspecified:									
Prepared--									
Tons of 2,000 pounds-----	23,267					23,267	11,267	12,000	
Value-----	\$25,831					\$25,831	\$16,900	\$8,931	
Unprepared--									
Tons of 2,000 pounds-----	244,593	244,593	69,257	175,336					
Value-----	\$191,792	\$191,792	\$87,088	\$104,704					
Diaspore (or burley): ²									
Tons of 2,000 pounds-----	45,658	45,658		45,658					
Value-----	\$165,332	\$165,332		\$165,332					
Stoneware clay:									
Prepared--									
Tons of 2,000 pounds-----	253					253		253	
Value-----	\$1,400					\$1,400		\$1,400	
Unprepared--									
Tons of 2,000 pounds-----	26,751	26,528	9,670	7,195	9,683	223		223	
Value-----	\$82,453	\$61,946	\$14,139	\$29,351	\$16,456	\$507		\$507	
Common clay: ²									
Tons of 2,000 pounds-----	19,599	13,921		13,558	363	5,678	5,678		
Value-----	\$23,732	\$18,903		\$17,034	\$1,889	\$4,829	\$4,829		
Shale:									
Prepared--									
Tons of 2,000 pounds-----	35,730					35,730		12,000	23,730
Value-----	\$17,752					\$17,752		\$8,931	\$8,821
Unprepared--									
Tons of 2,000 pounds-----	40,608	40,608		38,893	1,715				
Value-----	\$13,605	\$13,605		\$11,489	\$2,116				
Other clays: ³									
Prepared--									
Tons of 2,000 pounds-----	399					399		399	
Value-----	\$3,502					\$3,502		\$3,502	
Unprepared--									
Tons of 2,000 pounds-----	3,095	1,555		1,356	199	1,540		1,540	
Value-----	\$19,610	\$8,583		\$7,921	\$662	\$11,027		\$11,027	
SECONDARY PRODUCTS AND RECEIPTS FOR SERVICES									
Bituminous coal:									
Tons of 2,000 pounds-----	50,236	50,026	33,687	15,475	884	210	60		150
Value-----	\$87,257	\$86,956	\$70,712	\$15,560	\$884	\$301	\$151		\$150
Common sand and gravel:									
Tons of 2,000 pounds-----	197,986	4,222		4,222		193,764		193,764	
Value-----	\$166,860	\$4,217		\$4,217		\$162,643		\$162,643	
Foundry sand:									
Tons of 2,000 pounds-----	10,633	4,157		4,157		6,476		6,476	
Value-----	\$10,317	\$5,221		\$5,221		\$5,096		\$5,096	
Limestone:									
Tons of 2,000 pounds-----	1,496	1,496		1,496					
Value-----	\$3,545	\$3,545		\$3,545					
Sandstone:									
Tons of 2,000 pounds-----	613					613	613		
Value-----	\$675					\$675	\$675		
Unspecified products, value-----	\$4,419	\$4,419		\$4,419					
Receipts for services performed for others, including milling and other mineral preparation on a custom basis-----	\$31,436	\$3,370		\$3,370		\$28,066	\$40	\$28,026	

¹ For definition of the industry see table 1, footnote 1.² Unprepared only; none was reported as prepared.³ Represents kaolin, ball clay, and other special clays.

MINERAL INDUSTRIES

TABLE 5.—NUMBER OF WAGE EARNERS IN THE FIRE-CLAY INDUSTRY IN THE UNITED STATES BY TYPE OF OPERATION, BY STATE, AND BY MONTH: 1939¹

(For producing operations only)

TYPE OF OPERATION AND STATE	Average for the 12 months	NUMBER RECEIVING PAY DURING PAY-ROLL PERIOD ENDING NEAREST THE 15TH OF THE MONTH											
		January	February	March	April	May	June	July	August	September	October	November	December
United States, total	3,655	3,325	3,255	3,400	3,555	3,475	3,582	3,568	3,637	3,871	4,070	4,205	4,121
TYPE OF OPERATION													
Mines only, total	2,909	2,651	2,568	2,697	2,657	2,763	2,832	2,805	2,871	3,070	3,280	3,385	3,349
Underground mines	1,900	1,781	1,769	1,827	1,729	1,818	1,792	1,714	1,765	1,953	2,156	2,242	2,249
Open pits	715	568	551	599	661	705	752	794	805	812	794	795	751
Combination (underground and open-pit) mines	294	282	248	271	267	240	288	297	301	305	330	348	349
Mines and preparation plants operated together, total	746	694	687	703	698	712	750	763	766	801	780	820	772
Underground mines	275	245	247	257	255	252	281	282	286	296	297	314	282
Open pits	359	332	324	332	345	353	355	370	368	391	375	390	377
Combination (underground and open-pit) mines	112	117	116	114	98	107	114	111	112	114	118	116	113
STATE													
Alabama	81	81	80	78	79	78	85	77	83	80	92	85	81
California	84	64	66	63	69	76	79	105	104	95	95	102	92
Colorado	44	39	41	30	42	43	44	40	35	46	65	50	58
Illinois	99	103	94	93	89	92	88	104	100	104	105	108	106
Indiana	65	44	55	64	64	70	71	70	72	73	64	64	70
Kentucky	449	433	431	438	392	377	391	380	381	454	554	588	585
Maryland	175	169	174	175	177	170	174	174	174	175	178	181	180
Missouri	478	378	385	408	450	465	517	511	510	530	531	522	513
New Jersey	281	263	250	249	269	277	282	294	296	283	297	309	291
Ohio	531	505	487	482	501	490	528	549	557	571	570	578	578
Pennsylvania	1,164	1,064	1,035	1,125	1,017	1,129	1,121	1,053	1,117	1,243	1,296	1,394	1,375
Texas	18	13	13	19	23	23	17	23	23	19	13	13	13
West Virginia	133	130	128	128	129	126	129	126	128	130	152	141	143
Other States	55	39	38	48	54	59	56	62	57	58	60	70	54

¹ For definition of the industry see table 1, footnote 1.TABLE 6.—EMPLOYMENT AND WORKING TIME IN THE FIRE-CLAY INDUSTRY IN THE UNITED STATES, BY DEPARTMENT AND BY STATE: 1939¹

(For producing operations only)

DEPARTMENT	United States	Ala-bama	Calif-ornia	Colo-rado	Illi-nois	Indiana	Ken-tucky	Mary-land	Miss-ouri	New Jersey	Ohio	Pennsyl-vania	Texas	West Vir-ginia	Other States
Average number of wage earners on active days, total	3,892	81	98	53	104	68	506	173	519	241	561	1,266	22	130	70
At mines, total	3,688	81	94	47	84	66	506	173	514	210	491	1,228	15	113	66
Underground mines	2,450	76	27	47	36	61	461	162	129	---	308	1,011	---	106	26
Open-pit	1,112	4	64	---	48	5	13	4	383	210	156	163	15	7	40
Surface shops and yards	126	1	3	---	---	---	32	7	2	---	27	54	---	---	---
At preparation plants	204	---	4	6	20	2	---	---	5	31	70	38	7	17	4
Average number of equivalent full days operations were active	181	156	207	173	205	200	171	147	191	234	189	164	194	253	160
At mines, total	179	136	205	178	198	200	171	147	191	233	185	164	164	257	152
Underground mines	171	133	245	178	198	206	169	142	171	---	176	163	---	257	171
Open-pit	199	180	187	---	197	125	226	197	198	233	206	171	164	256	140
Surface shops and yards	181	224	220	---	---	---	182	240	136	---	170	176	---	---	---
At preparation plants	214	---	262	141	236	204	---	---	194	240	217	165	280	226	295
Number of man-shifts worked by wage earners, total ²	713,898	11,149	20,338	9,186	22,117	13,683	87,634	25,463	100,724	56,750	106,682	211,266	4,275	33,400	11,231
On active days, total	705,648	11,030	20,278	9,186	21,303	13,588	86,691	25,463	99,091	56,423	106,038	208,150	4,275	32,901	11,231
At mines, total	661,968	11,030	19,232	8,343	16,590	13,181	86,691	25,463	98,125	48,981	90,879	201,886	2,455	29,055	10,059
Underground	418,113	10,086	6,604	8,343	7,137	12,556	77,938	22,996	22,070	---	54,102	164,575	---	27,263	4,445
Open-pit	221,107	720	11,968	---	9,453	625	2,934	787	75,782	48,981	32,185	27,811	2,455	1,792	5,616
Surface shops and yards	227,748	224	860	---	---	---	5,819	1,580	271	---	4,594	9,500	---	---	---
At preparation plants	43,680	---	1,046	843	4,713	407	---	---	968	7,442	15,159	6,264	1,820	3,846	1,172
On inactive days	8,250	119	60	---	814	95	943	---	1,635	327	644	3,116	---	499	---
Number of man-hours worked by wage earners, total	5,641,778	80,208	160,371	68,141	176,481	107,185	701,081	203,704	816,547	450,543	845,665	1,663,309	30,816	247,883	89,844
On active days, total	5,579,977	79,373	159,891	68,141	170,421	106,045	693,550	203,704	805,463	448,376	840,513	1,639,569	30,816	244,291	89,844
At mines, total	5,229,639	79,373	151,523	62,243	152,717	102,791	693,550	203,704	797,720	388,935	719,233	1,584,808	18,076	214,818	80,468
Underground	3,278,232	70,805	51,366	62,243	57,096	97,791	623,508	185,968	176,566	---	432,588	1,286,472	---	200,482	55,547
Open-pit	1,774,222	7,200	95,413	---	75,621	5,000	23,472	6,296	618,988	388,935	250,198	225,856	18,076	14,336	44,921
Surface shops and yards	177,185	1,568	4,744	---	---	---	46,560	13,440	2,186	---	56,447	72,270	---	---	---
At preparation plants	350,338	---	8,568	5,898	37,704	3,254	---	---	7,743	59,541	121,280	54,961	12,740	29,473	9,376
On inactive days	61,801	835	480	---	6,060	1,140	7,551	---	11,084	2,167	5,152	23,740	---	3,592	---

¹ For definition of the industry see table 1, footnote 1.² Includes 2,339 man-shifts worked during a second shift (1,632 at pits and mines and 707 at preparation plants) and 142 man-shifts worked during a third shift (at preparation plants). These man-shifts were worked at a 3-shift operation located in Colorado and at 2-shift operations in Illinois, Missouri, and New Jersey, 1 in each State.

TABLE 7.—EMPLOYMENT AND WORKING TIME IN THE FIRE-CLAY INDUSTRY IN THE UNITED STATES, BY DEPARTMENT
AND BY TYPE OF OPERATION: 1939¹

(For producing operations only)

DEPARTMENT	All types	MINES ONLY				MINES AND PREPARATION PLANTS OPERATED TOGETHER			
		Total	Underground mines	Open pits	Combination (underground and open-pit) mines	Total	Underground mines	Open pits	Combination (underground and open-pit) mines
Average number of wage earners on active days, total	3,892	3,161	2,047	782	332	731	285	328	118
At mines, total	3,688	3,161	2,047	782	332	527	226	214	87
Underground mines	2,450	2,162	1,962		200	288	224		64
Open-pit	1,112	888		781	107	224		201	23
Surface shops and yards	126	111	85	1	25	15	2	13	
At preparation plants	204					204	59	114	31
Average number of equivalent full days operations were active	181	173	169	189	164	215	177	253	203
At mines, total	179	173	169	189	164	216	180	254	214
Underground mines	171	169	168		170	186	181		205
Open-pit	199	184		189	148	257		259	241
Surface shops and yards	181	183	184	104	183	160	115	167	
At preparation plants	214					214	166	251	169
Number of man-shifts worked by wage earners, total	713,898	555,129	352,200	148,281	54,648	158,789	51,406	83,222	24,141
On active days, total	705,648	548,273	346,152	147,767	54,354	157,375	50,579	82,895	23,901
At mines, total	661,968	548,273	346,152	147,767	54,354	113,695	40,774	54,270	18,651
Underground	418,113	364,466	330,477		33,889	53,647	40,545		13,102
Open-pit	221,107	183,460		147,663	15,787	57,647		52,088	5,549
Surface shops and yards	22,748	20,347	15,875	104	4,568	2,401	229	2,172	
At preparation plants	43,680					43,680	9,805	28,625	5,250
On inactive days	8,250	6,856	6,048	514	294	1,394	827	327	240
Number of man-hours worked by wage earners, total	5,641,778	4,385,790	2,763,738	1,192,186	429,866	1,255,988	395,285	669,727	190,978
On active days, total	5,579,977	4,334,292	2,718,504	1,188,074	427,714	1,245,685	389,067	667,560	189,058
At mines, total	5,229,639	4,334,292	2,718,504	1,188,074	427,714	895,547	312,773	435,516	147,058
Underground	3,278,232	2,863,668	2,596,505		287,163	414,564	310,941		103,623
Open-pit	1,774,222	1,512,647		1,187,242	125,405	461,575		418,140	43,435
Surface shops and yards	177,185	157,977	121,999	832	35,146	19,208	1,832	17,376	
At preparation plants	350,359					350,338	76,294	232,044	42,000
On inactive days	61,801	51,498	45,234	4,112	2,152	10,303	6,216	2,167	1,920

¹For definition of the industry see table 1, footnote 1.TABLE 8.—QUANTITY OF FUEL AND ELECTRIC ENERGY CONSUMED IN THE FIRE-CLAY INDUSTRY IN THE UNITED STATES,
BY TYPE OF OPERATION AND BY STATE: 1939¹

(For producing operations only)

TYPE OF OPERATION AND STATE	FUEL				ELECTRIC ENERGY (thousands of kilowatt-hours)		
	Bituminous coal (tons of 2,000 pounds)	Fuel oils (barrels of 42 gallons)	Gasoline and kerosene (gallons)	Natural gas (thousands of cubic feet)	Total	Purchased	Generated by reporting companies
United States, total	11,514	4,691	523,817	4,009	6,276	5,809	467
TYPE OF OPERATION							
Mines only, total	6,080	268	406,209	215	2,750	2,717	33
Underground mines	2,552		69,176	70	1,938	1,905	33
Open-pit	2,243	268	295,867		724	724	
Combination (underground and open-pit) mines	1,285		41,166	145	88	88	
Mines and preparation plants operated together, total	5,434	4,423	117,608	3,794	3,526	3,092	434
Underground mines	1,324	228	1,514	118	702	623	79
Open-pit	2,964	4,179	108,724	3,615	2,133	2,123	10
Combination (underground and open-pit) mines	1,146	16	6,370	60	691	346	345
STATE							
Alabama	185		2,311				
California		437	88,065	1,200	180	176	2
Colorado	482		10,279		27	27	
Illinois	1,558	66	22,968		966	960	6
Indiana	250				90	90	
Kentucky	414		31,253		50	50	
Maryland	441		3,925		444	444	
Missouri	289	192	140,040		776	776	
New Jersey	782	3,935	90,075		524	524	
Ohio	3,076	25	57,878		1,133	1,033	100
Pennsylvania	2,697	36	52,449	2,609	1,637	1,513	324
Texas			6,521				
West Virginia	1,340		3,780		219	184	35
Other States			14,473		230	230	

¹For definition of the industry see table 1, footnote 1.

MINERAL INDUSTRIES

TABLE 12.—SELECTED STATISTICS FOR FIRE-CLAY OPERATIONS IN THE UNITED STATES, CLASSIFIED BY VALUE OF PRODUCTS AND BY STATE: 1939¹

(For producing operations only)

STATE AND VALUE OF PRODUCTS	Number of pits and mines	Number of preparation plants	Production of clay (tons of 2,000 pounds)	Value of all products	NUMBER OF PERSONS ENGAGED					Wages	Salaries
					Total	Wage earners (average for the year)	Salaried employees	Proprietors and firm members			
								Total	Performing manual labor		
United States, total	306	44	4,200,729	\$7,178,482	4,018	3,655	255	108	41	\$3,365,838	\$498,506
\$1 - \$19,999	142	18	915,727	1,299,991	1,025	888	54	83	34	638,201	68,474
\$20,000 - \$49,999	75	14	1,469,416	2,341,503	1,334	1,240	84	10	2	1,180,342	158,518
\$50,000 - \$99,999	25	6	936,700	1,668,119	963	910	52	1		837,815	102,615
\$100,000 - \$249,999	6	5	470,102	1,270,279	402	354	48			448,383	132,649
\$250,000 - \$499,999	1	1									
Unclassified	57		408,784	603,590	294	263	17	14	5	261,097	36,260
Alabama, total	4		64,900	63,918	86	81	4	1		25,877	4,800
\$1 - \$19,999	3										
\$20,000 - \$49,999	1		64,900	63,918	86	81	4	1		25,877	4,800
California, total	21	2	158,279	333,712	102	84	12	6	3	104,171	25,230
\$1 - \$19,999	5	1	17,073	31,393	19	15		4	2	14,467	
\$20,000 - \$49,999	5										
\$50,000 - \$99,999	1	1	104,975	223,199	63	55	7	1		71,707	18,930
Unclassified	10		36,231	79,120	20	14	5	1	1	17,997	6,300
Colorado, total	10	1	57,120	70,253	50	44	2	4	1	32,121	4,500
\$1 - \$19,999	8	1									
Unclassified	2		57,120	70,253	50	44	2	4	1	32,121	4,500
Illinois, total	10	3	203,301	508,719	116	99	13	4	3	103,166	41,482
\$1 - \$19,999	4	1	33,416	31,725	28	22	3	3	3	13,458	2,511
\$20,000 - \$49,999	2	1									
\$100,000 - \$249,999	1	1	161,858	262,434	81	71	10			83,688	39,171
Unclassified	3		8,027	14,560	7	6		1		6,020	
Indiana, total	9	1	92,988	119,237	70	65	4	1		58,201	5,005
\$1 - \$19,999	6		33,392	38,707	26	24	1	1		18,996	1,345
\$20,000 - \$49,999	3	1	59,596	80,530	44	41	3			39,205	3,660
Kentucky, total	14		304,887	548,018	473	449	13	11		410,900	22,173
\$1 - \$19,999	4		23,325	41,478	59	46	2	11		29,520	2,160
\$20,000 - \$49,999	6		115,035	177,261	149	145	4			128,578	6,889
\$50,000 - \$99,999	3										
\$100,000 - \$249,999	1		166,527	329,279	265	258	7			252,802	13,124
Maryland, total	6	1	72,027	172,952	181	175	4	2	1	96,680	4,285
\$1 - \$19,999	4	1									
\$20,000 - \$49,999	1		72,027	172,952	181	175	4	2	1	96,680	4,285
\$50,000 - \$99,999	1										
Missouri, total	68	2	711,818	965,608	533	476	21	36	19	365,894	29,966
\$1 - \$19,999	31	1	169,335	242,665	165	135	5	25	15	92,743	8,614
\$20,000 - \$49,999	9	1	147,585	272,635	179	167	12			137,692	16,240
\$50,000 - \$99,999	3		262,363	230,648	81	79	2			70,884	4,112
Unclassified	25		132,535	219,660	108	95	2	11	4	64,575	1,000
New Jersey, total	19	6	123,460	735,619	342	281	57	4	2	242,231	99,968
\$1 - \$19,999	10	2	33,680	133,242	99	83	13	3	2	58,056	12,291
\$20,000 - \$49,999	5	2									
\$50,000 - \$99,999	1	1	41,453	227,416	115	96	18	1		63,700	28,871
\$250,000 - \$499,999	1										
Unclassified	2		48,327	374,961	128	102	26			120,475	58,806
Ohio, total	46	11	953,029	1,175,976	580	531	38	11	4	515,164	95,097
\$1 - \$19,999	19	3	235,404	199,330	136	125	5	6	2	118,551	5,874
\$20,000 - \$49,999	13	3	369,848	378,583	181	165	12	4	2	170,689	36,398
\$50,000 - \$99,999	3	2	81,003	159,477	82	74	8			64,569	16,665
\$100,000 - \$249,999	3	3	163,271	358,480	135	123	12			128,389	33,880
Unclassified	8		103,503	80,106	46	44	1	1		34,956	2,280
Pennsylvania, total	76	11	1,071,957	2,114,458	1,258	1,164	80	14	2	1,178,898	154,018
\$1 - \$19,999	32	5	160,599	297,015	244	214	20	10	2	162,078	28,047
\$20,000 - \$49,999	28	5	489,608	961,134	535	496	35	4		500,146	59,696
\$50,000 - \$99,999	12	1	378,175	751,550	421	403	18			457,545	43,211
Unclassified	4		43,575	104,739	58	51	7			59,129	23,064
Texas, total	3	1	41,299	45,433	20	18		2		12,751	
\$1 - \$19,999	2										
\$20,000 - \$49,999	1	1	41,299	45,433	20	18		2		12,751	
West Virginia, total	7	3	265,958	411,786	145	133	7	5	2	169,379	11,982
\$1 - \$19,999	2	1									
\$20,000 - \$49,999	1		101,751	132,091	76	65	6	5	2	51,682	7,682
\$50,000 - \$99,999	1	1									
\$100,000 - \$249,999	1	1									
Unclassified	2		164,207	279,695	69	68	1			117,697	4,300
Other States, total	13	2	79,706	112,813	62	55		7	4	50,425	
\$1 - \$19,999	12	2									
Unclassified	1		79,706	112,813	62	55		7	4	50,425	

¹ For definition of the industry see table 1, footnote 1. Reports classified by value of products represent a single pit or mine, a single preparation plant, or a single pit or mine and a single preparation plant reported together. Statistics shown for "Unclassified" represent reports for more than one pit or mine, and reports for central offices reported separately from their associated fire-clay operations.

FIRE CLAY

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TABLE 13.—SELECTED STATISTICS FOR FIRE-CLAY OPERATIONS IN THE UNITED STATES, CLASSIFIED BY QUANTITY OF CLAY PRODUCED AND BY STATE: 1939¹

(For producing operations only)

STATE AND QUANTITY OF CLAY PRODUCED (tons of 2,000 pounds)	Number of pits and mines	Number of preparation plants	Production of clay (tons of 2,000 pounds)	Value of all products	NUMBER OF PERSONS ENGAGED					Wages	Salaries
					Total	Wage earners (average for the year)	Salaried employees	Proprietors and firm members			
								Total	Performing manual labor		
United States, total-----	306	44	4,200,729	\$7,178,462	4,018	3,655	255	108	41	\$3,365,832	\$498,506
1 - 999-----	12	3	9,086	39,287	36	24	3	9	5	14,292	2,140
1,000 - 4,999-----	13	-----	18,482	52,660	63	41	3	19	2	24,672	1,765
5,000 - 9,999-----	45	8	156,192	370,096	322	266	30	25	16	170,184	34,130
10,000 - 14,999-----	55	10	400,035	883,500	528	499	43	26	12	400,714	71,283
15,000 - 24,999-----	39	6	479,476	983,286	603	565	31	7	1	460,085	47,121
25,000 - 34,999-----	36	6	729,585	1,106,112	600	566	29	5	-----	586,796	65,097
35,000 - 49,999-----	18	5	526,260	761,039	431	407	24	-----	-----	413,515	56,454
50,000 - 99,999-----	9	3	371,518	610,848	403	383	19	1	-----	312,823	29,034
100,000 and over-----	11	3	999,033	1,269,051	449	419	30	-----	-----	518,000	94,935
Unclassified-----	2	1	509,064	1,120,621	543	485	43	15	5	464,757	95,477
Alabama, total-----	4	-----	64,900	63,918	86	81	4	1	-----	25,877	4,800
5,000 - 9,999-----	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
10,000 - 14,999-----	1	-----	64,900	63,918	86	81	4	1	-----	25,877	4,800
25,000 - 34,999-----	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Unclassified-----	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
California, total-----	21	2	156,279	333,712	102	84	12	6	3	104,171	25,230
1 - 999-----	3	1	2,058	10,004	10	6	-----	4	2	5,242	-----
2,000 - 4,999-----	1	-----	20,490	60,476	29	27	2	-----	-----	33,713	3,400
5,000 - 9,999-----	2	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
10,000 - 14,999-----	3	-----	86,527	165,274	35	29	5	1	-----	36,902	15,530
25,000 - 34,999-----	1	1	49,204	97,956	26	22	5	1	1	26,314	6,300
Unclassified-----	11	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Colorado, total-----	10	1	57,120	70,253	50	44	2	4	1	32,121	4,500
2,000 - 4,999-----	3	-----	11,345	11,933	10	8	-----	2	1	4,115	-----
5,000 - 9,999-----	4	1	26,885	35,091	26	25	2	1	-----	14,641	4,500
10,000 - 14,999-----	1	-----	19,090	23,229	12	11	-----	1	-----	13,365	-----
Unclassified-----	2	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Illinois, total-----	10	3	203,301	308,719	116	99	13	4	3	103,166	41,482
2,000 - 4,999-----	2	1	11,416	20,425	24	18	3	3	3	9,458	2,311
5,000 - 9,999-----	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
10,000 - 14,999-----	1	-----	88,858	65,994	46	45	1	-----	-----	43,628	3,000
15,000 - 24,999-----	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
25,000 - 34,999-----	1	1	103,027	222,300	46	36	9	1	-----	50,020	36,171
35,000 - 49,999-----	1	1	-----	-----	-----	-----	-----	-----	-----	-----	-----
50,000 - 99,999-----	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Unclassified-----	3	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Indiana, total-----	9	1	92,988	119,237	70	65	4	1	-----	58,201	5,005
1 - 999-----	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2,000 - 4,999-----	2	-----	20,286	23,007	17	15	1	1	-----	11,146	1,345
5,000 - 9,999-----	2	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
10,000 - 14,999-----	2	-----	72,702	96,230	53	50	3	-----	-----	47,055	3,660
15,000 - 24,999-----	1	1	-----	-----	-----	-----	-----	-----	-----	-----	-----
25,000 - 34,999-----	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Unclassified-----	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Kentucky, total-----	14	-----	304,887	548,018	473	449	13	11	-----	410,900	22,173
1,000 - 1,999-----	1	-----	21,649	53,550	62	49	2	11	-----	29,875	2,130
2,000 - 4,999-----	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
5,000 - 9,999-----	2	-----	50,475	92,944	95	92	3	-----	-----	71,211	5,089
10,000 - 14,999-----	4	-----	72,619	152,316	134	131	3	-----	-----	117,568	6,390
15,000 - 24,999-----	2	-----	160,144	249,208	182	177	5	-----	-----	192,246	8,534
25,000 - 34,999-----	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
35,000 - 49,999-----	2	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
50,000 - 99,999-----	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Unclassified-----	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Maryland, total-----	6	1	72,027	172,952	161	175	4	2	1	96,660	4,285
1 - 999-----	1	1	-----	-----	-----	-----	-----	-----	-----	-----	-----
2,000 - 4,999-----	1	-----	72,027	172,952	161	175	4	2	1	96,660	4,285
5,000 - 9,999-----	2	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
10,000 - 14,999-----	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
35,000 - 49,999-----	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

¹For definition of the industry see table 1, footnote 1. Reports classified by quantity of products represent a single pit or mine, a single preparation plant, or a single pit or mine and a single preparation plant reported together. Statistics shown for "Unclassified" represent: Reports for more than 1 pit or mine; reports on which figures were inadequately reported to permit classification; and reports for central offices reported separately from their associated fire-clay operations.

TABLE 13.—SELECTED STATISTICS FOR FIRE-CLAY OPERATIONS IN THE UNITED STATES, CLASSIFIED BY QUANTITY OF CLAY PRODUCED AND BY STATE: 1939¹—Continued

(For producing operations only)

STATE AND QUANTITY OF CLAY PRODUCED (tons of 2,000 pounds)	Number of pits and mines	Number of preparation plants	Production of clay (tons of 2,000 pounds)	Value of all products	NUMBER OF PERSONS ENGAGED						Wages	Salaries
					Total	Wage earners (average for the year)	Salaried employees	Proprietors and firm members				
								Total	Performing manual labor			
Missouri, total	68	2	711,818	\$965,608	533	476	21	36	19	\$365,894	\$29,966	
1 - 999	2	}	3,811	10,672	13	9	-----	4	2	3,817	-----	
1,000 - 1,999	2		42,509	76,691	59	48	1	10	7	27,570	1,353	
2,000 - 4,999	13	1	68,370	101,379	60	46	4	10	5	31,123	7,100	
5,000 - 9,999	10		89,861	162,262	102	95	6	1	1	75,293	6,066	
10,000 - 14,999	7	1	112,369	164,096	109	103	6	-----	-----	69,632	10,335	
15,000 - 24,999	6		262,363	230,648	82	80	2	-----	-----	70,894	4,112	
50,000 - 99,999	2	}	132,535	219,660	108	95	2	11	4	64,575	1,000	
100,000 and over	1		-----	-----	-----	-----	-----	-----	-----	-----	-----	
Unclassified	25	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
New Jersey, total	19	6	123,460	735,619	342	281	57	4	2	242,231	99,968	
1,000 - 1,999	1	}	30,982	145,854	114	92	20	2	2	57,625	23,949	
2,000 - 4,999	8		38,831	191,760	93	81	11	1	-----	59,471	17,213	
5,000 - 9,999	4	1	53,647	398,005	135	108	26	1	-----	125,135	58,806	
10,000 - 14,999	1		-----	-----	-----	-----	-----	-----	-----	-----	-----	
Unclassified	5	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Ohio, total	46	11	953,029	1,175,976	580	531	36	11	4	515,164	95,097	
2,000 - 4,999	4	1	11,097	21,372	29	25	3	1	-----	17,102	3,192	
5,000 - 9,999	6		39,382	71,850	56	48	-----	8	4	32,406	-----	
10,000 - 14,999	6	3	69,909	155,016	88	83	5	-----	-----	64,584	8,279	
15,000 - 24,999	12		237,424	252,247	123	115	7	1	-----	126,468	20,738	
25,000 - 34,999	4	}	166,537	232,939	90	80	10	-----	-----	87,724	23,545	
35,000 - 49,999	1		325,177	362,646	148	136	12	-----	-----	151,922	37,063	
50,000 - 99,999	3	2	103,303	80,106	46	44	1	1	-----	34,956	2,280	
Unclassified	8		-----	-----	-----	-----	-----	-----	-----	-----	-----	
Pennsylvania, total	76	11	1,071,957	2,114,438	1,258	1,164	80	14	2	1,178,898	154,016	
1 - 999	4	1	3,272	14,365	14	10	3	1	-----	5,418	2,140	
1,000 - 1,999	5		7,183	20,965	19	13	2	4	2	9,710	1,705	
2,000 - 4,999	7	1	26,541	58,267	48	46	2	-----	-----	36,455	2,010	
5,000 - 9,999	16		125,645	335,542	218	186	29	3	-----	163,821	47,094	
10,000 - 14,999	15	2	181,721	369,369	210	199	7	4	-----	174,832	12,051	
15,000 - 24,999	9		192,850	419,125	233	221	10	2	-----	235,792	19,394	
25,000 - 34,999	8	3	231,407	413,775	233	222	11	-----	-----	244,435	26,329	
35,000 - 49,999	2		213,603	259,254	148	141	7	-----	-----	170,858	15,204	
50,000 - 99,999	2	}	89,735	225,776	135	126	9	-----	-----	137,577	28,091	
Unclassified	8		-----	-----	-----	-----	-----	-----	-----	-----	-----	
Texas, total	3	1	41,299	45,433	20	16	-----	2	-----	12,731	-----	
2,000 - 4,999	1	}	41,299	45,433	20	16	-----	2	-----	12,731	-----	
5,000 - 9,999	1		-----	-----	-----	-----	-----	-----	-----	-----	-----	
25,000 - 34,999	1	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	
West Virginia, total	7	3	265,958	411,786	145	133	7	5	2	169,379	11,962	
2,000 - 4,999	1	1	101,751	132,091	75	64	6	5	2	51,682	7,682	
15,000 - 24,999	1		164,207	279,695	70	69	1	-----	-----	117,697	4,300	
35,000 - 49,999	2	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	
100,000 and over	1		-----	-----	-----	-----	-----	-----	-----	-----	-----	
Unclassified	2	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Other States, total	13	2	79,706	112,813	62	55	-----	7	4	50,425	-----	
1 - 999	1	}	12,873	29,099	20	16	-----	4	1	12,649	-----	
1,000 - 1,999	3		28,833	47,412	25	22	-----	3	3	20,002	-----	
2,000 - 4,999	2	1	38,000	36,302	17	17	-----	-----	-----	17,774	-----	
5,000 - 9,999	4		-----	-----	-----	-----	-----	-----	-----	-----	-----	
10,000 - 14,999	1	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	
15,000 - 24,999	1		-----	-----	-----	-----	-----	-----	-----	-----	-----	
Unclassified	1	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	

¹For definition of the industry see table 1, footnote 1. Reports classified by quantity of products represent a single pit or mine, a single preparation plant, or a single pit or mine and a single preparation plant reported together. Statistics shown for "Unclassified" represent: Reports for more than 1 pit or mine; reports on which figures were inadequately reported to permit classification; and reports for central offices reported separately from their associated fire-clay operations.

TABLE 14.—SELECTED STATISTICS FOR FIRE-CLAY OPERATIONS IN THE UNITED STATES, CLASSIFIED BY NUMBER OF WAGE EARNERS AND BY STATE: 1939¹

(For producing operations only)

STATE AND NUMBER OF WAGE EARNERS	Number of pits and mines	Number of preparation plants	Production of clay (tons of 2,000 pounds)	Value of all products	NUMBER OF PERSONS ENGAGED				Wages	Salaries	
					Total	Wage earners (average for the year)	Salaried employees	Proprietors and firm members ^a			
								Total			Performing manual labor
United States, total-----	306	44	4,200,729	\$7,178,482	4,018	3,555	255	108	41	\$3,365,838	\$498,506
None-----	3	-----	13,500	15,150	7	-----	-----	7	7	-----	-----
1 - 5-----	72	8	494,773	564,993	300	227	29	44	21	185,881	34,556
6 - 20-----	111	25	1,642,997	2,529,490	1,453	1,328	93	32	7	1,208,964	177,296
21 - 50-----	38	8	1,148,878	2,185,032	1,205	1,144	58	3	-----	1,084,129	129,519
51 - 100-----	6	1	321,231	653,957	505	489	16	-----	-----	452,142	39,856
101 - 250-----	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Unclassified-----	75	2	579,350	1,229,860	548	467	59	22	6	434,722	117,179
Alabama, total-----	4	-----	64,900	63,918	86	81	4	1	-----	25,877	4,800
1 - 5-----	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
21 - 50-----	2	-----	64,900	63,918	86	81	4	1	-----	25,877	4,800
Unclassified-----	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
California, total-----	21	2	158,279	333,712	102	84	12	6	3	104,171	25,230
1 - 5-----	4	1	4,100	12,557	11	7	-----	4	2	6,150	-----
6 - 20-----	5	1	78,911	175,412	62	56	6	-----	-----	68,918	16,930
Unclassified-----	12	-----	75,268	145,743	29	21	6	2	1	29,103	8,300
Colorado, total-----	10	1	57,120	70,253	50	44	2	4	1	32,121	4,500
1 - 5-----	4	-----	24,795	26,082	17	15	-----	2	1	9,229	-----
6 - 20-----	3	1	20,848	27,794	23	20	2	1	-----	12,579	4,500
Unclassified-----	3	-----	11,477	16,377	10	9	-----	1	-----	10,313	-----
Illinois, total-----	10	3	203,301	308,719	116	99	13	4	3	103,166	41,482
None-----	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
1 - 5-----	1	-----	60,923	59,608	40	34	3	3	3	26,531	2,311
6 - 20-----	3	1	-----	-----	-----	-----	-----	-----	-----	-----	-----
21 - 50-----	2	2	142,378	249,111	76	65	10	1	-----	76,635	39,171
Unclassified-----	3	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Indiana, total-----	9	1	92,988	119,237	70	65	4	1	-----	58,201	5,005
1 - 5-----	3	-----	13,676	17,752	8	7	1	-----	-----	7,724	1,345
6 - 20-----	5	1	79,312	101,485	62	58	3	1	-----	50,477	3,660
Unclassified-----	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Kentucky, total-----	14	-----	304,887	548,018	473	449	13	11	-----	410,900	22,173
6 - 20-----	6	-----	75,129	94,629	89	74	4	11	-----	54,419	6,060
21 - 50-----	5	-----	85,343	175,412	158	155	3	-----	-----	136,428	5,879
51 - 100-----	3	-----	144,415	277,977	226	220	5	-----	-----	220,053	10,234
Maryland, total-----	6	1	72,027	172,952	181	175	4	2	1	96,680	4,285
1 - 5-----	1	1	-----	-----	-----	-----	-----	-----	-----	-----	-----
6 - 20-----	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
21 - 50-----	2	-----	72,027	172,952	181	175	4	2	1	96,680	4,285
101 - 250-----	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Unclassified-----	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Missouri, total-----	68	2	711,818	955,608	533	476	21	36	19	365,894	29,966
None-----	1	-----	105,598	122,916	78	57	-----	21	13	33,323	-----
1 - 5-----	20	-----	340,058	423,559	219	202	15	2	1	172,153	22,588
6 - 20-----	16	2	127,613	185,143	119	115	4	-----	-----	91,668	6,378
21 - 50-----	4	-----	138,544	233,990	117	102	2	13	5	68,750	1,000
Unclassified-----	27	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
New Jersey, total-----	19	6	123,460	735,619	342	281	57	4	2	242,231	99,968
1 - 5-----	4	1	8,519	41,490	23	13	9	1	-----	13,207	9,016
6 - 20-----	7	3	38,613	158,202	89	81	5	3	2	69,311	8,417
Unclassified-----	8	2	76,128	535,927	230	187	43	-----	-----	159,713	82,535
Ohio, total-----	46	11	953,029	1,175,976	580	531	38	11	4	515,164	95,097
None-----	1	-----	201,686	116,456	43	36	4	3	2	36,497	5,660
1 - 5-----	9	1	362,664	477,113	265	241	17	7	2	244,389	44,310
6 - 20-----	21	6	232,109	484,864	218	202	16	-----	-----	189,136	42,847
21 - 50-----	5	3	156,570	97,543	54	52	1	1	-----	45,142	2,280
51 - 100-----	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Unclassified-----	9	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Pennsylvania, total-----	76	11	1,071,957	2,114,438	1,253	1,164	80	14	2	1,178,898	154,018
1 - 5-----	15	2	52,121	134,960	75	54	14	7	2	46,501	17,435
6 - 20-----	37	8	492,250	886,887	512	471	37	4	-----	432,385	67,226
21 - 50-----	16	1	481,907	979,064	611	587	22	2	-----	639,781	46,293
51 - 100-----	2	-----	45,679	111,527	60	52	7	1	-----	60,231	23,064
Unclassified-----	6	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Texas, total-----	3	1	41,299	45,433	20	18	-----	2	-----	12,731	-----
1 - 5-----	2	-----	41,299	45,433	20	18	-----	2	-----	12,731	-----
6 - 20-----	1	1	-----	-----	-----	-----	-----	-----	-----	-----	-----
West Virginia, total-----	7	3	265,958	411,786	145	133	7	5	2	169,379	11,982
6 - 20-----	3	1	60,055	50,149	47	43	-----	4	2	34,785	-----
21 - 50-----	2	2	205,903	361,637	98	90	7	1	-----	134,594	11,982
Unclassified-----	2	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Other States, total-----	13	2	79,706	112,813	62	55	-----	7	4	50,425	-----
1 - 5-----	8	2	49,896	60,076	30	23	-----	7	4	20,997	-----
6 - 20-----	3	-----	29,810	52,737	32	32	-----	-----	-----	29,428	-----
Unclassified-----	2	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

¹For definition of the industry see table 1, footnote 1. Reports classified by average number of wage earners employed during the year represent a single pit or mine, a single preparation plant, or a single pit or mine and a single preparation plant reported together. Statistics shown for "Unclassified" represent reports for more than one pit or mine; reports on which number of wage earners, by month, was not adequately reported; and reports for central offices reported separately from their associated fire-clay operations.

MINERAL INDUSTRIES

TABLE 15.—SELECTED STATISTICS FOR FIRE-CLAY OPERATIONS IN THE UNITED STATES, CLASSIFIED BY NUMBER OF HOURS PER WAGE EARNER IN THE FULL-TIME WORKWEEK AND BY STATE: 1939¹

(For producing operations only)

STATE AND HOURS PER WEEK	Number of pits and mines	Number of preparation plants	Production of clay (tons of 2,000 pounds)	Value of all products	NUMBER OF PERSONS ENGAGED						Wages	Salaries
					Total	Wage earners (average for the year)	Salaried employees	Proprietors and firm members				
								Total	Performing manual labor			
United States, total	306	44	4,200,729	\$7,178,482	4,018	3,655	255	108	41	\$3,365,838	\$498,506	
1 - 34	5	2	38,910	72,985	51	46	3	2	2	47,107	4,892	
35	14	1	159,149	268,129	177	170	6	1	1	171,191	10,332	
36 - 39	3		28,249	54,185	48	46	2			34,389	3,163	
40	125	17	1,689,804	5,051,455	1,881	1,754	105	22	8	1,631,031	167,356	
41 - 42	52	14	967,155	1,954,849	908	801	85	22	7	856,098	187,576	
43 - 44	36	4	528,613	663,876	329	292	20	17	9	314,196	49,684	
48	12		131,084	199,392	98	91	2	5	1	122,778	3,098	
60 and over	5	1	54,009	93,109	27	20	3	4	1	24,553	9,640	
Unclassified	54	5	603,756	820,502	499	435	29	35	13	364,485	62,565	
Alabama, total	4		64,900	63,918	86	81	4	1		25,877	4,800	
36 - 39	1											
Unclassified	3		64,900	63,918	86	81	4	1		25,877	4,800	
California, total	21	2	158,279	333,712	102	84	12	6	3	104,171	25,230	
40	11	1	92,212	225,124	81	70	9	2	1	84,932	19,630	
48	6		25,672	34,761	5	4		1	1	5,891		
Unclassified	4	1	40,395	73,827	16	10	3	3	1	13,348	5,600	
Colorado, total	10	1	57,120	70,253	50	44	2	4	1	32,121	4,500	
35	1											
40	4		26,544	29,516	25	22	1	2	1	16,988	900	
41 - 42	2	1										
48	1		30,576	40,737	25	22	1	2		15,133	3,600	
Unclassified	2											
Illinois, total	10	3	203,301	308,719	116	99	13	4	3	103,166	41,482	
40	4		55,534	42,443	19	18		1		19,093		
41 - 42	4	2										
Unclassified	2	1	167,767	266,276	97	81	13	3	3	84,073	41,482	
Indiana, total	9	1	92,988	119,237	70	65	4	1		58,201	5,005	
35	1											
40	5	1	66,858	76,708	43	40	3			39,308	2,845	
41 - 42	2											
Unclassified	1		26,130	42,529	27	25	1	1		18,893	2,160	
Kentucky, total	14		304,887	548,018	473	449	13	11		410,900	22,173	
40	11		225,341	395,622	362	352	10			293,849	19,015	
41 - 42	1											
48	1		79,546	152,396	111	97	3	11		117,051	3,158	
Unclassified	1											
Maryland, total	6	1	72,027	172,952	181	175	4	2	1	96,680	4,285	
40	2											
41 - 42	2											
43 - 44	1	1	72,027	172,952	181	175	4	2	1	96,680	4,285	
Unclassified	1											
Missouri, total	68	2	711,818	965,608	533	476	21	36	19	365,894	29,966	
1 - 34	1											
40	20	2	262,846	430,521	253	232	17	4	3	202,837	21,548	
41 - 42	12		201,389	195,250	99	90	1	8	5	60,420	2,112	
43 - 44	13		115,297	149,726	72	62	1	9	6	41,751	2,000	
48	3											
60 and over	4		47,756	46,738	25	19		6	1	12,214		
Unclassified	15		84,530	143,373	84	73	2	9	4	48,672	4,306	
New Jersey, total	19	6	123,460	735,619	342	281	57	4	2	242,231	99,968	
35	2											
40	7	3	37,211	169,233	86	70	13	3	2	65,353	15,353	
41 - 42	6	3										
43 - 44	1		58,451	514,218	232	189	42	1		156,908	81,009	
Unclassified	3		27,798	52,168	24	22	2			19,970	3,606	
Ohio	46	11	953,029	1,175,976	580	531	38	11	4	515,164	95,097	
1 - 34	2	1										
35	3											
36 - 39	2		69,924	104,540	90	87	3			70,752	4,955	
40	12	5	287,491	545,685	158	147	10	1		135,005	17,798	
41 - 42	10	4	161,835	304,126	121	106	11	4	2	88,957	26,548	
43 - 44	8		238,653	206,802	97	87	9	1		105,997	23,728	
Unclassified	9	1	195,126	214,823	114	104	5	5	2	114,455	22,070	

¹ For definition of the industry see table 1, footnote 1. Reports were classified by number of hours in the full-time workweek reported for wage earners in that department of the operation for which the largest number of man-hours worked was reported. Statistics shown for "Unclassified" represent: Reports on which number of hours was not reported; reports on which no wage earners were reported; and reports for central offices reported separately from their associated fire-clay operations.

TABLE 15.—SELECTED STATISTICS FOR FIRE-CLAY OPERATIONS IN THE UNITED STATES, CLASSIFIED BY NUMBER OF HOURS PER WAGE EARNER IN THE FULL-TIME WORKWEEK AND BY STATE: 1939¹—Continued

(For producing operations only)

STATE AND HOURS PER WEEK	Number of pits and mines	Number of preparation plants	Production of clay (tons of 2,000 pounds)	Value of all products	NUMBER OF PERSONS ENGAGED					Wages	Salaries
					Total	Wage earners (average for the year)	Salaried employees	Proprietors and firm members			
								Total	Performing manual labor		
Pennsylvania, total-----	76	11	1,071,957	\$2,114,438	1,258	1,164	80	14	2	\$1,178,898	\$154,018
1 - 34-----	2	1	131,658	253,384	156	149	7	-----	-----	158,887	12,232
35-----	7	1						-----	-----		
40-----	40	3	513,873	1,117,719	735	694	35	6	-----	656,656	61,293
41 - 42-----	9	1	94,393	220,340	98	84	14	-----	-----	79,231	25,625
43 - 44-----	8	2	169,554	305,428	143	127	13	3	2	159,425	33,796
60 and over-----	1	1									
Unclassified-----	9	2	162,499	217,567	126	110	11	5	-----	124,699	21,072
Texas, total-----	3	1	41,299	45,433	20	18	-----	2	-----	12,731	-----
41 - 42-----	1	1	41,299	45,433	20	18	-----	2	-----	12,731	-----
43 - 44-----	1	-----									
Unclassified-----	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
West Virginia, total-----	7	3	265,958	411,786	145	133	7	5	2	169,379	11,982
40-----	5	2	265,958	411,786	145	133	7	5	2	169,379	11,982
41 - 42-----	2	1									
Other States, total-----	13	2	79,706	112,813	62	55	-----	7	4	50,425	-----
40-----	4	-----	24,694	39,216	27	26	-----	1	1	21,635	-----
41 - 42-----	1	1	45,346	56,245	28	25	-----	3	-----	25,181	-----
43 - 44-----	4	1									
48-----	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Unclassified-----	3	-----	9,666	17,352	7	4	-----	3	3	3,609	-----

¹ For definition of the industry see table 1, footnote 1. Reports were classified by number of hours in the full-time workweek reported for wage earners in that department of the operation for which the largest number of man-hours worked was reported. Statistics shown for "Unclassified" represent: Reports on which number of hours was not reported; reports on which no wage earners were reported; and reports for central offices reported separately from their associated fire-clay operations.

TABLE 16.—SELECTED STATISTICS FOR FIRE-CLAY OPERATIONS IN THE UNITED STATES, CLASSIFIED BY NUMBER OF DAYS ACTIVE DURING THE YEAR: 1939¹

(For producing operations only)

NUMBER OF DAYS ACTIVE DURING YEAR	Number of pits and mines	Number of preparation plants	Production of clay (tons of 2,000 pounds)	Value of all products	NUMBER OF PERSONS ENGAGED					Wages	Salaries
					Total	Wage earners (average for the year)	Salaried employees	Proprietors and firm members			
								Total	Performing manual labor		
United States, total	306	44	4,200,729	\$7,178,482	4,018	3,655	255	108	41	\$3,365,838	\$498,506
1 - 49	8		16,555	44,261	41	28	8	5		16,165	9,445
50 - 99	24	4	121,947	220,658	180	151	6	25	11	93,514	8,182
100 - 149	46	5	504,130	991,841	781	726	45	12	3	537,945	66,526
150 - 199	57	5	706,158	1,235,713	840	786	35	19	10	706,174	70,659
200 - 224	32	7	655,212	1,167,957	652	605	42	7	3	653,529	80,769
225 - 249	17	6	347,462	603,440	308	281	22	5	3	298,499	47,797
250 - 274	33	8	759,050	1,062,120	432	394	29	9	4	424,397	73,238
275 - 299	11	5	412,158	617,091	224	191	30	3	1	251,700	72,800
300 - 324	4	2	190,919	162,214	84	62	2			81,127	5,000
325 and over	2										
Unclassified	72	2	497,358	875,207	476	415	36	25	6	322,788	64,290

¹ For definition of the industry see table 1, footnote 1. Reports classified by number of days active represent a single pit or mine, a single preparation plant, or a single pit or mine and a single preparation plant reported together; such reports for a single pit or mine or a single preparation plant were classified by number of days the pit or mine or preparation plant was in operation for production or development purposes during the year; such reports for a single pit or mine and a single preparation plant reported together were classified by number of days the pit or mine was in operation during the year. Statistics shown for "Unclassified" represent: Reports for more than one pit or mine; reports on which number of days active was not reported; and reports for central offices reported separately from their associated fire-clay operations.

MINERAL INDUSTRIES

TABLE 17.—SELECTED STATISTICS FOR FIRE-CLAY OPERATIONS IN THE UNITED STATES, CLASSIFIED BY OUTPUT PER MAN-HOUR AND BY STATE: 1939¹

(For producing operations only)

STATE AND TONS (2,000 POUNDS) OF CLAY PER MAN-HOUR	Number of pits and mines	Number of preparation plants	Production of clay (tons of 2,000 pounds)	Value of all products	NUMBER OF PERSONS ENGAGED					Wages	Salaries
					Total	Wage earners (average for the year)	Salaried employees	Proprietors and firm members			
								Total	Performing manual labor		
United States, total	306	44	4,200,729	\$7,178,482	4,018	3,655	255	108	41	\$3,365,638	\$498,506
Less than 0.20	5	1	8,558	41,474	38	33	3	2	1	27,150	5,500
0.20 - 0.39	43	4	367,261	971,994	856	808	29	19	4	651,048	37,014
0.40 - 0.59	50	11	737,696	1,512,577	928	852	64	12	3	843,927	114,073
0.60 - 0.79	45	7	593,425	1,123,404	631	594	31	6		579,467	64,944
0.80 - 0.99	25	5	494,360	579,044	346	314	17	5	1	333,575	46,943
1.00 - 1.49	27	6	685,892	950,664	335	333	26	4		360,890	63,544
1.50 - 1.99	11	1	300,695	376,311	113	97	12	4	2	96,017	41,171
2.00 - 2.49	3	1	41,860	36,609	15	8	7			9,278	8,440
3.00 - 6.99	3		41,568	35,150	11	9		2		6,052	
7.00 and over	1		87,000	24,800	5	4	1			4,205	260
Unclassified	95	8	824,694	1,512,365	720	603	65	54	30	474,118	116,393
Alabama, total	4		84,900	63,918	86	81	4	1		25,877	4,600
1.00 - 1.49	1										
Unclassified	3		64,900	63,918	86	81	4	1		25,877	4,600
California, total	21	2	156,279	333,712	102	84	12	6	3	104,171	25,230
Less than 0.20	1										
0.20 - 0.39	1		19,148	90,725	33	29	2	2	1	35,805	3,400
0.40 - 0.59	1										
1.00 - 1.49	3	1	49,532	101,204	27	23	4			28,704	13,530
Unclassified	15	1	89,599	171,783	42	32	6	4	2	39,662	8,300
Colorado, total	10	1	57,120	70,253	50	44	2	4	1	32,121	4,500
0.40 - 0.59	3	1									
0.80 - 0.99	2		27,219	43,131	28	26	2			20,782	4,500
1.00 - 1.49	3										
Unclassified	2		29,901	27,122	22	18		4	1	11,349	
Illinois, total	10	3	203,301	308,719	116	99	13	4	3	103,166	41,482
0.20 - 0.39	2	1									
0.60 - 0.79	3		15,943	29,835	28	24	3	1		15,478	2,311
0.80 - 0.99	1	1									
1.00 - 1.49	1										
1.50 - 1.99	1	1	187,358	278,884	88	75	10	3	3	87,668	39,171
3.00 - 6.99	1										
Unclassified	1										
Indiana, total	9	1	92,988	119,237	70	65	4	1		58,201	5,005
0.40 - 0.59	1										
0.60 - 0.79	3	1	36,403	66,106	37	33	4			32,298	5,005
0.80 - 0.99	1										
1.00 - 1.49	2										
1.50 - 1.99	1		56,585	53,131	33	32		1		25,903	
Unclassified	1										
Kentucky, total	14		304,887	548,018	473	449	13	11		410,900	22,173
0.20 - 0.39	7		137,857	283,657	296	260	7	11		223,377	11,636
0.40 - 0.59	6										
1.50 - 1.99	1		167,030	264,361	175	169	6			187,523	10,537
Maryland, total	6	1	72,027	172,952	161	175	4	2	1	96,680	4,285
0.20 - 0.39	4										
Unclassified	2	1	72,027	172,952	161	175	4	2	1	96,680	4,285
Missouri, total	68	2	711,618	968,608	533	476	21	36	19	365,894	29,966
0.20 - 0.39	10		35,924	111,019	74	69	1	4	2	45,466	526
0.40 - 0.59	10	1	103,274	190,053	146	129	12	5	1	95,665	18,211
0.60 - 0.79	5		62,213	94,636	50	47	2	1		56,532	2,604
0.80 - 0.99	4										
1.00 - 1.49	2		112,900	127,486	77	76		1	1	80,546	
1.50 - 1.99	6		122,480	102,136	40	36	1	3	2	26,048	2,000
Unclassified	31	1	275,027	340,278	146	119	5	22	13	81,637	6,565
New Jersey, total	19	6	123,460	735,619	342	281	57	4	2	242,231	99,968
Less than 0.20	2	1									
0.20 - 0.39	6	2	37,536	149,419	95	87	5	3	2	78,662	5,356
0.40 - 0.59	1	1									
0.60 - 0.79	2		33,082	86,037	37	27	10			25,120	13,643
2.00 - 2.49	1										
Unclassified	7	2	52,842	500,163	210	167	42	1		138,449	80,969

¹For definition of the industry see table 1, footnote 1. Reports classified by output per man-hour represent a single pit or mine, a single preparation plant, or a single pit or mine and a single preparation plant reported together. Statistics shown for "Unclassified" represent: Reports for more than 1 pit or mine, reports on which figures were inadequately reported to permit classification, and reports for central offices reported separately from their associated fire-clay operations.

FIRE CLAY

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TABLE 17.—SELECTED STATISTICS FOR FIRE-CLAY OPERATIONS IN THE UNITED STATES. CLASSIFIED BY OUTPUT PER MAN-HOUR AND BY STATE: 1939¹—Continued

(For producing operations only)

STATE AND TONS (2,000 POUNDS) OF CLAY PER MAN-HOUR	Number of pits and mines	Number of preparation plants	Production of clay (tons of 2,000 pounds)	Value of all products	NUMBER OF PERSONS ENGAGED					Wages	Salaries
					Total	Wage earners (average for the year)	Salaried employees	Proprietors and firm members			
								Total	Performing manual labor		
Ohio, total-----	46	11	953,029	\$1,175,976	580	531	38	11	4	\$515,164	\$95,097
0.20 - 0.39-----	3	1	13,044	34,539	44	41	3	1	-----	26,081	3,192
0.40 - 0.59-----	6	2	72,880	165,486	92	84	7	1	-----	68,286	13,295
0.60 - 0.79-----	3	3	134,955	274,847	123	115	8	-----	-----	119,844	28,070
0.80 - 0.99-----	5	2	99,595	116,984	67	61	6	-----	-----	65,472	20,173
1.00 - 1.49-----	10	2	256,176	322,703	131	119	11	1	-----	139,824	25,825
1.50 - 1.99-----	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2.00 - 2.49-----	1	-----	124,390	53,496	15	14	1	-----	-----	14,269	660
7.00 and over-----	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Unclassified-----	16	1	249,989	207,921	108	97	2	9	4	81,388	3,882
Pennsylvania, total-----	76	11	1,071,957	2,114,438	1,258	1,164	60	14	2	1,176,696	154,016
Less than 0.20-----	2	-----	76,214	204,236	157	148	8	1	-----	148,279	10,846
0.20 - 0.39-----	9	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
0.40 - 0.59-----	21	5	389,962	796,866	459	421	35	3	-----	455,064	63,043
0.60 - 0.79-----	23	2	305,810	603,510	376	358	17	1	-----	328,875	29,858
0.80 - 0.99-----	6	2	107,840	181,519	83	73	9	1	-----	67,923	22,870
1.00 - 1.49-----	2	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
1.50 - 1.99-----	1	-----	93,088	116,032	58	51	4	3	-----	54,288	9,921
3.00 - 6.99-----	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Unclassified-----	11	2	99,043	212,255	125	113	7	5	2	103,869	17,477
Texas, total-----	3	1	41,299	45,433	20	16	-----	2	-----	12,731	-----
0.80 - 0.99-----	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
1.00 - 1.49-----	1	1	41,299	45,433	20	18	-----	2	-----	12,731	-----
3.00 - 6.99-----	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
West Virginia, total-----	7	3	265,958	411,786	145	133	7	5	2	169,379	11,982
0.40 - 0.59-----	1	1	-----	-----	-----	-----	-----	-----	-----	-----	-----
0.80 - 0.99-----	4	-----	265,958	411,786	145	133	7	5	2	169,379	11,982
1.00 - 1.49-----	2	2	-----	-----	-----	-----	-----	-----	-----	-----	-----
Other States, total-----	13	2	79,706	112,813	62	55	-----	7	4	50,425	-----
0.20 - 0.39-----	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
0.60 - 0.79-----	6	1	67,355	91,704	49	46	-----	3	-----	44,331	-----
0.80 - 0.99-----	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2.00 - 2.49-----	1	1	-----	-----	-----	-----	-----	-----	-----	-----	-----
Unclassified-----	4	-----	12,351	21,109	13	9	-----	4	4	6,094	-----

¹For definition of the industry see table 1, footnote 1. Reports classified by output per man-hour represent a single pit or mine, a single preparation plant, or a single pit or mine and a single preparation plant reported together. Statistics shown for "Unclassified" represent: Reports for more than 1 pit or mine, reports on which figures were inadequately reported to permit classification, and reports for central offices reported separately from their associated fire-clay operations.

COMMON CLAY AND SHALE

Almost the entire output of common clay and shale is produced by manufacturers of heavy-clay products and cement for their own use. The census canvass for 1939 represents the first attempt to obtain complete statistics relating to the production of common clay and shale as distinct from the manufacture of clay products and cement from these materials.¹ Census compilations for earlier years covered principally the production of common clay and shale produced for sale, which is only a small part of the total output.

The common clay and shale industry in the United States produced 18,082,000 short tons of clay in 1939.² The value of all products of the industry, including a small quantity of miscellaneous secondary products and receipts for services performed for others, amounted to \$6,341,000.

PRODUCTION

Although common clay and shale was produced in 45 of the 48 States and in the District of Columbia, about half the total quantity was produced in Ohio, New York, Pennsylvania, Illinois, Texas, North Carolina, and Georgia. Ninety-three percent of the tonnage was taken from open pits, 5 percent from underground mines, and the remainder from combination open-pit and underground operations.

The bulk of the output was used in the manufacture of heavy-clay products such as brick, hollow structural tile, architectural terra cotta, roofing tile, and sewer pipe. About 7 percent of the total production of the industry (1,088,000 tons) was used in the manufacture of cement. The cement industry also produced 1,235,000 tons of clay and shale from pits worked in conjunction with limestone quarries; statistics relating to this output are included in census statistics for the limestone industry.

PRINCIPAL EXPENSES

The industry paid \$2,793,000 in wages to an average of 2,906 wage earners during the year. Salaried employees, numbering 61 in October, were paid \$94,000. Expenditures for supplies and materials amounted to \$629,000; for fuel, \$384,000; and for purchased electric energy, \$214,000. In addition, \$99,000 was paid for work done on contract. These reported expenses totaled \$4,213,000. The cost of buildings erected and machinery and equipment installed in 1939 was \$258,000.

¹Statistics for other clay materials are included in the reports for "Fire clay," "Kaolin and ball clay," "Bentonite," and "Fuller's earth."

²These statistics do not cover clay-producing operations for which neither the value of products, nor reported principal expenses, nor cost of buildings, machinery, and equipment during the year amounted to as much as \$2,500. Reports were received for 421 such smaller operations whose aggregate production of clay and shale in 1939 amounted to 1,275,000 short tons valued at approximately \$400,000. These statistics also exclude common clay and shale produced by other industries, principally the limestone industry, amounting to 1,454,835 tons valued at \$641,460.

EMPLOYMENT AND WORKING TIME

The wage earners employed by the industry in 1939 worked a total of 5,481,000 man-hours—4,427,000 at open pits, 814,000 at underground mines, and 241,000 at combination mines. These figures include the man-hours worked at preparation plants associated with the respective pits or mines. Operations in Ohio employed 595 wage earners—more than one-fifth of the total. Operations in Pennsylvania reported 255 wage earners; those in Illinois, 172. Monthly employment ranged from a low of 2,247 wage earners in February to a peak of 3,266 in June. For the country as a whole, operations were active the equivalent of 201 full days during the year; State figures ranged from 74 days in Oregon to 260 days in South Carolina. The average length of shift worked by all wage earners in the industry was 7.9 hours.

The number of tons of clay produced per man-hour worked by wage earners averaged 2.93—3.36 tons at open pits, 1.04 tons at underground mines, and 1.35 tons at combination mines. Output per man-hour in the four States that produced over a million tons in 1939 averaged 2.07 tons in Ohio, 5.92 tons in New York, 2.66 tons in Pennsylvania, and 3.35 tons in Illinois. The average hourly earning of wage earners was 51 cents, ranging from about 30 cents in the southeastern States to 65 cents per hour in the northeastern States. Average hourly earnings in the principal producing States were 66 cents in Ohio, 68 in New York, 59 in Pennsylvania, 57 in Illinois, 38 in Texas, 34 in North Carolina, and 30 in Georgia.

POWER EQUIPMENT

Power equipment in use or available for use by the industry at the end of the year had an aggregate horsepower rating of 62,000. About 86 percent of the total was for driving mobile equipment such as power shovels, trucks, dragline excavators, locomotives, tractors, and drills; the remaining 14 percent was for driving stationary equipment such as electric generators, grinding equipment, and hoists. Rated horsepower per wage earner averaged 21 for the industry as a whole; the average for Ohio was 14; for New York, 38; for Pennsylvania, 18; and for Illinois, 26.

The industry reported 680 power-loading machines in use or available for use at the end of the year; 539 of these were power shovels. There were also 69 dragline excavators, 20 scraper loaders, and 52 power loading units of other types. Of the total, 192 units were driven by electric power, 211 by steam, and the remaining 277 by other types of power units, principally gasoline and Diesel engines.

The industry reported the consumption of 13,623,000 kilowatt-hours of electric energy, of which 11,633,000 was purchased and 1,990,000 was generated by reporting companies. The industry also consumed 43,000 tons of coal, 6,000 barrels of fuel oil, 1,549,000 gallons of gasoline and kerosene, and 48,125,000 cubic feet of natural gas.

COMMON CLAY AND SHALE

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TABLE 1.—PRINCIPAL STATISTICS FOR THE COMMON CLAY AND SHALE INDUSTRY IN THE UNITED STATES, BY STATE: 1939¹

ITEM	United States	Alabama	Arizona and Nevada ²	Arkansas	California	Colorado	Connecticut	Delaware, Maine, and Rhode Island ³	Florida	Georgia	Illinois
Number of operating companies ⁴ -----	517	15	5	5	26	12	10	4	3	11	30
Number of pits and mines-----	609	15	3	10	28	13	11	4	3	11	36
Number of preparation plants-----	70	3	-----	-----	1	2	-----	-----	-----	2	6
Number of persons engaged, total-----	3,043	93	9	32	122	62	20	10	19	114	179
Wage earners (average for the year)-----	2,908	85	6	30	110	51	19	10	18	112	172
Salaried employees-----	61	5	-----	-----	4	6	-----	-----	-----	2	5
Proprietors and firm members-----	76	3	3	2	8	5	1	-----	1	-----	2
Performing manual labor-----	8	1	-----	-----	3	1	-----	-----	-----	-----	-----
Production of clay and shale: Tons of 2,000 pounds, total ⁵ -----	16,061,529	459,860	38,698	240,800	600,436	111,277	208,484	58,558	90,066	617,808	1,065,062
From open pits-----	14,893,404	459,860	38,698	240,800	(e)	(e)	208,484	58,558	90,066	617,808	999,059
From underground mines-----	843,104	-----	-----	-----	(e)	(e)	-----	-----	-----	-----	64,005
From combination (open-pit and underground) mines-----	325,021	-----	-----	-----	(e)	(e)	-----	-----	-----	-----	-----
Value at pits ⁶ -----	\$6,213,556	\$130,142	\$11,972	\$79,559	\$255,840	\$101,069	\$65,034	\$24,377	\$24,717	\$188,393	\$372,549
Value of all products ⁷ -----	\$6,341,141	\$130,142	\$11,972	\$79,559	\$291,763	\$103,744	\$65,034	\$24,377	\$24,717	\$188,393	\$380,111
Principal expenses designated below, total-----	\$4,213,150	\$89,408	\$8,871	\$41,521	\$159,216	\$68,414	\$30,442	\$11,645	\$17,594	\$123,985	\$277,078
Wages-----	\$2,793,192	\$51,254	\$5,388	\$24,361	\$108,238	\$40,966	\$21,127	\$7,185	\$10,775	\$70,025	\$181,774
Salaries-----	\$94,492	\$6,403	-----	-----	\$6,448	\$5,405	-----	-----	-----	\$5,100	\$7,376
Supplies and materials-----	\$629,267	\$14,523	\$1,036	\$6,185	\$20,152	\$17,940	\$2,125	\$567	\$3,990	\$9,225	\$37,044
Fuel-----	\$383,595	\$10,602	\$1,624	\$6,018	\$20,216	\$3,181	\$5,194	\$1,926	\$2,829	\$19,230	\$33,778
Purchased electric energy-----	\$213,608	\$6,626	-----	\$573	\$3,015	\$1,996	\$1,996	\$467	-----	\$13,824	\$17,106
Contract work-----	\$98,995	-----	\$823	\$4,386	\$1,147	\$922	-----	\$1,500	-----	\$8,581	-----
Cost of buildings, machinery, and equipment erected or installed during year-----	\$258,343	\$3,382	-----	\$400	\$11,394	\$5,190	\$2,425	-----	\$2,241	\$5,488	\$1,627
Buildings-----	\$39,697	-----	-----	-----	-----	-----	\$425	-----	-----	-----	-----
Machinery and equipment, total-----	\$218,646	\$3,382	-----	\$400	\$11,394	\$5,190	\$2,000	-----	\$2,241	\$5,488	\$1,627
Purchased in new condition-----	\$136,845	\$382	-----	\$400	\$6,620	\$2,090	\$2,000	-----	\$2,241	\$2,978	\$1,627
Purchased in used condition-----	\$81,801	\$3,000	-----	-----	\$4,574	\$3,100	-----	-----	-----	\$2,510	-----
Total number of man-shifts worked by wage earners-----	695,307	19,715	1,212	6,179	27,685	10,811	4,431	2,073	4,196	29,110	40,396
Total number of man-hours worked by wage earners-----	5,481,234	151,100	9,896	62,799	220,381	85,845	35,445	16,599	33,568	232,992	317,188
Average number of hours worked per shift-----	7.9	7.7	8.0	7.7	8.0	7.8	8.0	8.0	8.0	8.0	7.9
Average hourly earning of wage earners-----	\$0.51	\$0.34	\$0.56	\$0.39	\$0.49	\$0.49	\$0.60	\$0.45	\$0.32	\$0.30	\$0.57
Tons of clay produced per man-hour-----	2.93	3.04	3.99	3.83	2.72	1.33	5.88	3.53	2.68	2.65	3.35
At open pits-----	3.36	3.04	3.99	3.83	(e)	(e)	5.88	3.53	2.68	2.65	3.91
At underground mines-----	1.04	-----	-----	-----	(e)	(e)	-----	-----	-----	-----	1.04
At combination mines-----	1.35	-----	-----	-----	(e)	(e)	-----	-----	-----	-----	-----
Average number of equivalent full days operations were active-----	201	210	173	248	227	174	158	61	175	240	158
Open pits-----	203	210	173	248	229	182	158	61	175	240	168
Underground mines-----	201	-----	-----	-----	-----	293	-----	-----	-----	-----	130
Combination mines-----	176	-----	-----	-----	153	90	-----	-----	-----	-----	-----
Horsepower rating of power equipment, total-----	61,525	1,233	160	852	3,653	624	795	813	138	2,279	4,475
Per wage earner-----	21.2	14.5	26.7	28.4	33.2	12.2	41.8	81.3	7.7	20.3	28.0
Stationary equipment ⁸ -----	8,914	851	-----	-----	201	-----	-----	-----	50	708	528
Mobile equipment ⁹ -----	52,611	882	160	852	3,452	624	795	813	88	1,571	3,945
Electric energy consumed (thousands of kw.-hrs.), total-----	13,623	417	-----	35	277	-----	106	13	-----	1,320	813
Purchased-----	11,633	417	-----	35	277	-----	106	13	-----	1,320	724
Generated by reporting companies-----	1,990	-----	-----	-----	-----	-----	-----	-----	-----	-----	89

¹The industry includes clay-producing operations engaged primarily in the production of common clay and shale (for heavy-clay products and cement). Eighty-seven percent of the operations included were conducted by manufacturers of heavy-clay products; such operations accounted for 88 percent of the output of the entire industry. Figures cover only producing operations (pits, mines, or pits or mines and preparation plants operated together) whose value of products, reported principal expenses, or cost of buildings, machinery, and equipment during the year amounted to at least \$2,500. Statistics for 421 smaller operations, which reported an output in 1939 of 1,275,000 tons of common clay and shale, valued at approximately \$400,000, are excluded. Statistics for operations without products are also excluded. Operations in other industries, principally limestone quarries, reported the output in 1939 of 1,454,633 tons of common clay and shale, valued at \$841,490; statistics for this output of common clay and shale are included only in census reports for industries with other principal products.

²Arizona, 2 mines; Nevada, 1.

³Delaware, 1 mine; Maine, 2; Rhode Island, 1.

⁴Companies with operations in more than 1 State are counted only once in the totals.

⁵Includes 30,268 tons of clays other than common clay and shale, valued at \$41,499.

⁶Not shown separately.

⁷Includes, in addition to the value of clay and shale, \$95,562 representing the value of 49,795 short tons of bituminous coal, 20,375 short tons of stone, 38,648 short tons of common sand and gravel, and small amounts of gypsum and topsoil produced as secondary products, and \$32,023 received for services (principally stripping) performed for others. The proportion of total value represented by secondary products and receipts for services performed for others is 5 percent or less for each State except for California and New Mexico, where secondary products and receipts for services performed for others amounted to 12 and 7 percent, respectively.

⁸Aggregate horsepower rating of engines, motors, etc., for driving stationary or fixed equipment such as electric generators and grinding and crushing equipment.

⁹Aggregate horsepower rating of engines, motors, etc., for driving mobile equipment such as power shovels, scraper loaders, dragline excavators, tractors, trucks, locomotives, and drills.

TABLE 1.—PRINCIPAL STATISTICS FOR THE COMMON CLAY AND SHALE INDUSTRY IN THE UNITED STATES, BY STATE: 1939¹—Continued

ITEM	Indiana	Iowa	Kansas	Kentucky	Louisiana	Maryland and District of Columbia ¹⁰	Massachusetts	Michigan	Minnesota	Mississippi
Number of operating companies ⁴ —	19	20	6	9	6	13	8	12	5	6
Number of pits and mines—	19	20	8	9	6	13	6	12	6	6
Number of preparation plants—	—	5	2	2	—	3	—	4	1	—
Number of persons engaged, total—	80	124	25	49	22	87	15	97	50	24
Wage earners (average for the year)—	77	117	25	46	18	63	15	95	49	25
Salaried employees—	1	4	—	1	2	1	—	1	1	—
Proprietors and firm members—	2	3	—	2	2	3	—	1	—	1
Performing manual labor—	—	—	—	—	—	—	—	—	—	—
Production of clay and shale: Tons of 2,000 pounds, total ⁵ —	422,001	588,645	151,008	177,315	179,911	395,001	135,623	579,627	154,763	186,882
From open pits—	(e)	588,645	151,008	(e)	179,911	395,001	135,623	579,627	154,763	186,882
From underground mines—	(e)	—	—	(e)	—	—	—	—	—	—
From combination (open-pit and underground) mines—	(e)	—	—	(e)	—	—	—	—	—	—
Value at pits ⁶ —	\$155,526	\$258,497	\$68,228	\$81,198	\$45,704	\$167,917	\$40,689	\$200,649	\$113,802	\$33,556
Value of all products ⁷ —	\$154,080	\$270,537	\$68,228	\$81,198	\$44,204	\$167,917	\$40,689	\$200,649	\$113,802	\$33,556
Principal expenses designated below, total—	\$111,203	\$178,909	\$46,894	\$41,507	\$26,482	\$91,034	\$24,661	\$157,110	\$65,019	\$23,260
Wages—	\$78,746	\$123,276	\$25,711	\$29,119	\$13,240	\$58,891	\$19,984	\$104,921	\$47,250	\$14,735
Salaries—	\$1,800	\$4,050	—	\$1,800	\$1,800	\$1,860	—	\$3,560	\$1,500	—
Supplies and materials—	\$17,273	\$26,061	\$9,024	\$6,465	\$6,898	\$12,741	\$978	\$26,140	\$11,420	\$5,077
Fuel—	\$6,157	\$10,685	\$3,153	\$5,074	\$4,284	\$10,710	\$1,969	\$19,816	\$4,849	\$3,450
Purchased electric energy—	\$6,609	\$10,314	\$2,129	\$769	\$180	\$7,854	\$930	\$2,541	—	\$700
Contract work—	\$2,616	\$4,523	\$6,877	\$280	—	\$978	\$800	\$332	—	\$1,296
Cost of buildings, machinery, and equipment erected or installed during year—	\$7,442	\$26,185	\$620	\$1,700	—	\$14,112	\$1,650	\$13,984	\$1,421	—
Buildings—	—	\$7,698	—	—	—	\$300	—	—	—	—
Machinery and equipment, total—	\$7,442	\$18,487	\$620	\$1,700	—	\$13,812	\$1,650	\$13,984	\$897	—
Purchased in new condition—	\$6,982	\$10,046	—	\$1,700	—	\$12,387	—	\$13,109	\$388	—
Purchased in used condition—	\$460	\$8,441	\$620	—	—	\$1,425	\$1,650	\$855	\$336	—
Total number of man-shifts worked by wage earners—	18,294	32,415	6,329	11,355	4,876	15,413	3,827	26,746	12,213	5,564
Total number of man-hours worked by wage earners—	147,179	255,280	49,459	91,836	39,008	123,600	30,148	214,129	96,903	45,513
Average number of hours worked per shift—	8.0	7.8	7.8	8.1	8.0	8.0	7.9	8.0	7.9	7.8
Average hourly earning of wage earners—	\$0.52	\$0.49	\$0.52	\$0.52	\$0.34	\$0.46	\$0.66	\$0.49	\$0.49	\$0.34
Tons of clay produced per man-hour—	2.87	2.32	3.05	1.93	4.61	3.20	4.50	2.71	1.60	4.29
At open pits—	(e)	2.32	3.05	(e)	4.61	3.20	4.50	2.71	1.60	4.29
At underground mines—	(e)	—	—	(e)	—	—	—	—	—	—
At combination mines—	(e)	—	—	(e)	—	—	—	—	—	—
Average number of equivalent full days operations were active—	199	224	195	189	244	144	166	259	222	242
Open pits—	202	224	195	214	244	144	166	259	222	242
Underground mines—	185	—	—	300	—	—	—	—	—	—
Combination mines—	—	—	—	130	—	—	—	—	—	—
Horsepower rating of power equipment, total—	1,086	2,438	666	610	600	2,013	650	2,646	583	286
Per wage earner—	14.1	20.8	26.6	13.3	33.3	32.0	43.3	27.9	11.9	12.4
Stationary equipment ⁸ —	206	408	275	50	80	530	10	847	—	—
Mobile equipment ⁹ —	880	2,030	391	560	520	1,483	640	1,799	583	286
Electric energy consumed (thousands of kw.-hrs.), total—	524	794	139	30	4	417	29	156	96	38
Purchased—	495	498	90	30	4	417	29	94	—	38
Generated by reporting companies—	29	296	49	—	—	—	—	62	96	—

¹ The industry includes clay-producing operations engaged primarily in the production of common clay and shale (for heavy-clay products and cement). Eighty-seven percent of the operations included were conducted by manufacturers of heavy-clay products; such operations accounted for 88 percent of the output of the entire industry. Figures cover only producing operations (pits, mines, or pits or mines and preparation plants operated together) whose value of products, reported principal expenses, or cost of buildings, machinery, and equipment during the year amounted to at least \$2,500. Statistics for 421 smaller operations, which reported an output in 1939 of 1,275,000 tons of common clay and shale, valued at approximately \$400,000, are excluded. Statistics for operations without products are also excluded. Operations in other industries, principally limestone quarries, reported the output in 1939 of 1,454,633 tons of common clay and shale, valued at \$641,480; statistics for this output of common clay and shale are included only in census reports for industries with other principal products.

⁴ Companies with operations in more than 1 State are counted only once in the totals.

⁵ Includes 30,268 tons of clays other than common clay and shale, valued at \$41,499.

⁶ Not shown separately.

⁷ Includes, in addition to the value of clay and shale, \$95,562 representing the value of 49,795 short tons of bituminous coal, 20,375 short tons of stone, 38,648 short tons of common sand and gravel, and small amounts of gypsum and topsoil produced as secondary products, and \$32,023 received for services (principally stripping) performed for others. The proportion of total value represented by secondary products and receipts for services performed for others is 5 percent or less for each State except for California and New Mexico, where secondary products and receipts for services performed for others amounted to 12 and 7 percent, respectively.

⁸ Aggregate horsepower rating of engines, motors, etc., for driving stationary or fixed equipment such as electric generators and grinding and crushing equipment.

⁹ Aggregate horsepower rating of engines, motors, etc., for driving mobile equipment such as power shovels, scraper loaders, dragline excavators, tractors, trucks, locomotives, and drills.

¹⁰ Maryland, 11 mines and 3 plants; District of Columbia, 2 mines.

TABLE 1.—PRINCIPAL STATISTICS FOR THE COMMON CLAY AND SHALE INDUSTRY IN THE UNITED STATES, BY STATE: 1939¹—Continued

ITEM	Missouri	Montana, South Dakota, and Wyoming ¹¹	Nebraska	New Hampshire	New Jersey	New Mexico	New York	North Carolina	Ohio	Oklahoma
Number of operating companies ⁴	15	4	6	3	10	4	33	22	75	7
Number of pits and mines	17	4	8	3	12	4	34	23	88	9
Number of preparation plants	3		3		2		2		12	1
Number of persons engaged, total	65	9	34	7	57	22	135	98	616	37
Wage earners (average for the year)	59	8	34	7	56	22	127	94	595	36
Salaried employees	3				1		5		14	
Proprietors and firm members	3	1					5	4	7	1
Performing manual labor									1	
Production of clay and shale: Tons of 2,000 pounds, total ⁵	346,209	34,704	122,133	29,594	479,811	29,038	1,504,314	698,013	2,276,002	258,096
From open pits	(e)	34,704	122,133	29,594	479,811	29,038	1,504,314	698,013	1,489,630	258,096
From underground mines									566,860	
From combination (open-pit and underground) mines	(e)								219,512	
Value at pits ⁶	\$122,837	\$20,742	\$56,854	\$11,429	\$202,115	\$20,927	\$417,459	\$185,768	\$1,312,847	\$67,743
Value of all products ⁷	\$122,837	\$20,742	\$56,854	\$11,429	\$202,115	\$22,423	\$419,589	\$185,768	\$1,367,802	\$67,743
Principal expenses designated below, total	\$71,874	\$9,690	\$34,308	\$7,688	\$126,077	\$14,773	\$265,663	\$109,585	\$1,034,314	\$37,909
Wages	\$46,583	\$9,035	\$22,066	\$6,346	\$59,213	\$13,408	\$173,046	\$66,351	\$723,706	\$24,042
Salaries	\$5,904				\$5,280		\$7,049		\$25,959	
Supplies and materials	\$6,349	\$371	\$5,109	\$330	\$16,550	\$570	\$55,503	\$18,565	\$173,128	\$6,905
Fuel	\$4,636	\$284	\$1,359	\$1,012	\$16,652		\$28,145	\$22,930	\$45,625	\$5,259
Purchased electric energy	\$7,202		\$4,764		\$8,681	\$133	\$19,622	\$1,959	\$46,527	\$1,705
Contract work	\$1,200		\$1,010		\$21,721	\$662	\$2,100		\$17,189	
Cost of buildings, machinery, and equipment erected or installed during year	\$1,125	\$1,486	\$4,267		\$5,200		\$29,954	\$1,500	\$61,182	
Buildings			\$3,062		\$4,200		\$10,486	\$800	\$905	
Machinery and equipment, total	\$1,125	\$1,486	\$1,185		\$1,000		\$18,468	\$500	\$60,277	
Purchased in new condition	\$576	\$1,486					\$5,000	\$500	\$32,276	
Purchased in used condition	\$549		\$1,185		\$1,000		\$13,468		\$28,001	
Total number of man-shifts worked by wage earners	13,254	2,077	6,813	1,466	13,735	5,510	32,343	23,465	140,987	7,024
Total number of man-hours worked by wage earners	106,513	16,333	54,964	11,728	102,373	44,079	254,148	194,908	1,097,510	56,517
Average number of hours worked per shift	8.0	7.9	8.1	8.0	7.5	8.0	7.9	8.3	7.8	8.0
Average hourly earning of wage earners	\$0.44	\$0.55	\$0.40	\$0.54	\$0.58	\$0.50	\$0.68	\$0.54	\$0.66	\$0.45
Tons of clay produced per man-hour	3.25	2.12	2.22	2.51	4.69	0.66	5.92	3.58	2.07	4.57
At open pits	(e)	2.12	2.22	2.51	4.69	0.66	5.92	3.58	5.43	4.57
At underground mines	(e)								1.06	
At combination mines	(e)								1.72	
Average number of equivalent full days operations were active	170	231	189	105	232	197	199	235	219	171
Open pits	164	231	189	105	232	197	199	235	228	171
Underground mines									213	
Combination mines	212								210	
Horsepower rating of power equipment, total	1,568	62	1,012	118	2,143	23	4,831	2,549	8,421	893
Per wage earner	26.6	7.8	29.8	16.9	36.5	1.0	38.0	25.0	14.2	24.5
Stationary equipment ⁸	448		350		248	23	245	40	1,584	
Mobile equipment ⁹	1,120	62	662	118	1,895		4,586	2,509	6,837	893
Electric energy consumed (thousands of kw.-hrs.), total	463		276		456	2	870	115	3,250	79
Purchased	463								2,282	76
Generated by reporting companies			276		456	2	870	115	968	3

¹The industry includes clay-producing operations engaged primarily in the production of common clay and shale (for heavy-clay products and cement). Eighty-seven percent of the operations included were conducted by manufacturers of heavy-clay products; such operations accounted for 88 percent of the output of the entire industry. Figures cover only producing operations (pits, mines, or pits or mines and preparation plants operated together) whose value of products, reported principal expenses, or cost of buildings, machinery, and equipment during the year amounted to at least \$2,500. Statistics for 421 smaller operations, which reported an output in 1939 of 1,275,000 tons of common clay and shale, valued at approximately \$400,000, are excluded. Statistics for operations without products are also excluded. Operations in other industries, principally limestone quarries, reported the output in 1939 of 1,454,633 tons of common clay and shale, valued at \$641,480; statistics for this output of common clay and shale are included only in census reports for industries with other principal products.

⁴Companies with operations in more than 1 State are counted only once in the totals.

⁵Includes 30,268 tons of clays other than common clay and shale, valued at \$41,499.

⁶Not shown separately.

⁷Includes, in addition to the value of clay and shale, \$95,582 representing the value of 49,795 short tons of bituminous coal, 20,375 short tons of stone, 58,648 short tons of common sand and gravel, and small amounts of gypsum and topsoil produced as secondary products, and \$32,023 received for services (principally stripping) performed for others. The proportion of total value represented by secondary products and receipts for services performed for others is 5 percent or less for each State except for California and New Mexico, where secondary products and receipts for services performed for others amounted to 12 and 7 percent, respectively.

⁸Aggregate horsepower rating of engines, motors, etc., for driving stationary or fixed equipment such as electric generators and grinding and crushing equipment.

⁹Aggregate horsepower rating of engines, motors, etc., for driving mobile equipment such as power shovels, scraper loaders, dragline excavators, tractors, trucks, locomotives, and drills.

¹¹Montana, 2 mines; South Dakota, 1; Wyoming, 1.

TABLE 1.—PRINCIPAL STATISTICS FOR THE COMMON CLAY AND SHALE INDUSTRY IN THE UNITED STATES, BY STATE: 1939¹—Concluded

ITEM	Oregon	Pennsyl- vania	South Carolina	Tennessee	Texas	Utah	Virginia	Washington	West Virginia	Wisconsin
Number of operating companies ⁴ -----	3	53	11	13	26	3	17	8	10	4
Number of pits and mines-----	4	59	12	16	32	4	17	10	10	4
Number of preparation plants-----	11	11	-----	1	1	-----	1	1	1	1
Number of persons engaged, total-----	5	265	49	79	141	17	85	30	62	17
Wage earners (average for the year)-----	4	255	48	76	136	17	84	29	61	17
Salaried employees-----	-----	3	-----	1	2	-----	-----	-----	1	-----
Proprietors and firm members-----	1	7	1	2	3	-----	1	1	1	-----
Performing manual labor-----	-----	1	-----	-----	-----	-----	-----	-----	-----	-----
Production of clay and shale: Tons of 2,000 pounds, total ⁵ -----	31,355	1,167,397	354,233	507,055	722,350	29,049	592,995	95,655	226,112	95,789
From open pits-----	31,355	955,761	354,233	(e)	722,350	(e)	592,995	95,655	(e)	95,789
From underground mines-----	-----	(e)	-----	(e)	-----	(e)	-----	-----	(e)	-----
From combination (open-pit and underground) mines-----	-----	(e)	-----	(e)	-----	-----	-----	-----	(e)	-----
Value at pits ⁶ -----	\$20,215	\$551,558	\$74,729	\$135,561	\$255,850	\$35,374	\$159,745	\$49,944	\$106,809	\$33,642
Value of all products ⁷ -----	\$20,215	\$560,068	\$74,729	\$136,811	\$255,850	\$35,374	\$159,745	\$49,944	\$106,809	\$33,642
Principal expenses designated below, total-----	\$8,231	\$358,206	\$51,982	\$85,316	\$184,325	\$24,782	\$90,783	\$32,843	\$65,767	\$28,785
Wages-----	\$4,056	\$259,569	\$29,851	\$50,788	\$91,766	\$20,467	\$60,503	\$26,957	\$50,875	\$21,840
Salaries-----	-----	\$4,875	-----	\$247	\$900	-----	-----	-----	\$1,296	-----
Supplies and materials-----	\$205	\$51,678	\$7,599	\$17,759	\$33,762	\$3,612	\$7,056	\$1,945	\$6,555	\$2,257
Fuel-----	\$2,776	\$14,130	\$11,486	\$9,556	\$24,264	\$703	\$13,508	\$2,423	\$2,329	\$3,614
Purchased electric energy-----	\$592	\$24,019	\$5,066	\$4,967	\$5,712	-----	\$5,197	\$1,518	\$2,053	\$60
Contract work-----	-----	\$1,735	-----	-----	\$9,921	-----	\$4,919	-----	\$2,659	\$814
Cost of buildings, machinery, and equipment erected or installed during year-----	\$1,100	\$17,732	\$4,212	-----	\$12,091	\$575	\$19,000	-----	\$876	-----
Buildings-----	-----	\$2,177	-----	-----	\$3,352	\$575	\$5,000	-----	-----	-----
Machinery and equipment, total-----	\$1,100	\$15,555	\$4,212	-----	\$8,739	-----	\$14,000	-----	\$876	-----
Purchased in new condition-----	\$1,100	\$14,680	\$110	-----	\$5,089	-----	\$12,000	-----	\$876	-----
Purchased in used condition-----	-----	\$875	\$4,102	-----	\$3,650	-----	\$2,000	-----	-----	-----
Total number of man-shifts worked by wage earners-----	590	57,058	12,499	16,226	29,761	4,045	19,273	5,151	14,745	4,467
Total number of man-hours worked by wage earners-----	4,698	439,256	103,173	130,258	238,950	32,356	155,202	38,890	113,616	33,124
Average number of hours worked per shift-----	8.0	7.7	8.3	8.0	8.0	8.0	8.1	7.5	7.7	7.4
Average hourly earning of wage earners-----	\$0.66	\$0.59	\$0.29	\$0.39	\$0.38	\$0.63	\$0.39	\$0.69	\$0.45	\$0.66
Tons of clay produced per man-hour-----	6.67	2.66	3.45	3.89	3.02	0.90	3.82	2.46	2.01	2.89
At open pits-----	6.67	3.63	3.43	(e)	3.02	(e)	3.82	2.46	(e)	2.89
At underground mines-----	-----	(e)	-----	(e)	-----	(e)	-----	-----	(e)	-----
At combination mines-----	-----	(e)	-----	(e)	-----	-----	-----	-----	(e)	-----
Average number of equivalent full days operations were active-----	74	185	260	195	198	238	193	143	214	223
Open pits-----	74	190	260	196	198	191	193	143	219	223
Underground mines-----	-----	187	-----	-----	-----	324	-----	-----	198	-----
Combination mines-----	-----	169	-----	191	-----	-----	-----	-----	-----	-----
Horsepower rating of power equipment, total-----	265	4,511	685	1,429	3,352	211	1,776	628	358	100
Per wage earner-----	66.3	17.7	18.4	18.8	24.6	12.4	21.2	21.7	5.9	5.9
Stationary equipment ⁸ -----	-----	1,024	25	46	260	25	152	170	60	10
Mobile equipment ⁹ -----	265	3,487	660	1,383	3,092	186	1,626	458	298	90
Electric energy consumed (thousands of kw.-hrs.), total-----	38	1,364	189	307	159	2	246	99	103	397
Purchased-----	38	1,364	189	307	159	-----	246	99	103	1
Generated by reporting companies-----	-----	-----	-----	-----	-----	2	-----	-----	-----	396

¹The industry includes clay-producing operations engaged primarily in the production of common clay and shale (for heavy-clay products and cement). Eighty-seven percent of the operations included were conducted by manufacturers of heavy-clay products; such operations accounted for 88 percent of the output of the entire industry. Figures cover only producing operations (pits, mines, or pits or mines and preparation plants operated together) whose value of products, reported principal expenses, or cost of buildings, machinery, and equipment during the year amounted to at least \$2,500. Statistics for 421 smaller operations, which reported an output in 1939 of 1,275,000 tons of common clay and shale, valued at approximately \$400,000, are excluded. Statistics for operations without products are also excluded. Operations in other industries, principally limestone quarries, reported the output in 1939 of 1,454,633 tons of common clay and shale, valued at \$641,480; statistics for this output of common clay and shale are included only in census reports for industries with other principal products.

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⁶Not shown separately.

⁷Includes, in addition to the value of clay and shale, \$95,562 representing the value of 49,795 short tons of bituminous coal, 20,375 short tons of stone, 38,648 short tons of common sand and gravel, and small amounts of gypsum and topsoil produced as secondary products, and \$32,023 received for services (principally stripping) performed for others. The proportion of total value represented by secondary products and receipts for services performed for others is 5 percent or less for each State except for California and New Mexico, where secondary products and receipts for services performed for others amounted to 12 and 7 percent, respectively.

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⁹Aggregate horsepower rating of engines, motors, etc., for driving mobile equipment such as power shovels, scraper loaders, dragline excavators, tractors, trucks, locomotives, and drills.

TABLE 2.—PRINCIPAL STATISTICS FOR THE COMMON CLAY AND SHALE INDUSTRY IN THE UNITED STATES, BY TYPE OF OPERATION: 1939¹

ITEM	All types	MINES ONLY			MINES AND PREPARATION PLANTS OPERATED TOGETHER		
		Total	Open pits	Underground mines and combination (open-pit and underground) mines	Total	Open pits	Underground mines and combination (open-pit and underground) mines
Number of operating companies ² -----	517	459	440	26	62	52	12
Number of pits and mines-----	609	539	504	35	70	55	15
Number of preparation plants-----	70	-----	-----	-----	70	55	15
Number of persons engaged, total-----	3,043	2,390	1,994	396	653	432	221
Wage earners (average for the year)-----	2,606	2,270	1,892	378	636	422	214
Salaried employees-----	61	51	37	14	10	6	4
Proprietors and firm members-----	76	69	65	4	7	4	3
Performing manual labor-----	8	8	8	-----	-----	-----	-----
Production of clay and shale:							
Tons of 2,000 pounds-----	16,061,629	13,870,338	13,098,248	772,090	2,191,191	1,795,156	396,035
Value at pits-----	\$8,213,556	\$4,854,289	\$4,113,733	\$740,536	\$1,359,287	\$952,879	\$406,408
Value of all products-----	\$6,341,141	\$4,949,686	\$4,199,784	\$749,902	\$1,391,455	\$964,916	\$426,539
Principal expenses designated below, total-----	\$4,213,150	\$3,245,442	\$2,635,434	\$610,008	\$967,708	\$639,602	\$328,106
Wages-----	\$2,793,192	\$2,147,011	\$1,701,473	\$445,538	\$646,181	\$409,636	\$236,545
Salaries-----	\$94,492	\$78,025	\$51,700	\$26,325	\$16,467	\$11,890	\$4,587
Supplies and materials-----	\$629,287	\$465,057	\$371,576	\$113,481	\$144,210	\$91,339	\$52,871
Fuel-----	\$383,596	\$319,272	\$316,731	\$2,541	\$64,324	\$63,493	\$831
Purchased electric energy-----	\$213,808	\$121,636	\$99,513	\$22,123	\$91,972	\$66,003	\$25,969
Contract work-----	\$96,995	\$94,441	\$94,441	-----	\$4,554	\$4,251	\$303
Cost of buildings, machinery, and equipment erected or installed during year-----	\$258,343	\$203,343	\$201,892	\$1,451	\$55,000	\$50,709	\$4,291
Buildings-----	\$39,697	\$35,668	\$35,668	-----	\$3,969	\$3,363	\$606
Machinery and equipment, total-----	\$218,646	\$167,645	\$166,194	\$1,451	\$51,001	\$47,316	\$3,685
Purchased in new condition-----	\$136,845	\$98,961	\$97,510	\$1,451	\$37,864	\$35,040	\$2,844
Purchased in used condition-----	\$81,801	\$68,684	\$68,684	-----	\$13,117	\$12,276	\$841
Total number of man-shifts worked by wage earners-----	695,307	536,759	449,671	87,088	158,548	109,151	49,397
Total number of man-hours worked by wage earners-----	5,481,234	4,241,162	3,561,485	679,677	1,240,072	865,273	374,799
Average number of hours worked per shift-----	7.9	7.9	7.9	7.8	7.8	7.9	7.6
Average hourly earning of wage earners-----	\$0.51	\$0.51	\$0.48	\$0.66	\$0.52	\$0.47	\$0.63
Tons of clay produced per man-hour-----	2.93	3.27	3.68	1.14	1.77	2.07	1.06
Average number of equivalent full days operations were active-----	201	197	197	197	217	231	192
Horsepower rating of power equipment, total-----	61,525	46,288	46,466	1,800	13,237	11,275	1,962
Per wage earner-----	21.2	21.3	24.6	4.8	20.8	26.7	9.2
Stationary equipment-----	8,914	2,509	1,616	893	6,405	4,942	1,463
Mobile equipment-----	52,611	43,779	44,872	907	6,832	6,333	499
Electric energy consumed (thousands of kw.-hrs.), total-----	13,623	6,693	5,021	1,672	6,930	5,373	1,557
Purchased-----	11,633	5,949	4,773	1,176	5,684	4,237	1,447
Generated by reporting companies-----	1,990	744	248	496	1,246	1,136	110

¹For definition of the industry see table 1, footnote 1.²Companies having more than 1 type of operation are counted only once in the totals.

TABLE 3.—QUANTITY AND VALUE OF PRODUCTS OF THE COMMON CLAY AND SHALE INDUSTRY IN THE UNITED STATES, BY TYPE OF OPERATION, BY STATE, AND BY KIND: 1939¹

TYPE OF OPERATION AND STATE	Value of all products	Total (tons of 2,000 pounds)	PRODUCTION OF CLAY AND SHALE							
			Common clay				Shale			
			Prepared		Unprepared		Prepared		Unprepared	
			Tons of 2,000 pounds	Value	Tons of 2,000 pounds	Value	Tons of 2,000 pounds	Value	Tons of 2,000 pounds	Value
United States, total-----	\$6,541,141	16,061,529	1,444,506	\$902,789	11,010,843	\$3,999,414	517,414	\$299,527	5,058,498	\$970,327
TYPE OF OPERATION										
Mines only, total-----	4,949,686	13,870,338	-----	-----	10,814,861	3,865,657	-----	-----	5,026,641	955,450
Open pits-----	4,199,784	13,098,248	-----	-----	10,097,610	3,155,771	-----	-----	2,977,023	933,753
Underground mines-----	526,014	462,047	-----	-----	440,594	501,794	-----	-----	18,776	12,079
Combination (open-pit and underground) mines-----	225,868	310,043	-----	-----	276,657	210,092	-----	-----	30,842	9,618
Mines and preparation plants operated together, total-----	1,591,455	2,191,191	1,444,506	902,789	195,982	133,757	517,414	299,527	31,857	14,877
Open pits-----	964,916	1,795,156	1,130,453	568,697	129,389	74,102	502,439	287,355	31,755	14,673
Underground mines-----	408,928	381,057	305,972	326,923	65,593	55,655	9,492	7,504	-----	-----
Combination (open-pit and underground) mines-----	17,601	14,978	8,081	7,169	1,000	4,000	5,463	4,688	102	204
STATE										
Alabama-----	150,142	459,860	-----	-----	326,824	73,821	66,294	40,179	66,742	16,142
Arizona and Nevada-----	11,972	38,698	-----	-----	38,698	11,972	-----	-----	-----	-----
Arkansas-----	79,559	240,800	-----	-----	240,800	79,559	-----	-----	-----	-----
California-----	291,765	600,436	21,245	42,490	422,118	159,466	-----	-----	155,598	40,216
Colorado-----	103,744	111,277	5,892	3,000	95,450	88,158	-----	-----	5,352	3,751
Connecticut-----	65,034	208,484	-----	-----	208,484	65,034	-----	-----	-----	-----
Delaware, Maine, and Rhode Island-----	24,377	58,558	-----	-----	58,558	24,377	-----	-----	-----	-----
Florida-----	24,717	90,086	-----	-----	90,086	24,717	-----	-----	-----	-----
Georgia-----	168,585	617,808	312,341	95,695	241,951	56,349	-----	-----	62,191	15,420
Illinois-----	380,111	1,063,062	-----	-----	831,232	256,966	114,561	53,597	117,269	61,966
Indiana-----	154,080	422,001	-----	-----	185,738	86,913	-----	-----	236,263	66,613
Iowa-----	270,537	588,645	121,964	74,501	400,853	156,644	800	6,500	64,128	19,152
Kansas-----	68,228	151,008	-----	-----	104,450	43,889	31,370	15,537	15,188	8,802
Kentucky-----	61,198	177,515	30,000	4,500	129,650	49,572	17,665	7,326	-----	-----
Louisiana-----	44,204	179,911	-----	-----	179,911	43,704	-----	-----	-----	-----
Maryland and District of Columbia-----	167,917	395,001	72,275	45,013	236,528	69,187	55,000	41,250	31,198	12,487
Massachusetts-----	40,689	135,623	-----	-----	135,623	40,689	-----	-----	-----	-----
Michigan-----	200,649	579,627	47,524	30,233	313,761	87,132	12,417	6,573	205,625	74,551
Minnesota-----	113,802	154,763	46,335	33,781	106,554	75,026	-----	-----	-----	-----
Mississippi-----	33,556	186,882	-----	-----	186,882	33,556	-----	-----	-----	-----
Missouri-----	122,837	346,209	6,200	5,288	200,357	52,600	43,201	22,354	95,752	41,932
Montana, South Dakota, and Wyoming-----	20,742	34,704	-----	-----	26,106	16,443	-----	-----	8,598	4,299
Nebraska-----	56,854	122,133	57,297	25,204	39,365	20,587	3,858	3,858	22,633	7,245
New Hampshire-----	11,429	29,394	-----	-----	29,394	11,429	-----	-----	-----	-----
New Jersey-----	202,115	479,811	90,193	51,421	389,618	150,694	-----	-----	-----	-----
New Mexico-----	22,423	29,038	-----	-----	23,388	16,382	-----	-----	5,650	4,545
New York-----	419,589	1,504,514	50,896	27,700	1,283,161	321,148	6,606	9,464	163,651	59,147
North Carolina-----	183,768	698,013	-----	-----	523,017	135,639	-----	-----	174,996	48,129
Ohio-----	1,367,802	2,278,002	212,199	231,995	1,418,414	882,296	100,118	46,848	536,461	149,206
Oklahoma-----	67,743	258,096	11,297	5,000	96,352	25,359	-----	-----	149,675	55,202
Oregon-----	20,215	31,355	-----	-----	31,045	19,595	-----	-----	-----	-----
Pennsylvania-----	360,058	1,167,597	263,004	182,695	557,866	252,324	45,894	34,271	300,633	82,268
South Carolina-----	74,729	354,233	-----	-----	297,863	57,447	-----	-----	56,370	17,282
Tennessee-----	136,811	507,055	-----	-----	233,616	57,605	-----	-----	273,439	77,956
Texas-----	255,850	722,350	-----	-----	660,788	226,921	-----	-----	54,562	24,939
Utah-----	35,374	29,049	-----	-----	29,049	35,374	-----	-----	-----	-----
Virginia-----	159,745	592,995	-----	-----	461,220	121,281	19,650	11,790	112,125	26,674
Washington-----	49,944	95,655	26,400	13,281	60,906	31,669	-----	-----	8,349	4,994
West Virginia-----	106,809	228,112	5,753	9,700	91,257	34,350	-----	-----	131,102	62,759
Wisconsin-----	33,642	95,789	65,691	21,492	24,950	7,500	-----	-----	7,148	4,650

¹ For definition of the industry see table 1, footnote 1.

COMMON CLAY AND SHALE

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TABLE 3.—QUANTITY AND VALUE OF PRODUCTS OF THE COMMON CLAY AND SHALE INDUSTRY IN THE UNITED STATES, BY TYPE OF OPERATION, BY STATE, AND BY KIND: 1939¹—Continued

TYPE OF OPERATION AND STATE	PRODUCTION OF CLAY AND SHALE--Continued				Value of secondary products	Receipts for services performed for others, including milling
	Other clays					
	Prepared		Unprepared			
	Tons of 2,000 pounds	Value	Tons of 2,000 pounds	Value		
United States, total-----	1,442	\$8,562	28,826	\$33,137	\$95,562	\$32,023
TYPE OF OPERATION						
Mines only, total-----	10	25	28,826	33,137	65,594	32,023
Open pits-----			23,615	26,209	54,028	32,023
Underground mines-----	10	25	2,687	4,000	8,116	
Combination (open-pit and underground) mines-----			2,544	2,928	1,250	
Mines and preparation plants operated together, total-----	1,432	8,537			32,168	
Open pits-----	1,120	7,872			12,237	
Underground mines-----					18,866	
Combination (open-pit and underground) mines-----	312	465			1,075	
STATE						
Alabama-----						
Arizona and Nevada-----						
Arkansas-----						
California-----	208	2,100	3,487	11,568	6,000	29,923
Colorado-----			4,603	6,160	1,075	1,600
Connecticut-----						
Delaware, Maine, and Rhode Island-----						
Florida-----						
Georgia-----			1,325	919		
Illinois-----					7,562	
Indiana-----					554	
Iowa-----			900	1,700	12,040	
Kansas-----						
Kentucky-----						
Louisiana-----						500
Maryland and District of Columbia-----						
Massachusetts-----						
Michigan-----	300	2,100				
Minnesota-----			1,874	4,995		
Mississippi-----						
Missouri-----	312	465	387	196		
Montana, South Dakota, and Wyoming-----						
Nebraska-----						
New Hampshire-----						
New Jersey-----						
New Mexico-----					1,496	
New York-----					2,130	
North Carolina-----						
Ohio-----	10	25	8,800	2,477	54,955	
Oklahoma-----	612	3,672	160	510		
Oregon-----			310	620		
Pennsylvania-----					8,500	
South Carolina-----						
Tennessee-----					1,250	
Texas-----			7,000	3,990		
Utah-----						
Virginia-----						
Washington-----						
West Virginia-----						
Wisconsin-----						

¹For definition of the industry see table 1, footnote 1.

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TABLE 4.—NUMBER OF WAGE EARNERS IN THE COMMON CLAY AND SHALE INDUSTRY IN THE UNITED STATES BY TYPE OF OPERATION, BY STATE, AND BY MONTH: 1939¹

TYPE OF OPERATION AND STATE	Average for the 12 months	NUMBER RECEIVING PAY DURING PAY-ROLL PERIOD ENDING NEAREST THE 15th OF THE MONTH											
		January	February	March	April	May	June	July	August	September	October	November	December
United States, total-----	2,906	2,268	2,247	2,567	2,946	3,137	3,266	3,232	3,220	3,226	3,174	2,976	2,707
TYPE OF OPERATION													
Mines only, total-----	2,270	1,786	1,727	1,993	2,202	2,486	2,561	2,555	2,551	2,541	2,505	2,324	2,059
Open pits-----	1,892	1,404	1,378	1,840	1,900	2,091	2,143	2,166	2,144	2,112	2,108	1,927	1,694
Underground mines-----	263	229	233	236	212	282	296	273	287	293	284	278	251
Combination (underground and open-pit) mines-----	115	103	118	117	90	115	122	116	120	136	115	119	114
Mines and preparation plants operated together, total-----	636	532	520	574	644	651	705	677	669	685	669	652	648
Open pits-----	422	345	347	369	448	455	467	445	432	449	451	430	422
Underground mines-----	197	181	165	180	172	170	211	219	224	223	205	207	206
Combination (underground and open-pit) mines-----	17	6	8	25	24	26	27	13	13	13	13	15	20
STATE													
Alabama-----	85	90	85	97	88	92	87	70	72	83	94	78	85
Arizona and Nevada-----	6	4	4	4	7	7	7	7	7	7	5	4	4
Arkansas-----	30	26	29	29	29	29	29	31	34	33	33	28	26
California-----	110	93	98	112	116	122	118	112	120	121	108	101	101
Colorado-----	51	35	58	37	48	49	55	61	61	52	54	54	52
Connecticut-----	19	4	3	4	13	28	30	29	30	28	28	15	12
Delaware, Maine, and Rhode Island-----	10	5	5	6	6	9	9	30	13	13	13	9	5
Florida-----	18	14	15	21	21	16	18	17	21	21	21	21	15
Georgia-----	112	102	101	103	106	105	119	117	115	117	122	123	120
Illinois-----	172	98	106	124	136	224	238	177	184	177	224	196	178
Indiana-----	77	57	55	60	77	80	99	98	92	80	77	81	70
Iowa-----	117	71	48	61	131	147	151	141	137	131	129	131	123
Kansas-----	25	25	25	33	33	29	34	24	25	20	18	18	20
Kentucky-----	46	41	42	39	38	38	38	50	50	69	49	47	47
Louisiana-----	18	17	17	19	19	19	19	19	19	19	19	19	17
Maryland and District of Columbia-----	63	53	50	56	65	61	64	65	65	64	57	103	51
Massachusetts-----	15	7	4	12	15	18	25	24	18	17	15	10	10
Michigan-----	95	84	83	82	102	99	97	103	105	106	102	100	82
Minnesota-----	49	30	29	31	40	52	60	65	63	65	55	50	50
Mississippi-----	23	20	20	23	25	23	23	23	24	23	23	23	21
Missouri-----	59	25	24	49	54	68	71	74	60	79	83	70	52
Montana, South Dakota, and Wyoming-----	8	5	2	8	8	11	10	10	10	10	6	6	7
Nebraska-----	34	12	19	25	50	55	54	40	42	39	37	25	14
New Hampshire-----	7	7	1	13	13	13	13	13	13	14	16	16	16
New Jersey-----	56	47	39	42	59	59	62	63	66	66	62	54	50
New Mexico-----	22	15	13	29	32	21	18	18	18	34	34	18	16
New York-----	127	58	44	74	126	142	154	183	170	159	146	127	137
North Carolina-----	94	80	81	96	103	102	99	100	100	97	99	95	80
Ohio-----	595	530	551	563	491	569	628	621	653	657	640	635	598
Oklahoma-----	36	38	32	39	40	38	41	41	30	34	33	32	38
Oregon-----	4	1	1	1	4	6	4	4	7	7	6	4	4
Pennsylvania-----	255	211	194	256	266	292	290	267	265	257	255	259	246
South Carolina-----	48	45	46	46	50	50	50	50	50	50	50	46	45
Tennessee-----	76	65	60	68	75	88	87	94	79	85	82	59	65
Texas-----	136	127	125	129	146	143	137	152	146	148	142	120	116
Utah-----	17	13	13	11	19	19	20	21	22	15	19	19	19
Virginia-----	84	45	50	86	97	97	80	102	102	100	97	92	55
Washington-----	29	12	19	30	33	38	38	35	38	37	30	29	7
West Virginia-----	61	56	50	54	60	60	71	60	75	71	70	52	51
Wisconsin-----	17	7	7	6	17	19	19	21	21	21	21	23	18

¹ For definition of the industry see table 1, footnote 1.

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TABLE 5.—EMPLOYMENT AND WORKING TIME IN THE COMMON CLAY AND SHALE INDUSTRY IN THE UNITED STATES, BY DEPARTMENT AND BY STATE: 1939¹

DEPARTMENT	United States	Alabama	Arizona and Nevada	Arkansas	California	Colorado	Connecticut	Delaware, Maine, and Rhode Island	Florida	Georgia
Average number of wage earners on active days, total-----	3,425	94	7	33	122	52	28	34	21	119
At mines, total-----	3,221	91	7	33	115	50	28	34	21	82
Underground-----	587					11				
Open-pit-----	2,595	91	7	33	114	49	28	34	21	74
Surface shops and yards-----	39				1					8
At preparation plants-----	204	3			7	2				37
Average number of equivalent full days operations were active-----	201	210	173	248	227	174	158	61	175	240
At mines, total-----	200	210	173	248	223	175	158	61	175	225
Underground-----	196					189				
Open-pit-----	201	210	173	248	223	172	158	61	175	221
Surface shops and yards-----	194				250					268
At preparation plants-----	223	207			295	162				274
Number of man-shifts worked by wage earners, total ² -----	695,307	19,715	1,212	8,179	27,683	10,811	4,431	2,073	4,196	29,110
On active days, total-----	689,236	19,715	1,212	8,179	27,683	10,811	4,431	2,073	3,683	28,616
At mines, total-----	643,804	19,095	1,212	8,179	25,618	10,487	4,431	2,073	3,683	18,477
Underground-----	115,309					2,079				
Open-pit-----	520,934	19,095	1,212	8,179	25,368	8,408	4,431	2,073	3,683	16,335
Surface shops and yards-----	7,561				250					2,142
At preparation plants-----	45,432	620			2,065	324				10,139
On inactive days-----	6,071								513	494
Number of man-hours worked by wage earners, total-----	5,481,234	151,100	9,696	52,799	220,381	83,845	35,445	16,589	33,568	232,992
On active days, total-----	5,435,414	151,100	9,696	52,799	220,381	83,845	35,445	16,589	29,464	229,040
At mines, total-----	5,077,442	146,140	9,696	52,799	203,861	81,253	35,445	16,589	29,464	147,930
Underground-----	891,155					15,632				
Open-pit-----	4,128,190	146,140	9,696	52,799	201,504	64,621	35,445	16,589	29,464	130,794
Surface shops and yards-----	58,097				2,357					17,136
At preparation plants-----	357,972	4,980			16,520	2,592				81,110
On inactive days-----	45,820								4,104	3,952

DEPARTMENT	Illinois	Indiana	Iowa	Kansas	Kentucky	Louisiana	Maryland and District of Columbia	Massachusetts	Michigan	Minnesota
Average number of wage earners on active days, total-----	256	92	138	31	60	20	104	23	102	55
At mines, total-----	243	92	117	28	56	20	91	23	96	52
Underground-----	55	17			21					
Open-pit-----	179	72	117	27	35	20	91	23	95	51
Surface shops and yards-----	8	3		1					1	1
At preparation plants-----	13		21	3	4		13		5	3
Average number of equivalent full days operations were active-----	158	199	224	195	189	244	144	166	259	222
At mines, total-----	158	199	232	168	185	244	127	166	265	221
Underground-----	132	185			195					
Open-pit-----	168	209	232	188	179	244	127	166	267	221
Surface shops and yards-----	105	42		195					52	201
At preparation plants-----	158		175	254	248		264		171	242
Number of man-shifts worked by wage earners, total ² -----	40,396	18,294	32,415	6,329	11,355	4,876	15,413	3,827	25,745	12,213
On active days, total-----	40,396	18,294	30,859	6,035	11,355	4,876	14,942	3,827	25,465	12,213
At mines, total-----	38,340	18,294	27,194	5,273	10,363	4,876	11,513	3,827	25,438	11,487
Underground-----	7,410	3,150			4,090					
Open-pit-----	30,088	15,018	27,194	5,078	6,273	4,876	11,513	3,827	25,386	11,286
Surface shops and yards-----	842	126		195					52	201
At preparation plants-----	2,056		3,565	762	992		3,429		1,027	726
On inactive days-----			1,556	294			471		281	
Number of man-hours worked by wage earners, total-----	317,188	147,179	253,280	49,439	91,836	39,008	123,600	30,148	214,129	96,903
On active days, total-----	317,188	147,179	240,911	47,090	91,836	39,008	119,834	30,148	212,009	96,903
At mines, total-----	301,749	147,179	211,861	40,994	84,500	39,008	92,402	30,148	203,797	91,095
Underground-----	58,682	25,202			32,720					
Open-pit-----	236,327	120,969	211,861	39,428	51,780	39,008	92,402	30,148	203,382	90,291
Surface shops and yards-----	6,740	1,008		1,566					415	804
At preparation plants-----	15,439		29,050	6,096	7,335		27,432		8,212	5,808
On inactive days-----			12,369	2,349			3,766		2,120	

See footnotes at end of table.

TABLE 5.—EMPLOYMENT AND WORKING TIME IN THE COMMON CLAY AND SHALE INDUSTRY IN THE UNITED STATES, BY DEPARTMENT AND BY STATE: 1939¹—Continued

DEPARTMENT	Mississippi	Missouri	Montana, South Dakota, and Wyoming	Nebraska	New Hampshire	New Jersey	New Mexico	New York	North Carolina	Ohio	
Average number of wage earners on active days, total-----	23	78	9	36	14	59	28	162	100	636	
At mines, total-----	23	71	9	34	14	55	28	156	100	604	
Underground-----		1								359	
Open-pit-----	23	70	9	34	14	52	28	156	99	236	
Surface shops and yards-----						3			1	9	
At preparation plants-----		7		2		4		6		32	
Average number of equivalent full days operations were active-----	242	170	231	189	105	232	197	199	235	219	
At mines, total-----	242	170	231	188	105	234	197	196	235	219	
Underground-----		40								213	
Open-pit-----	242	172	231	188	105	232	197	196	235	227	
Surface shops and yards-----						277			240	247	
At preparation plants-----		164		204		202		274		216	
Number of man-shifts worked by wage earners, total ² -----	5,564	13,254	2,077	6,813	1,466	13,735	5,510	32,343	23,465	140,987	
On active days, total-----	5,564	13,254	2,077	6,813	1,466	13,705	5,510	32,283	23,465	138,979	
At mines, total-----	5,564	12,103	2,077	6,406	1,466	12,897	5,510	30,640	23,465	132,054	
Underground-----		40								76,335	
Open-pit-----	5,564	12,063	2,077	6,406	1,466	12,065	5,510	30,640	23,225	53,504	
Surface shops and yards-----						832			240	2,225	
At preparation plants-----		1,151		407		808		1,643		6,915	
On inactive days-----						30		60		2,008	
Number of man-hours worked by wage earners, total-----	43,513	106,513	16,333	54,984	11,728	102,373	44,079	254,148	194,908	1,097,510	
On active days, total-----	43,513	106,513	16,333	54,984	11,728	102,133	44,079	253,668	194,908	1,083,886	
At mines, total-----	43,513	97,159	16,333	51,571	11,728	96,245	44,079	240,890	194,908	1,029,169	
Underground-----		320								590,567	
Open-pit-----	43,513	96,839	16,333	51,571	11,728	90,165	44,079	240,890	192,988	422,177	
Surface shops and yards-----						6,080			1,920	16,425	
At preparation plants-----		9,354		3,413		5,888		12,778		54,717	
On inactive days-----						240		480		13,624	
DEPARTMENT	Oklahoma	Oregon	Penn- syl- vania	South Caro- lina	Tennes- see	Texas	Utah	Vir- ginia	Washing- ton	West Vir- ginia	Wis- consin
Average number of wage earners on active days, total-----	41	8	307	48	83	150	17	100	36	69	20
At mines, total-----	40	8	281	48	83	146	17	98	34	67	16
Underground-----			102							14	
Open-pit-----	40	8	176	48	83	146	6	98	34	53	16
Surface shops and yards-----			3								
At preparation plants-----	1		26						2	2	4
Average number of equivalent full days operations were active-----	171	74	185	260	195	198	238	193	143	214	223
At mines, total-----	173	74	184	260	195	196	238	192	133	214	222
Underground-----			172								
Open-pit-----	173	74	191	260	195	196	191	192	133	219	222
Surface shops and yards-----			152								
At preparation plants-----	112		195			279		219	307	220	228
Number of man-shifts worked by wage earners, total ² -----	7,024	590	57,038	12,499	16,226	29,761	4,045	19,273	5,151	14,745	4,467
On active days, total-----	7,024	590	56,674	12,499	16,226	29,761	4,045	19,273	5,151	14,745	4,467
At mines, total-----	6,912	590	51,603	12,499	16,226	28,644	4,045	18,835	4,537	14,305	3,556
Underground-----			17,542								
Open-pit-----	6,912	590	33,605	12,499	16,226	28,644	1,943	18,835	4,537	11,585	3,556
Surface shops and yards-----			456				2,102				
At preparation plants-----	112		5,071			1,117		438	614	440	911
On inactive days-----			364								
Number of man-hours worked by wage earners, total-----	56,517	4,698	439,256	103,173	130,238	238,950	32,356	155,202	38,890	113,616	33,124
On active days, total-----	56,517	4,698	436,440	103,173	130,238	238,950	32,356	155,202	38,890	113,616	33,124
At mines, total-----	55,621	4,698	396,938	103,173	130,238	230,014	32,356	151,702	33,978	110,536	26,683
Underground-----			131,488								
Open-pit-----	55,621	4,698	261,804	103,173	130,238	230,014	15,544	151,702	33,978	20,000	
Surface shops and yards-----			3,646				16,812			90,536	26,683
At preparation plants-----			39,502								
On inactive days-----	896		2,816			8,936		3,500	4,912	3,080	6,441

¹ For definition of the industry see table 1, footnote 1.² Includes 3,279 man-shifts worked during a second shift (1,318 at pits and mines and 1,961 at preparation plants) and 326 man-shifts worked during a third shift (306 at pits and mines and 20 at preparation plants). The 2-shift operations were located in New York, Texas, and Wisconsin, and the 3-shift operations in Iowa and Michigan, 1 in each State.

COMMON CLAY AND SHALE

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TABLE 6.—EMPLOYMENT AND WORKING TIME IN THE COMMON CLAY AND SHALE INDUSTRY IN THE UNITED STATES, BY DEPARTMENT AND BY TYPE OF OPERATION: 1939¹

DEPARTMENT	All types	MINES ONLY				MINES AND PREPARATION PLANTS OPERATED TOGETHER			
		Total	Open pits	Underground mines	Combination (underground and open-pit) mines	Total	Open pits	Underground mines	Combination (underground and open-pit) mines
Average number of wage earners on active days, total-----	3,425	2,708	2,275	297	136	717	462	220	35
At mines, total-----	3,221	2,708	2,275	297	136	513	293	191	29
Underground-----	587	378	-----	268	90	209	-----	191	18
Open-pit-----	2,595	2,303	2,259	-----	44	292	281	-----	11
Surface shops and yards-----	39	27	16	9	2	12	12	-----	-----
At preparation plants-----	204	-----	-----	-----	-----	204	169	29	6
Average number of equivalent full days operations were active-----	201	197	197	197	195	217	231	207	101
At mines, total-----	200	197	197	197	195	215	233	209	79
Underground-----	196	197	-----	195	201	196	-----	209	62
Open-pit-----	201	197	198	-----	186	227	232	-----	107
Surface shops and yards-----	194	165	114	251	181	260	-----	-----	-----
At preparation plants-----	223	-----	-----	-----	-----	223	228	195	204
Number of man-shifts worked by wage earners, total-----	695,307	556,759	449,671	60,506	26,582	158,548	109,151	45,872	3,525
On active days, total-----	689,236	533,301	448,170	58,549	26,582	155,935	106,928	45,482	3,525
At mines, total-----	643,804	533,301	448,170	58,549	26,582	110,503	68,363	39,841	2,299
Underground-----	115,309	74,348	-----	56,294	15,054	40,961	-----	39,841	1,120
Open-pit-----	520,954	454,506	446,340	-----	8,166	66,428	65,249	-----	1,179
Surface shops and yards-----	7,561	4,447	1,850	2,255	362	3,114	3,114	-----	-----
At preparation plants-----	45,432	-----	-----	-----	-----	45,432	38,565	5,841	1,226
On inactive days-----	6,071	3,458	1,501	1,957	-----	2,613	2,223	390	-----
Number of man-hours worked by wage earners, total-----	5,481,234	4,241,162	3,561,485	467,021	212,656	1,240,072	865,273	346,595	28,204
On active days, total-----	5,435,414	4,214,925	3,549,688	452,581	212,656	1,220,489	847,490	344,795	28,204
At mines, total-----	5,077,442	4,214,925	3,549,688	452,581	212,656	862,517	542,278	301,842	16,397
Underground-----	891,155	580,350	-----	435,918	144,432	310,805	-----	301,842	8,963
Open-pit-----	4,128,190	3,600,016	3,534,688	-----	65,325	528,174	518,740	-----	9,434
Surface shops and yards-----	58,097	34,559	15,000	16,663	2,896	23,538	23,538	-----	-----
At preparation plants-----	357,972	-----	-----	-----	-----	357,972	305,212	42,855	9,807
On inactive days-----	45,820	26,237	11,797	14,440	-----	19,583	17,783	1,800	-----

¹ For definition of the industry see table 1, footnote 1.

TABLE 7.—QUANTITY OF FUEL AND ELECTRIC ENERGY CONSUMED IN THE COMMON CLAY AND SHALE INDUSTRY IN THE UNITED STATES, BY TYPE OF OPERATION AND BY STATE: 1939¹

TYPE OF OPERATION AND STATE	FUEL					ELECTRIC ENERGY (Thousands of kilowatt-hours)		
	Anthracite (tons of 2,000 pounds)	Bituminous coal (tons of 2,000 pounds)	Fuel oils (barrels of 42 gallons)	Gasoline and kerosene (gallons)	Natural gas (thou- sands of cubic feet)	Total	Purchased	Generated by reporting companies
United States, total	409	42,377	6,006	1,549,101	48,125	13,623	11,633	1,990
TYPE OF OPERATION								
Mines only, total	193	34,818	4,111	1,296,997	42,339	6,693	5,949	744
Open pits	193	34,668	4,111	1,281,475	42,039	5,021	4,773	248
Underground mines		150		5,422	300	1,422	941	481
Combination (open-pit and underground) mines				10,100		250	235	15
Mines and preparation plants operated together, total	216	7,559	1,895	252,104	5,786	6,930	5,684	1,246
Open pits	216	7,559	1,895	245,551	5,786	5,373	4,237	1,136
Underground mines				553		1,542	1,432	110
Combination (open-pit and underground) mines				6,200		15	15	
STATE								
Alabama		2,294	48	14,569		417	417	
Arizona and Nevada			15	10,211				
Arkansas		319	720	18,465	6,128	35	35	
California			1,454	134,459	40	277	277	
Colorado				21,214				
Connecticut		380		21,925		106	106	
Delaware, Maine, and Rhode Island		32		12,687		13	13	
Florida		77	1,514					
Georgia		3,646		13,957		1,320	1,320	
Illinois		9,105		84,589		813	724	89
Indiana		1,292		16,529		524	495	29
Iowa	216	30	212	64,244		794	498	296
Kansas		278		9,958	5,782	159	90	49
Kentucky		567		13,621		30	30	
Louisiana		527		13,059	687	4	4	
Maryland and District of Columbia		817		49,243		417	417	
Massachusetts		64		10,425		29	29	
Michigan		3,710		23,469		158	94	62
Minnesota			251	27,561		98		96
Mississippi				16,245	455	36	36	
Missouri		321		28,728		463	463	
Montana, South Dakota, and Wyoming			54	407				
Nebraska		20	80	5,941	4	276	276	
New Hampshire		95		1,875				
New Jersey		786		116,273		456	456	
New Mexico						2	2	
New York		1,072	10	174,330		870	870	
North Carolina	193	2,786		47,915		115	115	
Ohio		6,902	73	197,020	65	3,250	2,282	968
Oklahoma		773		7,804	19,000	79	76	3
Oregon				2,971		38	38	
Pennsylvania		1,559	20	66,340	300	1,364	1,364	
South Carolina		166		55,307		189	189	
Tennessee		2,787	46	6,138		307	307	
Texas		297	1,509	165,345	8,820	159	159	
Utah				4,328		2		2
Virginia		737		70,642		246	246	
Washington		140		9,237		99	99	
West Virginia		339		2,300	6,866	103	103	
Wisconsin		679		8,290		397	1	386

¹For definition of the industry see table 1, footnote 1.

TABLE 8.—NUMBER AND HORSEPOWER RATING OF PRIME MOVERS AND ELECTRIC MOTORS IN THE COMMON CLAY AND SHALE INDUSTRY IN THE UNITED STATES, BY TYPE OF OPERATION AND BY STATE: 1939¹

TYPE OF OPERATION, STATE, AND TYPE OF EQUIPMENT	Aggregate horsepower	PRIME MOVERS AND ELECTRIC MOTORS DRIVEN BY PURCHASED ENERGY										ELECTRIC MOTORS DRIVEN BY ENERGY GENERATED BY REPORTING COMPANIES	
		Prime movers								Electric motors driven by purchased energy ¹			
		Total		Driving generators		Not driving generators		Ordinarily idle (included in pre- ceding columns)					
		Number	Horsepower	Number	Horsepower	Number	Horsepower	Number	Horsepower	Number	Horsepower	Number	Horsepower
United States, total	61,525	1,189	46,169	4	335	1,185	45,834	10	466	588	15,356	92	2,754
Stationary	8,914	37	2,163	2	280	35	1,903	1	150	292	6,751	57	1,606
Mobile	52,611	1,152	44,006	2	75	1,150	43,931	9	316	296	8,605	35	1,148
TYPE OF OPERATION													
Mines only, total	46,288	1,039	39,931	3	225	1,036	39,706	6	397	334	8,357	35	849
Stationary	2,509	21	878	1	150	20	728	1	150	109	1,631	13	191
Mobile	45,779	1,018	39,053	2	75	1,016	38,978	5	247	225	6,726	22	658
Open pits, total	46,488	1,025	39,343	3	225	1,022	39,118	6	397	249	7,145	21	406
Stationary	1,616	19	847	1	150	18	697	1	150	51	769	9	141
Mobile	44,872	1,006	38,496	2	75	1,004	38,421	5	247	198	6,376	12	265
Underground mines, total	964	4	139			4	139			47	825	11	423
Stationary	646	2	31			2	31			33	615	4	50
Mobile	318	2	108			2	108			14	210	7	373
Combination (open-pit and underground) mines, total	836	10	449			10	449			38	387	3	20
Stationary	247									25	247		
Mobile	589	10	449			10	449			13	140	3	20
Mines and preparation plants operated together, total	13,237	150	6,238	1	110	149	6,128	4	69	254	6,999	57	1,905
Stationary	6,405	16	1,285	1	110	15	1,175			183	5,120	44	1,415
Mobile	6,832	134	4,953			134	4,953	4	69	71	1,879	13	490
Open pits, total	11,275	146	6,078	1	110	145	5,988	3	44	183	5,197	48	1,630
Stationary	4,942	15	1,205	1	110	14	1,095			134	3,737	36	1,165
Mobile	6,333	131	4,873			131	4,873	3	44	49	1,460	12	465
Underground mines, total	1,744									67	1,744	9	275
Stationary	1,325									45	1,325	8	250
Mobile	419									22	419	1	25
Combination (open-pit and underground) mines, total	218	4	160			4	160	1	25	4	58		
Stationary	138	1	80			1	80			4	58		
Mobile	80	3	80			3	80	1	25				
STATE													
Alabama, total	1,233	20	827			20	827			16	406		
Stationary	351									14	351		
Mobile	882	20	827			20	827			2	55		
Arizona and Nevada ²	180	4	160			4	160						
Arkansas ²	852	13	747			13	747			3	105		
California, total	3,653	54	3,327			54	3,327			14	326		
Stationary	201									11	201		
Mobile	3,452	54	3,327			54	3,327			3	125		
Colorado ²	624	9	624			9	624						
Connecticut ²	795	24	708			24	708			3	87		
Delaware, Maine, and Rhode Island ²	813	10	783			10	783			1	30		
Florida, total	138	5	138			5	138						
Stationary	50	1	50			1	50						
Mobile	88	4	88			4	88						
Georgia, total	2,279	32	1,291			32	1,291			26	988		
Stationary	708	2	80			2	80			16	628		
Mobile	1,571	30	1,211			30	1,211			10	560		
Illinois, total	4,473	71	3,318			71	3,318	1	74	49	1,155	10	190
Stationary	528									24	528	8	105
Mobile	3,945	71	3,318			71	3,318	1	74	25	627	4	85
Indiana, total	1,086	22	633			22	633			21	453	2	50
Stationary	206									10	206	1	20
Mobile	880	22	633			22	633			11	247	1	30
Iowa, total	2,438	22	1,349			22	1,349			29	1,069	7	175
Stationary	408	4	160			4	160			8	248	6	150
Mobile	2,030	18	1,189			18	1,189			21	841	1	25
Kansas, total	666	11	561	1	110	10	451			3	105	3	70
Stationary	275	2	275	1	110	1	165					2	10
Mobile	391	9	286			9	286			3	105	1	60
Kentucky, total	610	15	560			15	560			2	50		
Stationary	50												
Mobile	560	15	560			15	560						
Louisiana, total	600	19	600			19	600						
Stationary	80	1	80			1	80						
Mobile	520	18	520			18	520						

¹ For definition of the industry see table 1, footnote 1. For definition of the terms "Stationary" and "Mobile" see table 1, footnotes 10 and 11.² Mobile only; no stationary equipment was reported.

MINERAL INDUSTRIES

TABLE 8.—NUMBER AND HORSEPOWER RATING OF PRIME MOVERS AND ELECTRIC MOTORS IN THE COMMON CLAY AND SHALE INDUSTRY IN THE UNITED STATES, BY TYPE OF OPERATION AND BY STATE: 1939¹—Continued

TYPE OF OPERATION, STATE, AND TYPE OF EQUIPMENT	PRIME MOVERS AND ELECTRIC MOTORS DRIVEN BY PURCHASED ENERGY										ELECTRIC MOTORS DRIVEN BY ENERGY GENERATED BY REPORTING COMPANIES		
	Aggregate horsepower	Prime movers								Electric motors driven by purchased energy			
		Total		Driving generators		Not driving generators		Ordinarily idle (included in pre- ceding columns)					
		Number	Horsepower	Number	Horsepower	Number	Horsepower	Number	Horsepower	Number	Horsepower	Number	Horsepower
STATE—Continued													
Maryland and District of Columbia, total	2,013	45	1,668			45	1,668			11	345		
Stationary	530	1	300			1	300			6	230		
Mobile	1,483	44	1,368			44	1,368			5	115		
Massachusetts, total	650	15	600			15	600			2	50		
Stationary	10	1	10			1	10						
Mobile	640	14	590			14	590			2	50		
Michigan, total	2,546	65	2,314			65	2,314			18	332	4	56
Stationary	847	6	555			6	555			17	292	4	56
Mobile	1,799	59	1,759			59	1,759			1	40		
Minnesota, total	583	9	583			9	583					2	110
Stationary												1	100
Mobile	583	9	583			9	583					1	10
Mississippi ²	286	12	261			12	261			1	25		
Missouri, total	1,568	31	1,070			31	1,070	1	25	16	498		
Stationary	448	7	215			7	215			10	233		
Mobile	1,120	24	855			24	855	1	25	6	265		
Montana, South Dakota, and Wyoming ²	62	2	62			2	62						
Nebraska, total	1,012	4	304			4	304			20	708		
Stationary	350									11	330		
Mobile	662	4	304			4	304			9	378		
New Hampshire ²	118	4	118			4	118						
New Jersey, total	2,143	30	1,670			30	1,670			20	473		
Stationary	248									8	248		
Mobile	1,895	30	1,670			30	1,670			12	225		
New Mexico ³	23									2	23		
New York, total	4,831	73	3,377			73	3,377			47	1,454		
Stationary	245	3	115			3	115			6	130		
Mobile	4,586	70	3,262			70	3,262			41	1,324		
North Carolina, total	2,349	88	2,269			88	2,269			7	80		
Stationary	40	1	10			1	10			5	30		
Mobile	2,309	87	2,259			87	2,259			2	50		
Ohio, total	8,421	186	5,802	1	45	187	5,757	3	44	134	2,619	49	1,603
Stationary	1,564	2	40			2	40			77	1,524	27	820
Mobile	6,857	186	5,762	1	45	185	5,717	3	44	57	1,085	22	783
Oklahoma, total	883	17	763			17	763			5	120	5	175
Stationary												3	100
Mobile	883	17	763			17	763			5	120	2	75
Oregon ²	265	5	170			5	170			4	95		
Pennsylvania, total	4,511	71	2,690			71	2,690			68	1,821	1	5
Stationary	1,024	3	86			3	86			35	938	1	5
Mobile	3,487	68	2,604			68	2,604			33	883		
South Carolina, total	885	18	740			18	740	1	50	5	145		
Stationary	25									1	25		
Mobile	860	18	740			18	740	1	50	4	120		
Tennessee, total	1,429	33	998			33	998			15	431		
Stationary	46									5	46		
Mobile	1,383	33	998			33	998			10	385		
Texas, total	3,352	80	2,889	1	150	79	2,739	4	273	12	463		
Stationary	260	2	162	1	150	1	12	1	150	6	98		
Mobile	3,092	78	2,727			78	2,727	3	123	6	365		
Utah, total	211	4	211	1	30	3	181					1	25
Stationary	25	1	25			1	25						
Mobile	186	3	186	1	30	2	156					1	25
Virginia, total	1,778	35	1,241			35	1,241			18	537		
Stationary	152									9	152		
Mobile	1,626	35	1,241			35	1,241			9	385		
Washington, total	628	11	408			11	408			7	220		
Stationary	170									6	170		
Mobile	458	11	408			11	408			1	50		
West Virginia, total	358	13	245			13	245			8	113		
Stationary	60									2	60		
Mobile	298	13	245			13	245			6	53		
Wisconsin, total	100	5	90			5	90			1	10	8	295
Stationary	10									1	10	6	240
Mobile	90	5	90			5	90					2	55

¹For definition of the industry see table 1, footnote 1. For definition of the terms "Stationary" and "Mobile" see table 1, footnotes 10 and 11.²Mobile only; no stationary equipment was reported.³Stationary only; no mobile equipment was reported.

TABLE 9.—NUMBER OF SURFACE POWER-LOADING MACHINES IN THE COMMON CLAY AND SHALE INDUSTRY IN THE UNITED STATES, BY TYPE, BY KIND OF POWER USED, BY SIZE, AND BY STATE: 1939¹

TYPE OF MACHINE, KIND OF POWER USED, AND SIZE	United States	Alabama	Arizona and Nevada	Arkansas	California	Colorado	Connecticut	Delaware, Maine, and Rhode Island	Florida	Georgia
Power shovels, total	539	8	1	8	20	2	13	3		6
Kind of power used:										
Steam	190	4		2	1		6			3
Electric	160	1		3	2		1	1		
Other ²	189	3	1	3	17	2	6	2		3
Dipper capacity (cu. yds.):										
Less than 3	528	8	1	8	20	2	15	3		6
3 to 5	9									
More than 5	2									
Dragline excavators, total	69	4		1	6	1			2	11
Kind of power used:										
Steam	17								2	6
Electric	22	1			4					3
Internal-combustion engine	30	3		1	2	1				2
Bucket capacity (cu. yds.):										
Less than 3	68	4		1	5	1			2	11
3 to 5	1				1					
Scraper loaders, total	20				1					
Kind of power used:										
Steam	1									
Electric	1									
Other ²	18				1					
Horsepower rating of hoists:										
Less than 10	1									
10 to 25	13									
26 to 100	6				1					
Clamshell or orange-peel loaders, total	11				1			1		
Kind of power used:										
Steam	3									
Electric	2									
Internal-combustion engine	6				1			1		
Other types, total ³	39		1	1	3					
Kind of power used:										
Electric	5									
Internal-combustion engine	34		1	1	3					
TYPE OF MACHINE, KIND OF POWER USED, AND SIZE	Illinois	Indiana	Iowa	Kansas	Kentucky	Louisiana	Maryland and District of Columbia	Massachusetts	Michigan	Minnesota
Power shovels, total	28	12	11	7	7	6	20	5	19	3
Kind of power used:										
Steam	12	4		2	3	4	9	1	17	
Electric	11	5	7	3			2	2	1	
Other ²	5	3	4	2	4	2	9	2	1	3
Dipper capacity (cu. yds.):										
Less than 3	25	12	11	7	7	6	20	5	16	3
3 to 5	1								3	
More than 5	2									
Dragline excavators, total	6	1	8	1		2				3
Kind of power used:										
Steam	2	1	1			1				
Electric	2		4							3
Internal-combustion engine	2		3	1		1				
Bucket capacity (cu. yds.):										
Less than 3	6	1	8	1		2				3
3 to 5										
Scraper loaders, total			1							
Kind of power used:										
Steam										
Electric										
Other ²			1							
Horsepower rating of hoists:										
Less than 10										
10 to 25			1							
26 to 100										
Clamshell or orange-peel loaders, total	1									
Kind of power used:										
Steam	1									
Electric										
Internal-combustion engine										
Other types, total ³			4				1	7		
Kind of power used:										
Electric			3							
Internal-combustion engine			1				1	7		

¹ For definition of the industry see table 1, footnote 1. In addition to surface power-loading equipment, 2 underground shovel loaders operated by electricity were reported in Pennsylvania.² Principally gasoline or Diesel engines. Two units were reported operated by compressed air: 1 power shovel in Illinois, and 1 scraper loader in California.³ Represents 2 sand or gravel pumps, 2 cranes or hoists, and 35 other units such as truck- and tractor-drawn scrapers, bulldozers, loading conveyors, bucket elevators, etc.

MINERAL INDUSTRIES

TABLE 9.—NUMBER OF SURFACE POWER-LOADING MACHINES IN THE COMMON CLAY AND SHALE INDUSTRY IN THE UNITED STATES, BY TYPE, BY KIND OF POWER USED, BY SIZE, AND BY STATE: 1939¹

TYPE OF MACHINE, KIND OF POWER USED, AND SIZE	Mississippi	Missouri	Montana, South Dakota, and Wyoming	Nebraska	New Hampshire	New Jersey	New York	North Carolina	Ohio	Oklahoma
Power shovels, total-----	5	13	-----	8	2	20	52	34	90	9
Kind of power used:										
Steam-----	2	3	-----	1	1	3	6	22	39	4
Electric-----	1	5	-----	6	-----	6	32	1	22	4
Other ² -----	2	5	-----	1	1	11	14	11	29	1
Dipper capacity (cu. yds.):										
Less than 3-----	5	13	-----	7	2	19	52	34	90	8
3 to 5-----	-----	-----	-----	1	-----	1	-----	-----	-----	1
More than 5-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Dragline excavators, total-----	1	-----	-----	-----	-----	-----	3	2	2	-----
Kind of power used:										
Steam-----	-----	-----	-----	-----	-----	-----	2	1	-----	-----
Electric-----	-----	-----	-----	-----	-----	-----	1	1	-----	-----
Internal-combustion engine-----	1	-----	-----	-----	-----	-----	-----	-----	2	-----
Bucket capacity (cu. yds.):										
Less than 3-----	1	-----	-----	-----	-----	-----	3	2	2	-----
3 to 5-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Scraper loaders, total-----	-----	6	-----	-----	-----	-----	-----	-----	1	-----
Kind of power used:										
Steam-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Electric-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Other ² -----	-----	6	-----	-----	-----	-----	-----	-----	1	-----
Horsepower rating of hoists:										
Less than 10-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
10 to 25-----	-----	6	-----	-----	-----	-----	-----	-----	-----	-----
26 to 100-----	-----	-----	-----	-----	-----	-----	-----	-----	1	-----
Clamshell or orange-peel loaders, total-----	-----	-----	-----	-----	-----	-----	3	-----	-----	-----
Kind of power used:										
Steam-----	-----	-----	-----	-----	-----	-----	1	-----	-----	-----
Electric-----	-----	-----	-----	-----	-----	-----	2	-----	-----	-----
Internal-combustion engine-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Other types, total ³ -----	-----	3	2	-----	-----	1	2	-----	-----	-----
Kind of power used:										
Electric-----	-----	-----	-----	-----	-----	-----	2	-----	-----	-----
Internal-combustion engine-----	-----	5	2	-----	-----	1	-----	-----	-----	-----

TYPE OF MACHINE, KIND OF POWER USED, AND SIZE	Oregon	Pennsylvania	South Carolina	Tennessee	Texas	Utah	Virginia	Washington	West Virginia	Wisconsin
Power shovels, total-----	3	52	9	14	16	1	19	4	6	3
Kind of power used:										
Steam-----	1	11	3	8	5	-----	6	2	4	1
Electric-----	2	20	2	6	3	1	7	-----	2	1
Other ² -----	-----	21	4	-----	8	-----	6	2	-----	1
Dipper capacity (cu. yds.):										
Less than 3-----	3	52	9	14	15	1	18	4	6	3
3 to 5-----	-----	-----	-----	-----	1	-----	1	-----	-----	-----
More than 5-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Dragline excavators, total-----	1	-----	3	2	7	-----	1	1	-----	-----
Kind of power used:										
Steam-----	-----	-----	-----	-----	1	-----	-----	-----	-----	-----
Electric-----	-----	-----	2	1	2	-----	-----	1	-----	-----
Internal-combustion engine-----	1	-----	1	1	4	-----	1	-----	-----	-----
Bucket capacity (cu. yds.):										
Less than 3-----	1	-----	3	2	7	-----	1	1	-----	-----
3 to 5-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Scraper loaders, total-----	-----	-----	-----	-----	11	-----	-----	-----	-----	-----
Kind of power used:										
Steam-----	-----	-----	-----	-----	1	-----	-----	-----	-----	-----
Electric-----	-----	-----	-----	-----	10	-----	-----	-----	-----	-----
Other ² -----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Horsepower rating of hoists:										
Less than 10-----	-----	-----	-----	-----	1	-----	-----	-----	-----	-----
10 to 25-----	-----	-----	-----	-----	7	-----	-----	-----	-----	-----
26 to 100-----	-----	-----	-----	-----	3	-----	-----	-----	-----	-----
Clamshell or orange-peel loaders, total-----	-----	-----	-----	-----	2	-----	1	2	-----	-----
Kind of power used:										
Steam-----	-----	-----	-----	-----	2	-----	-----	-----	-----	-----
Electric-----	-----	-----	-----	-----	-----	-----	-----	1	-----	-----
Internal-combustion engine-----	-----	-----	-----	-----	-----	-----	1	1	-----	-----
Other types, total ³ -----	-----	-----	-----	1	13	-----	-----	-----	-----	-----
Kind of power used:										
Electric-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Internal-combustion engine-----	-----	-----	-----	1	13	-----	-----	-----	-----	-----

¹ For definition of the industry see table 1, footnote 1. In addition to surface power-loading equipment, 2 underground shovel loaders operated by electricity were reported in Pennsylvania.² Principally gasoline or Diesel engines. Two units were reported operated by compressed air: 1 power shovel in Illinois, and 1 scraper loader in California.³ Represents 2 sand or gravel pumps, 2 cranes or hoists, and 55 other units such as truck- and tractor-drawn scrapers, bulldozers, loading conveyors, bucket elevators, etc.

TABLE 10.—SELECTED STATISTICS FOR INCORPORATED AND FOR UNINCORPORATED OPERATING COMPANIES IN THE COMMON CLAY AND SHALE INDUSTRY IN THE UNITED STATES, BY STATE: 1939¹

STATE AND TYPE OF OWNERSHIP	Number of operating companies ²	Number of pits and mines	Number of preparation plants	Production of clay and shale (tons of 2,000 pounds)	Value of all products	NUMBER OF PERSONS ENGAGED					Wages	Salaries
						Total	Wage earners (average for the year)	Salaried employees	Proprietors and firm members			
									Total	Performing manual labor		
United States, total-----	517	609	70	16,061,529	\$6,341,141	3,043	2,906	61	76	8	\$2,793,192	\$94,492
Incorporated-----	416	504	60	14,136,518	5,590,259	2,579	2,524	55	-----	-----	2,464,246	90,600
Unincorporated-----	101	105	10	1,925,011	750,882	464	382	6	76	8	328,946	3,892
Alabama, total-----	15	15	3	459,860	130,142	93	85	5	3	1	51,254	6,403
Incorporated-----	12	12	3	393,430	118,223	72	68	4	-----	-----	43,978	5,903
Unincorporated-----	3	3	-----	66,430	11,919	21	17	1	3	1	7,276	500
Arizona and Nevada ³ -----	3	3	-----	38,698	11,972	9	6	-----	3	-----	5,388	-----
Arkansas ⁴ -----	5	10	-----	240,800	79,559	32	30	-----	2	-----	24,361	-----
California, total-----	26	28	1	500,436	291,763	122	110	4	8	3	108,238	6,448
Incorporated-----	18	20	1	503,125	247,532	104	100	4	-----	-----	98,478	6,448
Unincorporated-----	8	8	-----	97,311	44,231	18	10	-----	8	3	9,760	-----
Colorado, total-----	12	13	2	111,277	103,744	62	51	6	5	1	40,966	5,405
Incorporated-----	5	6	1	62,265	49,549	24	22	2	-----	-----	19,827	2,525
Unincorporated-----	7	7	1	49,012	54,095	38	29	4	5	1	21,139	2,880
Connecticut ³ -----	10	11	-----	208,484	63,034	20	19	-----	1	-----	21,127	-----
Delaware, Maine, and Rhode Island, total ³ -----	4	4	-----	58,558	24,377	10	10	-----	-----	-----	7,183	-----
Incorporated-----	3	3	-----	53,183	21,005	8	8	-----	-----	-----	6,772	-----
Unincorporated-----	1	1	-----	5,375	3,372	2	2	-----	-----	-----	411	-----
Florida ³ -----	3	3	-----	90,066	24,717	19	18	-----	1	-----	10,775	-----
Georgia ⁵ -----	11	11	2	617,808	168,383	114	112	2	-----	-----	70,025	3,100
Illinois ⁴ -----	30	36	6	1,063,062	380,111	179	172	5	2	-----	181,774	7,376
Indiana, total-----	19	19	-----	422,001	154,080	80	77	1	2	-----	76,746	1,800
Incorporated-----	16	16	-----	375,101	137,210	72	71	1	-----	-----	69,634	1,800
Unincorporated-----	3	3	-----	46,900	16,870	8	6	-----	2	-----	7,112	-----
Iowa, total-----	20	20	5	588,645	270,537	124	117	4	3	-----	123,276	4,050
Incorporated-----	16	16	4	520,030	248,718	112	108	4	-----	-----	114,936	4,050
Unincorporated-----	4	4	1	68,615	21,819	12	9	-----	3	-----	8,340	-----
Kansas ⁵ -----	6	8	2	151,008	68,228	25	25	-----	-----	-----	25,711	-----
Kentucky ⁴ -----	9	9	2	177,315	61,198	49	46	1	2	-----	29,119	1,800
Louisiana ⁴ -----	6	6	-----	179,911	44,204	22	18	2	2	-----	13,240	1,900
Maryland and District of Columbia, total-----	13	13	3	395,001	167,917	67	63	1	3	-----	56,891	1,860
Incorporated-----	10	10	3	364,695	156,225	59	58	1	-----	-----	51,935	1,860
Unincorporated-----	3	3	-----	30,306	11,692	8	5	-----	3	-----	4,956	-----
Massachusetts ⁵ -----	6	6	-----	135,623	40,689	15	15	-----	-----	-----	19,984	-----
Michigan ⁴ -----	12	12	4	579,627	200,649	97	95	1	1	-----	104,921	3,360
Minnesota ⁵ -----	6	6	1	154,763	113,802	50	49	1	-----	-----	47,250	1,500
Mississippi ³ -----	6	6	-----	186,882	33,556	24	23	-----	1	-----	14,735	-----
Missouri, total-----	15	17	3	346,209	122,837	65	59	3	3	-----	46,583	5,904
Incorporated-----	11	13	2	265,546	102,097	53	50	3	-----	-----	40,142	5,904
Unincorporated-----	4	4	1	80,663	20,740	12	9	-----	3	-----	6,441	-----
Montana, South Dakota, and Wyoming ³ -----	4	4	-----	34,704	20,742	9	8	-----	1	-----	9,035	-----
Nebraska ⁵ -----	3	8	3	122,133	56,854	34	34	-----	-----	-----	22,066	-----
New Hampshire ⁵ -----	3	3	-----	29,394	11,429	7	7	-----	-----	-----	6,346	-----
New Jersey ⁵ -----	10	12	2	479,811	202,115	57	56	1	-----	-----	59,213	3,280
New Mexico ³ -----	4	4	-----	29,038	22,423	22	22	-----	-----	-----	13,408	-----
New York, total-----	33	34	2	1,504,314	419,589	135	127	3	5	-----	173,046	7,049
Incorporated-----	26	27	2	1,060,448	314,862	97	95	2	-----	-----	124,256	6,537
Unincorporated-----	7	7	-----	443,866	104,727	38	32	1	5	-----	48,790	512
North Carolina, total-----	22	23	-----	698,013	183,768	98	94	-----	4	-----	66,331	-----
Incorporated-----	15	15	-----	528,298	148,113	73	73	-----	-----	-----	53,858	-----
Unincorporated-----	7	8	-----	169,715	35,655	25	21	-----	4	-----	12,473	-----

¹ For definition of the industry see table 1, footnote 1.² Companies with operations in more than 1 State are counted only once in the totals.³ Includes statistics for only 1 unincorporated company.⁴ Includes statistics for only 2 unincorporated companies.⁵ Incorporated only; no unincorporated companies were reported.

TABLE 10.—SELECTED STATISTICS FOR INCORPORATED AND FOR UNINCORPORATED OPERATING COMPANIES IN THE COMMON CLAY AND SHALE INDUSTRY IN THE UNITED STATES, BY STATE: 1939¹—Continued

STATE AND TYPE OF OWNERSHIP	Number of operating companies ²	Number of pits and mines	Number of preparation plants	Production of clay and shale (tons of 2,000 pounds)	Value of all products	NUMBER OF PERSONS ENGAGED					Wages	Salaries
						Total	Wage earners (average for the year)	Salaried employees	Proprietors and firm members			
									Total	Performing manual labor		
Ohio, total-----	75	88	12	2,276,002	\$1,367,802	616	595	14	7	1	\$723,706	\$25,939
Incorporated-----	69	82	11	2,152,827	1,254,044	558	544	14	-----	-----	665,547	25,939
Unincorporated-----	6	6	1	123,175	113,758	58	51	-----	7	1	58,159	-----
Oklahoma ⁴ -----	7	9	1	258,096	67,743	37	36	-----	1	-----	24,042	-----
Oregon ³ -----	3	4	-----	31,355	20,215	5	4	-----	1	-----	4,056	-----
Pennsylvania, total-----	58	59	11	1,167,397	560,058	265	255	3	7	1	259,569	4,875
Incorporated-----	41	47	8	1,013,019	453,593	200	197	3	-----	-----	208,569	4,875
Unincorporated-----	12	12	3	154,378	106,465	65	58	-----	7	1	51,000	-----
South Carolina, total-----	11	12	-----	354,233	74,729	49	48	-----	1	-----	29,831	-----
Incorporated-----	5	6	-----	197,409	43,356	22	22	-----	-----	-----	14,402	-----
Unincorporated-----	6	6	-----	156,824	31,373	27	26	-----	1	-----	15,429	-----
Tennessee ⁴ -----	13	16	-----	507,055	136,811	79	76	1	2	-----	50,788	247
Texas, total-----	26	32	1	722,350	255,850	141	136	2	3	-----	91,766	900
Incorporated-----	21	27	1	675,290	231,537	120	118	2	-----	-----	80,342	900
Unincorporated-----	5	5	-----	47,060	24,313	21	18	-----	3	-----	11,424	-----
Utah ³ -----	3	4	-----	29,049	35,374	17	17	-----	-----	-----	20,467	-----
Virginia ⁴ -----	17	17	1	592,995	159,745	85	84	-----	1	-----	60,303	-----
Washington ³ -----	8	10	1	95,655	49,944	30	29	-----	1	1	26,957	-----
West Virginia ⁵ -----	10	10	1	228,112	106,809	62	61	1	-----	-----	50,875	1,295
Wisconsin ⁵ -----	4	4	1	95,789	33,642	17	17	-----	-----	-----	21,840	-----

¹For definition of the industry see table 1, footnote 1.²Companies with operations in more than 1 State are counted only once in the totals.³Includes statistics for only 1 unincorporated company.⁴Includes statistics for only 2 unincorporated companies.⁵Incorporated only; no unincorporated companies were reported.TABLE 11.—SELECTED STATISTICS FOR COMMON CLAY AND SHALE OPERATIONS IN THE UNITED STATES, CLASSIFIED BY VALUE OF PRODUCTS: 1939¹

VALUE OF PRODUCTS	Number of pits and mines	Number of preparation plants	Production of clay and shale (tons of 2,000 pounds)	Value of all products	NUMBER OF PERSONS ENGAGED					Wages	Salaries
					Total	Wage earners (average for the year)	Salaried employees	Proprietors and firm members			
								Total	Performing manual labor		
United States, total-----	609	70	16,061,529	\$6,341,141	3,043	2,906	61	76	8	\$2,793,192	\$94,492
\$1 - \$19,999-----	511	46	11,476,610	3,715,207	1,940	1,841	33	66	5	1,602,191	45,595
\$20,000 - \$49,999-----	56	18	2,745,880	1,704,284	712	692	19	1	-----	763,444	34,506
\$50,000 - \$99,999-----	11	5	1,165,889	699,625	287	278	7	2	-----	355,584	13,776
Unclassified-----	31	1	673,150	222,025	104	95	2	7	3	71,973	615

¹For definition of the industry see table 1, footnote 1. Reports classified by value of products represent a single pit or mine, or a single pit or mine and a single preparation plant reported together. Statistics shown for "Unclassified" represent reports for more than one pit or mine and reports for central offices reported separately from their associated common clay and shale operations.

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TABLE 12.—SELECTED STATISTICS FOR COMMON CLAY AND SHALE OPERATIONS IN THE UNITED STATES, CLASSIFIED BY QUANTITY OF CLAY PRODUCED: 1939¹

QUANTITY OF CLAY PRODUCED (tons of 2,000 pounds)	Number of pits and mines	Number of prepa- ration plants	Production of clay and shale (tons of 2,000 pounds)	Value of all products	NUMBER OF PERSONS ENGAGED					Wages	Salaries
					Total	Wage earners (average for the year)	Salaried employees	Proprietors and firm members			
								Total	Performing manual labor		
United States, total	609	70	16,061,529	\$6,341,141	3,043	2,906	61	76	8	\$2,793,192	\$84,492
1 - 999	2	1	5,093	13,976	11	9	-----	2	-----	5,001	-----
1,000 - 1,999	2	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2,000 - 4,999	22	1	81,500	89,755	71	64	2	5	1	44,782	1,207
5,000 - 9,999	83	11	606,770	401,497	272	253	3	16	1	195,036	2,808
10,000 - 14,999	86	9	1,047,204	530,028	312	296	3	15	2	280,560	4,704
15,000 - 24,999	151	12	2,940,863	1,252,844	662	623	18	21	1	555,139	24,180
25,000 - 34,999	82	12	2,349,741	937,517	481	468	8	5	-----	464,958	12,788
35,000 - 49,999	75	11	3,042,574	1,137,057	445	435	6	4	-----	484,286	9,051
50,000 - 99,999	51	9	3,393,360	1,067,375	390	381	8	1	-----	443,351	19,283
100,000 and over	10	1	1,566,818	571,773	160	158	2	-----	-----	166,538	4,660
Unclassified	45	3	1,027,606	519,519	239	219	11	9	3	205,721	15,851

¹For definition of the industry see table 1, footnote 1. Reports classified by quantity of products represent a single pit or mine or a single pit or mine and a single preparation plant reported together. Statistics shown for "Unclassified" represent: Reports for more than 1 pit or mine, reports on which figures were inadequately reported to permit classification, and reports for central offices reported separately from their associated common clay and shale operations.

TABLE 13.—SELECTED STATISTICS FOR COMMON CLAY AND SHALE OPERATIONS IN THE UNITED STATES, CLASSIFIED BY NUMBER OF WAGE EARNERS: 1939¹

NUMBER OF WAGE EARNERS	Number of pits and mines	Number of prepa- ration plants	Production of clay and shale (tons of 2,000 pounds)	Value of all products	NUMBER OF PERSONS ENGAGED					Wages	Salaries
					Total	Wage earners (average for the year)	Salaried employees	Proprietors and firm members			
								Total	Performing manual labor		
United States, total-----	609	70	16,061,529	\$6,341,141	3,043	2,906	61	76	8	\$2,793,192	\$84,492
None-----	2	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
1 - 5-----	378	26	8,988,093	2,679,667	1,092	1,025	17	50	3	979,603	22,150
6 - 20-----	120	37	4,062,868	2,271,124	1,182	1,141	32	9	1	1,111,279	53,041
21 - 50-----	14	6	993,350	711,935	395	384	9	2	-----	403,487	17,186
Unclassified-----	95	1	2,017,178	678,415	374	356	3	15	4	298,823	2,115

¹For definition of the industry see table 1, footnote 1. Reports classified by average number of wage earners employed during the year represent a single pit or mine or a single pit or mine and a single preparation plant reported together. Statistics shown for "Unclassified" represent: Reports for more than one pit or mine; reports on which number of wage earners, by month, was not adequately reported; and reports for central offices reported separately from their associated common clay and shale operations.

TABLE 14.—SELECTED STATISTICS FOR COMMON CLAY AND SHALE OPERATIONS IN THE UNITED STATES, CLASSIFIED BY NUMBER OF HOURS PER WAGE EARNER IN THE FULL-TIME WORKWEEK: 1939¹

HOURS PER WEEK	Number of pits and mines	Number of preparation plants	Production of clay and shale (tons of 2,000 pounds)	Value of all products	NUMBER OF PERSONS ENGAGED				Wages	Salaries	
					Total	Wage earners (average for the year)	Salaried employees	Proprietors and firm members			
								Total	Performing manual labor		
United States, total	609	70	16,061,529	\$6,341,141	3,043	2,906	61	76	8	\$2,793,192	\$94,492
1 - 34	10	—	169,976	74,467	48	45	—	3	—	40,285	—
35 - 39	8	2	213,103	119,791	60	54	3	3	—	56,003	4,712
40 - 44	8	—	152,763	54,707	23	23	—	—	—	23,507	—
45 - 49	150	27	4,255,355	1,959,210	912	876	23	13	1	898,722	36,330
50 - 54	115	21	3,209,425	1,471,726	691	662	19	10	—	642,136	28,395
55 - 59	85	7	2,090,272	777,475	370	359	5	6	—	324,060	8,370
60 and over	3	—	90,597	19,346	6	6	—	—	—	7,758	—
Unclassified	55	4	1,901,947	574,087	187	173	5	9	—	207,529	9,935
	5	1	187,324	43,383	30	29	—	1	—	23,963	—
	11	—	379,161	109,770	48	44	—	4	—	33,368	—
	3	—	—	—	—	—	—	—	—	—	—
	158	8	3,441,626	1,137,179	668	635	6	27	7	536,058	6,750

¹For definition of the industry see table 1, footnote 1. Reports were classified by number of hours in the full-time workweek reported for wage earners in that department of the operation for which the largest number of man-hours worked was reported. Statistics shown for "Unclassified" represent: Reports on which number of hours was not reported; reports on which no wage earners were reported; and reports for central offices reported separately from their associated common clay and shale operations.

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TABLE 15.—SELECTED STATISTICS FOR COMMON CLAY AND SHALE OPERATIONS IN THE UNITED STATES, CLASSIFIED BY NUMBER OF DAYS ACTIVE DURING THE YEAR: 1939¹

NUMBER OF DAYS ACTIVE DURING YEAR	Number of pits and mines	Number of preparation plants	Production of clay and shale (tons of 2,000 pounds)	Value of all products	NUMBER OF PERSONS ENGAGED					Wages	Salaries
					Total	Wage earners (average for the year)	Salaried employees	Proprietors and firm members			
								Total	Performing manual labor		
United States, total	609	70	16,061,529	\$6,341,141	3,043	2,906	61	76	8	\$2,793,192	\$94,492
1 - 49	11	1	187,936	45,611	24	22	1	1		16,075	960
50 - 99	35	3	493,434	214,138	158	146	4	8	1	91,227	2,377
100 - 149	76	9	1,293,207	449,199	230	219	1	10	1	180,328	2,400
150 - 199	96	14	1,974,481	960,584	510	484	11	15	1	466,023	20,846
200 - 249	59	5	1,518,425	615,174	281	265	11	5	1	248,854	14,599
250 - 299	73	13	2,070,659	887,706	446	430	6	10	1	444,350	12,380
300 - 274	74	9	2,400,655	1,007,328	420	404	11	5		410,921	17,718
275 - 299	55	9	2,446,653	947,092	429	419	7	3		445,284	9,421
300 - 324	58	4									
325 and over	1	1									
Unclassified	71	2	1,371,467	460,736	242	227	2	13	3	180,919	615

¹For definition of the industry see table 1, footnote 1. Reports classified by number of days active represent a single pit or mine or a single pit or mine and a single preparation plant reported together; such reports were classified by number of days the pit or mine was in operation for production or development purposes during the year. Statistics shown for "Unclassified" represent: Reports for more than one pit or mine; reports on which number of days active was not reported; and reports for central offices reported separately from their associated common clay and shale operations.

TABLE 16.—SELECTED STATISTICS FOR COMMON CLAY AND SHALE OPERATIONS IN THE UNITED STATES, CLASSIFIED BY OUTPUT PER MAN-HOUR: 1939¹

TONS (2,000 POUNDS) OF CLAY PER MAN-HOUR	Number of pits and mines	Number of preparation plants	Production of clay and shale (tons of 2,000 pounds)	Value of all products	NUMBER OF PERSONS ENGAGED					Wages	Salaries
					Total	Wage earners (average for the year)	Salaried employees	Proprietors and firm members			
								Total	Performing manual labor		
United States, total-----	609	70	16,061,529	\$6,341,141	3,043	2,906	61	76	8	\$2,793,192	\$94,492
Less than 0.60-----	18	6	184,378	243,059	181	174	4	3	-----	134,772	5,826
0.60 - 0.99-----	35	8	477,185	517,842	310	296	9	5	-----	296,825	12,585
1.00 - 1.99-----	93	21	1,902,963	1,294,154	747	720	16	11	-----	674,678	21,534
2.00 - 2.99-----	79	17	2,080,057	948,715	449	431	8	10	-----	419,039	13,488
3.00 - 3.99-----	60	5	1,476,345	522,805	246	236	3	7	-----	226,488	7,260
4.00 - 4.99-----	37	1	887,999	270,565	111	105	2	4	-----	99,636	6,537
5.00 - 5.99-----	34	-----	1,025,901	251,817	99	91	2	6	-----	95,180	1,400
6.00 - 6.99-----	24	1	916,207	217,789	71	68	1	2	-----	80,707	512
7.00 - 7.99-----	38	3	1,518,857	381,185	117	110	4	3	-----	112,264	6,340
8.00 - 8.99-----	29	1	1,444,576	299,896	82	77	2	3	-----	97,095	3,474
9.00 - 11.99-----	28	-----	1,169,392	180,849	51	49	-----	2	-----	59,559	-----
12.00 and over-----	28	-----	1,169,392	180,849	51	49	-----	2	-----	59,559	-----
Unclassified-----	136	7	2,997,669	1,212,665	579	549	10	20	8	497,149	15,756

¹For definition of the industry see table 1, footnote 1. Reports classified by output per man-hour represent a single pit or mine or a single pit or mine and a single preparation plant reported together. Statistics shown for "Unclassified" represent: Reports for more than 1 pit or mine; reports on which figures were inadequately reported to permit classification; and reports for central offices reported separately from their associated common clay and shale operations.