

---

---

**MINERAL PRODUCTION IN IOWA**

IN 1907

BY

**S. W. BEYER**

---

---



VALUE OF MINERAL PRODUCTION.

1905

Coal.....	\$10,495,593
Clay.....	3,408,547
Stone.....	533,509
Gypsum.....	589,055
Lead.....	1,500
Sand-lime brick.....	38,642
Mineral water*.....	36,200
Total.....	\$15,103,046

1906

Coal.....	\$11,619,455
Clay.....	3,477,237
Stone including lime.....	577,782
Gypsum.....	573,498
Lead and zinc.....	26,300
Sand-lime brick.....	38,225
Mineral water*.....	27,540
Sand and gravel.....	74,380
Total.....	\$16,414,447

\* Mineral paint is combined with mineral water.

1907

Coal.....	\$12,258,012
Clay.....	3,733,476
Stone including lime.....	648,135
Gypsum.....	730,383
Lead and Zinc.....	58,400
Sand-lime brick.....	55,618
Mineral waters*.....	33,400
Sand and Gravel.....	110,501
Total.....	\$17,627,925

\* Mineral paints and iron ore are included with mineral waters.

**MINERAL PRODUCTION IN IOWA FOR 1907 \***

BY S. W. BEYER.

The mineral production for 1907 shows an increase in every department. The total increase amounts to more than a million of dollars. Coal shows the largest total increase while lead and zinc attain the highest per cent. The prices in all lines ruled

\* Data for tables supplied by United States Geological Survey.

higher on the average than they have since the organization of the present Survey. The returns show a falling off in the number of producers in all lines save in Gypsum and Lead and Zinc. The greatest reduction in number of producers appears in clay and stone although both show a good growth in total production.

Table number I gives the total mineral production by counties and follows herewith:

TABLE No. 1.  
VALUE OF TOTAL MINERAL PRODUCTION BY COUNTIES FOR 1907.

Counties	No. of producers	Coal	Clay	Stone and Lime	Miscellaneous	Total Value
Adair.....	3	\$.....	\$ 10,700	\$.....	\$.....	\$ 10,700
Adams.....	8	33,628	17,670	.....	.....	51,298
Allamakee.....	5	.....	.....	4,371	900	5,271
Appanoose.....	44	2,153,205	21,974	.....	176	2,175,355
Audubon.....	1	.....	.....	.....	.....	.....
Benton.....	9	.....	24,995	355	.....	25,350
Black Hawk.....	20	.....	.....	20,770	45,682	66,452
Boone.....	11	415,136	115,632	.....	.....	530,768
Bremer.....	1	.....	.....	.....	.....	.....
Buena Vista.....	3	.....	41,500	.....	.....	41,500
Butler.....	1	.....	.....	.....	.....	.....
Calhoun.....	3	.....	37,200	.....	.....	37,200
Carroll.....	1	.....	.....	.....	.....	.....
Cass.....	4	.....	14,875	.....	.....	14,875
Cedar.....	2	.....	.....	.....	.....	.....
Cerro Gordo.....	7	.....	527,103	19,075	.....	546,178
Chickasaw.....	1	.....	.....	.....	.....	.....
Clarke.....	4	.....	.....	1,138	.....	1,138
Clay.....	1	.....	.....	.....	.....	.....
Clayton.....	13	.....	4,714	11,625	1,200	17,539
Clinton.....	10	.....	15,620	3,847	32,262	51,729
Crawford.....	2	.....	10,440	.....	.....	10,440
Dallas.....	11	.....	188,414	157	.....	188,571
Davis.....	2	.....	.....	.....	.....	.....
Decatur.....	4	.....	1,560	903	.....	2,463
Delaware.....	6	.....	5,100	479	.....	5,579
Des Moines.....	13	.....	36,770	24,942	100	61,812
Dubuque.....	27	.....	24,000	33,212	59,696	116,908
Emmet.....	1	.....	.....	.....	.....	.....
Fayette.....	7	.....	16,675	2,490	315	19,480
Floyd.....	7	.....	.....	2,352	708	3,060
Franklin.....	.....	.....	.....	.....	.....	.....
Fremont.....	3	.....	2,910	.....	.....	2,910
Greene.....	7	33,645	29,032	.....	.....	62,677
Grundy.....	2	.....	32,540	.....	.....	32,540
Guthrie.....	9	36,161	31,336	.....	.....	67,497
Hamilton.....	3	.....	70,952	.....	.....	70,952
Hancock.....	2	.....	10,166	.....	.....	10,166
Hardin.....	15	.....	70,341	34,521	1,406	105,268
Harrison.....	4	.....	9,250	.....	.....	9,250
Henry.....	5	.....	18,888	.....	.....	18,888

## TOTAL PRODUCTION BY COUNTIES.

15

TABLE No. 1—CONTINUED.

Counties	No. of pro- ducers	Coal	Clay	Stone and Lime	Miscel- laneous	Total Value
Howard.....	5	\$.....	\$.....	\$ 1,555	\$ 10	\$ 1,565
Humboldt.....	1					
Ida.....	1					
Iowa.....	5		32,100			32,100
Jackson.....	13			60,685		60,685
Jasper.....	5	641,386	33,640			675,026
Jefferson.....	5		55,531			55,531
Johnson.....	7		21,475		362	21,837
Jones.....	13		11,777	72,408		84,185
Keokuk.....	20	63,603	61,124	895		125,622
Kossuth.....	1					
Lee.....	20		9,265	35,399		44,644
Linn.....	19		20,463	45,325	24,074	89,862
Louisa.....	6		6,440	1,145		7,585
Lucas.....	3					
Madison.....	5			27,607		27,607
Mahaska.....	24	1,107,695	70,353			1,178,048
Marion.....	13	489,968	43,400		667	534,035
Marshall.....	11		27,960		3,000	30,960
Mills.....	4		17,875			17,875
Mitchell.....	1					
Monroe.....	12	3,432,799				3,432,799
Montgomery.....	8		19,377		900	20,277
Muscatine.....	12		30,711		3,743	34,454
Osceola.....	2				786	786
Page.....	12		33,360		4,262	37,622
Palo Alto.....	2				375	375
Plymouth.....	1					
Pocahontas.....	2		58,000			58,000
Polk.....	51	2,529,838	606,229		31,829	3,167,896
Pottawattamie.....	6		40,626			40,626
Poweshiek.....	3		15,716			15,716
Ringgold.....	1					
Scott.....	17		38,720	146,093	5,000	189,818
Shelby.....	1					
Sioux.....	1					
Story.....	3		31,769			31,769
Tama.....	6		61,733			61,733
Taylor.....	6	46,481	8,024			54,505
Union.....	2		34,550			34,550
Van Buren.....	10	30,913	8,500	563		39,976
Wapello.....	17	410,298	53,152	24,950	3,140	491,540
Warren.....	5		3,060			3,060
Washington.....	11		46,866	589		47,455
Wayne.....	6	286,949	3,600			290,549
Webster.....	29	167,547	315,390		733,898	1,216,835
Winnebago.....	1					
Winneshiek.....	1					
Woodbury.....	5		285,249			285,249
Worth.....	1					
Wright.....	24		43,146		2,419	45,565
Single and small pro- ducers.....	7	378,760	189,247	70,679	36,083	674,769
Total.....	724	\$12,258,012	\$3,728,785	\$648,135	\$992,993	\$17,627,925

**Coal.**

All of the leading coal producing counties show an increased production save Boone, Lucas and Webster counties. Lucas has dropped from the list of large producers. The average price per ton, the average number of days worked and average number of men employed were higher than for the preceding year, in fact higher than during the last decade. The output, total value and number of men employed were the largest in the history of the industry for Iowa. The table below shows the growth in tonnage, value, average price per ton, average number of days worked and average number of men employed during the past nine years, according to the authority of the United States Geological Survey.

Year	Total Tons	Value	Average Price	Average Number of Days Worked	Average Number of Men Employed
1899	5,177,479	\$ 6,397,338	\$ 1.24	229	10,971
1900	5,202,939	7,155,341	1.38	228	11,608
1901	5,617,499	7,822,805	1.39	218	12,653
1902	5,904,766	8,660,287	1.47	227	12,434
1903	6,365,233	10,439,139	1.64	232	13,583
1904	6,507,655	10,439,496	1.60	213	15,373
1905	6,798,609	10,586,381	1.56	209	15,113
1906	7,266,224	11,619,455	1.60	224	15,260
1907	7,574,322	12,258,012	1.62	230	15,585

The output, disposition, value, average price per ton, average number of days worked and average number of men employed by counties is given in tabulated form below.

TABLE No. II.  
COAL PRODUCTION OF IOWA IN 1907, BY COUNTIES.

Counties	Loaded at mines for shipment	Sold to local trade and used by employees	Used at mines for steam and heat	Total quantity	Total value	Average price per ton	Average number of days active	Average number of employees
	Short Tons	Short Tons	Short Tons	Short Tons				
Adams.....	210	14,090	43	14,343	\$ 33,628	\$ 2.30	138	45
Appanoose.....	1,052,972	60,067	10,370	1,123,409	2,153,205	1.93	203	3,546
Boone.....	183,495	17,205	7,450	208,150	415,136	1.99	188	805
Greene.....	2,707	12,723	859	16,289	33,645	2.07	159	52
Guthrie.....		13,806	34	13,840	36,161	2.61	172	60
Jasper.....	370,114	7,503	19,680	397,297	641,386	1.61	242	741
Keokuk.....		27,176	540	27,716	63,603	2.29	234	30
Mahaska.....	702,892	33,810	21,076	757,778	1,107,695	1.46	224	1,436
Marion.....	310,496	27,682	8,821	346,999	489,968	1.41	229	500
Monroe.....	2,358,681	53,278	64,062	2,476,021	3,432,799	1.39	263	3,661
Polk.....	1,224,780	199,492	35,931	1,460,203	2,529,838	1.73	238	2,931
Taylor.....	13,871	5,761	60	19,692	46,481	2.36	227	76
Van Buren.....	12,542	2,775	57	15,374	30,913	2.01	202	37
Wapello.....	179,781	75,546	3,324	258,651	410,298	1.59	237	488
Wayne.....	134,586	12,315	.....	146,901	286,949	1.95	255	438
Webster.....	67,289	11,028	1,958	80,275	167,547	2.09	230	227
Other counties (a) and small mines.....	159,728	43,514	8,142	211,384	378,760	1.79	197	512
Total.....	6,774,144	617,771	182,407	7,574,322	\$ 12,258,012	\$ 1.62	230	15,585

a Dallas, Davis, Jefferson, Lucas, Page, Scott and Warren.

COAL PRODUCTION.

The following table, compiled upon the authority of the United States Geological Survey, shows the production of bituminous coal by the ten leading coal producing states of the Union during 1906. It will be noticed that Iowa maintained her position as ninth in the list according to total tonnage while she holds eighth place in the value of the output.

The second table, from the same authority as the first, gives the production of the ten states which produced the largest amounts during 1907, and shows that Iowa kept the same relative position, both as to amount and value of output, as she held in the preceding year.

TEN LEADING PRODUCING STATES IN 1906.

State	Total tons	Value	Average price per ton	Average No. days worked	Average No. men employed
1. Pennsylvania.....	129,293,206	\$130,290,651	\$ 1.00	231	152,099
2. West Virginia.....	43,290,350	41,051,939	.95	220	50,960
3. Illinois.....	41,480,104	44,763,062	1.08	192	61,988
4. Ohio.....	27,731,640	30,346,580	1.09	167	45,438
5. Alabama.....	13,107,963	17,514,786	1.34	237	20,555
6. Indiana.....	12,092,560	13,116,261	1.08	175	20,970
7. Colorado.....	10,111,218	12,735,616	1.26	268	11,368
8. Kentucky.....	9,653,647	9,809,938	1.02	212	15,272
9. Iowa.....	7,266,224	11,619,455	1.60	224	15,260
10. Tennessee.....	6,259,275	7,667,415	1.22	229	11,452
Whole United States. ....	342,874,867	\$381,162,115	\$ 1.11	213	478,425

TEN LEADING PRODUCING STATES IN 1907.

State	Short Tons	Value
1. Pennsylvania.....	150,321,437	\$155,837,770
2. Illinois.....	51,317,146	54,687,382
3. West Virginia.....	48,091,583	47,846,630
4. Ohio.....	32,142,419	35,324,746
5. Alabama.....	14,250,454	18,405,468
6. Indiana.....	13,985,713	15,114,300
7. Colorado.....	10,790,236	15,079,449
8. Kentucky.....	10,753,124	11,405,038
9. Iowa.....	7,574,322	12,258,012
10. Kansas.....	7,322,449	11,159,698
Whole United States.....	480,450,042	\$ 614,831,549





TABLE NO. III—CONTINUED.

Counties	Number of producers	Common Brick	Paving Brick or Block	Face Brick	Drain Tile	Miscellaneous	Total Value
Clayton.....	3	4,714					4,714
Clinton.....	2	10,570			5,050		15,620
Crawford.....	2	10,000		440			10,440
Dallas.....	6	9,420			176,737	2,257	188,414
Davis.....	1						
Decatur.....	2	1,060			500		1,560
Delaware.....	2	1,100				4,000	5,100
Des Moines....	4	27,085	776	2,109	6,600	200	36,770
Dubuque.....	2	24,000					24,000
Emmet.....	1						
Fayette.....	2	10,675				6,000	16,675
Floyd.....	1						
Fremont.....	3	2,910					2,910
Greene.....	2	380			28,652		29,032
Grundy.....	2	6,841		14,429	11,270		32,540
Guthrie.....	4	8,437			20,751	2,148	31,336
Hamilton.....	2	10,400			57,552	3,000	70,952
Hancock.....	2				10,166		10,166
Hardin.....	4	1,920			68,421		70,341
Harrison.....	4	7,750				1,500	9,250
Henry.....	4	2,000			16,888		18,888
Howard.....	1						
Humboldt.....	1						
Ida.....	1						
Iowa.....	5	15,000			17,100		32,100
Jasper.....	7	12,930			20,310	400	33,640
Jackson.....	1						
Jefferson.....	4	7,420			45,611	2,500	55,531
Johnson.....	4	12,075			9,000	400	21,475
Jones.....	3	2,605			9,172		11,777
Keokuk.....	11	7,635			53,184	305	61,124
Kossuth.....	1						
Lee.....	3	8,185		1,000	80		9,265
Linn.....	6	13,620			6,843		20,463
Louisa.....	2	1,040			5,400		6,440
Lucas.....	1						
Madison.....	1						
Mahaska.....	5	20,366	18,000	2,019	28,168	1,800	70,353
Marion.....	3	16,400			24,000	3,000	43,400
Marshall.....	8	9,780		660	17,520		27,960
Mills.....	4	17,375			500		17,875
Montgomery..	5	11,589			2,563	5,225	19,377
Muscatine....	9	19,111			4,000	7,600	30,711
Page.....	6	30,600			2,760		33,360
Palo Alto.....	1						
Plymouth.....	1						
Pocahontas...	2	2,000			56,000		58,000
Polk.....	15	143,918	151,427	35,373	150,887	124,624	606,229
Pottawattamie	6	40,626					40,626
Poweshiek....	3	5,040			8,676	2,000	15,716
Ringgold.....	1						
Scott.....	6	16,380	3,500		3,100	15,740	38,720
Shelby.....	1						
Sioux.....	1						

## CLAY PRODUCTION BY COUNTIES.

21

TABLE No. III—CONTINUED.

Counties	Number of producers	Common Brick	Paving Brick or Block	Face Brick	Drain Tile	Miscellaneous	Total Value
Story .....	3	4,350			26,900	519	31,769
Tama .....	5	20,629		15,804	25,300		61,733
Taylor .....	3	4,977			2,776	271	8,024
Union .....	2	22,400			12,150		34,550
Van Buren .....	3	3,400			5,100		8,500
Wapello .....	3	22,535	3,588	6,572	15,501	4,956	53,152
Warren .....	3	1,260			1,800		3,060
Washington .....	7	6,080			40,786		46,866
Wayne .....	2	3,600					3,600
Webster .....	8	37,110		3,000	218,634	56,646	315,390
Winnebago .....	1						
Winneshieki .....	1						
Woodbury .....	5	239,222	10,656	5,907		29,434	285,249
Worth .....	1						
Wright .....	4	1,100			42,046		43,146
Single Producers .....	25	58,452			128,925	1,870	189,247
Totals .....	277	\$1,085,383	\$223,193	\$ 96,316	\$2,011,793	\$312,100	\$ 3,728,785

Iowa ranked ninth in the total production for 1907, maintaining her rank and showing an increase in production over the preceding year of 2.27 per cent against an average of 7.57 per cent for the whole United States. The ten leading producers, with number of firms in operation, value and percentage of total products, are given below.

State	No. of operating firms reporting	Value	Percentage of total product
Ohio .....	784	\$ 31,014,165	19.26
Pennsylvania .....	514	21,774,611	13.52
New Jersey .....	175	17,362,269	10.78
New York .....	253	13,876,607	8.62
Illinois .....	466	12,634,181	7.85
Indiana .....	419	7,158,234	4.44
Missouri .....	190	6,696,275	4.16
California .....	113	4,364,230	2.71
Iowa .....	304	3,469,027	2.15
West Virginia .....	65	2,783,312	1.73
Total for United States .....	5,857	\$ 161,032,722	100.00

The outlook for 1908 is very favorable to increased production, especially in drain tile and sewer pipe. Large plants are in process of building or have recently been built at Lehigh, Fort Dodge, Mason City, Sheffield and Fertile.

### Pottery.

The reduction in pottery production was due to the closing of the plants in Des Moines, Marshall and Webster counties. The Fort Dodge Stoneware Company was the largest producer in the state. The product for 1907 was as follows:

Red Earthen Ware.....	\$ 8,250
Stoneware.....	7,132
Miscellaneous.....	3,500
Total.....	\$18,882

The outlook for 1908 is for an increased output due to the rebuilding of the plant at Fort Dodge and the re-opening of the plant at Marshalltown.

### Clay.

The production and sale of raw clay shows considerable increase over preceding years. More than ten thousand tons were marketed during the year. The clays produced were classified as follows:

Kind	Quantity in Short Tons	Value
Fire Clay.....	3,732	\$2,841
Brick Clay.....	225	315
Miscellaneous.....	6,055	1,535
Total.....	10,012	\$4,691

**Stone.**

The quarry production for 1907 shows a large increase in the quantity and value of crushed stone produced. There was little change along other lines. The output for the year was distributed as follows:

Kind	Amount in Short Tons	Value
Limestone—		
Rough building.....		\$108,992
Dressed building.....		34,663
Paving.....		23,411
Curbing.....		1,345
Flagging.....		3,682
Rubble.....		72,232
Riprap.....		46,146
Crushed stone—		
Road making.....	101,696	69,817
Railway ballast.....	158,651	77,571
Concrete.....	186,636	118,682
Other uses.....		4,041
Lime burned.....	19,944	84,011
Total.....		\$644,593
Sandstone.....		3,542
Total.....		\$648,135

TABLE NO. IV.  
PRODUCTION OF LIMESTONE IN 1907.

Counties	Number of producers	Rough building	Dressed building	Paving, curbing, flagging	Rubble, riprap	Crushed Stone			Lime	Other uses	Total value
						Road-making	Railroad ballast	Concrete			
Allamakee.....	3	\$ 871	\$ 3,500	\$ .	\$ .	\$ .	\$ .	\$ .	\$ .	\$ 4,371	
Appanoose.....	1	.	.	.	.	.	.	.	.	.	
Benton.....	3	290	.	.	50	.	.	.	15	355	
Black Hawk.....	7	10,596	.	3,074	1,000	2,000	100	4,000	.	20,770	
Bremer.....	1	.	.	.	.	.	.	.	.	.	
Cedar.....	1	.	.	.	.	.	.	.	.	.	
Cerro Gordo.....	3	1,200	250	125	1,200	.	.	\$16,000	300	19,075	
Chickasaw.....	1	.	.	.	.	.	.	.	.	.	
Clarke.....	3	1,138	.	.	.	.	.	.	.	1,138	
Clayton.....	10	6,520	2,000	440	900	210	.	600	450	11,625	
Clinton.....	4	815	.	.	20	3,000	.	.	.	3,835	
Dallas.....	2	157	.	.	.	.	.	.	.	157	
Decatur.....	2	192	.	.	93	614	.	.	.	903	
Delaware.....	4	115	.	.	335	.	.	.	29	479	
Des Moines.....	4	8,275	2,500	1,500	2,225	10,000	.	.	.	24,500	
Dubuque.....	12	9,906	3,211	940	6,126	950	387	3,819	7,851	33,212	
Fayette.....	4	2,180	115	.	.	30	.	15	.	2,490	
Floyd.....	5	925	40	412	175	800	.	.	.	2,352	
Hamilton.....	1	.	.	.	.	.	.	.	.	.	
Hardin.....	9	2,575	.	.	4,990	5,299	5,531	13,710	1,260	33,365	
Henry.....	1	.	.	.	.	.	.	.	.	.	
Howard.....	3	1,355	.	200	.	.	.	.	.	1,555	
Humboldt.....	1	.	.	.	.	.	.	.	.	.	
Jackson.....	6	725	.	.	.	250	.	59,710	.	60,685	
Johnson.....	1	.	.	.	.	.	.	.	.	.	
Jones.....	9	10,513	15,000	4,586	28,954	1,475	3,124	7,991	.	71,643	
Keokuk.....	5	529	.	.	354	12	.	.	.	895	

Lee.....	15	5,985	300	100	3,705	16,900		8,250			35,240
Linn.....	7	714			9,719	15,005	12,697	6,036		1,154	45,325
Louisa.....	4	985			55			105			1,145
Madison.....	4	5,418			5,175	4,882	5,200	6,932			27,607
Mahaska.....	1										
Marshall.....	1										
Mitchell.....	1										
Montgomery.....	1										
Pocahontas.....	1										
Scott.....	7	11,918			29,722	8,390	45,824	50,241			146,095
Tama.....	1										
Van Buren.....	4	400			50			38		75	563
Wapello.....	5	8,190		1,050	12,100			3,610			24,950
Washington.....	4	457		3	110					19	589
Single and small producers.....		16,048	7,747	16,008	11,320		4,708	13,335		1,013	70,179
Total... ..	162	\$ 108,992	\$ 34,663	\$ 28,438	\$ 118,378	\$ 69,817	\$ 77,571	\$ 118,682	\$ 84,011	\$ 4,041	\$644,593

LIMESTONE PRODUCTION.

**Sand and Gravel.**

The sand and gravel industry shows a rapid growth, keeping pace with the increased use of cement. It is impossible to secure complete returns even from the commercial producers and the figures given below do not tell the whole truth.

The production reported by fifty-three producers representing twenty-two counties may be classified as follows:

Kind	Quantity in Short Tons	Value
Molding sand .....	6,633	\$ 7,508
Building sand.....	214,005	69,856
Engine sand.....	25,945	5,285
Furnace sand.....	3,000	1,200
Other sand.....	93,405	9,771
Gravel.....	118,796	16,881
<b>Total.....</b>	<b>461,784</b>	<b>\$ 110,501</b>

TABLE NO. V.  
VALUE OF SAND AND GRAVEL PRODUCED IN IOWA IN 1907.

County	Number of producers	Molding sand	Building sand	Engine sand	Furnace sand	Other sand	Gravel	Total
Appanoose.....	1							
Black Hawk....	10	\$ 1,800	\$ 18,151	\$ 1,000		\$ 5,500	\$ 1,000	\$ 27,451
Clayton.....	1							
Clinton.....	1							
Des Moines....	1							
Dubuque.....	2	340	846					1,186
Floyd.....	1							
Hardin.....	1							
Howard.....	1							
Johnson.....	2	62	280			10	10	362
Linn.....	5	222	10,063			825	150	11,260
Marion.....	1							
Marshall.....	1							
Montgomery...	1							
Muscatine....	2		1,400				2,343	3,743
Osceola.....	2					381	405	786
Page.....	4	12	4,250					4,262
Palo Alto....	1							
Polk.....	9	1,867	22,043	3,200		105	4,614	31,829
Scott.....	1							
Wapello.....	2		3,140					3,140
Wright.....	2		2,000				419	2,419
Single and small producers....	1	3,205	7,683	1,085	1,200	2,950	7,940	24,063
<b>Total.....</b>	<b>53</b>	<b>\$ 7,508</b>	<b>\$ 69,856</b>	<b>\$ 5,285</b>	<b>\$ 1,200</b>	<b>\$ 9,771</b>	<b>\$ 16,881</b>	<b>\$ 110,501</b>

**Lead and Zinc.**

The high prices for pig lead and spelter during the early part of 1907 greatly stimulated mining operations in the Dubuque



region. Lead ore reached the highest price in several decades, ranging from \$42.00 to \$20.00 per thousand pounds at the mines. The latter price was reached shortly after the money stringency in the east. The average price for the year was \$38.00 per thousand pounds for lead ore and \$30.00 per ton for sphalerite. The amount of ore sold for the year was:

	Quantity in Pounds	Value
Lead ore.....	1,300,000	\$ 49,400
Zinc ore.....	600,000	9,000

A number of companies produced some "dry bone" and "jack" which is still held in stock. The Avenue Top Company completed and put into operation a fifty ton mill during the year.

The outlook for 1908 is not especially encouraging owing to decreased prices.

**Mineral Water.**

The amount of mineral water sold was less than for the preceding year although the price received was greater. The springs at Colfax in Jasper county still contribute the larger portion of the water sold. The amount and value of the water sold during 1907 was as follows:

Medicinal water.....	\$23,633
Table water .....	6,867
Total.....	\$30,500

The total amount sold was 127,200 gallons at an average of twenty-five cents per gallon.

**Gypsum.**

The gypsum mined was somewhat less than for 1906 but both amount sold and the price received exceed the tonnage and value of the production for the preceding year. The statistics of the industry for 1907 are as follows:

	Short Tons	Value
Crude gypsum mined.....	251,874	.....
Distributed as follows:		
Sold crude—		
To Portland cement mills .....	14,295	\$ 21,860
As land plaster.....	1,562	4,278
To plaster mills .....	1,777	1,777
Miscellaneous uses.....	1,200	1,200
Sold burned—		
Plaster of Paris, wall plaster, etc.....	153,965	656,268
Other purposes .....	9,000	45,000
Total.....	181,799	\$ 730,383

### Sand-lime Brick.

The sand-lime brick industry shows no growth in number of plants operating. In fact the plant under construction at Sioux City was not in operation during 1907. The output for the year was greater than for 1906. The product was distributed as follows:

	Number in Thousands	Value
Common brick.....	6,295	\$ 45,471
Front brick.....	565	6,334
Miscellaneous.....		3,813
Total.....		\$ 55,618

### Iron.

The Missouri Iron Company continued their experimental work during the year and completed the installation of their washer plant. A small amount of ore was shipped.

### Portland Cement.

The Northwestern States Portland Cement Company did not complete their plant at Mason City before the close of the year. The plant was put in operation in February, 1908, and at the present time is turning out an excellent grade of Portland cement.

The Iowa Portland Cement Company of Des Moines and the Hawkeye Portland Cement Company at Harvey in Marion county will scarcely complete their plants in time to become producers during 1908.

The price of cement to the consumers is considerably less than it was during the preceding year, ranging from fifteen to thirty per cent.

### Peat.

During the year a plant for the briquetting of peat was installed near Fertile in Worth county. The industry was started too late in the season to become a producer during the year 1907 and is still in the experimental stage. The plant is expected to have a capacity of twenty tons of dry peat per day.