MINERAL PRODUCTION OF IOWA

IN 1903

BY

S. W. BEYER.

VALUE OF MINERAL PRODUCTION.

1902.

Coal	$ 8,058,779
Clay	2,843,591
Stone	673,591
Gypsum	337,735
Lead	11,178
Total	$11,924,644

1903.

Coal	$10 439,139
Clay	3,033,583
Stone	597,965
Gypsum	523,008
Lead	3,013
Total	$14,596,708

MINERAL PRODUCTION IN IOWA FOR 1903.

BY S. W. BEYER.

In the production for 1903, Iowa shows a gain of more than 21 per cent in the selling value of her mineral products marketed. Coal, clay goods and gypsum show substantial increases, while a falling off is recorded in lead and quarry products. No zinc or iron was sold during the year.

The number of producers for the various mineral industries of the state is shown below in parallel columns for the years 1900 to 1903 inclusive.

	1900	1901	1902	1903
Coal	231	242	274	271
Clay	381	349	329	296
Stone	170	229	273	197
Gypsum	7	7	7	8
Lead and zinc	6	10	8	8
Iron	1	1	...	...
	796	838	891	780

The number of producers reporting shows a marked decrease owing to the continued wet weather which made the "summer brickyard" unprofitable and many of the smaller quarries impossible.

The statistics were gathered as usual through the co-operation of the Federal and State Geological Surveys.

The value of the total mineral production in Iowa for 1903 is shown in Table I.

TABLE No. 1.

VALUE OF TOTAL MINERAL PRODUCTION BY COUNTIES FOR 1903.

COUNTIES.	Number of producers	TOTAL COAL.	TOTAL CLAY.	TOTAL STONE.	MISCELLANEOUS	TOTAL.
Adair	3	$.....	$ 14,360	$.	$.....	$ 14,360
Adams	26	57,700	27,230	..	.....	84,930
Allamakee	4	.....	.....	479	....	479
Appanoose	54	1,784,682	.....	710	.....	1,785,392
Aububon	1	.....	.....	....	.....	.....
Benton	9	.....	22,015	1,165		23 180
Black Hawk	9	.....	10,375	15,492	.....	25,867
Boone	14	599,040	82,966	.....	.....	682,006
Bremer	2	.....	2,193	.....	.....	2,193
Buena Vista	3	.....	17,026	.....	.....	17,026
Buchanan	1	.....	.....	.. ..	.....	.....
Butler	1	.....	.....	.....	.....	.....
Calhoun	3	.....	13,745	.....	.....	13,745
Carroll	1	.....	.....	.. ..	.....	.....
Cass	2	.....	10,596	.....	.....	10,596
Cedar	4	.....	.....	59,782	....	59,782
Cerro Gordo	8	.....	258,415	34,145	.....	292,560
Cherokee	1	.....	.....	..	.....	.....
Clarke	5	.....	.....	882	.....	882
Clay	1	.....	.....	.....	.....	.....
Clayton	9	.....	13,622	14,888	.....	28,510
Clinton	12	.....	10,200	4,570	.. ..	14,770

TABLE No. I—CONTINUED.

COUNTIES.	Number of producers.	TOTAL COAL	TOTAL CLAY	TOTAL STONE.	MISCELLANEOUS	TOTAL.
Crawford	2	$	$ 11,500	$	$	$ 11,500
Dallas	21	36,424	96,625	20,126		153,175
Davis	3		510			510
Decatur	6		4,750	8,769		13,519
Delaware	4		7,300	5,240		12,540
Des Moines	11		27,020	7,877		34,897
Dubuque	15		35,595	54,951	3,013	93,559
Fayette	7		15,900	7,375		23,275
Floyd	5			5,050		5,050
Fremont	5		9,750			9,750
Franklin	1					
Greene	10	57,580				57,580
Grundy	3		1,742			1,742
Guthrie	6	13,728	21,354			35,082
Hamilton	7		65,040			65,040
Hancock	1					
Hardin	12		78,284	9,726		88,010
Harrison	7		24,150			24,150
Henry	6		23,103			23,103
Howard	4			894		894
Humboldt	3			1,307		1,307
Ida	1					
Iowa	4		28,775			28,775
Jackson	9			77,812		77,812
Jasper	17	430,923	21,927			452,850
Jefferson	8	13,714	21,460			35,174
Johnson	8		30,204	3,100		33,304
Jones	12			78,055		78,055
Keokuk	27	89,656	33,490	1,937		125,083
Kossuth	1					
Lee	17		14,900	22,873		37,773
Linn	14		27,922	31,613		59,535
Louisa	7		7,380	2,403		9,783
Lucas	4	44,210				440,210
Madison	1					
Mahaska	44	1,044,316	76,755			1,121,071
Marion	24	402,829	15,180			418,009
Marshall	10		61,264			61,264
Mills	4		14,100			14,100
Mitchell	3			2,413		2,413
Monona	1					
Monroe	13	2,558,683		478		2,559,161
Montgomery	8		29,792	1,390		31,182
Muscatine	10		43,965			43,965
O'Brien	1					
Page	6	43,530	32,000			75,530
Pocahontas	3		42,850			42,850
Polk	44	1,779,699	592,018			2,371,717
Pottawattamie	7		73,891			73,891
Poweshiek	3		14,314			14,314
Ringgold	2		8,800			8,800
Sac	2		2,625			2,625
Scott	19	24,548	39,177	22,370		86,095
Shelby	1					
Sioux	2		7,800			7,800
Story	5		23,677			23,677
Tama	7		57,000			57,000
Taylor	9	35,358	8,472			43,830
Union	2		17,338			17,338
Van Buren	10	13,633	6,900	396		20,929
Wapello	20	565,458	88,272	22,255		676,985
Warren	5	27,336				27,336
Washington	11		29,037	6,217		35,254
Wayne	9	143,775	14,750			158,525
Webster	27	269,917	285,141	10,500	430,008	995,566
Winneshiek	2		7,000			7,000
Woodbury	5		224,408			224,408
Wright	4		18,900			18,900
Single producers	39	5,400	110,466	60,715		176,581
Total	404	$10,489,189	$3,033,583	$598,622	$433,021	$14,504,365

COAL.

The coal production shows an increase of more than fifteen per cent in output and twenty-eight per cent in the value of the product marketed. Most of the coal producing counties contributed to the increased output and profited by the increase in price. Keokuk is the only county showing a decided slump.

Table II gives the total tonnage, average price per ton, total value, number of mines producing, average number of days worked and number of men employed, arranged by counties.

TABLE No 2.

COAL OUTPUT BY COUNTIES FOR 1903.

COUNTIES.	Number of producers.	Tons loaded at mine for shipment.	Sold to local trade or used by employes.	Used at mine for steam and heat.	Total tons produced.	Total selling value at mine.	Average price per ton.	Average number of days worked.	Average number of employes during the year.
Adams	9	.....	23,250	20	23,270	$ 57,700	$2.48	171	74
Appanoose	51	847,665	30,167	12,184	890,016	1,784,682	2.00	196	2,829
Boone	9	259,431	25,797	6,105	291,333	599,040	2.05	212	808
Dallas	3	6,436	8,131	900	15,467	36,424	2.35	114	70
Davis	1	.....	2,160	.....	2,160	5,400	2.50	270	7
Greene	9	.....	23,421	875	24,296	57,580	2.37	168	113
Guthrie	3	.....	4,708	.....	4,708	13,728	2.92	194	27
Jasper	11	203,346	58,740	8,750	270,836	430,923	1.59	280	611
Jefferson	5	1,700	4,421	326	6,447	13,714	2.13	148	27
Keokuk	10	50,436	10,654	2,853	63,945	89,656	1.40	164	172
Lucas	3	276,945	8,102	10,547	295,594	440,210	1.49	281	514
Mahaska	38	639,503	54,953	19,003	707,459	1,044,316	1.47	225	1,428
Marion	19	291,351	30,203	6,579	322,133	402,829	1.23	204	693
Monroe	11	1,693,114	43,078	31,862	1,768,054	2,558,683	1.44	258	2,928
Page	3	.....	16,538	5	16,443	43,530	2.63	137	69
Polk	25	726,476	269,819	35,870	1,032,165	1,779,699	1.72	266	1,743
Scott	6	.....	12,274	379	12,653	24,548	1.94	174	54
Taylor	5	8,981	7,932	20	16,933	35,358	2.08	217	78
Van Buren	4	4,348	7,973	40	12,361	13,638	1.10	211	34
Wapello	13	288,557	69,117	5,242	362,916	566,458	1.56	240	732
Warren	4	8,360	4,400	.....	12,760	27,336	2.14	167	33
Wayne	4	68,980	6,482	26	75,488	143,775	1.90	230	197
Webster	15	115,620	11,911	4,165	131,696	269,917	2.05	219	342
Total	261	5,485,249	734,231	145,751	6,365,233	$10,439,189	$1.64	232	13,583

CLAY.

The continued wet weather caused the abandonment of many of the hand yards but greatly stimulated the manufacture of drain tile. The increase in the production of tile more than compensated for the falling off in common brick. The product was distributed as follows:

	THOUSAND.	VALUE.
Common brick	194,872	$1,396,088
Front brick	7,381	83,306
Paving brick	20,688	221,481
Ornamental brick		1,200
Fire brick		975
Drain tile		1,009,933
Sewer pipe		88,000
Hollow block		131,191
Sidewalk brick		11,743
Floor tile		500
Railway ballast		12,000
Pottery		55,762
Miscellaneous		21,404
Total		$3,033 583

Every class of clay ware shows an advance in price and away from the Mississippi river district, most of the factories could not keep up with their orders.

The distribution of clay products by counties, showing the common brick and total brick in thousands, the values of common brick and of total brick, value of drain tile and total value of clay products are shown in Table III.

TABLE III.

CLAY PRODUCTION BY COUNTIES FOR 1903.

COUNTIES.	Producers.	BRICK IN THOUSANDS.		VALUE OF BRICK.		Value of drain tile.	Miscellaneous.	Total value of clay products.
		Common brick.	Total brick.	Common brick.	Total brick.			
Adams	16	1,940	1,940	$ 14,580	$ 14,580	$ 650	$ 1,200	$ 27,230
Adair	3	700	1,400	4,900	11,900	2,700	30	14,360
Appanoose	1	.....	.....	.....	.....	.....	.....	.....
Audubon	1	.....	.....	.....	.....	.....	.....	.....
Cass	2	1,406	1,406	10,596	10,596	.....	.....	10,596
Benton	5	830	830	5,815	5,815	16,200	.....	22,015
Black Hawk	2	1,500	1,500	10,375	10,375	.....	.....	10,375
Boone	5	6,208	6,208	58,791	58,816	24,150	....	82,966
Bremer	2	273	273	2,193	2,193	.....	.....	2,193
Buena Vista	3	229	229	1,620	1,620	15,406		17,026
Butler	1	.....	.....	.....	.....	.....	.....	.....
Calhoun	3	63	63	500	1,000	12,445	300	13,745
Carroll	1	.....	.....	.....	.....	.....	.....	.....
Cedar	1	.....	.....	.....	.....	.....	.....	.....
Cherokee	1	.....	.....	.....	.....	.....	.....	.....
Clay	1	.....	.....	.....	.....	.....	.....	.....
Clarke	1	.....	.....	.....	.....	.....	.....	.....
Clayton	4	1,860	1,860	11,603	11,603	2,019	.....	13,622
Cerro Gordo	3	3,597	3,597	25,182	26,586	198,232	35,594	258,415
Clinton	3	1,025	1,025	6,400	6,400	3,800	.....	10,200
Crawford	2	1,600	1,600	11,500	11,500	.....		11,500
Dallas	8	2,983	3,469	22,815	30,187	66,438	.....	96,625
Davis	2	65	65	510	510	.....	.....	510
Decatur	2	625	625	4,600	4,600	150	.....	4,750
Delaware	2	1,000	1,100	6,300	7,300	.....	.....	7,300
Des Moines	3	1,769	2,521	13,481	21,520	1,500	4,000	27,020
Dubuque	4	5,485	5,485	35,595	35,595	.....	.....	35,595
Fayette	2	2,040	2,040	13,300	13,300	1,500	1,100	15,900
Floyd	1	.....	.....	.....	.....	.....	.....	.....
Franklin	1	.....	.....	.....	.....	.....	.....	.....
Fremont	5	1,500	1,500	9,750	9,750	.....	.....	9,750
Greene	1	.....	.....	.....	.....	.....	.....	.....
Grundy	2	200	200	1,537	1,537	205	.....	1,742
Guthrie	3	892	892	6,050	6,050	15,304	.....	21,354
Hamilton	2	2,145	2,145	15,015	15,015	50,025	.....	65,040
Hardin	5	919	1,129	7,248	11,343	66,626	315	78,284
Harrison	7	3,371	3,371	24,150	24,150	.....	.....	24,150
Hancock	1	.....	.....	.....	.....	.....	.....	.....
Henry	5	1,161	1,161	8,244	8,244	14,859	.....	23,103
Howard	1	.....	.....	.....	.....	.....	.....	.....
Humboldt	1	.....	.....	.....	.....	.....	.....	.....
Ida	1	.....	.....	.....	.....	.....	.....	.....
Iowa	4	2,475	2,575	16,325	17,225	11,550	.....	28,775
Jackson	1	.....	.....	.....	.....	.....	.....	.....
Jasper	6	1,961	1,996	14,627	14,977	6,950	.....	21,927
Jefferson	3	620	620	4,960	4,960	16,500	.....	21,460
Johnson	6	2,875	2,933	20,300	20,764	9,200	240	30,204
Jones	1	.....	.....	.....	.....	.....	.....	.....
Keokuk	6	825	825	6,520	6,520	26,970	.....	33,490
Kossuth	1	.....	.....	.....	.....	.....	.....	.....
Lee	5	2,220	2,320	13,750	14,600	300	.....	14,900
Linn	8	3,010	3,010	21,170	21,170	6,752	.....	27,922
Louisa	2	510	510	3,630	3,630	3,750	.....	7,380

TABLE III.—CONTINUED.

COUNTIES.	Producers.	BRICK IN THOUSANDS.		VALUE OF BRICK.		Value of drain tile.	Miscellaneous.	Total value of clay products.
		Common brick.	Total brick.	Common brick.	Total brick.			
Lucas	1	.....	.....	.....	.....	.....	....	.....
Madison	1	....	.....	....	....	.....	.....	.....
Mahaska	5	4,402	7,448	$ 32,356	$ 63,205	$ 12,550	$ 1,000	$ 76,755
Marion	4	1,510	1,510	11,680	11,680	3,500	.....	15,180
Marshall	8	4,929	4,929	31,762	31,762	22,560	6,942	61,264
Mills	4	1,900	1,900	14,100	14,100	.....	.....	14,100
Monona	1	....	....	.....	.....	.....	.....	....
Montgomery	5	2,893	2,923	23,161	23,611	1,081	5,100	29,792
Muscatine	8	4,970	4,970	32,500	32,500	4,425	7,040	43,965
O'Brien	1	.....	.....	.....	.....	.....	.....	.....
Page	3	4,000	4,000	28,000	28,000	4,000	.....	32,000
Pocahontas	2	.....	.....	.....	.....	42,850	.....	42,850
Polk	19	24,380	41,250	190,944	378,967	81,797	131,254	592,018
Pottawattamie	7	10,818	11,118	70,891	73,441	450	.....	73,891
Poweshiek	3	598	598	4,734	4,7 4	9,080	500	14,314
Ringgold	2	1,100	1,100	8,800	8,800	.....	.....	8,800
Sac	2	375	375	2,625	2,625	.....	.....	2,625
Scott	6	3,521	4,521	22,827	33,327	1,000	4,850	39,177
Shelby	1	...	.....	.....	.....	.....	.....	.....
Sioux	2	1,600	1,600	7,800	7,800	.....	.....	7, 00
Story	5	704	744	5,617	5,977	17,700	.....	23,677
Tama	5	4,200	5,687	27,627	42,500	14,500	.....	57,000
Taylor	4	1,189	1,189	8,472	8,472	.....	.....	8,472
Union	2	1,916	1,916	15,258	15,258	1,950	130	17,338
Van Buren	4	950	950	6,900	6,900	.....	.....	6,900
Wapello	3	8,516	9,451	59,580	68,792	13,270	6,210	88,272
Warren	1	.....	.....	.....	.....	.....	.....	.....
Washington	3	2,753	2,753	18,743	18,743	10,294	.....	29,037
Wayne	5	1,350	1,350	9,350	9,350	5,400	.....	14,750
Webster	9	10,833	11,833	65,400	72,4 0	136,359	71,382	285,141
Winneshiek	2	1,025	1,025	7,000	7,000	.....	.....	7,000
Woodbury	5	25,115	26,536	185,850	199,738	5,807	18,963	224,408
Wright	4	125	125	1,000	1,000	17,900	.....	18,900
Single producers	23	9,228	9,828	73,187	74,534	31,379	500	110,466
Total	323	194,872	224,142	$1,400,091	$1,716,200	$1,009,993	$307,450	$3,033,583

STONE.

The stone production shows a decline as compared with the two years preceding, probably due to the continued wet weather. The production for 1903 was distributed as follows:

Limestone used for:

Building purposes	$204,769
Flagging	2,388
Curbing	2,318
Paving	9,087
Lime	113,195
Rubble	65,307
Riprap	37,096

Crushed stone:	
Roadmaking	63,637
Railway ballast	12,243
Concrete	68,763
Miscellaneous	2,158
Sandstone	17,004
	$597,965

Table IV gives the production by counties and specifies the various grades of stone put upon the market.

TABLE No. 4.

PRODUCTION OF LIMESTONE BY COUNTIES FOR 1903.

Counties.	Building.	Flagging, curbing and paving.	Lime.	Road making.	Railway ballast and concrete	Rubble and riprap.	Miscellaneous.	Total.
Adams	$	$	$	$	$	$	$	$
Allamakee	368		75			36		479
Appanoose	150	60				500		710
Benton	975		105	25		60		1,165
Black Hawk	12,933	1,318			1,216	25		15,492
Buchanan								
Cedar	11,553		1,350	41,062	2,306	3,511		59,782
Cerro Gordo	13,922	254	4,500		15,000	469		34,145
Clarke	603	128		32	19	100		882
Clayton	5,538	640	2,075	100		3,133		11,536
Clinton	1,005	40		2,777		748		4,570
Dallas	20,126							20,126
Decatur	2,017	2,490		1,825	2,400	14	23	8,769
Delaware	4,900	220				120		5,240
Des Moines	972	45		30		6,830		7,877
Dubuque	11,194	1,956	13,600	323	11,425	16,158	295	54,951
Fayette	5,875		1,500					7,375
Floyd	3,600	450			450		550	5,050
Grundy								
Hamilton								
Hardin	9,704	22						9,726
Henry								
Howard	890	4						894
Humboldt	1,307							1,307
Jackson	1,027	160	75,910	615	50	50		77,812
Johnson	260			1,120		1,720		3,100
Jones	43,021	416		1,328	7,568	25,732		78,055
Keokuk	1,705	12		22		138		1,937
Lee	4,096	5,303		1,200	8,045	1,696	1,229	21,570
Linn	7,210		12,000	690	6,510	5,203		31,613
Louisa	2,015	20			8	360		2,403
Mahaska								
Marion								
Marshall								
Mitchell	663		1,750					2,413
Monroe	270	8				200		478
Montgomery	1,390							1,390
Pocahontas								
Scott	6,107	75		11,618	4,570			22,370
Tama								
Van Buren	240	6				150		396
Wapello	10,241			850	3,978	7,186		22,255
Washington	6,217							6,217
Single producers	12,565				17,461	27,274	60	58,876
Total	$204,760	$18,793	$119,195	$63,637	$81,006	$102,403	$2,158	$570,961

THE PRODUCTION OF SANDSTONE BY COUNTIES FOR 1903, IS SHOWN IN TABULAR FORM BELOW.

Counties.	Number of Producers.	Building.	Rubble, Riprap, etc.	Total.
Clayton	2	$ 3,095	$ 267	$ 3,362
Des Moines	1	.....	.....	.....
Fayette	1	.....	.....	.....
Jones	1	.....	.....	.....
Lee	3	816	487	1,303
Scott	1	.....	.....	.....
Tama	1	.....	.....	.....
Webster	2	500	10,000	10,500
Single Producers	.....	1,641	198	1,839
Total	12	$ 6,052	$ 10,952	$ 17,004

GYPSUM.

The price of gypsum products shows a considerable advance over that for the preceding year. The amount marketed was also somewhat greater than for 1902. The output of gypsum was reported to be 166,713 tons of crude gypsum valued at $317,326 and sold as:

	TONS	VALUE.
Wall cement or plaster	87.397	$411,503
Plaster of Paris	30,306	100.74
Land plaster	2,098	9,227
Crude Gypsum	703	1,534
Total	120,504	$523,008

LEAD AND ZINC.

The lead industry about Dubuque still continued to decline. The outlook for 1904 is much more promising as the amount of ore marketed before July 1st exceeded that for the entire preceding year. A small quantity of zinc ore was produced but none was sold. Prospecting and development work continues. The output of lead was as follows:

Galena 120,450 pounds sold for $3,013.

No zinc was put upon the market during 1903.