

# The Cleveland-Cliffs Iron Co.

*Recapitulation from Accidents Report*

Do For 1901	3	4.0	0.3	2	2	3	0.8
Do. per 1000 men	3.9	3.1	2				3.84
Fatal Accidents	3	1	1				4
Do. For 1901	122	98	141	21		198	110
Do. For 1000 men	134	131	156	110	44		134
Minor Accidents	18	63	21	33	1		124
Total men	119	219	382	300	13		1322
UNDERGROUND & SURFACE							
Do. For 1901			0				0
Do. per 1000 men			14				14
Fatal Accidents			1				1
Do. For 1901	24	29	38		44		49
Do. per 1000 men	8	2	3	0	1		13
Minor Accidents	34	84	43	40	13		324
Employed							
SURFACE							
Do. For 1901	13	8.3	6	0.2		11	9
Do. per 1000 men	4.3			6.3			3.1
Fatal Accidents	3			1			3
Do. For 1901	142	98	141	23		140	119
Do. per 1000 men	141	133	132	138			148
Minor Accidents	14	29	42	38		1	144
UNDERGROUND							
Men Employed	38	432	324	160			40
ONE SHEET IRON MEN							
HARD TAKE QUITE SAT- TIL- IMP HIGH WAVES TOTAL							
AND ACCIDENTS PER 1000 MEN							
SHOWING NUMBER OF MEN EMPLOYED, NUMBER OF ACCIDENTS							
RECAPITULATION FROM ACCIDENT REPORTS FOR THE YEAR ENDING NOV. 30, 1903							
THE CLEVELAND-CLIFFS IRON COMPANY							

THE CLEVELAND-CLIFFS IRON COMPANY

SUPPLEMENTRY ACCIDENT REPORT NOVEMBER, 30TH, 1902  
LOSS TO COMPANY ON ACCOUNT OF ACCIDENTS TO EMPLOYEES 1902

FATAL ACCIDENTS	HARD ORE	LAKE	CLIFFS SHAFT	SALIS-BURY	TIL-DEN	IMP WEB	MICH	MAAS	TOTAL
No. Fatal Accidents		2	1	1					4
No. Men employed	119	519	326	200	13			58	1235
Time lost by Min days		532	599	451					1582
Average prod. per day	255	1609	940	604	52				3460
Days Idle		1-1/3	1-1/2	2					4-5/6
Tons Prod. Lost		2000	1500	1300					4800
(1) Exp. for Labor & Supplies while mines were idle acct. accidents		298.39	281.15	359.26					938.80
Amt. of Benefit Fund Credited Estate (2)		1000.00	500.00	500.00					2000.00
<b>TOTAL EXPENSE</b>		<b>1298.39</b>	<b>781.15</b>	<b>859.26</b>					<b>2938.80</b>
<b>MINOR ACCIDENTS</b>									
No. Minor accidents	16	63	51	22	1			4	157
Tons Prod. Lost	22	110	92	41					265

NOTE (1) Includes Insurance, Taxes, Mine Office, Central Office, Mining Captain, Pumping and Stable expense.

NOTE (2) One half the amount credited to the Estate is contributed by Employees

COMPARATIVE STATEMENT OF ACCIDENTS

	No. of Fatal Accidents per 1000 men							
	1902	1901	1900	1899	1898	1897	1896	1895
Cleveland Cliffs Ir. Co. All Mines	3.24	6.8	2.94	2.39	5.4	9.31	13.	2.92
Mines in Marquette Co. Report of Mine Inspector	5.25	5.6	3.62	4.59	4.6	4.00	5.37	3.35

# The Cleveland-Cliffs Iron Co.

## Supplementary accident Report

Report of Mine Inspector  
Mines in Hardrock Co.  
Cleveland Cliffs Ir. Co.

1900 2.32 2.6 3.32 4.72 4.6 4.00 2.21 2.32  
1901 2.34 2.8 3.34 3.32 2.4 3.21 1.8 3.32

1902 1901 1900 1899 1898 1897 1896 1895  
No. of Fatal Accidents per 1000 men

### COMPARATIVE STATEMENT OF ACCIDENTS

#### Employees

NOTE (S) One half the amount credited to the Estate is contributed by

Capital, Pumping and Staple expense.

NOTE (T) Includes Insurance, Taxes, Mine Office, Central Office, Mine

TONS PROD. LOST	SS	170	22	41					
NO. FATAL ACCIDENTS	19	22	21	22	1	4			124

#### MINOR ACCIDENTS

TOTAL EXPENSE	1898.33	187.72	229.32
Accrued Estate (S)	1000.00	200.00	200.00
amt. of Benefit Fund			

Accidents	328.32	381.72	229.32	328.30
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are like acc.

includes white mines

(T) Red. for labor

tons prod. lost	5000	1200	1300	4300
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Days 1916	1-1/2	1-1/3	3	4-2/3
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Large Prod. per day	322	1903	240	234	2420
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Time lost by men days	228	228	421	1228
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NO. MEN EMPLOYED	173	273	328	300	72	28	1232
NO. FATAL ACCIDENTS		3	1	1			4

FATAL ACCIDENTS	ONE	ONE	ONE	ONE	ONE	ONE	ONE
	HARD TAKE	SHIRT	BURY	DEW	WEB		
		CLIFFS	SILLS--	LI--	IMP	HIGH	WAYS TOTAL

LOSS TO COMPANY ON ACCOUNT OF ACCIDENTS TO EMPLOYEES 1902  
SUPPLEMENTARY ACCIDENT REPORT NOVEMBER, 30TH, 1902

THE CLEVELAND-CLIFFS IRON COMPANY

THE CLEVELAND-CLIFFS IRON COMPANY

CLASSIFICATION OF CAUSES OF ACCIDENTS YEARS ENDING  
NOVEMBER 30TH, 1902.

SUMMARY	MINOR	FATAL	TOTAL
Falls of Ground	33	1	34
In Shafts	3		3
Miscellaneous	108	2	110
TOTAL Underground	144	3	147
TOTAL Surface	13	1	14
	157	4	161
<u>CLASSIFICATION</u>			
<u>UNDERGROUND</u>			
FALLS OF GROUND			
Falls of Roof	28	1	29
Falls of Side	5		5
<u>IN SHAFTS</u>			
Overwinding			
Ropes Breaking			
Going Up or Down By Machinery			
Falling into Shaft from Surface			
Things Falling from Surface			
Falling from part way down			
Things falling from part way down			
Miscellaneous in Shafts	3		3
<u>MISCELLANEOUS</u>			
Explosions	4		4
Irruptions of Water & Mud			
By Tram Cars & Road	21	1	22
By Electricity			
By Machinery Underground	6		6
By loading Ore	34		34
Barring down Rock	5		5
Falling down Raise	3		3
Falling from Ladders or staging	4		4
Handling Timber or Rails	16		16
Miscellaneous	15	1	16
<u>ON SURFACE</u>			
By Machinery	3		3
On Tramways or Railways	1	1	2
By Loading Ore	3		3
Falling from Ladders etc	1		1
Handling Timber or Rails	2		2
Miscellaneous	3		3
TOTAL 1902	157	4	161
TOTAL 1901	145	9	154
TOTAL 1900	199	5	204

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# The Cleveland-Cliffs Iron Co.

*Classification of Causes of Accidents*

1902

CLASSIFICATION	FALLS ON GROUND UNDERGROUND	TOTAL SURFACE	TOTAL UNDERGROUND	MINOR	FATAL	TOTAL
MISCELLANEOUS						
HANDLING LIMBER OR NAILS						
FALLING FROM PLATFORMS ETC						
BY FORGING ORE						
ON TRAMWAYS OR FIGHTWAYS						
BY MACHINERY						
ON SURFACE						
MISCELLANEOUS						
HANDLING LIMBER OR NAILS		12			1	12
FALLING FROM PLATFORMS OR STAIRS		10				10
FALLING FROM NAILS		4				4
FALLING FROM HOOP		2				2
BY FORGING ORE		2				2
BY MACHINERY UNDERGROUND		24				24
BY MACHINERY		3				3
BY TRAM CARS & ROAD					1	1
TURBIDITIES OF WATER & SAND						
EXPLOSIONS						
MISCELLANEOUS		4				4
MISCELLANEOUS IN SHAFTS						
LIFTING FROM BELT AND GOMU						
FALLING FROM BELT AND GOMU						
LIFTING FROM SURFACE						
FALLING INTO SHAFT FROM SURFACE						
GOING UP OR DOWN BY MACHINERY						
ROPE BREAKING						
MACHINERY						
IN SHAFTS						
FALLS OF SIDE						
FALLS OF HOOP						
2					1	2
38						38
FALLS ON GROUND						
724		4				728
TOTAL SURFACE						
12		1				13
144		2				146
TOTAL UNDERGROUND						
108		3			1	112
2						2
32		1				33
TOTAL						
24						24

SUMMARY

MINOR

FATAL

TOTAL

NOVEMBER 30TH, 1902.

THE CLEVELAND-CLIFFS IRON COMPANY

THE CLEVELAND-CLIFFS IRON COMPANY

RECORD OF DELAYS FROM VARIOUS CAUSES YEAR ENDING NOV.30TH.1902.

DIVISION OF TIME

TIME WORKED & LOST	HARD ORE	LAKE	CLIFFS SHAFT	SALIS-BURY	TILDEN	ASHLAND
Sundays	53	53	53	53	15	53
Holidays	14	14 $\frac{1}{3}$	14	15	2	9
Fatal Accidents		1 $\frac{1}{3}$	1 $\frac{1}{2}$	2		1 $\frac{1}{2}$
Other causes	3	8 $\frac{2}{3}$ X	1	5	8 $\frac{1}{2}$	3
Full Days Worked	295	287 $\frac{2}{3}$	295 $\frac{1}{2}$	290	83 $\frac{1}{2}$	299 $\frac{1}{2}$
Number of days for year	365	365	365	365	109	365
<u>SUMMARY</u>						
Sundays	53	53	53	53	15	53
Total time lost, Days	17	24 $\frac{1}{3}$	16 $\frac{1}{2}$	22	10 $\frac{1}{2}$	12 $\frac{1}{2}$
Full Time Worked	295	287 $\frac{2}{3}$	295 $\frac{1}{2}$	290	83 $\frac{1}{2}$	299 $\frac{1}{2}$
TOTAL DAYS	365	365	365	365	109	365

Note:- Tilden Mine working from July 7th. to Oct. 23rd.

X of which other statements

# The Cleveland-Cliffs Iron Co

*Record of Delays  
Division of Time*

1902

Number of Days Lost  
 by  
 Other Causes  
 Accidents  
 Locals  
 Sundays

SUMMARY

<b>Total Time Lost, Days</b>	17 1/2	24 1/2	76 2/7	88	107 1/2	138 1/2
<b>Sundays</b>	22	22	22	22	22	22

Note: - July 1st to Oct. 31st.  
Lillian Mine Working from

TIME WORKED & LOST

SHEAR  
 HARD PAKE  
 SHEAR  
 CLIFFS SPLITTS-  
 LILLIAN  
 VERLIND

DIVISION OF TIME

292	292	292	292	292	292	292
292	292 1/2	292 2/7	290	291 2/7	291 2/7	291 2/7
2	8 2/3	1	2	8 2/7	2	2
14	14 2/3	14	12	2	3	3
22	22	22	22	22	22	22

RECORD OF DELAYS FROM VARIOUS CAUSES YEAR ENDING NOV. 30TH. 1902.

THE CLEVELAND-CLIFFS IRON COMPANY

1408,372,95

1000,000,00



79-B

after page 83

THE CLEVELAND-CLIFFS IRON COMPANY

RECORD OF TIME LOST BY HOLIDAYS FOR YEAR ENDING NOV.30TH.1902

	HARD ORE	LAKE	CLIFFS SHAFT	SALIS- BURY	TILDEN	ASHLAND
	HOURS	HOURS	HOURS	HOURS	HOURS	HOURS
No.Hrs.Working each day	20	24	20	24	10	20
Christmas Eve	10	16	10	16		10
Christmas Day	20	24	20	24		20
Do 2nd. Day	20	24	20	24		20
New Years Eve	10	16	10	16		
New Years Day	20	24	20	24		20
Good Friday	20	24	20	24		20
Election Day (Spring)	20	24	20	16		
Memorial Day	20	24	20	24		10
Ringling Circus	20	24	20	24		20
Mid Summer Day	20	24	20	24		
Independence Day	20	24	20	24		20
Do 2nd. Day				24		
Buffalo Bills Wild West	20	24	20	24	10	
Labor Day	20	24	20	24	10	20
Election Day (Fall)	20	24	20	24		
Thanksgiving Day	20	24	20	24		20
TOTAL HOURS	280	344	280	360	20	180
TOTAL DAYS	14	14 $\frac{1}{3}$	14	15	2	9
Percent of Total time lost	82.4	58.9	84.8	68.2	19	72

# The Cleveland-Cliffs Iron Co

*Record of Time Lost by Holiday*

1902

Percent of Total Time Lost	82.4	88.3	84.3	86.8	73	85
TOTAL DAYS	14	14 <sup>1</sup> / <sub>2</sub>	14	12	8	3
TOTAL HOURS	380	374	330	360	30	190
Thanksgiving Day	30	34	30	34		30
Election Day (Mitt)	30	34	30	34		
Labor Day	30	34	30	34	10	30
Bureau Bills Wild West	30	34	30	34	10	
Do Shift Day				34		
Independence Day	30	34	30	34		30
Mid Summer Day	30	34	30	34		
King's Day	30	34	30	34		30
Regular Day	30	34	30	34		10
Election Day (30mins)	30	34	30	34		
10 <sup>1</sup> / <sub>2</sub> P.M. Day	30	34	30	34		30
Yuletide Day	30	34	30	34		30
Yuletide Day	30	34	30	34		30
Sun. Day	30	34	30	34		30
Christmas Day	30	34	30	34		30
Christmas Eve	10	18	10	18		10
10 hrs. working each day	30	34	30	34	10	30

ORE                      SHALT                      BURY  
 HARD TAKE              CLIFFS SALES-              TILDEN                      ASHWARD  
 HOURS                      HOURS                      HOURS                      HOURS                      HOURS                      HOURS

RECORD OF TIME LOST BY HOLIDAYS FOR YEAR ENDING NOV. 30TH. 1902  
 THE CLEVELAND-CLIFFS IRON COMPANY

THE CLEVELAND-CLIFFS IRON COMPANY

CLEVELAND IRON MINING COMPANY AND IRON CLIFFS COMPANY

ANALYSIS OF LEGAL EXPENSE FOR YEAR ENDING  
NOVEMBER 30TH.1902

<u>CLEVELAND IRON MINING COMPANY</u>			
Lepalla Case,Expense of Witnesses	12 25		
George Hayden	50 00		
		62 25	
Lake Mine, Services J.C.Wood preparing Timber Contracts			7 50
George Hayden, Tax Matters	5 00		
George Hayden Telegrams in March	1 29		
		6 29	
TOTAL C.I.M.CO.			76 04
<u>IRON CLIFFS COMPANY</u>			
Salisbury Mine,services of J.C.Wood preparing Timber Contracts	2 50		
George Hayden, Tax Matters	5 00		
			7 50
<u>CLEVELAND-CLIFFS IRON COMPANY</u>			
Chas.E.Miller, Attorney			
Inquest case John Collins	15 00		
Inquest Case Mike McCarty	15,00		
Inquest Case Mike McCarty	10 00		
Wm. Carlson Case	10 00		
Frank Protek Case	15 00		
Retainer	250 00		315 00
George Winchester, Stenographer			
Inquest Case Mike McCarty	7 30		
Inquest Case Wm.Carlson	6 30		
Inquest Case Frank Protek	8 70		22 30
George Hayden Tax Matters			5 00
TOTAL C.C.I.CO.			342 30
Grand TOTAL			425 84

79A

GRAND TOTAL

432 34

TOTAL O.C.I.M.CO.

348 20

George Hayden Tax Matters

2 00

Indueat case Frank Protek

8 30

Indueat case Wm. Carlson

8 30

Indueat case Mike McGarity

7 30

George Winchester, stenographer

Retainer

\$20 00 212 00

Frank Protek case

12 00

Wm. Carlson case

10 00

Indueat case Mike McGarity

10 00

Indueat case Mike McGarity

12 00

Indueat case John Collins

12 00

Chas. E. Miller, Attorney

CLEVELAND-CLIFFS IRON COMPANY

TOTAL I. C. CO.

1 20

George Hayden, Tax Matters

2 00

Preparing Timber Contracts

3 20

Salsbury Mine, services of J. C. Wood

IRON CLIFFS COMPANY

TOTAL O.C.I.M.CO.

48 04

George Hayden Telegrams in March

1 28

George Hayden Tax Matters

2 00

Preparing Timber Contracts  
Late Mine services J. C. Wood

1 20

George Hayden

20 00

88 22

Retainer  
Expense of witnesses

12 22

CLEVELAND IRON MINING COMPANY

NOVEMBER 30TH. 1903

ANALYSIS OF LEGAL EXPENSE FOR YEAR ENDING

CLEVELAND IRON MINING COMPANY AND IRON CLIFFS COMPANY

THE CLEVELAND-CLIFFS IRON COMPANY

The Cleveland Iron Co.  
Cleveland Iron Mining Co.  
Iron Cliffs Co.  
*Analysis of Legal Expense*

THE CLEVELAND-CLIFFS IRON COMPANY

RECORD OF DELAYS FROM VARIOUS CAUSES YEAR ENDING NOV.30TH.1902

COST OF REPAIRING DAMAGE TO MACHINERY AND PLANT

	HARD ORE	LAKE	CLIFFS SHAFT	SALIS- BURY	ASHLAND	TOTAL
Skips, Skip Roads & Bell Line	45 93	263 65		148 71	890 63	1348 92
Hoisting Machinery	96 63	24 85		26 78	23 06	171 32
Tracks, Cars & Motors (Under- ground)		1276 57				1276 57
Shaft & Shaft House Repairs				10 00		10 00
Top Tram Engines & Cars		3 40				3 40
Crusher Repairs			53 74			53 74
Cornish Pumps	137 37					137 37
Compressors & Air Pipes						
Fire 2nd. Level, Lake Mine		406 83				406 83
Fire Dry House, Cliffs Shaft			234 46	X		234 46
<b>TOTAL</b>	<b>279 93</b>	<b>1975 30</b>	<b>288 20</b>	<b>185 49</b>	<b>913 69</b>	<b>3642 61</b>
Cost Last Year	142 75	497 80	669 20	261 54		1571 29

Ashland Mine Not included Last Year.

X 5

# The Cleveland-Cliffs Iron Co

*Record of Delays.  
Cost of Repairing damage to  
Machinery & Plant*

Various Mine Not included past year.

TOTAL 848 93 1342 30 333 50 182 49 812 89 2643 87

408 82 324 48 408 82

Compressors & Air Pipes

731 21

Collish Pipes

Refrigerators

Engines & Gears

Hoisting & Winding Machinery

Stamps & Mofors Under-

Machinery

Hoops & Belt Pins

1342 30 333 50 182 49 812 89 2643 87

OHE SHALT BURY  
HARD TAKE CLIFFS SALT--VAHIVAD TOTAL

COST OF REPAIRING DAMAGE TO MACHINERY AND PLANT

RECORD OF DELAYS FROM VARIOUS CAUSES YEAR ENDING NOV. 30TH. 1908

THE CLEVELAND-CLIFFS IRON COMPANY

Memorandum reconciling taxes, as per approximate  
analysis of Profit & Loss of all companies, for  
year . . . . . \$110,723.54

with

Tax Statement, 1902 . . . . . 120,932.22

Difference, \$ 10,208.75

PIONEER FURNACE DEPT.: Tax Stat. \$10,726.79

As charged out, per books:

Cost Sheet, Pig Iron \$4,461.00

" " Alcohol, 2,232.55

Gladstone City Lots 349.11

7,042.66

\$ 3,684.13

Difference probably taken up on  
charcoal and other Cost Sheets,  
and represented by stocks of  
wood and supplies on hand.

OPERATING MAAS MINE:

Not charged out,

6,524.62

\$10,208.75



The Cleveland-Cliffs Iron Co.

*Reconciliation Tax Statement*

PRODUCTION OF IRON ORE AND PIG IRON IN MINES AND FURNACES  
 CONTROLLED BY THE CLEVELAND-CLIFFS IRON CO

<u>IRON ORE</u>	
1902 Product . . . . .	1,338,714 tons
Total product to January 1st 1903 . . . . .	16,296,044 "
<u>PIG IRON</u>	
1902 Product . . . . .	52,686 tons
Total product to January 1st 1903 . . . . .	676,262 "

81

HCS/3/16/03.

The Cleveland-Cliffs Iron

Production of Iron Ore & Pig Iron  
in Mines & Furnaces

Controlled by C. C. I. C.

18

49. 3M. 12. 73.

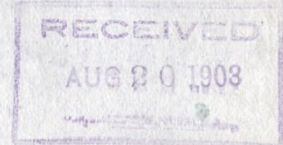
THE CLEVELAND-CLIFFS IRON CO.

CLEVELAND IRON MINING CO.  
IRON CLIFFS CO.

M. M. DUNCAN, AGENT.

ISHPEMING, MICH., Aug. 18th., 1903.

IN YOUR REPLY PLEASE REFER TO FILE



Mr. R. C. Mann, Auditor,  
Cleveland, Ohio.

Dear Sir:-

Answering yours July 22nd. with enclosures from Mr. Birkinbine of the Geological Survey.

I have answered all the questions and notified him of any changes that should be made on the reports and herewith attach copy of my letter to him so that changes may be made on your copy to correspond. I have <sup>also</sup> enclosed his letter July 21st., to you.

Yours truly,

*A. J. Mungbluth*  
Local Auditor.

CJS-L  
ENCS-

Aug. 15th., 1903.

Mr. John Birkinbine,

Special Agent, U.S. Geological Survey,

Philadelphia, Pennsylvania.

Dear Sir:-

Replying to your letter of July 21st. addressed to Mr. R. C. Mann, Auditor, Cleveland, Ohio, requesting further information in connection with special schedules for various mines. I hand you herewith the desired information. Please note that several changes have been made on the copies sent with your letter, all of which are explained under the proper mine headings.

CLEVELAND HARD ORE.

In 1st. section, question 3, "Persons employed" under Engineers Firemen, Machinists, etc. 2 men are included, which were included in the second section under "all other employees". Have changed second section accordingly.

In 1st. section, question 3, 2 Foremen below ground are paid by the day and consequently are included with "miners" in second section, question 3. The difference in "all other employees" is adjusted by change as noted above.

CLEVELAND LAKE MINE.

As in the "Hard Ore" statement 2 men were included in question 3 "persons employed" under Engineers, Firemen etc. and under "all other employees" in second section and the same change has been made

In 1st. section, question 3, 5 Foremen below ground receive daily wages and are therefore included with "miners" in second section.

Aug. 15th., 1903.

Mr. J. Birkinbine No. 2.

The total number of "All other employees" 1st. section question 3 is 124. After the change mentioned the total of the same item in 2nd section is 125. This difference, because in 1st. section, question 3 under Superintendents, Managers etc. above ground, 1 Foreman is paid by the day.

In the 1st section of question 3 the average number of employees is 519, deducting 1 Superintendent and 2 Clerks, who are paid Salaries, leaves a balance of 516 men which is the average number of wage earners as shown in 3rd section of question 3.

#### CLIFFS SHAFT MINE.

In 1st section question 3 "Persons employed" 4 men are included under Engineers, Firemen etc. which were included in the second section under "All other employees". Have changed second section accordingly.

In 1st section question 3, 3 Foremen below ground receive daily wages and are included with "miners" in second section.

The difference in "All other employees" is adjusted by change as above stated.

In the 1st section of question 3, deducting 1 Superintendent and 2 Clerks who are paid salaries, leaves a balance of 323 men which is the average number of wage earners as shown in 3rd. section of question :

#### BARASA MINE.

In regard to the difference in the tonnage between the reports of 1901 and 1902. We assume that in 1901 the report was made by the parties who formerly operated the mine, while for 1902 we took into our accounts the stock pile at an estimate of 10000 tons and so reported it.

Aug. 15th., 1903.

Mr. J. Birkinbine, No. 3.

SALISBURY MINE.

In 1st section question 3, "Persons employed", 4 men are included under Engineers, Firemen etc. which were included in the 2nd. section under "All other employees" . Have changed second section accordingly.

In 1st section, question 3, 3 Foremen below ground receive daily wages and are included with "miners" in second section.

The total number of "Other employees" 1st section, question 3 is 48, after the change mentioned above the total of the same item in 2nd section is 49. This difference, because in 1st section, question 3, under Superintendents, Managers etc. above ground, 1 Foreman receives daily wages.

In the 1st section of question 3, deducting 1 Superintendent and two clerks, who are paid salaries leaves a balance of 197 men. The grand total of wage earners under 3rd. question section 3 is 2360 or an average per month of  $196 \frac{2}{3}$  which is practically 197.

TILDEN MINE.

In the report for this mine the expenditure of \$4026.79 represents the cost of mining 4750 tons of iron ore, while \$3562.50 represents the value at the mine of this same ore.

VOLUNTEER MINE.

The 9316 tons of ore in stock was retained by us. We have no means of knowing whether it was included in the return of the Oliver Iron Mining Co. We have supplied additional information regarding question 3 & 5. In regard to question 3 would say that we pay a royalty on ore as it is shipped and consequently we paid last year on what was forwarded from stock pile.

Aug. 15th., 1903.

r. J. Birkinbine, No. 4.

MICHIGAMME MINE.

You are correct in your surmise that the expenditure at the mine was the cost of removing the greater portion of the stock pile.

MAAS MINE.

In 2nd. section of question 3 the return should have read "Miners" 15 "All other employees" 3 and we have changed the figures accordingly.

In 1st. section, question 3, 8 Foremen below ground receive daily wages and are included with "Miners" in second section, question 3. With the change in second section, question 3 mentioned above the totals of "All other employees" in the first and second sections will agree.

ASHLAND MINE.

In 1st section, question 3, 9 men were included under Engineers Firemen etc which were included in the second section with "All other employees". There should be added to "All other employees" in the same section, 1 wage earner at  $\$1\frac{1}{50}$  to  $\$1.74$  and the same change should be made in the third section. These changes have been made. 11 Foremen below ground first section, question 3 receive daily wages and are included with "Miners" in second section, question 3.

The items "All other employees" 1st and 2nd. sections agree after change as noted above.

In the 1st section of question 3 deducting 6 Superintendents, Clerks etc. who are paid salaries leaves a balance of 481 men which is the average number of wage earners after above change is made in 3rd section.



Aug. 15th., 1908.

Mr. J. Birkinbine, No. 5

With reference to questions that have been left blank, more particularly 4 and 6 will say that when no answer is given we have no information to supply and you may therefore suit your own pleasure in regard to inserting the word "none" in reply to these questions.

Yours truly,

Auditor.

L

DEPARTMENT OF THE INTERIOR  
UNITED STATES GEOLOGICAL SURVEY

Philadelphia, July 21, 1903.

Mr. R. C. Mann,  
Auditor, Cleveland-Cliffs Iron Co.,  
Mercantile Bank Building,  
Cleveland, Ohio.

Dear Sir:

I am in receipt of your favor of the 18th instant, together with the special schedule for the Cleveland-Cliffs Iron Company, and the U.S. Census schedules and Geological Survey cards for the Cleveland Hard Ore, Cleveland Lake, Cliffs Shaft, Barasa, Salisbury, Tilden, Volunteer, Michigamme, Imperial and Maas Mines on the Marquette Range, the Ashland Mine on the Gogebic Range, and the Crosby Mine on the Mesabi Range, for which please accept my thanks.

There is some additional information which is desired in regard to these mines, as follows:

CLEVELAND HARD ORE.

In question 3, "Persons employed", the average number of engineers, firemen, machinists, blacksmiths, carpenters, and other mechanics is given as 9, whereas in the second section of this question, under the heading "Average number of wage earners at specified daily rates of pay", but 7 persons are mentioned in these three classes. It may be that 2 of these men are paid salaries, in which case of course they would not be included in the answer to the second section of the question. Similarly, in the first section of question 3 the number of miners below ground is given as 47, whereas, in the second section of the question the total number will be found to be 49. The total number

*Personnel Underground  
Paid by Day*

RCM2.

of "All other employees", both above and below ground, in the first section of question 3, is found to be 35, whereas, in the second section of the question, the number of "All other employees" is 35 and 2 timbermen and tracklayers (the latter of whom should be included in "All other employees", in the first section of question 3), making a total of 37, as against but 35 given in the first section of the question.

I enclose copy of the schedule so that you may see just what answers have been made to the various questions.

CLEVELAND LAKE.

In the first section of question 3, the total number of engineers, firemen, machinists, blacksmiths, carpenters and other mechanics is given as 21, whereas, in the second section of this question, under the heading "Average number of wage earners at specified daily rates of pay", the total number of men mentioned in these three classes amounts to but 19. Similarly, in the first section of question 3, the average number of miners is given as 318, whereas, in the second section of the question 323 miners are mentioned. It may be that this difference of 5 men is accounted for by the foremen below ground, and if these men are paid a daily wage rate this would be the correct understanding of the matter.

The total number of "All other employees", both above and below ground, in the first section of question 3, is 124, whereas, in the second portion of the question the total number will be found to be 127, including in this the 8 timbermen and tracklayers.

*yes!*  
*17 men work above ground daily wage*

RCM3.

In the first section of question 3 the average number of employees is given as 519, but if we deduct 9 superintendents, managers, foremen, and clerks, it would leave the average number of wage earners employed during the year as 510. In the third portion of this question, headed "Average number of wage earners employed during each month", it will be found that the grand total of men employed during the 12 months the mine was in operation was 6197, or an average per month of 516, as against but 510 given in the first section of the question. This difference may be accounted for by the fact that some of the men whom I have assumed are paid salaries received a daily wage, and if such is the case I would be obliged if you will advise me in regard to it.

I enclose you copy of the schedule.

CLIFFS SHAFT.

In the first portion of question 3, "Persons employed", the number of engineers, firemen, machinists, blacksmiths, carpenters, and other mechanics is given as 31, whereas, in the second section of this question, under the caption "Average number of wage earners at specified daily rates of pay", the total in these three classes amounts to but 27. Similarly, in the first portion of the question the number of miners below ground is given as 133, whereas, in the second section of the question the total number of miners amounts to 136. Possibly this may be accounted for by the fact that the three foremen mentioned received a daily wage.

The number of "All other employees" both above and below ground, in the first section of question 3, amounts to 78,

Foremen above ground  
3 " below  
receive a daily wage

MS

RCM4.

whereas, the total number which would be included in these two answers, as given under the heading "Average number of wage earners at specified daily rates of pay", amounts to 82, of whom 78 are "All other employees" and 4 "Timbermen and tracklayers". It has occurred to me that possibly this difference of 4 men may be accounted for by the fact that the "Timbermen and tracklayers" may have been included in the carpenters and mechanics in the answer to the first portion of question 3.

In the first section of question 3, the total number of persons employed is given as 326, or deducting 6 superintendents, managers, foremen and clerks, the average number of wage earners would be 320. In the third section of this query, under the caption "Average number of wage earners employed during each month", the grand total of men employed during the 12 months the mine was in operation amounts to 3876, or an average per month of 323, as against 320 mentioned in the first section of the question. Probably this difference of 3 men may be accounted for, as already mentioned, if the 3 foremen below ground received a daily wage.

I enclose copy of this schedule.

BARASA.

I note that the stock of ore on hand at the Barasa Mine December 31, 1902, is given as 10,000 tons. In the report for the year 19 01 this was given as 9447 tons, and as no ore was mined during the year, I presume the stock pile remained intact. I merely mention the fact in order to have the two statements agree.

RCM5.

SALISBURY.

*17 foreman  
above ground  
daily wage*

In the first section of question 3, under the heading "Persons employed", the number of engineers, firemen, machinists, etc. is given as 13, while the total mentioned in these three classes, in the second portion of this question, under the caption "Average number of wage earners at specified daily rates of pay", amounts to but 9. Similarly, the total number of miners given in the first section of the question is 106, whereas, the total in the second portion will be found to be 109. Possibly this difference of 3 men may be accounted for by the fact that the foremen received a daily wage.

*Yes*

The total number of "All other employees", both above and below ground, is given in the first section of question 3 as but 48, whereas, in the second portion the total which would be included under these headings amounts to 53, of whom 47 are "All other employees" and 6 "Timbermen and tracklayers".

*200  
3 salaries  
197  
Emp  
Avg is 196 2/3*

The average number of persons employed during the year, as given in the first section of the question, amounts to 200, or deducting 7 superintendents, managers, foremen, and clerks, the total number of wage earners would amount to 193. In the third section of this question, under the caption "Average number of wage earners employed during each month", the grand total will be found to be 2360, or an average per month of 196, as against 193 mentioned in the first section of the question.

I enclose you copy of the schedule.

TILDEN.

In the return for the Tilden Mine, I notice that there was expended for:

RCM6.

Wages and salaries-----	\$2665.10
Supplies and materials-----	1204.21
Miscellaneous expenses-----	<u>157.48</u>
or a total of-----	\$4026.79

whereas, the value of the 4750 tons of iron ore is given as but \$3562.50. Is this excess of expenditures over receipts due to dead or exploratory work?

VOLUNTEER.

In regard to the Volunteer Mine, which you state was not operated by the Cleveland-Cliffs Company, I would say that a return for this mine was received from the Oliver Iron Mining Company.

On the card you state that you have a stock of ore on hand at the mine of 9316 tons. Am I correct in the understanding that this ore was retained by you, and is not accounted for in the return made by the Oliver Iron Mining Company.

I also notice that in your answer to question 3 you state that the amount paid out to "All other employees" at this mine during the year amounted to \$3318.26, but the average number of these employees is not given, and the second and third portions of question 3 are left blank, as well as question 5.

From the answers to questions 7 and 8 I presume that some work was done during the year, and therefore enclose you copy of the schedule as forwarded to me. If you can have this completed I will be obliged.

MICHIGAMME.

In the return for the Michigamme Mine, from which no ore was obtained during the year 1902, I note that there is an

RCM7.

expenditure for supplies and materials amounting to \$3222.37. As the stock of ore on hand December 31, 1902 is but 646 tons, against the total of 11078 tons December 31, 1901, it may be that this expenditure was the cost of removing the greater portion of the stock pile, but I would be obliged if you will advise me in regard to it.

MAAS.

In the first section of question 3 the number of miners below ground is given as 13, whereas, in the second portion of this question, under the caption "Average number of wage earners at specified daily rates of pay", but 16 men are given. Similarly, in the second portion of question 3, the total number of "All other employees" above and below ground amounts to 34, whereas, in the reply to the second section of the question but 33 "All other employees" are mentioned.

I enclose you copy of the schedule so that you may see just what answers have been made to these questions.

ASHLAND.

In the first section of question 3, the total number of engineers, firemen, machinists, blacksmiths, carpenters, and other mechanics is given as 34, whereas, in the second portion of this question, under the heading "Average number of wage earners at specified daily rates of pay", the number mentioned in these three classes amounts to but 25 men. The number of miners below ground, in the first section of the question, is given as 202, whereas, in the second section 213 are mentioned. Possibly the difference of 11 may be accounted for if the foremen below ground received a daily wage.

*Foreman receive daily wage*

*Foreman receive daily wage*



RCMS.

In the first section of question 3, the total number of "All other employees" above and below ground amounts to 169, whereas, in the second portion of the question the total number mentioned is 177, of whom 137 are "All other employees" and 40 "Timbermen and tracklayers", a difference between the two sections of 8 men.

In the first section of question 3 the total number of persons employed is given as 487, or deducting the superintendents, managers, foremen, surveyors, and clerks, of whom 15 are mentioned, (if all of these receive salaries), it would leave a total number of wage earners of 470. In the third section of this question, under the caption "Average number of wage earners employed during each month", the grand total during the 12 months which the mine was in operation amounts to 5062, or an average per month of 480, as against 470 given in the first section of the question.

I enclose you copy of the schedule so that you may see what replies have been made to the various questions.

In a number of instances I note that the answers to the queries have been left blank. Will you kindly advise me whether the word "None" should be inserted in reply to these? This refers more particularly to questions 4 and 6, which are left blank in practically all of the schedules.

I enclose you franked envelope which will enable you to forward me the schedules without paying any postage.

Regretting to trouble you again in the matter, I am,

Yours truly,

*John W. ...*  
Special Agent.

Enclosures.

UNITED STATES CENSUS OFFICE,  
Special schedule No. 6.  
Division of Manufactures.  
S.N.D. North, Chief Statistician.

M I N E S                      A N D                      Q U A R R I E S.

Name of mine or quarry, - - - *Cliffs Shaft Mine* - - - - -  
Character of mineral, - - - *Iron Ore* - - - - -  
Name of company, firm, or individual owner, ~~*The Cleveland Cliff Iron Co.*~~  
Location of mine or quarry: State, *Michigan* - - - ; County, *Marquette*  
Nearest city or town, *Ishepeming* - - - - Post-office, *Ishepeming*  
General office at - - - - *Cleveland, O.* - - - - -

UNITED STATES CENSUS OFFICE,

Washington, D. C., January 2, 1903.

By section 7 of the Act of Congress for the establishment of a permanent Census Office, approved March 6, 1902, the Director of the Census is required to prepare a report on mines, mining, quarries, and minerals and the production and value thereof, including gold in divisions of placer and vein, and silver mines, of the United States and the following schedule has been formulated for that purpose.

For the convenience of producers, the United States Geological Survey will distribute and receive these schedules in connection with the returns for its annual report.

The information returned on this schedule should cover the business year of the establishment most nearly conforming to the year ending December 31, 1902.

All answers will be held absolutely confidential. No publication will be made in the census reports disclosing the names or operations of individual establishments in any particular. Special agents and enumerators of the census are liable to a penalty of \$500, if they disclose any information obtained in their official capacity.

William R. Merriam,  
Director of the Census

EXTRACT FROM ACT OF CONGRESS, MARCH 3, 1899:

Section 22 \* \* \* " And every president, treasurer, secretary, director, agent, or other officer of every corporation, and every establishment of productive industry, whether conducted as a corporate body, limited liability company, or by private individuals, from which answers to any of the schedules, inquiries, or statistical interrogatories provided for by this act are herein required, who shall, if thereto requested by the director, supervisor, enumerator, or special agent, willfully neglect or refuse to give true and complete answers to any inquiries authorized by this act, or shall willfully give false information, shall be guilty of a misdemeanor, and upon conviction thereof shall be fined not exceeding ten thousand dollars, to which may be added imprisonment for a period not exceeding one year."

C E R T I F I C A T E.

This is to certify that the information contained in this schedule is complete and correct to the best of my knowledge and belief.

-----  
(Signature of Special Agent)

*Amy Mather*  
(Signature and official designation  
of the person furnishing the informa-  
tion.)

No. 159

CONFIDENTIAL.

DEPARTMENT OF THE INTERIOR  
UNITED STATES GEOLOGICAL SURVEY  
DIVISION OF MINING AND MINERAL RESOURCES

To be returned PROMPTLY in accompanying franked envelope to JOHN BIRKINBINE, Odd Fellows' Temple, Broad and Cherry Streets, Philadelphia, Pa.

IRON ORE

Statistics of iron ore mined during the year ending December 31, 1902, at the

Cliffs Shaft Mine  
(Give name or designation of mine.)

Located at Ishpeming, Mich.

County of Marquette State of Mich

Information supplied by Wm G Mather President  
Cleveland, Ohio

(Sign here, giving name, official position, and Post-Office address.)

For use only in the preparation of general statistics for the "Mineral Resources of the United States, 1902," to be published by the United States Geological Survey.

A. Underscore character of iron ore produced, and if more than one of the following classes is mined give amount of each:

- Limonite, brown hematite, or bog ore.
- Red hematite, specular or fossil ore.
- Magnetic ore.
- Carbonate or black band ore.

B. State total amount of marketable iron ore mined or produced during the year ending December 31, 1902.

280,193 gross tons.  
(if none, so state.)

Also stock of iron ore on hand at Mine December 31, 1902.

43,666 gross tons.  
(if none, so state.)

C. Give total value on cars or carts At The Mine of the iron ore produced during the year ending December 31, 1902, royalty, if any, included, but exclusive of hauling to points of shipment or consumption. The gross commercial value of the ore at the mine, NOT the cost or profit, is asked for.

Price	1901	1902	
	260	280	\$ <u>784,540.40</u>

1. Character of present organization, whether individual, firm, limited partnership, cooperative association, or incorporated company:-----

2. Capital stock, bonds, dividends, and assessments (if an incorporated company):

	BONDS		PREFERRED STOCK		COMMON STOCK	
	NUMBER	TOTAL PAR VALUE	No. OF SHARES	TOTAL P. VALUE	No. OF SHARES	TOTAL P. VALUE
Authorized-----		\$-----		\$-----		\$-----
Issued to the end of the year-----		\$-----		\$-----		\$-----

Dividends and interest, if any, paid during the year:

Common stock, rate -----; amount, \$-----

Preferred stock, rate -----; amount, \$-----

Bonds, rate -----; amount, \$-----

Assessments: Total amount levied, if any, since organization of company- \$-----

C L A S S E S.	AVERAGE No. EMPLOYED DURING THE YEAR	TOTAL AMOUNT PAID IN WAGES OR SALARIES DURING THE YEAR
Above Ground-		
General officers-----	1	2,500.00
Superintendents, mgrs, foremen, surveyors, etc-----	2	1,320.00
Clarks-----		
Engineers, firemen, machinists, blacksmiths, carpenters, and other mechanics-----	31	20,329.44
Miners or quarrymen and stonecutters-----		
Boys under 16 years-----	39	19,798.13
All other employees-----		
Below Ground (not for quarries or surface mines)-		
Foreman-----	3	2,431.16
Miners-----	133	91,587.72
Miners' helpers-----	78	44,546.16
Boys, under 16 years-----	39	22,869.69
All other employees-----		
T O T A L		\$205,382.30

(Account for all persons employed at the mine or quarry. Give the total salaries and wages paid, which should include board or rent furnished as part compensation. The wages reported for miners or quarrymen and stonecutters should be their net wages, and should not include the cost of supplies furnished by the company and charged to them, such as explosives, lamp oil, etc., and blacksmithing charges. Care should be taken that those employed "above ground" and those "below ground" be reported separately. Stockholders of corporations are not to be reported unless they are salaried officials. Amounts paid for contract work not done by employees hired directly, and the number employed in such work must not be included in this inquiry, but be reported in answer to inquiry, 6. 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 product reported.)

AVERAGE NUMBER OF WAGE-EARNERS AT SPECIFIED DAILY RATES OF PAY.

OCCUPATIONS	Less, 50	75	1.00	1.25	1.50	1.75	2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25	
	than	to	to	to	to	to	to	to	to	to	to	to	to	to	to	and	
	.50	.74	.99	1.24	1.49	1.74	1.99	2.24	2.49	2.74	2.99	3.24	3.49	3.74	3.99	4.24	over
Engineers - - - - -																	
Firemen - - - - -						<del>4</del>	<del>4</del>										
Machinists, blacksmiths, carpenters, and other mechanics - - - - -					6	2	6		7								
Miners or quarrymen & stonecutters - - - - -						8	4	120	4								
Miners' Helpers - - - - -						24	54										
Timbermen & track layers - - - - -						1	2	1									
Boys under 16 years - - - - -																	
All other employees, not includ- ing those on salaries - - - - -					1	37	34	5	1								

AVERAGE NUMBER OF WAGE-EARNERS EMPLOYED DURING EACH MONTH.

MONTH	MEN 16 YEARS AND OVER	BOYS, UNDER 16 YEARS	MONTH	MEN 16 YEARS AND OVER	BOYS UNDER 16 YEARS
January 1907	320		July	321	
February	321		August	326	
March	326		September	322	
April	327		October	317	
May	328		November	311	
June	326		December 1907	321	

(Only wage-earners should be reported, including miners working on tonnage and other pieceworkers. Do not include firm members, general officers, superintendents, managers, foremen, clerks, and other salaried employees.)

4. If mining or quarrying is paid for by ton, car, yard, or other unit, give rate paid and character of unit, - - - - -

Average number of employees engaged in this class of mining - - - - -  
Total amount paid for such work, \$ - - - - -

(The rate paid for mining or quarrying not done by the day should be reported, and the average number of employees engaged in such work and the total amount paid.)

5. Time in operation:

Total number of days in operation during the year, 297 - Number of hours in operation per day, 20 - - Number of shifts of workmen, 2 - - Number of hours to shift, 10 - - - -

6. Contract Work:

Amount paid, if any, for tunneling, shaft sinking, boring test holes, etc., if not done by employees hired directly by this establishment, \$ - - - - -

Average number of men employed on such work, - - - - -

Number of days employed, - - - - -

7. SUPPLIES AND MATERIAL:

Total cost of supplies and materials of all kinds used during the year, including freight paid on the same, \$ *74,537.59*

(The actual cost of all supplies and materials used during the year, including freight paid on the same, must be reported. The cost of the following materials should be reported under this inquiry: Lumber and timber used for repairs, mine supports, track ties, cars, and all other purposes; iron and steel for blacksmithing, rails, frogs, sleepers etc., for tracks and repairs, parts of machinery and tools used for renewals and repairs explosives, water for boilers and other purposes, fuel, illuminating and lubricating oils machinery supplies, etc.)

8. MISCELLANEOUS EXPENSES:

I T E M S.	A M O U N T
Royalties and rent of mine and mining plant - - - - -	\$ - - - - -
Amount paid for rent of offices, taxes, insurance, interest advertising, office supplies, law expenses, injuries and damages, telegraph and telephone service, gas, and all other sundries not reported elsewhere - - -	<i>20,955.46</i>
Total - - - - -	\$ - - - - -

(All items of expense incident to the operation of the mine or quarry, not accounted for under inquiries 8, and 7, must be reported here. Do not include any portion of the freight reported under inquiry 7 as paid on supplies and materials.)

9. PRODUCT:

Total quantity of mineral or stone mined during the year, *280,193 tons* - -

Total value at mine or quarry, \$ *784,540.40*

(Under this inquiry should be reported the quantity and value of all mineral or stone mined during the year, f.o.b. at mine or quarry, as reported to the United States Geological Survey.)

10. POWER:

a. POWER OWNED-

C L A S S.	N U M B E R	T O T A L H O R S E P O W E R
ENGINES:		
Steam - - - - -	<i>9</i>	<i>965</i>
Gas and Gasoline - - - - -	✓	✓
Water wheels - - - - -	✓	✓
Electric motors - - - - -	✓	✓
Other power (specify kind) - - - - -	✓	✓

b. POWER SUPPLIED TO OTHER ESTABLISHMENTS, IF ANY

Horsepower, - - - - - ✓

c. POWER SUPPLIED BY OTHER ESTABLISHMENTS, IF ANY

Kind of power, - - - - - ✓; horsepower, ✓

name and address of establishment supplying same, ✓ - - - - -

(Under this inquiry should be reported all mechanical power employed, either owned or rented, including the number and horsepower of all engines, motors, water wheels etc., used for hoisting, derrick, surface machinery, ventilating, pumping, and all other purposes.)

UNITED STATES CENSUS OFFICE.  
Special schedule No. 6  
Division of Manufactures.  
S.W.D. North, Chief Statistician.

M I N E S                      A N D                      Q U A R R I E S.

Name of mine or quarry,-- *Hard Ore Mine* -----  
Character of mineral,-- *Iron Ore* -----  
Name of company, firm, or individual owner,-- *Cleveland Iron Mining Co.* -----  
Location of mine or quarry: State, *Michigan* ---; County, *Marquette* -----  
Nearest city or town,-- *Ishpeming* ----- Post-office, *Ishpeming* -----  
General office at ----- *Cleveland, O.* -----

U N I T E D   S T A T E S   C E N S U S   O F F I C E ,

Washington, D. C., January 2, 1903.

By section 7 of the Act of Congress for the establishment of a permanent Census Office, approved March 8, 1902, the Director of the Census is required to prepare a report on mines, mining, quarries, and minerals and the production and value thereof, including gold in divisions of placer and vein, and silver mines, of the United States and the following schedule has been formulated for that purpose.

For the convenience of producers, the United States Geological Survey will distribute and receive these schedules in connection with the returns for its annual report.

The information returned on this schedule should cover the business year of the establishment most nearly conforming to the year ending December 31, 1902.

All answers will be held absolutely confidential. No publication will be made in the census reports disclosing the names or operations of individual establishments in any particular. Special agents and enumerators of the census are liable to a penalty of \$500, if they disclose any information obtained in their official capacity.

William R. Merriam,  
Director of the Census

EXTRACT FROM ACT OF CONGRESS, MARCH 8, 1899:

Section 22 \* \* \* " And every president, treasurer, secretary, director, agent, or other officer of every corporation, and every establishment of productive industry, whether conducted as a corporate body, limited liability company, or by private individuals, from which answers to any of the schedules, inquiries, or statistical interrogatories provided for by this act are herein required, who shall, if thereto requested by the director, supervisor, enumerator, or special agent, willfully neglect or refuse to give true and complete answers to any inquiries authorized by this act, or shall willfully give false information, shall be guilty of a misdemeanor, and upon conviction thereof shall be fined not exceeding ten thousand dollars, to which may be added imprisonment for a period not exceeding one year."

C E R T I F I C A T E.

This is to certify that the information contained in this schedule is complete and correct to the best of my knowledge and belief.

----- o  
(Signature of Special Agent)

*Wm G. Mather Pres*  
(Signature and official designation  
of the person furnishing the informa-  
tion.)

No. 157

CONFIDENTIAL.

DEPARTMENT OF THE INTERIOR

UNITED STATES GEOLOGICAL SURVEY

DIVISION OF MINING AND MINERAL RESOURCES

To be returned PROMPTLY in accompanying franked envelope to JOHN BIRKINBINE, Odd Fellows' Temple, Broad and Cherry Streets, Philadelphia, Pa.

I R O N O R E

Statistics of iron ore mined during the year ending December 31, 1902, at the

Cleveland Hard Ore  
(Give name or designation of mine.)

Located at Isipenung,

County of Marquette State of Mich.

Information supplied by \_\_\_\_\_

Stm G Mathew Priest  
Cleveland O

(Sign here, giving name, official position, and Post-Office address.)

For use only in the preparation of general statistics for the "Mineral Resources of the United States, 1902," to be published by the United States Geological Survey.

A. Underscore character of iron ore produced, and if more than one of the following classes is mined give amount of each:

- \_\_\_\_ Limonite, brown hematite, or bog ore.
- Red hematite, specular or fossil ore.
- \_\_\_\_ Magnetic ore.
- \_\_\_\_ Carbonate or black band ore.

B. State total amount of marketable iron ore mined or produced during the year ending December 31, 1902.

74,743 gross tons.  
(if none, so state.)

Also stock of iron ore on hand at Mine December 31, 1902.

91,474 gross tons.  
(if none so state.)

C. Give total value on cars or carts At The Mine of the iron ore produced during the year ending December 31, 1902, royalty, if any, included, but exclusive of hauling to points of shipment or consumption. The gross commercial value of the ore at the mine, NOT the cost or profit, is asked for.

	1901	1902	\$ <u>213,017.55</u> Is there objection to the figures of output only being credited to your mine in the report when published? No
Price	2.65	2.85	



1. Character of present organization, whether individual, firm, limited partnership, cooperative association, or incorporated company: - - - - -

2. Capital stock, bonds, dividends, and assessments (if an incorporated company):

	BONDS		PREFERRED STOCK		COMMON STOCK	
	NUMBER	TOTAL PAR VALUE	No. OF SHARES	TOTAL P. VALUE	No. OF SHARES	TOTAL P. VALUE
Authorized - - - - -		\$ - - - - -		\$ - - - - -		\$ - - - - -
Issued to the end of the year - - - - -		\$ - - - - -		\$ - - - - -		\$ - - - - -

Dividends and interest, if any, paid during the year:

Common stock, rate - - - - - ; amount, \$ - - - - -

Preferred stock, rate - - - - - ; amount, \$ - - - - -

Bonds, rate - - - - - ; amount, \$ - - - - -

Assessments: Total amount levied, if any, since organization of company - \$ - - - - -

C L A S S E S.	AVERAGE No. EMPLOYED DURING THE YEAR	TOTAL AMOUNT PAID IN WAGES OR SALARIES DURING THE YEAR
Above Ground-		
General officers - - - - -		\$ - - - - -
Superintendents, mngrs. foremen, surveyors, etc - - - - -	1	1,500.00
Clerks - - - - -	2	1,440.00
Engineers, firemen, machinists, blacksmiths, carpenters, and other mechanics - - - - -	9	5,690.00
Miners or quarrymen and stonecutters - - - - -		
Boys under 16 years - - - - -		
All other employees - - - - -	26	11,332.94
Below Ground (not for quarries or surface mines)-		
Foremen - - - - -	2	1,545.05
Miners - - - - -	47	29,752.68
Miners' helpers - - - - -	23	12,819.36
Boys, under 16 years - - - - -		
All other employees - - - - -	9	5,153.64
T O T A L	119	\$ 69,483.67

(Account for all persons employed at the mine or quarry. Give the total salaries and wages paid, which should include board or rent furnished as part compensation. The wages reported for miners or quarrymen and stonecutters should be their net wages, and should not include the cost of supplies furnished by the company and charged to them, such as explosives, lamp oil, etc., and blacksmithing charges. Care should be taken that those employed "above ground" and those "below ground" be reported separately. Stockholders of corporations are not to be reported unless they are salaried officials. Amounts paid for contract work, not done by employees hired directly, and the number employed in such work, must not be included in this inquiry, but be reported in answer to inquiry, 6. 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 product reported.)

AVERAGE NUMBER OF WAGE-EARNERS AT SPECIFIED DAILY RATES OF PAY.

OCCUPATIONS	Less than .50	.50 to .74	.75 to 1.00	1.01 to 1.25	1.25 to 1.50	1.50 to 1.75	1.75 to 2.00	2.00 to 2.25	2.25 to 2.50	2.50 to 2.75	2.75 to 3.00	3.00 to 3.25	3.25 to 3.50	3.50 to 3.75	3.75 to 4.00	4.00 to 4.25	4.25 and over
Engineers							3										
Firemen							2										
Machinists, blacksmiths, carpenters, and other mechanics						1	1										
Miners or quarrymen & stonecutters						1		30	18								
Miners' helpers						23	1	1									
Timbermen & track layers							1	1									
Boys under 16 years																	
All other employees, not including those on salaries					25	7	2	1									

AVERAGE NUMBER OF WAGE-EARNERS EMPLOYED DURING EACH MONTH.

MONTH	MEN 16 YEARS AND OVER	BOYS, UNDER 16 YEARS	MONTH	MEN 16 YEARS AND OVER	BOYS UNDER 16 YEARS
January '02	116		July	110	
February	104		August	125	
March	118		September	123	
April	126		October	122	
May	120		November	108	
June	119		December	103	

(Only wage-earners should be reported, including miners working on tonnage and other pieceworkers. Do not include firm members, general officers, superintendents, managers, foremen, clerks, and other salaried employees.)

4. If mining or quarrying is paid for by ton, car, yard, or other unit, give rate paid and character of unit.

Average number of employees engaged in this class of mining \_\_\_\_\_  
 Total amount paid for such work, \$ \_\_\_\_\_

(The rate paid for mining or quarrying not done by the day should be reported, and the average number of employees engaged in such work and the total amount paid.)

5. Time in operation:

Total number of days in operation during the year, 298 - Number of hours in operation per day, 20 - Number of shifts of workmen, 2 - Number of hours to shift, 10

6. Contract Work:

Amount paid, if any, for tunneling, shaft sinking, boring test holes, etc., if not done by employees hired directly by this establishment, \$ \_\_\_\_\_  
 Average number of men employed on such work, \_\_\_\_\_  
 Number of days employed, \_\_\_\_\_

7. SUPPLIES AND MATERIAL:

Total cost of supplies and materials of all kinds used during the year, including freight paid on the same, \$ 27,531.38

(The actual cost of all supplies and materials used during the year, including freight paid on the same, must be reported. The cost of the following materials should be reported under this inquiry: Lumber and timber used for repairs, mine supports, track ties, cars, and all other purposes; iron and steel for blacksmithing, rails, frogs, sleepers etc., for tracks and repairs, parts of machinery and tools used for renewals and repairs explosives, water for boilers and other purposes, fuel, illuminating and lubricating oils machinery supplies, etc.)

8. MISCELLANEOUS EXPENSES:

I T E M S.	AMOUNT
Royalties and rent of mine and mining plant - - - - -	\$ - - - - -
Amount paid for rent of offices, taxes, insurance, interest advertising, office supplies, law expenses, injuries and damages, telegraph and telephone service, gas, and all other sundries not reported elsewhere - - -	<u>5,276.<sup>01</sup></u>
Total - - - - -	\$ - - - - -

(All items of expense incident to the operation of the mine or quarry, not accounted for under inquiries 8, and 7, must be reported here. Do not include any portion of the freight reported under inquiry 7 as paid on supplies and materials.)

9. PRODUCT:

Total quantity of mineral or stone mined during the year, 74,743 lbs. Tons.

Total value at mine or quarry, \$ 213,017.<sup>55</sup>

(Under this inquiry should be reported the quantity and value of all mineral or stone mined during the year, f.o.b. at mine or quarry, as reported to the United States Geological Survey.)

10. POWER:

a. POWER OWNED-

C L A S S.	NUMBER	TOTAL HORSEPOWER
ENGINES:		
Steam - - - - -	5	610
Gas and Gasoline - - - - -	✓	✓
Water wheels - - - - -	✓	✓
Electric motors - - - - -	✓	✓
Other power (specify kind) - - - - -	✓	✓

b. POWER SUPPLIED TO OTHER ESTABLISHMENTS, IF ANY-

Horsepower, - - - - - ✓

c. POWER SUPPLIED BY OTHER ESTABLISHMENTS, IF ANY-

Kind of power, - - - - - ✓; horsepower, ✓

name and address of establishment supplying same, - - - - - ✓

(Under this inquiry should be reported all mechanical power employed, either owned or rented, including the number and horsepower of all engines, motors, water wheels etc., used for hoisting, derricks, surface machinery, ventilating, pumping, and all other purposes.)

UNITED STATES CENSUS OFFICE.  
Special schedule No. 6  
Division of Manufactures.  
S.N.D. North, Chief Statistician.

M I N E S            A N D            Q U A R R I E S .

Name of mine or quarry, - - - - - *Crosby Mine* - - - - -  
Character of mineral, - - - - - *Iron Ore* - - - - -  
Name of company, firm, or individual owner, *The Cleveland Cliffs Iron Co.*  
Location of mine or quarry: State, *Minnesota* - - ; County, *Itasca* - -  
Nearest city or town, - *Hubbing* - - - - - Post-office, - - - - -  
General office at - - - - - *Cleveland, O.* - - - - -

U N I T E D   S T A T E S   C E N S U S   O F F I C E .

Washington, D. C., January 2, 1903.

By section 7 of the Act of Congress for the establishment of a permanent Census Office, approved March 6, 1902, the Director of the Census is required to prepare a report on mines, mining, quarries, and minerals and the production and value thereof, including gold in divisions of placer and vein, and silver mines, of the United States and the following schedule has been formulated for that purpose.

For the convenience of producers, the United States Geological Survey will distribute and receive these schedules in connection with the returns for its annual report.

The information returned on this schedule should cover the business year of the establishment most nearly conforming to the year ending December 31, 1902.

All answers will be held absolutely confidential. No publication will be made in the census reports disclosing the names or operations of individual establishments in any particular. Special agents and enumerators of the census are liable to a penalty of \$500, if they disclose any information obtained in their official capacity.

William R. Merriam,  
Director of the Census

EXTRACT FROM ACT OF CONGRESS, MARCH 3, 1899:

Section 22 \* \* \* " And every president, treasurer, secretary, director, agent, or other officer of every corporation, and every establishment of productive industry, whether conducted as a corporate body, limited liability company, or by private individuals, from which answers to any of the schedules, inquiries, or statistical interrogatories provided for by this act are herein required, who shall, if thereto requested by the director, supervisor, enumerator, or special agent, willfully neglect or refuse to give true and complete answers to any inquiries authorized by this act, or shall willfully give false information, shall be guilty of a misdemeanor, and upon conviction thereof shall be fined not exceeding ten thousand dollars, to which may be added imprisonment for a period not exceeding one year."

C E R T I F I C A T E .

This is to certify that the information contained in this schedule is complete and correct to the best of my knowledge and belief.

- - - - - 0  
(Signature of Special Agent)

*Wm G. Mathew, Pres't*  
(Signature and official designation  
of the person furnishing the informa-  
tion.)

No. \_\_\_\_\_

CONFIDENTIAL.

DEPARTMENT OF THE INTERIOR

UNITED STATES GEOLOGICAL SURVEY

DIVISION OF MINING AND MINERAL RESOURCES

To be returned PROMPTLY in accompanying franked envelope to JOHN BIRKINBINE, Odd Fellows' Temple, Broad and Cherry Streets, Philadelphia, Pa.

I R O N O R E

Statistics of iron ore mined during the year ending December 31, 1902, at the

Crosby Mine  
(Give name or designation of mine.)

Located at \_\_\_\_\_

County of Itasca State of Minnesota

Information supplied by \_\_\_\_\_

Wm. G. Mathew Pres't

Cleveland Ohio

(Sign here, giving name, official position, and Post-office address.)

For use only in the preparation of general statistics for the "Mineral Resources of the United States, 1902," to be published by the United States Geological Survey.

A. Underscore character of iron ore produced, and if more than one of the following classes is mined give amount of each:

- Limonite, brown hematite, or bog ore.
- Red hematite, specular or fossil ore.
- Magnetic ore.
- Carbonate or black band ore.

B. State total amount of marketable iron ore mined or produced during the year ending December 31, 1902.

None gross tons.  
(if none, so state.)

Also stock of iron ore on hand at Mine December 31, 1902.

None gross tons.  
(if none so state.)

G. Give total value on cars or carts At The Mine of the iron ore produced during the year ending December 31, 1902, royalty, if any, included, but exclusive of hauling to points of shipment or consumption. The gross commercial value of the ore at the mine, NOT the cost or profit, is asked for.

\$ \_\_\_\_\_

1. Character of present organization, whether individual, firm, limited partnership, cooperative association, or incorporated company: - - - - -

2. Capital stock, bonds, dividends, and assessments (if an incorporated company):

	BONDS		PREFERRED STOCK		COMMON STOCK	
	NUMBER	TOTAL PAR VALUE	No. OF SHARES	TOTAL P. VALUE	No. OF SHARES	TOTAL P. VALUE
Authorized - - - - -		\$ - - - - -		\$ - - - - -		\$ - - - - -
Issued to the end of the year - - - - -		\$ - - - - -		\$ - - - - -		\$ - - - - -

Dividends and interest, if any, paid during the year:

Common stock, rate - - - - - ; amount, \$ - - - - -  
 Preferred stock, rate - - - - - ; amount, \$ - - - - -  
 Bonds, rate - - - - - ; amount, \$ - - - - -

Assessments: Total amount levied, if any, since organization of company - \$ - - - - -

C L A S S E S.	AVERAGE No. EMPLOYED DURING THE YEAR	TOTAL AMOUNT PAID IN WAGES OR SALARIES DURING THE YEAR
Above Ground-		
General officers - - - - -		\$ - - - - -
Superintendents, mgrs. foremen, surveyors, etc - - - - -		
Clerks - - - - -		
Engineers, firemen, machinists, blacksmiths, carpenters, and other mechanics - - - - -		
Miners or quarrymen and stonecutters - - - - -		
Boys under 16 years - - - - -		
All other employees - - - - -		
Below Ground (not for quarries or surface mines) - - - - -		
Foremen - - - - -		
Miners - - - - -		
Miners' helpers - - - - -		
Boys, under 16 years - - - - -		
All other employees - - - - -		
T O T A L	✓	\$ ✓

(Account for all persons employed at the mine or quarry. Give the total salaries and wages paid, which should include board or rent furnished as part compensation. The wages reported for miners or quarrymen and stonecutters should be their net wages, and should not include the cost of supplies furnished by the company and charged to them, such as explosives, lamp oil, etc., and blacksmithing charges. Care should be taken that those employed "above ground" and those "below ground" be reported separately. Stockholders of corporations are not to be reported unless they are salaried officials. Amounts paid for contract work not done by employees hired directly, and the number employed in such work must not be included in this inquiry, but be reported in answer to inquiry 6. The average number employed during the year is the number that would be required, continuous employment for the twelve months, to produce the quantity of product reported.)

AVERAGE NUMBER OF WAGE-EARNERS AT SPECIFIED DAILY RATES OF PAY.

OCCUPATIONS	Less than	50	75	1.00	1.25	1.50	1.75	2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25
	to	to	to	to	to	to	to	to	to	to	to	to	to	to	to	to	and over
Engineers -	.50	.74	.99	1.24	1.48	1.74	1.99	2.24	2.49	2.74	2.99	3.24	3.49	3.74	3.99	4.24	over
Fishermen -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Machinists, blacksmiths, carpenters, and other mechanics -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Riders or quarrymen & stonecutters -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Miners' helpers -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Timbermen & track layers -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Boys under 16 years -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
All other employees, not includ- ing those on salaries -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

AVERAGE NUMBER OF WAGE-EARNERS EMPLOYED DURING EACH MONTH.

MONTH	MEN 16 YEARS AND OVER	BOYS, UNDER 16 YEARS	MONTH	MEN 16 YEARS AND OVER	BOYS UNDER 16 YEARS
January -	-	-	July -	-	-
February -	-	-	August -	-	-
March -	-	-	September -	-	-
April -	-	-	October -	-	-
May -	-	-	November -	-	-
June -	-	-	December -	-	-

(Only wage-earners should be reported, including miners working on tonnage and other pieceworkers. Do not include firm members, general officers, superintendents, managers, foremen, clerks, and other salaried employees.)

4. If mining or quarrying is paid for by ton, car, yard, or other unit, give rate paid and character of unit, - - - - -

Average number of employees engaged in this class of mining - - - - -

Total amount paid for such work, \$ - - - - -

(The rate paid for mining or quarrying not done by the day should be reported, and the average number of employees engaged in such work and the total amount paid.)

5. Time in operation:

Total number of days in operation during the year, - - - - - Number of hours in operation per day, - - - - - Number of shifts of workmen, - - - - - Number of hours to shift, - - - - -

6. Contract Work:

Amount paid, if any, for tunneling, shaft sinking, boring test holes, etc., if not done by employees hired directly by this establishment, \$ - - - - -

Average number of men employed on such work, - - - - -

Number of days employed, - - - - -

**SUPPLIES AND MATERIAL:**

Total cost of supplies and materials of all kinds used during the year, including freight paid on the same, \$ - - - - -

(The actual cost of all supplies and materials used during the year, including freight paid on the same, must be reported. The cost of the following materials should be reported under this inquiry: Lumber and timber used for repairs, mine supports, track ties, cars, and all other purposes; iron and steel for blacksmithing, rails, frogs, sleepers etc., for tracks and repairs, parts of machinery and tools used for renewals and repairs explosives, water for boilers and other purposes, fuel, illuminating and lubricating oils machinery supplies, etc.)

**8. MISCELLANEOUS EXPENSES:**

I T E M S.	AMOUNT
Royalties and rent of mine and mining plant - - - - -	\$ - - - - -
Amount paid for rent of offices, taxes, insurance, interest advertising, office supplies, law expenses, injuries and damages, telegraph and telephone service, gas, and all other sundries not reported elsewhere - - - - -	- - - - -
<b>Total</b> - - - - -	\$ - - - - -

(All items of expense incident to the operation of the mine or quarry, not accounted for under inquiries 8, and 7, must be reported here. Do not include any portion of the freight reported under inquiry 7 as paid on supplies and materials.)

**9. PRODUCT:**

Total quantity of mineral or stone mined during the year, *None* - - - - -  
 Total value at mine or quarry, \$ - - - - -

(Under this inquiry should be reported the quantity and value of all mineral or stone mined during the year, f.o.b. at mine or quarry, as reported to the United States Geological Survey.)

**10. POWER:**

**a. POWER OWNED-**

C L A S S.	NUMBER	TOTAL HORSEPOWER
<b>ENGINES:</b>		
Steam - - - - -		
Gas and Gasoline - - - - -		
Water wheels - - - - -	✓	✓
Electric motors - - - - -		
Other power (specify kind) - - - - -		

**b. POWER SUPPLIED TO OTHER ESTABLISHMENTS, IF ANY-**

Horsepower, - - - - - ✓

**c. POWER SUPPLIED BY OTHER ESTABLISHMENTS, IF ANY-**

Kind of power, - - - - - ✓; horsepower,

name and address of establishment supplying same, - - - ✓

(Under this inquiry should be reported all mechanical power employed, either owned or rented, including the number and horsepower of all engines, motors, water wheels etc., used for hoisting, derricks, surface machinery, ventilating, pumping, and all other purposes.)



UNITED STATES CENSUS OFFICE.  
Special schedule No. 6.  
Division of Manufactures.  
S.N.D. North, Chief Statistician.

M I N E S                      A N D                      Q U A R R I E S.

Name of mine or quarry, - - - *Maas Mine* - - - - -  
Character of mineral, - - - - - *Iron Ore* - - - - -  
Name of company, firm, or individual owner, *The Cleveland Cliffs Iron Co.*  
Location of mine or quarry: State, *Michigan* - - ; County, *Marquette*  
Nearest city or town, - *Negaunee* - - - - - Post-office, *Negaunee*  
General office at - - - - - *Cleveland, O.* - - - - -

UNITED STATES CENSUS OFFICE,

Washington, D. C., January 2, 1903.

By section 7 of the Act of Congress for the establishment of a permanent Census Office, approved March 3, 1902, the Director of the Census is required to prepare a report on mines, mining, quarries, and minerals and the production and value thereof, including gold in divisions of placer and vein, and silver mines, of the United States and the following schedule has been formulated for that purpose.

For the convenience of producers, the United States Geological Survey will distribute and receive these schedules in connection with the returns for its annual report.

The information returned on this schedule should cover the business year of the establishment most nearly conforming to the year ending December 31, 1902.

All answers will be held absolutely confidential. No publication will be made in the census reports disclosing the names or operations of individual establishments in any particular. Special agents and enumerators of the census are liable to a penalty of \$500, if they disclose any information obtained in their official capacity.

William R. Merriam,  
Director of the Census

EXTRACT FROM ACT OF CONGRESS, MARCH 3, 1899:

Section 22 \* \* \* " And every president, treasurer, secretary, director, agent, or other officer of every corporation, and every establishment of productive industry, whether conducted as a corporate body, limited liability company, or by private individuals, from which answers to any of the schedules, inquiries, or statistical interrogatories provided for by this act are herein required, who shall, if thereto requested by the director, supervisor, enumerator, or special agent, willfully neglect or refuse to give true and complete answers to any inquiries authorized by this act, or shall willfully give false information, shall be guilty of a misdemeanor, and upon conviction thereof shall be fined not exceeding ten thousand dollars, to which may be added imprisonment for a period not exceeding one year."

C E R T I F I C A T E.

This is to certify that the information contained in this schedule is complete and correct to the best of my knowledge and belief.

- - - - -  
(Signature of Special Agent)

*Wm G Mather Pres*  
(Signature and official designation of the person furnishing the information.)

No. \_\_\_\_\_

CONFIDENTIAL.

DEPARTMENT OF THE INTERIOR

UNITED STATES GEOLOGICAL SURVEY

DIVISION OF MINING AND MINERAL RESOURCES

To be returned PROMPTLY in accompanying franked envelope to JOHN BIRKINBINE, Odd Fellows' Temple, Broad and Cherry Streets, Philadelphia, Pa.

IRON ORE

Statistics of iron ore mined during the year ending December 31, 1902, at the

Maas mine

(Give name or designation of mine.)

Located at Mequon, Wis.

County of Marquette State of Mich.

Information supplied by \_\_\_\_\_

Wm. S. Mather President  
Cleveland Ohio

(Sign here, giving name, official position, and Post-Office address.)

For use only in the preparation of general statistics for the "Mineral Resources of the United States, 1902," to be published by the United States Geological Survey.

A. Underscore character of iron ore produced, and if more than one of the following classes is mined give amount of each:

Limonite, brown hematite, or bog ore.

Red hematite, specular or fossil ore.

Magnetic ore.

Carbonate or black band ore.

B. State total amount of marketable iron ore mined or produced during the year ending December 31, 1902.

none - Sinking Shaft gross tons.  
(if none, so state.)

Also stock of iron ore on hand at Mine December 31, 1902.

none gross tons.  
(if none so state.)

C. Give total value on cars or carts at the Mine of the iron ore produced during the year ending December 31, 1902, royalty, if any, included, but exclusive of hauling to points of shipment or consumption. The gross commercial value of the ore at the mine, NOT the cost or profit, is asked for.

\$ \_\_\_\_\_

Character of present organization, whether individual, firm, limited partnership, cooperative association, or incorporated company: - - - - -

2. Capital stock, bonds, dividends, and assessments (if an incorporated company):

	BONDS		PREFERRED STOCK		COMMON STOCK	
	NUMBER	TOTAL PAR VALUE	No. OF SHARES	TOTAL P. VALUE	No. OF SHARES	TOTAL P. VALUE
Authorized - - - - -		\$ - - - - -		\$ - - - - -		\$ - - - - -
Issued to the end of the year - - - - -		\$ - - - - -		\$ - - - - -		\$ - - - - -

Dividends and interest, if any, paid during the year:

Common stock, rate - - - - -; amount, \$ - - - - -  
 Preferred stock, rate - - - - -; amount, \$ - - - - -  
 Bonds, rate - - - - -; amount, \$ - - - - -

Assessments: Total amount levied, if any, since organization of company - \$ - - - - -

C L A S S E S.	AVERAGE No. EMPLOYED DURING THE YEAR	TOTAL AMOUNT PAID IN WAGES OR SALARIES DURING THE YEAR
Above Ground-		
General officers - - - - -		\$ - - - - -
Superintendents, mngrs. foremen, surveyors, etc - - - - -	1	2,500.00
Clerks - - - - -	1	575.80
Engineers, firemen, machinists, blacksmiths, carpenters, and other mechanics - - - - -	7	5,065.80
Miners or quarrymen and stonecutters - - - - -		
Boys under 16 years - - - - -		
All other employees - - - - -	32	17,519.83
Below Ground (not for quarries or surface mines)-		
Foremen - - - - -	2	1,475.13
Miners - - - - -	13	9,170.13
Miners' helpers - - - - -		
Boys, under 16 years - - - - -		
All other employees - - - - -	2	1,701.10
TOTAL	58	\$28,007.79

(Account for all persons employed at the mine or quarry. Give the total salaries and wages paid, which should include board or rent furnished as part compensation. The wages reported for miners or quarrymen and stonecutters should be their net wages, and should not include the cost of supplies furnished by the company and charged to them, such as explosives, lamp oil, etc. and blacksmithing charges. Care should be taken that those employed "above ground" and those "below ground" be reported separately. Stockholders of corporations are not to be reported unless they are salaried officials. Amounts paid for contract work, not done by employees hired directly, and the number employed in such work, must not be included in this inquiry, but be reported in answer to inquiry, 6. 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 product reported ed.)

AVERAGE NUMBER OF WAGE-EARNERS AT SPECIFIED DAILY RATES OF PAY.

OCCUPATIONS	Less than .50	.50 to .75	1.00 to 1.25	1.50 to 1.75	2.00 to 2.25	2.50 to 2.75	3.00 to 3.25	3.50 to 3.75	4.00 to 4.25	4.25 and over
Engineers										
Firemen					2					
Machinists, blacksmiths, carpenters, and other mechanics					5					
Miners or quarrymen & stonecutters						16				
Miners' helpers										
Timbermen & track layers										
Boys under 16 years										
All other employees, not including those on salaries				27	4		2			

AVERAGE NUMBER OF WAGE-EARNERS EMPLOYED DURING EACH MONTH.

MONTH	MEN 16 YEARS AND OVER	BOYS UNDER 16 YEARS	MONTH	MEN 16 YEARS AND OVER	BOYS UNDER 16 YEARS
January '02	35		July	57	
February	56		August	53	
March	73		September	51	
April	58		October	55	
May	55		November	54	
June	54		December '01	50	

Only wage-earners should be reported, including miners working on tonnage and other pieceworkers. Do not include firm members, general officers, superintendents, managers, foremen, clerks, and other salaried employees.)

4. If mining or quarrying is paid for by ton, car, yard, or other unit, give rate paid and character of unit, - - - - -  
 Average number of employees engaged in this class of mining - - - - -  
 Total amount paid for such work, \$ - - - - -  
 (The rate paid for mining or quarrying not done by the day should be reported, and the average number of employees engaged in such work and the total amount paid.)

5. Time in operation:  
 Total number of days in operation during the year, 365 - - - - - Number of hours in operation per day, 24 - - - - - Number of shifts of workmen, 283 - - - - - Number of hours to shift, 8810 - - - - -

6. Contract Work:  
 Amount paid, if any, for tunneling, shaft sinking, boring test holes, etc., if not done by employees hired directly by this establishment, \$ - - - - -  
 Average number of men employed on such work, - - - - -  
 Number of days employed, - - - - -

7. SUPPLIES AND MATERIAL:

Total cost of supplies and materials of all kinds used during the year, including freight paid on the same, \$ 44,935.08

(The actual cost of all supplies and materials used during the year, including freight paid on the same, must be reported. The cost of the following materials should be reported under this inquiry: Lumber and timber used for repairs, mine supports, track ties, cars, and all other purposes; iron and steel for blacksmithing, rails, frogs, sleepers etc., for tracks and repairs, parts of machinery and tools used for renewals and repairs explosives, water for boilers and other purposes, fuel, illuminating and lubricating oils machinery supplies, etc.)

8. MISCELLANEOUS EXPENSES:

I T E M S.	AMOUNT
Royalties and rent of mine and mining plant - - - - -	\$ - - - - -
Amount paid for rent of offices, taxes, insurance, interest advertising, office supplies, law expenses, injuries and damages, telegraph and telephone service, gas, and all other sundries not reported elsewhere - - -	<u>10648.63</u>
Total - - - - -	\$ - - - - -

(All items of expense incident to the operation of the mine or quarry, not accounted for under inquiries 8, and 7, must be reported here. Do not include any portion of the freight reported under inquiry 7 as paid on supplies and materials.)

9. PRODUCT:

Total quantity of mineral or stone mined during the year, None, (Sinking Shaft)  
 Total value at mine or quarry, \$ - - - - -

(Under this inquiry should be reported the quantity and value of all mineral or stone mined during the year, f.o.b. at mine or quarry, as reported to the United States Geological Survey.)

10. POWER:

a. POWER OWNED-

C L A S S.	NUMBER	TOTAL HORSEPOWER
ENGINES:		
Steam - - - - -	<u>2</u>	<u>110</u>
Gas and Gasoline - - - - -	✓	✓
Water wheels - - - - -	✓	✓
Electric motors - - - - -	✓	✓
Other power (specify kind) - - - - -	✓	✓

b. POWER SUPPLIED TO OTHER ESTABLISHMENTS, IF ANY-

Horsepower, - - - - -

c. POWER SUPPLIED BY OTHER ESTABLISHMENTS, IF ANY-

Kind of power, - - - - -; horsepower,

name and address of establishment supplying same, - - - - -

(Under this inquiry should be reported all mechanical power employed, either owned or rented, including the number and horsepower of all engines, motors, water wheels etc., used for hoisting, darricks, surface machinery, ventilating, pumping, and all other purposes.)

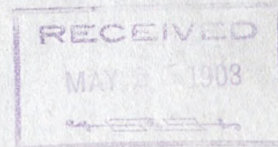
THE CLEVELAND-CLIFFS IRON CO.

CLEVELAND IRON MINING CO.  
IRON CLIFFS CO.

M. M. DUNCAN, AGENT.

ISHPEMING, MICH., May 23rd., 1903.

IN YOUR REPLY PLEASE REFER TO FILE



Mr. R. C. Mann, Auditor,  
Cleveland, Ohio.

Dear Sir:-

Am sending you under separate cover the reports for Mr. Birkinbine and would call your attention to the supplemental schedule for administrative and general offices. In clause three "Persons employed" we have shown all of the figures called for as far as our office is concerned. For clause five, we show 11936.56 this covers Central Office expense which amount was deducted from the cost sheets for the respective mines in order to show it up here in one amount.

The items which are charged to the Treasurer's account for repairs to rented houses, land improvement etc. are not covered in any of these reports, neither are the amounts received for rents. We do not show the cost of the Swanzy and Mesaba explorations as I do not think that these figures are required.

Yours truly,

*J. J. M. [Signature]*  
Local Auditor.

AJY-CWL

	11/30/1901 to 11/30/1902	add Dec 1902	11/30/01 to 12/31/02	deduct Dec 1901	calendar year 1902
7 <sup>28</sup> Ashland	255.669	19.514	275.783	16.064	259.119
7 <sup>51</sup> Taylor	53.022	4.842	57.864	3.273	54.591
7 <sup>13</sup> Glover	1.010		1.010		1.010
Total	309.701	24.356	334.057	19.337	314.720
4 <sup>1</sup> Lake	309.184	27.139	336.323	21.334	314.989
3 <sup>25</sup> " Bess	165.480	12.056	177.536	11.795	165.741
1 <sup>1</sup> " " Alice	3.167	5.35	3.702		3.702
Total	477.831	39.730	517.561	33.129	484.432
7 <sup>27</sup> Sales	89.074	7.860	96.934	5.159	91.775
3 <sup>26</sup> " Bess	89.612	6.682	96.294	9.003	87.291
Total	178.686	14.542	193.228	14.162	179.066

UNITED STATES CENSUS OFFICE.  
SPECIAL SCHEDULE No. 6 a.

DIVISION OF MANUFACTURES.  
S.N.D.NORTH, CHIEF STATISTICIAN.

M I N E S      A N D      Q U A R R I E S.  
SUPPLEMENTAL SCHEDULE FOR ADMINISTRATIVE AND GENERAL OFFICES.

Name of Company, firm, or individual owner, The Cleveland Cliffs Iron Co.  
General Office: State, Ohio; County, Cuyahoga; City or town, Cleveland

Corporations, firms, or individuals operating more than one mine, quarry, or reduction works, with a central office for all of them, are requested to report on this schedule the employees of such central office, with their salaries or wages and all other employees whose work is not confined to one particular mine, quarry, or reduction works, such as general superintendents, machinists, surveyors, etc. All general expenses are also to be reported on this schedule, and the data relating to capital stock, bonds, dividends, and assessments of incorporated companies. NO DATA REPORTED ON THIS SCHEDULE SHOULD APPEAR ON THE SEPERATE REPORTS FOR THE INDIVIDUAL MINES, QUARRIES, OR REDUCTION WORKS. SEPERATE SCHEDULES ARE SUPPLIED FOR THESE INDIVIDUAL PLANTS.

C E R T I F I C A T E.

This is to certify that the information contained in this schedule is complete and correct to the best of my knowledge and belief.

Wm G. Mathewson  
(Signature and official designation of the person furnishing the information.)

(Signature of special Agent.)

1. Character of present organization, whether individual, firm, limited partnership, cooperative association, or incorporated company: Incorporated company

\*\*\*\*\*

2. Capital stock, bonds, dividends, and assessments (if an incorporated company):

	B O N D S		P R E F E R R E D   S T O C K		C O M M O N   S T O C K	
	Number	Total Pr Val.	NO. OF SHARES	Total Pr. VAL.	NO. OF SHARES	Total P.V
Authorized . . . . .		\$ . . . . .		\$ . . . . .	50,000	\$ 5,000,000 <sup>00</sup>
Issued to end of the year. . . . .		\$ . . . . .		\$ . . . . .	49,100	\$ 4,910,000 <sup>00</sup>
Dividends and interest, if any, paid during the year:						
Common stock, rate <u>12%</u>						; amount, \$ 589,200 <sup>00</sup>
Preferred stock, rate						; amount, \$
Bonds, rate						; amount, \$

\*\*\*\*\*

ASSESSMENTS: Total amount levied since organization of company \$



3. Persons employed:

C L A S S E S	AVERAGE NO. EMPLOYED DURING THE YEAR	TOTAL AMOUNT PAID IN SALARIES OR WAGES DURING YEAR
General officers . . . . .	4	\$ 34,100.00
Other officers (managers, general superintendents, etc)	7	24,515.00
Clerks . . . . .	23	16,463.71
Surveyers, machinists, laborers, and all others not employed at particular mines, quarries, or reduction works.	9	7,681.56
Total . . . . .	43	\$ 82,760.27

\*\*\*\*\*

(Account for all persons not included in the separate returns for mines, quarries, or reduction works. Give the total salaries and wages paid, which should include board or rent furnished as part compensation. Stockholders of corporations are not to be reported unless they are salaried officials. Amounts paid for contract work, not done by employees hired directly, and the number employed in such work, must not be included in this inquiry, but be reported in answer to Inquiry 4. The average number employed during the year is the number that would have continuous employment for the twelve months.)

4. Contract work:

Amount paid, if any, for tunneling, shaft sinking, boring test holes, etc., not chargeable to a particular mine or quarry, if not done by employees hired directly by this establishment. . . . . \$ \_\_\_\_\_  
 Average number of men employed on such work, \_\_\_\_\_  
 Number of days employed, \_\_\_\_\_

5. Miscellaneous expenses:

Amount paid for rent of offices, taxes, insurance, interest, advertising, office supplies, law expenses, injuries and damages, telegraph and telephone service, gas, and all other sundries not reported elsewhere . . . . . \$ 111,911.04  
 (All items of general expense not accounted for under Inquiries 3 and 4 must be reported here.)

6. Names and locations of mines, quarries, or reduction works owned or leased:  
 (If not sufficient space use separate sheet of paper.)

NAME OF MINE, QUARRY, OR REDUCTION WORKS.	L O C A T I O N.		
	STATE.	COUNTY.	NEAREST CITY OR TOWN.
Hard Ore Mine	Mich	Marquette	Sapeenung
Lake	"	"	"
Salsbury	"	"	"
Cliffshaft	"	"	"
Liden	"	"	"
Imperial	"	Baraga	Michigamme
Webster	"	"	"
Barasa	"	Marquette	Hegauise
Maas	"	"	"
Ashland	"	Logsbic	Ironwood
Crosby	Minn	Itasca	Nashwanuk

Kind 19,290.78

Int 56,369.97

Taxes 17,209.94

Personal Taxes 147.38  
Estm 125.69

Legal Exp. 6,835.72

Minor items }  
for letter } 11,936.56  
3/21/03 }  
2/24

11/2/01 5  
11/30/01 ✓

69,906.31  
12 536.34

7,262.88  
416.76  
6,846.12  
10.40

Dec 1901 - 179.89 cash  
728.48 comm  
a. 55.48  
w 10.80  
565.28 908.37 345.09

Dec 1902  
cash a. 1268.30 24.96  
comm a  
221.57  
P.D. w 26.22 24.96 1268.30

Dec 1901 - 21.20 cash  
282.56 comm  
416.76 P.D.

Dec 1902 3.20 cash  
2.00 comm  
5.20 P.D.  
10.40

~~11,291.04~~

111,911.04

20/2/03 R.E.  
M.F.L.

Persons employed	Salaries		Total
	mine	Go	
General Office	4	34,100.00	34,100.00
Other " Mgrs etc	7	24,515.00	24,515.00
Clerks	10	7,160.47	7,160.47
Surveyors etc	9	7,681.56	7,681.56
<u>26</u>	<u>17</u>	<u>39,357.03</u>	<u>43,403.24</u>
			43 82,760.27

UNITED STATES CENSUS OFFICE.  
Special schedule No. 6  
Division of Manufactures.  
S.N.D. North, Chief Statistician.

M I N E S                      A N D                      Q U A R R I E S .

Name of mine or quarry, - - - *Michigamme Mine abandoned*  
Character of mineral, - - - - - *Iron Ore*  
Name of company, firm, or individual owner, - - - ~~*The Cleveland Cliff Iron Co.*~~  
Location of mine or quarry: State, *Michigan* - - - ; County, *Marquette*  
Nearest city or town, *Michigamme* - - - - - Post-office, - - - - -  
General office at - - - - - *Cleveland, O* - - - - -

UNITED STATES CENSUS OFFICE,

Washington, D. C., January 2, 1903.

By section 7 of the Act of Congress for the establishment of a permanent Census Office, approved March 6, 1902, the Director of the Census is required to prepare a report on mines, mining, quarries, and minerals and the production and value thereof, including gold in divisions of placer and vein, and silver mines, of the United States and the following schedule has been formulated for that purpose.

For the convenience of producers, the United States Geological Survey will distribute and receive these schedules in connection with the returns for its annual report.

The information returned on this schedule should cover the business year of the establishment most nearly conforming to the year ending December 31, 1902.

All answers will be held absolutely confidential. No publication will be made in the census reports disclosing the names or operations of individual establishments in any particular. Special agents and enumerators of the census are liable to a penalty of \$500, if they disclose any information obtained in their official capacity.

William R. Merriam,  
Director of the Census

EXTRACT FROM ACT OF CONGRESS, MARCH 2, 1899:

Section 22 \* \* \* " And every president, treasurer, secretary, director, agent, or other officer of every corporation, and every establishment of productive industry, whether conducted as a corporate body, limited liability company, or by private individuals, from which answers to any of the schedules, inquiries, or statistical interrogatories provided for by this act are herein required, who shall, if thereto requested by the director, supervisor, enumerator, or special agent, willfully neglect or refuse to give true and complete answers to any inquiries authorized by this act, or shall willfully give false information, shall be guilty of a misdemeanor, and upon conviction thereof shall be fined not exceeding ten thousand dollars, to which may be added imprisonment for a period not exceeding one year."

C E R T I F I C A T E .

This is to certify that the information contained in this schedule is complete and correct to the best of my knowledge and belief.

-----  
(Signature of Special Agent)

*Wm G Mather Pres*  
-----  
(Signature and official designation of the person furnishing the information.)

No. 185

CONFIDENTIAL.

DEPARTMENT OF THE INTERIOR

UNITED STATES GEOLOGICAL SURVEY

DIVISION OF MINING AND MINERAL RESOURCES

To be returned PROMPTLY in accompanying franked envelope to JOHN BIRKINBINE, Odd Fellows' Temple, Broad and Cherry Streets, Philadelphia, Pa.

IRON ORE

Statistics of iron ore mined during the year ending December 31, 1902, at the

Michigamme (Abandoned)  
(Give name or designation of mine.)

Located at Michigamme

County of Marquette State of Mich

Information supplied by \_\_\_\_\_

(Sign here, giving name, official position, and Post-office address.)

For use only in the preparation of general statistics for the "Mineral Resources of the United States, 1902," to be published by the United States Geological Survey.

A. Underscore character of iron ore produced, and if more than one of the following classes is mined give amount of each:

- Limonite, brown hematite, or bog ore.
- Red hematite, specular or fossil ore.
- Magnetic ore.
- Carbonate or black band ore.

B. State total amount of marketable iron ore mined or produced during the year ending December 31, 1902, including concentrated ore  
none abandoned gross tons.

(if none, so state.)

Also stock of iron ore on hand at Mine December 31, 1902.  
646 gross tons.

(if none so state.)

C. Give total value on cars or carts at the Mine of the iron ore produced during the year ending December 31, 1902, royalty, if any, included, but exclusive of hauling to points of shipment or consumption. The gross commercial value of the ore at the mine, NOT the cost or profit, is asked for

State amount of concentrated products in the \$ \_\_\_\_\_  
year ending Dec 31/02 none gr tons

1. Character of present organization, whether individual, firm, limited partnership, cooperative association, or incorporated company:-----

2. Capital stock, bonds, dividends, and assessments (if an incorporated company):

	BONDS		PREFERRED STOCK		COMMON STOCK	
	NUMBER	TOTAL PAR VALUE	No. OF SHARES	TOTAL P. VALUE	No. OF SHARES	TOTAL P. VALUE
Authorized-----		\$-----		\$-----		\$-----
Issued to the end of the year-----		\$-----		\$-----		\$-----

Dividends and interest, if any, paid during the year:

Common stock, rate -----; amount, \$-----

Preferred stock, rate -----; amount, \$-----

Bonds, rate -----; amount, \$-----

Assessments: Total amount levied, if any, since organization of company- \$-----

C L A S S E S.	AVERAGE No. EMPLOYED DURING THE YEAR	TOTAL AMOUNT PAID IN WAGES OR SALARIES DURING THE YEAR
Above Ground-		
General officers -----		\$-----
Superintendents, mngrs. foremen, surveyors, etc-----		
Clerks -----		
Engineers, firemen, machinists, blacksmiths, carpenters, and other mechanics -----		
Miners or quarrymen and stonecutters -----		
Boys under 16 years -----		
All other employees -----	1	356.29
Below Ground (not for quarries or surface mines)-		
Foremen -----		
Miners -----		
Miners' helpers -----		
Boys, under 16 years -----		
All other employees -----	1	356.29
T O T A L	1	\$ 356.29

(Account for all persons employed at the mine or quarry. Give the total salaries and wages paid, which should include board or rent furnished as part compensation. The wages reported for miners or quarrymen and stonecutters should be their net wages, and should not include the cost of supplies furnished by the company and charged to them, such as explosives, lamp oil, etc., and blacksmithing charges. Care should be taken that those employed "above ground" and those "below ground" be reported separately. Stockholders of corporations are not to be reported unless they are salaried officials. Amounts paid for contract work, not done by employees hired directly, and the number employed in such work, must not be included in this inquiry, but be reported in answer to inquiry, 6. 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 product reported.)

AVERAGE NUMBER OF WAGE-EARNERS AT SPECIFIED DAILY RATES OF PAY.

OCCUPATIONS	Less	.50	.75	1.00	1.25	1.50	1.75	2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25
	than	to	to	to	to	to	to	to	to	to	to	to	to	to	to	to	and
	.50	.74	.99	1.24	1.49	1.74	1.99	2.24	2.49	2.74	2.99	3.24	3.49	3.74	3.99	4.24	over
Engineers -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Firemen -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Machinists, blacksmiths, carpenters, and other mechanics -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Miners or quarrymen & stonecutters -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Miners' helpers -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Timbermen & track layers -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Boys under 16 years -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
All other employees, not includ- ing those on salaries -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

AVERAGE NUMBER OF WAGE-EARNERS EMPLOYED DURING EACH MONTH.

MONTH	MEN 16 YEARS AND OVER	BOYS UNDER 16 YEARS	MONTH	MEN 16 YEARS AND OVER	BOYS UNDER 16 YEARS
January -	-	-	July -	-	-
February -	-	-	August -	-	-
March -	-	-	September -	-	-
April -	-	-	October -	-	-
May -	-	-	November -	-	-
June -	-	-	December -	-	-

(Only wage-earners should be reported, including miners working on tonnage and other pieceworkers. Do not include firm members, general officers, superintendents, managers, foremen, clerks, and other salaried employees.)

4. If mining or quarrying is paid for by ton, car, yard, or other unit, give rate paid and character of unit. - - - - -  
Average number of employees engaged in this class of mining - - - - -  
Total amount paid for such work, \$ - - - - -

(The rate paid for mining or quarrying not done by the day should be reported, and the average number of employees engaged in such work and the total amount paid.)

5. Time in operation:  
Total number of days in operation during the year, - - - - - Number of hours in operation per day, - - - - - Number of shifts of workmen, - - - - - Number of hours to shift, - - - - -

6. Contract Work:  
Amount paid, if any, for tunneling, shaft sinking, boring test holes, etc., if not done by employees hired directly by this establishment, \$ - - - - -  
Average number of men employed on such work, - - - - -  
Number of days employed, - - - - -

7. SUPPLIES AND MATERIAL:

Total cost of supplies and materials of all kinds used during the year, including freight paid on the same, \$ *3222.37*

(The actual cost of all supplies and materials used during the year, including freight paid on the same, must be reported. The cost of the following materials should be reported under this inquiry: Lumber and timber used for repairs, mine supports, track ties, cars, and all other purposes; iron and steel for blacksmithing, rails, frogs, sleepers etc., for tracks and repairs, parts of machinery and tools used for renewals and repairs, explosives, water for boilers and other purposes, fuel, illuminating and lubricating oils, machinery supplies, etc.)

8. MISCELLANEOUS EXPENSES:

I T E M S.	AMOUNT
Royalties and rent of mine and mining plant - - - - -	\$ - - - - -
Amount paid for rent of offices, taxes, insurance, interest advertising, office supplies, law expenses, injuries and damages, telegraph and telephone service, gas, and all other sundries not reported elsewhere - - - -	175.04
Total - - - - -	\$ - - - - -

(All items of expense incident to the operation of the mine or quarry, not accounted for under inquiries 8, and 7, must be reported here. Do not include any portion of the freight reported under inquiry 7 as paid on supplies and materials.)

9. PRODUCT:

Total quantity of mineral or stone mined during the year, *None (abandoned)*

Total value at mine or quarry, \$ - - - - -

(Under this inquiry should be reported the quantity and value of all mineral or stone mined during the year, f.o.b. at mine or quarry, as reported to the United States Geological Survey.)

10. POWER:

a. POWER OWNED-

C L A S S.	NUMBER	TOTAL HORSEPOWER
ENGINES:		
Steam - - - - -	✓	✓
Gas and Gasoline - - - - -	✓	✓
Water wheels - - - - -	✓	✓
Electric motors - - - - -	✓	✓
Other power (specify kind) - - - - -	✓	✓

b. POWER SUPPLIED TO OTHER ESTABLISHMENTS, IF ANY-

Horsepower, - - - - - ✓

c. POWER SUPPLIED BY OTHER ESTABLISHMENTS, IF ANY-

Kind of power, - - - - - ✓; horsepower, ✓

name and address of establishment supplying same, - - - - - ✓

(Under this inquiry should be reported all mechanical power employed, either owned or rented, including the number and horsepower of all engines, motors, water wheels etc., used for hoisting, derricks, surface machinery, ventilating, pumping, and all other purposes.)

UNITED STATES CENSUS OFFICE.  
Special schedule No. 6  
Division of Manufactures.  
S.N.D. North, Chief Statistician.

M I N E S                      A N D                      Q U A R R I E S.

Name of mine or quarry, - - - *Lake Mine* - - - - -  
Character of mineral, - - - *Iron Ore* - - - - -  
Name of company, firm, or individual owner, - *Cleveland Iron Mining Co.*  
Location of mine or quarry: State, *Michigan* - - - ; County, *Marquette*  
Nearest city or town, *Iskpermung* - - - - - Post-office, *Iskpermung*  
General office at - - - - - *Cleveland, O.* - - - - -

U N I T E D     S T A T E S     C E N S U S     O F F I C E,

Washington, D. C., January 2, 1903.

By section 7 of the Act of Congress for the establishment of a permanent Census Office, approved March 6, 1902, the Director of the Census is required to prepare a report on mines, mining, quarries, and minerals and the production and value thereof, including gold in divisions of placer and vein, and silver mines, of the United States and the following schedule has been formulated for that purpose.

For the convenience of producers, the United States Geological Survey will distribute and receive these schedules in connection with the returns for its annual report.

The information returned on this schedule should cover the business year of the establishment most nearly conforming to the year ending December 31, 1902.

All answers will be held absolutely confidential. No publication will be made in the census reports disclosing the names or operations of individual establishments in any particular. Special agents and enumerators of the census are liable to a penalty of \$500. if they disclose any information obtained in their official capacity.

William R. Merriam,  
Director of the Census

EXTRACT FROM ACT OF CONGRESS, MARCH 2, 1899:

Section 22 \* \* \* " And every president, treasurer, secretary, director, agent, or other officer of every corporation, and every establishment of productive industry, whether conducted as a corporate body, limited liability company, or by private individuals, from which answers to any of the schedules, inquiries, or statistical interrogatories provided for by this act are herein required, who shall, if thereto requested by the director, supervisor, enumerator, or special agent, willfully neglect or refuse to give true and complete answers to any inquiries authorized by this act, or shall willfully give false information, shall be guilty of a misdemeanor, and upon conviction thereof shall be fined not exceeding ten thousand dollars, to which may be added imprisonment for a period not exceeding one year."

C E R T I F I C A T E.

This is to certify that the information contained in this schedule is complete and correct to the best of my knowledge and belief.

----- o  
(Signature of Special Agent)

*Wm G. Mathew Rust*  
(Signature and official designation  
of the person furnishing the informa-  
tion.)



No. 158

CONFIDENTIAL.

DEPARTMENT OF THE INTERIOR  
UNITED STATES GEOLOGICAL SURVEY  
DIVISION OF MINING AND MINERAL RESOURCES

To be returned PROMPTLY in accompanying franked envelope to JOHN BIRKINBINE, Odd Fellows' Temple, Broad and Cherry Streets, Philadelphia, Pa.

IRON ORE  
Statistics of iron ore mined during the year ending December 31, 1902, at the

Cleveland Lake

(Give name or designation of mine.)

Located at Ishpeming

County of Marquette State of Mich.

Information supplied by Wm G Mathew, Prop  
Cleveland O

(Sign here, giving name, official position, and Post-office address.)

For use only in the preparation of general statistics for the "Mineral Resources of the United States, 1902," to be published by the United States Geological Survey.

A. Underscore character of iron ore produced, and if more than one of the following classes is mined give amount of each:

- Limonite, brown hematite, or bog ore.
- Red hematite, specular or fossil ore.
- Magnetic ore.
- Carbonate or black band ore.

B. State total amount of marketable iron ore mined or produced during the year ending December 31, 1902.

484,432 gross tons.  
(if none, so state.)

Also stock of iron ore on hand at Mine December 31, 1902.

184,957 gross tons.  
(if none so state.)

C. Give total value on cars or carts At The Mine of the iron ore produced during the year ending December 31, 1902, royalty, if any, included, but exclusive of hauling to points of shipment or consumption. The gross commercial value of the ore at the mine, NOT the cost or profit, is asked for.

1,219,586.60

Lake Bass  
Lake

1901  
325  
200

1902  
325  
275

D. Do there objection to the figures of output only being credited to your in the report when published? No

1. Character of present organization, whether individual, firm, limited partnership, cooperative association, or incorporated company: - - - - -

*Incorporated Company*

2. Capital stock, bonds, dividends, and assessments (if an incorporated company):

	BONDS		PREFERRED STOCK		COMMON STOCK	
	NUMBER	TOTAL PAR VALUE	No. OF SHARES	TOTAL P. VALUE	No. OF SHARES	TOTAL P. VALUE
Authorized - - - - -		\$ - - - - -		\$ - - - - -		\$ - - - - -
Issued to the end of the year - - - - -		\$ - - - - -		\$ - - - - -		\$ - - - - -

Dividends and interest, if any, paid during the year:

Common stock, rate - - - - -; amount, \$ - - - - -

Preferred stock, rate - - - - -; amount, \$ - - - - -

Bonds, rate - - - - -; amount, \$ - - - - -

Assessments: Total amount levied, if any, since organization of company - \$ - - - - -

C L A S S E S.	AVERAGE No. EMPLOYED DURING THE YEAR	TOTAL AMOUNT PAID IN WAGES OR SALARIES DURING THE YEAR
Above Ground-		
General officers - - - - -		\$ - - - - -
Superintendents, mgrs. foremen, surveyors, etc - - - - -	2	3,138.40
Clerks - - - - -	2	1,889.96
Engineers, firemen, machinists, blacksmiths, carpenters, and other mechanics - - - - -	21	14,999.24
Miners or quarrymen and stonecutters - - - - -		
Boys under 16 years - - - - -		
All other employees - - - - -	60	30,916.68
Below Ground (not for quarries or surface mines)-		
Foremen - - - - -	5	4,334.36
Miners - - - - -	318	222,279.86
Miners' helpers - - - - -	47	26,829.12
Boys, under 16 years - - - - -		
All other employees - - - - -	64	24,125.28
T O T A L	519	328,504.40

(Account for all persons employed at the mine or quarry. Give the total salaries and wages paid, which should include board or rent furnished as part compensation. The wages reported for miners or quarrymen and stonecutters should be their net wages, and should not include the cost of supplies furnished by the company and charged to them, such as explosives, lamp oil, etc., and blacksmithing charges. Care should be taken that those employed "above ground" and those "below ground" be reported separately. Stockholders of corporations are not to be reported unless they are salaried officials. Amounts paid for contract work, not done by employees hired directly, and the number employed in such work, must not be included in this inquiry, but be reported in answer to inquiry, 6. 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 product reported.)

AVERAGE NUMBER OF WAGE-EARNERS AT SPECIFIED DAILY RATES OF PAY.

OCCUPATIONS	Less than 50.75	50.75 to 1.00	1.00 to 1.25	1.25 to 1.50	1.50 to 1.75	1.75 to 2.00	2.00 to 2.25	2.25 to 2.50	2.50 to 2.75	2.75 to 3.00	3.00 to 3.25	3.25 to 3.50	3.50 to 3.75	3.75 to 4.00	4.00 and over
Engineers						6	2								
Firemen															
Machinists, blacksmiths, carpenters, and other mechanics					3	5	2	1							
Miners or quarrymen & stonecutters								318	5						
Miners' helpers					34	12		1							
Timbermen & track layers						6		2							
Boys under 16 years															
All other employees, not including those on salaries				18	84	17									

AVERAGE NUMBER OF WAGE-EARNERS EMPLOYED DURING EACH MONTH.

MONTH	MEN 16 YEARS AND OVER	BOYS UNDER 16 YEARS	MONTH	MEN 16 YEARS AND OVER	BOYS UNDER 16 YEARS
January	538		July	513	
February	518		August	509	
March	525		September	485	
April	525		October	517	
May	525		November	471	
June	525		December	539	

(Only wage-earners should be reported, including miners working on tonnage and other pieceworkers. Do not include firm members, general officers, superintendents, managers, foremen, clerks, and other salaried employees.)

4. If mining or quarrying is paid for by ton, car, yard, or other unit, give rate paid and character of unit, - - - - -

Average number of employees engaged in this class of mining - - - - -

Total amount paid for such work, \$ - - - - -

(The rate paid for mining or quarrying not done by the day should be reported, and the average number of employees engaged in such work and the total amount paid.)

5. Time in operation:

Total number of days in operation during the year, 297 - Number of hours in operation per day, 24 - - - Number of shifts of workmen, 3 - - Number of hours to shift, 8 - - -

6. Contract Work:

Amount paid, if any, for tunneling, shaft sinking, boring test holes, etc., if not done by employees hired directly by this establishment, \$ - - - - -

Average number of men employed on such work, - - - - -

Number of days employed, - - - - -

7. SUPPLIES AND MATERIALS:

Total cost of supplies and materials of all kinds used during the year, including freight paid on the same, \$ *119,000.89*

(The actual cost of all supplies and materials used during the year, including freight paid on the same, must be reported. The cost of the following materials should be reported under this inquiry: Lumber and timber used for repairs, mine supports, track ties, cars, and all other purposes; iron and steel for blacksmithing, rails, frogs, sleepers etc., for tracks and repairs, parts of machinery and tools used for renewals and repairs explosives, water for boilers and other purposes, fuel, illuminating and lubricating oils machinery supplies, etc.)

8. MISCELLANEOUS EXPENSES:

I T E M S.	AMOUNT
Royalties and rent of mine and mining plant - - - - -	\$ - - - - -
Amount paid for rent of offices, taxes, insurance, interest advertising, office supplies, law expenses, injuries and damages, telegraph and telephone service, gas, and all other sundries not reported elsewhere - - -	<i>22,602.51</i>
Total - - - - -	\$ - - - - -

(All items of expense incident to the operation of the mine or quarry, not accounted for under inquiries 8, and 7, must be reported here. Do not include any portion of the freight reported under inquiry 7 as paid on supplies and materials.)

9. PRODUCT:

Total quantity of mineral or stone mined during the year, *484,432 Gr. ton*

Total value at mine or quarry, \$ ~~*431,993.60*~~ *1,235,336.05*

(Under this inquiry should be reported the quantity and value of all mineral or stone mined during the year, f.o.b. at mine or quarry, as reported to the United States Geological Survey.)

10. POWER:

a. POWER OWNED-

C L A S S.	NUMBER	TOTAL HORSEPOWER
ENGINES:		
Steam - - - - -	<i>7</i>	<i>695</i>
Gas and Gasoline - - - - -		
Water wheels - - - - -		
Electric motors - - - - -	<i>1</i>	<i>100 Kilo</i>
Other power (specify kind) <i>Underground Elec. Motors</i> - - - - -	<i>5</i>	<i>50</i>

b. POWER SUPPLIED TO OTHER ESTABLISHMENTS, IF ANY-

Horsepower, - - - - - ✓

c. POWER SUPPLIED BY OTHER ESTABLISHMENTS, IF ANY-

Kind of power, - - - - - ✓; horsepower, ✓

name and address of establishment supplying same, - - - - -

(Under this inquiry should be reported all mechanical power employed, either owned or rented, including the number and horsepower of all engines, motors, water wheels etc., used for hoisting, derrick, surface machinery, ventilating, pumping, and all other purposes.)

UNITED STATES CENSUS OFFICE.  
Special schedule No. 6.  
Division of Manufactures.  
S.N.D. North, Chief Statistician.

M I N E S                      A N D                      Q U A R R I E S.

Name of mine or quarry, - *Salisbury Mine* - - - - -  
Character of mineral, - - *Iron Ore* - - - - -  
Name of company, firm, or individual owner, *Iron Cliffs Co* - - - - -  
Location of mine or quarry: State, *Michigan* - - ; County, *Marquette* - -  
Nearest city or town, *Ishpeming* - - - - - Post-office, *Ishpeming* -  
General office at - - - - - *Cleveland, O* - - - - -

UNITED STATES CENSUS OFFICE,

Washington, D. C., January 2, 1908.

By section 7 of the Act of Congress for the establishment of a permanent Census Office, approved March 6, 1902, the Director of the Census is required to prepare a report on mines, mining, quarries, and minerals and the production and value thereof, including gold in divisions of placer and vein, and silver mines, of the United States and the following schedule has been formulated for that purpose.

For the convenience of producers, the United States Geological Survey will distribute and receive these schedules in connection with the returns for its annual report.

The information returned on this schedule should cover the business year of the establishment most nearly conforming to the year ending December 31, 1902.

All answers will be held absolutely confidential. No publication will be made in the census reports disclosing the names or operations of individual establishments in any particular. Special agents and enumerators of the census are liable to a penalty of \$500. if they disclose any information obtained in their official capacity.

William R. Merriam,  
Director of the Census

EXTRACT FROM ACT OF CONGRESS, MARCH 3, 1899:

Section 22 \* \* \* " And every president, treasurer, secretary, director, agent, or other officer of every corporation, and every establishment of productive industry, whether conducted as a corporate body, limited liability company, or by private individuals, from which answers to any of the schedules, inquiries, or statistical interrogatories provided for by this act are herein required, who shall, if thereto requested by the director, supervisor, enumerator, or special agent, willfully neglect or refuse to give true and complete answers to any inquiries authorized by this act, or shall willfully give false information, shall be guilty of a misdemeanor, and upon conviction thereof shall be fined not exceeding ten thousand dollars, to which may be added imprisonment for a period not exceeding one year."

C E R T I F I C A T E.

This is to certify that the information contained in this schedule is complete and correct to the best of my knowledge and belief.

----- 0  
(Signature of Special Agent)

*Wm. S. Mather* *Print*  
(Signature and official designation  
of the person furnishing the informa-  
tion.)

No. 177

CONFIDENTIAL.

DEPARTMENT OF THE INTERIOR

UNITED STATES GEOLOGICAL SURVEY

DIVISION OF MINING AND MINERAL RESOURCES

To be returned PROMPTLY in accompanying franked envelope to JOHN BIRKINBINE, Odd Fellows' Temple, Broad and Cherry Streets, Philadelphia, Pa.

IRON ORE

Statistics of iron ore mined during the year ending December 31, 1902, at the

Salisbury.

(Give name or designation of mine.)

Located at Ishpeming

County of Marquette State of Mich

Information supplied by \_\_\_\_\_

(Sign here, giving name, official position, and Post-office address.)

For use only in the preparation of general statistics for the "Mineral Resources of the United States, 1902," to be published by the United States Geological Survey.

A. Underscore character of iron ore produced, and if more than one of the following classes is mined give amount of each:

- Limonite, brown hematite, or bog ore.
- Red hematite, specular or fossil ore.
- Magnetic ore.
- Carbonate or black band ore.

B. State total amount of marketable iron ore mined or produced during the year ending December 31, 1902.

179,066 gross tons.  
(if none, so state.)

Also stock of iron ore on hand at Mine December 31, 1902.

32,496 gross tons.  
(if none so state.)

C. Give total value on cars or carts At The Mine of the iron ore produced during the year ending December 31, 1902, royalty, if any, included, but exclusive of hauling to points of shipment or consumption. The gross commercial value of the ore at the mine, NOT the cost or profit, is asked for.

Sale Base  
Lato

1901  
3.25  
2.00

1902  
3.25  
2.20

D. \$ 485,600.75

If there objection to the figures of output only bring credited to your mine in the report when published? No.

1. Character of present organization, whether individual, firm, limited partnership, cooperative association, or incorporated company: - - - - -

2. Capital stock, bonds, dividends, and assessments (if an incorporated company):

	BONDS		PREFERRED STOCK		COMMON STOCK	
	NUMBER	TOTAL PAR VALUE	No. OF SHARES	TOTAL P. VALUE	No. OF SHARES	TOTAL P. VALUE
Authorized - - - - -		\$ - - - -		\$ - - - -		\$ - - - -
Issued to the end of the year - - - - -		\$ - - - -		\$ - - - -		\$ - - - -

Dividends and interest, if any, paid during the year:

Common stock, rate - - - - - ; amount, \$ - - - - -

Preferred stock, rate - - - - - ; amount, \$ - - - - -

Bonds, rate - - - - - ; amount, \$ - - - - -

Assessments: Total amount levied, if any, since organization of company - \$ - - - - -

C L A S S E S.	AVERAGE No. EMPLOYED DURING THE YEAR	TOTAL AMOUNT PAID IN WAGES OR SALARIES DURING THE YEAR
Above Ground-		
General officers - - - - -		\$ - - - -
Superintendents, mngrs. foremen, surveyors, etc - - - - -	2	2,365.80
Clerks - - - - -	2	1,080.00
Engineers, firemen, machinists, blacksmiths, carpenters, and other mechanics - - - - -	13	8,357.64
Miners or quarrymen and stonecutters - - - - -		
Boys under 16 years - - - - -		
All other employees - - - - -	24	12,047.49
Below Ground (not for quarries or surface mines)-		
Foremen - - - - -	3	2,203.70
Miners - - - - -	106	80,389.80
Miners' helpers - - - - -	26	15,900.60
Boys, under 16 years - - - - -		
All other employees - - - - -	24	15,122.04
T O T A L	200	\$ 137,467.07

(Account for all persons employed at the mine or quarry. Give the total salaries and wages paid, which should include board or rent furnished as part compensation. The wages reported for miners or quarrymen and stonecutters should be their net wages, and should not include the cost of supplies furnished by the company and charged to them, such as explosives, lamp oil, etc., and blacksmithing charges. Care should be taken that those employed "above ground" and those "below ground" be reported separately. Stockholders of corporations are not to be reported unless they are salaried officials. Amounts paid for contract work, not done by employees hired directly, and the number employed in such work, must not be included in this inquiry, but be reported in answer to inquiry, 6. 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 product reported.)

AVERAGE NUMBER OF WAGE-EARNERS AT SPECIFIED DAILY RATES OF PAY.

OCCUPATIONS	Less than .50	.50 to .75	1.00 to 1.25	1.25 to 1.50	1.50 to 1.75	1.75 to 2.00	2.00 to 2.25	2.25 to 2.50	2.50 to 2.75	2.75 to 3.00	3.00 to 3.25	3.25 to 3.50	3.50 to 3.75	3.75 to 4.00	4.00 and over
Engineers -						2									
Firemen -						2									
Machinists, blacksmiths, carpenters, and other mechanics -				2			2	1							
Miners or quarrymen & stonecutters -					4	1	8	96							
Miners' helpers -					26										
Timbermen & track layers -					4		2								
Boys under 16 years -															
All other employees, not including those on salaries -			1	27	6	12	1								

AVERAGE NUMBER OF WAGE-EARNERS EMPLOYED DURING EACH MONTH.

MONTH	MEN 16 YEARS AND OVER	BOYS UNDER 16 YEARS	MONTH	MEN 16 YEARS AND OVER	BOYS UNDER 16 YEARS
January '02	196		July	197	
February	185		August	205	
March	182		September	203	
April	197		October	220	
May	211		November	196	
June	187		December (01)	181	

(Only wage-earners should be reported, including miners working on tonnage and other pieceworkers. Do not include firm members, general officers, superintendents, managers, foremen, clerks, and other salaried employees.)

4. If mining or quarrying is paid for by ton, car, yard, or other unit, give rate paid and character of unit, - - - - -  
 Average number of employees engaged in this class of mining - - - - -  
 Total amount paid for such work, \$ - - - - -

(The rate paid for mining or quarrying not done by the day should be reported, and the average number of employees engaged in such work and the total amount paid.)

5. Time in operation:  
 Total number of days in operation during the year, 296 - - - - - Number of hours in operation per day, 24 - - - - - Number of shifts of workmen, 3 - - - - - Number of hours to shift, - - - - -

6. Contract Work:  
 Amount paid, if any, for tunneling, shaft sinking, boring test holes, etc., if not done by employees hired directly by this establishment, \$ - - - - -  
 Average number of men employed on such work, - - - - -  
 Number of days employed, - - - - -



7. SUPPLIES AND MATERIAL:

Total cost of supplies and materials of all kinds used during the year, including freight paid on the same, \$ *34,765.53*

(The actual cost of all supplies and materials used during the year, including freight paid on the same, must be reported. The cost of the following materials should be reported under this inquiry: Lumber and timber used for repairs, mine supports, track ties, cars, and all other purposes; iron and steel for blacksmithing, rails, frogs, sleepers etc., for tracks and repairs, parts of machinery and tools used for renewals and repairs explosives, water for boilers and other purposes, fuel, illuminating and lubricating oils machinery supplies, etc.)

8. MISCELLANEOUS EXPENSES:

I T E M S.	AMOUNT
Royalties and rent of mine and mining plant - - - - -	\$ - - - - -
Amount paid for rent of offices, taxes, insurance, interest advertising, office supplies, law expenses, injuries and damages, telegraph and telephone service, gas, and all other sundries not reported elsewhere - - -	<i>7,483.57</i>
Total - - - - -	\$ - - - - -

(All items of expense incident to the operation of the mine or quarry, not accounted for under inquiries 8, and 7, must be reported here. Do not include any portion of the freight reported under inquiry 7 as paid on supplies and materials.)

9. PRODUCT:

Total quantity of mineral or stone mined during the year, *179,066 Gr. Tons.*

Total value at mine or quarry, \$ *485,600.75*

(Under this inquiry should be reported the quantity and value of all mineral or stone mined during the year, f.o.b. at mine or quarry, as reported to the United States Geological Survey.)

10. POWER:

a. POWER OWNED-

C L A S S.	NUMBER	TOTAL HORSEPOWER
ENGINES:		
Steam - - - - -	<i>4</i>	<i>765</i>
Gas and Gasoline - - - - -	✓	✓
Water wheels - - - - -	✓	✓
Electric motors - - - - -	✓	✓
Other power (specify kind) - - - - -	✓	✓

b. POWER SUPPLIED TO OTHER ESTABLISHMENTS, IF ANY-

Horsepower, - - - - - ✓

c. POWER SUPPLIED BY OTHER ESTABLISHMENTS, IF ANY-

Kind of power, - - - - - ✓; horsepower, ✓

name and address of establishment supplying same, - - - - - ✓

(Under this inquiry should be reported all mechanical power employed, either owned or rented, including the number and horsepower of all engines, motors, water wheels etc., used for hoisting, derrick, surface machinery, ventilating, pumping, and all other purposes.)

UNITED STATES CENSUS OFFICE.  
Special schedule No. 6.  
Division of Manufactures.  
S.H.D. North, Chief Statistician.

M I N E S                      A N D                      Q U A R R I E S.

Name of mine or quarry, - - - - *Barasa Mine* - - - -  
Character of mineral, - - - - *Iron Ore* - - - -  
Name of company, firm, or individual owner, *The Cleveland-Cliffs Iron Co.*  
Location of mine or quarry: State, *Michigan* - - - ; County, *Marquette*  
Nearest city or town, - *Negaunee* - - - - - Post-office, *Negaunee* - - -  
General office at - - - - *Cleveland, O.* - - - -

UNITED STATES CENSUS OFFICE,

Washington, D. C., January 2, 1903.

By section 7 of the Act of Congress for the establishment of a permanent Census Office, approved March 6, 1902, the Director of the Census is required to prepare a report on mines, mining, quarries, and minerals and the production and value thereof, including gold in divisions of placer and vein, and silver mines, of the United States and the following schedule has been formulated for that purpose.

For the convenience of producers, the United States Geological Survey will distribute and receive these schedules in connection with the returns for its annual report.

The information returned on this schedule should cover the business year of the establishment most nearly conforming to the year ending December 31, 1902.

All answers will be held absolutely confidential. No publication will be made in the census reports disclosing the names or operations of individual establishments in any particular. Special agents and enumerators of the census are liable to a penalty of \$500. if they disclose any information obtained in their official capacity.

William R. Merriam,  
Director of the Census

EXTRACT FROM ACT OF CONGRESS, MARCH 2, 1899:

Section 22 \* \* \* " And every president, treasurer, secretary, director, agent, or other officer of every corporation, and every establishment of productive industry, whether conducted as a corporate body, limited liability company, or by private individuals, from which answers to any of the schedules, inquiries, or statistical interrogatories provided for by this act are herein required, who shall, if thereto requested by the director, supervisor, enumerator, or special agent, willfully neglect or refuse to give true and complete answers to any inquiries authorized by this act, or shall willfully give false information, shall be guilty of a misdemeanor, and upon conviction thereof shall be fined not exceeding ten thousand dollars, to which may be added imprisonment for a period not exceeding one year."

C E R T I F I C A T E.

This is to certify that the information contained in this schedule is complete and correct to the best of my knowledge and belief.

----- o  
(Signature of Special Agent)

*Wm G. Mather, Pres*  
(Signature and official designation  
of the person furnishing the informa-  
tion.)

No. 150

CONFIDENTIAL.

DEPARTMENT OF THE INTERIOR

UNITED STATES GEOLOGICAL SURVEY

DIVISION OF MINING AND MINERAL RESOURCES

To be returned PROMPTLY in accompanying franked envelope to JOHN BIRKINBINE, Odd Fellows' Temple, Broad and Cherry Streets, Philadelphia, Pa.

I R O N O R E

Statistics of iron ore mined during the year ending December 31, 1902, at the

Barasa Mine

(Give name or designation of mine.)

Located at Negaunee,

County of Marquette State of Mich

Information supplied by

Mr. S. Mather President

Cleveland, O

(Sign here, giving name, official position, and Post-Office address.)

For use only in the preparation of general statistics for the "Mineral Resources of the United States, 1902," to be published by the United States Geological Survey.

A. Underscore character of iron ore produced, and if more than one of the following classes is mined give amount of each:

Limonite, brown hematite, or bog ore.

Red hematite, specular or fossil ore.

Magnetic ore.

Carbonate or black band ore.

B. State total amount of marketable iron ore mined or produced during the year ending December 31, 1902.

None gross tons.  
(if none, so state.)

Also stock of iron ore on hand at Mine December 31, 1902.

10,000 gross tons.  
(if none so state.)

C. Give total value on cars or carts At The Mine of the iron ore produced during the year ending December 31, 1902, royalty, if any, included, but exclusive of hauling to points of shipment or consumption. The gross commercial value of the ore at the mine, NOT the cost or profit, is asked for.

\$ ✓

1. Character of present organization, whether individual, firm, limited partnership, cooperative association, or incorporated company: - - - - -

2. Capital stock, bonds, dividends, and assessments (if an incorporated company):

	BONDS		PREFERRED STOCK		COMMON STOCK	
	NUMBER	TOTAL PAR VALUE	No. OF SHARES	TOTAL P. VALUE	No. OF SHARES	TOTAL P. VALUE
Authorized - - - - -		\$ - - - -		\$ - - - -		\$ - - - -
Issued to the end of the year - - - - -		\$ - - - -		\$ - - - -		\$ - - - -

Dividends and interest, if any, paid during the year:

Common stock, rate - - - - - ; amount, \$ - - - - -

Preferred stock, rate - - - - - ; amount, \$ - - - - -

Bonds, rate - - - - - ; amount, \$ - - - - -

Assessments: Total amount levied, if any, since organization of company - \$ - - - - -

C L A S S E S.	AVERAGE No. EMPLOYED DURING THE YEAR	TOTAL AMOUNT PAID IN WAGES OR SALARIES DURING THE YEAR
Above Ground-		
General officers - - - - -		
Superintendents, mngrs, foremen, surveyors, etc - - - - -	1	\$ 112.00
Clerks - - - - -		
Engineers, firemen, machinists, blacksmiths, carpenters, and other mechanics - - - - -	4	204.78
Miners or quarrymen and stonecutters - - - - -		
Boys under 16 years - - - - -		
All other employees - - - - -	9	437.54
Below Ground (not for quarries or surface mines)-		
Foremen - - - - -		
Miners - - - - -		
Miners' helpers - - - - -		
Boys, under 16 years - - - - -		
All other employees - - - - -		
T O T A L	14	\$ 754.32

(Account for all persons employed at the mine or quarry. Give the total salaries and wages paid, which should include board or rent furnished as part compensation. The wages reported for miners or quarrymen and stonecutters should be their net wages, and should not include the cost of supplies furnished by the company and charged to them, such as explosives, lamp oil, etc., and blacksmithing charges. Care should be taken that those employed "above ground" and those "below ground" be reported separately. Stockholders of corporations are not to be reported unless they are salaried officials. Amounts paid for contract work not done by employees hired directly, and the number employed in such work, must not be included in this inquiry, but be reported in answer to inquiry, 6. 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 product reported.)

AVERAGE NUMBER OF WAGE-EARNERS AT SPECIFIED DAILY RATES OF PAY.

OCCUPATIONS	Less than .50	.50 to .74	.75 to 1.00	1.01 to 1.25	1.25 to 1.50	1.50 to 1.75	1.75 to 2.00	2.00 to 2.25	2.25 to 2.50	2.50 to 2.75	2.75 to 3.00	3.00 to 3.25	3.25 to 3.50	3.50 to 3.75	3.75 to 4.00	4.00 to 4.25	4.25 and over
Engineers -																	
Finemen -							2										
Machinists, blacksmiths, carpenters, and other mechanics -								2									
Miners or quarrymen & stonecutters -																	
Miners' helpers -																	
Timbermen & track layers -																	
Boys under 16 years -																	
All other employees, not including those on salaries -				3	3	3											

AVERAGE NUMBER OF WAGE-EARNERS EMPLOYED DURING EACH MONTH.

MONTH	MEN 16 YEARS AND OVER	BOYS UNDER 16 YEARS	MONTH	MEN 16 YEARS AND OVER	BOYS UNDER 16 YEARS
January -			July -		
February -			August -		
March -			September -		
April -			October -		
May -			November -		
June -			December '02 -	13	

(Only wage-earners should be reported, including miners working on tonnage and other pieceworkers. Do not include firm members, general officers, superintendents, managers, foremen, clerks, and other salaried employees.)

4. If mining or quarrying is paid for by ton, car, yard, or other unit, give rate paid and character of unit, - - - - -  
 Average number of employees engaged in this class of mining - - - - -  
 Total amount paid for such work, \$ - - - - -

(The rate paid for mining or quarrying not done by the day should be reported, and the average number of employees engaged in such work and the total amount paid.)

5. Time in operation:  
 Total number of days in operation during the year, 25 - - - - - Number of hours in operation per day, 20 - - - - - Number of shifts of workmen, 2 - - - - - Number of hours to shift, 10 - - - - -

6. Contract Work:  
 Amount paid, if any, for tunneling, shaft sinking, boring test holes, etc., if not done by employees hired directly by this establishment, \$ - - - - -  
 Average number of men employed on such work, - - - - -  
 Number of days employed, - - - - -

7. SUPPLIES AND MATERIAL:

Total cost of supplies and materials of all kinds used during the year, including freight paid on the same, \$ 1083.67

(The actual cost of all supplies and materials used during the year, including freight paid on the same, must be reported. The cost of the following materials should be reported under this inquiry: Lumber and timber used for repairs, mine supports, track ties, cars, and all other purposes; iron and steel for blacksmithing, rails, frogs, sleepers etc., for tracks and repairs, parts of machinery and tools used for renewals and repairs explosives, water for boilers and other purposes, fuel, illuminating and lubricating oils machinery supplies, etc.)

8. MISCELLANEOUS EXPENSES:

I T E M S.	AMOUNT
Royalties and rent of mine and mining plant - - - - -	\$ 1750 <sup>00</sup>
Amount paid for rent of offices, taxes, insurance, interest advertising, office supplies, law expenses, injuries and damages, telegraph and telephone service, gas, and all other sundries not reported elsewhere - - - - -	\$ 1750 <sup>00</sup>
Total - - - - -	\$ 1750 <sup>00</sup>

(All items of expense incident to the operation of the mine or quarry, not accounted for under inquiries 8, and 7, must be reported here. Do not include any portion of the freight reported under inquiry 7 as paid on supplies and materials.)

9. PRODUCT:

Total quantity of mineral or stone mined during the year, none

Total value at mine or quarry, \$ - - - - -

(Under this inquiry should be reported the quantity and value of all mineral or stone mined during the year, f.o.b. at mine or quarry, as reported to the United States Geological Survey.)

10. POWER:

a. POWER OWNED-

C L A S S.	NUMBER	TOTAL HORSEPOWER
ENGINES-		
Steam - - - - -	2	45
Gas and Gasoline - - - - -	-	✓
Water wheels - - - - -	-	✓
Electric motors - - - - -	-	✓
Other power (specify kind) - - - - -	✓	✓

b. POWER SUPPLIED TO OTHER ESTABLISHMENTS, IF ANY-

Horsepower, - - - - -

c. POWER SUPPLIED BY OTHER ESTABLISHMENTS, IF ANY-

Kind of power, - - - - - ✓; horsepower, ✓

name and address of establishment supplying same, - - - - -

(Under this inquiry should be reported all mechanical power employed, either owned or rented, including the number and horsepower of all engines, motors, water wheels etc., used for hoisting, darricks, surface machinery, ventilating, pumping, and all other purposes.)

UNITED STATES CENSUS OFFICE.  
Special schedule No. 6  
Division of Manufactures.  
S.N.D. North, Chief Statistician.

M I N E S                      A N D                      Q U A R R I E S.

Name of mine or quarry,-- *Volunteer* -----  
Character of mineral,-- *Iron Ore* -----  
Name of company, firm, or individual owner, *Not operated by Cleveland Cliffs Co.*  
Location of mine or quarry: State, *Michigan* ---; County, *Marquette*  
Nearest city or town,-- *Palmer* ----- Post-office,-----  
General office at -----

UNITED STATES CENSUS OFFICE,

Washington, D. C., January 2, 1903.

By section 7 of the Act of Congress for the establishment of a permanent Census Office, approved March 8, 1902, the Director of the Census is required to prepare a report on mines, mining, quarries, and minerals and the production and value thereof, including gold in divisions of placer and vein, and silver mines, of the United States and the following schedule has been formulated for that purpose.

For the convenience of producers, the United States Geological Survey will distribute and receive these schedules in connection with the returns for its annual report.

The information returned on this schedule should cover the business year of the establishment most nearly conforming to the year ending December 31, 1902.

All answers will be held absolutely confidential. No publication will be made in the census reports disclosing the names or operations of individual establishments in any particular. Special agents and enumerators of the census are liable to a penalty of \$500, if they disclose any information obtained in their official capacity.

William R. Merriam,  
Director of the Census

EXTRACT FROM ACT OF CONGRESS, MARCH 3, 1899:

Section 22 \* \* \* " And every president, treasurer, secretary, director, agent, or other officer of every corporation, and every establishment of productive industry, whether conducted as a corporate body, limited liability company, or by private individuals, from which answers to any of the schedules, inquiries, or statistical interrogatories provided for by this act are herein required, who shall, if thereto requested by the director, supervisor, enumerator, or special agent, willfully neglect or refuse to give true and complete answers to any inquiries authorized by this act, or shall willfully give false information, shall be guilty of a misdemeanor, and upon conviction thereof shall be fined not exceeding ten thousand dollars, to which may be added imprisonment for a period not exceeding one year."

C E R T I F I C A T E.

This is to certify that the information contained in this schedule is complete and correct to the best of my knowledge and belief.

-----  
(Signature of Special Agent)

*Wm. J. Mather* *Pres.*  
(Signature and official designation  
of the person furnishing the information.)

No. 182

CONFIDENTIAL.

DEPARTMENT OF THE INTERIOR

UNITED STATES GEOLOGICAL SURVEY

DIVISION OF MINING AND MINERAL RESOURCES

To be returned PROMPTLY in accompanying franked envelope to JOHN BIRKINBINE, Odd Fellows' Temple, Broad and Cherry Streets, Philadelphia, Pa.

I R O N O R E

Statistics of iron ore mined during the year ending December 31, 1902, at the

Volunteer  
(Give name or designation of mine.)

Located at Palmer

County of Marquette State of Mich

Information supplied by \_\_\_\_\_

Wm G Mather Pres  
Cleveland Ohio

(Sign here, giving name, official position, and Post-Office address.)

For use only in the preparation of general statistics for the "Mineral Resources of the United States, 1902," to be published by the United States Geological Survey.

A. Underscore character of iron ore produced, and if more than one of the following classes is mined give amount of each:

- Limonite, brown hematite, or bog ore.
- Red hematite, specular or fossil ore.
- Magnetic ore.
- Carbonate or black band ore.

B. State total amount of marketable iron ore mined or produced during the year ending December 31, 1902.

Not operated by C.C.D.C. gross tons.  
(if none, so state.)

Also stock of iron ore on hand at Mine December 31, 1902.

9316 gross tons.  
(if none so state.)

C. Give total value on cars or carts At The Mine of the iron ore produced during the year ending December 31, 1902, royalty, if any, included, but exclusive of hauling to points of shipment or consumption. The gross commercial value of the ore at the mine, NOT the cost or profit, is asked for.

\$ 2



1. Character of present organization, whether individual, firm, limited partnership, cooperative association, or incorporated company: - - - - -

2. Capital stock, bonds, dividends, and assessments (if an incorporated company):

	BONDS		PREFERRED STOCK		COMMON STOCK	
	NUMBER	TOTAL PAR VALUE	No. OF SHARES	TOTAL P. VALUE	No. OF SHARES	TOTAL P. VALUE
Authorized - - - - -		\$ - - - - -		\$ - - - - -		\$ - - - - -
Issued to the end of the year - - - - -		\$ - - - - -		\$ - - - - -		\$ - - - - -

Dividends and interest, if any, paid during the year:

Common stock, rate - - - - -; amount, \$ - - - - -

Preferred stock, rate - - - - -; amount, \$ - - - - -

Bonds, rate - - - - -; amount, \$ - - - - -

Assessments: Total amount levied, if any, since organization of company - \$ - - - - -

C L A S S E S.	AVERAGE No. EMPLOYED DURING THE YEAR	TOTAL AMOUNT PAID IN WAGES OR SALARIES DURING THE YEAR
Above Ground-		
General officers - - - - -		\$ - - - - -
Superintendents, mngrs. foremen, surveyors, etc - - - - -		
Clerks - - - - -		
Engineers, firemen, machinists, blacksmiths, carpenters, and other mechanics - - - - -		
Miners or quarrymen and stonecutters - - - - -		
Boys under 16 years - - - - -		
All other employees - - - - -		3,318 <sup>26</sup>
Below Ground (not for quarries or surface mines)-		
Foremen - - - - -		
Miners - - - - -		
Miners' helpers - - - - -		
Boys, under 16 years - - - - -		
All other employees - - - - -		
T O T A L		\$ 3,318 <sup>26</sup>

(Account for all persons employed at the mine or quarry. Give the total salaries and wages paid, which should include board or rent furnished as part compensation. The wages reported for miners or quarrymen and stonecutters should be their net wages, and should not include the cost of supplies furnished by the company and charged to them, such as explosives, lamp oil, etc., and blacksmithing charges. Care should be taken that those employed "above ground" and those "below ground" be reported separately. Stockholders of corporations are not to be reported unless they are salaried officials. Amounts paid for contract work, not done by employees hired directly, and the number employed in such work, must not be included in this inquiry, but be reported in answer to inquiry, 6. 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 product report ed.)

AVERAGE NUMBER OF WAGE-EARNERS AT SPECIFIED DAILY RATES OF PAY.

OCCUPATIONS	Less than .50	.50 to .75	1.00 to 1.25	1.50 to 1.75	2.00 to 2.25	2.50 to 2.75	3.00 to 3.25	3.50 to 3.75	4.00 to 4.25	and over
Engineers -										
Firemen -										
Mechanists, blacksmiths, carpenters, and other mechanics -										
Miners or quarrymen & stonecutters -										
Miners' helpers -										
Timbermen & track layers -										
Boys under 16 years -										
All other employees, not including those on salaries -										

AVERAGE NUMBER OF WAGE-EARNERS EMPLOYED DURING EACH MONTH.

MONTH	MEN 16 YEARS AND OVER	BOYS UNDER 16 YEARS	MONTH	MEN 16 YEARS AND OVER	BOYS UNDER 16 YEARS
January -			July -		
February -			August -		
March -			September -		
April -			October -		
May -			November -		
June -			December -		

(Only wage-earners should be reported, including miners working on tonnage and other pieceworkers. Do not include firm members, general officers, superintendents, managers, foremen, clerks, and other salaried employees.)

4. If mining or quarrying is paid for by ton, car, yard, or other unit, give rate paid and character of unit, - - - - -

Average number of employees engaged in this class of mining - - - - -

Total amount paid for such work, \$ - - - - -

(The rate paid for mining or quarrying not done by the day should be reported, and the average number of employees engaged in such work and the total amount paid.)

5. Time in operation:

Total number of days in operation during the year, - - - - - Number of hours in operation per day, - - - - - Number of shifts of workmen, - - - - - Number of hours to shift, - - - - -

6. Contract Work:

Amount paid, if any, for tunneling, shaft sinking, boring test holes, etc., if not done by employees hired directly by this establishment, \$ - - - - -

Average number of men employed on such work, - - - - -

Number of days employed, - - - - -

7. SUPPLIES AND MATERIAL:

Total cost of supplies and materials of all kinds used during the year, including freight paid on the same, \$ 842.48

(The actual cost of all supplies and materials used during the year, including freight paid on the same, must be reported. The cost of the following materials should be reported under this inquiry: Lumber and timber used for repairs, mine supports, track ties, cars, and all other purposes; iron and steel for blacksmithing, rails, frogs, sleepers etc., for tracks and repairs, parts of machinery and tools used for renewals and repairs explosives, water for boilers and other purposes, fuel, illuminating and lubricating oils machinery supplies, etc.)

8. MISCELLANEOUS EXPENSES:

I T E M S.	AMOUNT
Royalties and rent of mine and mining plant - - - - -	\$ 3273.56
Amount paid for rent of offices, taxes, insurance, interest advertising, office supplies, law expenses, injuries and damages, telegraph and telephone service, gas, and all other sundries not reported elsewhere - - - - -	772.36
<b>Total - - - - -</b>	<b>4045.92</b>

(All items of expense incident to the operation of the mine or quarry, not accounted for under inquiries 8, and 7, must be reported here. Do not include any portion of the freight reported under inquiry 7 as paid on supplies and materials.)

9. PRODUCT:

Total quantity of mineral or stone mined during the year, None - - - - -  
 Total value at mine or quarry, \$ - - - - -

(Under this inquiry should be reported the quantity and value of all mineral or stone mined during the year, f.o.b. at mine or quarry, as reported to the United States Geological Survey.)

10. POWER:

a. POWER OWNED-

C L A S S.	NUMBER	TOTAL HORSEPOWER
ENGINES:		
Steam - - - - -	✓	✓
Gas and Gasoline - - - - -	✓	✓
Water wheels - - - - -	✓	✓
Electric motors - - - - -	✓	✓
Other power (specify kind) - - - - -	✓	✓

b. POWER SUPPLIED TO OTHER ESTABLISHMENTS, IF ANY-

Horsepower, - - - - -

c. POWER SUPPLIED BY OTHER ESTABLISHMENTS, IF ANY-

Kind of power, - - - - -; horsepower, ✓

name and address of establishment supplying same, ✓ - - - - -

(Under this inquiry should be reported all mechanical power employed, either owned or rented, including the number and horsepower of all engines, motors, water wheels etc., used for hoisting, derricks, surface machinery, ventilating, pumping, and all other purposes.)

UNITED STATES CENSUS OFFICE.  
Special schedule No. 6  
Division of Manufactures.  
S.N.D. North, Chief Statistician.

M I N E S                      A N D                      Q U A R R I E S.

Name of mine or quarry, - - - - *Tilden Mine* - - - -  
Character of mineral, - - - - *Iron Ore* - - - -  
Name of company, firm, or individual owner, - - *Iron Cliffs Co.* - - - -  
Location of mine or quarry: State, *Michigan* - - - ; County, *Marquette*  
Nearest city or town, *Shpeming* - - - - Post-office, *Shpeming*  
General office at - - - - *Cleveland, O.* - - - -

UNITED STATES CENSUS OFFICE,

Washington, D. C., January 2, 1903.

By section 7 of the Act of Congress for the establishment of a permanent Census Office, approved March 6, 1902, the Director of the Census is required to prepare a report on mines, mining, quarries, and minerals and the production and value thereof, including gold in divisions of placer and vein, and silver mines, of the United States and the following schedule has been formulated for that purpose.

For the convenience of producers, the United States Geological Survey will distribute and receive these schedules in connection with the returns for its annual report.

The information returned on this schedule should cover the business year of the establishment most nearly conforming to the year ending December 31, 1902.

All answers will be held absolutely confidential. No publication will be made in the census reports disclosing the names or operations of individual establishments in any particular. Special agents and enumerators of the census are liable to a penalty of \$500, if they disclose any information obtained in their official capacity.

William R. Merriam,  
Director of the Census

EXTRACT FROM ACT OF CONGRESS, MARCH 2, 1899:

Section 22 \* \* \* " And every president, treasurer, secretary, director, agent, or other officer of every corporation, and every establishment of productive industry, whether conducted as a corporate body, limited liability company, or by private individuals, from which answers to any of the schedules, inquiries, or statistical interrogatories provided for by this act are herein required, who shall, if thereto requested by the director, supervisor, enumerator, or special agent, willfully neglect or refuse to give true and complete answers to any inquiries authorized by this act, or shall willfully give false information, shall be guilty of a misdemeanor, and upon conviction thereof shall be fined not exceeding ten thousand dollars, to which may be added imprisonment for a period not exceeding one year."

C E R T I F I C A T E.

This is to certify that the information contained in this schedule is complete and correct to the best of my knowledge and belief.

- - - - -  
(Signature of Special Agent)

*Wm G Mather* *Pres*  
(Signature and official designation  
of the person furnishing the informa-  
tion.)

No. 181

CONFIDENTIAL.

DEPARTMENT OF THE INTERIOR

UNITED STATES GEOLOGICAL SURVEY

DIVISION OF MINING AND MINERAL RESOURCES

To be returned PROMPTLY in accompanying franked envelope to JOHN BIRKINBINE, Odd Fellows' Temple, Broad and Cherry Streets, Philadelphia, Pa.

IRON ORE

Statistics of iron ore mined during the year ending December 31, 1902, at the

Tilden (Marquette)

(Give name or designation of mine.)

Located at Ishtepanning

County of Marquette State of Mich

Information supplied by

Wm S Mathew Pres

Cleveland Ohio

(Sign here, giving name, official position, and Post-office address.)

For use only in the preparation of general statistics for the "Mineral Resources of the United States, 1902," to be published by the United States Geological Survey.

A. Underscore character of iron ore produced, and if more than one of the following classes is mined give amount of each:

Limonite, brown hematite, or bog ore.

Red hematite, specular or fossil ore.

Magnetic ore.

Carbonate or black band ore.

B. State total amount of marketable iron ore mined or produced during the year ending December 31, 1902.

4,750 gross tons.  
(if none, so state.)

Also stock of iron ore on hand at Mine December 31, 1902.

none gross tons.  
(if none so state.)

C. Give total value on cars or carts at the Mine of the iron ore produced during the year ending December 31, 1902, royalty, if any, included, but exclusive of hauling to points of shipment or consumption. The gross commercial value of the ore at the mine, NOT the cost or profit, is asked for.

Price	<u>1901</u>	<u>1902</u>	<u>\$ 3,562.50</u>
	<u>.75</u>	<u>.75</u>	