

THE CLEVELAND-CLIFFS IRON CO.

LAND DEPARTMENT.

Nursery Cost Sheet.

Month of _____ YEAR _____ 1905

	LABOR	SUPPLIES	Year TOTAL 1905.	TOTAL	
				Last Month	.....M
GENERAL EXPENSE					
Advertising		22 45	22 45		
Stationery and Printing		17 27	17 27		
Telephones and Telegraph					
Freight and Express		5 00	5 00		
License					
Bond		10 00	10 00		
State Inspection		8 00	8 00		
Taxes		52 76	52 76		
Total,		115 48	115 48		
MAINTENANCE					
Buildings					
Fences		5 63	5 63		
Tools and Implements		1 75	1 75		
Mchry.		25	25		
Total,		7 63	7 63		
OPERATING					
Stakes			1 95		
Commission Houghing			22 00		
Foreman and Attendants	552 86		552 86		
Changing Flower Pots			95		
Changing Crates			1 55		
Boxing 5.63 Weeding 3.00			8 63		
Trees Bought		48 92	48 92		
Tools		8 79	8 79		
Labor and Teaming		49 25	49 25		
Cutting Hay		25 15	25 15		
Total,	552 86	167 19	720 05		
DEPRECIATION					
Equipment					
Inventory - Nursery Stock		418 10	418 10		
Total,					
		552 86	708 40	1261 26	
TOTAL COST OPERATING.					
	This Month				
" " "	Last Month				
" " "	.12 Mos.	552 86	708 40	1261 26	
SALES					
Trees Ornamental			537 80		
Trees Fruit			75 60		
Trees Fruit					
Fruit					
Shrubs			13 70		
Shrubs Ornamental			716 05		
Berries			183 40		
Miscellaneous			16 62		
TOTAL SALES					
	This Month				
" " "	Last Month				
" " "	.12 Mos.		1543 17		
Gain			281 91		
Remarks					
	Tools not sunk off		13.45		

BELLEVUE FARM OPERATING

YEARLY COST SHEET

	<u>Labor</u>	<u>Supplies</u>	<u>Total</u>
Superintendent	289.12	58.33	347.45
Tools		68.79	68.79
Caring for Stock	613.30		613.30
Harness & Shoeing		198.83	198.83
Feed		2964.74	2964.74
Seeds Bought		513.18	513.18
Vet. Surgeon & Medicine		42.63	42.63
Cultivating	117.73		117.73
Ploughing	70.18	29.25	99.43
Seeding	39.04		39.04
Cliffs Farm Hauling Feed	3.20		3.20
" " Foreman	286.13		286.13
" " Caring for Stock	197.38		197.38
" " Ploughing	100.00	33.60	133.60
" " Fertilizing	96.25		96.25
" " Seeding	31.06		31.06
" " Cultivating	70.35		70.35
" " Harvesting	70.13		70.13
Fertilizing	128.60		128.60
Delivery Team		72.00	72.00
Team Hire	1.50	210.15	211.65
Killing & Dressing	14.75		14.75
Picking Rock	41.90	11.75	53.65
Harrowing	12.11	4.00	16.11
Weeding		63.10	63.10
Harvesting	421.12	87.39	508.51
Haying	25.09		25.09
General Farm Labor	155.35		155.35
Cable		31.86	31.86
Commissions		5.13	5.13
Threshing grain	37.08	8.00	45.08
Total	\$2821.37	\$4402.73	\$7224.10

THE CLEVELAND CLIFFS IRON CO.
LAND DEPARTMENT

BELLEVUE FARM

Farm Cost Sheet.

Month of _____ YEAR 1905

	LABOR	SUPPLIES	Year TOTAL 1905	OPERATING COST	
				Last Month	..... Months
GENERAL EXPENSE					
Papers & Periodicals		4 00	4 00 ✓		
Stationery and Printing		36 83	36 83 ✓		
Telephone and Telegraph		44 85	44 85 ✓		
Freight and Express		13 73	13 73 ✓		
Taxes		85 63	85 63		
Insurance		109 86	109 86 ✓		
		29 40	29 40 ✓		
		324 30	324 30		
MAINTENANCE					
Buildings	15 50	373 69	389 19		
Farm Implements		60 59	60 59		
Fences					
Machinery		37 64	37 64		
Total,	15 50	471 92	487 42		
OPERATING					
Superintendent					
Caring for Stock					
Harness and Shoeing					
Feed					
Total,					
FARMING					
Farm Hands					
Field					
Field					
Total,					
DEPRECIATION					
Equipment & Tools		132 41	132 41		
New Construction					
Live Stock		411 27	411 27		
Total,		543 68	543 68		
Total Cost Operating 1/2 Mo.	2636 87	5742 63	8579 50		
" " " 12 Mos.					
		1126 80			
RECEIPTS FROM SALES.					
" " " 1905 Crops		2503 48			
Total,			3630 28		
Net Cost Operating 1 Mo.					4945 86
" " " 12 Mos.					199 89
Improvement Acc't not sunk off					4945 86
Equipment Acc't not sunk off					199 89
Live Stock Account Balance					3116 50
FED	AMOUNT	PRICE	COST	ANIMALS FED	COST TO FED
Oats Tons	199.87	10 00	1997 97	Pigs	162 51
Oats Bushels	1444.00	34	490 94	Sheep and Goats	746 28
Corn Bushels	434 .5	50	217.21	Chickens and Turkeys	66 52
Straw (Oat) Tons	22.75	12 00	272 85	Steers	326 32
Huddling Tons	3.48	20 00	69 60	Calves	550 83
Straw Tons	7.00	19.50	136 57	Horses	812 72
Salt Tons of pulp Pounds	22.50	1 15	25 87	Cows	269 03
Feeding " Oil Meal	1.85	29 00	53.65	Feeders	406 95
Medicine 20 Bu. Carrots	20.00	30	6 00		
Potatoes	72.00	50	35 00		
Tons Pea & Oat Hay	5.00	8.00	15.00		
Bu. Barley	42.00	50	21 50		
Total			3343 16	Total	3343 16
REMARKS:					

DAIRY OPERATING

1 9 0 5

	Labor	Supplies	Total	Year
Superintendent	289.14	58.34	347.48	.008 ✓
Milkers	367.50		367.50	.008 ✓
Feed, Cows		1599.92	1599.92	.036 ✓
Bottle Stoppers		4.20	4.20	.000 ✓
Harness and Shoeing		7.00	7.00	.000 ✓
Oil		1.25	1.25	.000 ✓
Butter Color		4.65	4.65	.000 ✓
Brushes		.30	.30	.000 ✓
Milk Tubes		.70	.70	.000 ✓
Jars		7.08	7.08	.000 ✓
Salt		1.50	1.50	.000 ✓
Tools		1.75	1.75	.000 ✓
Veterinary Surgeon		18.12	18.12	.000 ✓
Commission		1.40	1.40	.000 ✓
Caring for of Milk	240.00	1.68	241.68	.006 ✓
	896.64	1707.89	2604.53	.058

THE CLEVELAND-CLIFFS IRON CO.
LAND DEPARTMENT.

BELLEVUE FARM.

Dairy Cost Sheet.

Month of _____ YEAR 1905

H. Nisbetsen Co., Mfg. Stationers, Milwaukee, Wis.

	QUARTS MILK PRODUCED		1 MONTH		COST PER QUART		
	QUARTS MILK PRODUCED		12	MONTHS	1 Month	Last Mo.	Year
	LABOR	SUPPLIES	Year TOTAL 1905				
GENERAL EXPENSE							
Stationery and Printing		9 77	9 77				000
Telephone and Telegraph		2 50	2 50				000
Freight and Express		45	45				000
Taxes		72 73	72 73				0018
Insurance		52 44	52 44				0012
Advertising		1 10	1 10				000
Papers and Periodicals		2 00	2 00				000
Total,		140 99	140 99				003
MAINTENANCE							
Dairy Building		16 75	16 75				000
Barn Machinery		19 84	19 84				000
Utensils		1 00	1 00				000
Total,		37 59	37 59				000
OPERATING							
Superintendent		Statement Attached					
Dairy Man		Statement Attached					
Milkers		Statement Attached					
Feed Cows		Statement Attached					
Bedding		Statement Attached					
Total,	896 64	1707 89	2604 53				056
DEPRECIATION							
Equipment Tools		3 61	3 61				000
New Construction							
Total,		3 61	3 61				000
Total Cost of Milk	1 Mo.						
" " "	12..Mos.	896 64	1890 08	2786 72			060
Separating Cream 1 Month	Quarts						
Separating Cream 12 Months	4284 Quarts						
MAINTENANCE							
Repairs of Machinery		2 18	2 18				000
" " Utensils		3 05	3 05				000
Total,		5 23	5 23				000
OPERATING							
Dairyman		240 00	240 00				055
Fuel			117 73	117 73			003
Ice		48 06	20 00	68 06			002
Total,		288 06	137 73	425 79			000
DEPRECIATION							
Equipment							
New Construction							
Total,							
Total Cost Separating	1 Mo.						
" " "	12..Mos.	288 06	142 96	431 02			06
Total Cost Operating Milk Route	1 Mo.						
" " " " " "	.....Mos.						
Total Cost Operating Dairy	1 Mo.						
" " " " "	12..Mos.	1184 70	2033 04	3217 74			
Receipts from Sales	1 Mo.						
" " "	12..Mos.			1163 00			
Net Gain or Loss	1 Mo.						
" " "	12..Mos.			2054 74			
COST OF CREAM.							
Milk Average .095 per cent. at .06 per quart=							066
Cost of 1 qt. of Cream at Separator							025
Cost to Separate							
Total Cost 1 qt. Cream							
COST OF BUTTER.							
Milk Test 4.40 per cent. at .06 per quart=							429
Cost of 1 lb. Butter							
Remarks							

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FOREST PRESERVE GENERAL EXPENSE

YEAR 1905

	Supplies	Total
Insurance	15.60	15.60
Photographs	14.48	14.48
Freight & Express	6.31	6.31
Visitor's Board	131.38	131.38
Stationery & Printing	13.95	13.95
Telephone & Telegraph	5.85	5.85
Postage	9.60	9.60
Advertising	2.50	2.50
Government Reports	.80	.80
Board of Engineers	21.30	21.30
Mounted Birds Expense	71.55	71.55
Traveling	72.95	72.95
Draying	2.00	2.00
Guests Entertainment	22.50	22.50
Mounted Game.	1.20	1.20
	<hr/> 391.97	<hr/> 391.97

FOREST PRESERVE OPERATING

YEAR 1905.

	Labor	Supplies	Total
Trails	172.48		172.48
Ravine Fences	331.43	231.65	563.08
North Light Game Fence	181.94	61.05	242.99
Dock	197.72	158.26	355.98
Keepers & Laborers	1291.11	334.83	1625.94
Game Birds House	5.65		5.65
Lodge	29.95	25.83	65.83
Feed of Game	3.82	403.93	407.75
Engineering		3.00	3.00
Board of Guests		55.29	55.29
Dog House		7.99	7.99
Board of Engineers		3.05	3.05
Cutting Ice	79.04		79.04
Planting Trees	97.25	1.35	98.60
Furnishing Cottage		83.89	83.89
Taking pickeral from Island Lake	86.92	30.58	117.50
Purchase of Game		3835.27	3835.27
Blue Gills in Island Lake	1.72	71.10	72.82
Trees Bought		155.96	155.96
Wilf Turkey pen	46.48	111.33	157.81
Feed Shrubs		59.18	59.18
Gull Point Dam		17.69	17.69
Planting Bass in Island Lake		151.56	151.56
Gathering and Planting Lillies	3.33	15.35	18.68
Hauling Fish		.75	.75
Photographing		11.00	11.00
Total	\$ 2523.84	\$ 5839.94	\$ 8368.78

THE CLEVELAND-CLIFFS IRON CO.

LAND DEPARTMENT.

Forest Preserve Cost Sheet.

Month of _____ YEAR _____ 1905

	LABOR	SUPPLIES	Year TOTAL 1905	TOTAL	
				Last Month	.... Months
GENERAL EXPENSE					
Traveling					
Launch					
Freight and Express					
		STATEMENT ATTACHED			
Total,		391 97	391 97		
MAINTENANCE					
Keeper's Cottage		25 28	25 28		
Game Barn					
" Fence		90	90		
Total,		26 18	26 18		
OPERATING					
Trails					
Feed-Game					
Superintendent					
Keepers					
Purchase-Game					
		STATEMENT ATTACHED			
Total,	2528 84	5839 94	8368 78		
DEPRECIATION					
Equipment					
Total,					
TOTAL COST OPERATING, 1 Mo.					
" " " " 12...Mos.	2528 84	6258 09	8786 93		
CREDIT BY SALES OF					
NET COST OF OPERATING, 1 Mo.					
" " " " 12...Mos.	2528 84	6258 09	8786 93		
Equipment not sunk off					
Keeper's Cottage not sunk off Note 1					2543 62

Remarks					
	Note 1				
	1904	Keepers Cottage		2054.14	
	1905	Depreciation a/c Rent		28.00	
				<u>2082.14</u>	
		Keepers Cottage Furniture		517.48	
				<u>517.48</u>	
				2543.62	

GRAND ISLAND IMPROVEMENT-YEARLY COST SHEET

GENERAL EXPENSE

	<u>Supplies</u>	<u>Total</u>
Postage	9.60	9.60 ✓
Freight & Express	7.31	7.31 ✓
Stationery & Printing	49.30	49.30 ✓
Launch	141.65	141.65 ✓
Board of Engineers	420.46	420.46 ✓
Traveling	91.50	91.50 ✓
Telephone & Telegraph	12.04	12.04 ✓
Photographs	87.40	87.40 ✓
Fuel & Light	.50	.50
Papers & Periodicals	8.00	8.00
Advertising	365.85	365.85
	\$1193.61	\$1193.61

GRAND ISLAND IMPROVEMENT OPERATING

	<u>Labor</u>	<u>Supplies</u>	<u>Total</u>
Engineers	257.33	126.18	383.51
Logging	196.25	68.18	264.43
Clearing Land	81.85	29.00	110.85
Roads to Cleared Land	1.30	29.95	31.25
North Eat Road	118.50	50.96	169.46
East Road	212.88		212.88
Munising Office		187.85	187.85
Breaking Road	81.16		81.16
Furnishing Munising Office		19.90	19.90
Building Camp	173.99	28.02	202.01
Handling Snow	152.27		152.27
Board of Horses		467.69	467.69
Engineering	2354.41	348.94	2703.35
North Fence	2.80		2.80
Ditches	257.54		257.54
Farm	343.47	646.85	990.32
Garden	71.80	24.15	95.95
Horse Hire		24.26	24.26
Steel Boat Repairs	5.00	35.76	40.76
Reservoir	28.56		28.56
Duffy Farm	190.19	64.00	254.19
Repairs to Sleigh		3.34	3.34
Flags		23.60	23.60
Orchard		21.35	21.35
Seeds Bought		30.00	30.00
Company Guests		76.75	76.75
Tools		35.02	35.02
Dock	144.69	110.45	255.14
Warehouse	36.55	17.31	53.86
Gull Point Dam	404.57	356.02	760.59
Teaming	254.25	316.17	570.42
Launch Hire		39.25	39.25
Meal Tickets		2.00	2.00
Board of Men	686.43	1858.17	2544.60
Road - Dock to Trout Bay	224.28	45.00	269.28
Trout Bay Trails		86.60	86.60
North Light Trail	134.47	82.52	216.99
Trout Bay Road E. & A. 34	429.81	570.76	1000.57
Foot Bridges	107.70	61.27	168.97
Hotel Grounds	51.65	8.14	59.79
Winter Road	115.22	106.70	221.92
	<u>7118.92</u>	<u>6002.11</u>	<u>13121.03</u>

THE CLEVELAND-CLIFFS IRON CO.
LAND DEPARTMENT.

Grand Island Improvement Cost Sheet.

Month of YEAR 1905

	LABOR	SUPPLIES	Year		TOTAL	
			TOTAL 1905		Last Month	.....Mo
GENERAL EXPENSE Launch.						
			STATEMENT ATTACHED			
Total,		1193 61	1193 61			
MAINTENANCE						
Total,						
OPERATING Roads—Williams to Light House, Grading, Teaming, Board of Men, Foreman, Engineers,						
			STATEMENT ATTACHED			
Total,						
Roads—Northeast to Light House, Board of Men, Board of Horses, Engineers, Foremen, Teaming,						
Total,						
DEPRECIATION Equipment & Tools	7118 92	6002 11	13121 03			
Total,		354 25	354 25			
Total,		354 25	354 25			
TOTAL COST OPERATING, 1 Mo.	7118 92	7549 97	14668 89			
" " " 12 Mos.						

Equipment not sunk off,	Grand Island Hotel Equip.	2001.73	
	Williams Hotel & Cottages	4241.48	
	Wind Mill	591.42	
	Williams Hotel & Cottages a/c	6834.63	
	Less Depreciation 1905		
	Williams Hotel & Cottages a/c rent	276.67	
	Williams Hotel & Cottages		6557.96
	Grand Island Stockade		271.84
	Williams Barn		425.46
	Trout Bay Cottages		4195.63
	Game Keepers Cottage & Barn		1325.35
	Grand Island Equipment (Tools)		1039.63

IRON CLIFFS COMPANY

Land Department

DISTRIBUTION OF PAY ROLL

YEAR 1905.

Greenhouse General Expense	\$.00	
Greenhouse Maintenance	.00	
Greenhouse Operating	1626.18	
Total Greenhouse Pay Roll		\$ 1626.18
Nursery General Expense	.00	
Nursery Maintenance	.00	
Nursery Operating	552.86	
Total Nursery Pay Roll		552.86
Farm General Expense	.00	
Farm Maintenance	15.50	
Farm Operating	2813.13	
Total Farm Pay Roll		2828.63
Dairy General Expense	.00	
Dairy Maintenance	.00	
Dairy Operating	1181.78	
Total Dairy Pay Roll		1181.78
General Office		4810.72
Operating Land Department		95.63
Heat & Janitor, Office Building		49.39
Michigamme Company (watchman)		100.00
Pioneer Iron Company		11.20
The Cleveland Cliffs Iron Company		111.92
Cleveland Iron Mining Company		1.92
The Munising Company		22.36
Greenhouse Stock of Coal		13.00
<u>Total, Iron Cliffs Company, Pay Roll for year 1905</u>		<u>\$11405.59</u>

THE CLEVELAND - CLIFFS IRON COMPANY

Land Department

DISTRIBUTION OF PAY ROLL

YEAR 1905.

Fish Hatchery General Expense	\$.00	
Fish Hatchery Maintenance	.00	
Fish Hatchery Operating	1540.02	
Total Fish Hatchery Pay Roll		\$ 1540.02
Forest Preserve General Expense	.00	
Forest Preserve Maintenance	.00	
Forest Preserve Operating	2535.80	
Total Forest Preserve Pay Roll		2535.80
Grand Island Improvement General Expense	.00	
Grand Island Improvement Maintenance	.00	
Grand Island Improvement Operating	7393.49	
Total Grand Island Improvement Pay Roll		7393.49
General Office		10445.81
Operating Land Department		614.05
The Munising Company		771.19
Munising Railway Company		411.71
Grand Island Township		2.00
Hemlock Logs		630.27
Land Purchases		44.49
Michiganme Company (watchman)		200.00
Iron Cliffs Company		33.65
Williams Hotel		1316.11
Pioneer Iron Company		11.44
Munising Trails		159.50
Trout Bay Cottages		2083.14
Grand Island Launch		23.45
Grand Island Launch Operating		421.31
Windmill		147.91
Twenty Houses		157.72
Keeper's Cottage & Barn, Fishing Grounds		819.14
Operating Stage		10.77
Williams Barn		206.64
Ten Houses		11.06
Pond No. 8		73.50
Grand Island Stockade		88.94
Landlooking		10.00
Bay Mills Land & Lumber Company		10.00
Accounts Receivable		
Grand Island Township Road		43.87
<u>Total, The Cleveland-Cliffs Iron Co. Pay Roll, year 1905</u>		<u>\$ 30216.98</u>

IRON CLIFFS COMPANY

Land Department

Detail of Year 1905 Labor Statement

	<u>No. Men</u>	
Farm	9 $\frac{1}{2}$	\$ 4036.96
Greenhouse	3	1666.07
Nursery	1	550.00
Operating Land Department	<u>10</u>	<u>5152.56</u>
<u>Total</u>	<u>23$\frac{1}{2}$</u>	<u>\$11405.59</u>

THE CLEVELAND CLIFFS IRON COMPANY

Land Department

Detail of Year 1905 Labor Statement.

	<u>No. Men</u>	
Grand Island Improvement	19	\$ 9590.92
Forest Preserve	4	2039.95
Fish Hatchery	2	1636.02
Operating Land Departments	<u>15</u>	<u>16950.09</u>
<u>Total</u>	40	\$30216.98

THE CLEVELAND CLIFFS IRON CO.

LAND DEPARTMENT.

LABOR STATEMENT.

Month of _____ YEAR 1905

	No. Men	No. Days	EARNINGS	RATE PER DAY	
				Current Month	Last Month
BELLEVUE FARM -					
Foreman,	1	390	858 54	2 20	
Dairyman,	1	358	544 24	1 57	
Farm, } Regular	3 1/2	1100 1/2	1455 83	1 32	
Hands, } Extra	1	159	163 62	1 03	
Milkers Only,	2	242	314 80	1 30	
Teamsters,	2	599 1/2	699 23	1 18	
Milk Route,					
Total,	9 1/2	2849	4036 96	1 42	
GREENHOUSE -					
Florist,	1	346	825 91	2 56	
Florist Helpers,	1 1/2	450	555 03	1 42	
Fireman,	1	181	175 91	97	
Laborers,		54 3/4	49 22	90	
Total,	3	1021 3/4	1666 07	1 62	
NUSSERY -					
Foreman,		16 1/2	26 31	1 65	
Laborers,	1	316 1/2	523 19	1 65	
Total,	1	332 1/2	550 00	1 65	
GRAND ISLAND IMPROVEMENT - Plasterers					
Foreman,	1	43 6	213 20	4 90	
Teamsters,	1 1/2	276	644 20	2 33	
Camp Cooks,	1 1/2	483 5	652 32	1 35	
Camp Cooks,	2 1/2	752 7	944 35	1 25	
Blacksmith,	1	114 5	221 91	1 06	
Laborers,	11	3446 7	4189 70	1 20	
Engineers,	1	316	1500 00	4 70	
Assistant Engineers	1	316 7	903 69	2 85	
Carpenters	1	117 9	320 55		
Total,	19	5967 6	9590 92	1 72	
GRAND ISLAND FOREST PRESERVE -					
Gamekeepers,	2	710	1085 39	1 52	
Laborers,	2	686	954 56	1 39	
Total,	4	1396	2039 95	1 46	
FISH HATCHERY -					
Superintendent,	1	361	900 00	2 49	
Keeper,	1	361	540 00	1 49	
Laborers,		107 3/4	196 02	1 80	
Total,	2	829 3/4	1636 02	1 97	
MUNISING -					
Office,	1	311	1200 00	3 85	
Laborers,	1	346 1/2	712 90	2 00	
Total,	2	657 1/2	1912 90	2 90	
MISCELLANEOUS - Carpenters & Painters					
Laborers	5	1256 8	3215 24	2 63	
Barn Man, (Neegaunce,)	1	365	541 98	1 48	
Rent Collector,	1	236	690 00	2 92	
Forester, and Assistant	1 1/2	560	1710 22	3 05	
Surveyor,	1	291 5	1125 12	3 80	
Surveyor Assistants,	1	343 3	819 73	2 38	
Watchman, Michigan, & Janitor, Office Bldg	1	397	310 00	78	
Manning Brothers		73 5	159 50	2 17	
Scaler		93 5	217 00	2 30	
Launch Captain & Wheelman		183	330 00	1 80	
Janitor		70	59 46	84	
General Welfare		206	606 00	2 87	
Planting Cherry Trees		2	3 50	1 75	
Total,	12	4087 6	9795 78	2 40	
OFFICE PAY ROLL -					
	11	3311	10393 97	3 14	
Grand Total Pay Roll,	62 1/2	20362 5	41622 57	2 04	

THE CLEVELAND-CLIFFS IRON

LAND DEPARTMENT

Stock Report for ^{YEAR} ~~Month~~ of **1905.**

BELLEVUE FARM

ANIMALS	Bulls	Cows	Calves	Stoers	Heifers	Rams	Ewes	Lambs	Bucks	Does	Kids	Boars	Sows	Shoats	Horses	Turkeys	Chickens	Ducks	Feeders
On hand last report	1	42	37	12	5	3	90		1	42	15	1	5	24	6	13	147	6	12
Increase			32					85			22			31		1		2	
Purchased	1	1			4	1													
Transferred	2	3		12	26					14		1	1						6
TOTAL	4	46	69	24	35	4	90	85	1	56	27	2	6	55	6	14	147	8	18
Sold	1	23	13	2	1		16	63	1	55	22			10	2	4	81	5	17
Died			2			1	7	2		1	1		1	17					
Transferred	1	6	39		3						14			2					
Total	2	29	54	2	4	1	23	65	1	56	37		1	38	2	4	81	5	17
ON HAND	2	17	15	22	31	3	67	20				2	5	17	4	10	66	3	1

FISH HATCHERY

FISH	RECEIVED DURING MONTH			ON HAND LAST REPORT				Fry Hatched During Month	LOSSES DURING MONTH				Distribution and Shipments During Month				ON HAND			
	Eggs Taken	Eggs Received by Purchase	No. Fish Added to Pond	Eggs	Fry	Fingerlings	Pond Fish		Eggs	Fry	Fingerlings	Pond Fish	Eggs	Fry	Fingerlings	Pond Fish	Eggs	Fry	Fingerlings	Pond Fish
Brook Trout	231000	200000		220000				34416380000	40000	47261		1082		319000		231000	13739		33334	
Steelhead Trout		50000						49626	374	9386				25000			15240			
Rainbow Trout		50000						50000	22135					9000			18865			
Landlocked Salmon			500								42								458	
Lake Trout	525000			380000				362000	18000					362000		525000				
Bass																				
TOTAL	756000	300000	500	5006000000				34416841626583747878				421082		715000		756000	7844		45833334	

TEMPERATURE OF WATER

"NOTE"

First Taking of Eggs, Date	Kind	Number	DATE	DATE	DATE	DATE
Last " " " "	"	"	1	9	17	25
First Hatching of Fry, "	"	"	2	10	18	26
Last " " " "	"	"	3	11	19	27
Condition of Eggs,			4	12	20	28
" " Fry,			5	13	21	29
" " Fingerlings,			6	14	22	30
" " Pond Fish,			7	15	23	31
			8	16	24	

GRAND ISLAND FOREST PRESERVE

ANIMALS	Received During Month	Total Rec'd From Dec. 104	In Stock Dec. 104	Increase	Total	Died	On Hand	ANIMALS	Received During Month	Total Rec'd From Dec. 104	In Stock Dec. 105	Increase	Total	Died	On Hand	GRAND TOTAL ON HAND
Moose			12		12		12	Jack Rabbits			40		40	1	39	
Elk			32		32		32	Fox Squirrels			24		24		24	
Caribou	4	4	5		9		9	Dal-Rypa	4	4			4		4	
Antelope			1		2		2	Mallard Ducks			4		4		4	
Black Tail Deer			5		5		5	Capercalzie		58	98		156	5	151	
Mule Deer	4	4	9		13	3	10	Black Game		53	38		91		91	
Native Deer			3	24	1	28	28	Hazel Grouse	3	3			3		3	
Beaver			2		2		2	Sharp Tail Grouse			65		65		65	
Raccoons			2		2		2	Wild Turkeys		2	5	7	14	8	6	
Belgian Hares			23		23	2	21	Ring Neck Pheasants			134	32	166	14	152	
English Gray Hares			4		4		4	Black Neck Pheasants			10		10		10	
English Black Hares			4		4		4	Chickens		60	72		132	50	82	
American Snow-Shoe Rabbits			4		4		4	Pigeons			11	19	30		30	
Merino Ewes			1		1		1									
TOTAL	4	17	123	1	141	5	136	TOTAL	7	120	480	130	739	78	661797	

Elk Original Purchase 2 Bulls 9 Cows
Moose " " 4 " 5 "
Caribou " " 4 " 5 "
Antelope at present time 1 Buck 1 Doe
Mule Deer at " " 3 " 5 "
Native Deer at " " 15 " 13 "

PREDATORY ANIMALS KILLED DURING MONTH

29 Hawks 4 Minks 2 Owls
2 Foxes Fishers
2 Weasels 1 Crow

1059 Small mouthed Black Bass and
Blue Gills put in Echo Lake to date

* 4 Mule Deer rec'd in Dec. 1904 not put on monthly Stock report, 2 of these died shortly after their arrival on Island

BELLEVUE FARM==Dairy Report for the Month of **YEAR OF 1905.** **190...**

WEEK YEAR	Lbs. Milk Received	Lbs. Cream Separated	Lbs. Butter Made	Lbs. Butter Sold	Lbs. Cream Sold	Gals. Buttermilk Sold	Lbs. Skim Milk Made	Buttermilk Made
Dec. 04	8277	811		48	786	2388	3073	
January	6383	670	15	15	585	2631	2406	45
February	6142	531			549	2661.7	1688	
March	8198	597			580	2888	1909	
April	10593	1064			987	2219	3756	
May	12427	1767	162	115 $\frac{1}{2}$	838	577	6642	894
June	10335	993	345 $\frac{1}{2}$	274 $\frac{1}{2}$	20	299	7373	827
July	9402	1135	235	217 $\frac{1}{2}$	240	157	7371	442
August	6979	786	229	199	207	374	5473	502
September	6331	791	190	188 $\frac{1}{2}$	225	193	5088	409
October	6160	777	149	168	330	193	4675	354
November	5130	529	118	101	366	352	3593	287
TOTAL	96357	10451	1443 $\frac{1}{2}$	1326 $\frac{3}{4}$	5713	14923.7	53045	3760

THE CLEVELAND CLIFFS IRON COMPANY

Land Department

TROUT FRY PLANTED BY THE CLEVELAND CLIFFS IRON CO. DURING 1905

BROOK TROUT

Anna River			100,000
	Valley Spurr	10,000	
	Wagner Falls	5,000	
	Halston	10,000	
	Anna River proper	75,000	
Slap-neck Creek			20,000
Whitefish River			20,000
Addis Lake			20,000
Au Train River			20,000
Long Lake and Tributary Streams			50,000
Miners River			20,000
Munising Falls Creek			10,000
Bay Furnace Creek			20,000
Stream Running into Echo Lake, Grand Island			25,000
			305,000

STEELHEAD TROUT

Au Train River			20,000
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Lake Trout

Munising Bay			362,000
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THE CLEVELAND CLIFFS IRON COMPANY

Land Department

STATEMENT OF FISH HATCHERY FOR THE YEAR 1905

BROOK TROUT

Eggs on Hand. December 1, 1904		220,000
Eggs Received		200,000
Eggs taken this Fall		(231,000)
Eggs Hatched	380,000 or 90.5%	
Eggs Lost	40,000 or 9.5%	
Fry Hatched		380,000
Fry Lost	47,261 or 12.5%	
Fry Planted	305,000 or 80.2%	
Fry Sold	14,000 or 3.7%	
Fry on Hand	13,739 or 3.6%	

STEELHEAD TROUT

Eggs Purchased		50,000
Eggs Lost	374 or 00.7%	
Eggs Hatched	49,626 or 99.3%	
Fry Hatched		49,626
Fry Lost	9,386 or 18.7%	
Fry Planted	20,000 or 40.5%	
Fry Sold	5,000 or 10.1%	
Fry on Hand	15,220 or 30.7%	

RAINBOW TROUT

Eggs Purchased		50,000
Eggs Hatched	50,000 or 100%	
Fry Hatched		50,000
Fry Lost	22,135 or 44.3%	
Fry Sold	9,000 or 18. %	
Fry on Hand	18,865 or 37.7%	

LAND LOCKED SALMON

Fingerlings Received		500
Fingerlings died	42. or 8.4%	
Fingerlings on Hand	458 or 91.6%	

BROOK TROUT POND FISH

On hand December 1, 1904		34,416
Died	1,082 or 3.1%	
On Hand	33,334 or 96.9%	

LAKE TROUT

Eggs on Hand December 1, 1904		380,000
Eggs Received this Fall		(525,000)
Eggs Lost	18,000 or 4.7%	
Eggs Hatched	362,000 or 95.3%	
Fry Hatched		362,000
Fry Planted	362,000 or 100%	

("Eggs received this Fall" are not included in results Itemized)

THE CLEVELAND-CLIFFS IRON CO.

LAND DEPARTMENT

Grand Island Launch Cost Sheet.

YEAR
Month of 1905

		MILES RUN 1 MONTH		MILES RUN 12 MONTHS		
		MILES RUN 12 MONTHS		3321		
		LABOR	SUPPLIES	TOTAL 1905	OPERATING COST	
					LAST MONTH	..... M
GENERAL EXPENSE						
	Stationery and Printing		15 00	15 00		
	Freight and Express		32 79	32 79		
	Telephone and Telegraph		33	33		
	Insurance		25 00	25 00		
	Postage					
	Drayage		2 50	2 50		
	Total,		76 12	76 12		
MAINTENANCE						
	Hull					
	Engine					
	Equipment					
	Total,					
OPERATING						
	Captain and Wheelsman	421 31		421 31		
	Oil and Waste		8 21	8 21		
	Batteries		12 00	12 00		
	Carbide		1 50	1 50		
	Miscellaneous Note 1		67 83	67 83		
	Tools					
	Gasolene		275 36	275 36		
	Spark Plugs		5 19	5 19		
	Total,	421 31	370 09	791 40		
DEPRECIATION						
	Total,		250 00	250 00		
	Total,	421 31	626 21	1117 52		
	Total Cost Operating 1 Mo.					
	" " " 12 Mos.	421 31	626 21	1117 52		
RECEIPTS						
	Total,			665 80		
	Net Cost Operating 1 Mo.					
	" " " 12 Mos.			451 72		
Account Not Sunk Off						
	Cost of Running per Mile 1 Mo.			1094 24		
	" " " 12 Mos.			336		

REMARKS	Note 1	Detail of Miscellaneous	
		Captain's Cap	3.00
		Wheelsman Stool	1.27
		Oil Suits	5.50
		Insulated Wire	.99
		Oil heater	4.00
		Launch Supplies	33.93
		Pipe & Fittings	.60
		Launch Hire	14.94
		Board of Men	3.00
			<u>87.83</u>

THE CLEVELAND - CLIFFS IRON COMPANY

Land Department

YEARLY STATEMENT OF ESTIMATES AND AUTHORIZATION REPORTS
WITH EXPENDITURES TO DEC. 31, 1905 AS PER ACCOUNTS

WORK COMPLETED AND CHARGED OFF

No.	Date Auth.	Description of work	Am't Auth.	Am't Exp.	When Charged out
3	4/13/03	I. C. Co. Reforestry Baldwin Kilns	1075.70	1164.47	Nov. 30, 1903
4	4/24/03	M. Ry. Co. Munising Park	985.00	793.74	Dec. 31, 1903.
5	5/ 1/03	I. C. Co. Cattle Raising	2135.00	2462.67	Nov. 30, 1903
9	5/25/03	C. C. I. Co. General Fishery	732.96	732.96	Nov. 30, 1903 Nov. 30, 1904
13	6/8/04	C. C. I. Co. Grand Island Improvement	1033.18	1418.45	June, July & Aug. Cost Sheets 1904.
14	6/27/04	C. C. I. Co. Repairs Williams Cottage	108.80	144.45	Nov. 30, 1904
16	9/7/04	C. C. I. Co. Mitchell & Sherman Contract-G.I. Road	6096.94	5942.13	Sept., Oct. & Nov. Cost Sheets 1904
17	9/7/04	C. C. I. Co. Grad. & Grav. G.I. Road	7000.00	5134.53	Aug. Sept. Oct. & Nov. Cost Sheets-04
19	9/16/04	Munising Co. Reforestry SW. $\frac{1}{4}$ of NW. $\frac{1}{4}$ Sec. 14-46-19	523.00	454.39	Dec. 31, 1905
22	3/27/05	Munising Co. Planting Cherry Trees Coalwood Lands	518.67	518.67	Dec. 31, 1905
31	5/17/05	C. C. I. Co. Trails Munising Hills	544.00	544.00	Nov. 30, 1905

New

THE CLEVELAND-CLIFFS IRON CO.

STATEMENT OF MISCELLANEOUS GENERAL EXPENSE.

YEAR ENDING NOVEMBER 30th, 1905.

	TOTAL	C.I.M.CO.	I.C.CO.	C.C.I.CO.	NEGAUNEE MINE.
Bond for H.L. Ramsdell, Cashier	5 00	1 67	1 67	1 66	
Expense acct. having man to show Building Inspector around	80	80			
Photos from Childs Art Gallery C.I.M.CO. Vchr.#12355	4 30	1 43	1 43	1 44	
Supplies for Mr. Mather's car	8 59	2 87	2 86	2 86	
Bond for C.J. Shaddick, Paymaster	125 00	41 67	41 66	41 67	
Supper for Cleveland-Cliffs Clubs acct. opening the new Club Rooms	31 81	10 60	10 60	10 61	
Expense entertaining - Governor Warner, our portion	19 12	6 37	6 37	6 38	
<u>TOTAL</u>	194 62	65 41	64 59	64 62	
Less Negaunee Mine Portion				25 85	25 85
<u>TOTAL CENTRAL OFFICE</u>	194 62	65 41	64 59	38 77	25 85
Bond for W.G. Mather as President & Treasurer of Negaunee Mine,	50 00				50 00
For auditing the books year 1904, paid in 1905	75 00				75 00
Expense for filing Annual Report to State of Michigan	50				50
Bond for J. M. Bush, Superintendent- Crosby Mine	4 37			4 37	
Bond for J. M. Bush Cashier- Ashland Mine	5 00			5 00	
Bond for W. H. Moore, Cashier- Ashland Mine	63			63	
Hayes Mining Co., acct. Ashland Mine Lease					
C.C.I.Co. Vchr.#6780	1 00			1 00	
<u>GRAND TOTAL as per GENERAL EXPENSE STATEMENT</u>	331 12	65 41	64 59	49 77	151 35



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CLEVELAND IRON MINING COMPANY.

- MISCELLANEOUS DATA -

- 1 Lake Mine Cost Sheet.
- 2 Hard Ore Mine (More) Cost Sheet.
- 3 Division of Mining Cost Lake Mine.
3 1/2 Analysis of Improvement and New Construction
- 4 Operating and Maintaining Elec. Haulage Plant.
- 5 Cost of work at Hard Ore Shops.
- 6 Fire Insurance on Mine Buildings and Dwellings.
- 7 Rented Houses showing Rents received, Cost of Repairs, etc., Hematite Mine.
- 8 Rented Houses showing rents received, cost of repairs, etc. Hard Ore Location
- 9 Rented Houses showing rents received, cost of repairs, etc. Second Addn.
Location.
- 10 Charges to dwellings not rented.
- 11 Charges to Land Improvement.
- 12 Details of Accounts Receivable.
- 13 Details of Accounts Payable.
- 14 Comparative Statement of Taxes (See C C I Co. Misc. Data file)
- 15 Statement of Barn Expense " "
- 16 General Expense Statements " "
- 17 Delays from Various Causes " "
- 18 *Improvement and New Construction*

THE CLEVELAND-CLIFFS IRON CO.

Cost of Production for the Month of YEARS 1905 AND 1904. 190

L A K E MINE.	12 Months of 1905. 508497 TONS.						12 Months of 1904. 298684 TONS.					
	Labor.		Supplies.		Total.		Labor Tons.		Supplies Tons.		Total Tons.	
	Amount.	Cost Per Ton.	Amount.	Cost Per Ton.	Amount.	Cost Per Ton.	Amount.	Cost Per Ton.	Amount.	Cost Per Ton.	Amount.	Cost Per Ton.
GENERAL EXPENSE,												
Insurance,			302 24	001	302 24	001			.336 96	001	336 96	001
Engineering,	1149 84	002	7 68	000	1157 52	002	1327 26	004	.80	000	1328 06	004
Analysis,	1576 57	003	1165 85	002	2742 42	005	1346 77	005	1119 56	003	2466 33	006
Relief Fund,			1797 00	004	1797 00	004			1103 70	004	1103 70	004
Mine Office,	2091 46	004	700 12	001	2791 58	005	2557 62	009	499 83	002	3057 45	011
Total,	4517 87	.009	3972 89	.006	8790 76	.017	5231 65	.018	3060 85	.010	8292 50	.028
MAINTENANCE—Repairs of												
Tracks and Yards,	2989 76	006	985 29	002	3975 05	008	1872 91	006	747 32	003	2620 23	009
Docks, Trestles and Pockets,	73 17	000	2 42	000	75 59	000	211 05	001			211 05	001
Buildings,	86 65	000	160 97	000	247 62	000	38 18	000	27 64	000	65 82	000
Shop Machinery,			108 43	000	108 43	000						
Boilers,	25 82	000	481 84	001	507 66	001	69 37	000	48 50	000	117 87	000
Hoisting Machinery,	11 73	000	448 85	001	460 58	001	11 59	000	275 04	001	286 63	000
Compressors and Air Pipes,	24 35	000	1101 36	002	1125 71	002	80 19	000	1274 28	005	1354 47	005
Cornish and Steam Pumps,	195 11	000	902 56	002	1097 67	002	497 38	002	360 07	001	857 45	003
Top Tram Engines and Cars,	480 22	001	1051 41	002	1531 63	003	700 99	002	283 84	001	984 83	003
Skips and Skip Roads,	361 91	000	411 86	001	773 77	001	280 15	001	217 13	001	497 28	002
Underground Tracks and Cars,	635 49	002	1185 79	002	1821 28	004	547 10	002	972 26	003	1519 36	005
Electric Tram Plant,	4094 90	008	6330 41	013	10425 31	021	2873 95	010	1752 57	005	4626 50	015
Lake Ang. Drainage, Launder,			1602 59	003	1602 59	003			1183 88	004	1183 88	004
Testing Boilers and Engines,	95 13	000	24 69	000	119 82	000						
Fire in Coal Pile	256 95	001			256 95	001						
Total,	9331 19	.018	14798 47	.029	24129 66	.047	7182 84	.024	7142 53	.024	14325 37	.048
MINING EXPENSE,												
Air Pipes,	712 43	001	354 72	001	1067 15	002	708 76	003	36 48	000	745 24	003
Compressors,	2046 04	004	5053 69	010	7099 73	014	1940 61	007	6176 90	020	8117 51	027
Hoisting,	2526 91	005	5232 47	010	7759 38	015	1563 62	005	3638 45	013	5402 07	018
Pumping,	3306 46	007	9369 83	018	12676 29	025	3207 65	011	7397 91	024	10605 56	035
Sinking,	5551 09	011	1183 71	002	6734 80	013	8014 25	027	2623 39	009	10637 64	036
Drifting,	22179 54	043	3481 70	007	25661 24	050	17731 32	059	2790 83	010	20522 15	069
Breaking Ore,	166388 68	327	17047 30	034	183435 98	361	87392 01	293	9863 00	032	97255 01	325
Tramming,	22557 50	044	4349 52	009	26907 02	053	10103 56	034	3958 10	013	14061 66	047
Filling,	752 42	001	72 48	000	824 90	001	628 82	002	77 91	000	706 73	002
Timbering,	22116 55	043	23101 27	046	45217 62	069	14335 76	048	16003 40	054	30339 18	102
Mining Captain and Bosses,	6743 76	013			6743 76	013	5093 61	017			5093 61	017
Dry House,	958 35	002	91 80	000	1050 15	002	509 84	002	55 02	000	564 86	002
Top Landing and Tramming,	4155 87	010	395 10	001	4550 97	011	2774 27	007	494 06	004	3268 33	011
Stocking Ore,	3856 49	008	1822 60	003	5679 09	011	1691 93	006	232 17	000	1924 10	006
Sorting Ore,												
Lake Angeline Drainage,			3173 15	006	3173 15	006			4835 79	016	4835 79	016
Cave In	339 14	001	174 01	000	513 15	001	115 42	000	150 38	001	265 80	001
Total,	264191 23	.520	74903 35	.147	339094 58	.667	155811 45	.521	58533 79	.196	214345 24	.717
Cost of Production, Per Cent,	278340 29	.547	93674 71	.184	372015 00	.731	166225 94	.563	68737 17	.230	236963 11	.793
EXPLORATORY,	75%		25%		100%		71%		29%		100%	
Exploring in Mines,							59 92	000	125 48	001	185 40	001
Total,							59 92	.000	125 48	.001	185 40	.001
DEPRECIATION, Etc.,												
Inventory, Improvement,	97 25	000	6679 05	013	6776 30	013	405 91	001	3109 35	011	3515 26	012
New Construction, No. 4 Shaft,	7145 64	014	5780 79	012	12926 43	026	17647 16	059	58448 23	186	73095 39	245
Fire Loss,			955 77	002	955 77	002	162 00	001	770 96	002	952 96	003
Credits,					76 32	000					21 91	000
Total,	7242 89	.014	13415 61	.027	22267 28	.044	18235 07	.061	59328 54	.199	77434 21	.259
Taxes, Central Office,	14759 53	.029	5117 16	.010	19906 99	.039	12498 65	.042	5022 29	.017	17520 94	.059
Total Cost on Stock Pile,	300373 01	.590	112207 48	.221	433431 80	.852	199019 58	.666	133215 48	.447	349238 25	1.169
LOADING AND SHIPPING,												
Steam Shovel, Tons,	1905 172217	1904 206428	956 18	006	5514 42	032	6470 60	038	9 13	000	3729 86	018
By Hand, " "	7948	1043	1569 15	197	155 31	020	1724 46	217	360 48	345	15 69	016
At Pocket, " "	383837	189338	2229 50	006	29 47	000	2258 97	006	1216 97	0064	5 03	000
Sorters (L. E. Dock),												
Shipping Expense,	394 44		67 11		461 55				308 20		308 20	
Total,	5149 27	.010	5766 31	.011	10915 58	.021	1586 58	.006	4058 78	.013	5645 36	.019
Total Cost on Cars,	305522 28	.600	117973 79	.232	444347 38	.873	200606 16	.672	137272 26	.460	354883 61	1.188
Royalty,				</								

Analysis of Supplies.

Analysis of Labor.

CLEVELAND-CLIFFS IRON CO. PRODUCT,	1 9 0 5			1 9 0 4		
	508497		298684			
	Amount.	Per Ton.	Amount.	Per Ton.		
General Supplies,	8066	83 .016	7092	83 .024		
Iron and Steel,	3216	39 .006	3105	08 .011		
Oil, Grease and Candles,	5109	08 .010	3656	53 .012		
Machinery Supplies,	12053	90 .024	40322	32 .135		
Building Material,	9903	32 .020	9970	65 .033		
Explosives,	15121	80 .030	9535	91 .032		
Mine Timber,	20891	53 .041	15492	29 .052		
Fuel,	25341	33 .050	23079	07 .077		
Barn,	756	49 .001	627	93 .002		
Sundries,	11443	77 .022	9879	66 .033		
Total Supplies,	111904	44 .220	122762	27 .411		
Miscellaneous,	17009	11 .033	14509	99 .049		
Credits, (1)	6300	77 .022				
Total,	122612	78 .231	137272	26 .460		
SUMMARY.						
As per Cost Sheet,	117973	79 .222	137272	26 .460		
Improvement,						
New Construction,	4303	40 .008				
Other Charges,	335	59 .001				
Total,	122612	78 .231	137272	26 .460		

Labor as per Cost Sheet,
Other Charges,

As per Labor Statement,
General Pay Roll,

COMPARATIVE COST ON CARS.

	PRODUCT.	COST.
12 Months 1901	468883	1.023
12 " 1902	477831	1.006
12 " 1903	476821	1.119
12 " 1904	298684	1.188
12 " 1905	508497	.873

(1) Credits which are deducted during year in total column only.

THE CLEVELAND-CLIFFS IRON CO.

Cost of Production for the Month of YEARS 1905 and 1904 190

M. O. R. O. MINE.	MONTH OF 12 Months of 1905						12 Months of 1904						No. Tons.	
	1905		1904		1905		1904		1905		1904		MONTH OF	
	Amount.	Cost Per Ton.	Amount.	Cost Per Ton.	Amount.	Cost Per Ton.	Amount.	Cost Per Ton.	Amount.	Cost Per Ton.	Amount.	Cost Per Ton.	Amount.	Cost Per Ton.
GENERAL EXPENSE,														
Insurance,			324 88	005	324 88	005					263 65		263 65	
Engineering,	532 47	008			532 47	007	275 07						275 07	
Analysis,			161 04	003	161 04	002				3 75			3 75	
Relief Fund,			591 90	008	591 90	009				159 00			159 00	
Mine Office,	2834 71	041	462 04	006	3296 75	048	1488 68			215 13			1703 81	
Total,	3367 18	.049	1559 86	.022	4927 04	.071	1763 75			641 53			2405 28	
MAINTENANCE—Repairs of														
Tracks and Yards,							2 91			4 08			6 99	
Docks, Trestles and Pockets,	42 71	.001	522 76	.008	565 47	009								
Buildings,	227 62	003	560 57	008	788 19	011	296 20			642 83			939 03	
Shop Machinery,														
Boilers,	8 79	000	11 48	000	20 24	001	35 31			17 10			52 41	
Hoisting Machinery,			90 18	000	90 18	001								
Compressors and Air Pipes,			1855 24	026	1855 24	027								
Cornish and Steam Pumps,	273 61	004	363 52	005	637 13	009	691 68			336 24			1027 92	
Top Tram Engines and Cars,			280 25	004	280 25	004								
Skips and Skip Roads,	103 73	002	919 73	013	1023 46	015								
Underground Tracks and Cars,	678 54	010	1175 55	017	1854 09	027								
Total,	1335 00	.020	5598 89	.081	6933 89	.101	1026 10			1000 25			2026 35	
MINING EXPENSE,														
Air Pipes,	145 35	002	545 14	008	690 49	010								
Compressors,			2373 53	034	2373 53	034								
Hoisting,	2302 82	033	2258 49	033	4561 31	066								
Pumping,	2616 49	038	4520 61	065	7137 10	103	3307 78			5128 56			8436 34	
Sinking,	2666 57	039	1162 56	017	3829 13	056	413 31			414 07			827 38	
Drifting,	3724 07	054	1948 17	028	5672 24	082								
Breaking Ore,	19489 34	283	10755 08	156	30244 42	439								
Tramming,	12401 98	180	769 08	011	13171 06	191								
Filling,														
Timbering,	318 67	005	81 48	001	400 15	006	15 20			4 11			19 31	
Mining Captain and Bosses,	2905 60	042			2905 60	042	250 00						250 00	
Dry House,	489 91	007	292 29	004	782 20	011	1 55			53			2 08	
Top Landing and Tramming,	1793 53	026	268 99	005	2062 52	031								
Stocking Ore,	276 36	004	34 71	001	311 07	005								
Sorting Ore,	847 16	012	03 00	000	847 19	012								
Total,	49977 85	.725	25010 16	.363	74988 01	1.088	3987 84			5547 27			9535 11	
Cost of Production, Per Cent,	54680 03	.794	32168 91	.466	86848 94	1.260	6777 69			7189 05			13966 74	
	63%		37%		100%		49%			31%			100%	
EXPLORATORY,														
Exploring in Mines,	1434 15	.021	1863 31	027	3297 46	048								
Total,	1434 15	.021	1863 31	.027	3297 46	.048								
DEPRECIATION, Etc.,														
Inventory, Improvement, New Construction, Closing Mine,					127 16	002								74
Credits,					18 17	001								11 82
Total,					108 99	001	29 70			50				17 54
Taxes, Central Office, (per cent.)	1227 25	.018	422 75	.006	1650 00	.024								3539 10
Total Cost on Stock Pile,	57341 43	.832	34454 97	.500	95351 34	1.383	6607 39			7189 55			17523 48	
LOADING AND SHIPPING,														
Steam Shovel, Tons,	28876	1905	822 40	028	838 06	029				19 61			19 61	
By Hand, " "	46263	1904	672 10	014	5191 34	112	306 64			9 10			315 74	.158
At Pocket, " "	46156		65 00	002	721 70	016								
Sorters (L. E. Dock),	553 22				553 22									
Shipping Expense,							19 92						19 92	
Total,	5744 82	.083	1559 50	.023	7304 32	.106	326 56			28 71			355 27	
Total Cost on Cars,	63086 25	.915	36014 47	.523	102655 66	1.489	7133 95			7218 26			17878 75	
Royalty, Comm'n and Expense, Cleveland Office,						.150								
Total Cost,						1.639								

Accounts not Sunk Off	Months 1905		Months 1904		Sinking.			Drifting.			Months 1905	
	Amount.	Per Ton.	Amount.	Per Ton.	Feet.	Amount.	Per Ft.	Feet.	Amount.	Per Ft.	Per Ton.	Amount.
Total,					103	3629 13	37.17	699 1/2	5672 24	8.11		

REMARKS:

7-3-0-4

Analysis of Supplies.

Analysis of Labor.

CLEVELAND-CLIFFS IRON CO. PRODUCT,	1 9 0 5			1 9 0 4		
	68919			None.		
	Amount.		Per Ton.	Amount.		Per Ton.
General Supplies,	2361	53	034	80	22	
Iron and Steel,	1676	22	024	103	89	
Oil, Grease and Candles,	1478	20	021	141	34	
Machinery Supplies,	4359	47	063	320	37	
Building Material,	1092	06	016	727	73	
Explosives,	7692	91	012	1	20	
Mine Timber,	105	01	002	60	28	
Fuel,	7670	50	111	6242	56	
Barn,	28	32	001			
Sundries,	8811	65	128	788	34	
Total Supplies,	35275	87	.512	8465	93	
Miscellaneous,	2589	38	.037	437	93	
Credits, (1)	297	41	.004	44	42	
Total,	37567	84	.545	8859	44	
SUMMARY.						
As per Cost Sheet,	36014	47	.523	7218	26	
Improvement,						
New Construction,						
Other Charges,	1553	37	.022	1641	18	
Total,	37567	84	.545	8859	44	

Labor as per Cost Sheet, Other Charges,		As per Labor Statement, General Pay Roll,		COMPARATIVE COST ON CARS.	
PRODUCT.	COST.	PRODUCT.	COST.	PRODUCT.	COST.
12 Months 1901	76085	1.331			
12 " 1902	76024	1.319			
12 " 1903	70872	1.432			
12 " 1904	Idle.				
12 " 1905	68919	1.489			

(1) Credits which are deducted during year in total column only.

CLEVELAND IRON MINING CO.

ANALYSIS OF IMPROVEMENT & NEW CONSTRUCTION FOR YEAR ENDING NOV.30, 1905.

	Inventory Nov.30,04.		Expenditures For Year		Total		Depreciation For Year		Inventory Nov.30,05		Charged L.S.I.CO.	
HARD ORE NEW CONSTRUCTION.												
Additional Shop Room	5667	45			5667	45	5667	45				
HARD ORE EQUIPMENT.												
Purchase of Diamond Drill			2921	84	2921	84	2921	84				
LAKE NEW CONSTRUCTION.												
New No.4 Shaft			10283	53	10283	53	10283	53				
New Dry House			2642	90	2642	90	2642	90				
Total Lake #4 Shaft			12926	43	12926	43	12926	43				
LAKE IMPROVEMENT.												
Electrical Shop			446	73	446	73	446	73				
Purchase two Motors			3617	00	3617	00	3617	00				
Rebuilding Top Tram Plant			1437	66	1437	66	1437	66				
New Generator			1274	91	1274	91	1274	91				
Total Improvement			6776	30	6776	30	6776	30				
LAKE ANGELINE DRAINAGE.												
Pumping Expense 12 mos. (No.1 Plant)			1837	72	1837	72	1378	30			459	42
Fuel Acct. 12 mos.#1 Plant			1661	08	1661	08	1245	62			415	26
Repairs to Launderers - 12 mos. #1 Plant			2136	79	2136	79	1602	59			534	20
Lake Sup.I. Co's charges- No.2 Plant			1698	13	1698	13	1273	62			424	51
New Launder not completed			4476	64	4476	64			4476	64		
Total			11810	36	11810	36	5500	33	4476	64	1833	39
ADJUSTMENTS FOR 1904												
DRAINAGE EXPENSE-							724	59				
Total Drainage Accts.			11810	36	11810	36	4775	74	4476	64	1833	39
Total C.I.M.CO.	5667	45	34434	93	40002	38	33067	76	4476	64	1833	39
Charged as Follows;												
To Hard Ore Sgop Earnings							5667	45				
To Hard Ore Diamond Drill Equipment							2921	84				
Lake Dep. #4 Shaft							12926	43				
Lake Improvement							6776	30				
Opt. Lake-Maintenance							1602	59				
" Lake-Mining Expense							3173	15				
Total as above							33067	76				

Lead Mine.
Division of Mining Cost for the year ending November 30 1905.

	Amount		Cost	Division of Product	Lake River	Larv	Silica	Total
General Expense,	8790	76	017	South Deposit	118964	22484	12674	154122
Maintenance	24129	66	047	2 ^d Level,		76299		76299
Mining Expense,				3 ^d "		269954		269954
Air Pipes	1067	15	002	4 th "				
Compressors,	7099	73	014	Over-run,	2742	5380		8122
Hoisting	7759	38	015					
Steam Cumps,	12676	29	025					
Sinking	6734	80	013					
Mining Capt & Bosses	6743	76	013	Total 1905	121706	374117	12674	508497
Dry House,	1050	15	002	" 1904	92659	198858	7167	298684
Top Landing & Trimming	4550	97	011	Increase,	29047	175259	5507	209813
Stocking Oil,	5679	09	011	Decrease,				
L. A. Dr. Camping Exp.	3173	15	006					
Total, 1905.	89454	89	176					
" 1904	73812	58	247					

	South Deposit		2 ^d Level		3 ^d Level		4 th Level		Total 1905		Total 1904						
	Amount	Cost	Amount	Cost	Amount	Cost	Amount	Cost	Amount	Cost	Amount	Cost					
Drifting	5667	71	037	4872	41	064	12363	62	046	2757	50	20532	15	069			
Breaking Ore	59328	76	378	29877	19	392	95230	03	353	183435	98	361	97253	01	328		
Trimming,	10598	38	069	35273	36	046	12781	28	047	269070	2	053	14061	66	047		
Filling				9280	001	732	10	003	824	90	001	706	73	002			
Timbering,	12584	25	082	7915	42	104	24611	28	091	106	87	45217	32	089	30334	18	102
Cave in,				513	15	006				513	15	001	268	80	001		
Total 1905	97179	10	566	46798	33	613	145718	31	540	282560	11	355	162150	53	546		
" 1904	85046	64	420	8542	63	665	91371	11	551	8190	15	222					
Cost over Accts,		176			176			176			176						
Cost of Production		742			789			716			731						
" " " 1904		737			912			798			793						
Increase,		005			123			082			062						
Decrease,																	

Summary	1905	1904
Mining Cost	555	546
Genl Exp. items	176	247
Total	731	793

LAKE MINE.

REPORT OF OPERATING AND MAINTENANCE OF ELECTRIC HAULAGE PLANT

FOR THE YEAR ENDING NOVEMBER 30th, 1905.

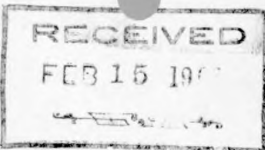
O P E R A T I N G.	LABOR		SUPPLIES		T O T A L		C O S T -		P E R C A R .	
							1 9 0 5	1 9 0 4	1 9 0 5	1 9 0 4
Motor & Brakemen	6614	25	134	02	6748	27	.040		.041	
Chutemen	6958	47	498	10	7456	57	.044		.032	
Oiling & Repairing Cars	872	26	365	93	1238	19	.007		.006	
Proportion of Engine House Expense	1413	52	3414	19	4827	71	.029		.046	
<u>TOTAL</u>	<u>15888</u>	<u>50</u>	<u>4412</u>	<u>24</u>	<u>20270</u>	<u>74</u>	<u>.120</u>		<u>.126</u>	
Cost per Car 1905		09		03		12				
" " " 1904		08		04		12				
<u>DIVIDED AS FOLLOWS:</u>										
1901 Cars filling Rock	103	07	29	74	132	81	.122		.126	
4706 " tramping "	446	43	134	36	580	79	.124		.126	
158928 " " Ore	14988	63	4159	84	19148	47	.120		.126	
3395 " " Timber	320	37	88	30	408	67	.120		.126	
168120 " Total 1905	15858	50	4412	24	20270	74	.120		.126	
99860 " " 1904	8315	59	4237	81	12555	76	.126		.151	
<u>Filling Rock 1091 Cars.</u>										
Proportion Motor Expense	103	07	29	74	132	81	.122		.126	
Expense of putting away	649	35	42	74	692	09	.634		.647	
<u>TOTAL</u>	<u>752</u>	<u>42</u>	<u>72</u>	<u>48</u>	<u>824</u>	<u>90</u>	<u>.756</u>		<u>.773</u>	
<u>Tramping Rock 4706 Cars</u>										
	446	43	134	36	580	79	.124		.126	
<u>Tramping Ore 508,497 Tons (1)</u>										
Proportion of Motor Expense	14988	63	4159	84	19148	47	.038	Cost -	.038	Per Ton.
Tramping & Skip Tending	4221	25	159	25	4380	50	.009		.009	
Tramping South Deposit	3347	62	30	43	3378	05	.006			
Total Tonnage 508,497 <u>TOTAL</u>	<u>22557</u>	<u>50</u>	<u>4349</u>	<u>52</u>	<u>26907</u>	<u>02</u>	<u>.053</u>		<u>.047</u>	
<u>Tramping Timber 3,395 Cars.</u>										
Proportion of Motor Expense	320	37	88	30	408	67	.120	Cost -	.126	Per Car.
<u>GRAND TOTAL</u>	<u>24076</u>	<u>72</u>	<u>4644</u>	<u>66</u>	<u>28721</u>	<u>38</u>	<u>.171</u>		<u>.158</u>	
<u>MAINTENANCE OF PLANT.</u>										
Electric Engine & Dynamo	85	04	539	16	624	20	.004			
Motors	1568	26	2384	55	3952	81	.023		.023	
Wiring	745	58	1024	97	1770	55	.011		.004	
Main Line Tracks & Cars	1696	02	2381	73	4077	75	.024		.019	
<u>TOTAL MAINTENANCE COST</u>	<u>4094</u>	<u>90</u>	<u>6330</u>	<u>41</u>	<u>10425</u>	<u>31</u>	<u>.026</u>		<u>.046</u>	
<u>TOTAL OPERATING "</u>	<u>15858</u>	<u>50</u>	<u>4412</u>	<u>24</u>	<u>20270</u>	<u>74</u>	<u>.120</u>		<u>.126</u>	
<u>GRAND TOTAL</u>	<u>19953</u>	<u>40</u>	<u>10742</u>	<u>65</u>	<u>30696</u>	<u>05</u>	<u>.182</u>		<u>.172</u>	

(1)

Total Product 500,375

Excess for 1905 8,122

Total 508,497



CLEVELAND IRON MINING COMPANY.

RECORD OF COST OF WORK AT THE HARD ORE SHOPS FOR THE YEAR ENDING

NOVEMBER 30th, 1905.

	MACHINE SHOP		BLACKSMITH SHOP		CARPENTER SHOP	
	1905	1904	1905	1904	1905	1904
Average number of men,	11	9	8	3	3	2
Total hours worked,	33927 $\frac{1}{2}$	26540	24480	9575	9350	6747 $\frac{1}{2}$
Hours on shop tools &c,	735 $\frac{1}{2}$	500 $\frac{1}{2}$	363 $\frac{1}{2}$	182 $\frac{1}{2}$	105 $\frac{1}{2}$	143
" for various persons and mines,	547	5837	245 $\frac{1}{2}$	2798	5	893 $\frac{1}{2}$
Hrs. for other shops, teaming etc.	480 $\frac{1}{2}$	569 $\frac{1}{2}$		626		375 $\frac{1}{2}$
Hrs. for mine accts. C.C.I.Co.	32164 $\frac{1}{2}$	19633		5968 $\frac{1}{2}$		5335 $\frac{1}{2}$
Total cost per hour,	.303	.335	.234	.272	.271	.272
Cost per hr. on shop tools	.303	.335	.234	.272	.271	.272
" " " on various Accts	.309	.342	.238	.277	.274	.278
" " " other shops, &c	.314	.323	.230	.265	.269	.279
" " " Mine accts.	.309	.342	.238	.286	.274	.279
Total labor cost,	8111.92	6925.10	5042.77	2116.85	2238.34	1612.33
Cost per hour	.239	.261	.206	.221	.240	.239
Total supply cost	2155.01	1968.58	682.35	483.25	296.25	224.18
Cost per hour	.064	.074	.028	.051	.031	.033
Total Labor & Supply Cost,	10266.93	8893.68	5725.12	2600.10	2534.59	1836.51
Profit on work for all accounts,	3037.64	396.12	2626.00	254.48	693.91	65.58
Avg. charges per hr. to various persons & mines	.402	.411	.352	.349	.350	.346
Profit per hr. various persons & mines	.093	.068	.114	.091	.076	.073
No. hrs. charged outside outside mines & vrs. persons	547	5837	245 $\frac{1}{2}$	2798	5	893 $\frac{1}{2}$
Rate per hr. charged various persons & other mines.						
Mining Department	.40	.40	.35	.35	.35	.35
R.R., Furnace & Land Dept.	.40	.40	.35	.35	.35	.35
Outside parties	.60	.60	.60	.60	.60	.60
<u>SUPPLIES USED AS FOLLOWS:</u>						
General Supplies	137.78	118.39	365.79	185.57	25.06	1.52
Iron & Steel	39.40	42.02	15.96	4.78	.49	.31
Oil, Grease & Candles	162.42	127.91	4.37	1.53	1.30	1.28
Machy. Supplies	16.96	108.05	36.99	33.14	8.70	.30
Bldg. Material	1.57	2.14		4.08	.12	.75
Fuel	1593.84	1448.44	200.17	202.59	232.73	202.59
Sundries	203.04	121.63	59.07	51.56	27.85	17.43
Total,	2155.01	1968.58	682.35	483.25	296.25	224.18

CLEVELAND IRON MINING COMPANY.

RECORD OF FIRE INSURANCE ON MINE BUILDINGS AND DWELLINGS,

YEAR ENDING NOVEMBER 30TH, 1905.

	AMOUNT OF INSURANCE CARRIED.	PREMIUM ACCRUING FOR 1905	FIRE LOSS PAID 1905.
<u>HARD ORE MINE.</u>			
Mine Buildings	16950 00	278 85	
Dwellings	30150 00	157 32	
Total	47100 00	436 17	
<u>LAKE MINE.</u>			
Mine Buildings	16550 00	236 32	
<u>HEMATITE MINE.</u>			
Dwellings	2700 00	13 50	
<u>SECOND ADDITION.</u>			
Dwellings	14400 00	72 00	
TOTAL CLEVELAND IRON MINING CO.	80750 00	757 99	

NOTE:-

Electric Shop at Lake Mine destroyed by fire on June 28th, 1905,
with no insurance.

Net loss \$955.77.

CLEVELAND IRON MINING COMPANY.

HEMATITE MINE.

STATEMENT OF RENTED HOUSES SHOWING RENTS RECEIVED, COST OF REPAIRS, ETC.,

FOR THE YEAR ENDING NOVEMBER 30TH, 1905.

HOUSE NO.	PRESENT OCCUPANT	RENT RECEIVED		REPAIRS		INSURANCE		TAXES	TOTAL EXPENSE				
1	Cyrille Tourville	84	00			5	00		5	00			
2	James Pascoe					2	50		2	50			
3	Jacob Roslosnik					2	50		2	50			
7	(Vacant)					1	75		1	75			
8	Jos. H. Roberts (Vacant)	1	75			1	75		1	75			
	Total	85	75	4	54	13	50		18	04			
	Total 1904	202	50	100	79	13	50		114	29			
						1	9	0	5	1	9	0	4
Net Earnings for Year						67	71		88	21			
Per Cent Earnings on Insurance Valuation						2.5%			3.6%				
Insurance Valuation						2700	00		2700	00			

CLEVELAND IRON MINING COMPANY.

HARD ORE LOCATION.

STATEMENT OF RENTED HOUSES SHOWING RENTS RECEIVED, COST OF REPAIRS, ETC.,

FOR YEAR ENDING NOVEMBER 30TH, 1905.

HOUSE NO.	PRESENT OCCUPANT	LOT NO.	RENT RECEIVED		REPAIRS		INSURANCE		TAXES	TOTAL EXPENSE					
1	Xavier Pepin	1	60	00	12	76	2	50		15	26				
2	John Seaborg	2	48	00	8	73	1	94		10	67				
3	Matt Aho)	13	42	00	1	14				1	34				
3	Chas. Peterson)	13	44	00			3	00		3	00				
4	John Sandell	15	72	00	6	40	2	00		8	40				
5	Fred Sanders	16	84	00	8	22	2	50		10	72				
8	Louis Farley	17	48	00		86	3	00		3	86				
9	Philip Pepin	23	84	00	13	65	4	00		17	65				
11	Henry Osier	25	60	00		21	2	00		2	21				
14	Henry Lorette	28	55	00	25	71	2	00		27	71				
15	James Trewick	29	60	00	18	25	2	00		20	25				
16	Claus Johnson	30	60	00	4	85	1	50		6	35				
17	Chas. Bergquist	31	50	00			1	75		1	75				
18	John Hennesey	32	60	00	9	67	1	25		10	92				
19	Isaac Moss	33	60	00		12	1	25		1	37				
21	J. M. Fox	49	115	00	805	35	7	50		812	85				
24	Fred Vogthen	56	60	00		10	2	00		2	10				
25	Mrs. Dougherty	57	37	00	61	15	2	00		63	15				
26	John Lemin, Sr.)	58	78	00	60	95				60	95				
26	John Lemin, Jr.)	58	60	00			6	58		6	58				
27	Jac. Christianson	59	53	75	24	00	2	00		26	00				
28	A. P. Peterson	60	60	00	12	96	2	00		14	96				
29	Mrs. J. Nicholls	61			4	08	2	00		6	08				
30	Emanuel Stevens	62	55	00			2	00		2	00				
31	J. F. Van Brocklin	63	96	00	103	67	4	00		107	67				
32	Abe Cox	64	84	00			3	00		3	00				
33	George Brederson	69	58	75		15	2	00		2	15				
34	Alfred Bone	70	60	00	9	47	2	00		11	47				
35	John H. Gill	71	65	00	48	12	2	00		50	12				
36	Morris Eskila)	72	48	00		05					05				
36	Wm. Asikainen)	72	18	00			3	00		3	00				
37	F. J. Baker	79	96	00	10	39	9	00	40	77	60	16			
38	Capt. Collick	80	96	00	23	10	7	50	36	69	67	29			
	Miscellaneous House Rents			50											
	Total		2028	00	1273	11	90	27	77	46	1440	84			
	Agent's House		240	00											
	Total		2268	00											
	Total 1904		2265	75	673	53	89	50	65	21	828	24			
							1	9	0	5		1	9	0	4
	Net Earnings for Year						827	16			1197	51			
	Per Cent Earnings on Insurance Valuation						5%				7%				
	Insurance Valuation						17850	00			17100	00			

CLEVELAND IRON MINING COMPANY.

SECOND ADDITION LOCATION.

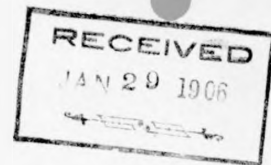
STATEMENT OF RENTED HOUSES, SHOWING RENTS RECEIVED, COST OF REPAIRS, ETC.,

FOR YEAR ENDING NOVEMBER 30TH, 1905.

HOUSE NO.	PRESENT OCCUPANT	RENT RECEIVED	REPAIRS	INSURANCE	TAXES	TOTAL EXPENSE
1	E. A. Doty	54 00	39 33	4 00		43 33
2	James Trembath	96 00	5 16	3 50		8 66
3	Wm. Behenna	96 00	6 91	3 50		10 41
4	Frank Velin	92 00	4 71	3 50		9 21
5	Chas. Walline	96 00	3 31	3 50		6 81
6	Chas. Erickson	96 00	2 46	3 50		5 96
7	Chas. Carlson	56 00	14 61	3 50		18 11
8	H. Solam	58 00	5 11	3 50		9 61
9	W. H. Baldwin	104 00	40 70	3 50		44 20
10	Abram Couch	100 00	2 97	3 50		6 47
11	Matt Thompson	96 00	2 67	3 50		6 17
12	Charles Carlson	96 00	4 22	3 50		7 72
13	F. Williams	76 00	9 57	3 50		13 07
14	A. W. Tregidga	59 50	3 07	3 50		6 57
15	Mike Peterson	85 00	8 49	3 50		11 99
16	Wm. Wivell	63 20	9 59	4 00		13 59
17	John Olds	60 00	22 33	4 00		26 33
18	Wm. T. Carlson	94 00	2 72	4 00		6 72
19	Gust Holmgren	96 00	5 72	3 50		9 22
20	John Trace	88 00	5 97	3 50		9 47
	Total	1461 20	199 62	72 00	271 78	543 40
	Total 1904	1595 40	399 56	72 00		471 56

				1 9 0 5		1 9 0 4
Net Earnings for Year				917 80		1123 84
Per Cent Earnings on Insurance Valuation				6.4%		7.8%
Insurance Valuation				14400 00		14400 00
General Charges						
Repairs to Main Sewers, etc.						

Included in Report of 1904 546 81 on C. S. M. Co. Cleveland, Ohio as Repairs



CLEVELAND IRON MINING COMPANY.

STATEMENT SHOWING CHARGES TO DWELLINGS NOT RENTED DURING YEAR ENDING

NOVEMBER 30TH, 1905.

PRESIDENT'S COTTAGE.			
Repairs to Doors and Windows	38 50		
Repairs to Fire Place and Stove	8 84		
Repairs to Water Works	9 76		
Repairs to Boiler Connection	1 00		
Repairs to Steps	2 31		
Repairs to Furniture	5 28		
Repairs to Window Screens	1 75		
Repairs to Buildings	16 10		
Repairing and Shingling Roof	172 34		
Electric Lights	3 60		
Electric Bells	3 94		
Repairs to Sewer	2 18		
Rabbit Feed	10 92		
Making Squirrel Cages	16 08		
Kalsomining	1 50		
Painting	107 80		
Cleaning House	3 02		
Making Two Private Signals	6 40		
New Storm Windows	17 38		
TOTAL		428 70	
AGENT'S RESIDENCE.			
Repairs to Doors and Windows	47 27		
Repairs to Stove and Heaters	21 88		
Repairs to Water Works	15 43		
Repairs to Boiler Connections	2 85		
Repairs to Clothes Reel	3 35		
Repairs to Furniture	16 68		
Repairs to Window Screens	28 69		
Repairs to Sewer and Sink	19 63		
FORWARD	155 76	428 70	

CLEVELAND IRON MINING COMPANY.

CHARGES TO DWELLINGS NOT RENTED. - CONTINUED.

BROUGHT FORWARD	155 78	428 70
Repairs to Barn	4 05	
Repairs to Barn Floor	8 53	
Shingling Barn Roof	66 24	
Repairs to Awning	7 00	
Repairs to Laundry Tub Pipes	76 25	
Repairs to Tools	1 61	
Repairing and Cleaning Chimney	3 50	
Making and Repairing Chicken Coops	26 03	
Shipping Boxes	3 14	
Bath Room	9 15	
Gardener	346 50	
Christmas Preparations	3 50	
Moss and Trees	7 53	
Repairing and Painting Floor	17 47	
Ice House Tools	1 75	
Painting and New Wall Paper	83 50	
Whitewashing Cellar	2 85	
Making Hot Beds	7 45	
Making Wardrobe	69 89	
Making and Repairing Closet	18 90	
Making Cupboard	34 42	
Electric Bells	1 60	
TOTAL		956 64
TOTAL HOUSES NOT RENTED		1385 34

CLEVELAND IRON MINING COMPANY.

STATEMENT SHOWING CHARGES TO LAND IMPROVEMENT FOR YEAR ENDING
NOVEMBER 30TH, 1905.

<u> GROUND'S AT CLIFFS COTTAGE.</u>			
Cliffs Cottage Road	10 55		
Planting Tress and Shrubery	418 62		
Seed and Gardening	16 17		
Pruning Trees and Cleaning Grounds	52 48		
Bowling Green Repairs	4 95		
Improving Pond	6 60		
Repairs to Water Line	3 13		
Repairs to Fences	56 12		
Repairs to Hose and Tools	16 65		
Team Work Cleaning Grove	4 00		
<u> Total</u>			589 27
<u> GROUND'S AT AGENT'S RESIDENCE.</u>			
Repairing Road	6 09		
Moving Fence Back on Hill to Enlarge Yard	140 21		
Plowing Garden	3 17		
Planting Trees on Lawn	13 28		
Cleaning Yard	1 21		
Water Line in Garden	23 97		
Making Sidewalk between Agent's Residence and Cottage	35 93		
<u> Total</u>			223 86
<u> GENERAL ACCOUNT LOCATION.</u>			
Prize Awards, as per voucher No. 13226-	184 00		
Prize Awards, Child's Art Gallery	14 80		
Prize Awards, G. A. Newett for Printing	81 50		
Prize Awards, J. T. Burke for Livery	3 00		
W. H. Manning's Bill, Services	206 12		
Shop and Office Lawns, Hard Ore	23 81		
Repairing Fences near Mine	61 48		
Repairing Fences at Location	49 78		
Planting Trees at Location	88 08		
Dry House Lawn, Hard Ore	49 85		
Turning Sod at Old Mine	45 23		
Repairing Fence at Fox Residence	1 90		
Ornamental Trees and Shrubs	168 65		
<u> Total</u>			978 20
<u> Total Hard Ore Land Improvement</u>			1791 33

CLEVELAND IRON MINING COMPANY.

DETAIL OF ACCOUNTS RECEIVABLE, NOVEMBER 30TH, 1905.

REPRESENTATIVE ACCOUNTS RECEIVABLE.

Unearned Premiums Boiler Insurance	149.09	
Unearned Premiums Fire Insurance	540.64	
Lake Angeline Drainage Fuel Account	391.05	
		<hr/>
<u>Total,</u>		1080.78

ACCOUNTS RECEIVABLE.

Lake Superior Iron Co.	957.48	
L. S. & I. Ry. Co.	25.54	
M. M. Duncan	13.05	
Marquette Co. Gas Light & Tr. Co.	14.69	
Lake Shore Engine Works	800.30	
Pittsburg & Lake Angeline Iron Co.	2.08	
J. Wahlman & Son	13.97	
J. A. Roebling Sons Co.	16.79	
Lake Superior Iron & Metal Co.	330.71	
Cole & McDonald	30.95	
Ishpeming Ski Club	28.97	
J. W. Jochim Hdw. Co.	9.71	
Munising Paper Co.	5.12	
Richel Bros.	11.10	
Longyear & Hodge	10.16	
B. Hoffman Mfg. Co.	110.06	
Central Electric Co.	.36	
Iron Cliffs Co.	85.70	
Pioneer Iron Co.	2.45	
		<hr/>
<u>Total,</u>		2469.19

GRAND TOTAL

\$ 3549.97

CLEVELAND IRON MINING COMPANY.

DETAIL OF ACCOUNTS PAYABLE, NOVEMBER, 30TH, 1905.

REPRESENTATIVE ACCOUNTS PAYABLE.

Hard Ore Benefit Fund	4291.52	
Hard Ore Suspense Fund	4291.52	
Lake Benefit Fund	7492.88	
Lake Suspense Fund	7692.88	
General Benefit Fund	895.77	
General Suspense Fund	885.97	
Hard Ore Brass Checks	179.25	
Lake Brass Checks	550.25	
Total,		26280.04

ACCOUNTS PAYABLE.

Accrued Taxes Unpaid	36919.15	
Pay-Rolls	34871.94	
Bills Audited	2045.26	
Negaunee Land Department	28.50	
Drs. Felch & Vandeventer	635.00	
Lake Superior Iron Co.	1244.48	
Iron Cliffs Co. Rents	45.80	
C. & N. W. Ry. Co.	389.89	
Collections for Employees Coal	202.00	
Cleveland-Cliffs Club	2.00	
Total,		76384.02

Vehr. BILLS AUDITED.

No.		
13162 D. S. S. & A. Ry. Co.	323.63	
13163 C. & N. W. Ry. Co.	4.98	
13164 H. Channon Co.	6.17	
13165 J. B. Clow & Sons	5.79	
13185 D. S. S. & A. Ry. Co.	12.25	
13186 Marquette Co. Gas Light & Tr. Co.	8.70	
13187 Ishpeming Steam Laundry	2.69	
13188 City of Negaunee	10.50	
13189 Thomas Connors	36.05	
13190 Swanson & Person	9.15	
13191 W. Lindberg	2.00	
13192 L. S. & I. Ry. Co.	751.89	
13193 Marquette Co. Gas Light & Tr. Co.	27.59	
13195 F. P. Tillson	2.25	
13196 F. Braastad & Co.	7.30	
13197 L. S. & I. Ry. Co.	36.27	
13198 Patrick Lyons	25.50	
13199 W. T. Cole	35.23	
13200 Winter & Suess	5.98	
13201 August Jacob	6.00	
13202 J. T. Burke	41.00	
13203 H. F. Heyn	4.45	
13204 Chas. Hagerty	11.45	
13205 C. Hansen	236.00	
13206 Murphy Iron Works	2.85	
13207 Central Electric Co.	22.99	
13208 C. & N. W. Ry. Co.	8.12	
Forward,		1647.28 102664.06

A C C O U N T S P A Y A B L E .

(Continued)

	<u>Bro't for'd.</u>	<u>1647.28</u>	<u>102664.06</u>
13209	Mechanical Rubber Co.	23.34	
13210	Viltor Mfg. Co.	7.50	
13211	William D. Gibson	30.00	
13212	Ohio Brass Co.	44.22	
13213	J. S. Morris Carriage Co.	50.00	
13214	Brown & Sharp Mfg. Co.	1.92	
13215 $\frac{1}{2}$	Shelby Electric Co.	48.00	
13220	Warren H. Manning	5.00	
13225	John Salson	4.00	
13226	Prize Awards	184.00	
	Total Bills Audited,	<u>2045.26</u>	
	<u>GRAND TOTAL</u>		<u>\$102664.06</u>

CLEVELAND IRON MINING COMPANY

ANALYSIS OF IMPROVEMENT & NEW CONSTRUCTION FOR YEAR ENDING NOVEMBER 30TH, 1905.

	INVENTORY NOV.30,04	EXPENDITURES FOR YEAR	TOTAL	DEPRECIATION FOR YEAR	INVENTORY NOV.30,05	CHARGED L.S.I.CO
<u>Hard Ore New Construction</u>						
Additional Shop Room	5667 45		5667 45	5667 45		
<u>HARD ORE EQUIPMENT</u>						
Purchase of Diamond Drill		2921 84	2921 84	2921 84		
<u>LAKE NEW CONSTRUCTION</u>						
New #4 Shaft		10283 53	10283 53	10283 53		
New Dry House		2642 90	2642 90	2642 90		
Total Lake #4 Shaft		12926 43	12926 43	12926 43		
<u>LAKE IMPROVEMENT</u>						
Electrical Shop		446 73	446 73	446 73		
Purchase two Motors		3617 00	3617 00	3617 00		
Rebuilding Top Tram Plant		1437 66	1437 66	1437 66		
New Generator		1274 91	1274 91	1274 91		
Total Improvement		6776 30	6776 30	6776 30		
<u>LAKE ANGELINE DRAINAGE</u>						
Pumping Expense 12 Mos						
#1 Plant		1837 72	1837 72	1378 30		459 42
Fuel Acct.12Mos #1 Plant		1661 08	1661 08	1245 82		415 26
Repairs to Launderers						
12Mos #1 Plant		2136 79	2136 79	1602 59		534 20
Lake Sup. I. Co.Charges						
#2 Plant		1698 13	1698 13	1273 62		424 51
New Launder not Completed		4476 64	4476 64		4476 64	
Total		11810 36	11810 36	5500 33	4476 64	1833 39
<u>ADJUSTMENTS FOR 1904</u>						
Drainage Expense				724 59		
Total Drainage Accounts		11810 36	11810 36	4775 74	4476 64	1833 39
TOTAL C. I. M. CO.	5667 45	34434 93	40102 38	33067 76	4476 64	1833 39
<u>Charged as follows:</u>						
To Hard Ore Shop Earnings				5667 45		
To Hard Ore Diamond Drill Equipment				2921 84		
Lake Dep. #4 Shaft				12926 43		
Lake Improvement				6776 30		
Opt. Lake Maintenance				1602 59		
" " Mining Expense				3173 15		
Total as above				33067 76		

JMS



IRON CLIFFS COMPANY.

- MISCELLANEOUS DATA -

1. Cliffs Shaft Mine Cost Sheet.
 2. Salisbury Mine Cost Sheet.
 3. Improvement and New Construction.
 4. Fire Insurance on Mine Buildings and Dwellings.
 5. Detail of Accounts Receivable.
 6. Accounts Payable.
 7. Rented houses, Cliffs Shaft Mine.
 8. Rented Houses, Salisbury Mine.
 9. Rented Houses, Foster Mine.
 10. Cost of Shop Work at Cliffs Shaft Mine Shops.
 11. Operating Steam Shovel #3.
 12. Operating Steam Shovel
 13. Operating Steam Shovel at Negaunee Mine.
 14. Annual Report of Crusher at Cliffs Shaft Mine.
- Record of Delays at Mines (See C. C. I. Co. Misc. Data file)
- | | | |
|--------------------------------|---|---|
| Comparative Statement of Taxes | " | " |
| General Expense statements | " | " |
| Ore Statements | " | " |

15 *Improvement and New Construction*

THE CLEVELAND-CLIFFS IRON CO.

Cost of Production for the Month of YEARS 1905 and 1904

SALISBURY MINE.	12 Months of 1905. 147842 TONS.						12 Months of 1904. 150326 TONS.					
	Labor.		Supplies.		Total.		Labor.		Supplies.		Total.	
	Amount.	Cost Per Ton.	Amount.	Cost Per Ton.	Amount.	Cost Per Ton.	Amount.	Cost Per Ton.	Amount.	Cost Per Ton.	Amount.	Cost Per Ton.
GENERAL EXPENSE,												
Insurance,			270 51	002	270 51	002			262 39	002	262 39	002
Engineering,	435 51	003			435 51	003	483 51	003			483 51	003
Analysis,	303 40	002	1516 08	010	1819 48	012	279 54	002	1285 42	008	1564 76	010
Relief Fund,			693 80	005	693 80	005			587 40	004	587 40	004
Mine Office,	1187 39	008	261 60	002	1448 99	010	1210 00	008	205 57	002	1415 57	010
Total,	1926 30	.013	2741 99	.019	4668 29	.032	1972 85	.013	2340 78	.016	4313 63	.029
MAINTENANCE—Repairs of												
Tracks and Yards,	1275 03	009	136 47	001	1411 50	010	975 23	006	125 27	001	1100 50	007
Docks, Trestles and Pockets,	404 31	003	437 58	003	841 89	006	698 90	006	1235 54	008	2134 44	014
Buildings,	22 77	000	17 66	000	40 43	000	63 45	000	178 93	002	242 38	002
Shop Machinery,												
Boilers,	92 67	001	53 13	000	145 80	001	119 42	001	354 23	002	473 65	003
Hoisting Machinery,	328 18	002	1299 68	009	1627 86	011	251 39	002	1205 91	008	1457 30	010
Compressors and Air Pipes,	51 93	000	57 76	001	109 69	001	71 70	000	75 54	001	147 24	001
Cornish and Steam Pumps,	174 28	001	380 78	003	555 06	004	231 57	002	446 66	003	678 23	005
Top Tram Engines and Cars,	37 73	000	74 14	000	111 87	000	44 24	000	130 74	001	174 98	000
Skips and Skip Roads,	772 17	005	811 93	005	1584 10	010	897 93	006	1517 05	010	2414 98	016
Underground Tracks and Cars,	2157 50	015	951 26	006	3108 76	021	1299 13	009	970 18	006	2269 31	015
Total,	5316 57	.036	4220 39	.028	9536 96	.064	4852 96	.032	6240 05	.042	11093 01	.074
MINING EXPENSE,												
Air Pipes,	148 01	001	97 36	000	245 37	001	153 07	001	69 93	000	223 00	001
Compressors,	1389 09	009	2260 25	016	3649 34	025	1393 78	009	2516 20	017	3909 98	026
Hoisting,	3471 00	023	5611 62	039	9082 62	062	3484 96	024	6232 36	041	9717 32	065
Pumping,	2964 37	020	3420 85	023	6385 22	043	2851 32	019	3802 00	025	6653 32	044
Sinking,							3 68	000	20 37	000	24 05	000
Drifting,	4647 60	032	926 59	007	5774 19	039	3928 57	026	787 63	005	4716 20	031
Breaking Ore,	52512 33	355	4373 16	030	56885 49	385	46443 55	306	3698 42	025	50141 97	333
Tramming,	13176 90	089	373 48	002	13550 38	091	12945 92	086	436 34	003	13382 26	089
Filling,												
Timbering,	17708 16	120	7316 46	049	25024 62	169	14652 64	097	6362 18	043	21014 82	140
Mining Captain and Bosses,	3620 65	025			3620 65	025	3669 10	024			3669 10	024
Dry House,	1204 50	009	60 31	000	1264 81	009	1207 80	009	59 62	000	1267 42	009
Top Landing and Tramming,	2783 70	019	474 06	003	3257 76	022	2833 20	019	508 68	003	3341 88	022
Stocking Ore,	562 48	004	183 17	001	745 65	005	489 17	003	112 02	001	601 19	004
Sorting Ore,												
Total,	104338 79	.706	25097 31	.170	129436 10	.876	94056 76	.625	24605 75	.163	118662 51	.788
Cost of Production,	111631 66	.755	32059 69	.217	143691 35	.972	100882 57	.670	33186 58	.221	134069 15	.891
Per Cent,	77%		23%		100%		75%		25%		100%	
EXPLORATORY,												
Exploring in Mines,	3193 37	.021	4255 59	.029	7448 96	.050	118 93	.001	193 38	.001	312 31	.002
Total,	3193 37	.021	4255 59	.029	7448 96	.050	118 93	.001	193 38	.001	312 31	.002
DEPRECIATION, Etc.,												
Inventory,					467 80	003					48 73	000
Improvement,												
New Construction,												
Credits,					8 44	000						
Total,					469 36	.003					49 73	.000
Taxes,					6301 31	.043					5245 02	.035
Central Office, (per cent.)	6426 17	.044	2201 13	.014	8627 30	.058	5043 37	.034	2002 66	.013	7046 53	.047
Total Cost on Stock Pile,	121251 20	.820	36516 41	.260	166528 28	1.126	106045 37	.705	35382 62	.235	146624 28	.975
LOADING AND SHIPPING,												
Steam Shovel, Tons,	117538	1904										
By Hand, " "	339	318										
At Pocket, " "	87992	63100										
Sorters (L. E. Dock),												
Shipping Expense,												
Total,	1348 28	.009	2903 35	.020	4251 63	.029	890 73	.006	1346 15	.009	2236 88	.015
Total Cost on Cars,	122599 48	.829	41419 76	.280	170779 91	1.155	106936 10	.711	36728 77	.244	148861 16	.990
Royalty,												
Comm'n and Expense, Cleveland Office,												.150
Total Cost,						1.305						1.130

	..... Months 1905.....		..... Months 1904.....		Sinking.		Drifting.					
	Amount.	Per Ton.	Amount.	Per Ton.	Feet.	Amount.	Per Ft.	Feet.	Amount.	Per Ft.	Amount.	Per Ft.
					Current Mo.							
					12 Mos. 05			1174	5774 19	4.92		
					12 Mos. 04			1102	4716 20	4.28		
Total,												

REMARKS: Mine working 2 - 10 hour shifts. Division of Product:

Salisbury Bessemer	13247	31859
Salisbury	71441	106109
Clinton	63154	12353
Total	147842	180326

Analysis of Supplies.

Analysis of Labor.

CLEVELAND-CLIFFS IRON CO. PRODUCT,	1905			1904		
	147842			150326		
	Amount.	Per Ton.		Amount.	Per Ton.	
General Supplies,	4844	90	.033	1739	31	.012
Iron and Steel,	1067	59	.007	1308	03	.009
Oil, Grease and Candles,	1987	36	.013	1932	59	.013
Machinery Supplies,	1527	99	.010	2405	59	.016
Building Material,	785	38	.005	1717	70	.011
Explosives,	3178	93	.022	2552	82	.017
Mine Timber,	6937	72	.047	6051	43	.040
Fuel,	11198	25	.076	12226	08	.081
Barn,	343	27	.002	426	34	.003
Sundries,	2039	78	.014	1665	97	.011
Total Supplies,	33911	07	.229	32025	86	.213
Miscellaneous,	8012	20	.054	5579	71	.037
Credits, (1)	213	07	.002	52	01	.000
Total,	41710	20	.281	37553	56	.250
SUMMARY.						
As per Cost Sheet,	41421	76	.280	36728	77	.244
Improvement,						
New Construction,						
Other Charges,	288	44	.001	824	79	.006
Total,	41710	20	.281	27553	56	.250

Labor as per Cost Sheet,

Other Charges,

As per Labor Statement,

General Pay Roll,

COMPARATIVE COST ON CARS.

12 Months	PRODUCT.	COST.	COST.
12 Months 1901	180918	.991	
12 " 1902	178686	1.037	
12 " 1903	178330	1.086	
12 " 1904	150326	.990	
12 " 1905	147842	1.155	

(1) Credits which are deducted during year in total column only.

IRON CLIFFS COMPANY.

ANALYSIS OF IMPROVEMENT & NEW CONSTRUCTION FOR YEAR ENDING NOVEMBER 30, 1905.

	Inventory Nov.30,04	Expenditures		Total		Depreciation		Inventory		
		For Year				For Year		Nov.30,05		
New Engineer's Building- Not completed		14683	43	14683	43			14683	43	
Drill Sharpening Machine		1709	12	1709	12	31	17	1677	95	
<u>CLIFFS SHAFT IMPROVEMENT.</u>										
Telephone System		370	94	370	94	370	94			
Extension to Central Office		622	12	622	12	622	12			
Boiler Plant		8738	21	8738	21	8738	21			
Ore Screening Plant		5182	51	5182	51	5182	51			
Auxiliary Steam Pump		1830	99	1830	99	1830	99			
Total Clf-Shaft Improvement		16744	77	16744	77	16744	44			
Total Iron Cliffs Co.		33137	32	33137	32	16775	94	16361	38	

Note;

Drill Sharpening Machine- Amt.\$31.17 is earnings applied to cost of Machine.

IRON CLIFFS COMPANY.

RECORD OF FIRE INSURANCE ON MINE BUILDINGS AND DWELLINGS,

YEAR ENDING NOVEMBER 30TH, 1905.

	AMOUNT OF INSURANCE CARRIED.	PERMIUM ACCRUING FOR 1905	FIRE LOSS PAID 1905.
<u>CLIFFS SHAFT MINE.</u>			
Mine Buildings	34700 00	353 16	
Dwellings	10400 00	79 18	
Total	45100 00	432 34	
<u>SALISBURY MINE.</u>			
Mine Buildings	7400 00	152 04	
Dwellings	16525 00	82 57	
Total	23925 00	234 61	
<u>FOSTER MINE.</u>			
Mine Buildings			
Dwellings	2550 00	6 82	
Total	2550 00	6 82	
<u>OGDEN MINE.</u>			
Mine Buildings	650 00	16 00	
TOTAL IRON CLIFFS COMPANY	72225 00	682 95	

NOTE:-

The Iron Cliffs Company had no fire loss during year 1905.

IRON CLIFFS COMPANY.

DETAIL OF ACCOUNTS RECEIVABLE, NOVEMBER 30TH, 1905.

REPRESENTATIVE ACCOUNTS RECEIVABLE.

Unearned Premiums Boiler Insurance	117.63	
Unearned Premiums Fire Insurance	<u>594.75</u>	
Total,		<u>712.38</u>

ACCOUNTS RECEIVABLE.

Lake Shore Engine Works	1002.95	
J. A. Roebling Sons Co.	24.09	
Lake Superior Iron & Metal Co.	295.76	
L. S. & I. Ry. Co.	11.00	
W. M. Sterling	1.60	
Grace Church	58.84	
W. Bingham Co.	15.75	
Thomas Buzzo	2.40	
James Matthews	<u>2.40</u>	
Total,		<u>1414.79</u>
<u>Grand Total,</u>		<u>\$2127.17</u>

IRON CLIFFS COMPANY.

DETAIL OF ACCOUNTS PAYABLE, NOVEMBER 30TH, 1905.

REPRESENTATIVE ACCOUNTS PAYABLE.

Cliffs Shaft Benefit Fund	3771.12
Cliffs Shaft Suspense Fund	3771.12
Salisbury Benefit Fund	4164.17
Salisbury Suspense Fund	2608.53
Foster Benefit Fund	534.79
Foster Suspense Fund	270.91
Cliffs Shaft Brass Checks	388.50
Salisbury Brass Checks	228.75
Foster Brass Checks	5.25
Total,	15743.14

ACCOUNTS PAYABLE.

Accrued Taxes Unpaid	26550.96
Pay - Rolls	25099.03
Bills Audited	2345.28
Negaunee Lane Department	8.25
Drs. Felch & Vandeventer	544.00
Ishpeming Water Works	8.75
Estate of Mike Hungala	424.00
C. I. M. Co. Rents	156.47
C. C. I. Co. Rents &	7.15
P. & L. A. Iron Co. (Steam Shovel acct)	29.18
Total,	55173.07

Vchr.
No.

BILLS AUDITED.

6444	D. S. S. & A. Ry. Co.	24.50
6445	L. S. & I. Ry. Co.	1993.63
6446	Henry Harwood	.50
6447	J. C. Altschwager	6.00
6448	H. F. Heyn	4.10
6449	Trembath Bros.	21.31
6450	J. T. Burke	13.00
6451	J. W. Jochim Hdw. Co.	33.05
6452	August Jacob	8.25
6453	Mrs. A. Williams	1.00
6454	Lake Superior Steam Heating Co.	30.55
6455	The Carroll Foundry	2.40
6456	Charles Hodge	10.00
6457	F. W. Read & Co.	.80
6458	Western Electric Co.	13.61
6459	James B. Clow & Sons	2.35
6460	Goodyear Rubber Co.	.48
6461	T. A. Chapman Co.	45.00
6462	The W. Bingham Co.	16.66
6463	Julius Andrae & Sons Co.	13.18
6464	Machinist's Supply Co.	1.24
6465	Jones & Laughlin Steel Co.	4.38
6466	Braeburn Steel Co.	5.65
6469	Oscar Huhtala	2.50
6430	D. S. S. & A. Ry. Co.	29.28
6431	C. & N. W. Ry. Co.	61.86
	6 Total,	2345.28

GRAND TOTAL,

\$70916.21

IRON CLIFFS COMPANY.

CLIFFS SHAFT MINE.

STATEMENT OF RENTED HOUSES, SHOWING RENTS RECEIVED, COST OF REPAIRS, ETC.,

FOR YEAR ENDING NOVEMBER 30TH, 1905.

HOUSE NO.	PRESENT OCCUPANT	RENT RECEIVED		REPAIRS		INSURANCE		TAXES		TOTAL EXPENSE	
A	A. J. Yungbluth	144	00	112	60	10	00	86	97	209	57
B	Duncan Campbell)	72	00	118	29					118	29
B	H. L. Ramsdell)	72	00			6	00	51	64	57	64
C	C. J. Shaddick	120	00	113	40	5	00	57	07	175	47
1	George Culbert	53	75	27	67	2	00			29	67
2	Felix Genord)	60	00	8	37	3	00			11	37
2	George Oatman)	60	00	20	22					20	22
3	D. J. Campbell	60	00	10	29	1	50			11	79
4	A. Denette)	60	00	16	00					16	00
4	Otto Schadt)	60	00	23	07	4	00			27	07
5	H. Kantala)	60	00	5	95					5	95
5	A. Mattson)	60	00	2	75	3	00			5	75
75	Jos. E. Kurtti	60	00	42		2	50			2	92
76	D. E. Maloney	60	00	18	44	2	50			20	94
B.H.	Herman Elson, Boarding House	360	00	35	35	39	68			75	03
	Ishpeming Hospital		50	12	50					12	50
	Total	1362	25	525	32	79	18	195	68	800	18
	Total 1904	1265	75	574	39	80	75	174	67	829	81

	1905	1904
Net Earnings for Year	562 07	435 94
Per Cent Earnings on Insurance Valuation	5.4%	4.2%
Insurance Valuation	10400 00	10400 00

IRON CLIFFS COMPANY.

SALISBURY MINE.

STATEMENT OF RENTED HOUSES, SHOWING RENTS RECEIVED, COST OF REPAIRS, ETC.,

FOR YEAR ENDING NOVEMBER 30TH, 1905.

HOUSE NO.	PRESENT OCCUPANT	RENT RECEIVED		REPAIRS		INSURANCE		TAXES	TOTAL EXPENSE		
1	Thomas Buzzo	144	00	1	71	10	25		11	96	
2	W. M. Sterling	96	00	10	76	5	00		15	76	
3	James Matthews	96	00	27	70	4	00		31	70	
4	W. C. Quale	24	00	1	82		25		2	07	
5	Benjamin Luce)	48	00	6	68	5	00		11	68	
5	John Chfistian)	42	00								
6	Phil Christian	72	00	7	11	3	00		10	11	
7	F. Collett	33	00	4	40		75		5	15	
14	Torn Down in May	18	50				40			40	
15	Wm. Gauthier	30	00	4	89		38		5	27	
16	Mrs. A. Williams	23	67	208	50	2	00		210	50	
17	George Kermode	72	00	5	02	1	50		6	52	
18	Ros. Anderson)	30	00			1	00		1	00	
18	Mrs. Wm. Canibeau)	10	00								
19	Chris. Hausen	42	00	4	61	1	00		5	61	
20	M. Gaiten	36	00	7	87	1	00		8	87	
22	Walter Vicary	96	00	2	20	5	00		7	20	
23	Wm. Cowley	72	15	3	21	5	00		8	21	
24	Lawrence Mattson	81	27	4	63	5	00		9	63	
25	William Quine	94	00	11	01	5	00		16	01	
26	John Cain	54	00	6	60	5	00		11	60	
27	O. B. Wills	96	00	6	38	5	00		11	38	
28	John Jenkins	59	15	4	96	2	50		7	46	
29	Joseph Bateman	60	00	2	38	2	50		4	88	
30	John Stephens	53	12		79	2	50		3	29	
31	Robert Corkin	60	00	4	53	2	50		7	03	
32	Edward Treloar	60	00	6	47	2	50		8	97	
33	John Lawrence	60	00	5	87	2	50		8	37	
	Robert Morris, Old Office)	48	00	13	10	2	50		15	60	
	Chas. Kenward, " ")	30	00								
	General Repairs to Water Pipes			28	48				28	48	
	Total	1740	86	391	68	83	03		484	71	
	Total 1904	1846	30	400	27	84	25		484	52	
						1 9 0 5			1 9 0 4		
Net Earnings for Year						1266	15			1361	78
Per Cent Earnings on Insurance Valuation						13%			8.4%		
Insurance Valuation						16525	00			16850	00

IRON CLIFFS COMPANY.

FOSTER MINE.

STATEMENT OF RENTED HOUSES SHOWING RENTS RECEIVED, COST OF REPAIRS, ETC.,

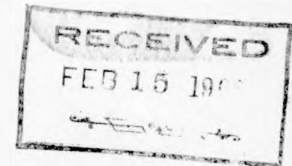
FOR YEAR ENDING NOVEMBER 30TH, 1905.

HOUSE NO.	PRESENT OCCUPANT	RENT RECEIVED		REPAIRS		INSURANCE		TAXES	TOTAL EXPENSE		
1	G. G. Barnett	20	00	3	27				3	27	
13						6	82		6	82	
		Total	20	00	3	27	6	82		10	09
	Total 1904					18	50		18	50	
						1905			1904		
Net Earnings for Year						9	91				
Net Loss for Year										18	50
Per Cent Earnings on Insurance Valuation							.0038%				
Per Cent Loss on Insurance Valuation										.007%	
Insurance Valuation						2550	00		2550	00	

IRON CLIFFS COMPANY.

ANNUAL SHOP REPORT CLIFFS SHAFT MINE.

FOR YEAR ENDING NOVEMBER 30TH, 1905.



	Machine Shop.		Blacksmith Shop.		Carpenter Shop.	
	1905	1904	1905	1904	1905	1904
Average number of men	2	2	5	4 $\frac{1}{2}$	2	1
Total no. of hrs. worked	6585	5695	15102 $\frac{1}{2}$	13700	5027 $\frac{1}{2}$	2972
Hrs. on shop tools, etc.	55	73	36	115	6	3
" for other shops	52 $\frac{1}{2}$	66	611	545	141	73
" for various persons		1	837	1		
" for Mine Accounts	6477 $\frac{1}{2}$	5555	13618 $\frac{1}{2}$	13039	4480 $\frac{1}{2}$	2896
Total Cost per hour,	.2854	.2883	.2748	.2793	.2290	.2169
Cost per hr. on shop tools	.2854	.2883	.2748	.2793	.2290	.2169
" " hr. for other shops	.2964	.2945	.2749	.2803	.2230	.2130
" " hr. for various ac.		.2800	.2827	.3000		
" " hr. for Mine accts.	.2875	.2921	.2750	.2818	.2295	.2155
Total Labor Cost,	1519.75	1347.53	3309.43	2964.04	1141.72	634.64
Cost per hour	.2307	.2365	.2192	.2163	.2270	.2135
Total supply cost	358.48	294.96	841.25	863.88	9.86	10.00
Cost per hour,	.0547	.0518	.0557	.0630	.0020	.0034
Total Labor & Supply Cost	1878.23	1642.49	4150.68	3827.92	1151.58	644.64
Profit on work done for various persons & mines,		.32	31.17	.30		
Avg. charge per hr. to Various Persons & mines		.60	.3200	.60		
Profit per hr. Various Persons & Mines		..32	.0373	.30		
<u>SUPPLIES USED AS FOLLOWS:</u>						
General Supplies	43.09	19.23	476.62	582.03	5.15	3.26
Iron & Steel	4.71	.46	.37	1.86		
Oil, Grease & Candles	30.68	24.99	3.93	3.79		.15
Machinery Supplies	15.02	6.06	8.58	14.31		
Building Material		.52		.25		
Mine timber		.24				
Fuel	235.21	189.61	321.30	203.02	4.18	
Sundries	29.77	53.85	30.45	58.62	.53	6.59
TOTAL,	358.48	294.96	841.25	863.88	9.86	10.00

IRON CLIFFS COMPANY.

REPORT OF OPERATING STEAM SHOVEL NO.3, SEASON 1905.

		1 9 0 5		1 9 0 4	
Number of days shovel worked		146		82	
Average number of hours worked per day		4.67		4.90	
Total number of tons loaded		236476		114727	
Average tons per day loading		1620		1399	
Number of men working with shovel		11		11	
Average tons per man per day		147		127	
Average wages per day for Runners		2.70		2.49	
Average wages per day for Laborers		1.77		1.75	
Labor cost per ton Operating		.017		.017	
Supply Cost per- Ton Operating		.003		.003	
TOTAL		.020		.020	

	1905	1904	1 9 0 5		1 9 0 4	
	Tons	Tons	Amount	Cost	Amount	Cost
Hard Ore	7753		226 67	029	16 87	
Lake	76787	71999	2145 08	027	1429 11	020
Cliffs Shaft	113694	12539	2912 93	026	227 21	018
Salisbury	38242	9887	972 40	025	288 75	029
Negaunee		20302			573 84	028
Michigamme						
TOTAL	236476	114727	6257 08	026	2535 78	022

<u>OPERATING SHOVEL.</u>						
Labor		4015 03	017	2017 12	017	
Supplies		764 23	003	305 38	003	
TOTAL		4779 26	020	2322 50	020	

<u>REPAIRS TO SHOVEL.</u>						
Labor and Supplies		x 1477 82	006	213 28	002	
<u>Total Operating and Repair Cost,</u>		6257 08	026	2535 78	022	

x High Repair Cost current year due to adding new dipper and general repairs.

Date of purchase No.3 Shovel - May 1898.

CLEVELAND IRON MINING COMPANY.

REPORT OF OPERATING STEAM SHOVEL NO.4, SEASON 1905.

		1 9 0 5		1 9 0 4					
Number of days Shovel worked		168		145					
Average number of Hours worked per day		4.66		5.65					
Total number of Tons loaded		262768		287049					
Average Tons per day loading		1564		1980					
Number of men working with Shovel		11		11					
Average Tons per man per day		142		180					
Average Wages per day for Runners		2.76		2.51					
Average Wages per day for Laborers		1.77		1.74					
Labor Cost per Ton Operating		.017		.013					
Supply Cost per Ton Operating		.003		.002					
TOTAL		.020		.015					
		1 9 0 5		1 9 0 4					
	1905	1904	Amount		Amount				
	Tons	Tons	Cost		Cost	Cost			
Hard Ore	21123	2633	575	31	027	2 74	000		
Lake	54527	84627	1366	39	025	1970	29	016	
Cliffs Shaft	79767	12077	1817	30	023	1395	94	014	
Salisbury	75063	2255	1832	47	024	991	63	015	
Negaunee						23	33	023	
Austin	32268		859	25	026				
TOTAL	262768	101592	6450	72	025	4383	93	015	
<u>OPERATING STEAM SHOVEL.</u>									
Labor			4524	87	017	3659	99	013	
Supplies			673	20	003	617	65	002	
TOTAL			5198	07	020	4277	64	015	
<u>REPAIRS TO SHOVEL.</u>									
Labor and Supplies			+	1252	65	005	106	29	000
Total Operating & Repair Cost,			6450	72	025	4383	93	015	

+ High repair cost for current year due to adding new dipper and general repairs.

Date of purchase No.4 Shovel, April 1900.

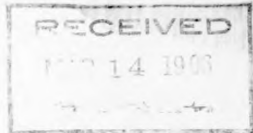
N E G A U N E E M I N E .

REPORT OF OPERATING NEGAUNEE MINE STEAM SHOVEL, SEASON 1905.

		1 9 0 5		1 9 0 4			
Number of days shovel worked		108					
Average number of hours worked per day		4.45					
Total number of tons loaded		124264					
Average tons per day loading		1150					
Number of men working with Shovel		10					
Average tons per man per day		115					
Average Wages per day for Runners		2.70					
Average Wages per day for Laborers		1.77					
Labor Cost per ton Operating		.029					
Supply Cost per ton Operating		.007					
TOTAL		.036					
		1905	1904	1 9 0 5		1 9 0 4	
		Tons	Tons	Amount	Cost	Amount	Cost
Lake (PresqueIsle)		38700		1440 83	037		
Negaunee		85564		3077 18	036		
TOTAL		124264		4518 01	036		
<u>OPERATING SHOVEL.</u>							
Labor				3623 03	029		
Supplies				894 98	007		
TOTAL				4518 01	036		
<u>REPAIRS TO SHOVEL.</u>							
Labor & Supplies							
<u>Total Operating & Repair Cost,</u>				4518 01	036		

Date of purchase Negaunee #1 Shovel, March 1905.

High cost of loading due to frozen ore and to the settling of stock-piles at Negaunee Mine, also to delays while shovel was at PresqueIsle.



IRON CLIFFS COMPANY.

Cliffs Shaft Mine.

Annual Report of Crusher, Year ending November 30th, 1905.

Tons Crushed 110385	Men	Days	Labor		Supplies		Total		Per Ton	
							1905	1904		
<u>Operating</u>										
Feeding Crusher	13	318½	606	20	11	606	31	.005	.006	
Operating Crusher	10	255¼	440	93	310	59	751	52	.007	.007
Tramming	25½	633¾	1108	23	66	83	1175	06	.011	.010
Engine	10	239¼	643	86	1618	97	2262	83	.020	.018
<u>Total</u>	58½	1446¾	2799	22	1996	50	4795	72	.043	.041
<u>1904 Total</u>	69½	1750	3431	44	2143	21	5574	65	.041	.045
<u>Maintenance</u>										
Tram			93	95	114	12	208	07	.002	.002
Crusher	½	31½	101	98	57	69	159	67	.001	.008
Engine	½	22¼	43	78	60	09	103	87	.001	.000
<u>Total</u>	1	53¾	239	71	231	90	471	61	.004	.010
Less Scrap					49	50	49	50	.000	.000
<u>Total</u>	1	53¾	239	71	182	40	422	11	.004	.010
<u>1904 Total</u>	1½	113	466	30	935	74	1402	04	.010	.004
<u>GRAND TOTAL 1905</u>	59½	1500½	3038	93	2178	90	5217	83	.047	.051
<u>GRAND TOTAL 1904</u>	71	1863	3897	74	3078	95	6976	69	.051	.054

MATERIAL USED.	Weight		Amount		Per Ton	
	Iron				1905	1904
557 Tons Coal			1581	88	.014	
Boiler House Supplies			83	33	.001	
General Supplies			40	88	.000	
Oil, Grease and Candles			277	95	.003	
Waste			8	67	.000	
Iron and Steel			34	46	.000	
Electric Light Expense			18	44	.000	
Miscellaneous			28	62	.000	
Shop Labor abd Teaming			67	98	.001	
4 16" Car Wheels			17	68	.000	
30 Rollers			9	00	.000	
1050 Ft. ½" Steel Wire Rope			47	99	.000	
1 14½" Taggle	384		11	52	.000	
<u>Total</u>	384	86	19	2228	40	.019
Less Scrap Returned				49	50	.000
<u>GRAND TOTAL, MATERIAL</u>	384	86	19	2178	90	.019

IRON CLIFFS COMPANY.

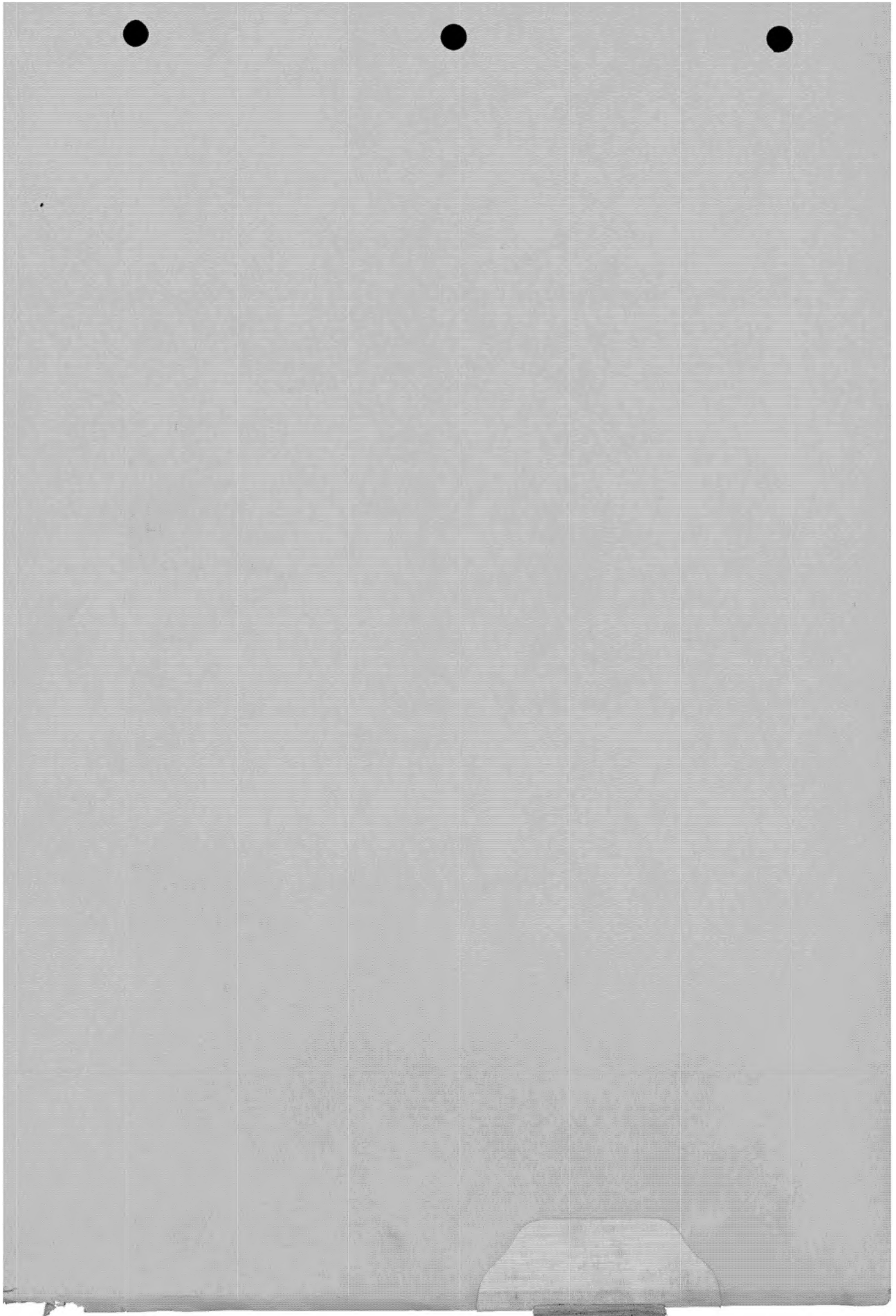
ANALYSIS OF IMPROVEMENT & NEW CONSTRUCTION FOR YEAR ENDING NOVEMBER 30TH, 1905.

	INVENTORY NOV.30,04		EXPENDITURES FOR YEAR		TOTAL		DEPRECIATION FOR YEAR		INVENTORY NOV.30,05	
New Engineers Building Not Completed			14683	43	14683	43			14683	43
Drill Sharp. Machine			1709	12	1709	12	31	17	1677	95
<u>CLIFFS SHAFT IMPROVEMENT</u>										
Telephone System			370	94	370	94	370	94		
Extension to Central Office			622	12	622	12	622	12		
Boiler Plant			8738	21	8738	21	8738	21		
Ore Screening Plant			5182	51	5182	51	5182	51		
Auxiliary Steam Pump			1830	99	1830	99	1830	99		
<u>Total Cliffs Shaft Improvement</u>			<u>16744</u>	<u>77</u>	<u>16744</u>	<u>77</u>	<u>16744</u>	<u>77</u>		
TOTAL I. C. CO.			<u>33137</u>	<u>32</u>	<u>33137</u>	<u>32</u>	<u>16775</u>	<u>94</u>	<u>16361</u>	<u>38</u>

Note:

Drill Sharpening Machine- Amount \$31.17 is earnings
applied to cost of Machine.





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THE CLEVELAND-CLIFFS IRON COMPANY

AND

PIONEER IRON COMPANY

FURNACE DEPARTMENT

ANNUAL REPORT

1905

GLADSTONE,

MICHIGAN.

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Taxes	-	-	-	-	-	-	-	-	-	-	42
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Accidents (Marquette plants)	-	-	-	-	-	-	-	-	-	-	44
Final remarks	-	-	-	-	-	-	-	-	-	-	46

W. G. Mather, President.

Mercantile Bank Building,
Cleveland, Ohio.

Dear Sir:-

I beg to submit my report covering the operations of the Pioneer Furnace Department of the Cleveland-Cliffs and Pioneer Iron Companies, for the year ending November 30th., 1905.

FURNACE OPERATING

GLADSTONE:

Owing to the destruction by fire of the refining house at the No. 1 Chemical Plant, the starting up of the furnace was delayed until October 12th., 1905. As the furnace was operated only 137 days in 1904, and but 49 days in the present fiscal year, it is impossible to furnish comparative statements of any practical value. The furnace had been out of blast and banked for a period of 17 months. During this interval of time, the machinery was thoroughly over-hauled, the buildings put in first class condition, and all the iron work re-painted. The old blowing engines were removed, also the circulating pumps, and replaced with a compound condensing Southwark Foundary blowing engine, and triple expansion condensing Precott pumps. This change was made to economize steam, and enable the furnace to supply the chemical plants with the surplus. The new machinery has fully met our expectations, and at the present writing is working very smoothly. The furnace after her long stop started up without a hitch and has worked very satisfactory, inspite of the fact that we have been on soft iron continuously since starting, and have been handicapped with a considerably lower ore mixture.

The furnace was in blast during the year 1905 - 49 days. The total delays amounted to 13 hours and 56 minutes.

Outside of the time consumed in casting, the only stops of importance were caused by replacing tuyeres and coolers, which was not abnormal when you take into consideration the fact that both the tuyeres and coolers had been in use for many months.

DETAIL OF FURNACE OPERATING

	<u>1905</u>		<u>1904</u>	
	<u>Hr.</u>	<u>Mi.</u>	<u>Hr.</u>	<u>Mi.</u>
Total time delayed - - - -	18	56	417	57
Average delay per day, exc. of cleaning stv.	0	27	0	29
Average tons made per hour - - -	3.99		4.32	
Total number casts for year - -	194		545	
Average tons per cast - - -	24.6		26.0	
Average tons per day - - -	95.6		103.7	
Average burden for year (Ore) - -	3612	3625	2911	
Average burden for year (Limestone)	168		135	
Average burden for year (Charcoal) -	1575	1547	1200	
Total average burden for year - -	5355		4246	
Total number full charges for year -	5785		20652	
Total number blank charges for year - -	20		215	
Total number charges for year - -	5805		20867	
Average number charges per day - -	114		151	
Average heat of stove No. 1 for year -	1142		1188	
Average heat of stove No. 2 for year -	1120		1188	
Average steam pressure for year - -	119		92	
Average blast pressure for year - -	6 $\frac{3}{4}$		7 $\frac{1}{4}$	
Average revolution of engine for year - -	26.1		35	

COMPARATIVE DETAILED STATEMENT OF DELAYS

	<u>1905</u>		<u>1904</u>	
	<u>Hrs.</u>	<u>Min.</u>	<u>Hrs.</u>	<u>Min.</u>
Casting - - - - -	13	21	51	27
Repairing engines - - - -	0	50	0	0
Cleaning and putting blow pipes -	0	0	4	45
Repairing hoist - - - - -	0	0	3	15
Replacing tuyeres - - - - -	4	0	1	50
Changing gas valves - - - -	0	0	0	40
Cleaning and repairing stoves - -	0	0	247	0
Repairing water pipes - - - -	0	0	0	0
Cooler plates - - - - -	0	45	5	0
Bell and hopper - - - - -	0	0	0	0
Repairing cast house roof around stack -	0	0	0	0
Time lost account storm in March	<u>0</u>	<u>0</u>	<u>104</u>	<u>0</u>
TOTAL DELAYS:-	13	56	417	57

The output for the year was 4,779 tons of Non-Bessemer pig iron. The small tonnage was due to the short period of operating. The following is a detailed statement of percentages of the different grades produced

COMPARATIVE STATEMENT OF PIG IRON MADE

GRADES	Tons percent		Tons percent	
	<u>1905</u>		<u>1904</u>	
A Scotch - - - - -	221	4.6	350	2.5
B Scotch - - - - -	95	2.0	276	1.9
C Scotch - - - - -	201	4.2	198	1.4
No. 1 Special - - - - -	258	5.4	649	4.4
No. 1 Foundry - - - - -	682	14.3	1626	11.6
No. 2 Low - - - - -	811	17.0	1853	11.7
No. 2 High - - - - -	614	12.9	2552	18.2
No. 3 Low - - - - -	1203	25.2	2899	20.6
No. 3 High - - - - -	289	6.0	1502	10.1
No. 3 Malleable - - - - -	8	.2	64	.4
No. 4 Low - - - - -	119	2.5	517	3.7
No. 4 High - - - - -	142	3.0	679	4.8
No. 5 - - - - -	133	2.8	692	4.9
No. 6 - - - - -	3	.0	541	3.8
Bessemer Special - - - - -	0	.0	0	.0
TOTAL:-	4779	100.0	14198	100.0

There was consumed during the year the following quantities of material.

O r e	Used		Per Cent	Over-run		Shortage	
	Tons	Lbs.		Tons	Lbs.	Tons	Lbs.
Lake	7435	99	87.9	79.5			
Salisbury	782	1919	30.3	8.3			
Cliff Shaft	404	436	15.6	4.3			
Lake Bess. Silica	741	1556	23.7	7.9			
	9363	1770		100.0			
Limestone	431	325					
Charcoal - banking				2615	Bushel		
Charcoal - running				446440	"		
Total				449055	Bushel		

The average ore for the year was 51.0, being 2.1 percent lower than for the preceding year. The bushels of coal per ton of pig iron were 94.0 as against 88.2 for the preceding year, showing an increase of 5.8 bushels per ton of pig iron produced. About two bushel of this increase was caused by absorbing something over 2,600 bushels of coal put in the furnace from time to time during the period of banking. It also included the blowing in, on a very light burden, and the almost exclusive production of soft iron since the furnace started. The pounds of limestone per ton of pig iron were 202, being an increase of 26 pounds per ton over the preceding year. This is largely accounted for by the decrease in the ore yield.

							<u>Non-Bessemer Yield</u>	
							<u>1905</u>	<u>1904</u>
Ore -	-	-	-	-	-	-	51.0	53.1
Charcoal	-	-	-	-	-	-	94.0	88.2
Flux	-	-	-	-	-	-	202.0	176.0

No Bessemer or Special irons were made during the year. There was consumed 449,055 bushel of charcoal at an average cost delivered to the furnace of .081. The cost of pig iron for the year was \$21.68. These figures are absolutely valueless for the sake of comparison, as the furnace was operated less than two months during the entire fiscal year, and fixed charges and depreciation all had to be covered on a very small tonnage. We have no basis of comparison reliable since the year 1903, and it would be just as unfair to compare next years work with this year as to make a comparison between the two preceding fractional years. These remarks will not only apply to iron, but also to charcoal, alcohol and acetate of lime. I give you the figures, however, for what they are worth.

COMPARATIVE STATEMENT OF PIG IRON COST

	<u>1905</u>	<u>1904</u>	<u>Increase</u>	<u>Decrease</u>
General Expense - - -	2.754 ✓	.922	1.832	
Maintenance - - -	1.332 ✓	.852	.480	
Operating - - -	3.445 ✓	1.863	1.582	
Stock - - -	12.800	13.270		.470
Depreciation - - -	.853	.726	.127	
Loading - - -	.146	.132	.014	
TOTAL - - -	21.330	17.765	3.035	.470
Cleveland Office Expense -	.350	.350		
TOTAL - - -	21.680	18.115	3.035	.470

There was shipped during the year 7,972 tons of pig iron, of this 6,325 by rail and 1,647 tons by vessel. The average cost for loading on cars was .028. This high cost was entirely due to the fact that during the shut down of the furnace our iron was handled by Soo Railway switch engines. The cost of loading vessels was .138 per ton. While this cost is still high, owing to depreciation charges on a small tonnage, it is gradually approaching the normal figure. The shipments

exceeded the production by 3,193 tons. We closed the season of navigation with 1,110 tons of pig iron on the dock, as against 4,303 ton for the preceding year, a decrease of 3,193 tons.

The fires were kept up continuously under one battery of boilers for the purpose of fire protection. The general necessary repairs around the plant were completed, all of which was absorbed by the cost of Pig Iron, which accounts for the large increase.

CHARCOAL SUPPLY

The conditions in this department have not materially changed. On the entire line of the Northwestern Railway there is not a months run of charcoal. Our total receipts for the year were 47,039 bushels less than the preceding year. Outside of the small amount received from the Northwestern Railway, no coal was gotten from other sources.

Since the close of the year we have succeeded in buying about 30 cars per month from the Lake Superior Consolidated Co., at Sault Ste. Marie, Ontario. This supply is precarious and may be cut off at any time. So far we have been unable to get any charcoal to speak of from the Mashek Chemical Company, for the reason that they have been able to dispose of their limited output elsewhere at very high prices.

Our present kiln and retort capacity do not admit of an output of pig iron exceeding 100 tons per day, and to obtain this, the plants must be worked up to their full capacity and suffer no delays for want of wood etc. It is absolutely necessary therefore that we increase our kiln capacity at Gladstone. This should be done by the addition of 10 ninety cord kilns. Our retort plant is very expensive to operate, and adds largely to our cost of charcoal. I would recommend abandoning this plant, providing arrangements could be made with the Mashek Chemical Co., or a concern like the Escanaba Lumber Company who are contemplating

the erection of a retort plant.

I would recommend that these people be approached and also the Bay De Noc Lumber Company, and that if necessary The Cleveland-Cliffs Iron Company agree to take stock in these plants. We could possibly get a considerable block on the strength of our knowledge and experience in the chemical business, and should be able to make an arrangement similar to that enjoyed by the furnace at Boyne City. These people have large mills, which would make available refuse for firing the retorts and distilling the alcohol and evaporating the acetate of lime. If necessary we could erect these plants ourselves, and make an arrangement with them to furnish us with wood at a certain price, and refuse at a low figure or give them a certain percentage of the profits as might be deemed most advisable.

FREIGHT ON CHARCOAL

	<u>1905</u>		<u>1904</u>	
	<u>Cost</u>		<u>Cost</u>	
<u>OUTSIDE JOBBERS</u>	<u>Per.</u>	<u>Bu.</u>	<u>Per.</u>	<u>Bu.</u>
Frt. on C. & N. W. various places to Larch	.0081		.0073	
Frt. from Larch various places to furnace	<u>.0023</u>		<u>.0024</u>	
Total :-		.0103		.0097
Total freight on coal over C. & N. W.	.0103		.0097	
Total freight on coal over Soc Line only	.0041		.0031	
Total freight on coal from jobbers	.0079		.0095	
Bus. coal over C. & N. W. various places	19420		46200	
Bus. coal over Soc Line only	<u>13320</u>		<u>1280</u>	
Total bushels from outside sources		32740		79779

PIONEER FURNACE KILNS

GLADSTONE:

Owing to the partial operation of the kilns during the past year, it is impossible to make a comparison of any value. A comparative statement of kiln operations follows:-

COMPARATIVE STATEMENT OF KILN OPERATIONS

	<u>1905</u>	<u>1904</u>
Number kilns filled during year - - -	130	363
Number kilns emptied during year - - -	130	356
Cords wood put into kilns during year - - -	8,242	20,810
Cords wood in kilns December 1st., - - -	4,428	4,422
Total cords - - -	12,670	25,232
Cords wood carbonized during year - - -	7,779	25,232
Balance cords in kilns - - -	4,891	3,560
Inventory November 30th., (Cords) - - -	000	4,428
Over-run (Cords) - - -	000	868
Total bushels coal made during year - - -	325,460	894,360
Average bushels coal per kiln - - -	2,503	2,512
Average bushels coal per cord - - -	41.8	43.0
Average time turning kilns (Days) - - -	26.4	27.8
Average brands per kiln - - -	6.1	5.9
Average cords per kiln - - -	59.8	58.4
Total - - -	65.9	64.3
Average kilns turned per month - - -	65	71
No. kilns in battery December 1st. - - -	70	70

RETORT PLANT

I have no reason to change my views regarding the retort plant. A comparative statement of retort operating follows:-

STATEMENT OF RETORT OPERATING

<u>Pioneer Furnace No. 1</u>	<u>1905</u>	<u>1904</u>
Number retorts filled - - -	462	1293
Number retorts emptied - - -	462	1293
Cords wood put in retorts during year - - -	2,220	6,152
Less brands not put back - - -	56	132
Cords, less over-run, carbonized during year - - -	2,164	6,020
Total bushels coal made during year - - -	92,320	276,340
Average bushels coal per retort - - -	200	214
Average bushels coal per cord - - -	42.7	46.0
Average time turning retorts - - -	-24 H. 54 M.	25 H. 15 M.
Average cords per retort - - -	4.3	4.8
Average retorts turned during month - - -	289	258
Number retorts in battery - - -	10	10
Pounds fuel per cord of wood - - -	590	557

GENERAL REMARKS

AS I stated in my last year's report, our several costs of iron, alcohol and charcoal have been largely increased through the charging up of the various items going to make up the cost sheets of repairs, office expenses, fuel consumed for fire

protection etc, in fact all fixed charges against these commodities since the shutting down of the furnace. I then recommended that the cost for salaries, office expenses, fire protection etc., entailed through the shutting down of the furnace, should be credited to the treasurer. At the end of the fiscal year this amount could be charged against the department and deducted from the profits or added to the losses of the department as they should appear. Had this been done, the cost sheets would have remained normal, and we would not have been compelled to cudjle our brains in following years when making comparisons to remember why these misleading cost sheets and comparisons have occurred. I wish to refer again to the increasing item under the head of "Relining and Renewals." This item now closely approximates \$15,000.00. Nothing has been charged against it. All renewals have been charged up to "Maintenance",- while as previously stated a new bosh or lining could be put in for a cost not to exceed \$5,000.00.

This practice makes our "Maintenance" item on the cost sheet abnormally high.

Up to the end of the fiscal year the furnace had been operating on her old lining fifty-six months and nineteen days, and since starting up has worked very satisfactorily, and has amply justified my recommendation that we go in on the old lining. So far as we can see, she is good for several months to come, and her stoppage of 17 months, so far as I know, is a record for banking.

Both of the old blowing engines have been disposed of at good prices, considering their type and age. One to the Carp Furnace and one to the Ashland Iron & Steel Co. I believe that we will also be able to dispose of the pumps at good figures.

I would again recommend that our stock house be enlarged. I have frequently called your attention to the loss incurred in the winter time through the blocking up of the run-ways with snow, and the covering of the piles of ore with snow and ice.

Since receiving ore over the Marquette & Southeastern and the Soo Line via Eben Junction, and the delays resulting from this service, it is more than ever necessary that we have a larger stock house.

CHEMICAL PLANT NO. 1

GLADSTONE:

Construction work on this plant was commenced early in April, although owing to weather conditions, we did not get well under way until the 15th. Owing to the complete destruction by fire of the old still house, in rebuilding we deemed it best to separate the primary and refining houses. Both these buildings are constructed of concrete with structural iron supports for stills and columns, concrete floors and drains, and corrugated iron roof. They are practically fire proof and thoroughly modern in equipment. The main refining houses is 42 X 144, 32 feet to the cap. The primary house is 43 X 86, 22 feet to the cap.

The plant was practically completed and ready to start October 12th. We operated but forty-nine days in the fiscal year, and therefore have no reliable comparisons to offer. We produced, however, 30,512 gallons of alcohol in that time. For the sake of comparison, would say that the total cost of our alcohol, including depreciation and barrels, for the last month of the fiscal year was .181. We produced that month 20,887 gallons. Comparing this with the April cost sheet of 1904, the last month the plant was operated, and putting it on the same basis of output, we find that for that month the alcohol cost us .353. Our yield in gallons per cord was 4.35. The saving is made up almost entirely on fuel and maintenance.

I have briefly touched on, under the head of "Furnace", the installation of the improved blowing and pumping machinery. This machinery was installed solely for the benefit of the chemical plant, to economize steam at the furnace and enable it

to pump water for the plants, and furnish any additional steam available. While the plant was only operated forty-nine days, we are more than satisfied with our improvements. We have cut down the coal consumption at the No. 1 plant from about 725 tons per month to the neighborhood of 200 tons. Everything is working most satisfactorily, and unless something unforeseen happens, I predict that the coming year will be the most successful in the history of the Gladstone chemical plant.

Our estimate for this plant, without any addition for contingencies, was \$84,054.00. It has cost complete \$85,503.00, showing an over-run of \$1449.00, or less than two per cent. This showing I think should be satisfactory.

ACETATE PLANT NO. 1

GLADSTONE:

This plant was not started up until the 8th., of November, therefore operated but twenty-two days in the fiscal year. Comparisons therefore are incomplete, and of no value. Our average per day for that time was 7,000 pounds, as against 6,361 pounds for the preceding fractional year, an increase of 639 pounds per day. The cost was .830 per hundred, as against .884 per hundred for the month of April 1904, the last month the plant operated, being a decrease of .054 per hundred pounds. The output of this plant is increasing, and I predict that we will make still better showing as to costs during the coming year.

CHUTE PROCESS

An arrangement was entered into with Mr. H. O. Chute for the installation for his improved distillation apparatus at Gladstone and Marquette. Up to the end of the fiscal year his process had not been tried at either plant, owing to the non-completion of his installation. Even at this writing I am unable to express any definite opinion as to the value of his

apparatus so far as steam economy is concerned, it having been installed as you know to affect a saving on these lines. I think I am warranted in stating, however, that it will not meet our expectation.

CHEMICAL PLANT NO. 2

GLADSTONE:

This plant was operated but 40 days in the fiscal year. The only benefit it has derived from the improvements so far, is the pumping of its water at the furnace. We have reduced the cost of alcohol about .030 per gallon. We are putting over a steam line from the furnace to this plant, and expect to show larger economies, the saving affected so far has been confined to the fuel.

We produced during the year 18,260 gallons, the yield per cord being 7.51.

ACETATE PLANT NO. 2

GLADSTONE:

This plant was operated forty-nine days during the fiscal year, and produced 220,028 pounds. The average per day was ⁴⁴⁴⁶ 4,900 pounds. The average yield per cord was ¹⁰⁷ 117 pounds. This plant is now doing better, and I think the results for the coming year will be satisfactory.

GENERAL REMARKS

GLADSTONE PLANTS:

The furnace and chemical plants were in operation such a short time during the fiscal year, that it is almost impossible to make a general deduction or comparison. In a general way the results have been very satisfactory, and have amply justified the expenditures made. Their general condition is first-class, with the single exception of the stock house roof, which will have to be replaced within a year. The plants

were thoroughly overhauled and repaired during the shut down, trestles were re-built, the yard tracks re-tied and surfaced, the pig iron dock repaired, and the plant thoroughly painted. Sewer and drain pipes were replaced, and for sometime to come the " Maintenance " charges should not be heavy.

The furnace is working well, and so far as we can see will continue to do so for sometime to come. The dwelling houses have been kept up, and are in good repair.

PIONEER FURNACE NO. 2

MARQUETTE:

FURNACE OPERATING

The furnace was in blast during the year 1905, practically three hundred and f o r t y working days, with extraordinary stoppages amounting to eleven days and four hours. Four days and thirteen hours due to a blizzard from December 27th., to January 1st., which tied up the railroads and cut off our ore and wood supply. Six days and seventeen hours were lost in installing new separator in furnace engine room and repairing chemical plant steam pipe. These stops were necessarily expensive, and greatly added to our labor cost and fuel. Each one was almost equivalent to a blow-in and seriously affected our fuel consumption. We were also seriously handicapped, so far as our output and fuel consumption is concerned, by the production of Special Bessemer and High Phosphorus iron. The furnace worked very badly on the only mixture available for these irons, which accounts in addition to the reasons already given for the increase in fuel and limestone, and the decrease in the ore yield. Owing to our limited bin capacity at Marquette, I would recommend in future that these special irons be made at the Gladstone furnace, furthermore unless we can obtain a different ore mixture, I strongly advise that we make no more High Phosphorous iron.

DETAIL STATEMENT OF FURNACE OPERATING

	<u>1905</u>	<u>1904</u>
Total time delayed - - - - -	558 H. 16 M	547 H 28 M
Average delays exclusive of above causes	49	26
Average tons made per hour - - - - -	4.82	5.36
Total number casts for year - - - - -	1405	1382
Average tons per cast - - - - -	28.2	30.5
Average tons per day - - - - -	112.2	120.4
Average burden for year (Ore) - - - - -	5900	5950
Average burden for year (Limestone) - - - - -	175 ⁻¹⁰³	92
Average burden for year (Charcoal) - - - - -	2400	2400
Total average burden for year - - - - -	8475	8442
Total number full charges for year - - - - -	29591	30412
Total number blank charges for year - - - - -	348	199
Total number charges for year - - - - -	29939	30611
Average number charges per day - - - - -	83	87
Average heat of Stove No. 1 for year	1225	1300
Average heat of stove No. 2 for year - - - - -	1200	1275
Average heat of Stove No. 3 - - - - -	1150	1225
Average steam pressure for year - - - - -	120	118
Average blast pressure for year - - - - -	9 $\frac{1}{2}$	9
Average revolution of engines for year - - - - -	90	86

DETAIL STATEMENT OF DELAYS

	<u>1905</u>	<u>1904</u>		
	<u>Hrs.</u>	<u>Min.</u>	<u>Hrs.</u>	<u>Min.</u>
Casting - - - - -	112	54	96	00
Repairing engines - - - - -	0	30	0	26
Cleaning and putting in blow pipes - - - - -	59	44	28	54
Repairing skip track - - - - -	0	50	0	0
Replacing tuyeres - - - - -	68	28	3	0
Explosion doors - - - - -	0	40	1	8
Changing bosh plates - - - - -	0	0	8	15
Repairs to notch - - - - -	4	27	0	0
Cooler plates - - - - -	4	10	4	50
Top House Machinery - - - - -	1	15	0	30
Bell and hopper - - - - -	0	0	0	0
Cleaning and repairing bustle pipe - - - - -	36	3	0	0
Total delays - - - - -	289	01	152	03

The output for the year was 39,581 tons. Of this amount 36,822 tons were Non-Bessemer, 1,636 tons Bessemer, and 1,123 tons Special High Phosphorus pig iron.

The following is a statement of the various grades and percentages made.

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STATEMENT OF PIG IRON MADE

GRADES	1905		1904	
	Tons	Percent	Tons	Percent
A Scotch - - - - -	1106	2.8	401	.8
B Scotch - - - - -	814	2.1	355	.8
C Scotch - - - - -	1087	2.7	876	2.5
No. 1 Special - - - - -	2113	5.4	2032	4.8
No. 1 Foundry - - - - -	3430	8.7	5036	11.6
No. 2 Low - - - - -	3875	9.8	5500	13.0
No. 2 High - - - - -	5797	14.6	7609	18.0
No. 3 Low - - - - -	7769	19.6	8592	20.1
No. 3 High - - - - -	2659	6.7	2277	5.4
No. 3 Malleable - - - - -	1022	2.6	1108	2.6
No. 4 Low - - - - -	2377	6.1	1745	4.1
No. 4 High - - - - -	1777	4.5	1147	2.7
No. 5 - - - - -	1856	4.7	1297	3.7
No. 6 - - - - -	1140	2.8	575	1.4
High Phosphorus Bessemer - - - - -	1123	2.8	1436	3.3
	1636	4.1	2165	5.1
Total - - - - -	39581	100.0	42151	100.0

There was consumed during the year the following quantities of material.

ORE	Used		Per Cent	Over-run		Shortage	
	Tons	Lbs.		Tons	Lbs.	Tons	Lbs.
L a k e - - - - -	64251	980	83.4	347	1940		
Cliffs Shaft - - - - -	5305	460	7.5	344	1675		
Pewabic - - - - -	302	20	.4	6	685		
Toledo - - - - -	319	1040	.4			9	1735
Cambridge - - - - -	745	1190	1.0	1	1750		
Clinton - - - - -	1030	1450	1.3	29	1730		
Imperial - - - - -	739	520	.9	8	180		
Lake Silica - - - - -	1242	1190	1.8	116	1760		
Lake Bessemer - - - - -	2547	1970	3.3	30	30		
Total: - - - - -	76983	2100	100.0	885	790	9	1735
Limestone - - - - -	2154	1460					
Charcoal - - - - -	3618660	Bushels					

The average yield of ore for the year was 51.5, being a decrease of .7 per cent. The bushels of coal per ton of pig iron was 21.1, an increase of 4.5 bushels. I consider this increase due to the making of the special irons referred to. In addition to the Non-Bessemer iron we produced 1,636 tons of Bessemer. The average yield for the Bessemer mixture was 51.6, and fuel 25.7 bushels per ton. We produced 1,123 tons of Special High Phosphorus iron, the average yield of which was 44.6, and

coal 114.1 bushels. This bad work was caused by the irregular working of the furnace.

The pounds of limestone consumed per ton of iron was 124. The charcoal consumed for the year was 3,618,660 bushels. The average cost of the coal was .0703, being an increase of .0025 per bushel. This increase is due to an increase in the cost of the wood, and an increase in the amount paid the contractor when we increased the furnace wages. Our entire charcoal supply came from our own kilns.

The cost of pig iron for the year, including Special Bessemer and High Phosphorus iron was \$14.45, being an increase of .70 over the preceding year. The following table shows the variations in the different items making up the cost.

				<u>1905</u>	<u>1904</u>	<u>Increase</u>
General Expense	-	-	-	.424	.360	.064
Maintenance	-	-	-	.285	.223	.062
Operating	-	-	-	1.177	1.046	.031
Stock	-	-	-	11.042	10.700	.342
Depreciation	-	-	-	1.174	1.143	.031
Loading	-	-	-	<u>.350</u>	<u>.275</u>	<u>.075</u>
Total	-	-	-	14.452	13.747	.705

There was shipped during the year 50,319 tons of pig iron. Of this amount 27,252 tons was forwarded by rail, 23,140 tons by vessel. The average cost of loading on cars was .072, the cost of loading vessels was .492.

We closed the season of navigation with 6,374 tons of pig iron on the furnace dock, a decrease of 10,811 tons.

The furnace had completed her thirty-first consecutive month on her first blast. Considering the increased percentage of high silicon iron and the special grades made, has worked fairly satisfactory. She has never met my expectations, and I think would do better work were we able to change her lines.

CHARCOAL SUPPLY

We still experience trouble at our charcoal plant through the settling of bottoms and dampness in our kilns. We have also had considerable trouble in handling the kilns properly in connection with the chemical works. The tendency on the part of the burner being to pull on the kilns too hard and not get the requisite quantity of brands, otherwise he is a very good man, and at the present writing I do not know where I could get a better one. We are trying to over-come this difficulty, and I hope to be able to show better results for the coming year.

The following is a statement of the operations of the kilns of the Pioneer Furnace No. 2.

STATEMENT OF KILN OPERATIONS

MARQUETTE:

	<u>1905</u>	<u>1904</u>
Number kilns filled during year - - -	1256	1293
Number kilns emptied during year - - -	1253	1290
Cords wood put into kilns during year - - -	89288	91132
Cords wood in kilns December 1st., - - -	6293	6164
Total cords - - -	95581	97296
Cords wood carbonized during year - - -	90008	91003
Balance cords in kilns - - -	5573	6293
Inventory November 30th., (Cords) - - -	5573	6293
Total bushels coal made during year - - -	3628520	3673355
Average bushels coal per kiln - - -	2884	2847
Average bushels coal per cord - - -	40.3	40.3
Average time turning kilns (Days) - - -	24.2	23.2
Average brands per kiln (Cords) - - -	7.3	7.3
Average cords carbonized per kiln - - -	71.5	70.7
Total - - -	78.8	78.0
Average number kilns turned per month - - -	104.9	107.5
Number kilns in battery - - -	86	86

MARQUETTE CHEMICAL PLANT

The Marquette chemical plant was operated three hundred and fifty-four days during the fiscal year. Eleven days were lost due to the shutting down of the furnace. The total number gallons produced for the year were 362,424, being a decrease of 2,318 gallons. This shortage is due to the insufficient wood supply during the latter part of October and November, at one time we having as high as twenty-five kilns empty.