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HASKINS & SELLS

CERTIFIED PUBLIC ACCOUNTANTS

30 BROAD STREET
NEW YORK

CHICAGO ST. LOUIS CLEVELAND PITTSBURGH BALTIMORE SAN FRANCISCO
HARRIS TRUST BUILDING THIRD NATIONAL BANK BUILDING WILLIAMSON BUILDING FARMERS BANK BUILDING EQUITABLE BUILDING CROCKER BUILDING

LONDON, E.C.
30 COLEMAN STREET

CABLE ADDRESS "HASKSELLS"

CLEVELAND, May 29, 1912.

Mr. Wm. G. Mather,
Treasurer, Munising Paper Company, Limited,
Cleveland, Ohio.

RECEIVED

JUN 3 - 1912

Ack. Ans.

Dear Sir:

In accordance with your request, we have made an examination of the books and accounts of the Munising Paper Company, Limited, for the year ended December 31, 1911, for the purpose of verifying the Cash accounts, Notes Receivable, Pay Rolls, and Capital Stock, and beg to report thereon, as follows:

We found in the office at Munising, certificates representing thirty-one shares, of the par value of \$100.00 each, of the Common Stock of the Georgia Manufacturing & Public Service Company, which was not carried on the books at any valuation. Prior to 1911 the Company had carried on its books, at a valuation of \$1.00, Georgia Manufacturing & Public Service Company Second Mortgage, Gold Bonds of the par value of \$1,600.00, but during the year 1911 wrote off this valuation. We were advised that these bonds were in the hands of M. M. Sessions, Marietta, Georgia, having been sent to him March 5, 1909.

CASH - \$30,737.14

Treasurer's Account,.....	\$29,803.26
Manager's Account,.....	535.14
Pay Roll Account,.....	351.05
Time Order Account,.....	2.31
Petty Cash,.....	<u>50.00</u>
1	
Total,.....	<u>\$30,737.14</u>

All the cash funds except Petty Cash were on deposit with The First National Bank of Alger County, Munising, Michigan, and were verified by reconciling with the Company's records certifications obtained from the depository.

The Petty Cash Fund was counted March 28, 1912, and consisted of the following items:

Cash,.....		\$32.85
Advances to Employes:		
C. P. Kodatz,.....	\$.25	
L. Larson,.....	5.50	
L. Lutch,.....	<u>3.00</u>	8.75
Expenses Paid, as per Receipts on File,...		<u>8.40</u>
Amount of Fund,.....		<u>\$50.00</u>

All disbursements during the period under review were examined and the receipts, as shown by the books of the Company, have been properly accounted for.

NOTES RECEIVABLE - \$2,338.35

The Notes Receivable at December 31, 1911, consisted of twelve notes given by The A. J. Bunnell Padding Company, eleven of which were for \$200.00 each, and one for \$138.35. Six notes aggregating \$1,200.00, which matured on and prior to September 15, 1911, were not on hand. We were informed that they had been placed with R. G. Dun & Company for collection. We examined the notes on hand to the amount of \$1,138.35, maturing on the 15th day of each month commencing with October, 1911, and ending with March, 1912. Our examination of these notes was made on March 29, 1912. If it is expected to accomplish collection through R. G. Dun & Company, we suggest that their efforts should be directed toward collecting all of the notes and not a part of them.

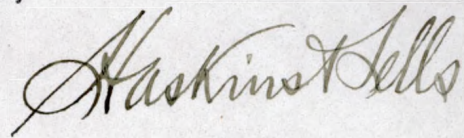
PAY ROLLS

Pay Rolls for the year were examined, found to be properly approved, and the amounts disbursed on this account were in agreement therewith.

CAPITAL STOCK - \$1,000,000

The Capital Stock authorized and outstanding December 31, 1911, consisted of 10,000 shares, par value \$100 each, and was verified by certification obtained from the Registrar.

Yours truly,

A handwritten signature in cursive script that reads "Haskins & Sells". The signature is written in dark ink and is positioned to the right of the typed name.

Certified Public Accountants.

MUNISING PAPER COMPANY, LTD.

REPORT
ON EXAMINATION OF BOOKS AND
ACCOUNTS FOR THE YEAR 1911

HASKINS & SELLS
CERTIFIED PUBLIC ACCOUNTANTS
30 BROAD STREET
NEW YORK
LONDON, E. C.
30 COLEMAN STREET
CHICAGO ST. LOUIS CLEVELAND
PITTSBURGH BALTIMORE
SAN FRANCISCO

HASKINS & SELLS

CERTIFIED PUBLIC ACCOUNTANTS

30 BROAD STREET
NEW YORK

CHICAGO
HARRIS TRUST BUILDING

ST. LOUIS
THIRD NATIONAL BANK BUILDING

CLEVELAND
WILLIAMSON BUILDING

PITTSBURGH
FARMERS BANK BUILDING

BALTIMORE
EQUITABLE BUILDING

SAN FRANCISCO
CROCKER BUILDING

LONDON, E.C.
30 COLEMAN STREET

CABLE ADDRESS "HASKSELLS"

CLEVELAND, July 10, 1912.

Mr. Wm. G. Mather,
President, The Cleveland-Cliffs Iron Company,
Cleveland, Ohio.

Dear Sir:

At the request of your Auditor, and during our audit of the accounts of The Cleveland-Cliffs Iron Company for the year ended December 31, 1911, we made an investigation of the methods pursued by your representatives in taking and valuing the inventory of the products of the Munising Saw Mill Plant.

All classes of lumber products, other than shingles and ties, were inventoried December 31, 1911, either by count or by estimate. Shingles and ties were not inventoried and the book record of these products was used in closing the accounts of the plant for the year. Weather conditions at the close of December are adverse to the correct taking of an inventory and such of the products not covered by snow were counted or measured, and the balance estimated.

The deficit in the lumber account for the year ended December 31, 1911, was 364,520 feet, and has been influenced by the following:

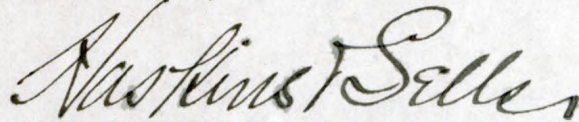
- First: The possibility of errors in estimating a portion of the lumber on hand.
- Second: The lumber as produced is classified, graded and charged on the books to a Stock account. Later on, in some instances, it is found that the lumber will not conform to the class as originally graded. This portion is culled and withdrawn from stock but no record or credit is made on the books to the Stock account originally charged.

We suggest that as weather conditions at the close of your fiscal year December 31, will not permit a correct taking of inventory, that these accounts be carefully inventoried by correct methods as of September 30th, in each year and the books adjusted at that date. Also

that proper record be made of all lumber culled and more care be used in grading the lumber as coming from the mill.

We find the products on hand at December 31, 1911, were valued at market prices, less 50 cents per thousand feet to care for the cost of loading. Profits or losses are therefore taken up on the books in advance of actual shipment. This practice should, in our opinion, be discontinued and the products valued at cost as shown by your monthly cost sheets.

Yours truly,

A handwritten signature in cursive script, reading "Austin Seller". The signature is written in dark ink and is positioned below the typed name.

Certified Public Accountants.

THE CLEVELAND-CLIFFS
IRON COMPANY

COMMENTS
RELATING TO INVENTORY OF
MUNISING SAW MILL PRODUCTS

+ + + + +

RECEIVED

JUL 11 1912

Ack. _____ Ans. _____

HASKINS & SELLS
CERTIFIED PUBLIC ACCOUNTANTS
30 BROAD STREET
NEW YORK

LONDON, E. C.
30 COLEMAN STREET

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PITTSBURGH BALTIMORE
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HARRIS TRUST BUILDING THIRD NATIONAL BANK BUILDING WILLIAMSON BUILDING FARMERS BANK BUILDING EQUITABLE BUILDING CROCKER BUILDING

LONDON, E.C.
30 COLEMAN STREET

CABLE ADDRESS "HASKSELLS"

CLEVELAND, May 29, 1912.

RECEIVED

JUN 3 - 1912

Ack. Ans.

Mr. Wm. G. Mather,
President, Hopkins Steamship Company,
Cleveland, Ohio.

Dear Sir:

Pursuant to engagement, we have made an audit of the books and accounts of Hopkins Steamship Company for the year ended December 31, 1911, and submit herewith the following described exhibits, viz.:

EXHIBIT

- "A" - GENERAL BALANCE SHEET - DECEMBER 31, 1911 AND 1910 - AND COMPARISON.
- "B" - STATEMENT OF INCOME AND PROFIT & LOSS FOR THE YEAR ENDED DECEMBER 31, 1911.

We did not verify the cash balance held by the Captain of the Steamer "Centurion."

Notwithstanding the Company had a deficit at the beginning of the year amounting to, \$ 4,382.88
and a deficit for the year, after writing off depreciation,
of, 5,748.71
making an accumulated deficit of, 10,131.59
it declared and paid a dividend during the year of, 10,600.00
thereby making a deficit at the end of the year of, \$20,731.59

By reason of the conditions, this dividend constituted a distribution of capital. In declaring this dividend, the Board of Directors provided that it should be paid out of net profits. Since there were no net profits, it would seem that instead of paying a dividend, the officers of the Company should have reported to the Board that there were no net profits out of which to pay a dividend.

Yours truly,

A handwritten signature in cursive script that reads "Haskins & Sells". The signature is written in dark ink and is positioned to the right of the "Yours truly," text.

Certified Public Accountants.

HOPKINS STEAMSHIP COMPANY

GENERAL BALANCE SHEET - DECEMBER 31, 1911 AND 1910 - AND COMPARISON

	.....DECEMBER 31,.....			
	1911	1910	INCREASE	DECREASE
<u>A S S E T S</u>				
PROPERTY:				
Steamer "Centurion",.....	\$265,000.00	\$265,000.00		
CAPITAL STOCK OF LAKE CARRIERS' ASSOCIATION - 27-28/100 SHARES, PAR VALUE \$1.00 EACH,.....	1.00	1.00		
WORKING ASSET:				
Insurance Premiums - Unexpired Portion,.....	201.90	3,673.11		\$ 3,471.21
CURRENT ASSETS:				
Cash in Bank,.....	5,145.53	7,400.82		2,255.29
Cash with Captain,.....	301.21	277.99	\$ 23.22	
Accounts Receivable,.....	531.05	97.45	433.60	
Insurance Claims,.....	11,546.75	80.25	11,466.50	
Total Current Assets,.....	17,524.54	7,856.51	9,668.03	
TOTAL ASSETS,.....	\$282,727.44	\$276,530.62	\$ 6,196.82	
<u>L I A B I L I T I E S</u>				
CAPITAL STOCK - 5,300 SHARES OF \$50.00 EACH,.....	\$265,000.00	\$265,000.00		
CURRENT LIABILITY:				
Accounts Payable,.....	11,959.03	2,663.50	\$ 9,295.53	
RESERVE FOR DEPRECIATION,.....	26,500.00	13,250.00	13,250.00	
Total,.....	303,459.03	280,913.50	22,545.53	
LESS PROFIT & LOSS DEFICIT,.....	20,731.59	4,382.88	16,348.71	
TOTAL,.....	\$282,727.44	\$276,530.62	\$ 6,196.82	

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HOPKINS STEAMSHIP COMPANY

STATEMENT OF INCOME AND PROFIT & LOSS
FOR THE YEAR ENDED DECEMBER 31, 1911

PROFIT FROM OPERATIONS:

Receipts,.....	\$55,758.60	
Less Operating Expenses, Taxes, and In- surance,.....	<u>47,207.83</u>	
NET PROFIT FROM OPERATIONS,.....		\$ 8,550.77
GENERAL EXPENSES,.....		<u>1,266.18</u>
NET EARNINGS,.....		7,284.59
OTHER INCOME:		
Discount on Purchases,.....	\$ 77.70	
Interest on Bank Balances,.....	<u>139.00</u>	
Total,.....		<u>216.70</u>
GROSS INCOME,.....		7,501.29
DEDUCTION FROM INCOME - DEPRECIATION,.....		<u>13,250.00</u>
NET DEFICIT FOR THE YEAR,.....		5,748.71
PROFIT & LOSS DEFICIT AT BEGINNING OF THE YEAR,.....		4,382.88
DIVIDEND DECLARED AND PAID,.....		<u>10,600.00</u>
PROFIT & LOSS DEFICIT, DECEMBER 31, 1911,.....		<u>\$20,731.59</u>

Exh. 'B'

HOPKINS STEAMSHIP COMPANY

REPORT
ON AUDIT OF BOOKS AND ACCOUNTS
FOR THE YEAR 1911

HASKINS & SELLS
CERTIFIED PUBLIC ACCOUNTANTS
30 BROAD STREET
NEW YORK

LONDON, E. C.
30 COLEMAN STREET

CHICAGO ST. LOUIS CLEVELAND
PITTSBURGH BALTIMORE
SAN FRANCISCO

12

HASKINS & SELLS

CERTIFIED PUBLIC ACCOUNTANTS

30 BROAD STREET
NEW YORK

CHICAGO ST. LOUIS CLEVELAND PITTSBURGH BALTIMORE SAN FRANCISCO
HARRIS TRUST BUILDING THIRD NATIONAL BANK BUILDING WILLIAMSON BUILDING FARMERS BANK BUILDING EQUITABLE BUILDING CROCKER BUILDING

LONDON, E.C.
30 COLEMAN STREET

CABLE ADDRESS "HASKSELLS"

CLEVELAND, May 29, 1912.

Mr. Wm. G. Mather,

Vice-President and Treasurer,
The Presque Isle Transportation Company,
Cleveland, Ohio.

RECEIVED
JUN 3 - 1912
Ack. Ans.

Dear Sir:

Pursuant to engagement, we have made an audit of the books and accounts of The Presque Isle Transportation Company for the year ended December 31, 1911, and submit herewith the following described exhibits, viz.:

EXHIBIT

- "A" - GENERAL BALANCE SHEET - DECEMBER 31, 1911 AND 1910 - AND COMPARISON.
- "B" - STATEMENT OF INCOME AND PROFIT & LOSS FOR THE YEAR ENDED DECEMBER 31, 1911.

Yours truly,



Certified Public Accountants.

THE PRESQUE ISLE TRANSPORTATION COMPANY

GENERAL BALANCE SHEET - DECEMBER 31, 1911 AND 1910 - AND COMPARISON

	.....DECEMBER 31,.....		
	1911	1910	INCREASE DECREASE
<u>A S S E T S</u>			
STEAMERS:			
"Presque Isle",.....	\$212,569.86	\$212,569.86	
"Peter White",.....	342,001.46	342,001.46	
"Angeline",.....	268,013.25	268,013.25	
Total Steamers,.....	822,584.57	822,584.57	
CAPITAL STOCK OF LAKE CARRIERS' ASSOCIATION - 132.92 SHARES, PAR VALUE \$1.00 EACH,.....	1.00	1.00	
WORKING ASSETS:			
Working Funds - In hands of Captains,.....	274.04	1,113.12	\$ 839.08
Insurance Premiums - Unexpired portion,.....	756.79	13,213.05	12,456.26
Total Working Assets,.....	1,030.83	14,326.17	13,295.34
CURRENT ASSETS:			
Cash in Bank,.....	18,715.52	34,909.76	16,194.24
Accounts Receivable,.....	1,851.26	2,760.61	909.35
Insurance Claims,.....	10,527.50	4,205.59	\$ 6,321.91
Total Current Assets,.....	31,094.28	41,875.96	10,781.68
DUE FROM AFFILIATED COMPANIES,.....		50.75	50.75
TOTAL ASSETS,.....	\$854,710.68	\$878,838.45	\$ 24,127.77

L I A B I L I T I E S

CAPITAL STOCK - 5,000 SHARES OF \$100 EACH,.....	\$500,000.00	\$500,000.00	
BONDS - STEAMER "PETER WHITE",.....	70,500.00	88,500.00	\$ 18,000.00
VOUCHERS PAYABLE,.....	6,284.95	18,357.46	12,072.51
RESERVE FOR DEPRECIATION OF STEAMERS,.....	82,258.46	41,129.23	\$ 41,129.23
PROFIT & LOSS SURPLUS, PER EXHIBIT "B",.....	195,667.27	230,851.76	35,184.49
TOTAL,.....	\$854,710.68	\$878,838.45	\$ 24,127.77

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THE PRESQUE ISLE TRANSPORTATION COMPANY

STATEMENT OF INCOME AND PROFIT & LOSS
FOR THE YEAR ENDED DECEMBER 31, 1911

EARNINGS FROM OPERATIONS:

Steamer "Presque Isle":

Receipts,.....	\$75,235.05	
Less Operating Expenses, Taxes, and Insurance,.....	<u>60,678.26</u>	\$ 14,556.79

Steamer "Peter White":

Receipts,.....	\$97,398.88	
Less Operating Expenses, Taxes, and Insurance,.....	<u>67,429.63</u>	29,969.25

Steamer "Angeline":

Receipts,.....	\$71,563.46	
Less Operating Expenses, Taxes, and Insurance,.....	<u>53,015.84</u>	<u>18,547.62</u>

Total,..... 63,073.66

EXPENSES:

General,.....	\$ 3,466.03
Legal,.....	25.00
Taxes - Federal and Personal,.....	<u>170.58</u>

Total,..... 3,661.61

NET EARNINGS,..... 59,412.05

OTHER INCOME - DISCOUNTS ON PURCHASES,..... 512.69

GROSS INCOME,..... 59,924.74

INCOME CHARGES:

Interest on Bonds,.....	\$ 3,975.00
Personal Injury,.....	5.00
Depreciation of Steam Vessels,.....	<u>41,129.23</u>

Total,..... 45,109.23

NET INCOME,..... 14,815.51

PROFIT & LOSS SURPLUS AT BEGINNING OF YEAR,..... 230,851.76

PROFIT & LOSS GROSS SURPLUS,..... 245,667.27

LESS DIVIDENDS,..... 50,000.00

PROFIT & LOSS SURPLUS - DECEMBER 31, 1911,..... \$195,667.27

Exh. B

THE PRESQUE ISLE
TRANSPORTATION COMPANY

REPORT
ON AUDIT OF BOOKS AND ACCOUNTS
FOR THE YEAR 1911

HASKINS & SELLS
CERTIFIED PUBLIC ACCOUNTANTS
30 BROAD STREET
NEW YORK

LONDON, E. C.
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PITTSBURGH BALTIMORE
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HASKINS & SELLS

CERTIFIED PUBLIC ACCOUNTANTS

30 BROAD STREET
NEW YORK

CHICAGO ST. LOUIS CLEVELAND PITTSBURGH BALTIMORE SAN FRANCISCO
HARRIS TRUST BUILDING THIRD NATIONAL BANK BUILDING WILLIAMSON BUILDING FARMERS BANK BUILDING EQUITABLE BUILDING CROCKER BUILDING

LONDON, E.C.
30 COLEMAN STREET

CABLE ADDRESS "HASKSELLS"

CLEVELAND, May 29, 1912.

Mr. Wm. G. Mather,
President, Munising, Marquette &
Southeastern Railway Company,
Cleveland, Ohio.

RECEIVED

JUN 3 - 1912

Ack. Ans.

Dear Sir:

Pursuant to engagement, we have audited the books and accounts of the Munising, Marquette & Southeastern Railway Company for the year ended December 31, 1911, and submit herewith the following described exhibits, viz.:

EXHIBIT

"A" - GENERAL BALANCE SHEET - DECEMBER 31, 1911
AND 1910 - AND COMPARISON.

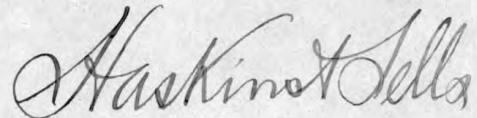
"B" - SUMMARY OF INCOME AND PROFIT & LOSS FOR
THE YEAR ENDED DECEMBER 31, 1911.

The Munising, Marquette & Southeastern Railway Company is the result of a merger as at the close of business June 30, 1911, of the Munising Railway Company and the Marquette & Southeastern Railway Company, in pursuance of an agreement dated April 22, 1911, between the respective companies and their Boards of Directors, duly ratified by the stockholders of each Company.

As the result of our examination of the cash accounts and obtaining confirmations of bank balances, we found that the aggregate of book accounts of cash in all banks was correct, but that in posting from the Cash Book to the General Ledger accounts kept with each bank an error was made in September, 1911, by charging to The Alger County Bank instead

of to the Marquette National Bank a deposit of \$4,421.42 made in the latter. We called the cashier's attention to this and suggested the proper entry for adjustment.

Yours truly,

A handwritten signature in cursive script, reading "Haskins & Sells".

Certified Public Accountants.

MUNISING, MARQUETTE & SOUTHEASTERN RAILWAY COMPANY

GENERAL BALANCE SHEET - DECEMBER 31, 1911 AND 1910 - AND COMPARISON

-- A S S E T S --	..... DECEMBER 31,	1911	1910	INCREASE	DECREASE
PROPERTY:					
Investment to June 30, 1907:					
Road,.....	\$1,663,850.88	\$1,663,850.88			
Equipment,.....	443,060.13	443,060.13			
Investment since June 30, 1907:					
Road,.....	207,941.82	183,784.33	\$ 24,157.49		
Equipment,.....	179,534.64	185,598.54		\$ 6,063.90	
Additions and Betterments,.....	494.43	12,830.63		12,336.20	
Terminal Property - Munising,.....	150,500.00	150,500.00			
Contracts, Franchises, etc.,.....	1,251,232.50	1,251,232.50			
Temporary Spurs - Material,.....	26,021.87	24,485.58	1,536.29		
Land Department:					
Town Lots - Munising,.....	333,181.62	334,338.59		1,156.97	
Walbridge Lots - Munising,.....	1.00	1.00			
Real Estate - Carlshrud,.....	241.00	241.00			
Tax Titles Purchased,.....	3.50	3.50			
Total Property,.....	<u>4,256,063.39</u>	<u>4,249,926.68</u>	<u>6,136.71</u>		
WORKING ASSETS:					
Fuel,.....	88.57	6,172.79		6,084.22	
Materials:					
Rail and Track,.....	15,025.71	28,979.03		13,953.32	
Bridge and Building,.....	580.46	340.91	239.55		
Lumber,.....	839.37	1,009.47		170.10	
Ties, Posts, and Poles,.....	5,898.95	6,904.68		1,005.73	
Miscellaneous,.....	1,658.74	1,120.57	538.17		
Insurance Premiums - Unexpired Portion,.....	1,031.64	1,204.30		172.66	
Total Working Assets,.....	<u>25,123.44</u>	<u>45,731.75</u>		<u>20,608.31</u>	
CURRENT ASSETS:					
Cash in Hand and on Deposit:					
Railroad Department,.....	14,157.29	8,203.30	5,953.99		
Land Department,.....	1,390.10	3,285.92		1,895.82	
Notes Receivable - Railroad Department,.....		10,000.00		10,000.00	
Due from Agents and Conductors,.....	12,556.93	13,363.60		806.67	
Traffic and Car Service Balances,.....	3,983.00	12,791.36		8,808.36	
Miscellaneous Accounts Receivable - Railroad Department,.....	16,076.41	67,229.59		51,153.18	
Accounts Receivable - Land Department,.....	6,337.19	6,734.22		397.03	
Total Current Assets,.....	<u>54,500.92</u>	<u>121,607.99</u>		<u>67,107.07</u>	
DUE FROM AFFILIATED COMPANIES,.....	56,305.64	36,299.87	20,005.77		
TOTAL ASSETS,.....	<u>\$4,391,993.39</u>	<u>\$4,453,566.29</u>		<u>\$ 61,572.90</u>	

Ex. A

(Amch. Continued) - 1.

MUNISING, MARQUETTE & SOUTHEASTERN RAILWAY COMPANY.
 GENERAL BALANCE SHEET, ETC.

	..... DECEMBER 31,		INCREASE	DECREASE
	1911	1910		
-- LIABILITIES --				
CAPITAL STOCK:				
Munising Railway Company - 8,700 Shares of \$100 each,.....		\$ 870,000.00		
Marquette & Southeastern Railway Company - 10,000 Shares of \$100 each,.....		1,000,000.00		
Munising, Marquette & Southeastern Railway Company: Issued and Outstanding-18,361.5 Shares of \$100 each,.....	\$1,836,150.00			
Unexchanged Shares of Munising Railway Company - 225 Shares exchangeable @ 1.14,.....	25,650.00			
Total Capital Stock Outstanding,.....	1,861,800.00	1,870,000.00		\$ 8,200.00
FUNDED DEBT:				
Munising Railway Company, First Mortgage, 4%, Gold Bonds,.....	160,000.00	160,000.00		
Marquette & Southeastern Railway Company, First Mortgage, 5%, Gold Bonds,.....	1,000,000.00	1,000,000.00		
Total Funded Debt,.....	1,160,000.00	1,160,000.00		
CURRENT LIABILITIES:				
Notes Payable,.....		18,500.00		18,500.00
Equipment Trust Notes,.....	12,253.75	22,253.75		10,000.00
Audited Vouchers,.....	12,011.17	54,731.55		42,720.38
Pay Rolls,.....	7,502.47	8,204.57		702.10
Traffic and Car Service Balances,.....	13,579.57	15,378.80		1,799.23
Mileage Coupons Outstanding,.....	43.60	166.12		122.52
Accrued Accounts:				
Interest on Bonds,.....	5,766.83	5,766.68	\$.15	
Interest on Notes Payable,.....		46.25		46.25
Taxes - Railroad Department,.....	26,424.01	24,063.73	2,360.28	
Taxes - Land Department,.....	2,903.21	2,646.41	256.80	
Total Current Liabilities,.....	80,484.61	151,757.86		71,273.25
DUE TO AFFILIATED COMPANIES,.....	1,296,251.65	1,329,584.17		33,332.52
RESERVES FOR DEPRECIATION:				
Locomotives,.....	27,733.17	20,189.11	7,544.06	
Passenger-Train Cars,.....	10,759.07	8,035.25	2,723.82	
Freight-Train Cars,.....	80,889.84	62,392.51	18,497.33	
Work Equipment,.....	3,601.36	2,800.68	800.68	
Rails,.....	11,721.36		11,721.36	
Total Reserves for Depreciation,.....	134,704.80	93,417.55	41,287.25	
TOTAL,.....	4,533,241.06	4,604,759.58		71,518.52
LESS PROFIT & LOSS DEFICIT, PER EXHIBIT "B",.....	141,247.67	151,193.29		9,945.62
TOTAL,.....	\$4,391,993.39	\$4,453,566.29		\$ 61,572.90

Exh. A

(Cont.) - 2

MUNISING, MARQUETTE & SOUTHEASTERN RAILWAY COMPANY

SUMMARY OF INCOME AND PROFIT & LOSS
FOR THE YEAR ENDED DECEMBER 31, 1911

REVENUE:

From Transportation:

Freight,.....	\$364,775.09
Passenger,.....	62,268.29
Excess Baggage,.....	713.31
Mail,.....	4,613.14
Express,.....	8,593.23
Milk (On Passenger Trains),.....	933.74
Other Passenger Train Revenue,.....	37.90
Switching,.....	3,886.50
Special Trains,.....	100.00
Miscellaneous,.....	<u>1,462.50</u>
Total,.....	<u>447,383.70</u>

From Operations Other Than Transportation:

Car Service,.....	7,046.95
Telephone Service,.....	1,762.38
Rents of Buildings and Other Property,.....	8,092.65
Miscellaneous,.....	1,508.56
Land Department,.....	<u>101.00</u>
Total,.....	<u>18,511.54</u>

Total Revenue,..... \$465,895.24

OPERATING EXPENSES:

Maintenance of Way and Structures,.....	75,292.39
Maintenance of Equipment,.....	54,368.01
Traffic Expenses,.....	3,131.62
Transportation Expenses,.....	125,865.52
General Expenses,.....	14,342.84
Land Department,.....	<u>1,713.31</u>
Total,.....	274,713.69

TAXES - RAILROAD DEPARTMENT,..... 79,541.81

TOTAL OPERATING EXPENSES AND TAXES,..... 304,255.50

NET EARNINGS,..... 161,639.74

OTHER INCOME:

Interest on Notes Receivable,.....	355.83
Interest - Land Department,.....	<u>391.52</u>

Total,..... 747.35

GROSS INCOME - (Forward),..... 162,387.09

MUNISING, MARQUETTE & SOUTHEASTERN RAILWAY COMPANY.
SUMMARY OF INCOME AND PROFIT & LOSS, ETC.

GROSS INCOME - (Forward),.....		\$162,387.09
DEDUCTIONS FROM INCOME:		
Hire of Equipment,.....	\$ 29,133.60	
Rent of Tracks,.....	3,317.01	
Interest on Bonds,.....	56,400.15	
Interest on Locomotive Trust Notes,.....	1,185.22	
Interest on Notes and Accounts Payable,.....	64,359.67	
Taxes - Land Department,.....	4,107.18	
Depreciation on Material in Temporary Spurs,....	<u>1,329.25</u>	
Total,.....		<u>159,832.08</u>
NET INCOME,.....		2,555.01
PROFIT & LOSS CREDITS:		
Amount Received in Excess of the Depreciated Value of Car #3098, destroyed in November, 1910,.....	76.77	
Gain from Reduction of Capital Stock in the ex- change of stock growing out of the merger of the Munising Railway Company and the Marquette & Southeastern Railway Company into the Munising, Marquette & Southeastern Railway Company,.....	<u>8,200.00</u>	
Total,.....		<u>8,276.77</u>
PROFIT & LOSS GROSS SURPLUS FOR THE YEAR,.....		10,831.78
PROFIT & LOSS CHARGE - DEPRECIATION PRIOR TO JULY 1, 1907, ON EQUIPMENT SOLD AND DESTROYED,.....		<u>886.16</u>
PROFIT & LOSS NET SURPLUS FOR THE YEAR,.....		9,945.62
PROFIT & LOSS DEFICIT AT BEGINNING OF THE YEAR,.....		<u>151,193.29</u>
PROFIT & LOSS DEFICIT, DECEMBER 31, 1911,.....		<u>\$141,247.67</u>

Exhibit B

(Concluded) - 2.

MUNISING, MARQUETTE & SOUTHEASTERN
RAILWAY COMPANY

REPORT
ON AUDIT OF BOOKS AND ACCOUNTS
FOR THE YEAR 1911

HASKINS & SELLS
CERTIFIED PUBLIC ACCOUNTANTS
30 BROAD STREET
NEW YORK
LONDON, E. C.
30 COLEMAN STREET
CHICAGO ST. LOUIS CLEVELAND
PITTSBURGH BALTIMORE
SAN FRANCISCO

17 14

HASKINS & SELLS

CERTIFIED PUBLIC ACCOUNTANTS

30 BROAD STREET
NEW YORK

CHICAGO
HARRIS TRUST BUILDING

ST. LOUIS
THIRD NATIONAL BANK BUILDING

CLEVELAND
WILLIAMSON BUILDING

PITTSBURGH
FARMERS BANK BUILDING

BALTIMORE
EQUITABLE BUILDING

SAN FRANCISCO
CROCKER BUILDING

LONDON, E.C.
30 COLEMAN STREET

CABLE ADDRESS "HASKSELLS"

CLEVELAND, May 29, 1912.

Mr. Wm. G. Mather,
President, Lake Superior
& Ishpeming Railway Company,
Cleveland, Ohio.

RECEIVED
JUN 3 - 1912
Ack. Ans.

Dear Sir:

Pursuant to engagement, we have made an audit of the books and accounts of the Lake Superior & Ishpeming Railway Company and The United Dock Company for the year ended December 31, 1911, and submit herewith the following described exhibits, viz.:

EXHIBIT

- "A" - CONSOLIDATED GENERAL BALANCE SHEET -
DECEMBER 31, 1911. AND 1910 - AND
COMPARISON.
- "B" - CONSOLIDATED STATEMENT OF INCOME AND
PROFIT & LOSS FOR THE YEAR ENDED
DECEMBER 31, 1911.

The balance in the cash account at December 31, 1911, was verified in the usual manner.

The books of these companies, as kept at Marquette, Michigan, show a combined balance against the Cleveland office of \$170,134.18. The books, as kept at the Cleveland office, show a balance to the credit of the Marquette office of \$175,620.77. The difference of \$5,486.59 is due to the Marquette office having credited Cleveland office instead of Interest, with interest on delayed bond subscription payments, . \$5,534.20 and having omitted to credit Cleveland office with the following items:

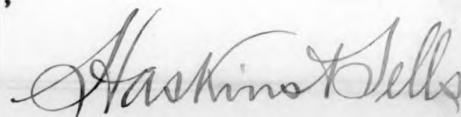
Forward,.....	\$5,534.20
Proportion of Rebates on Magnetic Ore for October and December, 1911, which, when credited should be charged against Earn- ings,.....	\$47.41
Error in taking up Dock Company's proportion of Operating Expenses for December, 1911, which, when credited should be charged to Operating Expenses,.....	<u>.20</u>
	<u>47.61</u>
Net Difference,.....	<u>\$5,486.59</u>

It appears that on October 31, 1911, the Jackson Iron Company rendered a bill against the Lake Superior & Ishpeming Railway Company in the amount of \$34,538.45 for right of way at Negaunee to be conveyed to the Railway Company. There does not appear on the books of the Railway Company at December 31, 1911, any credit of this amount to the Jackson Iron Company or charge to Road Account.

In the accompanying Consolidated General Balance Sheet the capital stock of The United Dock Company amounting to \$50,000.00 is not eliminated. This was entered on the books of that Company during the year, contra against charge to Contracts, Etc. This stock is held by the Lake Superior & Ishpeming Railway Company but no account of such ownership appears on its books. This explains why the stock is not eliminated in the Consolidated General Balance Sheet. It is obvious that the ownership of this stock by the Lake Superior & Ishpeming Railway Company should be represented on its books in some manner.

The accrued liability at December 31, 1911, in the amount of \$35,000.00, for Interest on Bonds of the Lake Superior & Ishpeming Railway Company for the period of five months from August 1, to December 31, 1911, appears on the books of The United Dock Company, whereas it should appear on the books of the issuing Company, viz., the Lake Superior & Ishpeming Railway Company. This should be adjusted and proper accounting made for the future.

Yours truly,



Certified Public Accountants.

LAKE SUPERIOR & ISHPEMING RAILWAY COMPANY
THE UNITED DOCK COMPANY

CONSOLIDATED GENERAL BALANCE SHEET - DECEMBER 31, 1911 AND 1910 - AND COMPARISON

-- A S S E T S --	..... DECEMBER 31.....			
	1911	1910	INCREASE	DECREASE
ROAD AND EQUIPMENT:				
Investment to June 30, 1907:				
Road,.....	\$2,127,007.83	\$2,127,007.83		
Equipment,.....	552,149.49	552,149.49		
Investment since June 30, 1907:				
Road,.....	281,648.40	80,630.67	\$ 201,017.73	
Equipment,.....	268,895.21	171,209.54	97,685.67	
Additions and Betterments,.....	1,051,733.09	350,853.67	700,879.42	
Total Road and Equipment,.....	4,281,434.02	3,281,851.20	999,582.82	
CONTRACTS, ETC. - SPECIAL - THE UNITED DOCK COMPANY,....	50,000.00		50,000.00	
WORKING ASSETS:				
Fuel,.....	29,227.23	23,715.27	5,511.96	
Materials:				
Rail and Track,.....	7,181.70	16,882.40		\$ 9,700.70
Bridge and Building,.....	10,941.54	19,080.27		8,138.73
Lumber,.....	5,117.08	4,727.64	389.44	
Ties, Posts, and Poles,.....		1,879.44		1,879.44
Miscellaneous,.....	34,810.39	35,824.42		1,014.03
Insurance Premiums - Unexpired Portion,.....	1,414.38	1,666.00		251.62
Total Working Assets,.....	86,692.32	103,775.44		15,083.12
CURRENT ASSETS:				
Cash in Hand and on Deposit,.....	251,530.01	13,580.55	237,949.46	
Due from Agents,.....	2,578.69	2,526.43	52.26	
Traffic and Car Service Balances,.....	2,006.27	2,000.94	5.33	
Miscellaneous Accounts Receivable,.....	40,957.57	29,460.53	11,497.04	
Total Current Assets,.....	297,072.54	47,568.45	249,504.09	
DUE FROM AFFILIATED COMPANIES,.....	211,086.89		211,086.89	
TOTAL ASSETS,.....	\$4,928,285.77	\$3,433,195.09	\$1,495,090.68	

Exhibit A

(Continued) - 1.

LAKE SUPERIOR & ISHPEMING RAILWAY COMPANY.
 THE UNITED DOCK COMPANY.
 CONSOLIDATED GENERAL BALANCE SHEET, ETC.

-- LIABILITIES --	..... DECEMBER 31		INCREASE	DECREASE
	1911	1910		
CAPITAL STOCK:				
Lake Superior & Ishpeming Railway Company, 10,000 Shares of \$100 each,.....	\$1,000,000.00	\$1,000,000.00		
The United Dock Company, 500 Shares of \$100 each,.....	50,000.00		\$ 50,000.00	
Total Capital Stock,.....	1,050,000.00	1,000,000.00	50,000.00	
FIRST MORTGAGE, 6%, GOLD BONDS,.....	1,400,000.00		1,400,000.00	
CURRENT LIABILITIES:				
Equipment Trust Notes,.....	89,616.00	36,000.00	53,616.00	
Other Notes Payable,.....		60,905.00		\$ 60,905.00
Audited Vouchers,.....	37,817.44	51,664.35		13,846.91
Pay Rolls,.....	11,130.13	10,871.49	258.64	
Traffic and Car Service Balances,.....	274.80	98.22	176.58	
Interest Accrued on Equipment Trust Notes,.....	3,222.72	1,431.76	1,790.96	
Interest Accrued on Bonds,.....	35,000.00		35,000.00	
Taxes Accrued,.....	22,389.50	21,706.98	682.62	
Total Current Liabilities,.....	199,450.69	182,677.80	16,772.89	
RESERVES FOR DEPRECIATION:				
Locomotives,.....	47,633.06	34,482.50	13,150.56	
Passenger-Train Cars,.....	2,478.06	1,927.38	550.68	
Freight-Train Cars,.....	106,172.31	81,778.54	24,393.77	
Work Equipment,.....	2,593.80	1,700.58	893.22	
Rails,.....	4,032.24		4,032.24	
Total Reserves for Depreciation,....	162,909.47	119,889.00	43,020.47	
DUE TO AFFILIATED COMPANIES,.....	35,142.62		35,142.62	
UNADJUSTED BALANCE BETWEEN CLEVELAND AND MARQUETTE OFFICES,.....	5,486.59		5,486.59	
PROFIT & LOSS SURPLUS, PER EXHIBIT "B",.....	2,075,296.40	2,130,628.29		55,331.89
TOTAL,.....	\$4,928,285.77	\$3,433,195.09	\$1,495,090.68	

5-11-13

Exhibit 'a'

(Concluded)-2.

LAKE SUPERIOR & ISHPEMING RAILWAY COMPANY
THE UNITED DOCK COMPANY

CONSOLIDATED STATEMENT OF INCOME AND PROFIT & LOSS
 FOR THE YEAR ENDED DECEMBER 31, 1911

REVENUE:

From Transportation:

Freight,.....	\$236,880.82	
Passenger,.....	4,274.50	
Excess Baggage,.....	19.20	
Express,.....	291.95	
Milk (On Passenger Trains),.....	13.49	
Switching,.....	<u>5,029.67</u>	
Total,.....	<u>246,509.63</u>	

From Operations Other Than Transportation:

Car Service,.....	422.05	
Rents of Buildings and Other Property,.....	827.33	
Miscellaneous,.....	<u>1,878.73</u>	
Total,.....	<u>3,128.11</u>	

Total Revenue,..... \$ 249,637.74

OPERATING EXPENSES:

Maintenance of Way and Structures,.....	\$ 49,079.59	
Maintenance of Equipment,.....	81,355.07	
Traffic Expenses,.....	1,551.46	
Transportation Expenses,.....	102,513.69	
General Expenses,.....	<u>23,231.85</u>	
Total,.....	257,731.66	

TAXES,..... 29,104.99

TOTAL OPERATING EXPENSES AND TAXES,..... 286,836.65

DEFICIT FROM OPERATIONS,..... 37,198.91

OTHER INCOME CHARGES:

Interest on Bonds,.....	\$ 22,672.45	
Interest on Notes Payable,.....	10,991.61	
Other Interest,.....	90.87	
Rents,.....	<u>4,060.22</u>	
Total,.....	<u>37,815.15</u>	

GROSS DEFICIT - (Forward),..... \$ 75,014.06

*Exhibit B**

(Continued) -1.

LAKE SUPERIOR & ISHPEMING RAILWAY COMPANY.

THE UNITED DOCK COMPANY.

CONSOLIDATED STATEMENT OF INCOME AND PROFIT & LOSS, ETC.

GROSS DEFICIT - (Forward),.....	\$	75,014.06
INCOME CREDITS:		
Hire of Equipment,.....	\$	11,632.35
Interest on Bank Balances,.....		1,136.39
Interest Charged to Construction, Account of Uncompleted Ore Dock #2,.....		6,883.67
Other Interest,.....		<u>315.45</u>
Total,.....		<u>19,967.86</u>
NET DEFICIT,.....		55,046.20
PROFIT & LOSS CHARGE - DEPRECIATION PRIOR TO JULY 1, 1907, ON EQUIPMENT DESTROYED,.....		<u>285.69</u>
DEFICIT FOR THE YEAR,.....		55,331.89
PROFIT & LOSS SURPLUS AT BEGINNING OF THE YEAR,.....		<u>2,130,628.29</u>
PROFIT & LOSS SURPLUS AT END OF THE YEAR,.....		<u>\$2,075,296.40</u>

Exhibit B

(Concluded) - 2.

LAKE SUPERIOR & ISHPEMING
RAILWAY COMPANY
THE UNITED DOCK COMPANY

REPORT
ON AUDIT OF BOOKS AND ACCOUNTS
FOR THE YEAR 1911

HASKINS & SELLS
CERTIFIED PUBLIC ACCOUNTANTS
30 BROAD STREET
NEW YORK
LONDON, E. C.
30 COLEMAN STREET
CHICAGO ST. LOUIS CLEVELAND
PITTSBURGH BALTIMORE
SAN FRANCISCO



3

I N D E X

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Sulphuric Acid.....	32 to 36

RECEIVED

MAY 6 1912

ANNUAL REPORT
CHEMICAL SALES DEPARTMENT
FOR FISCAL YEAR ENDING DEC.31, 1911.

Mr. Wm. G. Mather,

Office, April 22nd, 1912.

President.

Dear Sir:

I submit herewith a summary of the past year's business on our various chemical products showing a comparison with the sales and prices received during the fiscal year 1910, and give a general estimate regarding the outlook for 1912.

REFINED WOOD ALCOHOL AND ALLIED PRODUCTS:

95% Refined Wood Alcohol	Quantity sold.	Net price rec'd.
1910	307330 gallons	\$.4476 per gal.
1911	365373 $\frac{1}{2}$ "	.4430 " "

Separate CC submitted

The above quantity for 1911 includes the Antrim Iron Co's. Alcohol which we have sold since May 30th, '11, but our own production was cut down materially from the fact that our Gladstone plant was down from June 6th to November 9th, and we consumed a large portion of our Marquette, Mich. plant's production for making Formaldehyde.

The slight decrease in the average net price received for 95% Refined Wood Alcohol during the past year is due to several causes - the market price has been about 47 $\frac{1}{2}$ ¢ per gallon throughout the entire year while during a portion of the previous year the market prices obtainable were somewhat higher.

There has been a slight increase in cost for our cooperage, and our cost for freight has increased on account of it being necessary to market our production over a wider range of territory. We have sold during this year considerable larger quantities of 95% Alcohol in the eastern territory than we did during the preceding year, and it seems advisable and necessary to keep in touch with the eastern market to supply certain buyers with their requirements of this product in order to obtain their trade on our other goods.

Mr. Wm. G. Mather -2-

Our competitors maintain at all times practically the same selling prices on 95% Alcohol in the eastern territory than they do in the middle west, and the market prices for the far western territory are based on the selling prices applying for the eastern and middle western territories plus the difference in freight expense.

We have had no difficulty in marketing our entire production and, in fact, during a large portion of the year could easily have sold considerably larger quantities than we have had available for sale. We have retained in practically all cases the patronage of our old customers and have started some new ones.

We have during the past year made arrangements to carry a distributing stock at Minneapolis, Minn. and Milwaukee, Wis., and have also increased the volume of business through our Cleveland warehouse. I believe we shall have no difficulty in marketing largely increased quantities of this product, although it would probably be necessary for us to establish new distributing stocks at St. Louis, Cincinnati, O. and perhaps some other distributing points, as our competitors have educated the buyers of this product to expect prompt deliveries and to be able to obtain their supplies in comparatively small quantities, about 5 bbls. at a time.

There has been a steady decrease in the number of consumers who will take in straight carload shipments. In fact, the only buyers who will now take straight carload shipments of Wood Alcohol are large distributors in certain sections of the country who supply Wood Alcohol together with other products to the jobbers in their territory.

I believe it will be advantageous for us to consider erecting or leasing bulk storage tanks at some of the principal consuming centers so that we can ship a large portion of our production of this product from our plants in bulk in tank cars, thereby enabling us to derive some saving in the cost of our packages and freight charges on same. I estimate that

*Auto sold in
various districts
from various
store houses*

Mr. Wm. G. Mather-3-

this saving will amount to from 1 to 2¢ per gallon, according to the location of the distributing center and the cost at these points for obtaining satisfactory, second-hand, re-coopered barrels.

The use of Denatured Alcohol has steadily increased as the market price for this product has continued about 8 to 10¢ per gallon lower than the market price on 95% Refined Wood Alcohol, and the various manufacturers who use Alcohol for solvent purposes have become better accustomed to the use of the denatured product.

In my judgement, 85% of all of the Denatured Alcohol now made and sold in the United States is used for solvent purposes in various lines of work where Wood Alcohol could be, and probably would be, used in preference at an even break in price.

We have investigated as carefully as we have been able to do by correspondence the European market for Wood Alcohol, and find that outside of England there is very little opportunity for us to sell profitably any of our Refined Wood Alcohol; the import duties maintained by Germany and France, who are the principal consumers of Wood Alcohol, are so arranged as to let in the crude product free while prohibitive duties are placed on the refined grades.

The English trade consumes about 1,000,000 gallons of Refined Wood Alcohol per year; about one-half or two-thirds of this quantity is the grade known as Miscible Wood Naptha, British Excise Specifications, which, according to Dr. Hudson's advice, is similar to the Special Denaturing Alcohol, U.S. Government Specifications, except that it contains smaller percentages of Acetone. The balance of the above mentioned quantity is Pure Methyl Alcohol used by the Aniline Color Makers and for manufacturing Formaldehyde. I believe that we shall be able to close during the coming year some actual business on these grades at prices that will net us slightly more than we can obtain from our Alcohol sold as 95% Refined Wood Alcohol in the United States.

Mr. Wm. G. Mather -4-

The location of our plants makes it practically impossible for us to make direct shipments to our customers, with the exception of such cases where we can make up mixed carload orders with our other chemical products and even in such cases we are considerably handicapped as compared with our competitors as it usually requires just about double the length of time for us to make deliveries as it does our competitors, without taking into consideration the additional time of a week to ten days to glue and prepare the barrels after our orders are received at the Production Department.

We have had several cases with customers who are staunch friends of ours where they have been compelled to order some Wood Alcohol from the Wood Products Co. on account of the delay in receiving supplies from us and in one case in particular, that of the Hammond Distilling Co., they advised me that a carload of Special Denaturing Alcohol was shipped from Buffalo the next day after receiving their order and that this shipment arrived at Hammond, Ind. the third day after it was shipped from Buffalo. This is a much better record that we have ever been able to make on any of the Hammond Distilling Co's. orders; it usually requires from three to four weeks from the time we receive their orders before we can make delivery of the goods at Hammond.

Complaints received:

We continue to receive from time to time complaints from customers on discoloration and shortage, and after careful investigation these have been found to be due in all cases to loss through leakage or evaporation while in transit and discoloration from contact with the wooden barrels, except in one or two instances where drums were used which were slightly rusty on the inside. These claims have all been reported, as received, to our Production Department, who invariably claimed that the goods were shipped in good condition and have, of course, to support this claim their receipt for the goods in good condition from the initial

Mr. Wm. G. Mather -5-

railroad and that their check samples show the quality of the goods to be standard.

We make it a rule in all cases to insist on our customers or agents checking shipments carefully before receipting for them in good condition, and in the event that any of the containers are damaged, or show indications of leakage, to have the railroad agent make proper notation on the expense bill before paying the freight charges, so that we can present and recover claims for the losses from the railroads.

It happens, however, occasionally that we receive claims from customers on account of discoloration or shortage from barrels we have shipped from our distributing warehouses. These claims however, are usually small and we adjust them, after careful investigation, by making proper allowance to the customer. The total amount of such allowances is very small indeed, considering the large amount of Alcohol we are handling.

The only large claim we have received during the past year was one on a carload of 95% Alcohol shipped direct from our Antrim, Mich. plant to the Brunswig Drug Co., Los Angeles, Cal. and it developed, after the goods were received and some of them had been shipped out to the Brunswig Drug Co's. customers, that there was a shortage of about 2 gallons per barrel. We found, after careful investigation, that these barrels as shipped from Antrim were actually marked as containing about one gallon more Alcohol than was actually put into the barrels, without making any allowance for excess quantity to cover soakage while in transit.

This claim was finally adjusted by making the Brunswig Drug Co. an allowance of 2 gallons per barrel on 41 barrels, and the balance, 30 bbls., was re-gauged and taken over by the California Drug & Chemical Co., Los Angeles, who settled with us for the actual quantities received according to the gauging on the basis of the price at which the goods were originally billed to the Brunswig Drug Co. We gave them an extension of time for payment in order to enable the C. D. & C. Co. to work off

Mr. Wm. G. Mather -6-

these goods which were badly discolored from contact with the wooden barrels.

The loss by reason of this shortage was charged back to the Antrim Iron Co., and as a result of their experience in this case they adopted the plan which we recommended, namely, to make their Alcohol test $\frac{1}{2}$ of 1% higher than the quantity called for by our orders and to include in each barrel about one-half gallon over and above the quantity gauged and billed in order to cover soakage during transit.

The Antrim Iron Co. seem to be able to glue and prepare their barrels in two to three days less time than is required by our Production Department, and since the above mentioned instance we have received no serious complaint on shipments made from Antrim.

97% Refined Wood Alcohol.	Quantity sold.	Net price rec'd.
1910	8321 $\frac{1}{2}$ gallons	\$.505 per gallon
1911	11519 $\frac{1}{2}$ "	.500 " "

We have increased slightly the quantity of this grade sold over the preceding year, due largely to the fact that we have gone after more business in the New York territory. There are much larger quantities of 97% Alcohol and higher grades used in the eastern territory than in the Chicago and western territories.

We have continued to maintain a difference of 5¢ per gallon in our selling prices between 95 and 97% Refined Wood Alcohol. I believe that we can perhaps increase somewhat the quantities of this grade sold, but its consumption is small in comparison with the total amount of 95% used.

Complaints received:

The Lowe Bros. Paint Store Co., Dayton, O., advised us under date of Aug. 16th, '11, that they found on analysis some of our 97% Wood Alcohol only tested 92 $\frac{1}{2}$ %. We requested them to send a sample direct to Marquette, and Dr. Hudson advised me under date of Aug. 29th that the sample received from the above mentioned concern tested 94.76% by volume, but that

Mr. Wm. G. Mather -7-

the check sample retained at our laboratory, taken from the bulk lot from which this shipment was packaged, had been re-analyzed and testes 97.34%; therefore, we felt certain that the Alcohol was full strength when it left our works.

The two barrels on which this complaint was received were shipped from our Cleveland warehouse on July 18th and were received there with a mixed carload of goods shipped from our Gladstone, Mich. plant April 13th.

I concluded that the loss in strength was probably due to the length of time the Alcohol had been stored in the wooden barrels, and so advised the Lowe Bros. Paint Store Co., informing them that we would leave the matter in their hands and make any reasonable allowance which they felt they were entitled to, but they did not present any claim for allowance and the shipment was paid for as invoiced.

98% Refined Wood Alcohol, including the product shipped under the name of Special Alcohol No. 8:

	Quantity sold.	Net price rec'd.
1910	45064 gallons	\$.44 per gallon
1911	10328 "	.476

Why less
show 97

The decrease in the quantity of this product sold was due to the fact that we lost The Celluloid Co's. contract.

The increased price was due to the fact that we have found some new customers for considerable quantities in the eastern territory from whom we can obtain in a small way, for L.C.L. deliveries, higher prices that we could obtain from The Celluloid Co. for carload deliveries.

The Eastman Kodak Co. use very large quantities of special grades of Alcohol, which are in reality Refined Wood Alcohol testing 98 to 99% and containing certain, definite percentages of Acetone. The product also has to meet other, detailed specifications for quality.

We commenced negotiations with the Eastman Kodak Co. during the latter part of the year, submitting them small samples of their special

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grades, which were packaged in glass containers and which the Eastman Kodak Co. advised us met their requirements satisfactorily.

We later shipped them a small quantity packaged in drums, which they stated did not meet their requirements, and after reporting their complaints in detail to our Production Department Dr. Hudson advised them he thought the difficulty came from some change in quality due to contact with the drums. Later, after considerable experiment work, and further negotiations with the Eastman Kodak Co., we induced them to allow us to make a carload shipment packaged in new drums, which they advised proved satisfactory for their requirements. Since that time we have shipped them 4 carloads to date, including one carload which is now in transit. All of these shipments which have been delivered at Rochester have apparently proven satisfactory to the Eastman Kodak Co., as they have made no complaint regarding same.

Dr. Hudson reported, after the carload shipped from Marquette, Mich. on the 26th ult. had been forwarded, that one drum, which had been retained at Marquette, showed on reanalysis that it did not meet the Eastman Kodak Co's. specifications, although the check sample retained in a glass container at our laboratory met the tests satisfactorily. He wired this information to me with the suggestion that it might be well to divert the shipment, and I concluded, after careful consideration, to advise the Eastman Kodak Co. frankly as to the conditions, and they informed me that they would prefer to have us divert the shipment providing we could replace it promptly rather than take any chances on having the Alcohol prove unsatisfactory for their requirements after arrival at Rochester. Therefore, I diverted this shipment to our New York agents, who have same in stock at their warehouse at the present time. We have been unable so far to dispose of these goods, but I believe we shall be able to do so, although it may mean a slight loss as we shall probably have to sell a large portion or all of the shipment as 97% Refined Wood Alcohol.

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We have not closed a definite contract with the Eastman Kodak Co., and I do not think it best to do so until we can determine definitely whether this product can be made from our regular Refined Wood Alcohol and Methyl Acetone without using C.P. Acetone.

Dr. Hudson advised me at our last meeting that he believed this product could be made to meet all of the Eastman Kodak Co's. specifications without using any C.P. Acetone, but that it would be impossible to do so until we had accumulated a larger reserve stock of our regular Alcohol so that he could make this special product by sorting, which he understands is the plan followed by the Wood Products Co. in making the special grades of Wood Alcohol required by the Eastman Kodak Co. and The Celluloid Co.

Our selling price for this product is 50¢ per gallon net f.o.b. Rochester, N.Y., packaged in drums, carload lots; it costs us about 3¢ per gallon for freight, including the return of the empty drums, therefore, we receive net about 47¢ per gallon f.o.b. our plant. *less packages*

Dr. Hudson advises that this product made from our regular Alcohol and Methyl Acetone, without adding any C.P. Acetone, costs 43½¢ per gallon f.o.b. Marquette, based on the present market prices we are receiving for our regular grades.

When made with C.P. Acetone Dr. Hudson states this special product costs us 49¢ per gallon f.o.b. our plant, based on our present selling prices for Pure Acetone, U.S.P. and 95% Alcohol.

In view of the advice given my by our Production Department I have thought it wise to continue supplying the Eastman Kodak Co. with this product even though we have to use C.P. Acetone in making same until the demand for Formaldehyde has decreased sufficiently to enable Dr. Hudson to determine definitely whether we can make the product from our regular grades of Alcohol by sorting.

Our Formaldehyde shipments will commence to decrease from now on through the summer months, so that we shall be able to determine this point within the near future and decide definitely whether it is advis-

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able for us to conclude a contract with the Eastman Kodak Co.

I believe that we shall be able to continue to sell increasing quantities of these special grades of Alcohol, but probably not more than 15,000 to 25,000 gallons per year, unless we secure the Eastman Kodak Co's. contract. They use about 50,000 to 75,000 gallons per year and recently advised me that it was quite possible that their requirements for this product might increase to from 100,000 to 150,000 gallons per year.

Diamond Spirits:

	Quantity sold:	Net price rec'd.
1910	6031 gallons	\$.643 per gallon
1911	5038 "	.617 " "

There is a very small market for this product, due to the restrictions of the Pure Food and Drug Law, which prohibits the use of Wood Alcohol in any medicinal preparations, and, while we shall no doubt be able to sell about the same quantity next year, I do not believe we can count on any material increase in the business unless we are able to secure ^{few} contracts from some of the [^]large consumers who are now buying this product from the Wood Products Co. under special names like Soap Spirits, Special Spirits, etc., or for export to England for the Aniline Color Makers and Formaldehyde Manufacturers use.

I have reason to believe, however, that these large consumers of these special grades of Alcohol are obtaining same from the Wood Products Co. at prices very close to their equivalent value for 95% Alcohol.

Complaints received:

We have received several complaints from different customers that our Diamond Spirits, shipped in wooden barrels, is not as clear in color nor equal in quality to the high grade product shipped out by the Wood Products Co. under the name of Columbian Spirits.

These complaints have all been reported to our Production Department and Dr. Hudson has advised us in several cases that the difference is due to the action of the Alcohol on the glue used in preparing

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Special Spirits No.1.	Quantity Sold:	Net price rec'd.
1910	None	-----
1911	8073 gallons	\$.570 per gallon

This product is our regular Diamond Spirits, and I have adopted the use of the above name in order to maintain a good market price on our regular brand, Diamond Spirits, while at the same time place ourselves in a position to meet the low prices offered by the Wood Products Co. on their Pure Methyl Alcohol, which is marketed under various trade names, without demoralizing such business as we have from our regular customers on Diamond Spirits.

I believe it is advisable to continue following this plan, as, according to our Production Department's advice, it only actually costs us 2 to 3¢ per gallon more to make Diamond Spirits than our regular 95% Refined Wood Alcohol, and there are various manufacturers who require a special, high proof product of this kind who will not pay our regular market price but from whom we can obtain considerable business at prices from 10 to 15¢ or more per gallon higher than our regular 95% Refined Wood Alcohol nets us.

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the barrels.

We are continuing our experiments and are pushing the trade on this product hard wherever we have an opportunity to do so, but the fact remains that some customers who are buying all of their requirements for other products from us are compelled from time to time to purchase some quantities of Columbian Spirits as our deliveries of Diamond Spirits, packaged in barrels, prove unsatisfactory for their requirements.

We have found in practically all of these cases that the difficulty is overcome when we can induce the customers to take in their deliveries packaged in iron or tin lined drums, but several of the customers refuse to take in this style container even though we make them a concession in price, on account of the trouble and complications in re-packaging the Alcohol from our drums into barrels, and they claim their customers refuse to take deliveries of this product packaged in drums.

Soap Spirits:

	Quantity sold:	Net price rec'd.
1910	3102½ gallons	\$.616 per gallon
1911	1205 "	.599 " "

This product, which is identical with ^{Diamond} A Spirits except that it has to be given one additional distillation over Caustic Soda in order to make the product fast to alkalies, is used in very large quantities by a few Soap Makers in making transparent soaps.

We have been unable, however, to secure any of these large contracts on the basis of our quotations, and I have recently found, in the case of James S. Kirk & Co., Chicago, that the Wood Products Co. are making them a price right around 50¢ per gallon, in barrels, containers inclusive, drayload lots, delivered at Kirk's place of business through the Wood Products Co's. Chicago representative. As this price would only net us about 44¢ per gallon bulk f.o.b. our plant, I concluded it was unwise to secure the contract so they have renewed their contract for another year with the Wood Products Co.

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We are now negotiating for Swift & Co's. business, Chicago, who use about 6 carloads per year, and are also negotiating for some other contracts in the eastern territory, but I do not believe that we shall be able to obtain any of it on the basis of prices that will net us much, if any, more than we are receiving for our product sold as 95% Refined Wood Alcohol.

Complaints received:

Swift & Co. purchased a few drums of our Soap Spirits during the early part of 1911, but advised, after testing same, that the product did not give as satisfactory results as the Soap Spirits they obtained from the Wood Products Co; therefore, we were compelled to take back the balance of the few drums we delivered to this concern. This complaint was reported to our production Department and we have also sent them several samples of our competitors product, but Dr. Hudson advises that so far as he can determine from chemical tests, our Soap Spirits is equal in quality to that of our competitors.

The Industrial Alcohol Co. are making a persistent effort to get all of the manufacturers of transparent ^{soap} to use their Denatured Alcohol, which is known as Soap Makers Special Formula, and which they are offering at about 45¢ per gallon delivered.

Armour & Co., who use about 50,000 gallons per year, have gone over entirely to the use of this Denatured product. I am advised that all of the other soap manufacturers are experimenting with this special grade of Denatured Alcohol, and assume that more of them will probably adopt its use.

I do not believe that we shall be able to obtain any large amount of business on this special grade of Alcohol unless we should later decide it advisable to take on some business even though we do not realize much, if any, more than its equivalent value when sold as

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95% Refined Wood Alcohol.

Perfume Spirits:

	Quantity sold.	Net price rec'd.
1910	2904 gallons	\$.816 per gallon
1911	1661 "	.804 " "

I do not believe that there is a permanent field for this product as we have only been able to interest some of the small perfume manufacturers who use the product in making cheap perfumes, and the more progressive of these manufacturers soon determine that they can get equally good, or better, results from Columbian Spirits, or some similar product which the Wood Products Co. are offering under special names, at prices right around 70¢ per gallon in barrels; in fact, I recently heard of a case where the Wood Products Co. sold 5 bbls. branded as Special Perfumers Spirits at 65¢ per gallon, containers inclusive.

Complaints received:

We have received several complaints on this product, and after careful investigation I determined same were probably due to the fact that the small percentage of the concentrated perfume material we add to our regular Diamond Spirits, to overcome the characteristic odor of Wood Alcohol, is sufficient to counteract the odor of some of the pomades and essential oils used with this product by the perfume manufacturers in making their finished perfumes.

Special Denaturing Alcohol, U.S. Government Specifications:

	Quantity sold:	Net price rec'd.
1910	32902½ gallons	\$.540
1911	52501	.517

The increased quantity of this product we have sold over the preceding year is due to the fact that the Hammond Distilling Co. have been pushing out more aggressively after business on Denatured Alcohol. They are practically the only independent distillers now making this product in the United States and are our principal customers on Special Denaturing Alcohol.

We sell small quantities occasionally to the Lakeside Distilling

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Co., Milwaukee, Wis. and the Woolner Distilling Co., Peoria, Ill. and occasional carloads to the Western Grain & Sugar Products Co., Agnew, Cal.

The decreased price received for this product is due to the fact that the Wood Products Co. have reduced their prices. I have been able to keep in close touch with the prices our competitors are making through our friends, The Hammond Distilling Co. and the Western Grain & Sugar Products Co. They have both repeatedly advised me that they much prefer to give us their business on this product at an even break in price as they felt quite certain that were they compelled to draw their supplies from the Wood Products Co. it would be comparatively easy for their competitor on Denatured, the Industrial Alcohol Co., to restrict their sales or put them out of business entirely through having the Wood Products Co. increase their price on Special Denaturing Alcohol to a prohibitive figure.

The Standard Chemical, Iron & Lbr. Co., of Toronto, have also come into the American market and quoted some low prices on this product. In fact I believe it was largely due to their efforts that our prices have been decreased this year below the prices we received during 1910.

The Hammond Distilling Co. have shown me several, original, written quotations received from the Canadian concern as well as the Wood Products Co.

Special Denaturing Alcohol, however, is one of our profitable grades as our Production Department advises it costs us $43\frac{1}{2}$ ¢ per gallon in barrels, containers inclusive, f.o.b. our plant, based on the present selling price for 95% Alcohol and Methyl Acetone.

I understand that the Industrial Alcohol Co. have made an arrangement with the Purity Distilling Co., Cambridge, Mass., whereby they really control the sale of the production of this plant. The Manager of the Western Grain & Sugar Products Co. advised me that they were working absolutely independent of the Industrial Alcohol Co., so far as making Denatured Alcohol for the Pacific Coast was concerned, but that they have an arrangement whereby the Industrial Alcohol Co. sells

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practically their entire production of this product. I have been informed that the Western Grain & Sugar Products Company have sold out entirely their interests in the Purity Distilling Co.

Sawdust Alcohol:

It is claimed that the plant built at Georgetown, S.C. by the MacEwen Company is in regular and successful operation and that this plant has now been purchased by the DuPont Powder Co.

The other interests, represented by Mr. Brainard and Mr. George, in Chicago, have expended, according to several different reports, about \$300,000 or \$400,000. on their plant located at Hadlock, Wash., but I have been unable to secure any reliable information that this plant is being regular operated. In fact, I am inclined to believe, from the reports received from various sources, that they have been unable as yet to operate their plant regularly.

I had several meetings with Mr. Brainard and Mr. George, during which we discussed the advisability of our acting as their sales agent for their Denatured Alcohol and also selling them the Special Denaturing Alcohol required for their plant.

I feel quite sure, however, that what these people really wanted was to conclude a contract with us principally for its value in aiding them in selling stock in their concern and they seemed to lose interest in continuing our negotiations after I advised them that we would not enter into any contract until their plant had been operated for a sufficient length of time to prove to our satisfaction that they could make regularly large quantities of Denatured Alcohol of satisfactory quality at prices that would enable them to compete with the Industrial Alcohol Co., or other manufacturers, of this product.

During the latter part of 1911 I approached them relative to supplying their requirements of Special Denaturing Alcohol, but they advised me that they had arranged for their requirements of this product from another manufacturer, who I supposed to be the Wood Products Co., in case they were really buying any at all.

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It is reported that the MacEwen interests are building another plant located in the South, but I noticed recently a newspaper report stating that some of the stockholders in this company have petitioned for a receiver, claiming that the MacEwens had dishonestly manipulated the assets of the company. I understand that a receiver has been appointed for this concern.

Methyl Acetone.

Refined Methyl Acetone "AA"	Quantity sold:	Net price rec'd.
1910	24086½ gallons	\$.559 per gallon
1911	25286½ "	.546 " "
Refined Methyl Acetone "A"		
1910	462 gallons	.480 per gallon
1911	6446 "	.470 " "

Our competition on this product has been very keen during the past year, and the reduction in net price received is due to the fact that there is no well-established market price on this commodity. While the Wood Products Co. claim to maintain a price on their high grade Refined Methyl Acetone of 65¢ per gallon in barrels, containers inclusive, quantities of 1 to 5 bbls. or more at a time, they do not hesitate to make very much lower prices whenever necessary to secure the trade of large consumers; for example, The Sherwin-Williams Co., who use 6 to 8 carloads per year at their Kensington, Ill. plant, have advised me they are now buying this product at about 52¢ per gallon, packaged in returnable drums, car-load lots, delivered.

Two years ago we supplied this concern with our Refined Methyl Acetone "AA" at 60¢ per gallon.

We have found in some cases customers who were obtaining low prices on Methyl Acetone, and upon examination of a sample of the product they were using we have found that it was not so high in Acetone or Alcohol proof strength as our regular "AA" product, and in these cases have

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pushed the sale of a lower grade product which we know as our Refined Methyl Acetone "A". This product tests 95% Alcohol proof and contains 30% Acetone, and we do not push its sale except where necessary to meet competition.

Another handicap that we frequently experience is that when we have a good customer established on our high grade Methyl Acetone "AA" our competitors offer them a product practically the same strength in Acetone and containing in addition from 15 to 35% Methyl Acetate. Our Production Department advise we get very little Methyl Acetate in making our production, while our competitors seem to have large quantities of this element available, and comparative tests show that the Methyl Acetate is even a better solvent than Acetone itself, also that the present of this constituent gives the finished Methyl Acetone a smoother and more agreeable odor.

During the past year the Wood Products Co. have brought out a product that they market under various trade names which we have found by analysis contains 50 to 60% Acetone and about 40% Methyl Acetate, the balance being Refined Wood Alcohol. This finished product is practically absolutely free from water.

Since securing the sale of the Antrim Iron Co's. production we have been able to meet this competition in a limited way, as they produce about 1000 gallons per month of Refined Methyl Acetone containing 50% Acetone and 25 to 30% Methyl Acetate.

Dr. Hudson advised me that Methyl Acetone made from Retort Alcohol contains a considerable percentage of Methyl Acetate, while the Methyl Acetone made from Kiln Alcohol contains practically no Methyl Acetate except where it is produced in the process of refining the Alcohol, as he claims is the case at Antrim.

Complaints received:

We have received very few complaints on this product, and in practically all cases they were found on investigation to be due to slight

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discoloration from contact with the wooden barrels when shipped in this style container.

Some of our customers insist that they have no difficulty in obtaining a water white product from the Wood Products Co. packaged in wooden barrels, and Dr. Hudson advises after making careful tests that this high proof product is always more or less liable to permeate the glue and discolor from contact with the barrels, or become slightly cloudy in appearance; therefore, we make an effort in the case of all customers to induce them to take their supplies of this product packaged in returnable iron drums, and a large portion of our total sales is now marketed in this style container.

There is a large consumption of Refined Methyl Acetone in the United States and also a considerable demand from England. I believe that we shall have no difficulty in marketing all the Methyl Acetone we can produce, although I think the net price we receive may go somewhat lower on account of the tendency of our competitors to cut prices wherever necessary to secure the business.

<u>PURE ACETONE:</u>	Quantity sold:	Net price rec'd.
1910	1,502,253 lbs.	\$.1255 per lb.
1911	1,548,460 "	.123 " "

The demand for this product has contained strong throughout the year; in fact we could have easily secured 50% more business if we had been able to produce the goods.

Our largest customer, The Prest-O-Lite Co., have steadily increased their requirements so that they are now using an average of about 6 carloads per month. We were unable to take care of their increased requirements for 1912, so they have contracted to take three carloads per month from us, two carloads monthly from the Albany Chemical Co. and one carload per month from The Harshaw, Fuller & Goodwin Co.

Our demand from England for Pure Acetone, British War Dept. Spec-

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ifications, became very much stronger during the latter part of 1911, and the price obtainable on this business has steadily advanced until at the present time we are able to secure £76 net per long ton for carload shipments c.i.f. London, which equals about $15\frac{1}{2}$ ¢ per pound net f.o.b. Marquette, which is $1\frac{1}{2}$ ¢ per lb. higher than we receive net at Marquette for our American sales of Pure Acetone, U.S.P.

Our Production Department's last advice, per telegram under date of March 9th, is that it costs us about 3% more to produce the Pure Acetone, British War Dept. Specifications than Pure Acetone, U.S.P.

I understand, from the advices given us by various correspondents, that the sudden increased demand for Acetone in England is due largely to the war between Italy and Turkey and the possibilities that some of the other European nations may also become involved. It seems that all of the European powers make it a rule to stock up with increased quantities of smokeless powder whenever a felling of this kind exists.

I believe that the English Acetone market is largely dominated by the Hungarian and German manufacturers, and assume that the English buyers approach the American producers when it becomes necessary to take care of their increased Acetone requirements.

Complaints received:

We have received no complaints on this product except in some few cases where there was a loss in transit due to leaky drums, excepting the case of Eli Lilly & Co., who use very small quantities.

They claimed that one drum of our Acetone did not meet the U.S.P. Specifications and refused to accept same. We found after careful investigation that the difficulty in this case was due to a piece of rubber hose in the drum, and our Production Department claimed they were absolutely certain this did not get into the drum through any carelessness on their part as the maker's brand on this piece of rubber hose was different from the brand on any hose they ever used at our plants.

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When I reported this occurrence to Eli Lilly & Co., they advised that after careful investigation they felt quite sure that there was no possible chance that this piece of rubber hose could have gotten into the drum of Acetone while it was in their possession.

I believe that we shall have no difficulty in marketing all of this product we can produce during the coming year, and from present indications it seems quite certain that the market price will not be much, if any, lower, unless of course there should be a reduction in the market price for Acetate of Lime.

All American contracts for Pure Acetone, U.S.P. are based on the ruling market price for Acetate of Lime, and the contract price for Acetone changes proportionately according to the change in the market price of Acetate.

All sales of Pure Acetone, British War Dept. Specifications, are made, so far as I have been able to determine, without protection either for the Buyer or Seller in case there is a change in the market price of Acetate.

We were unable to take advantage of any of the contracts offered by the English buyers during the latter part of 1911 on account of the fact that we were sold close up to our capacity, and the difficulty we experienced in being able to buy from Wm. S. Gray & Co. all of the Acetate of Lime needed to operate our Acetic Acid and Acetone plants to their full capacity.

It developed at the Acetate of Lime meeting held in Buffalo Dec. 14th that Mr. Gray had given the European buyers an opportunity to cover by contract their entire requirements of Acetate of Lime over 1912 on the basis of the market price ruling up to that time, namely \$2.00 per cwt. He also admitted at this meeting that he had contracted some quantities of Acetate of Lime to American buyers on the \$2.00 basis, but only with certain Acetone manufacturers, sufficient to protect them on contracts they had made on Acetone for export. At this meeting

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the market price for grey Acetate of Lime was advanced to \$2.25 per cwt. for all future sales and this, of course, placed us in a position where we were unable to take on any English business, as the best price obtainable at that time from English buyers was 72 to 73 £ net per long ton.

The foreign demand, however, continued strong and we were able during January to close business for several carloads on the basis of 76£ net per long ton, and were in a position to take on this business through the fact that one of our American contract customers, The Diamond Rubber Co., advised they would not require us to make any shipments on their contract (which calls for about two carloads per month) during January, February and March.

In consequence of this strong demand for Acetone Mr. Farrell, and Dr. Hudson, advised they believed they could, by making a few changes, use the two new Wood Retorts, built at Marquette, for making Acetone. In accordance with your instructions, some experiments were made in this direction, which gave such satisfactory results that you authorized the equipment of one Wood Retort.

If these Wood Retorts work out satisfactorily for making Acetone, our Production Department estimate we can make about 90,000 pounds per month Acetone in each Retort.

ACETONE OILS:

Refined Light Acetone Oil:	Quantity sold:	Net price rec'd.
1910	215107 pounds	\$.072 per pound
1911	245197 "	.069 " "
Heavy Mellow Acetone Oil: 1910	26951 "	.047 " "
1911	65622 "	.036 " "
Superior Spirits (Redistilled Refined Light Acetone Oil)		
1910	4896 pounds	.106 " "
1911	2727 "	.104 " "

Special Solvent No. 11 (a mixture containing Heavy Yellow Acetone Oil with Methyl Acetone "AA" and Petroleum Distillate)

	Quantity sold:	Net price rec'd.
1910	8134 gallons	\$.729 per gallon
1911	8652 "	.730 " "

We contracted early in the year a large portion of our production of the Refined Light and Heavy Acetone Oils for export to England, and were compelled to accept a reduced price on account of the fact that the English buyers claimed they could secure these products from our American competitors at lower prices than they paid us during the preceding year.

I have made a persistent effort to find new uses for these products, and believe, as a result of the experiments we have conducted during the past year, that we shall be able to obtain during 1912 considerably higher prices for our production of Acetone Oils worked up into different grades or special solvents. In fact, we closed during the latter part of 1911 some business with American buyers who will use this product as a substitute for Amyl Acetate at prices that will net us from 20 to 25% more profit, and, on account of the favorable indications, we declined to contract any portion of our production for 1912 with the European buyers.

Superior Spirits:

The decreased sales of this product have been due to the fact that it does not work out satisfactorily for the purposes for which it was used. Some American buyers who use considerable quantities thought Superior Spirits could be used as a solvent for their work in place of Pure Acetone, but practical trials convinced them it would be advisable to go back to the use of the last mentioned product.

There will, I believe, continue some demand for this product at about the prices we have received during the past year.

Special Solvent No. 11:

This product is used by only one customer, The Prest-O-Lite Co., who have put this product out as a specialty under the name "Prest-O-Carbon Remover" for use in cleaning gasoline engines, and I assume from the

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advice they gave me that we cannot expect the consumption of this product to increase much, if any, as a great many different carbon removers are being put out by various concerns throughout the United States; some of them consist of nothing more than Kerosene Oil so disguised as to cover its characteristic odor. In fact some of the automobile people have advised me that they believe Kerosene Oil will do as good or better work in cleaning gasoline engines than our Special Solvent No. 11. Mr. Farrell and Dr. Hudson have also expressed themselves in like manner.

I believe that we shall have no difficulty in finding a good market for all the Acetone Oils we can produce, as they are good solvents for various purposes and the only objection to them is their disagreeable odor, which the experiments we are conducting indicate that we may be able to partially overcome.

FORMALDEHYDE:	Quantity sold:	Net price rec'd.
1910	1,291,417 pounds	\$.081 per pound.
1911	1,357,601 "	.0817 " "

There is a steady increase in the consumption of this product, principally for use as a fungicide in treating seed wheat, flax and other agricultural products. I believe from the advises we have received that the total sales for 1912 will show an increase of about 10% over 1911. There is no reason to expect any reduction in the market price unless some new American works should be started or the American tariff should be reduced to a point where it will allow the foreign manufacturers to compete for the Formaldehyde business in the United States.

Mr. Farrell and Dr. Hudson advise they have made some improvements in our plant which they believe will result in increasing our capacity somewhat, but the principal difficulty in handling this business is due to the fact that the largest quantities have to be shipped during a few winter months, usually February and March, while during the summer months the demand from our normal territory is not sufficient to enable us to run our plant to its full capacity. This makes it necessary for us to com-

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mence running our plant full capacity early in the Fall and accumulate a sufficient reserve stock to take care of the shipping requirements during the winter months and, while our selling agents, the Perth Amboy Chemical Works, endeavor to anticipate their requirements as far in advance as possible, it is liable to happen that they will receive orders for large quantities of Formaldehyde, in addition to the requirements they have already given us, for shipment during the two winter months above mentioned.

Our production Department advise that there is always more or less danger from discoloration and loss in strength when this product is stored in wooden barrels, therefore, I believe it would be wise to at least double our present bulk storage facilities so that we could store 200,000 to 250,000 pounds of Formaldehyde.

Complaints received:

We have received no complaints during the past year on the quality of our Formaldehyde, and very few complaints regarding the quality of our barrels, but complaints have been received on several carload shipments as to the quality of kegs we use for shipping Formaldehyde. These complaints have come in from the Chicago and Kansas City agents of the P.A.C. Works, also from the Heyden Chemical Works, to whom we ship some Formaldehyde at Chicago:

Our Production Department advise they are doing everything possible to secure the best quality of kegs obtainable and take particular pains to see that they are carefully recoopered and prepared. This is a very difficult product to handle in wooden containers, and I believe our Production Department are exerting every effort to see that all shipments are properly packaged before leaving our plant.

Mr. DuBois recommended, during the latter part of 1911, that we adopt the plan of packaging some Formaldehyde in 1-lb., sealed, glass bottles, to be sold through the jobbers under the manufacturers label bearing the manufacturer's guarantee for strength and quality. This

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matter was discussed during Mr. DuBis' visit at our office last November and it was finally deemed best to hold the matter in abeyance until his return from abroad, when I understand he will again bring the matter up. We can then decide whether it will be advisable to adopt this plan.

From personal investigations I have made, I believe this would be an excellent plan, as it will result in getting our name as manufacturers directly into the hands of the consumers and also assure the consumers being able to obtain full strength Formaldehyde.

As this product is now marketed - in bulk containers - it is re-bottled by the wholesale and retail druggists over their own labels, so that the consumer is not certain, when receiving his supplies from the retail dealers that the product is of standard strength and quality, and we are in a way in the power of the jobbers, as they would be able, should some new Formaldehyde manufacturer come into the field, and offer his product at lower prices, to buy the new goods in bulk and put them out under their own label, and so far as the consumer is concerned, he would not be familiar with the fact that any change had been made in the jobbers source of supply for Formaldehyde.

Another important point is that some retail druggists charge the consumer an exorbitant price so that the farmers are not encouraged to use Formaldehyde as freely as they would probably due were they able to purchase the product in original, sealed containers under the manufacturer's label and guarantee at a reasonable price.

I believe that if this plan is adopted, and the manufacturers sealed packages are properly advertised and introduced, ultimately we shall be placed in a much stronger position and will also find that the use of Formaldehyde will be largely increased.

HEXAMETHYLENAMINE, U.S.P.:

	Quantity sold:	Net price rec'd.
1910	4731 pounds.	\$.5865 per pound
1911	6308 " "	.596 " "

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While we have sold increased quantities of this product during the past year, the business has been largely confined to two or three customers, and we have continued to experience considerable trouble with reports from all of our customers, except one, The Upjohn Co., that some shipments of our product are objectionable on account of having a slight odor.

I have investigated these complaints very carefully and have come to the conclusion that the test for odor is entirely a test by nose, as in cases where shipments of our Hexa. have been rejected the chemist who made the complaint admitted frankly that our product met all the chemical tests but according to his nose the product was not exactly odorless and he was afraid that after standing for some length of time, especially when kept in tightly closed packages, the odor would develop further so as to make their finished products in which our Hexa. is used unsatisfactory for their customers requirements.

Both Dr.Hudson and some of our customers chemists are working toward the point of being able to find some definite chemical tests which can be adopted in standardizing this product for odor.

The Mallinckrodt Chemical Works advised me during my last trip to St.Louis that they used from 20,000 to 25,000 pounds per year of Hexa. and would be willing to purchase their supplies from us providing we could make them lower prices than they are now receiving from the Perth Amboy Chemical Works and also assure them that in case they drew their supplies of this product from us it would not demoralize the market price.

After some negotiations Mr.Mallinckrodt advised me frankly that our price would have to be less than 50¢ per lb. in bulk containers, L.C.L. shipments, f.o.b. St.Louis in order to interest them, and I concluded after carefully investigating the whole situation that if we should take this contract away from the Perth Amboy Chemical Works it would probably result in the market schedule being reduced; therefore, I informed the Mallinckrodt Chemical Works that we did not believe it advisable for us to take

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their contract.

I have discussed this matter with Mr. DuBois, of the Perth Amboy Chemical Works, who advised me frankly that they were making the Mallinckrodt Chemical Works and Merck & Co. a very close price on account of the fact that both of these concerns formerly manufactured this product themselves, and Mr. DuBois claimed that, if necessary, they could make and sell Hexa. under 40¢ per pound profitably. Our cost reported by Dr. Hudson is 42½¢ per pound in wooden drums, containers inclusive, f.o.b. Marquette, Mich. for the Fine Crystals.

We have been unable to secure any business from Parke, Davis & Co., Detroit, who also use large quantities of this product but claim they are buying their supplies at very much less than the schedule price, 65¢ per pound. I have informed them verbally that we might be willing to make them a price of 58¢ per pound, delivered, and they advised me that this price was not low enough to secure their business.

ACETATE OF LIME:	Quantity sold:	Net price rec'd.
1910	976,945 pounds	\$1.518 per cwt.
1911	None	-----

We have consumed our entire production of this product during the past year in making Acetone and Acetic Acid. I believe we shall have no difficulty in using all the Acetate of Lime we can produce during 1912; in fact, if the present, strong demand for Acetone continues, we shall be able to continue to work up profitably considerable quantities of outside Acetate of Lime, if we can obtain same, in addition to our own production.

I believe it would be advantageous for us to start negotiations with a view of securing the entire production of Acetate of Lime from some or all of the other plants located closely to our own, so that we can take advantage of the saving in freight charges; for instance, the carload rate of freight on Acetate of Lime from Wells, Mich. to New York is 35¢ per cwt. and to Marquette 8¢ per cwt.

Therefore, if we could arrange with the Mashek Chemical & Iron Co.

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to sell us their Acetate of Lime at the same price f.o.b. Wells that they would net if their production were sold through Wm. S. Gray & Co., we would save 27¢ per cwt. in freight charges alone, in addition to Gray's selling commission, and the cost for bags if we were able to take the product in cars in bulk which I believe we could do.

ACETIC ACID:	Grade	Quantity sold:	Net price rec'd.
1910	28%	2000 lbs.	\$.0155 per lb.
1911	28%	11960 "	.0186 do.
1910	56%	64973 "	.0295 do.
1911	56%	246778 "	.0272 do.
1910	60%	66913 "	.0355 do.
1911	60%	9660 "	.0361 do.
1910	70%	235160 "	.0365 do.
1911	70%	1364441 "	.0344 do.
1910	75%	278812 "	.0375 do.
1911	75%	99708 "	.0337 do.
1910	80%	14365 "	.0425 do.
1911	80%	222465 "	.0439 do.
1910	99 & 99 $\frac{1}{2}$ %	108605 "	.0706 do.
1911	99 & 99 $\frac{1}{2}$ %	198182 $\frac{1}{2}$ "	.0744 do.

We have largely increased our sales on this product during the past year, and could have easily sold larger quantities of the Pure Glacial U.S.P. 99 $\frac{1}{2}$ % Acid if we had been able to produce same. As you know, our Glacial Acetic Acid still gave out entirely last summer, just at the time when the demand was heaviest. The buyers have been accustomed to store a sufficient quantity of this product during the summer months to care for their requirements during the winter season, on account of the great danger of severe loss through breakage of carboys from freezing when the product is shipped in cold weather.

We are carefully investigating several new style packages in the hopes that we shall be able to find some better containers than glass, boxed carboys for shipping the Glacial Acid, and it looks now as though we might be able to purchase aluminum drums which will be satisfactory for this purpose.

We have received several inquiries from our English customers

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who advise that large quantities of Glacial Acetic Acid are imported into England, but we have been unable to take on any export business owing to the fact that the steamship companies will not quote us favorable rates for this product packaged in glass, boxed carboys. The expense too for the weight of shipping containers per cwt. of Acid makes it impossible for us to meet the ruling English market prices profitably.

I estimate that in case the aluminum drums work out satisfactorily that this style container will be acceptable to the steamship companies and that with the saving in weight we will be able to market in England some of our surplus Glacial Acetic Acid, when we have some available, profitably, and thereby enable us to operate our plant to its maximum capacity and produce the product at its minimum cost. The new refining still ordered from Meyer was not put in operation until after the cold weather set in.

We have found it impossible to compete profitably for any of the business on low grades of Acetic Acid, like the 28% and 56%, of which large quantities are used by the textile printing trades, dry color manufacturers and other lines in the eastern territory, on account of the fact that our saving in freight on Acetate of Lime is more than offset by the saving our competitors have in freight on these finished products; therefore, it has been necessary for us to endeavor to induce the consumers who were accustomed to using these low strength acids to take in higher strength goods, like the 70 and 80% grades, and even in the case of these high strength products we have found many cases where it was impossible for us to meet the quotations made by our competitors and still leave us any profit after deducting the freight charges and cost for returning the empty containers.

The General and Grasselli Chemical Companies have persistently followed up our customers and in some cases we have been forced to make lower prices proportionately to secure a renewal of the contracts than we received on the old ones.

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I am informed that the Penna. Salt Co. have completed an Acetic Acid plant where they are now prepared to make all of the different grades of this product, including Glacial Acid, so assume that we shall probably have to make some lower prices on this and the other high strength grades.

Our costs for making this product have been higher during the past year than the preliminary estimates furnished by our Production Department, due, I assume, to the fact that our plant has not been operated to its full capacity, owing to the difficulty experienced with our Glacial Acetic Acid still. Mr. Farrell and Dr. Hudson have stated that the original plant as built by Mr. Wilke was not properly constructed and that they are experiencing more or less trouble with portions of the apparatus.

I believe that we shall have no difficulty in marketing our entire production of Acetic Acid during 1912, but estimate that we shall be unable to ship much, if any, Glacial Acetic Acid until after May 1st, owing to the fact that most of the large buyers stocked up during last summer with sufficient quantities to run them through the winter months.

The Eastman Kodak Co., to whom I had calculated being able to sell large quantities of Glacial Acetic Acid, advised me that they have discontinued using this product in so large a way as they have heretofore, owing to the fact that they have experienced some difficulty in obtaining what they believe to be a fair price for the non-inflammable moving picture films. They advise that they have sufficient quantities covered by contracts in force to take care of their requirements until May or June, 1912. I shall keep in close touch with this concern and believe that we shall have an opportunity to compete for their future requirements of this product before they close new contracts with our competitors.

The Celluloid Co. renewed a contract during the latter part of 1911 with our competitors, advising that the quotation we submitted was not sufficiently low to secure their business, so it is evident that some of our competitors have already commenced to cut their prices on this grade.

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ACETIC ANHYDRIDE:

Owing to additional delays in completing our plant, we were unable to compete for any business on this product during 1911 and, as our Production Department were unable to give us any definite information as to the date they would actually be ready to commence shipping this product, we have been compelled to advise all inquirers that we were not in a position to supply this product, and were unable to inform them definitely when we would be able to commence shipping same.

The Eastman Kodak Co., who have been the largest consumers of Acetic Anhydride in the United States, advise me that they have discontinued using this product, owing to some difficulty experienced in marketing at satisfactory prices the non-inflammable, moving picture films. Their Purchasing Department have given me to understand that they are not liable to again use large quantities of Acetic Anhydride, but the Manager of their Manufacturing Department has expressed himself as believing that they would again take up the manufacture of non-inflammable films and therefore again use large quantities of Acetic Anhydride and Pure Glacial Acetic Acid.

There appears, however, to be a growing tendency on the part of various manufacturers in the celluloid, artificial leather business and allied lines to use Acetic Anhydride, and I believe there will continue to be a considerable demand for this product even though the moving picture film manufacturers do not again use large quantities.

It is impossible for me to give you any estimate as to the quantity of this product we shall be able to sell during 1912, as so many of the buyers have covered their requirements by contract. So far as I have been able to determine, however, there are no other American manufacturers of this product and the entire supply consumed in the United States is imported from Germany. There is an American duty of $2\frac{1}{2}\%$ per pound on this product, and it would seem as though this duty, in addition to the cost for freight in getting the product over to America should be sufficient

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protection to enable us to secure some of the business, providing we are able to make Acetic Anhydride on the basis of Meyer's estimated cost.

From the information I have secured from various sources, I estimate that the present market price on this product for L.C.I. deliveries in New York is about 26¢ per pound, although I have been advised by some of the larger consumers that they were now obtaining the German product at about 20¢ per pound, and the Eastman Kodak Co. have given me to understand that they were buying this product at less than 20¢ per lb.

The factory manager of the Eastman Kodak Co. advised me, in reply to my question, that Acetic Anhydride should cost them about 12 to 14¢ per pound in order to enable them to make the non-inflammable films at about the same cost they are making the regular inflammable film.

I have heard several rumors that other American companies were getting ready to build plants for making this product, but have been unable to secure any reliable confirmation of these rumors.

The Chemical Products Co., Boston, Mass., recently advised me that they had received an estimate from another American company, who said they would soon be in a position to supply Acetic Anhydride, that they could sell them this product at 18¢ per pound f.o.b. Boston. I believe, however, that this information was given me with the hopes that it would induce us to revise the estimated selling price I had previously given this concern, which was 26¢ per pound f.o.b. Boston.

I understand that the Warner Chemical Co. have made some Acetic Anhydride in a small way in the past but that they have given up the manufacture of this product as their process and equipment did not place them in a position to compete profitably with the German manufacturers.

SULPHURIC ACID:	Quantity sold:	Net price rec'd.
1910	None	-----

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1911

60°	140,800 lbs.	\$.225 per cwt.
62°	598,150 "	.246 do.
66°	2,110,200 "	.45 do.

Owing to the delay in starting our plant, which was not in regular operation until June, made it impossible for us to compete for any of the contracts among the consumers in our territory who were ready to close shortly before or after January 1st.

When the plant was first started up we produced very much dark colored Acid, and as it was impossible to sell this product to the consumers in our normal territory, Michigan and Wisconsin, on account of its color, we were compelled to sell a considerable quantity to the fertilizer manufacturers on the basis of 60° Acid at very low prices, as our storage tanks were filled and we had to compete with the zinc by-product producers who make large quantities of this low grade acid.

During the last six months of the past year we have been able to get some business started with the tanners and paper manufacturers, who are the principal consumers located in Michigan and Wisconsin, but have been forced, through our competitors having reduced their prices in order to keep us out of the territory, to sell this product on a basis which netted us an average of about \$9.00 per ton f.o.b. Marquette.

We have now closed enough contracts so that I believe we can safely calculate on selling an average of about 10 tank carloads monthly during 1912, with the possibility that we shall be able to close enough new business in our normal territory to increase this quantity to 12 or 15 tank carloads monthly.

We sold during the latter part of December six carloads 66° Sulphuric Acid to the Algoma Steel Co., Sault Ste Marie, Ont. at \$10.00 per ton f.o.b. Marquette, but if this Acid proves satisfactory in quality I estimate that we shall be able to ship them several, additional

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tank carloads monthly during 1912 until they get the new Sulphuric Acid plant they are building completed and in operation. Mr.Farrell advises me that he has learned through Mr.Faulding that these people do not expect to have their plant in operation until the latter part of 1912.

Mr.Farrell and Dr.Hudson have determined from their experimental work that it will probably be practical to bleach our Sulphuric Acid, which they advised me can be done at very small cost, and they seem to believe that they will be able to get better results from our Sulphuric Acid plant after Mr.Faulding has completed his work and left Marquette.

I have carefully investigated the possibility of our being able to compete for some of the carboy trade in Chicago, Milwaukee and other points, but do not believe it will be practicable for us to undertake this business until we can also supply Muriatic and Nitric Acid.

Our competitors maintain very good prices for 66° Sulphuric Acid delivered to the buyers at the above mentioned points, packaged in carboys, drayload lots. The ruling market price in Chicago is from 90¢ to \$1.00 per cwt., and the General and Grasselli Chemical Cos. seem to control this carboy business absolutely, and, I believe, have a working arrangement whereby they divide this trade between themselves.

I have found tank car buyers in Chicago who claim they are able to purchase 66° Commercial Sulphuric Acid at 50 to 60¢ per cwt., but I have not found any cases where the same product is being sold to the carboy buyers at less than 90¢ per cwt.

The majority of the carboy buyers require all three products and several of them have informed me frankly that they would not dare to give us their Sulphuric Acid business alone as they felt sure from previous experience our competitors would hold them up on their requirements for Muriatic and Nitric Acid.

The only way that we could handle this business economically would be to establish bulk storage tank facilities at Chicago, Milwaukee and other large distributing centers and then repackage our Acid shipped

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there bulk in tank cars into carboys and make deliveries from these distributing stations. I estimate that our expense for handling this repackaging and distributing work would amount to at least 25¢ per cwt., without taking into consideration the loss through breakage in handling the carboys which is, of course, something that we could only determine by experience.

I have done a great amount of work during the past year towards securing a revision in freight rates on this product, also in investigating the market conditions and endeavoring to find a sufficient outlet to take care of our surplus production at points within our normal territory where the revised freight rates we have been able to secure give us a chance to compete for this business, and we have been successful in securing some marked revisions in our freight rates. For instance, our freight rate to Milwaukee and Chicago has been reduced from 22¢ to 12½¢ per cwt. Our freight rate to Kalamazoo, Mich. has been reduced from 22¢ to 12¢, and some other revisions to points in the northern part of the Southern Peninsula of Michigan, Northern Wisconsin and Northern Michigan have been brought about.

In fact our competitors have entered a vigorous protest with the railroads insisting that the low rates they have given us are very much lower than the established basis which has prevailed for a number of years. As a matter of fact I have been informed by various railroad rate men, including Mr. St. John, that the established basis of rates for Sulphuric Acid in the Central Freight Association territory is 90% of the 5th class rate. This basis would make our rate to Chicago 20¢ and to Kalamazoo 20¢.

Owing to the fact that Sulphuric Acid is a very cheap commodity and we have only a small production of this product which we can sell, my department has incurred a great deal more expense than we will derive from the selling commission on our sales of this product during the next year, and I believe that some allowance should be made, at least sufficient to cover our actual expense, so that we will not actually lose

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money through the work we have done, and are compelled to do, in marketing our surplus Sulphuric Acid.

It appears to me that our plant is badly located inasmuch as we have to freight our shipments long distances to get our products into the principal consuming centers, but I feel that it will be advantageous for us to produce the Sulphuric Acid needed for our own requirements providing we can obtain proper prices on Iron Pyrites, as it places us in an absolutely independent position so far as our other products are concerned, which require the use of considerable quantities of Sulphuric Acid in their manufacture.

I would recommend that we have our geological department prosecute a vigorous and active search for a suitable Iron Pyrites mine which we might purchase or lease, so that we would not be dependent upon outside sources for our supplies of this product.

CHLOROFORM:	Quantity sold:	Net price rec'd.
1910	1203 pounds	\$.2425 per pound
1911	10753 "	.239 " "

Our Pure Chloroform, U.S.P., Specially Purified for Anesthesia, has given very good satisfactory so far as quality is concerned, but our competitors made some further marked cut in the market price during the latter part of 1911, and I understand a new plant for making this product has been installed by the Burgess Sulphite Fibre Co., Berlin, N.H., who claim they are able to make this product from the waste by-products which come from their sulphite pulp mill.

These people have made arrangements with Gustav Martin, a well-known dealer and broker of medicinal chemicals, of Boston, Mass., to market their production, and they are already quoting some of the large consumers a price of 20¢ per lb. in bulk containers, L.C.L. shipments, delivered, and have given the buyers to understand that they were prepared to sell Chloroform, if necessary, as low as 16¢ per lb. This, of course, puts us out of competition as our cost for Chloroform made from Bleaching Powder is 20¢ per lb., and when made from our own Electrolytic

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Bleach 17¢ per pound f.c.b. Marquette. It costs from 1 to 2¢ per pound for freight charges and distributing expense for us to get this product to market, so it looks as though we shall have to lose all of the customers we have started on this product.

Dr. Hudson recently advised me he had learned indirectly through one of the chemists employed by this concern that the Dow Chemical Co., Midland, Mich. claim they can make Pure Chloroform, U.S.P., Specially Purified for Anesthesia, by their process, (which is entirely different from ours and is covered by a patent issued to Dr. Smith) at a cost of about 12¢ per pound f.c.b. their plant.

Dr. Hudson advises me that the Dow Chemical Co. make their Chloroform from carbon tetrachloride, which is made from carbon bisulphide.

I hope that it will be possible, after we get our own electric power in operation, to materially reduce our cost on this product so we can at least continue supplying some of the consumers who buy other chemical products from us.

CREOSOTE OIL:

Refined Creosote Oil for making shingle stains:

	Quantity sold.	Net price rec'd.
1910	690½ gallons	\$.12½ per gallon
1911	8495½ "	.121 " "

I believe that a large trade can be developed for this product if we can treat or manipulate in some way our Creosote Oil so that the finished product will not change the color of various pigments which are added in making shingle stains.

The greatest trouble is experienced in making green shingle stains. We have been unable to find any green coloring pigment which can be mixed with our Refined Wood Creosote Oil but what will fade out or else turn very dark in color after the shingles are stained and exposed to the sun light for a short time.

I have carefully investigated the possibility of being able to

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use this product for creosoting timbers, but find that it cannot be used, for two reasons:

1st: The standard specifications adopted by the American Railway Engineers are so drawn that it requires a coal tar Creosote Oil to meet them.

2nd: The coal tar Creosote Oil is sold at such low prices that it is not profitable for us to compete.

PURE BEECHWOOD CREOSOTE, U.S.P:

Dr. Hudson has conducted some further exhaustive experiments and now believes that he will be able to make a C.P. Creosote meeting all of the U.S.P. Specifications by adding to the product some Guaiacol, which we will have to purchase. Another possible complication develops, however, which can only be determined after we are ready to submit samples of our product, namely, that the American buyers of this product are in the habit of specifying in placing their orders "Beechwood Creosote." Our product is, of course, not made exclusively from Beech Wood.

Dr. Hudson estimates that this product can be made at a cost of about 25¢ per pound f.o.b. Marquette, and if our C.P. Creosote satisfies the buyers, I estimate that we shall be able to sell same at prices that will net us 40 to 50¢ per pound.

The demand for this product in the United States is not large. I estimate that probably not more than 50,000 to 100,000 lbs. altogether are used per year in the United States and, so far as I can determine, the present supply is imported from Germany.

TAR:	Quantity sold:	Net price rec'd.
1910	1357.2 gallons	\$.052 per gallon.
1911	None-----	-----

After careful investigation I have come to the conclusion that we cannot expect to find a profitable market for our Tar or Pitch except such quantities as can be sold to Marquette, Gladstone and other nearby towns for paving purposes.

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There would be a profitable market for our Pitch if we could make a product which could be used in place of low grade Rosin in making Dry Core Compounds. The product, however, will have to be so made that it can be shipped in solid form, easily powdered by grinding and then melted with the application of a reasonable amount of heat. We have tried out a number of experimental batches and have found that when our Tar is brought down to a dry, solid form it cannot be melted again even with the application of very high temperatures, and Dr. Hudson advises me that in bringing down the product to a dry form we have to take out of it all of the oils which give flexible consistency to the product.

We have endeavored to perfect our product so it will be satisfactory for roofing purposes and a small experimental batch made from our Retort Tar seemed to work satisfactorily. Dr. Hudson advises me, however, that it will mean an expenditure of \$3000. or \$4000. in order to install the necessary tar refining apparatus at Gladstone to enable us to make this product in a large way. The product for this purpose must be hard when cold, easily melted with the application of a reasonable amount of heat and then become hard again when cold.

NEW CHEMICAL PRODUCTS INVESTIGATING:

I have requested our Production Department to investigate the practicability of our making Oxalic Acid, Formic Acid, Lactic Acid and Carbon Bisulphide at Marquette, but they have been so busy with new construction work that they have not been able to make a report on these products, nor have they determined from their investigations whether it would be profitable for us to take up the manufacture of any of the new chemical products mentioned in my last annual report, which I will mention here briefly:

Sodium Acetate: There is a large consumption of this product, principally among the textile printing plants in New England and the Eastern states. We may be able to compete for some of this business, but this cannot be determined definitely until we have our Anhydrous Sodium Acetate plant in operation and also find out what quantities

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will be required for making the Acetic Anhydride we can sell.

POTASSIUM ACETATE: There are only limited quantities of this product used and Dr.Hudson advises me it is rather of a difficult and unsatisfactory product to handle, as it is very deliquescent and we would have to buy Caustic Potash, which is a large factor in the cost of making this product.

ACETANILID and ACETPHENETIDIN: No definite report has been made by our Production Department on these products, although Dr.Hudson has advised me that the process of manufacture is a very complicated one and we have to obtain the right kind of a source of supply for Aniline Oil, which is one of the basic compounds.

SODIUM SULPHATE (GLAUBERS SALTS): There is a very large consumption of this product but it is practically all made now from Salt Cake, the by-product obtained in the manufacture of Muriatic Acid. Dr.Hudson believes we could not compete profitably in making Sodium Sulphate from Soda Ash.

PARIS GREEN and COPPER SULPHATE: Dr.Hudson had advised me that he does not believe it will be profitable for us to make either of these products. The last mentioned is now largely made by the smelting and refining companies who work up their scrap copper.

The first mentioned product is a very poisonous and dangerous one to handle and requires large quantities of cheap Arsenic.

MURIATIC and NITRIC ACIDS: Mr.Farrell and Dr.Hudson have submitted a report on these products which indicates that it will not be very profitable for us to undertake their manufacture simply for the sale of these acids. It may later develop that we can use some quantities in our own work and that it would probably be profitable for us to make them.

DENATURED ALCOHOL: The report made by Mr.Farrell on making this product from our waste pulp mill liquors indicated that it would be profitable, but a subsequent report made by the Cincinnati experts seemed to indicate that we would not be warranted in making the large

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investment which they state would be required for making this product.

I believe, however, that, inasmuch as there was so much of a difference between the conclusions reached as a result of the investigations Mr. Farrell conducted and those carried on by the Cincinnati experts, it would be worth while to look into this subject again.

Information received from various sources leads me to believe that this process is being conducted profitably in Sweden; in fact I understand that a large portion of the Denatured Alcohol now used in that country is made from the Waste Sulphite Pulp Liquors.

I believe that it would materially strengthen our position on Wood Alcohol if we had a good source of supply for Denatured Alcohol, as our competitors, who control a large percentage of the production of both Denatured and Refined Wood Alcohol used in the United States, now work aggressively to get the large consumers of Wood Alcohol over to the use of Denatured and have steadily maintained a selling price for this product of 8 to 10¢ per gallon less than their selling price for 95% Refined Wood Alcohol.

I believe that the increased consumption of Denatured Alcohol is not coming from the domestic consumers, who were represented as being as being the principal consumers of this product, and if we could make Denatured Alcohol cheap enough to compete with the Industrial Alcohol Co., I believe we should be able to inaugurate a plan whereby both of us would push the sale of a cheap, low proof product so colored that it could not be used for solvent purposes, making a special effort to regulate the selling price to the consumers, and then, if necessary, increase the selling prices for regular Denatured and Special Solvent grades sufficient to cover our cost in marketing the low grade product for domestic purposes.

I have suggested this plan to several of the present Denatured Alcohol manufacturers, the independent distillers and, in fact, Mr. Harrison, the Manager of the Industrial Alcohol Co., and they all ex-

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pressed themselves as believing that this would be a good plan to follow, but the feeling now seems to be that the Industrial Alcohol Co. wish to keep their selling prices on all of the regular grades of Denatured Alcohol sufficiently low to discourage any increased production on the part of the independent distillers.

They are making no systematic effort, so far as I have been able to determine, to fix the price on Denatured Alcohol to the consumers. The distributing trade is now largely in the hands of the retail druggists, who buy their supplies in single barrel lots from the jobbers at about 45¢ per gallon delivered and then retail it out in smaller packages, largely pints and quarts, on a basis of from \$1.50 to \$2.00 per gallon.

This is certainly not very encouraging to the American public, who were led to believe that they would be able to purchase Denatured Alcohol in competition with gasoline, which sells at 16 to 18¢ per gal.

REVISED FREIGHT RATES AND TRAFFIC WORK:

Aside from the large amount of work my department has done during the past year in securing revisions in our Sulphuric Acid rates, we have also done a lot of work towards securing further revisions in the freight rates on our other products.

It is impossible for us, of course, to do the same amount of work in this direction as could be done by a regular, organized Traffic Department, which I believe our company should establish. This department could look after all freight rates on the company's various commodities, iron ore, pig iron, lumber, wooden ware, paper, as well as our chemical products and, in addition, also investigate the rates which we are forced to pay on the large quantities of supplies we have to ship into our plants.

Many other concerns, whose total volume of business is much less than ours maintain regular, organized traffic departments which keep several men busy, and, I believe, effect large savings in their freight rates or else they would not continue to maintain these departments.

Mr. Wm. G. Mather-43-

It is necessary, in order to handle this matter systematically, as it should be handled, to obtain and keep on file all of the many thousand different tariffs issued by the railroads and various freight associations; it is also necessary to cultivate and maintain close personal acquaintance with the various railroad traffic officials, who make the freight rates, and also to co-operate with other traffic departments who handle similar commodities.

This is very interesting work and I should like very much to follow it up closely and handle the proposition as I believe it should be handled, but if we should do so our expense for this work would amount to more than the total income of my department. Therefore, I recommend that we turn this work over entirely to our Production Department or some new department which should be established at Marquette as our shipments all originate from plants in Northern Michigan.

Inasmuch as our products are all sold f.o.b. point of delivery, as is the established custom with our competitors, I believe that the responsibility both for securing minimum freight rates, proper routing and tracing of shipments in order to make the best time in transit, should be handled from Marquette, and the official handling this work should keep my office advised both as to the correct freight rates, when changes occur, best routing to use for the various consuming points to which we make shipments, also forward us reports showing the passings of our cars at junction points. Mr. H. A. St. John has given me very valuable assistance in the work I have done, and as he is a railroad man of long experience, I would suggest that you consider placing him in charge of this work, as I believe he could handle same with less expense right along in connection with the organization he now has in his department than the company would have to assume were an independent traffic department organized.

In case, however, there is some reason why it does not seem advisable for Mr. St. John to undertake this work, and it is possible that under existing Interstate Commerce Rules he would not be allowed to handle same while he is a railroad rate making official, or for other reasons,

Mr. Wm. G. Mather -44-

I would recommend my assistant, Mr. Koeppe, for this work as he has had a number of years experience with the B.&O., Lake Shore and North-Western before coming into our employ, and I know from experience that he is thoroughly posted on all of the basic and detailed principles upon which railroad rates are made. He is also well informed regarding all of the various tariffs which apply and the proper railroad officials to approach in order to secure their influence and co-operation toward revising rates in which we are interested.

Mr. Koeppe has made a conscientious effort, largely through working overtime, to secure some of the most important tariffs governing the rates which apply on our products, and now has on file in our office sufficient data so he is always able to advise me promptly regarding the minimum rates, necessary routings, etc., which apply for our shipments to practically all points in the United States, and also the return rates on our empty containers, and, if it were necessary, he could also furnish correct rates on practically all of the supplies we purchase which are shipped from various points into our several departments in the Northern Peninsula.

We shall continue doing the best we possibly can toward protecting the best interests of the company in this direction, but I feel that the expense of handling this work should not be charged to the Chemical Sales Department. It now costs us, at a conservative estimate, an average of \$100.00 or more per month, and I do not believe it fair that my department should have to stand this expense.

So far as I have been able to determine, Wm. S. Gray & Co., who were our selling agents for Acetate of Lime, and the Perth Amboy Chemical Works, who are our selling agents for Formaldehyde, make no effort towards securing revisions in the freight rates that apply on our shipments of these products. In fact I believe that in the case of all the Acetate of Lime shipments the matter of securing lower freight rates is left

Mr. Wm. G. Mather -45-

entirely to the various plants who ship this product and Mr. Gray confines his efforts to marketing the product which is always sold on the basis of established prices f.o.b. New York.

EXPENSE CHARGES TO THE CHEMICAL SALES DEPARTMENT:

The plan followed up to the present time has been to charge the Chemical Sales Department with all its direct expense, and, in addition, as indirect expenses, the same proportion of the General Office Expense as the chemical sales bear to the total sales of the company. This I believe to be an unfair arrangement, for the reason that, as I understand the situation, the iron ore and charcoal pig iron sales constitute the bulk of the total sales of the company; therefore, when there is great depression in the iron trade, as has existed during the past two years, and the business for our chemical products is good, my department is really penalized on account of having done a good year's business.

We have already discussed this subject to some extent personally, and I believe that the plan should be revised so that my department will be charged only with its direct expense, such as salaries, office supplies, a fair proportion for rent according to the space occupied, as well as its actual expense for telephones, porter service and actual cost of assistance rendered by other departments such as it would have to assume were we located entirely outside of the general office or established under a separate organization.

We have during the past year concluded an arrangement with the Antrim Iron Co. whereby we are now selling their entire production of Wood Alcohol and Methyl Acetone, and, according to the statements rendered by the Accounting Department, it is their practice to credit the company with the 5% selling commission we receive from the sale of these products and only credit my department with the same selling commission we would receive were these products produced by our own plants. I do not believe that this arrangement is fair, as it certainly seems as though my department should be credited with the entire amount of all selling commissions all received from outside products which we may market.

Mr. Wm. G. Mather -46-

I am well pleased with my work and believe that with the foundation we have now laid, and the organization I have perfected, we can easily market three or four times the quantity of products in our line we are now handling without increasing our expense proportionately; in fact, the only increased expense would be for additional clerical hire to take care of our increasing volume of correspondence and other details connected with the chemical sales work.

There is necessarily a very large volume of correspondence to handle in connection with selling our products, and I believe it would be, in the long run, far more profitable for the company were I able to provide myself with additional help sufficient to enable me to turn over a larger portion of the correspondence and other detailed work which I am now handling personally, so that I would have more time to become better acquainted with the various consumers of products in our line and also investigate new ways and methods in which we could make our production of chemical products more profitable.

While we have succeeded in finding a market for all of the various chemical products we have been able to produce, and I believe there have been very few occasions since this department was opened when our Production Department have not had all the orders needed to take care of their production, it has necessarily occupied a large portion of my time to look after the routine office work, and it has been a physical impossibility for me to cultivate a close personal acquaintance with all of the buyers in our line, which should be done in order to keep in close touch at all times with the market situation, and it frequently happens that some valuable information is secured in this way which enables us to secure not only better prices for the products we are now producing, but also opens up favorable opportunities for extending our line or diverting some of our products into other channels, which will increase the profits of the company.

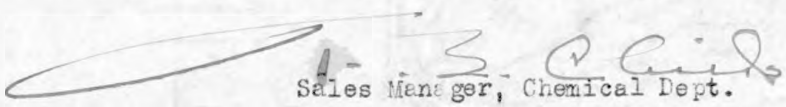
I respectfully request that you consider these suggestions care-

Mr. Wm. G. Mather -47-

fully, and would be pleased to have an opportunity to discuss them more in detail with you personally, and would also like to have your suggestions for changes which you believe should be made in the way we are now handling the work of this department.

Very truly yours,

FLC:HK



Sales Manager, Chemical Dept.



STATEMENT OF OPERATIONS

OF

SUPERIOR CHARCOAL IRON COMPANY

FOR YEAR ENDING DECEMBER 31st, 1911.

RECEIVED

FEB 8 - 1912

Ack. Ans.

PRODUCT

Product for the Year										
BRAND	1911	% of Total	1910	% of Total	1909	% of Total	1908	% of Total	1907	% of Total
Pioneer	16526	22.14	35081	24.45	39236	23.15	29154	26.64	37520	15.77
Antrim	24347	32.62	14942	10.41	36099	21.30	23656	21.61	33197	13.96
Elk Rapids			16352	11.39	11559	06.82	9899	09.05	31419	13.21
Champion			13027	09.08	32721	19.31	9022	08.24	35909	15.09
Marquette	33767	45.24	37185	25.92	30530	18.02	20109	18.38	38919	16.36
Michigan			13922	09.70	866	00.51			23700	09.96
Excelsior									12546	05.27
Pine Lake			12987	09.05	18447	10.89	17599	16.08	24691	10.38
Total	74640	100.00	143496	100.00	169466	100.00	109439	100.00	237901	100.00

FURNACE BANKED OR OUT OF BLAST DURING THE YEAR.

	1911	1910	1909	1908	1907
Pioneer	154 Days	9 Days	4 Days	67 Days	8 Days
Antrim	52 "	206 "	5 "	118 "	
Elk Rapids		184 "	225 "	247½ "	
Champion		238 "	40 "	272 "	6 "
Marquette	3 "	10 "	86 "	179½ "	26 "
Michigan		185 "	360 "	366 "	35 "
Excelsior		365 "	365 "	366 "	68 "
Pine Lake		188 "	126 "	116½ "	31 "
Total	209 "	1385 "	1211 "	1732½ "	174 "

FURNACES BANKED OR OUT OF BLAST ON DECEMBER 31, 1911.

BRAND	LOCATION
Excelsior	Marquette, Mich
The Superior Charcoal Iron Company has not been concerned with the output of the following furnaces since July 1st, 1910	
Elk Rapids	Elk Rapids, Mich
Champion,	Manistique, Mich
Michigan	Newberry, Mich.
Pine Lake	Boyne City, Mich.

AVERAGE DAILY PRODUCT DURING OPERATION

BRAND	1911	1910	1909	1908	1907
Pioneer	78.3	98.5	108.7	97.5	105.1
Antrim	77.7	93.9	100.2	95.8	91.
Elk Rapids		90.3	82.5	84.2	86.1
Chempion		102.6	100.7	97.	100.
Marquette	93.3	104.8	109.4	108.4	114.8
Michigan		77.3	57.7		71.8
Excelsior					42.2
Pine Lake		73.4	77.2	70.8	73.9
Total Daily Average	249.3	640.8	636.4	553.7	684.9

STOCK

STOCK OF PIG IRON ON HAND DECEMBER 31, 1911

	At Furnace	At Deck	Total	1910	1909	1908	1907
Pioneer	35078	9770	44848	41251	26031	15893	3969
Antrim	34707		34707	21544	24172	11424	2634
Elk Rapids	5434	5375	10809	13951	10684	3334	1895
Chempion	10493	5120	15613	20530	17207	3151	2747
Marquette	29390	37606	66996	43837	25095	12833	3525
Michigan	6145	581	6726	8923	1152	654	1748
Excelsior						16	794
Pine Lake	11804	7242	19046	22488	16789	10228	1964
Total	133051	65694	198745	172524	121130	57523	19276

Shipments of Pig Iron made from various furnaces by water to Buffalo, and weights on each cargo. The "Over" and "Under" represents the difference between the furnace weights and the weights made at the deck when the cargo was unloaded.

Date	Pion.	E.R.	Chemp.	Marq.	Mich.	P.L.	Buffalo Wts.	Over	Under
May 7				248			202- 670	14- 670	
" "				\$ 1727			1727- 430	0- 430	
" 27	1031						1027-1730		3- 510
" "	\$ 908						903- 760		4-1480
June 13				\$ 2223			2206- 930		16-1310
" 30	890						873- 260		16-1980
" "	\$ 1063						1044-1040		18-1200
" "					100		95-2100		4- 140
July 22				375			373-1980		1- 269
" "				\$ 1862			1856- 260		5-1980
Aug. 16		1547					1548- 240	1- 240	
Sept. 18				659			642- 670		16-1570
" "				\$-1347			1308-1400		38- 840
" 28				955			958-1900	3-1900	
" "				\$ 1879			1940- 740	61- 140	
Oct. 2	910						907- 970		2-1270
" "	\$ 840						833-1230		6-1010
" "			1526				1512- 240		13-2000
" 9				1833			1745- 180		87-2060
" 16				912			926-1260	14-1260	
" "				\$ 1868			1966-1120	98-1120	
" 29						2600	2597-1780		2- 460
Nov. 6			2151				2106- 500		44-1740
" 16				\$ 2507			2514- 960	7- 960	
" "				1513			1528- 830	15- 830	
Total	2831	1547	3677	6495	100	2600	33406-1780	216- 830	283-1890
	\$ 2811		\$ 13413						67- 460

RECAPITULATION OF SHIPMENTS VIA WATER TO BUFFALO (LEHIGH VALLEY DOCK) 1911.

Brand	Furnace	Buffalo	Over	Under
Pioneer	2831 S 2811	2808- 720 2781- 790		22-1520 29-1450
Antrim				
Elk Rapids	1547	1548- 240	1- 240	
Champion	3677	3618- 740		58-1500
Marquette	6495 S 13413	6437- 770 13519-1360		57-1470
Michigan- Excelsior	100	95-2100	106-1360	4- 140
P.Lake	2600	2597-1780		2- 460
Total	33474	33406-1780	107-1600	174-2060
1910	50141	50039- 240	64-1800	166-1560
1909	49174-1120	Cleve. 7327- 110 41702- 10		118-1000
1908	42016-1320	41850-1655		165-1905
1907	29074-1970	28948-1900		126- 70

SHIPMENTS OF PIG IRON DURING THE YEAR 1911.

Month	Pioneer	Antrim	Elk Rep.	Champ.	Marq.	Mich.	Excel.	P.L.	Total
Jan.	1078	453	232	440	810	152		378	3543
Feb.	1779	538	208	416	1109	152		235	4437
Mar.	1238	1195	416	395	1175	156		118	4693
April	1177	1194	227	419	910	129		77	4133
May	2377	1353	277	114	1272	25		63	5481
June	1280	1232	570	653	709			272	4716
July	836	471	620	641	655	25		335	3583
Aug.	1024	344	126	334	481	219		592	3120
Sept.	441	538	290	126	726	424		253	2798
Oct.	600	1355	28	144	888	509		323	3847
Nov.	581	1351	69	299	964	194		273	3731
Dec.	518	1160	144	972	909	215		620	4538
Total	12929	11184	3207	4953	10608	2200		3539	48620
1910	19860	17570	13087	9703	18443	6152		7288	92103
1909	29097	23351	4210	18655	18276	384		12805	106778
1908	17230	14866	8460	8628	10801	1061	767	8672	70485
1907	37403	32996	32987	37342	43187	24785	13504	23193	245397

APPROXIMATE AVERAGE PRICE AT FURNACE ON IRON SHIPPED IN 1911.

Month	Pioneer	Antrim	Elk Rep.	Champ.	Marq.	Mich.	Excel.	P.L.	Total
Jan.	16.37	16.96	16.66	16.73	16.57	16.84		16.57	16.60
Feb.	16.67	16.35	16.88	16.49	16.06	15.76		15.86	16.39
Mar.	16.15	16.81	16.68	17.66	16.03	16.70		16.28	16.50
Apr.	16.06	15.86	16.58	15.96	16.55	15.73		15.91	16.13
May	16.86	16.12	16.45	16.34	15.76	16.00		16.14	16.42
June	16.29	15.98	16.16	15.64	16.02			15.71	16.04
July	15.98	16.36	15.79	16.25	15.74	16.25		15.66	15.98
Aug.	16.02	16.15	16.22	15.68	15.59	16.00		16.13	15.95
Sept.	15.99	15.84	15.04	16.59	15.75	15.26		16.07	15.72
Oct.	17.74	15.09	12.58	15.42	13.67	15.46		15.59	15.27
Nov.	14.77	15.12	17.00	14.85	15.41	14.97		15.30	15.16
Dec.	15.02	14.71	15.30	14.88	14.92	15.28		14.55	14.85
Total	16.31	15.81	16.21	15.90	15.68	15.65		15.70	15.92
1910	17.57	17.99	18.10	18.01	17.41	16.64		17.76	17.69
1909	18.16	18.08	18.80	18.15	18.22	18.48		17.91	18.15
1908	19.61	19.41	19.49	19.74	20.02	21.73	22.02	18.31	19.55
1907	22.36	22.13	22.33	21.99	22.00	22.08	21.74	22.51	22.17

PIG IRON SALES FOR YEAR ENDING DECEMBER 31, 1911.

Month	Pion.	Ant.	E.R.	Champ.	Marq.	Mich.	Excel.	P.L.	Total
Jan.	1497	295		210	695	325		480	3502
Feb.	1460	595	600	50	2100	25		65	4895
Mar.	1035	130		30	1075	25		15	2310
Apr.	715	1375	130		570			100	2890
May	1726	822	45	25	180	25		10	2833
June	277	350		440	480			220	1767
July	630	340		30	687	275		235	2197
Aug.	160	40		125	310	25		117	777
Sept.	950	1625	60		210	40		95	2980
Oct.	1145	980		430	380	145		675	3755
Nov.	1790	1550	1300	340	2000	25		440	7445
Dec.	4350	3015	725	1155	2491	75		1120	12931
	15735	11117	2860	2835	11178	985		3572	48282
Transfers and Cancel.	2097	430	645	1170	266	306		53	725
Total	13638	10687	3505	4005	10912	1291		3519	47557
1910	16121	12194	8245	5058	16462	6788		5549	70417
1909									114268
1908									78724
1907									132616

APPROXIMATE SELLING PRICE AT FURNACE FOR YEAR ENDING DECEMBER 31, 1911.

Month.	Pion.	Ant.	E.R.	Champ.	Marq.	Mich.	Excel.	P.L.	Total
Jan.	15.68	16.00		16.00	15.69	15.56		15.71	15.75
Feb.	15.78	15.92	16.75	15.95	16.11	16.00		16.29	16.16
Mar.	15.97	15.61		16.00	15.91	16.00		16.75	16.10
Apr.	15.63	15.47	15.91		15.77			17.00	15.90
May	15.76	15.16	16.22	16.00	17.39	16.00		16.37	15.96
June	15.71	15.64		15.43	15.95			15.77	16.33
July	15.91	15.40		15.00	15.25	15.00		15.45	15.56
Aug.	15.85	15.00		15.00	16.13	16.00		15.24	16.09
Sept.	15.25	14.60	15.00		15.42	14.50		15.50	15.09
Oct.	14.80	14.53		14.50	14.94	14.50		15.31	14.83
Nov.	14.34	13.94	13.85	14.76	14.35	14.50		14.56	14.21
Dec.	14.15	14.12	13.74	13.99	14.27	13.52		13.98	14.06
Total	15.40	15.11	14.61	14.94	15.61	16.40		14.89	15.03

M

COMPARISON.

Month	1911	1910	1909	1908	1907	1906
Jan.	15.75	17.88	18.49	20.71	24.17	18.72
Feb.	16.16	18.05	18.48	19.95	24.33	18.49
Mar.	16.10	16.62	18.23	18.90	24.47	17.76
Apr.	15.90	17.30	17.47	18.85	24.70	17.49
May	15.96	17.34	17.67	18.55	25.30	17.29
June	16.33	17.42	17.74	18.28	26.05	16.96
July	15.56	17.06	17.36	17.87	26.59	17.23
Aug.	16.09	17.11	17.92	18.08	26.11	17.75
Sept.	15.09	16.69	18.37	18.16	24.56	18.43
Oct.	14.83	16.23	18.51	18.25	24.37	21.09
Nov.	14.21	16.07	18.31	18.04	23.58	22.72
Dec.	14.06	16.09	18.34	18.13	21.34	22.87
Total	15.03	16.98	18.00	18.28	24.61	19.25

SHIPMENTS DURING THE YEAR 1911 WERE MADE TO THE FOLLOWING DISTRICTS.

State	Pion.	Ant.	E.R.	Champ.	Marq.	Mich.	Exo.	P.L.	Total
Minn.	1848			556	391				2795
Wisc.	2560			656	788				4004
Mich.	190	1712	557		1862	123		275	4719
Ohio	138	2605	811	1297	149			300	5380
Ind.		152	200					204	556
Ill.	692	58	58	196	272				1276
Iowa					31				31
Mo.	585				535				1120
Penna.	3453	1829	177	261	935			491	7146
Pitts. Dist.	115	4349	191	96	506			967	6776
Ky.		70	100			552			170
W. Va.	59	143		183				26	411
N.Y.	932	85	299	1152	1819	488		277	5052
N.J.	77		97		84				258
Del.	47				260				307
Md.	389		60	165	246	228		75	1163
New Eng.	790		630	91	2259	545		148	4463
Wash.	50								50
Neb.	30								30
Colo.					177				177
Va.									
Tenn.	25	101						125	251
Canada					87	239			326
Export	894		27	300	207			651	2079
Wyo.	30								30
So. Dak.	25					25			50
Total	12929	11184	3207	4953	10608	2200		3539	48620

SHIPMENTS DURING THE YEAR 1911 TO THE FOLLOWING DISTRICTS COMPARED WITH 1910.

	1911		1910		% Increase	% Decrease
	Tonnage	Percent	Tonnage	Percent		
Minn.	2795	05.74	4651	05.05	00.69	
Wis.	4004	08.22	9778	10.62		02.40
Mich.	4719	09.70	9006	09.78		00.08
Ohio	5380	11.10	8081	08.78	02.32	
Ind.	556	01.13	2135	02.32		01.19
Ill.	1276	02.62	6556	07.12		04.50
Iowa	31	00.06	25	00.03	00.03	
Mo.	1120	02.30	556	00.60	01.70	
Penna.	7146	14.70	7253	07.87	06.83	
Pitts. Dist.	6776	13.94	13605	14.77		00.83
Ky.	170	00.35	279	00.30	00.05	
W. Va.	411	00.84	407	00.44	00.40	
N.Y.	5052	10.43	6385	06.93	03.50	
N.J.	258	00.52	1662	01.81		01.29
Del.	307	00.63	895	00.97		00.34
Md.	1163	02.40	2514	02.73		00.33
New Eng.	4463	09.17	6119	06.65	02.52	
Wash.	50	00.10	50	00.05	00.05	
Neb.	30	00.06	75	00.08		00.02
Colo.	177	00.36	106	00.12	00.24	
Va.			30	00.03		00.03
Tenn.	251	00.52	170	00.18	00.34	
Canada	326	00.67	10998	11.94		11.27
Export	2079	04.28	767	00.83	03.45	
Wyo.	30	00.06			00.06	
So. Dak.	50	00.10			00.10	
Total	48620	100.00	92103	100.00	22.28	22.28

TONNAGE WAS FURNISHED DURING 1911 FOR THE FOLLOWING PURPOSES.

	1911		1910		% Increase	% Decrease
	Tonnage	Percent	Tonnage	Percent		
Cars & Car Wheels	12827	26.38	23422	25.43	00.95	
Malleables	15953	32.81	30893	33.54		00.73
General Foundry	15674	32.23	27419	29.77	02.46	
Rolls	1568	03.23	5665	06.15		02.92
Tubes & Sheets	379	00.78	475	00.52	00.26	
Bars	1170	02.41	2237	02.43		00.02
Miscellaneous	1049	02.16	1992	02.16		
Total	48620	100.00	92103	100.00	03.67	03.67

ORDERS

UNDELIVERED ORDERS DECEMBER 31st, 1911 COMPARED WITH SAME PERIOD PREVIOUS YEARS.

	1911	1910	1909	1908	1907
Pioneer	8818	7039	11000	7539	6721
Antrim	6474	6244	10718	9397	4318
Elk Rapids	2636	2983	7598	3680	3658
Champion	1142	2282	7720	5095	5498
Marquette	4264	5368	7377	6234	5711
Michigan	75	902	298	924	3239
Excelsior			41	81	573
Pine Lake	1644	1873	3091	6878	3271
Total	25053	26691	47843	39828	32989

Approximate average price at the furnace on 25053 tons of Orders
on Hand December 31st, 1911, is \$14.86

UNCOMPLETED CONTRACTS DECEMBER 31st, 1911

Order No.		Tons Due	F.O.B. Furnace Contract Price
3524	New York Car Wheel Co.	1037	18.00
3908	Barney & Smith Car Co.,	1337	18.50
3971	Mesta Machine Co.,	13 8	18.50
3981	U.S. Malleable Iron Co.,	217	18.00
4075	W. F. Foes, Receiver,	130	18.50
4149	Albion Malleable Iron Co.,	493	17.00
4225	Herzog Iron Works	71	17.50
4295	Werner & Pfeleiderer	338	16.50
4331	Pittsburgh Malleable Iron Co.,	1909	16.00
4358	Prescott Company,	160	16.00
4363	Seaman-Sleeth Co.,	45	16.00
	1911		
4428	Ramapo Foundry & Wheel Works,	171	15.50
4464	J. H. Hillman & Son,	103	15.75
4484	Allis-Chalmers Co.,	30	16.00
4517	Allis-Chalmers Co.,	250	14.50
4571	Flour City Ornamental Iron Works,	33	16.50
4585	B. Hoffman Mfg. Co.,	50	15.00
4621	York Manufacturing Co.,	413	15.25
4634	The Andrew Terry Co.,	390	14.50
4635	O. B. North & Co.,	55	14.75
4637	Davis-Hansen Co.	300	14.75
4639	Diamond Iron Works,	69	14.75
4640	Crown Iron Works	100	14.75
4642	Superior Iron & Manufacturing Co.,	29	14.50
4646	Kittel & Co. Ltd.,	125	16.25
4653	Wilkes-Barre Iron Mfg. Co.,	87	14.50
4664	J. H. Fleming,	48	16.25
4666	Birmingham Iron Foundry	146	16.00
4668	The Herzog Iron Works,	30	14.50
4671	Stoughton Wagon Co.,	160	14.50
4675	American Sheet & Tin Plate Co.,	100	14.40
4676	Butler Car Wheel Co.,	1000	14.00
4679	J. H. Fleming	100	16.25
4680	Farrel Foundry & Machine Co.	600	14.00
4681	Ramapo Foundry & Wheel Works,	2500	14.00
4683	Norfolk & Western Ry.,	600	13.75
4684	United Engineering & Foundry Co.,	748	13.75
4685	Port Pitt Malleable Iron Co.,	1000	13.75
4689	J. H. Fleming,	450	15.50
4692	Pennsylvania Railroad Co.,	868	13.75
4696	Cadillac Machine Co.,	150	15.75
4698	Gas Traction Foundry Co.,	75	14.50
4699	American Hoist & Derrick Co.,	600	14.00
4700	Peteler Car Company,	70	14.00
4701	Menzel & Jeffrey	100	14.00
4702	Flour City Ornamental Iron Works,	970	14.50
4703	Appleton Machine Co.,	50	14.50
4704	Tuffli Bros. Pig Iron & Coke Co.	39	14.50
4705	National Car Wheel Co.,	1000	13.75
4710	The Elbel Co.,	800	14.25
4712	Pratt & Letchworth Co.,	806	13.75
4714	Philadelphia Hardware & Malleable Iron Wks.	100	14.75
4716	A. F. Bartlett & Co.,	100	13.50
4717	C. A. Lawton Co.,	200	14.00
4718	W. F. Foes, Receiver,	300	13.40

4719	Northern Malleable Iron Co.,	1000	14.00
4721	Pittsburgh Forge & Iron Co.,	500	15.10
4723	M. A. Hanna & Co.,	100	14.00
4724	Lake Shore Engine Works,	500	14.50
4725	J. J. Mohr & Son,	25	13.00
4726	Kittel & Co., Ltd.,	100	15.10
4727	Wilkes-Barre Iron Mfg. Co.,	223	13.75
4728	E. B. Hayes Machine Co.,	75	14.00
4730	Clement Bush,	25	14.25
4731	J. H. Fleming,	200	15.50
4732	J. H. Fleming,	50	15.50
4733	Syracuse Chilled Plow Co.,	50	15.00
4734	Lack Malleable Iron Co.,	200	14.00
4735	Philadelphia & Reading Coal & Iron Co.,	50	14.25
4736	Stevens Manufacturing Co.,	25	13.70
4737	Calumet & Hecla Mining Co.,	100	14.00
4738	M. A. Hanna & Co.,	40	14.00
		25053	14.86

IBOTAM BOND

TOTAL ORDERS ON HAND DECEMBER 31st, 1911 CONSIGNED TO THE FOLLOWING TERRITORIES.

	TONNAGE DUE	PION.	ANTRIM	ELK.RAP.	CHAMP.	MARQ.	MICH.	EXC.	P.L.
Minn.	3168	2449				719			
Wis.	1090	1035				30			
Mich.	1875	160	591	499		600	25		
Ohio.	2853	300	2007	217	179	150	25		
Mo.	39					39			
Penna	2011	748	400	25	300				538
Pitts.Dis.	6264	900	2926	1495		443			500
Ky.	200		200						
N.Y.	4664	2626	50	100	206	1682			
N.Eng.	1216				257	501	25		433
Va.	600		300	300					
Expert	1073	600			200	100			173
So.Dak.									
Total	25053	8818	6474	2636	1142	4264	75		1644

TROJAN BOND

SUPERIOR CHARCOAL IRON CO.

ANNUAL STATEMENT
of
OPERATIONS.

1911.

RECEIVED

FEB 8 - 1912

Ack. Ans.

