

our force is gradually increasing at this location and we hope will soon reach the required number. The Whitefish river running diagonally across the Mathews tract from N W to S E formed a sharp line of separation between our first cutting which was on the S W side and subsequent operations, presenting an excellent opportunity for making a check between chopping and shipments, and a comparison between cordwood actually obtained and Howies estimates. This was taken advantage of in reaching results given below. The figures cover one years work. The timber and typography was very broken making the work of the estimator more difficult than in a strictly hardwood country. Still the results so far as the yield of cordwood per acre is concerned are as accurate as will ever be obtained. The lands cut over include 34 forties or 1360 acres. The wood cut on these lands amount to 25207 cords or $18\frac{1}{2}$ cords per acre. From this will be seen that more than twice the acreage had to be gone over to get the above amount of wood than would have been the case had the land been well timbered. I trust you will bear this in mind when we come to take up the cost of hauling and loading the 8274 cords which we shipped from the location. Howies estimate covering this 1360 acres was 24125 cords of wood, 1,840,000 feet of maple logs. Reducing the logs to cordwood, increases the cord wood estimate by 4520 cords, making the total for the whole tract 28645. As a matter of fact although everything was closely cut- we only obtained 25207 cords- showing a difference between the estimates and actual results of 3438 cords or $2\frac{1}{2}$ cords to the acre. The above will serve to illustrate the danger of buying and paying for cordwood stumpage on the estimates of cruisers or land lookers, and I would never agree to a purchase on such terms. Howies estimates show his typography to be very accurate but as to determining the amount of cordwood which will be actually obtained from a given discription- they are almost valueless.

1840 4520 245
 368
 840
 726
 1040

HAULING MATHEWS JOB

The shipping of wood from the Mathews location commenced on the 22nd of May. We had less than 6000 cords of wood in sight. We purchased four wagons and as many teams and later increased the horses to fourteen in number. Owing to the very bad conditions existing it was found utterly impossible to use wagons. We resorted to the grease skid system which although expensive served its purpose and enabled us through the worst conditions of mud to load a car of wood with a team. We lost three horses which are absorbed in the cost of hauling as shown by our monthly statements. The average costs for the year was 80¢ per cord on cars. This corresponds closely with predictions of all who have made a comparison between the Parsons and the Mathews tracts- including Mr. Redfern viz. that it would cost 20¢ more per cord to operate at Mathews than at Parsons. Our cost sheets show that the item of roads amount to 17.3 per cord, to which must be added nearly 7¢ per cord for dead horses. It has cost Caron & Rough about 2¢ per cord for roads on the Parsons tract. From this you will note how we have been handicapped through physical conditions and typography. You will doubtless remember that the particular part of the Mathews tract is very much broken, contained a large number of cradle knolls and was very wet. The country is full of springs which appear everywhere even on high ground. We are troubled just as much by too much water on the Mathews as we are by too little on the Parsons tract. This territory should have never been operated during the summer months and would not have been had it not been actually necessary for us to receive wood from this location in order to keep our furnace going. Since the swamps have partially frozen up we have succeeded in reducing our cost of hauling during last month to 53¢ per cord. This could be still further reduced by the cutting down of fixed charges were we working a larger force of teams. I do not think however that

we have lost by this experience, for the reason that we know exactly what it will cost us to haul wood under the most adverse natural conditions, both as regards topography and the weather. Neither is it likely that we will have such a heavy mortality among horses to be spread over such a comparative small number of cords. Neither will we have to go so far or make so many roads through lands yielding but $18\frac{1}{2}$ cords to the acre. Our plan is to continue shipment from the west side of the river this winter and reduce the 17000 cords remaining to two blocks of 4000 cords each- which will be taken out by the portable railway system when it is moved up from Parsons. In the meantime we hope to accumulate a large block of dry wood on the East side of Whitefish river which will last the track system for a couple of years. In that locality the timber is better and the yield will be larger per acre. We deemed it best to cut our poor lands while the price of chopping was high. You will note that the men only averaged a little over 30 cords per month and I think that our inability to get choppers at the start was largely due to the poor timber ahead of them.

PURCHASE OF HARD WOOD LANDS

The only lands purchased by this Company during the preceding year were 1875 acres- known as the Jones tract- adjoining our Mathews tract on the west, at a total cost \$4906.06. or \$2.60 per acre. Deducting the value of other timber on this land will make the stumpage net us in the neighborhood of 6¢ per cord. The lands however are none of the best, will not run much over 20 cords to the acre. No other lands were offered to us which we deemed it worth while recommending. The 3500 acres owned by the Weston estate adjoining our Parsons group on the East are very desirable but the price of \$11.00 per acre put on them by the owners- put them out of the question.

LOT AND LAND SALES

The only lots sold in the City of Gladstone during the preceding year were three, viz. Nos. 11, 12 and 13, Block 6, Central Ave. addition to the Gladstone City Schools at \$125.00 each- making a total of \$375.00. We have located all the squatters on Govt. Lot 3 and have them under lease at \$1.00 a month each. Our revenue from this source averages about \$300.00 per year which pays considerably over half our total City tax. We have issued options on the Parsons tract amounting to 280 acres to the following persons:-

Clifford Lyman	40	acres
John Sampson	80	"
Frank Lemay	80	"
Marius Poupour	80	"
Total:-	280	"

appreciated in 5

The following lands have been sold on the Parsons tract:-

80 acres of very stoney land to Caron & Rough \$2.50 per acre cash, amounting to \$200.00.

80 acres to John Robare at \$5.00 per acre, quarter cash, the balance in three equal payments, making a total of \$400.

80 acres to John St. Arnold at \$5.00, same terms as above, amounting to \$400.00. *deeds reservations*

The total value of the land sales therefore are \$980.00. Robare and St. Arnold availed themselves of options given them last year. Gaspard Guildette and Noel Delonia did not avail themselves of the options and forfeited their \$10.00 deposit. The lands sold to date on the Parsons tract amount to 800 acres. The price received for the same being \$3940.00 or about \$4.93 per acre. We have now under option at the Parsons tract 240 acres, price \$1200.00 or \$5.00 per acre. We now have under option at the Mathews tract 320 acres at \$5.00 per acre, amounting to \$1600.00- to the following parties,- Henry Woolner 40 acres, August Cook 80 acres, Chas. Erickson 120 acres and And. Josephson 80 acres.

We received from options on Parsons land \$41.60, from the Mathews land \$60.00, making a total for the year of \$101.60.

T A X E S

The valuations in the City of Gladstone in common with all others was largely increased last year, being raised from \$365,000. to \$1,100,000.00. Our taxes for the year '99 were \$645.87. For 1900 \$550.91, being a decrease of \$94.96. A review of the tax roll showed that all property holders were treated alike.

MASONVILLE TOWNSHIP

In this township the valuations were increased from about \$350,000.00 to \$900,000.00. Our taxes exclusive of the Mathews tract, which until this year were taken care of in the Negaunee office, \$4093.53 for the year '99. For 1900 they were \$3202.71, being a decrease of \$890.82. Our valuation was raised from 75 to \$245814.00. The valuation of the Mathews lands now handled in this office was placed at \$6.00 per acre except sections 30-43-21 which are placed at \$5.00. On these valuations that portion of the Mathews group in this township amount to \$358.93

FORD RIVER TOWNSHIP

The valuations in Ford River township were not changed. Our personal property being \$1200.00 in both years. Our taxes in '99 on personal amounted to \$62.10. In 1900 \$26.35, showing a reduction of \$35.75. On the realty the valuation was the same in both years- viz. \$1600.00. Our taxes for the year '99 were \$121.15. For 1900 \$52.73, showing a decrease of \$59.42. The total decrease in taxes in this township on reality and personal are therefore \$95.17.

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CHEMICAL PLANT

The chemical plant has been operated 365 days during the preceding year. This has been made possible by the duplicate machinery installed during the year '99 and the introduction of friction clutches admitting of the stoppage of a fan when necessary without shutting down the entire plant as heretofore. In a general way I may say that I am well satisfied with the operations of the plant and that the changes made during the preceding year have amply justified our recommendations. I will refer you to a detailed laboratory report, too large to incorporate with this, which will plainly show the different stages of operation and confine myself to general explanation and remarks. We have decreased the cost of alcohol over the preceding year 10.2¢. Every heading in our cost sheet shows a decrease with the exception of barrels, which is due to an increase in price by the manufacturers. The most important item of reduction is that of 2¢ in the cost of fuel. This can be still further reduced by installing modern engines and pumps at the blast furnace. We expect in any event to make a reduction during the current year for the reason that we will obtain a more uniform supply of wood for our kilns and the same will be dry, which will largely improve the quantity and quality of our gas. While last year was a record breaker so far as the quantity of alcohol was concerned, we hope to do still better during the present one for reasons just stated. During the early part of the year we ran largely on green wood and during the spring and fall months suffered greatly from the insufficient supply of wood sent in to the furnace kilns. The total gallons of alcohol produced for the year was 146,165 as against 102,196 for the year 1899. This of course is not a fair showing as the chemical plant was shut down owing to repairs to the furnace during the year.

But the marked improvement will be shown on comparing it on the production of '98 which was one of our best years heretofore and amounted to 109,485 gallons. The other yields of course will not be effected by the shut down. The average gallons per day were 400.4 as against 334½ for the year '99. The gallons of alcohol per cord of wood was 344 as against 305 for the preceding year. This shows an increase of .39 gallons per cord for the years work. During the year we sank three artesian wells at the chemical plant to provide if possible a supply of cold water for the condensers. From these three wells we obtain enough water to supply our two final condensers at a mean temperature the year around of 40°. They have undoubtedly aided in the increase production of alcohol. Their total cost including piping was \$2077.32. An additional column and still to take the strain off the large column was installed at a cost of \$1673.64. At one time it looked as if the large column still would last but a short time longer and this still was put in to take its place should it give out. We however succeeded in patching the old still and it will have several months longer life. An air pump and condenser was installed to aid in the economy of fuel and has more than met our expectations. At the present time I do not feel disposed to recommend any further additions to the old plant. We will have considerable additions to make during this year and next under the head of maintenance. Our boiler plant is in none too good shape as the second hand boilers which we purchased from the Hematit mine are showing signs of giving out. We had quite a heavy maintenance charge last year for the renewal of condenser tubes and must look for increased maintenance charges from now on. We of course must expect a decrease in the yield of alcohol during the hot summer months. This can not be avoided. To show you what can be done however with our improved plant and cold water- would refer you to the month of December just passed.

It was 14928 gallons. It is true that the kilns were fairly well supplied with wood but as previously stated I shall be greatly disappointed if the yield of alcohol for 1901 does not materially increase over 1900.

RETORT PLANT

In the spring of 1900 I was instructed to look up the question of a retort plant and while it was clearly demonstrated that coal could not be produced as cheaply in retorts as in kilns— it was shown that the yield of alcohol and acetate of lime would be largely increased. I was authorized to construct a ten retort plant at an estimate cost of \$108,519.21 plus \$1295.28 for the extension of our coal storage trestle. Construction work was commenced on the 21st day of July and up to the end of the preceding year about 80 percent of the total work had been accomplished. I think the cost of the plant will come within the estimates. At this writing operations have not progressed far enough to admit of an expression of an opinion one way or the other. In any event this will come under the head of next years report. The chief difficulty to contend with is the firing of the retorts by coal and its practicability on large retorts is still to be demonstrated, our plant being the first to undertake it. The refining department has already proved itself an unqualified success.

ACETATE PLANT

The acetate plant was operated during the entire year of 1900. There was produced 1,769,908 pounds as against 1,324,956 pounds for the preceding year, being an increase of 444,952 pounds. The average per day for the year '99 was 4348 as against 4875 for 1900, being an increase of 527 pounds per working day. There were no additions made to this plant during the current year. The average cost for the year '99 was 41.4¢ per 100 pounds. For the

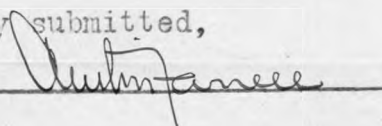
year 1900 36.8¢, being a reduction 4.6¢ per 100 pounds. The yield of acetate per cord of wood for the year '99 was 40 pounds. For 1900 41.7 pounds. The operations for the year have been very satisfactory.

GENERAL REMARKS

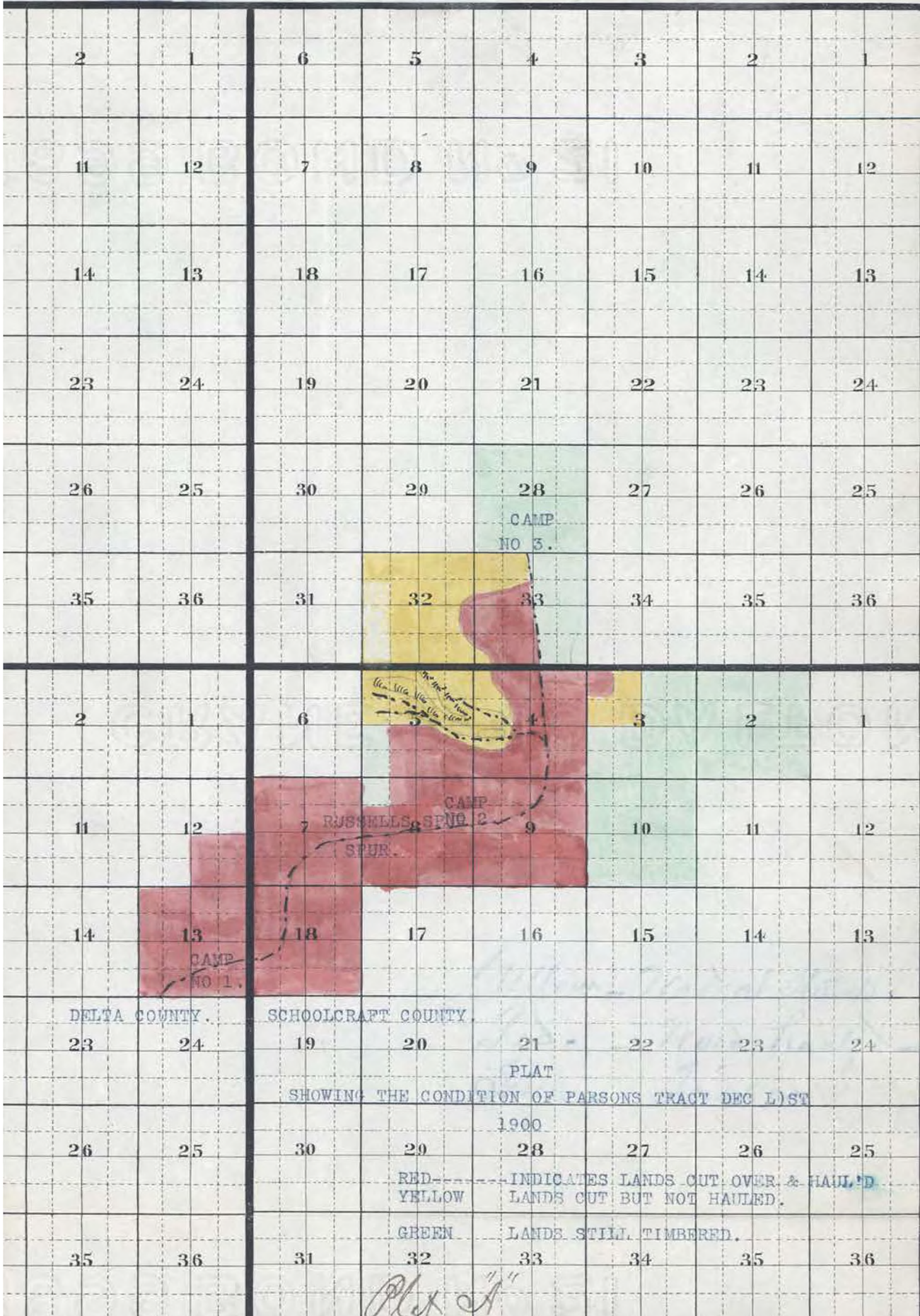
I have endeavored in this report to cover fully the ground gone over during the preceding year, and if it is not as full as you desire I beg your kind indulgence and state in explanation that during its entire writing I have been busily engaged starting up the new retort plant and have met with all the annoyances instant to the starting up of new works. Have also had representatives of the manufacturers here in consultation regarding the pumping machinery for our new furnace and the apparatus for our new chemical plant. I have made my recommendations under different headings in the body of the report and do not care to add anything more. Original research has been carried on in the laboratory from time to time with a view to utilizing still further our by-products but I have no information of value to impart. I have endeavored to explain fully any differences that have arisen in the cost of production and apparent discrepancies in comparative statements. These explanations have been as full and complete as possible, are exactly as they appear to me and I do not know that I can make any others should they be required. We will undoubtedly succeed in materially reducing the cost of our coal for the current year and also hope to reduce our operating expenses as soon as the new retort plant is well under way and we are enabled to secure a sufficient supply of charcoal to run our furnace up to her capacity.

Trusting this report will be satisfactory and meet your approval, the same is,

Respectfully submitted,

 Manager.

Gladstone, Mich., Jan 15th, 1901.

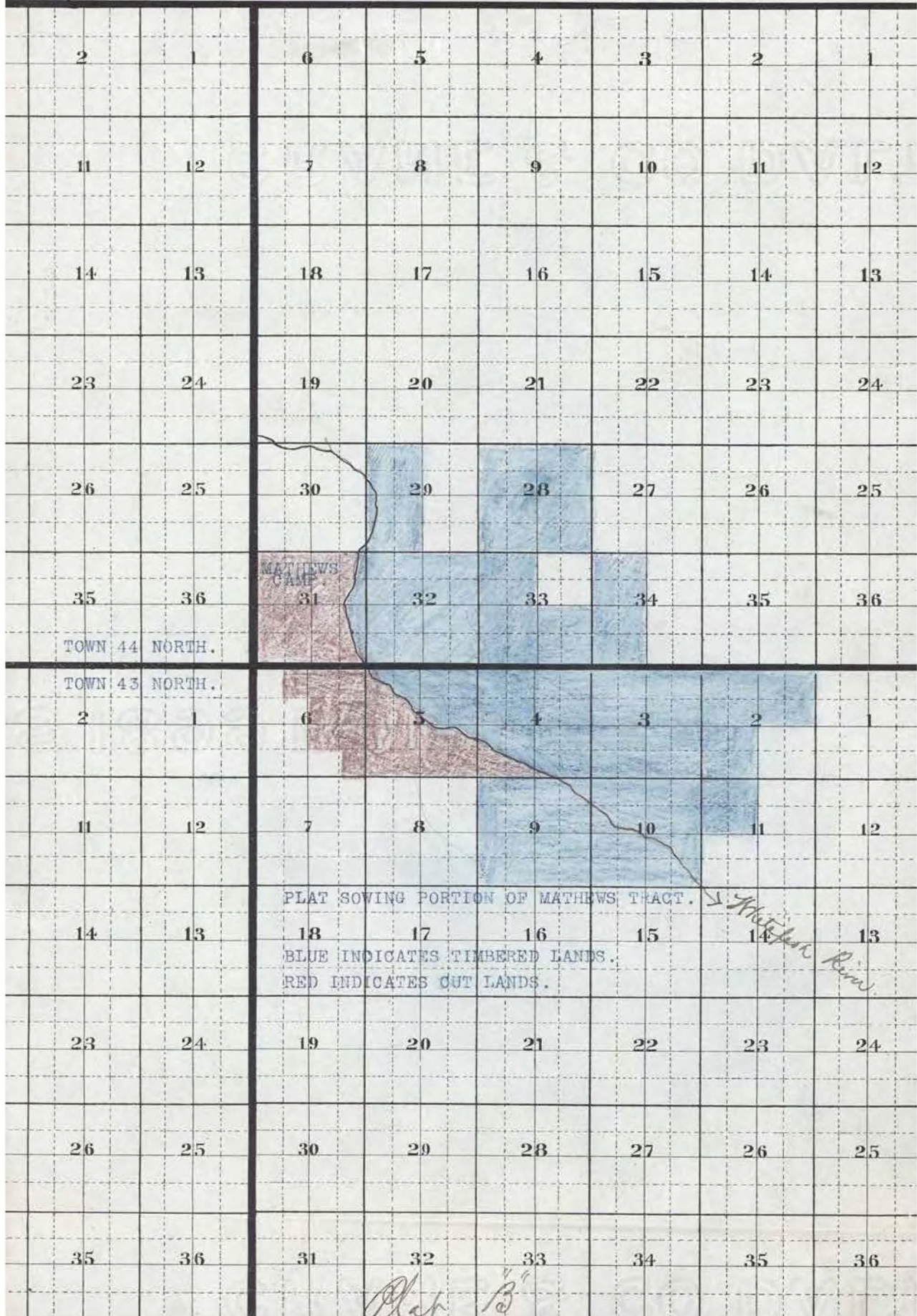


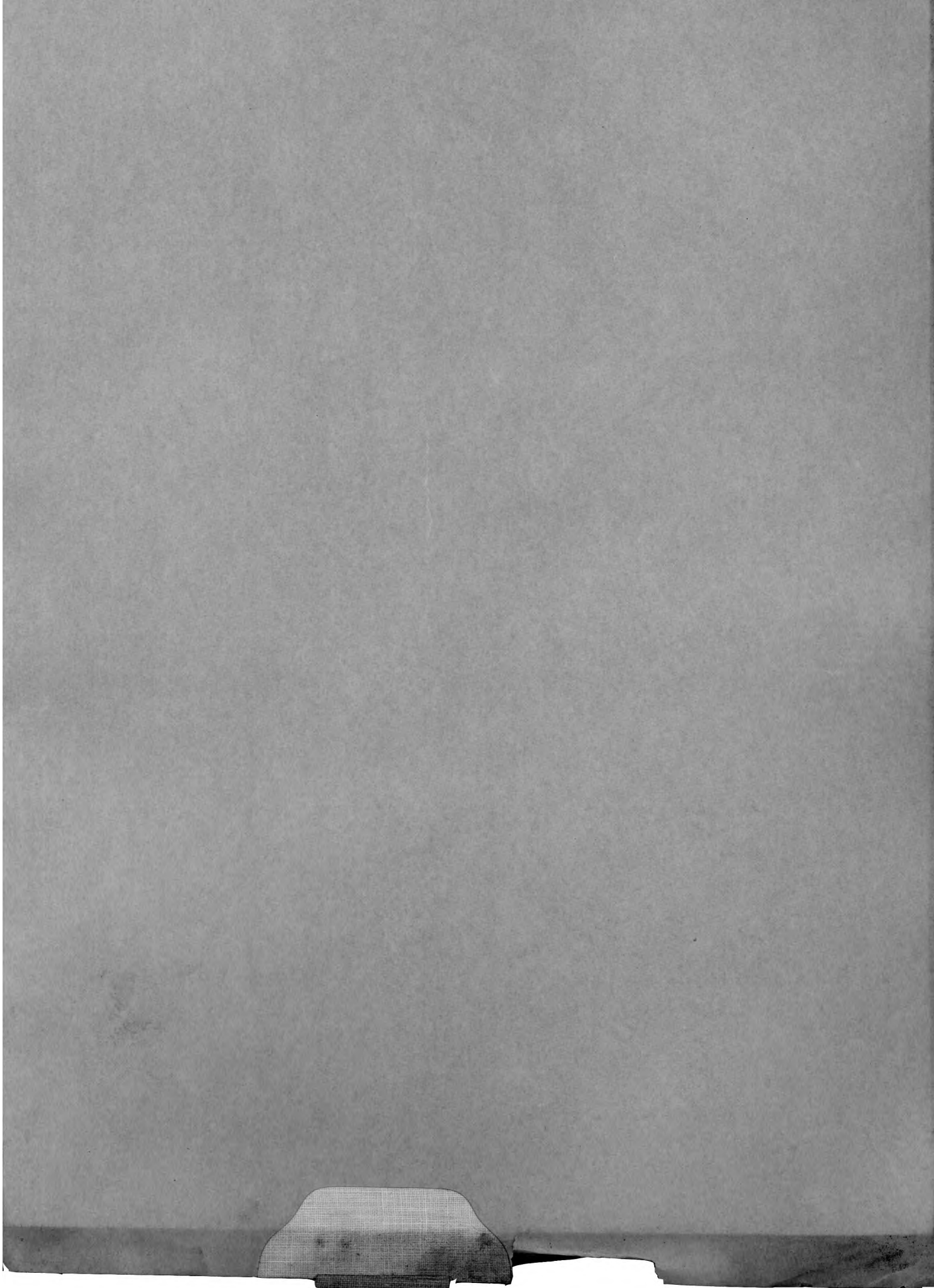
Parsons Job

Cut over lines

July 1901

The image shows a sheet of graph paper with a grid pattern. The paper is mostly blank, with some faint, mirrored text visible in the background, likely from the reverse side of the page. The text reads "GRAYNE & CO. DIVISION". There are three punch holes at the top of the page. The handwritten text at the top right reads "Parsons Job", "Cut over lines", and "July 1901".





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THE CLEVELAND CLIFFS IRON COMPANY

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PIONEER FURNACE

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GLADSTONE

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MICHIGAN

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TRIAL BALANCE OF ACCOUNTS

Furnace Supplies	9384.61
Chemical Supplies	987.00
Laboratory Supplies	130.06
Retort Supplies	9307.77
Mathews Barn Supplies	286.48
TOTAL SUPPLIES	20095.92
Carts, Wagons & Horses	1699.81
Charcoal Cars	6885.93
Coal Buggies	291.63
Charcoal tram cars	10.61
Launch	386.41
Scales	1068.98
Telephones	30.25
Machine Shop Machinery	1459.20
Brown Pyrometer	43.40
Testing Machinery	395.89
Blacksmith Shop Machinery	399.49
Office Furniture & Fixtures	508.70
Ore Buggies	199.62
Kiln Barrows	48.93
Locomotive	2802.35
Pig Iron Loaders	202.57
Pig Iron Tracks	1049.17
Furnace Scow	7.98
Laboratory	308.51
TOTAL FURNACE EQUIPMENT	\$ 17799.43
Mathews Barn Equipment	2743.41
GRAND TOTAL SUPPLIES	\$ 40638.76

I N D E X

S U P P L I E S - 1 - T O - 2 4 - I N C L U S I V E

Furnace Supplies	1 to 21 Inclusive
Chemical Supplies	22
Retort Supplies	22
Mathews Barn Supplies	22
Laboratory Supplies	23 & 24

EQUIPMENT 25 TO 39 INCLUSIVE

Laboratory	25 & 26
Office Furniture & Fixtures	28 & 28
Machine Shop Machinery	29 to 32 Inclusive
Smith Shop Machinery	33
Carts, Wagons, & Horses	34
Charcoal cars	35
Scales	36
Telephones	36
Ore Barrows	36
Pig Iron Trucks	36
Charcoal Buggies	37
Charcoal Tram Cars	37
Launch	37
Locomotive	37
Kiln Barrows	37
Pig Iron Loaders	38
Scow	38
Testing Machine	38
Brown Pyrometer	38
Mathews Barn Equipment	39

TOOLS IN GENERAL USE 40 TO 43 INCLUSIVE

Chemical Plant	40
Acetate Plant	40
Barn	40
Colliers Shanty	41
Bottom Fillers & Coal Forkers	41
Casting House	41
Track Tools	41
Cinder Tools	42
Blowing Engine House & Tools	42
Dynamo	42
Chemical Boiler House	42
Crane Hoist Engine	42
Locomotive	43
Ore Crusher	43

BUILDINGS AND CONTENTS	44 & 45
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INDEX TO FURNACE SUPPLIES

Asbestos Wicking	6
Alum	16
Acid "Muriatic"	16
Axes	17
Brooms	1
Bushings	10 & 14
Bends (Return)	10 & 12
Bars	16
Borax	16
Bran	16
Burners	17
Brushes	17
Brick	18
Bell & Hopper	20
Clips (Crosby)	3
Cap Bolts	4
Carriage Bolts	5
Couplings	9-10-12-13
Crosses	13 & 14
Crushed Buckets	16
Copper Plates	16
Cement	16
Coal	16-& 18
Coke	16
Caniles	17
Chimneys	17
Clay (Fire)	18
Coolers (Furnace)	20
" Tuyre	20
Drills	8
Elbows	10-11-13-14-15
Electric Lightb Supplies	17
Flues	2
Flour	3
Fire Bolts	5
Flanges	10
Feed	16
Faucets	18
Fans	18
Files	19
Grease Cups	1
" " Glasses	1
" " Locomotive	2
Grease (Belt)	3
Gaskets (Eclipse)	3
Gasket Cloth	6
Graphite	16
Glass Globes	17
Glass (Window)	16
Hammer (Striking)	1
Hose (Steam)	2
" (Water)	2
Handles	3
Hay	16
Hinges	18

Iron-Merchant	1
" Octagon	1
" Swedish	1
" Galvanized	16
Internal Gear	20
Lubricators	1
Lead	3
Lag Screws	4
Links-Bucket	16
Lumber	18
Magnolia Metal	3
Machine Bolts	5
Middlings	16
Nuts	3
Nails	7 & 16
Nipples	12
Oilers	2
Oil Cans	2
Ore Buggy Boxes	16
Oats	16
Pole Picks	1
Pickeroons	1
Pails	3
Packing	6
Pipe Covering	7
Plugs	9-14
Pipe	16-18
Putty	16
Paper(Emery)	16
" (Sand)	16
Pyrometer	20
Rubberbestos	6
Rivets	8-19
Rope	16-20
Rosin	16
Recording Blanks	19
Scrapers	1
Step Ladder	1
Steel	1
Steel (Tool)	1
Split Pins	2
Screws (Wood)	2
Saws (Hack)	3
Solder	3
Shovels	3
Stove Bolts	4
Set Screws	4
Studs(Belts)	16
Smooth On	16
Shellac	16
Straw	16
Soda	16
Soap	17
Steel Plates	20

Tin	3
Taps	8 & 10
Tees	10 & 15
Tubing	16
Torches	17
Tile	18
Unions	10 & 15
Valves	7-10-11-12
Wire	2
Washers	3 & 7
Wrenches	6
Water Glasses	7
Way Cocks	11
Wheels	16
Wagon Sheins	16
White Lead	16
Wicks	17

FURNACE SUPPLIES

32	LARGE SCRAPERS	@ 65¢	20.80
8	SMALL "	@ 45¢	3.60
45	POLE PICKS	@ 50¢	22.50
50	BROOMS	@ 35¢	17.50
23	PICKEROONS	@ 25¢	5.75
1	6 Ft. STEP LADDER		.75
1	69# STRIKING HAMMER	@ 6¢ Per Lb.	4.14
31259#	MERCHANT IRON	@ 2-3/4¢ Per Lb.	859.62
153#	1" OCTAGON IRON		
527#	1-1/8" " "		
770#	1-1/4" " "		
282#	1-3/8" " "		
662#	1-1/2" " "		
80#	1-5/16" " "		
477#	1-5/8" " "		
2951#	" "	@ 6¢ Per Lb.	177.06
65#	1/8" STEEL		
170#	3/8" "		
266#	1/2" "		
495#	5/8" "		
570#	3/4" "		
57#	7/8" "		
51#	15/16" "		
408#	1" "		
221#	1-3/8" "		
594#	1-1/2" "		
2530#	1-3/4" "		
44#	5/8 X 3" "		
5471#	" "	@ 6¢	328.26
39#	1 X 1 SWEDISH IRON		
313#	2 X 2 " "		
352#	" "	@ 5¢	17.60
121#	TOOL STEEL	@ 6¢ Per Lb.	7.26
1	No.2 GREASE CUP	@ 15¢	.15
2	No.2 NICKLE PLTD GREASE CUPS	@ 50¢	1.00
8	No.1 BRASS GREASE CUPS	@ 20¢	1.60
1	No.2 " " "	@ 25¢	.25
6	No.3 MARINE FEED CUPS	@ 50¢	3.00
2	2OZ OIL CUPS	@ 10¢	.20
11	No.2 OIL CUP GLASSES	@ 10¢	1.10
1	No.2-1/2 OIL CUP GLASSES	@ 10¢	.10
12	1 Qt. HILL & McGANNAS LUBRICATORS	@ \$10.00 Each	126.00
5	LUBRICATORS	@ 2.00 "	10.00

\$1608.24

6	No. 13 BRONZE OILERS	@ 15¢	.90
8	GREASE CUPS FOR LOCOMOTIVE	@ 1.00	8.00
4	CYLINDER COCKS	@ 50¢	2.00
1	5 GAL. GALVANIZED OIL CAN	@ 50¢	.50
2	1 QT. OIL CANS	@ 15¢	.30
3	1 GAL. JACKET OIL CANS	@ 23¢	.69
22	2 " " " "	@ 23¢	5.06
20	3 " " " "	@ 35¢	7.00
14	5 " " " "	@ 40¢	5.60
50 FT.	3/4" STEAM HOSE	@ 83¢	41.50
100	" 1" WATER "	@ 50¢	50.00

LESS 50 & 10% 91.50 41.18

50 Ft.	3/4" WATER HOSE	@ 9¢ Net	4.50
30 "	1-1/4" " "	@ 45¢ "	13.50

300	1/4 X 1-1/2" SPLIT PINS	@	
75	1/8 X 1 " "		
100	1/8 X 1/2 " "		
60	3/8 X 2-1/2 " "		
133	3/16 X 1 " "		
175	3/16 X 1-1/2 " "		
150	3/16 X 2 " "		
993	" "	@ 1/2¢ Each	4.97

3#	No.6 BRASS SPRING WIRE		
7#	No.7 " " "		
115#	No.8 " " "		
39#	No.9 " " "		
2#	No.10 " " "		
40#	No.14 " " "		
206#	" " "	@ 22¢	45.32

3-1/2#	STOVE PIPE WIRE	@ 13¢	.46
1-1/2#	SPRING STEEL WIRE	@ \$1.00	1.50

5	Gross 1-3/4 No. 12 WOOD SCREWS	@ \$1.70 Per Gross	8.50
7	" 2" No.12 " "	@ 1.80 " "	12.60
1	" 2" No.9 RD. HD. " "	@ 1.50 " "	1.50
2	" 2-1/2" No.18 " "	@ 4.35 " "	8.70

76	4" 16 Ft.	STRAIGHT FLUES @ 35¢ Per Ft.	425.60
34	4" 17 Ft.	BENT " @ 35¢	202.30
			<u>\$ 800.68</u>

70#	3/8"	WASHERS	@ 6¢ Per Pound	4.20	4.20
140#	5/8	"	@ 4¢ " "		5.60
72#	1/4	"	@ 6¢ " "		4.32
55#	1/2"	"	@ 4¢ " "		2.20
20#	7/8	"	@ 3-1/2¢ Per Pound		.70
75#	1-1/8	"	@ 3-1/2 " "		2.63
20#	1-1/4	"	@ 3-1/2¢ " "		.70
210#	3/8"	NUTS	@ 11¢ Per Pound		23.10
192#	1/2"	"	@ 6¢ " "		11.52
103#	5/8"	"	@ 6¢ " "		6.18
263#	3/4"	"	@ 5¢ " "		13.15
150#	7/8"	"	@ 4¢ " "		6.00
70#	1"	"	@ 4¢ " "		2.80
250#	1-1/4"	"	@ 4¢ " "		10.00
54	92	HACK SAW BLADES	@ 7¢ each		3.78
78#		MAGNOLIA METAL	@ 25¢ Per lb.		19.50
44#		TIN	@ 25¢		11.00
24#		BINGHAM SOLDER	@ 25¢		6.00
26#		LEAD	@ 6¢		1.56
20#		BELT GREASE	@ 15¢		3.00
18#		RYE FLOUR	@ 2¢		.36
2		LARGE CROSBY CLIPS	@ 25¢ Each		.50
3		PUMP SPRINGS	@ 10¢ Each		.30
1-1/2		Gals GRAPHITUM OIL	@ 50¢		.75
28-1/4#		ECLIPSE GASKETS			
7-1/2		" "			
3-3/4		" "			
39-1/2#		" "	@ 75¢ Per Lb.		29.62
10		WOODEN PAILS	@ 20¢ Each		2.00
5		GALVANIZED IRON PAILS	@ 20¢ "		1.00
61		SLEDGE HANDLES	@ 20¢		12.20
212		Square POINT SHOVEL HANDLES	@ 20¢		42.40
186		POLE PICK	" @ 15¢		27.90
12		PICK	" @ 15¢		1.80
22		AXE	" @ 25¢		5.50
15		COAL FORK	" @ 25¢		3.75
23		AVERY SHOVEL	" @ 20¢		4.60
5		PIKE POLE	" @ 50¢		2.50
8		MACHINE HAMMER	" @ 10¢		.80
45		ROUND POINT SHOVELS	" @ 65¢		29.25
36		SQUARE " "	" @ 65¢		23.40
8		SCOOP	@ \$1.10		8.80
14		LONG HANDLED SQUARE PT SHOVELS	@ 85¢		11.90
20		" " ? ROUND " "	@ 85¢		17.00
60		COAL FORKS	@ \$2.00		120.00
12		HOES	@ 40¢		4.80

\$489.07

58	1/8 X 5/8	RD HEAD	STOVE BOLTS	@ 85%	Per 100	.49	
43	1/4 X 3/4	" "	" "	@ \$1.00	" "	.43	
160	1/4 X 1	" "	" "	@ L.05	" "	1.68	

LESS 70% 2.60 .78

40	3/8 X 3/4	FLAT HD	STOVE BOLTS	@ \$2.50	Per 100	1.00	
190	1/4 X 1/2	" "	" "	@ .90	" "	1.71	
98	1/4 X 1-1/2	" "	" "	@ 1.05	" "	1.03	

LESS 70% 3.74 1.12

15 3/4 X 4 FISH PLATE BOLTS @ \$9.70 Per 100 Less 75% 1.46 .36

45	5/16 X 1	CAP	BOLTS	@ \$3.50	Per 100	1.57	
47	5/16 X 1-1/2	"	"	@ 3.75	" "	1.76	
42	3/8 X 1	"	"	@ 4.00	" "	1.68	
90	3/8 X 1-1/2	"	"	@ 4.50	" "	4.05	
8	1/4 X 1-1/2	"	"	@ 3.75	" "	.30	
106	5/8 X 1-1/2	"	"	@ 10.00	" "	10.60	
22	5/8 X 3	"	"	@ 14.70	" "	3.23	
56	7/16 X 1-1/4	"	"	@ 5.00	" "	2.80	
23	7/16 X 2-11/2	"	"	@ 6.80	" "	1.56	
9	7/16 X 3	"	"	@ 7.10	" "	.64	
13	9/16 X 3	"	"	@ 12.10	" "	1.57	
3	1-1/2 X 1/4	"	"	@ 3.75	" "	.19	

LESS 70% 29.95 8.99

41	7/16 X 5/8	SET	SCREWS	@ \$3.60	Per 100	1.47	
22	7/16 X 1	"	"	@ 3.60	" "	.79	
32	1/2 X 1/2	"	"	@ 4.00	" "	1.28	
42	1/2 X 3/4	"	"	@ 4.00	" "	1.68	
31	1/2 X 1	"	"	@ 4.50	" "	1.40	
17	9/16 X 3/4	"	"	@ 5.30	" "	.90	
22	9/16 X 1	"	"	@ 5.30	" "	1.17	
29	5/8 X 3/4	"	"	@ 6.25	" "	1.81	
19	5/8 X 1	"	"	@ 6.25	" "	1.19	
6 m	7/8 X 1-1/2	"	"	@ 14.10	" "	.84	

LESS 80% 12.53 2.51

53	5/16 X 2	LAG	SCREWS	@ \$2.45	Per 100	1.29	
7	3/8 X 3	"	"	@ 3.48	" "	.24	
165	1/2 X 2-1/2	"	"	@ 4.47	" "	7.38	
36	1/2 X 4	"	"	@ 5.55	" "	2.00	
50	5/8 X 2	"	"	@ 5.00	" "	2.50	
9	5/8 X 3	"	"	@ 6.00	" "	5.40	
4	3/4 X 4	"	"	@ 10.00	" "	.40	

LESS 80% 19.18 3.84

\$17.60

117	1/4 X 1-1/2	MACHINE BOLTS	@ \$1.70	Per 100	\$1.99
23	1/4 X 2	" "	@ 1.78	" "	.40
41	3/8 X 1"	" "	@ 2.40	" "	.98
94	3/8 X 2"	" "	@ 2.56	" "	2.41
91	3/8 X 2-1/2"	" "	@ 2.72	" "	2.47
19	1/2 X 1	" "	@ 3.60	" "	.68
48	1/2 X 1-1/2	" "	@ 3.60	" "	1.73
128	1/2 X 2"	" "	@ 3.86	" "	4.94
78	1/2 X 2-1/2	" "	@ 4.12	" "	3.21
295	3/2 X 3	" "	@ 4.38	" "	12.92
178	1/2 X 3-1/2	" "	@ 4.64	" "	8.26
54	1/2 X 4	" "	@ 4.90	" "	2.64
63	1/2 X 5	" "	@ 5/42	" "	3.41
180	1/2 X 6	" "	@ 5.94	" "	10.69
11	5/8 X 2	" "	@ 5.58	" "	6.14
40	5/8 X 2-1/2	" "	@ 5.96	" "	2.38
130	5/8 X 3	" "	@ 6.34	" "	8.24
305	5/8 X 4	" "	@ 7.10	" "	21.66
48	5/8 X 4-1/2	" "	@ 7.48	" "	3.59
14	5/8 X 5	" "	@ 7.86	" "	1.10
60	5/8 X 5-1/2	" "	@ 8.24	" "	4.94
52	5/8 X 6	" "	@ 8.62	" "	4.48
9	3/4 X 2	" "	@ 7.70	" "	.69
20	3/4 X 3	" "	@ 8.70	" "	1.74
10	3/4 X 8	" "	@ 13.70	" "	1.37

LESS 75%

113.16

28.28

38	3/16 X 1-1/2	FIRE BOLTS	@ \$1.00	per 100	.38
60	3/16 X 2	" "	@ 1.08	" "	.65
189	3/16 X 2-1/4	" "	@ 1.12	" "	2.11
50	3/8 X 1	" "	@ 1.00	" "	.50
58	5/16 X 2-1/4	" "	@ 1.35	" "	.78
30	1/4 X 3	" "	@ 1.24	" "	.37

LESS 50%

4.79

2.39

60	3/16 X 2-1/2	CARRIAGE BOLTS	@ \$1.16	Per 100	.70
95	5/16 X 1-1/2	" "	@ 1.20	" "	1.14
78	5/16 X 2	" "	@ 1.30	" "	1.01
160	5/16 X 4	" "	@ 1.70	" "	2.72
150	5/16 X 4-1/2	" "	@ 1.75	" "	2.63
50	3/8 X 2	" "	@ 1.50	" "	.75
175	3/8 X 2-1/2	" "	@ 1.64	" "	2.87
112	3/8 X 3	" "	@ 1.78	" "	1.99
47	3/8 X 3-1/2	" "	@ 1.92	" "	.90
54	3/8 X 4-1/2	" "	@ 2.20	" "	1.19
53	3/8 X 5	" "	@ 2.34	" "	1.24
310	3/8 X 6	" "	@ 2.62	" "	8.12
33	3/8 X 10	" "	@ 3.74	" "	1.23
95	7/16 X 3-1/2	" "	@ 2.68	" "	2.55
100	1/4 X 3-1/2	" "	@ 1.32	" "	1.32
72	1/4 X 5	" "	@ 1.56	" "	1.12

LESS 70%

31.48

9.47

\$ 40.14

3	6"	MONKEY WRENCHES	@ \$9.00 Per Dz.	2.25
3	8"	" "	@ 10.00 " "	2.50
7	12"	" "	@ 1.25 Each	8.75
2	15"	" "	@ 2.00 "	4.00
5	21"	" "	@ 3.00 "	15.00

Less 40% 32.50 19.50

3	6"	STILLSON WRENCHES	@ \$2.00 Each	6.00
1	9"	" "	@ 2.00 "	2.00
1	14"	" "	@ 3.00 "	3.00
4	18"	" "	@ 4.00 "	16.00

LESS 55% 27.00 12.15

5-3/4#	1"	ELASTIC PACKING	@ 40¢	2.30
3-1/4#	1/4"	NOX-ALL PISTON PACKING	@ 40¢	1.30
50#	1/4"	RUBBER GASKETING	@ \$1.00	50.00

43-1/4#	-1/16	RAINBOW PACKING	@ 50¢	21.62
113#	1/8"	" "	@ 50¢	56.50

42-3/4#		GASKET CLOTH	@ 25¢	10.69
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2-3/4#	-1/32"	RUBBERBESTOES	@ 70¢	1.92
6#	1/16"	" "	@ 70¢	4.20

5#	- 5/8"	METALIC ASBESTOS PACKING	@ 70¢	3.50
3-1/2#	-1/4"	GERMAN " "	@ 70¢	2.45
3#	1/2"	" " "	@ 70¢	2.10
7#	1"	" " "	@ 70¢	4.90

30#	3/8"	SQUARE PACKING		
11	1/4"	" "		
58	1/2"	" "		
20	3/4"	" "		
45	9/16"	" "		
45	5/8"	" "		
6-1/4	-1"	" "		
215-1/4#		" "	@ 55¢	118.39

23#		ASBESTOS WICKING	@ 25¢	5.75
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2#	5/8 X 2	GARLOCK RING PACKING	@	
2-3/4	-5/8 X 2-1/2	" " "	@	
2#	7/16 X 3/4	" " "	@	
2#	7/16 X 1"	" " "	@	
8-3/4#		" " "	@ 55¢ per lb. net	4.81

1#	1/4"	GRALOCK SPIRIAL PACKING		
2#	1/2"	" " "		
2#	5/8"	" " "		
1#	7/16"	" " "		
6-1/2#		" " "	@ 55¢ per lb. net	3.57

\$ 325.65

10	Water Glasses	1/2 X 12					
91	"	"	5/8 X 14				
22	"	"	5/8 X 16				
50	"	"	3/4 X 20				
<u>173</u>	"	"	@ 20¢	Each			34.60

5	Lengths 1" Asbestos Pipe Covering	@ 10¢ per length				.50
2	" 4" " " "	@ 20¢ " "				.40
2	" 6" " " "	@ 20¢ " "				.40
1	" 7" " " "	@ 20¢ " "				.20
1	TEE 1" " " "	@ 10¢ Each				.10
2	" 2" " " "	@ 10¢ "				.20
1	6" Asbestos Tee Cover	@ 20¢ "				.20
5	Soft Plugs	@ 25¢ "				1.25

4#	PUTMAN HORSE SHOE NAILS #4					
3	" " " " "	6				
4	" " " " "	7				
5	" " " " "	8				
4	" " " " "	9				
4	" " " " "	10				
<u>24#</u>	" " " " "	@ 20¢ per pound				4.80

75#	4d COMMON NAILS	@ \$2.85 per 100	2.14
300#	8d " "	@ 2.60 " "	7.80
200#	10d " "	@ 2.55 " "	5.10
225#	40d " "	@ 2.50 " "	5.62
100#	60d " "	@ 2.50 " "	2.50

23.16 23.16

7#	#3 HARD RUBBER VALVES		
9#	#3-1/2 " "		
15#	#4 " "		
30#	#4-1/2 " "		
3	#5-1/2 Hard Rubber Valves		
13#	6 X 6		
<u>77#</u>	" " "	@ \$1.00 per pound	77.00

76	11-1/4 X 7 LEATHER VALVES	@ 10¢ Each	7.60
44	15-1/2 X 6 " "	@ 20¢ "	8.80

125	3/4" LEATHER WASHERS	@ \$1.75 Per 100	2.19
100	7/8 " "	@ 2.00 " "	2.00
200	1" " "	@ 2.25 " "	4.50
200	1-1/8" " "	@ 2.50 " "	5.00

Less 80% 13.69 2.74

3-1/4# -3/8" Rubberbestos Gaskets @ 70¢ net 2.27

4 Bags Asbestos @ \$2.75 per bag 11.00

\$175.22

22	15/64	TWIST DRILLS	@ \$2.90	per dz.	5.56
5	19/64	" "	@ 3.90	" "	1.62
6	21/64	" "	@ 4.50	" "	2.25
7	23/64	" "	@ 5.10	" "	2.97
9	25/64	" "	@ 5.70	" "	4.27
2	27/64	" "	@ 6.40	" "	1.07
6	29/64	" "	@ 7.20	" "	3.60
5	31/64	" "	@ 7.75	" "	3.23

Less 60 & 10% 24.57 \$ 8.36

3	5/32	TWIST DRILLS	@ 1.80	per dz.	.45
6	7/32	" "	@ 2.65	" "	1.33
10	9/32	" "	@ 3.65	" "	3.04
8	11/32	" "	@ 4.80	" "	3.20
3	3/16	" "	@ 2.20	" "	.55
3	5/16	" "	@ 4.20	" "	1.05
3	7/16	" "	@ 6.80	" "	1.70
6	1/8	" "	@ 1.45	" "	.73
6	3/8	" "	@ 5.40	" "	2.70
12	1/4	" "	@ 3.15	" "	3.15
9	1/2	" "	@ 8.00	" "	6.00

Less 60% 23.90 9.58

5	13/32	TWIST DRILLS	@ .85	Each	4.25
5	15/32	" "	@ .95	" "	4.75
9	17/32	" "	@ 1.10	" "	9.90
1	21/32	" "	@ 1.50	" "	1.50
1	25/32	" "	@ 2.00	" "	2.00
1	29/32	" "	@ 2.60	" "	2.60
9	9/16	" "	@ 1.20	" "	10.80
2	11/16	" "	@ 1.60	" "	3.20
3	5/8	" "	@ 1.40	" "	4.20
1	7/8	" "	@ 2.45	" "	2.45
2	3/4	" "	@ 1.85	" "	3.70
1	1-1/32	" "	@ 3.20	" "	3.20
1	1/16	" "	@ 3.40	" "	3.40

Less 35% 55.95 36.37

1	1/2 X 1/32-13	TAPS	@ \$1.00	Each	1.00
1	3/4 X 1/32-10	"	@ 1.60	"	1.60

Less 60% 2.60 1.04

70#	3/16 X 2	RIVETS			
310	3/8 X 1/2	"			
25	3/8 X 1	"			
155	3/8 X 2	"			
137	1/4 X 1/2	"			
100	1/4 X 1	"			
85	1/4 X 2	"			
37	5/16 X 3/4	"			
35	1/2 X 2	"			
954#			@ 7¢ net		66.78

61# Toe Calks @ 4¢ per lb. 2.44

2 Luckenheimer Water Gauges @ 50¢ each 1.00

\$125.57

9	1-1/4"	BRASS PLUGS	@ 40¢	3.60	
3	2"	" " "	@ 90¢	2.70	
1	2-1/2"	" "	@1.25	1.25	
		Less 70 & 10%		<u>7.55</u>	2.04

2	2"	HOSE COUPLINGS	@ 50¢		1.00
4	1-1/2"	" CLAMPS	@ 10¢		<u>.40</u>

\$ 3.44

9

9	1/4"	FAIRBANKS BRASS VALVE DISCS	@10¢		.90
12	1/2"	" " " "	@ 10¢		1.20
20	3/4"	" " " "	@ 10¢		2.00
35	1"	" " " "	@ 12¢		4.20
36	1-1/4"	" " " "	@ 18¢		6.48
1	1-1/2"	" " " "	@ 22¢		.22
5	2"	" " " "	@ 30¢		1.50
11	3"	" " " "	@ 60¢		6.60

23	1/4" X 1/8"	BRASS BUSHINGS	@ 10¢	2.30	
8	3/4" X 3/8"	" "	@ 21¢	1.68	
4	1" X 3/8"	" "	@ 38¢	1.52	
5	2-1/2" X 2"	" "	@1.50	7.50	
				<hr/>	
Less 70 & 10%				13.00	3.51

2	1/8"	BRASS UNIONS	@ 32¢	.64	
1	1/4"	" "	@ 36¢	.36	
9	3/4"	" "	@ 90¢	8.10	
				<hr/>	
Less 70 & 10%				9.10	2.46

9	1"	BRASS COUPLINGS	@ 50¢	4.50	
1	1-1/4"	" "	@ 60¢	.60	
6	2"	" "	@1.35	8.10	
2	2-1/2"	" "	@2.40	4.80	
				<hr/>	
Less 70 & 10%				18.00	4.86

13	3/4"	BRASS ELBOWS	@ 70¢	9.10	
12	1-1/4"	" "	@1.50	18.00	
27	1-1/2"	" "	@2.00	54.00	
1	2"	" "	@3.00	3.00	
				<hr/>	
Less 70 & 10%				84.10	22.71

5 2" BRASS RETURN BENDS @ 3.50 Less 70 & 10% 21.00 5.67

6	3/4"	BRASS TEES	@ \$1.00	6.00	
1	1"	" "	@ 1.35	1.35	
6	1-1/4"	" "	@ 2.00	12.00	
3	2"	" "	@ 4.50	13.50	
				<hr/>	
Less 70 & 10%				32.85	8.87

1 1-1/4" BRASS CROSS @\$2.75 less 70&10% .74

1 1-1/2" BRASS FLANGES @ 2.50 " " .68

1 3/4" BALL JOINT UNIONS @\$1.00 1.00

2 8" PIPE TAPS @ \$2.85 5.70
Less 75% 1.43

\$75.03

21	1/8"	ANGLE GLOBE VALVES	@ 72¢	15.12	
2	1-1/2"	" " "	@3.50	7.00	
		Less 75%		22.12	5.53
2	1-1/2"	STRAIGHTWAY BRASS GATE VALVES	@7.10	14.20	
3	3"	" " " "	@ 25¢	.75	
		Less 75%		14.95	3.74
6	1/2"	FAIRBANKS BRASS GLOBE VALVES	@ \$1.60	9.60	
5	3/4"	" " " "	@ 2.40	12.00	
5	1"	" " " "	@ 2.80	14.00	
7	1-1/4"	" " " "	@ 4.00	28.00	
6	2"	" " " "	@ 8.00	48.00	
		Less 60 & 10%		111.60	40.18
1	3/4"	FAIRBANKS ANGLE VALVES	@ \$2.40	2.40	
5	1"	" " " "	@ 2.80	14.00	
		Less 60 & 10%		16.40	5.90
6	3/4"	GLOBE VALVES	@ \$1.26	7.56	
3	1-1/2"	" "	@2.52	7.56	
1	2-1/2"	" "	@ 10.00	10.00	
		Less 75%		25.12	6.28
1	2-1/2"	CAST BODY GATE VALVES	@ \$12.00	12.00	
1	3"	" " " "	@ 15.00	15.00	
1	5"	" " " "	@ 2.50	2.50	
		Less 75%		29.50	7.38
1	1-1/4"	FOUR WAY COCK			14.00
1	1-1/4"	THREE WAY BRASS COCK @ 5.75	Less 60&10%		2.07
1	1-1/4"	Syphon			5.00
1	1"	WAY COCK @ 2.35	Less 75%		.59
1	2"	BRASS LEVER GATE VALVE			2.50
1	3/4"	ANGLE CHECK VALVES	@ \$1.15	1.15	
4	1"	" " "	@ 1.60	6.40	
1	1-1/4"	" " "	@ 2.25	2.25	
3	1-1/2"	" " "	@ 3.15	9.45	
		Less 75%		19.25	4.81
2	1/4"	STRAIGHTWAY CHECK VALVES	@ 65¢	1.30	
6	1"	" " "	@ 1.60	9.60	
3	1-1/2"	" " "	@ 3.15	9.45	
		Less 75%		20.35	5.09
2	1-1/4"	THREWAY BRASS ELBOWS	\$1.50	3.00	
		Less 70 & 10%			.81

\$ 103.88

16	3/4" X 1/8"	REDUCING COUPLINGS	@ 10¢	1.60	
7	1/2" X 1/4"	"	@ 5¢	\$.35	
24	1/2" X 3/8"	"	@ 5¢	1.20	
7	3/4 X 3/8"	"	@ 10¢	.70	
1	1" X 1/2"	"	@ 16¢	.16	
3	1-1/2" X 1/2"	"	@ 28¢	\$.84	
1	2" X 3/4"	"	@ 45¢	.45	
3	2-1/2" X 2"	"	@ 70¢	2.10	
20	2 X 1-1/4"	"	@ 45¢	9.00	
6	3" X 2-1/4"	"	@1.00	6.00	
9	5" X 4"	"	@2.00	18.00	

Less 60 & 10% 40.40 14.55

6	1/2" THREE WAY ELBOWS	@ 10¢	.60
5	3/4" " " "	@18¢	.90
6	1-1/4" " " "	@ 45¢	2.70
8	2" " " "	@1.00	8.00

Less 75 & 10% 12.20 2.75

9	1/4" SHORT NIPPLES	@ 4¢	.36
3	3/8" " "	@ 4¢	.12
2	1/2" " "	@ 5¢	\$.10
7	3/4" " "	@ 6¢	.42
10	1" " "	@ 8¢	.80
8	1-1/4" " "	@ 11¢	.88
18	1-1/2" " "	@ 13¢	2.34
15	2" " "	@ 18¢	2.70
4	6" " "	@1.85	7.40
2	8" " "	@3.55	7.10

Less 80% 22.22 4.44

2	11" SHEAVES	50¢ net	1.00	1.00
9	3/4" RETURN BENDS	@ 30¢	2.70	
72	1" " "	@ 50¢	36.00	
2	1-1/4" " "	@ 65¢	1.30	
3	1-1/2" " "	@ 85¢	2.55	

Less 80% 42.55 18.51

5	1/8" STRAIGHTWAY BRASS GLOBE VALVES	@ 72¢	3.60
9	1/4" " " " "	@ 72¢	6.48
5	3/8" " " " "	@ 77¢	3.85
3	1/2" " " " "	@1.00	3.00
14	3/4" " " " "	@1.26	17.64
20	1" " " " "	@1.80	36.00
4	1-1/4" " " " "	@2.52	10.08
12	1-1/2" " " " "	@3.50	42.00
11	2" " " " "	@5.30	58.30
6	2-1/2" " " " "	@10.00	60.00

Less 75% 240.95 60.24

12

\$ 91.49

12	1"	RAILING CROSSES	@ 30¢	3.60	
		Less 70%			1.08
1	4"	CAST IRON SADDLE	@ 1.50	1.50	
		Less 25%			1.12
3	1-1/4" X 3/4"	REDUCING TEES	@ 27¢	.81	
9	1-1/4" X 1"	" "	@ 27¢	2.43	
1	4" X 1"	" "	@ 2.00	2.00	
1	1-1/2" X 1-1/4"	" "	@ 33¢	.33	

Less 75 & 10% 5.57 1.25

11	1/8"	45° ELBOWS	@ 8¢	.88	
11	1/4"	" "	@ 8¢	.88	
11	3/8"	" "	@ 6¢	.66	
9	1/2"	" "	@ 7¢	.63	
10	3/4"	" "	@ 10¢	1.00	
14	1"	" "	@ 12¢	1.68	
17	1-1/4"	" "	@ 19¢	3.23	
8	1-1/2"	" "	@ 24¢	1.92	
6	2"	" "	@ 34¢	2.04	
3	2-1/2"	" "	@ 60¢	1.80	
5	3"	" "	@ 90¢	4.50	
6	4"	" "	@ 1.45	8.70	
2	5"	" "	@ 2.50	5.00	
2	6"	" "	@ 3.45	6.90	
1	8"	" "	@ 8.50	8.50	

Less 70 & 10% 48.32 13.06

2	3/8"	COUPLINGS	@ 6¢	.12	
4	1/2"	"	@ 7¢	.28	
26	3/4"	"	@ 10¢	2.60	
17	1"	"	@ 13¢	2.21	
1	1-1/4"	"	@ 17¢	.17	
44	1-1/2"	"	@ 21¢	9.24	
64	2"	"	@ 28¢	17.92	
20	2-1/2"	"	@ 40¢	8.00	
14	3"	"	@ 60¢	8.40	
1	3-1/2"	"	@ 80¢	.80	
18	4"	"	@ 1.00	18.00	
9	5"	"	@ 1.65	14.85	
1	6"	"	@ 2.40	2.40	
4	8"	"	@ 4.25	17.00	
3	10"	:	@ 7.50	22.50	
1	14"	"	@ 13.00	13.00	

Less 80 & 10% 137.49 24.75

13	1"	R. & L COUPLINGS	@ 33¢	4.29	
		Less 70 & 10%			1.16

\$ 42.42

20	1/8"	CAST PLUGS	@ 2¢	.40
20	1/4"	" "	@ 2¢	.40
6	3/8"	" "	@ 2¢	.12
17	1/2"	" "	@ 2¢	.34
27	3/4"	" "	@ 3¢	.81
35	1"	" "	@ 4¢	1.40
77	1-1/4"	" "	@ 5¢	3.85
35	1-1/2"	" "	@ 7¢	2.45
26	2"	" "	@ 10¢	2.60
8	2-1/2"	" "	@ 18¢	1.44
8	3"	" "	@ 25¢	2.00
7	4"	" "	@ 42¢	2.94
8	5"	" "	@ 88¢	7.04
5	6"	" "	@ 1.20	6.00

Less 75%

31.79 7.95

3 2-1/2" CAST FLG. ELBOWS @ 1.05
Less 75%

3.15 .79

2 1-1/4" REDUCING ELBOWS @ 18¢
Less 75%

.36 .08

1 3-1/2" Flanges @ 1.90
1 4" " @ 2.10
3 5" " @ 3.15
6 6" " @ 3.95

1.80
2.10
9.45
23.70

Less 75%

37.05 9.26

24	3/8" X 1/4"	BUSHINGS	@ 4¢	.96
26	1/2" X 3/8"	"	@ 4¢	1.04
18	3/4" X 3/8"	"	@ 5¢	.90
34	3/4" X 1/2"	"	@ 5¢	1.70
78	1-1/4" X 1/2"	"	@ 7¢	5.46
2	1-1/2" X 1/2"	"	@ 9¢	.18
48	2" X 1/2"	"	@ 14¢	6.72
17	1" X 3/4"	"	@ 6¢	1.02
70	1-1/4" X 3/4"	"	@ 7¢	4.90
1	1-3/4" X 3/4"	"	@ 7¢	.07
3	2" X 3/4"	"	@ 14¢	.42
36	1-1/4" X 1"	"	@ 7¢	2.52
23	1-1/2" X 1"	"	@ 9¢	2.07
1	2" X 1"	"	@ 14¢	.14
4	1-1/2" X 1-1/4"	"	@ 9¢	.36
81	2" X 1-1/2"	"	@ 14¢	11.34
31	2-1/2" X 2"	"	@ 21¢	6.51
3	3" X 2-1/2"	"	@ 30¢	.90
9	4" X 2-1/2"	"	@ 50¢	4.50
3	4" X 3"	"	@ 50¢	1.50
4	5" X 4"	"	@ 93¢	3.72

56.93 12.78

Less 75 & 10%

4 1/4" CAST CROSSES @ 8¢
4 1/2" " " @ 12¢
6 3-1/2" " " @ 2.70

.32
.48
16.20

Less 75 & 10%

17.00 3.83

\$34.69

14

8	1/8"	TEES	@ 8¢	.64
17	1/4"	"	@ 8¢	1.36
12	3/8"	"	@ 8¢	.96
22	1/2"	"	@ 9¢	1.98
12	1"	"	@15¢	1.80
12	1-1/4"	"	@23¢	2.76
12	1-1/2"	"	@29¢	3.48
8	2"	"	@41¢	3.28
8	2-1/2"	"	@73¢	5.84
10	3"	"	@1.10	11.00
2	3-1/2"	"	@1.50	3.00
9	4"	"	@1.75	15.75
2	5"	"	@3.00	6.00
4	6"	"	@4.00	16.00

Less 75 & 10% 73.85 \$ 16.62

14	1/8" C	CAST ELBOWS	@ 5¢	.70
16	1/4"	" "	@ 5¢	.80
4	3/8"	" "	@ 5¢	.20
12	1/2"	" "	@ 6¢	.72
10	1"	" "	@ 10-1/2¢	1.05
20	1-1/4"	" "	@ 16¢	3.20
8	1-1/2"	" "	@ 20¢	1.60
8	2"	" "	@ 28¢	1.40
4	2-1/2"	" "	@ 50¢	2.00
7	3"	" "	@ 75¢	5.25
6	5"	" "	@2.00	12.00
6	6"	" "	@2.75	16.50
1	7"	" "	@4.70	4.70

Less 75 & 10% 50.12 11.28

1	3/4" CAST	FLG. UNIONS	@ 46¢	.46
6	1-1/2"	" " "	@ 78¢	4.68
6	2"	" " "	@1.00	6.00
4	2-1/2"	" " "	@1.25	5.00
2	3"	" " "	@1.50	3.00
3	4"	" " "	@2.10	6.30
2	5"	" " "	@3.15	6.30
1	6"	" " "	@3.95	3.95

Less 75% 35.69 8.92

13	1/2"	UNIONS	@ 18¢	2.34
5	3/8"	"	@ 20¢	1.00
16	1/2"	"	@ 22¢	3.52
7	3/4"	"	@ 27¢	1.89
12	1"	"	@33¢	3.96
12	1-1/4"	"	@ 46¢	5.52

Less 70 & 10% 18.23 4.92

1	4"	CAST UNION @4.35 Less 70&10%	4.35	1.18
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\$42.92

6	CRUSHER BUCKETS	@ \$1.00	6.00	
33	BUCKET LINKS	@ 5¢	1.65	
59	DRIVING LINKS	@ 10¢	5.90	
7	28# MANGANESE TRUCK WHEELS	196# @ 15¢	29.40	
16	10# ORE BUGGY BOXES	160# @ 6¢	9.60	
2	COMPLETE WAGON SKEINS	@ \$1.00	2.00	
217	Ft. 1-1/4" MANILLA ROPS	@ 15¢ Per Foot.	32.55	
438	# 1-1/2" HEXAGON BARS	@ 15¢ Per Lb.	65.70	
475#	No.18 COPPER PLATES	@ 25¢ " "	118.75	
169#	No. 9 " "	@ 25¢ " "	42.25	
167#	1-1/2" BARS TUBING	@ 20¢	33.40	
23#	GALVANIZED SHEET IRON	@ 6¢	1.38	
1	PIPE WRENCH CHAINS		.50	
11#	LEAD PIPE	@ 6¢	.66	
200#	No. 5 BELT STUDS	@ 20¢ Per cwt.	.40	
30#	8d COPPER NAILS	@ 30¢	9.00	
15#	6d " "	@ 30¢	4.50	363.64

10	Brls LOUISVILLE CEMENT	@ \$1.60 Per Brl.	16.00	
3	" ATLAS PORTLAND "	@ 3.50 " "	10.50	
400#	RETORT CEMENT	@ 5¢	20.00	46.50

5#	SMOOTH ON	@ 6¢	.30	
25#	BORRX	@ 12¢	3.00	
6#	DRY SHELLAC	@ 10¢	.60	
35#	ROSIN	@ 6¢	2.10	
30#	PUTTY	@ 5¢	1.50	
125#	GRAPHITE	@ 12-1/2¢	15.63	
6	WIPING CLOTHS	@ 10¢	.60	
29-1/2	QUIRES EMERY CLOTH	@ 75¢ Per Quire	22.12	
7	" SAND PAPER	@ 25¢ " "	1.75	47.60

18	12 X 28 WINDOW GLASS	@ 25¢	4.50	
30	12 X 16 " "	@ 15¢	4.50	9.00

2	DRUMS CAUSTIC SODA		73.75	
1	Br1. ALUMN 500#	@ 2-3/4¢	13.75	
8#	MURIATIC ACID	@ 3¢	.24	
75#	WHITE LEAD	@ 8¢	6.00	93.74

3	TONS COKE	@ \$5.10	15.30	
3	" SMITH COAL	@ 4.25	12.75	28.05

4080#	STRAW	@ \$7.00 Per Ton	14.28	
7 0270#	HAY	@ 12.50 " "	439.19	
2800#	FEED	@ 19.50 " "	27.30	
1570#	MIDLINGS	@ 18.00 " "	14.13	
3500#	BRAN	@ 17.00 " "	29.75	
300 Bu.	OATS	@ .31¢ Per Bu.	93.00	617.65

\$ 1206.18

1475	Ft. No.8 OKONITE WIRE	@ \$30.00 M	44.25	
1600	" No.12 " "	@ 16.00 "	25.60	
6345	" No.14 " "	@ 13.00 "	82.48	
227	DUGAN CLEATS	@ 2.16 C	4.90	
56	LAMP? GUARDS	@ 75¢ Per Dz.	3.50	
202	SECURITY INSULATORS	@ 2.10 C	4.24	
49	WALL SOCKETS	@ 25¢ C	12.25	
34	COMBINATIONS CLEATS & ROSETTES	@ 13¢	4.42	
6	SINGLE POLE SWITCHES	@ 22¢	1.32	
5	DOUBLE POLE "	@ 25¢	1.25	
12	ATTACHMENT PLUGS	@ 12¢	1.44	
2	No. 190 KNIFE SWITCHES	@ 25¢	.50	
1	No. 1935 PLUG CUT OUT	@ 30¢	.30	
81	KEY SOCKETS	@ 20¢	16.20	
6	1/2" X 12 WIRING TUBES	@ 4.33 C	.25	
65	4" " "	@ 7.75	.50	
25	8" " "	@ 3.60	.94	
100	RUBBER BUSHINGS	@ 45¢	.45	
4	12 Amp. FUSE PLUGS	@ 6¢	.24	
10	15 " " "	@ 6¢	.60	
10	20 " " "	@ 6¢	.60	
10	30 " " "	@ 6¢	.60	
1#	1/2" OKONITE TAPE	@ 75¢	.75	
1#	SOLDERING STICK		.15	
176	8 C.P. INCANDESCENT LAMPS	@ 18¢ net	31.68	
132	16 C.P. " "	@ 18¢ "	23.76	
10#	LEAD WIRE (SODDER ELECTRIC)	@ 26¢	2.60	265.77
16#	OLIVE OIL SOAP	@ 10¢	1.60	
40#	SANTA CLAUS SOAP	@ 7¢	2.80	
51#	CANDLES	@ 8¢	4.08	
11	ENGINE LAMP GLOBES	@ 15¢	1.65	
3	LANTERNS GLOBES	@ 10¢	.30	
11	SWITCHMENS LANTERNS & GLOBES	@ 10¢	1.10	
7	ROCHESTER LAMP CHIMNEYS	@ 15¢	1.05	
1	LANTERN	@ 35¢	.35	
12	FURNACE TORCHES	@ 50¢	6.00	
7	DOZ. LANTERN WICKS	@ 1¢ each	.84	
9	" " BURNERS	@ 2¢ "	2.16	21.93
11	BINGHAM AXES	@ 50¢	5.50	
3	No.6 VARNISH BRUSHES	@ 75¢	2.25	
8	No. 2 " "	@ 50¢	4.00	
6	No. 6/0 " "	@ 50¢	3.00	
15	No.2 SASH " "	@ 10¢	1.50	
22	No.5 " "	@ 10¢	2.20	
16	WHITE WASH " "	@ 50¢	8.00	
8	HOUSE " "	@ 50¢	4.00	
5	WINDOW " "	@ 25¢	1.25	
2	SCRUB " "	@ 25¢	.50	
4	WIRE HORSE " "	@ 15¢	.60	
1	TILE " "	@ 5¢	.05	
8	FEATHER DUSTERS	@ 35¢	2.80	
2	DOOR KNOBS (PORCELAIN)	@ 5¢	.10	
1	WINDOW CLEANERS	@ 10¢	.10	
5	SKIMMERS	@ 25¢	1.25	37.10

\$324.80

65#	1/8"	BLACK PIPE	@	5¢	3.25	
57	1/4"	" "	@	6¢	4.50	
275#	1/2"	" "	@	9¢	24.75	
180#	3/4"	" "	@	12¢	21.60	
275#	1"	" "	@	17¢	46.75	
210#	1-1/2"	" "	@	27¢	56.70	
85#	2"	" "	@	36¢	30.60	
164#	2-1/2"	" "	@	58¢	95.12	
112#	3"	" "	@	76¢	85.12	
18#	4"	" "	@	1.08	19.44	

LESS 69%

387.83

120.23

37-1/2 Ft. 5" BLACK PIPE @ 1.45 LESS 69 & 5% 54.38

16.78

44 Ft. 6" BLACK PIPE @ 1.88 LESS 66% 82.72

28.12

3		SPRING HINGES	@	5¢	.15	
22	4"	STRAP	@	5¢	1.10	
10	6"	" "	@	8¢	.70	
3	12"	" "	@	8¢	.24	
19	10"	" "	@	8¢	1.52	
7	8"	" "	@	8¢	.56	4.27

8		WOOD FAUCETS	@	10¢	.80	
2	3/8"	" "	@	25¢	.50	1.30

68000	RED BRICK	@ \$8.35 M	561.00	
9000	FIRE "	@ 25.00 "	225.00	
1400	ARCH "	@ 25.00 "	35.00	
2000	13 X 5 X 6 BRICK	@ \$30.00 M	60.00	
30	TONS FIRE CLAY	@ 7.00 Ton	210.00	1091.00

40	8 X 12 X 2	TILE	@ \$30.00 M	1.20	
600	9 X 12 X 2	" "	@ 30.00 "	18.00	
46	12 X 12 X 2	" "	@ 30.00 "	1.38	
5	12 X 14 X 2	" "	@ #30.00 "	.15	
239	13 X 7 X 16	" "	@ 30.00 "	7.17	27.90

30 Cars	SAND	@ 13.18	395.40	395.40
13809#	LOCOMOTIVE COAL	@ \$4.25 Per Ton		29.34
2	SMOKE FANS	@ \$25.00 Each		50.00
5000 Ft.	HARDWOOD LUMBER	@ 12.00		60.00

\$1824.34

20	16"	HORSE RASPS & FILES	@ 45¢ Each	9.00
4	6"	HALF RD. BASTARD FILES	@ \$3.40 Doz.	1.14
14	6"	FLAT " "	3.40 "	3.96
17	6"	HALF RD. SECOND CUT FILES	3.40 "	4.81
15	12"	" " " " " "	12.50 "	15.62
6	6"	FLAT " " "	3.40 "	1.70
12	6"	MILL FILES	@ 3.40 "	3.40
15	5"	SLIM TAPER FILES	@ 2.60 "	3.25
6	6"	SQUARE SECOND FILES	@ 3.40 "	1.70
18	6"	" "	@ 3.40 "	5.10
14	12"	FLAT BASTARD FILES	@ 12.50 "	14.60
9	6"	MILL " "	@ 3.40 "	2.55
18	6"	ROUND SECOND CUT FILES	@ 3.40 "	5.10
15	6"	" BASTARD "	@ 3.40 "	4.24
24	12"	SQUARE BASTARD "	@ 12.50 "	25.00
12	10"	" " "	@ 8.10 "	8.10
11	10"	ROUND " "	@ 8.10 "	7.43
15	12"	MILL " "	@ 12.50 "	15.63
6	8"	" " "	@ 5.40 "	2.70

LESS 80%

135.03

27.01

5	YALE PAD LOCKS		@ 40¢ Each	2.00
150#	3/8 X 1/2	RD HEAD RIVETS	@ 7¢ net	10.50
37	3/8 X 3/4	" " "	@ 7¢ "	2.59
70	5/16 X 1/2	" " "	@ 7¢ "	4.90
16#	3/8 X 1-1/2	" " "	@ 7¢ "	1.12
45#	3/8 X 2-1/2	" " "	@ 7¢ "	3.15
50#	3/8 X 3-1/2	" " "	@ 7¢ "	3.50
35#	3/8 X 2	" " "	@ 7¢ "	2.45
100#	3/4 X 1-1/2	" " "	@ 4¢ "	4.00
25#	1/4 X 2-1/2	" " "	@ 6¢ "	1.50

33.71

17#	3/16 X 1/2	COPPER RIVETS	@ 25¢ Net	4.25
7#	1/4 X 1-1/2	" "	@ 25¢ "	1.75
3#	1-1/2 X 1	" "	@ 25¢ "	.75
3#	1" No. 8	" "	@ 30¢ "	.90
1#	No. 8	" "	@ 30¢ "	.30

7.95

105	No. 0	BRISTOL RECORDING BLANKS	@ 3/4¢
69	No. 3	" " " "	
100	No. 35	" " " "	
115	No. 651	" " " "	
390		" " " "	@ 3/4¢ each net

2.93

\$ 73.60

19

R E C A P I T U L A T I O N
O F
F U R N A C E S U P P L I E S

TOTAL SHEET NO. 1-----	\$1608.24
TOTAL SHEET NO. 2-----	800.68
TOTAL SHEET NO. 3-----	489.07
TOTAL SHEET NO. 4-----	17.60
TOTAL SHEET NO. 5-----	40.14
TOTAL SHEET NO. 6-----	325.65
TOTAL SHEET NO. 7-----	175.22
TOTAL SHEET NO. 8-----	125.57
TOTAL SHEET NO. 9-----	3.44
TOTAL SHEET NO.10-----	75.03
TOTAL SHEET NO.11-----	103.88
TOTAL SHEET NO.12-----	91.49
TOTAL SHEET NO. 13-----	42.42
TOTAL SHEET NO.14-----	34.69
TOTAL SHEET NO.15-----	42.92
TOTAL SHEET NO.16-----	1206.18
TOTAL SHEET NO.17-----	324.80
TOTAL SHEET NO.18-----	1824.34
TOTAL SHEET NO.19-----	73.60
TOTAL SHEET NO.20-----	<u>1979.65</u>
TOTAL FURNACE SUPPLIES	\$ 9384.61

CHEMICAL SUPPLIES

2240 Sacks	@ 9¢	201.60
68 Barrels	@ 1.51	102.68
220 " Chemical Lime	@ .84¢	184.80
31# Caustic Soda	@ .04-1/2¢	1.40
600# Chloride Lime	@ 2.05	12.30
220# Cotton Batts	@ .04¢	8.80
1130# Muriatic Acid	@ .014¢	15.82
340# Glue	@ .13-1/2¢	45.90
1 Brl. Assorted Bungs		5.00
20# Sack Twine	@ .14¢	2.80
45-1100 Tons Yough Screenings	@ 2.95	134.37
83-550 Tons Pocahontas Coal	@ 3.25	271.53
TOTAL		\$ 987.00

RETORT SUPPLIES

3182-1600 Tons Anthracite Screenings @ 2.93 9307.77

MATHEWS BARN SUPPLIES

440 Bu. Oats	@ .34¢	149.60
18500 Lbs. Hay	@ 13.50 Per ton	124.88
120 Gallons Oil	@ .10¢	12.00
TOTAL		\$ 286.48

L A B O R A T O R Y S U P P L I E S

1 Lb.	Ammonium Sulfite	.35
1 "	Soda Lime	.15
1 "	Sodium Acetate	.35
1 "	Pottassium Cynaide	1.00
1 "	" Nitrate	.30
1 "	Sodium Hyposulfite	.10
1 "	" Phosphate	.30
2 "	Calcium Chlorade	.60
2 "	Potassium "	1.00
3 "	Ether	2.70
5 "	Manganese Dioxide	.75
1 "	Sodium Licarbonate	.25
1 "	Barium Chlorid	.25
1/2"	Chlorform	.75
2 "	Phosphoric Acid	1.00
1/2"	Litmus	1.10
12 "	Potassium Pemanganate	1.00
1 "	" Dechromate	.50
1 "	Sodium Besulfite	.50
1 "	Barium Hydrate	1.50
2 "	Stannous Chlorid	1.00
1/2"	Magnesium	.35
1/2"	Hydrofluoric Acid	.20
1-1/2	Ammonium Oxalate	1.00
1 "	Oxalic Acid	.50
1 "	Calcium Carbonate	.30
1 "	Microcosmec Salt	1.00
3 "	Ferrous Sulfite	.75
1/2"	Starch	.05
1 "	Peroxoid of Lead	1.00
3 "	Zinc Oxid	1.50
1 "	Ammonium Chlorid	.40
4 "	" Acetate	4.40
5 "	Sodium Carbonate	2.50
40 "	Copper & Potassium Chlorid	20.00
7 "	Chromic Acid	5.60
5 "	Potassium Hydrate	3.50
15 "	Molydic Acid	26.25
1/2"	Zinc Chlorid	.25
1 "	Potassium Dichromiate	.50
1/2"	" Iodide	2.00
1 "	Iodine	4.00
1 "	Memercunic Chloride	1.50

FORWARD

\$93.00

BROT. FORWARD

		93.00
1 lb.	Arsenious Acid	\$ 1.00
1 "	Potassium Sulfid	1.10
1 "	Cadmium Chloride	2.50
1 "	Potassium Acid Sulfate	.60
5 "	Powdered Zinc	3.00
4 "	Granulated Zinc	1.60
4 "	Acetate Acid	1.20
4 "	Carbon Besulfid	2.00
90 "	Ammonia	8.55
140 "	Nitric Acid	13.30
200 "	Sulfuric Acid	15.00
116 "	Hydroschlonic Acid	8.70
1/4 "	Citric Acid	.25
1/4 "	Taitarie Acid	.45
1 "	Benzoic Acid	2.50
1/5 "	Hydriatic Acid	1.50
1/16 "	Taunic Acid	.30
1/2 "	Ammoniumic Ferrous Sulphate	.25
1 "	" Malylidate	1.60
1/2 "	" Car bonate	.25
3/4 "	" Sulfate	.30
3/4 "	Sodium Nitrate	.30
1/6 "	Potassium Perrecyanid	.10
1/6 "	" Sulfaeyanide	.10
1 "	Mauganese Sulfate	.60
1/2 "	Lead Pesquioxide	.15
1 "	Lead Chromate	1.00
1/2 "	Ferrous Sulfaye	.25
1 "	Granulate Tin	1.00
1 "	Copper Sulfate	.15
3/4 "	" Oxide	.75
1/8 "	Silver Nitrate	1.50
1/16 "	Cebalic Nitrate	.30
1 "	Red Phosphorus	2.25
1 "	Yellow "	1.25
3 "	Asbestos	3.00
1 "	Acetone	.50
1/4 "	Iron Wire	.40
1/2 oz	Phenolphthalein	.50
1/2 "	Methyl Orange	.40
		<hr/> 173.45

LESS 25% DISCOUNT

43.39

130.06

EQUIPMENT.
LABORATORY.

1	Becker Balance and weights	\$50.00
1	Pulp Balance and weights	20.00
1	Common Balance and weight	2.00
1	Hard Balance	.25
1	Pack Filter paper (1000 sheets)	7.80
10	Sulfuric Acid Tubes	1.50
8	Distillation Flasks	2.00
1	Iron Still	3.00
20	Sepratory Funnels	24.00
4	Fractional Columns	2.00
21	Cylinders	12.60
6	Adapters	1.80
5	Glass Retorts	2.50
7	Condensers	3.50
2	Porcelain Rings	1.80
2	Dessicators	2.50
63	Reagent Bottles	15.75
1	Anvil	.60
1	Casserole	.30
6	Jugs	.90
7	Iron Stands and rings	1.75
2	Alcohol Lamps	1.50
3	Carbon Tubes	2.25
6	5 Gallon cans	3.00
1	Charcoal filter	.50
1	Chamois Skin	.25
3	Policeman	.75
15	Glass Rods	.75
8	Burette Clamps	4.00
4	Thistle Tubes	.60
2	Alkalimeters	4.00
2	Granite Ware pans	.50
4	Salmoniac Batteries	3.00
5	Nipper Taps	.25
7	Pails	1.05
1	Cork Borer	.90
1	" " Thorpense	.75
1	Westphal Balance	15.00
1	Set Hydrometers	5.00
3	Thermometers	1.50
12	Potash Bulbs	12.00
1	Burette stand	1.70
3	Kipp Generators	9.00
11	Carboys	22.00
2	Furnaces	18.00
1	Gasoline Stove	3.00
1	" "	5.00
1	" Tank and pump	5.00
1	Suction Pump	1.00
1	Iron Condenser	1.50
2	Asperator Jars	7.00
5	Funnel Racks	1.25
1	Steam Bath	5.00
2	Drying ovens	9.75
2	Copper Air Baths	9.75
4	Copper steam Baths	3.75
4	" Stills	35.00

FORWARD

\$351.80

BROT. FORWARD

		351.80
1	Set Seives	5.00
140	Beakers	18.20
1	Magnet	.25
3	Brushes	.30
1	Porcelain Moter & Pestle	.80
2	Agate " "	13.00
1	Spatule	.25
1	Gas Tongs	.75
70	Flasks	21.00
12	Graduated Flasks	6.00
64	Funnels	9.60
2	Crucible Tongs	1.00
1	Monkey Wrench	.50
1	Mallet	.50
1	Diamond Motor	5.80
2	Plyers	.50
5#	Glass Tubing	2.20
3#	Rubber Corks	6.00
1#	Rubber Tubing	1.75
1	Hot Plate	1.50
7	Precipitating Jars	10.50
1	Filter Basket	.50
101	Watch Glasses	14.10
6	Copper Boxes	.90
6	Pipettes	.50
6	Files	.30
4	Tripods	1.00
1	Sulphur Appartus	4.00
1	Acetate "	11.75
20	Evaporating Dishes	4.00
1	Test Tube Rack	.25
1	Crock	.20
5	Becker Clamps	1.00
1	Alimum Scoop with Counterpoise	1.25
1	Specific Gravity Bottle	2.00
1	Gasoline Can	.25
34	Test Tubes	.68
12ft.	Tin Pipe	.90
2	Scrub Brushes	.50
1	Mop	.10
1	Duster	.50
1	Waste Baskets	.25
1	Scratcher	.50
1	Ink Well	.75
1	Desk	5.50
5	Chairs	12.00
12	Small Precipitating Jars	3.00
12	Large " "	3.00
175	Odd Bottles	12.25
125	Sample Bottles	8.60
1#	Cotton	.50
6	Towels	1.50
2	Hoskins Burners	10.80
1	Box Lables	.15
1	Pair Shears	.25

\$ 560.93

Less 15% Depreciation in '98 \$84.14

Less 15% " '99 84.14

Less 15% " '00 84.14

252.42

Net Balance November 30th 1900

\$ 308.51

E Q U I P M E N T

OFFICE FURNITURE & FIXTURES

1	Chair	\$	1.50
1	Press & Stand		27.00
9	Curtains		11.42
1	Chair		5.00
1	Rapid Roller Copier		35.00
1	Challenge Eyelet Machine		3.00
1	Low Desk		10.00
1	Square Desk		25.00
2	Ink Stands		.50
2	Small Rugs		1.00
1	Globe Cabinet File		9.00
2	Sponge Dishes		.20
2	Waste Paper Baskets		.50
1	Office Chair		1.50
8	Office Chairs		8.00
1	Umbrella Holder		.25
2	Letter Baskets		.25
4	Ink Stands		.40
1	Large Rug		3.30
1	Steel Eraser		.25
1	Hair Brush & Comb		.15
1	Rand-McNally Atlas		1.00
1	Pin Dish & Pen Rack		.05
1	Pair Shears		.50
1	Clothes Brush		.25
1	Brass Towel Rack		.10
1	Stool		.25
1	High Desk		15.00
1	High Stool		.50
1	Glass Paper Weight		.10
2	Pen Racks		.25
1	Smith & Weston Hammerless Revolver		5.00
1	Table		1.00
1	Desk		.50
1	Drafting Table		2.00
1	Levelling Table Rod		13.00
1	Pair Shears		.25
1	Hand Level		18.00
1	Desk		20.00
1	Chair		1.00
1	Kellogg Lamp		2.00
1	Drawing Pen		.50
1	Shippers Desk		11.60
1	Typewriter Desk		8.40
1	18" Flexible Ruler		.50
1	U.S. Postal Scale		2.50
2	Shannon Files		2.80
1	Lightning Check Punch		18.00
6	Nickle Rochester Lamps, Complete		11.10
1	No. 10 Rochester Lamp		3.50
1	Time Lock Safe		275.00

FORWARD,-----

\$ 557.87

EQUIPMENT

OFFICE FURNITURE & FIXTURES

		AMT. BROT. FORWARD	
1	No. 4 Smith Premier Typewriter with tabulator		557.87
			149.00
1	Rapid Filing Cabinet & Base		47.50
1	Roll Top Desk		24.00
1	Revolving Chair No.411 (Mr. Farrell's)		11.16
1	" " No.411 (")		11.70
3	Office Chairs (")		28.80
1	Stenographers Chair		6.60

\$ 836.63

Net Balance November 30th 1899	\$ 593.05	
Additions 1900	45.00	

TOTAL 638.05

Depreciation 1900 15%	125.50	
Worn Out Two Office Chairs	3.85	129.35

Balance November 30th 1900	\$ 508.70	
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638.05

836.63

$$\begin{array}{r} 6380 \\ 2190 \\ \hline 9570 \end{array}$$

8366
4183

12549

28

E Q U I P M E N T
MACHINE SHOP MACHINERY

@

1	42" X 20 NEW HAVEN LATHE	\$420.00
1	4" JACK CHUCK	
1	LARGE FACE PLATE	
1	SMALL " "	
1	STEADY REST	
L	FOLLOWING REST	
1	SLIDE "	
1	BORING BRACE	
1	SET GEARS	
1	CRAW	
1	TON CHAIN BLACK	
1	FRICITION COUNTER SHAFT	
	66-1/2 lbs TOOLS	
1	SET BELTS	

1	SCHUMACHER & BOYE LATHE 26" X 14	705.00
1	LARGE FACE PLATE	
1	SMALL " "	
1	4" JAW CHUCK	
1	STEADY REST	
1	FOLLOWING REST	
1	EXTRA SLIDE REST	
1	SET GEAR	
1	FRICITION COUNTER SHAFT	
1	SET BELTS	
	57 Lbs. TOOLS	

	COMPLETE SET BELTS FOR ALL TOOLS	218.70
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1	FLATHER & CO LATHE 18 X 6	75.00
1	LARGE FACE PLATE	
1	SMALL " "	
1	4" JAW CHUCK	
1	SMALL 3" JAW CHUCK	
1	LITTLE GIANT DRILL CHUCK	
1	SET GEARS	
1	FOLLOWING REST	
1	STEADY REST	
1	FRICITION COUNTER SHAFT	
1	SET BELTS	
	17-1/2 Lbs. TOOLS	

1	FLATHER & CO LATHE 14" X 40	215.00
1	LARGE FACE PLATE	
1	SMALL " "	
1	4" JAW CHUCK	
1	LITTLE GIANT DRILL	
1	STEADY REST	
1	FOLLOWING REST	
1	FRICITION COUNTER SHAFT	
1	SET BELTS	
	23 Lbs. TOOLS	

\$1633.70

MACHINE SHOP EQUIPMENT CONTINUED

1	WOODWARD & POWELL PLANER 27 X 27 X 8	\$832.00
1	CHUCK	
1	COUNTER SHAFT	
1	SET BELTS	
	94 Lbs. TOOLS	
1	DRESSER MILLER & CO RADICAL DRILL #30"	395.35
1	SET TWIST DRILLS 1/16, 1/2, to 2"	
1	COUNTER SHAFT	
1	SET BELTS	
1	LITTLE GIANT DRILL CHUCK	
1	BARNE'S 16" DRILL PRESS	78.50
1	SET TWIST DRILLS by 1/64 1/16" to 1/2"	
1	LITTLE GIANT DRILL CHUCK	
1	COUNTER SHAFT	
1	SET BELTS	
1	SMITH & MILLS 15" SHAPER	212.45
1	CHUCK	
1	COUNTER SHAFT	
1	SET BELTS	
	13 Lbs tolls	
1	NO. 12 GARVIN MILLING MACHINE	265.80
1	PAIR SENDERS	
1	CHUCK	
1	ARBOR	
12	MILLING CUTTERS	
1	COUNTER SHAFT	
1	SET BELTS	
1	SAUNDERS & SON PIPE CUTTER 6"	75.00
1	SET OPEN PIPE DIES 1-1/4" to 6" inclusive	
1	COUNTER SHAFT	
1	SET BELTS	
1	NO. 3 MERIAM BOLT CUTTER	75.00
1	SET CHASERS FROM 1/2" to 2"	
1	SET TAPS FROM 1/2" to 2"	
1	COUNTER SHAFT	
1	SET BELTS	
1	DAVIS KEY SETTER NUMBER ONE	160.75
12	CUTTERS	
1	COUNTER SHAFT	
1	SET BELTS	
1	POWER HACK SAW NO. 10	6.88
1	SET BELTS	
1	CHALLENGE GRINDER NO. 4	5.00
1	EMERY WHEEL	
1	FELT	
1	POLISHING WHEEL	
1	COUNTER SHAFT	
1	SET BELTS	

\$2106.73

MACHINE SHOP EQUIPMENT CONTINUED

1	YANKEE TWIST DRILL DRINDER	65.00
1	SET BELTS	
1	MAIN SHAFT 85 Ft.	160.32
	22 PULLEYS	
	8 HANGERS	
1	NEW YORK SAFETY ENGIN 5" X 6"	50.00
1	MAIN BELT	
1	400# Fairbanks Scale No. 11-1/2	15.60
1	No. 50 Springfield Straightening Machine	27.50
1	Hill Vale Facing Machine	20.25
1	Overhead Trolley	15.00
1	Two Ton Chain Block	5.00
1	Set Hand Taps 1/4 X 1"	15.00
5	Armstrong Tolls	5.00
1	No. 18 Vice	5.00
1	No. 20 Vice	4.00
1	No. 3 Vice	4.00
1	Hand Saw	.50
1	No. 2 Brass Pipe Wrench	4.00
1	No. 1 " " "	3.70
1	Cyclone Box Opener	.50
1	No. 1 Tap Wrench	1.00
1	No. 75 " "	1.00
1	Set Pipe Taps 1/8 to 2-1/2	15.00
3	Hatchets	6.00
1	Set Carpenter's Bits 1/4 to 1"	1.00
2	Extension Bits	1.50
1	Set Mound Scrapers	1.00
1	Folding Machine	9.25
1	Pr. Rollers	10.00
1	Turning Machine Stow's	9.82
1	Wiring Machine "	9.14
1	Double Reamer	6.00
1	Buffalo Portable Forge No. 4	15.00
1	Screw Punch 3/8 to 3/4	10.65
1	Riveting Hammer	.50
1	4" Roller Flue Expander	2.00
1	2" " " "	2.00
1	Whitewash Machine	25.00
1	Set Lecount Lathe Dogs	2.50
22	Hand Screws	2.20
1	Copper Pipe Expander	2.00
3	Turban Flue Cleaners	30.00
1	Beading Tool	.10
1	Ratchet Brace	.50
1	Adj. Die Stock & Taps 1/4 to 1/2	2.00
1	Set Steel Alphabet Stamps	1.00
1	Set Steel Numbers	1.00
2	24" Stilson Wrenches	1.00
2	18" " " "	1.00
2	12" " " "	.50
2	4 ft. Chain Tongs	2.00
2	4ft No. 13-1/2 Vulcan	2.00
2	4ft Common Chain Tongs	1.00
1	6 ft. " " "	1.00
1	24 ft. " " "	1.00
1	No. 2 Pipe Cutter	1.00
1	No. 1 " " "	.50
1	No. 0 Oster Pipe Dies 1/8 to 1/2	1.00

\$579.53

MACHINE SHOP EQUIPMENT CONTINUED

1	No. 1-1/2 Oster Pipe Dies 1/4 to 1"	2.00
1	No. 3 " " " "1 to 2"	3.00
1	No.6 " " " 2-1/2 to 4	4.00
1	No. 5 Phoenix How8 Pipe Vice	1.00
1	Fred Macy Roll Top Desk	34.80
1	Revolving Chair	7.75
1	Pr. Bachelder Indicators	90.00
1	Ideal Reducing Wheels	10.00
1	Universal "T" Square	2.50
1	Pr Shears	.50
1	Ink Stand	.25
4	Filing Cases	1.00
1	Duster	.25
1	Whist Broom	.25
1	Mirror	2.00
1	Planetary Pencil Sharpener	3.50
1	Tape	.50
2	Shannon Bill Files	.70
1	Steel Eraser	.50
1	Doz. Blue Print Clasps	.60
2	Door Mats	1.00
1	Revolution Counter	2.00

\$168.10

Total Sheet No. 29

1633.70

Total Sheet No. 30

2106.73

Total Sheet No. 31

579.53

TOTAL

\$ 4488.06

Depreciation 15% in '98	280.47
Depreciation 15% in '99	283.26✓
Depreciation 15% in '00	357.00
Increase Cost of Tools & Machinery a/c Fire and Charged to Fire Loss	2108.13

3028.86

Net Balance November 30th 1900

\$ 1459.20

E Q U I P M E N T

BLACKSMITH SHOP MACHINERY.

1	No. 313 Bannet & Son Steam Hammer	685.22
1	Anvil & Bellows	41.00
1	Small Anvil	
1	Rivet Cutter	
1	Pr Bellows	
1	Large Vice	
36	Shaping Tools	
40	Cutter Pinchers & Chisels	
1	No. 16 Sledges	
2	No. 8 Sledges	
1	No. 6 Sledge	
34	Pr. Tongs	
1	Hand Bolt Header 3/8 X 1-1/4 Heading Tools	
1	Set 1/4 X 1/2 X 1/16 Hard Dies	
1	Set 5/8 X 1 X 1/8 " "	
1	300# Sledge Block	
1	No. 12 Mandrel	
1	No. 2 Billings Clamp	
1	No. 1 " "	
1	Each 3/4 to 1/4 Solid Wrenches	
1	Set Cold Chisels	
2	Surface Plates	
4	Calking Irons	
2	Reamers	

Less 15% Depreciation in '98	\$ 108.91	\$726.22
Less 15% " " '99	108.91	
Less 15% " " '00	108.91	326.73

Net Balance November 30th 1900 399.49

E Q U I P M E N T

CARTS, WAGONS AND HORSES.

1	Team Black Mares "Maud" & "Mary"	238.50
1	Team Bay "Nell" & "Maggie"	243.90
1	Bay Mare "Kate"	126.00
1	Gray Horse "Charlie"	45.00
1	Sorrel "Dan"	78.75
1	Iron Gray Mare "Maud"	145.00
1	Bay Horse "Captain"	175.00
1	Bay Horse "King"	150.00
1	Iron Gray Cinder Horse	225.00
1	Top Road Wagon	22.50
1	Top Surrey	64.85
1	Buggy	46.80
1	No. 50 Wagon Canopy Top	124.63
1	No. 11 Rubber Tire Top Buggy	142.00
1	Set D Team Harness	34.20
1	Set Light Single Harness	9.00
1	Set Light D. Team Harness	22.50
1	Single Harness	34.20
1	S.R.O.R. Single Harness	21.99
1	Portland Cutter	31.50
1	Jump seat Cutter	31.40
1	Single Sleigh	34.30
1	No. 5 Sleigh	36.00
1	New Lumber Wagon	53.00
1	Lumber Wagon	36.00
1	Express Wagon	18.00
1	Chore Wagon	27.00
3	Cinder Dump Carts	166.49
1	Braize Cart	21.74
2	Cart Saddles & Breeching	15.30
4	Buffalo Robes	49.50
1	Lap Rope	1.12
2	Cushions	35.20
2	Light Poles	1.80
1	Light Neck Yoke	.45

\$ 2508.62

Net Balance November 30th 1899	\$ 1193.29
Additions 1900	983.62
	<hr/> 2176.91
Depreciation 1900 & sales	477.10+
	<hr/> 1699.81

Depreciation 15% 1900	376.30
Loss Sale Horse "Mollie"	6.90
Sale Horse "Mollie"	75.00
3 Carts Worn Out, Loss	18.90
	<hr/> \$ 477.10+

CHARCOAL CARS

Class A
34 ft.

Class B
33 Ft.

Class C
&32 Ft.

No. 101
102
103
104
105
106
107
108
109
110
111

No. 112
116
117
119
120
121
122
124
125
127
128
129
132

No. 113
114
115
118
126
130
131
133
134
135
136
137
138

11 Cars

13 Cars

13 Cars

Total of 37 cars @ \$143.18 Each \$5297.78

Net Balance Nov. 30th 1900 \$ 3808.68

Additions 1900 a/c Air Brakes & Couplers 4807.20

TOTAL

8615.88

Less 15% Depreciation '00

1729.95+

Balance November 30th 1900

6885.93 ✓

Depreciation 15% 1900

1503.22

Charcoal Car #123 destroyed

By Fire November 30th

226.73

\$1729.95+

38 Charcoal cars cost to buy repair and make ready for service \$143.18

Above cars cost to equip with Air Brakes & Couplers Each 126.50

\$268.68

EQUIPMENT

SCALES

1	No.1573 6Bm Charging Scale		\$ 401.43
1	5-ton D.B.M. & F. Scale		154.00
1	50-ft. Platform R.R.Track Scale(120,000 Cap.)		880.55
1	Truck Scale		10.00
1	5-Ton D.B.M. & F. Scale		113.75
1-	400-lb. Fairbanks Scale at Machine Shop		16.90
1	Charging Scale		100.00
			1676.63
	Less Depreciation 15% in '98	104.65	
	" " 15% in '99	251.50	
	" " 15% in '00	251.50	
			607.65
	Balance November 30th 1900		1068.98 ✓

TELEPHONES

2	Telephones at \$12.50		\$ 25.00
1	Long Distance Telephone (Office)		18.00
1	Long Distance Board and Transmitter (Office)		8.00
1	Extension Bell (Machine Shop)		2.75
1	Extra Ear Phone (Machine Shop)		1.25
			55.00
	Less 15% Depreciation in '98	8.25	
	" 15% " " '99	8.25	
	" 15% " " '00	8.25	
			24.75
	Balance November 30th 1900		30.25

ORE BARROWS

8	Ore Barrows		362.97
	Less 15% Depreciation in '98	54.45	
	" 15% " " '99	54.45	
	" 15% " " '00	54.45	
			163.35
	Balance November 30th 1900		199.62

PIG IRON TRUCKS

20	Iron Trucks		1313.33
8	" "		375.76
	Less 15% Depreciation in '98	197.00	
	" 15% " " '99	221.46	
	" 15% " " '00	221.46	
			639.92
	Balance November 30th 1900		1049.17

E Q U I P M E N T

CHARCOAL BUGGIES

15 Coal Buggies		\$530.22
Less 15% Depreciation in '98	\$79.53	
" 15% " " '99	79.53	
" 15% " " '00	79.53	
		238.59
		291.63

CHARCOAL TRAM CARS

2 Charcoal Push Cars		19.28
Less 15% Depreciation in '98	2.89	
" 15% " " '99	2.89	
" 15% " " '00	2.89	
		8.67
		10.61

L A U N C H

1 36-ft. Naptha Launch, Complete		672.24
Less 15% Depreciation in '98	84.17	
" 15% " " '99	100.83	
" 15% " " '00	100.83	
		285.83
		386.41

L O C C O M O T I V E

1 13 X 24 28 Ton Dixon Locomotive		1221.32
1 16 X 24 40 Ton Baldwin "		3043.75
		4265.07
Less 15% Depreciation in '98	183.20	
" 15% " " '99	639.76	
" 15% " " '00	639.76	
		1462.72
Balance November 30th, 1900		2802.35

K I L N B A R R O W S

6 Wood Barrows		88.95
Less 15% Depreciation in '98	13.34	
" 15% " " '99	13.34	
" 15% " " '00	13.34	
		40.02
		48.93

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EQUIPMENT

PIG IRON LOADERS

7	Slides		
4	Dump Cars		
28	Short Pieces Wooden Tracks		
4	Long Pieces Wooden Track		
3	Wooden Horses		
1	Switch		
1	Dump		
	TOTAL,		\$ 368.29
	Less 15% Depreciation in '98	55.24	
	" 15% " '99	55.24	
	" 15% " '00	55.24	165.72
	Balance November 30th 1900		202.57

<u>S C O W</u>			
1	8 X 16 Flat Bottom Scow		14.52
	Less 15% Depreciation in '98	2.18	
	" 15% " '99	2.18	
	" 15% " '00	2.18	6.54
	Balance November 30th 1900		7.98

TESTING MACHINE

1	50,000 Testing Machine, Auto with screw Dial Beam		
1	Complete Set Dies		
1	Counter Shaft		
1	Set Belts		719.80
	Less 15% Depreciation in '98	107.97	
	" 15% " '99	107.97	
	" 15% " '00	107.97	323.91
	Balance November 30th 1900		395.89

BROWN PYROMETER

1	Brown Pyrometer		62.00
	Less 15% Depreciation in '99	9.30	
	" 15% " '00	9.30	18.60
	Balance November 30th 1900		43.40

MATHEWS BARN EQUIPMENT

4	Hanson Wagons @ \$72.81	\$ 291.24
2	Set Whiffle Trees & Neck Yokes @ \$4.00	8.00
8	Halters & Ropes	9.00
4	Set Open Checks	6.00
1	No.22 Collar	3.75
6	Sets Double Heavy Harness	287.70
1	Wagon water Tank and Wood pump	37.72
1	Bay Horse "Bill"	185.00
1	Gray " "Tom"	180.00
1	Black " "Barney"	185.00
1	Black " "Pat"	190.00
1	Chestnut Colt "Cub"	200.00
1	Big Bay Mare "Flossy"	200.00
1	Brown Horse "Jim"	185.00
1	Brown Horse "Dick"	190.00
1	Bay Mare "Maggie"	195.00
1	Bay Horse "Bill"	190.00
1	Gray Horse "Pat"	200.00

\$ 2743.41

TOOLS IN GENERAL USE

CHEMICAL PLANT

2 Short Hydrometers
3 Long "
2 Short Glass Cylinders
3 Long " "
2 Shovels
4 Pails
2 Brooms
1 Pipe Wrench
1 12" Monkey Wrench
3 End Wrenches
2 Hose Wrenches
3 Calking Irons
2 Funnels
3 Lengths 50' Hose
1 1 Gal. Measure
1 1 " Pitcher
1 Boxes Stencil Ink
1 Tin Thief
1 Set No. 2 Stencil Figures
1 Stencil
1 2" Reamer
1 2-1/2" Reamer
2 Hoop Drivers
1 #180 Brush for Stencil
1 #1 Cooper Adz
1 Nonagon
2 Sack Needles
1 Brl . Filler & Connection
1 Reading Glue Kettle 15 X 20 X 17-1/2
2 Hammers
1 Sledge Hammer(Light)

ACETATE PLANT

2 Scrapers
2 Blowers
2 Rakes
1 Wheel Barrow
1 Short Shovel
1 Long "
2 Scoop Shovels
2 Brooms

B A R N

1 FORK
3 Pails
1 Shovel
3 Brushes
2 Lanterns
2 Curry combs

40

COLLIERS SHANTY

1 Stove
3 Shovels
2 Motor Hoes
2 1-Gallon Pails
3 Whitewash Brushes

BOTTOM FILLERS & COAL FORKERS

3 Rakes
6 Picks
1 Sledge
8 Torches
19 Shovels
5 Coal Forks
2 Pole Picks
4 Scoop Shovels
4 1/2" Steel Bars
6 3/4" " "
2 Car Starting Bars

CASTING HOUSE

5 Hooks
7 Torches
3 Shovels
2 3/4" Bars
3 1-1/4" Bars
3 Notch Hooks
35 Pig Patterns
1 Sow "
8 Heavy Sledges
2 Light Sledges
3 Scoop Shovels
2 Long Handles Hoes
2 Cinder Barrows
6 1-1/2" Breaking Bars

TRACK TOOLS

3 Chisels
1 Claw Bar
1 Spike Maul
3 mTamping Bars
1 Track Gauge
1 " Jack Complete
3 Sampson Car Pushers
7 Jack Screws

CINDER TOOLS

3 Bars
6 Shovels
4 Coal Forks
4 Single Picks

BLOWING ENGINE HOUSE TOOLS

4 2 Gallon Cans
3 Squirt Cans
1, 8" Monkey Wrench
1 12" " "
1 18" Koney "
1 Steel Cylinder Oil Pot
1 Oil Filter
1 Weimer Blowing Engine
1 Hempell " "
1 Prescott Condenser
2 Duplex Worthing Pumps 14 X 10 X 14
1 " Prescott " 8 X 5 X 10
2 No. 5 Knowles "
2 No. 0 Filter "
1 Cross Oil Filter

D Y N A M O

2 2 Gallon Cans
3 Squirt Cans
1 Gibbs Dynamo
1 Westinghouse Dynamo
1 Western "
1 18" X 12" Russell Engine

CHEMICAL BOILER HOUSE

1 8" Money Wrench
1 12" Monkey Wrench
1 21" " "
4 2 Gallon Cans
2 Squirt Cans
700 Ft. 2" Fire Hose

CRANE HOIST ENGINE

2 2 Gallon Cans
3 Squirt Cans
1 Steel Cylinder Oil Pot
1 Puenmatic Pyrameter

42

LOCOMOTIVE

1	Squirt Can	
1	8" Monkey Wrench	
1	12" " "	
1	Baldwin Locomotive	16 X 24"
1	Dixon "	13 X 22

ORE CRUSHER

1	Broom	
2	Shovels	
2	Picks	
2	Hammers	
1	Scraper	
1	Gates crusher No.3	
1	10" X 14" Russel Engine	

ALCOHOL HOUSE

1 Frame Building 57 X 141'
20 Smoke Condensers
1 Liquor Cooler
2 Settling Tanks
7 Tar Tanks
4 Storage Tanks
13 Primary Still with Condensers
2 Neutralizing Tanks
4 " Liquor & Settling Tanks
4 Wooden Fractional Stills equipped with Burrey fans
4 Steel Stills Equipped with copper columns
4 Wooden Storage Tanks, intermediate liquor
1 Copper Column and still
1 Steel Refining Still
4 Galvanized Tanks for high proof & Finished Alcohol
1 No. 4 Knowles Pump

CHEMICAL ENGINE HOUSE

1 Frame Building 66 X 66'
1 Prescott Duplex Pump 14' X 12' X 14' No. 241
1 " Special Duplex Brass Pump 7 X 4-3/4 X 8
1 " Duplex Pump 14 X 7 X 14 No. 285
1 8 X 10 Vertical Engine
2 Boilers 5-1/2 X 16
2 " 5 X 16
1 " 5X16
3 42" Copper Fans in wood cases
1 Westinghouse Engine 15 H.P.
1 9 X 14 X 14 Russell Compound Engine
1 Prescott Duplex Pump 8 X 5 X 10
1 Cross Oil Filter

ACETATE PLANT

1 Frame Building 28 X 90'
1 Drying Floor 70 X 9'
1 Draining Tank
1 No. 1 Pan 15' X 5-1/2' X 3'
1 No. 2 15-1/4 X 5-1/2 X 2'10
1 No. 3 15' X 5-1/2' X 2'
1 No. 4 15' X 5-1/2' X 3'
3 Rectangular Settling Tanks

MISCELLANEOUS BUILDINGS

1	Brick	Machine Shop	30' X 85'
1	Frame	Blacksmith Shop	20' X 30'
1	Brick	Vineer Locomotive House	28' X 78'
1	Frame	Car Repair Shop	24' X 95'
1	"	Ice House	18' X 30'
1	"	Fire Clay House	14' X 48'
2	"	Dock Scale Houses	5' X 6' each
1	"	Collier Shanty & Lime House	14' X 65'
1	"	Barn	30' X 30' X 35'
1	"	Track Scale House	6 X 9'
1	"	Office Building	36' X 42'
1		8 Room Cottage	
15		Double Tenement Houses	-5 rooms each
1	Frame	Oil & Warehouse	16' X 28'
1	"	Coal Shed	12' X 36'
1	"	Acetate Storage House	14' X 96'
1	"	Supply House	14' X 24'
1	"	Floating boat house	15' X 39'
1	"	Coal Shed	12' X 24'
1	"	Crusher Engine House	12' X 16'

DWELLINGS IN GLADSTONE

1	Managers Residence	(Occupying Lots 25-26-27-28 in South
1	"	Barn (Shore Addition Block 2.
1	Barn Boss's House	occupying Lots 6-7 South Shore Addition Block 2.
1	Clerks House,	occupying Lots 23-24 S.S. Addtn. Block 2.
1	Master Mechanics House	Occupying Lot 6 Block 24 Orig. Plat
1	Boat House	12' X 28', Foot Central Ave.

T R A C K S

11675 Ft.	Yard Track,-	60# Rail
2700 "	Pig Iron Track,-	20# Rail
720 "	Track Between Kilns	20# Rail

T R E S T L E S

1505 Ft.	Ore Trestle
1201 "	Kiln "

SMOKE MAIN

1950 Ft. Smoke Main

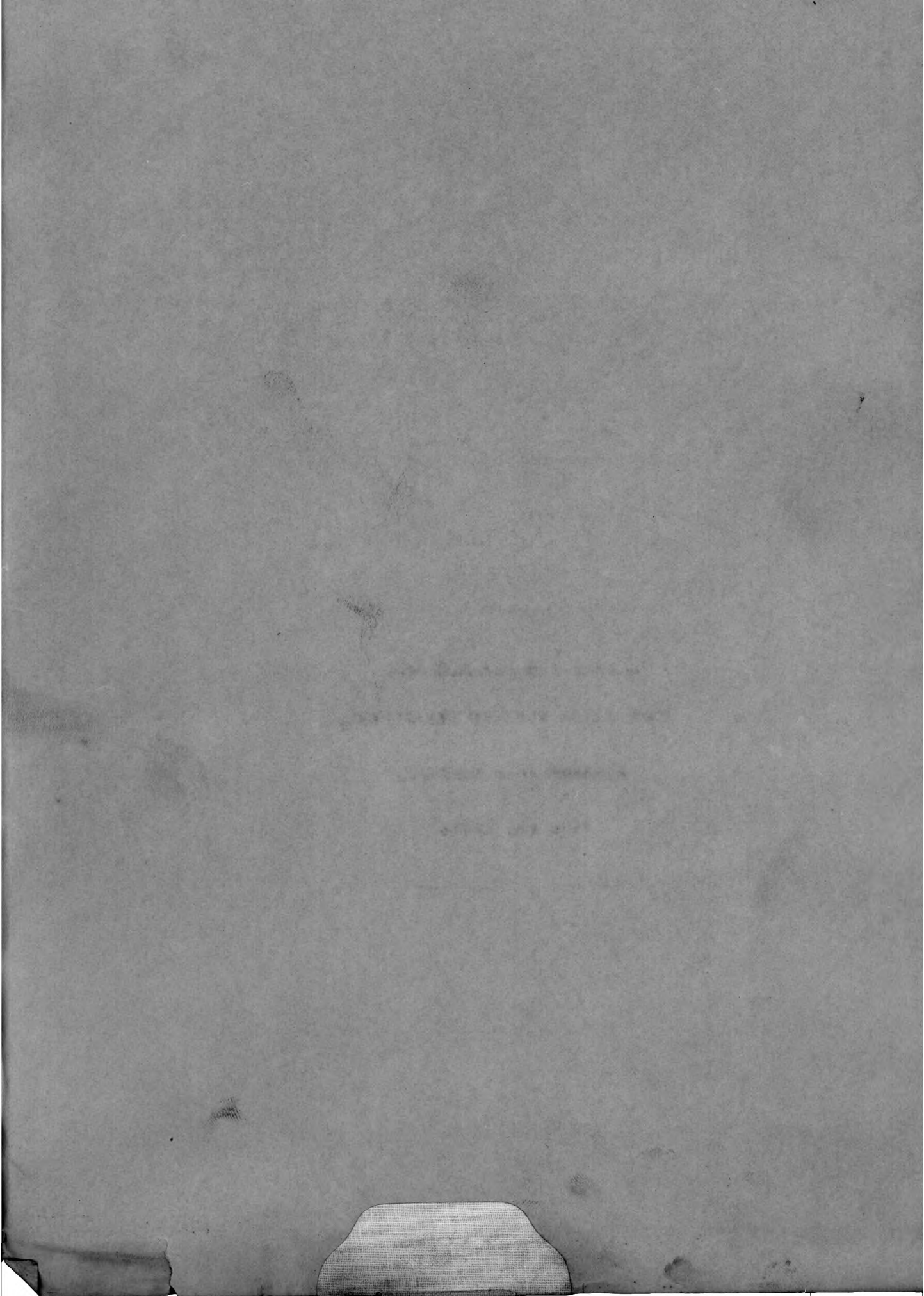
TELEPHONE LINE

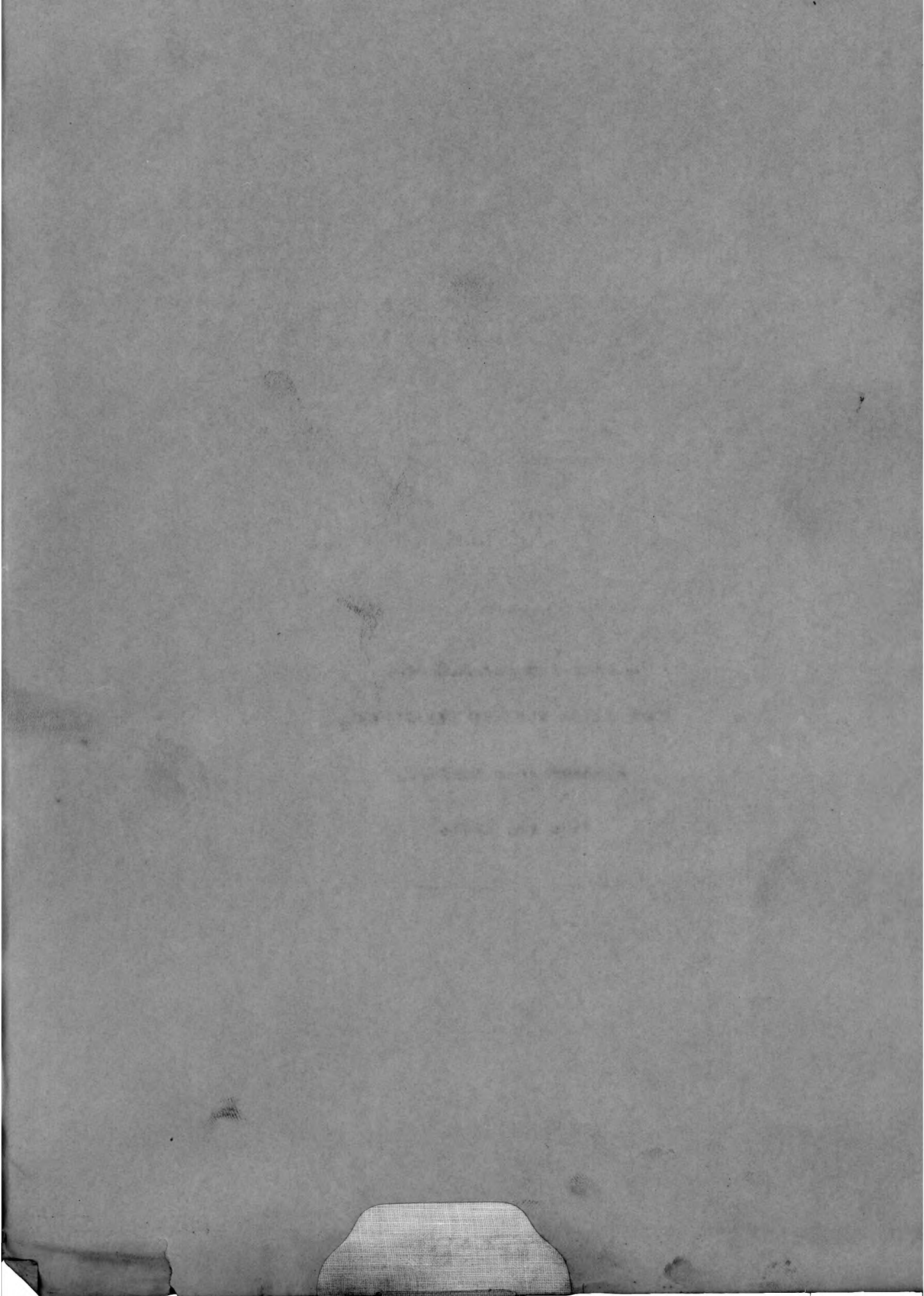
Furnace Office to Gladstone Postal Office,-3 Miles
Postal Office to Manager's, Founder's & Master Mechanic's
Residences,- 2 Miles including Brackets, insulators & Poles
Machine Shop to Master Mechanic's,- 3 Miles including brackets,
insulators & poles

45

CHROME BOND

CHROME BOND





TYPEWRITER

PAPER

USA

I N V E N T O R Y .

CARP RIVER FURNACE DEPARTMENT,

PIONEER IRON COMPANY,

NOV. 30, 1900.

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DESCRIPTION OF REAL ESTATE BOUGHT OF CARP RIVER FURNACE COMPANY:

Commencing at the intersection of the easterly line of Lake Street, so called, in the City of Marquette, County of Marquette and State of Michigan, as now used, with the section line between sections 26 and 35, Township 48 North, Range 25 West; running thence northwesterly along the easterly line of said Lake Street to its intersection with the westerly line of the right-of-way of the Duluth, South Shore & Atlantic Railway Company; thence southeasterly along the westerly line of said right-of-way to its intersection with the section line between said above named sections 26 and 35; thence west along said section line to the point of beginning.

Also that portion of Government Lot numbered one (1) of Section 36, Township 48 N. Range 25 W. not sold to the State of Michigan for a portion of the State Prison site.

Also lots eighty-four (84), eighty-five (85) and eighty-six (86) of Burt & Ely's Addition to the Village (now city) of Marquette; and that part of Sec. 35, Township 48 North, Range 25 West, lying east of Lake Street, as shown in the Plat of Burt & Ely's Addition to the Village of Marquette, as now used; and also that part of Section 35, Township 48 N. Range 25 W. lying south and east of the following boundary line: Beginning at the southeast corner of Lot 87 of Burt & Ely's Addition to the said City of Marquette; thence along the south line of said Lot eighty-seven (87) to the southwest corner of said Lot 87; thence south 2 degrees and 58 minutes east 100 feet; thence south 13 degrees and 58 minutes east 100 feet; thence south 26 degrees and 28 minutes east 100 feet; thence south 43 degrees and 58 minutes east 100 feet; thence south 49 degrees and 28 minutes east 100 feet; thence south 30 degrees and 59 minutes east 100 feet; thence south 11 degrees and 49 minutes east 100 feet; thence south 5 degrees, 11 minutes west 100 feet; thence south 13 degrees and 51 minutes west 425 feet; thence south 5 degrees and 9 minutes east 432 and five-tenths feet; thence

south 13 degrees and 11 minutes west 1100 feet; thence south 57 degrees and 31 minutes west 2080 feet to a point 358 feet east of the northwest corner and on the north line of the south half of the southeast quarter of Section 35, Township 48 N. Range 25 W. It being agreed between the said parties that lot eighty-seven (87) of Burt & Ely's Addition to the Village (now City) of Marquette is to be kept open as a highway for the common use of the grantor and grantee, and their successors and assigns.

-----X-----

DESCRIPTION OF FURNACE AND BUILDINGS:

STACK: 58½ feet high by 10-foot bosh; hearth 5' 9": Equipped with bell and hopper. The first 40 feet of casing is built of sandstone, and balance is cage made of railroad iron, which supports the top-house.

The hoist tower is equipped with an Otis hoist, two skips, driven by small engine, which also drives crusher when used.

ENGINE ROOM: The engine room is a stone building 65' x 30' and 25 feet high, built with the intention of sometime putting in a modern upright blowing engine.

The blowing engine is of horizontal type, with two blowing cylinders 40" x 6", made by Iron Bay Foundry at Marquette in 1873.

In basement of engine room there are two Smith & Vaile pumps, 12" steam by 7" water cylinders, and one Knowles boiler pump, about 8" x 4".

THE BOILER HOUSE is built of stone, with corrugated iron roof, except the rafters, and is 28 ft. x 30 ft. in size. There are two two-flue boilers, 22 ft. x 47 in., and one old marine boiler, about 16 ft. x 6 ft., all connected to one steam main.

THE STOCK HOUSE is 190 ft. long by 65 ft. wide, built of timber and covered with corrugated iron, the roof being tar and cement. In it

are three trestles for railroad tracks, the rails being 17 feet from the floor under the trestles. Two of these tracks are used for ores and limestone and one for charcoal cars. In this basement is situated the crusher, one of the Blake type, made at Ansonia, Conn.

HOT BLASTS: No. 1 is built near the stack, on the hearth level, and has 25 large pipes. On account of its construction, this hotblast has never been a success, the pipes not heating evenly and making an unequal expansion and contraction, finally cracking one or more of the pipes. After repairs this hotblast would usually run about four months, when it would again need repairs.

No. 2 Hot Blast is built on an arch supported by the engine room wall and the stone stack, and now has 18 pipes. This was originally built in 1873, but this fall all the old pipes and material were removed and new castings were put in, at a cost of \$2158.28, which has ~~been~~ been charged to cost of iron. From the experience at other furnaces with this type I shall expect this oven to last a long time.

THE CASTING HOUSE, 62 by 44 feet, has stone foundation, and timber frame, covered by corrugated iron: At lower end is a shed 12 ft. wide, in which are the pig iron scales, and in rear of this a blacksmith and carpenter shop, 16 ft. wide.

STORE HOUSE: An old building 24 by 16 feet, about 50 feet from carpenter shop, used for storing tools, &c.

BARN: 20 x 28 ft, a building on west side of Lake Street, near outlet to Carp River.

KILNS: Ten 25-cord bee-hive kilns on north side of Carp River, under bank from which they are filled. Also nine 45-cord bee-hive kilns on south side of Carp River.

These kilns are built of brick and stone, and are used by Chas. H. Schaffer under his contract with the company.

OFFICE BUILDING: A one-story wooden building, 30 ft. x 20 ft., built on Lot 86.

LABORATORY BUILDING: Attached to rear of office building,-- 18 x 20 ft.

HORSE SHED: On rear of Lot 86,--12 ft. x 22 ft.

RAILROAD TRACKS: Consist of three sidings into the stock house, with switch stands, &c. One track from the main siding, crossing Lake Street to the north side kilns, then running down to lower level, with switch back to iron yard.

Also siding to south side kilns, with switch back in rear of kilns.

All the equipment of rails, &c., for these sidings were furnished by the Duluth, South Shore & Atlantic Railway Company, the ties being furnished by Schaffer & Gray when the tracks were laid.

TOOLS, &c., BOUGHT WITH FURNACE.

2 Steam Gauges in use	2 Pressure Gauges
3 Lubricators in use	1 Pipe Cutter
1 Set Pipe Dies and Taps	2 Die Stocks
About 25 Spanner and Socket Wrenches	2 24" Monkey Wrenches
About 15 Chisels and Punches	1 14" Monkey Wrench
1 12" Monkey Wrench	1 Set Pipe Tong
1 16" Trimeau Pipe Wrench	2 Lanterns
About 300 feet Rubber Hose, new and old	4 Kerosene Lamps
2 Brass Hose Nozzles	
Varied lot of pipe fittings in basement	

Above in ENGINE ROOM.

(Tools, &c., Cont'd on Page 7)

IN STOCK HOUSE:

1 Set Ore Scales	1 Set Charcoal Scales
20 Charcoal Buggies	3 Ore Buggies
Shovels and Picks	3 Pinch Bars

IN CASTING HOUSE:

About 25 Steel and Iron Bars and Stopping Hooks
Gates, Staples, Skimmer, &c. 3 Heavy Sledges
Shovels, Rakes and Screens, Patterns and Sow,
2 Stationary Byrometers
1 Portable Byrometer

IN BLACKSMITH SHOP:

1 Anvil, Forge and Bellows
1 Ratchet Drill
Tongs, Punches and other common tools
1 Machine Drill Press
1 Blacksmith Vise
1 Set Lightning Taps and Dies
2 Monkey Wrenches
12 Drills
1 Blacksmith Sledge

IN CARPENTER SHOP:

2 Handsaws	1 Crosscut Saw
3 Chisels	1 Brace and Bits
1 Hand Ax	1 Square
1 Jack Plane	1 Grind Stone
1 Set $1\frac{1}{4}$ " Blocks	1 Snatch Block
About 200 feet of $1\frac{1}{4}$ " Rope, old	2 Log Chains
2 Jack Screws	1 Crab Winch

IN YARD:

1 Set Scales for weighing Pig Iron.	
1 Iron Car	3 Wheelbarrows
Shovels and Picks	2 Carts
1 Cart Harness	

IN OLD STORE HOUSE:

About 1000 Old Fire Brick.

IN ORE YARD:

1/2 of Set of Railroad Scales.

INVENTORY OF ORES ON HAND NOV. 30, 1900.

-----X-----

SALISBURY ORE:

Bin No. 5, -- 5 Cars.

3740	43240
3944	49880
4071	46050
4070	43200
3839	<u>52340</u>

		234710	
In Bin No. 3,		52546	
In Stack, 80 Chgs., 353½,		<u>28266</u>	315522

Total Salisbury, 140-1922 tons, @\$2.85, \$ 401.44

L A K E O R E:

Bin No. 2, -- 3 Cars.

4047	51500	
3936	51100	
3800	<u>47440</u>	150040

80 Chgs. of this in Stack.

Total Lake, 66-2200 tons, @\$2.85, 190.90

EAST JACKSON ORE:

158-710 tons @\$1.50 237.48

SECTION 12 ORE:

In Bins Nos. 6 and 7.

Car	3707	44040
	4173	45970
	7124	71900
	4015	47760
	3894	47540
	4092	45490
	3797	48960
	3753	46680
	3798	46900
	3839	49300
	4012	47520
	7039	<u>50220</u>

	592280,	<u>264-920</u>	
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Amounts forward,		264-920	<u>\$829.82</u>
------------------	--	---------	-----------------

(Sec. 12, Cont'd)	Brought forward,	264-920 (Sec.12)	\$ 829.82
In Cars--			
3833	44840		
3960	47640		
3855	<u>45280</u>	137760 =	61-1120
In open bin and in stack,			<u>31-1234</u>
Total Section 12,		357-1034	@\$1.65, <u>589.81</u>
Total Ore,		- - -723-1386 - -	\$1419.63

-----X-----

LIMESTONE:

545-2015 gross tons, @ \$2.50 \$ 1364.75

CHARCOAL:

In Stack, 80 Chgs., 25 Bus., 2000 Bus., @ 8-3/4¢ 175.00

FUEL:

4 Cds. Slabs, @ \$2.25, 9.00

INSURANCE:

Balance of Policies, Fire, Boiler and Casualty, 330.09

Total Inventory of Materials on hand Nov. 30, 1900, - \$ 3298.47

PIG IRON ON HAND:

1121 Gross Tons, @ \$15.14, \$ 16971.94

FURNACE INVENTORY ACCOUNT.

-----X-----

OFFICE:

1 Fire Proof Safe,	\$ 50.00	
1 " " "	20.00	
1 Desk,	10.00	
1 Letter Press and Stand,	10.00	
1 Standing Desk,	5.00	
1 Revolving Chair,	2.00	
2 Arm Chairs,	2.00	
3 Waste Paper Baskets,	1.50	
2 Cuspidors,	1.00	
1 Stove and Pipe,	5.50	
1 Set Letter Scales,	3.00	
4 Bill Boards,	1.00	
1 Door Mat,	1.25	
2 Letter Baskets,	1.00	
1 Canopy Top Buggy and Harness,	50.00	
	<u>163.25</u>	
1 No. 7 Remington Typewriter,	100.00	
	<u>263.25</u>	
Less 20% Charged to Operating,	52.65	\$210.60

YARD:

1 Chestnut Horse,	150.00	
Less 20% Charged to Operating,	<u>30.00</u>	120.00

LABORATORY:

1 Prof. Richards Fil. Pump,	1.31	
1 Sargent's Anal. Balance,	90.00	
1 Baker Scales,	6.80	
1 Set Gram. Wts.,	11.90	
1/2 Doz. 1/2 liter Reagent Bottles	1.00	
3 C. H. Brushes, 1/2",	.45	
1 " " 2"	.38	
1/2 Doz. " "	.37	
3 Dangler Gas Burners,	4.50	
2 50cc Burets Grad. 1/10	3.53	
1 75cc " " "	3.00	
1 50cc " " "	1.50	
5 Val. Floats,	1.87	
3 Clamps,	2.25	
1/2 Doz. Calcium Tubes, 6",	.68	
1/2 " " " 6",	.99	
1/2 " " " 6",	1.80	
1/3 Doz. " " 6"	1.05	
1/2 Doz. Small Size Clamps,	.54	
1 Set Cork Borers, 1-6,	.90	
1 Plate and Rubber,	7.50	
1 Prof. S. Burette,	1.32	
1 Gaissler's "	2.07	
Forward (Laboratory),	<u>145.71</u>	
Totals Forward,		<u>330.60</u>

Brought Forward,

\$ 330.60

	Laboratory Forward,	\$145.71	
1/2	Doz. Por. Evap. Dishes, 4-3/4",	2.48	
1	Dry Oven,	7.50	
2	Dessicators, 4-3/4,	1.20	
1/2	Doz. Flsks, 16 Oz.,	1.13	
1/2	" " 8 "	.81	
1/2	" " 8 "	1.12	
1	500 cc Flask,	.45	
1	300 cc "	.38	
1	100 cc "	.22	
1	1000cc "	.57	
1	2000cc "	.75	
1/2	Doz. Funnels, 3" Diam.,	.68	
1/4	" " 6" "	.45	
1/4	" " 2" "	.22	
1	Sap. Funnel, 100cc,	.94	
1	" "	.75	
1	" "	.75	
1	" "	1.13	
2	lbs. Glass Tubing,	.75	
2	" " Rods,	.75	
1	500cc Grad. Cylinder,	.90	
1	250cc " "	.60	
1	Alcohol Lamp, 6 oz.,	.26	
1	Mortar, 3-Gal.,	6.00	
1	" 1/2-Pt.,	.23	
1	200cc Pipette,	.75	
2	50cc "	.60	
1	10cc "	.15	
1	5cc "	.11	
1	25cc "	.67	
1	Pt. Cone, Dia. top 1 1/4",	4.50	
2	" Crucibles and one cover,	27.37	
1	" " " " "	15.86	
2	100-Mesh Sieves,	2.10	
1	40 " "	.50	
1	Support,	.75	
1	" "	.38	
1	Thermometer, 200°C,	1.27	
1	Tripod, Dia. 6",	.38	
1	Wedge Wood Mortar, 6" Dia.,	.81	
1	Agate Mortar, 4" "	6.75	
1	Diamond Mortar,	1.50	
1	Hydrometer,	.75	
1	Graduate,	1.65	
1	70243 Supports,	.49	
1	Magnet,	.68	
1	Weatherhead Crusher,	25.00	
	Haskin's Burners Stock,	15.00	

	Total Laboratory,	284.75	
	Less charged to Operating April 30,	52.45	
		<u>232.30</u>	
	Less Chgd. to Operating, as bought,	22.48	

Total Furnace Inventory Account,

~~284x75x~~209.82

\$540.42

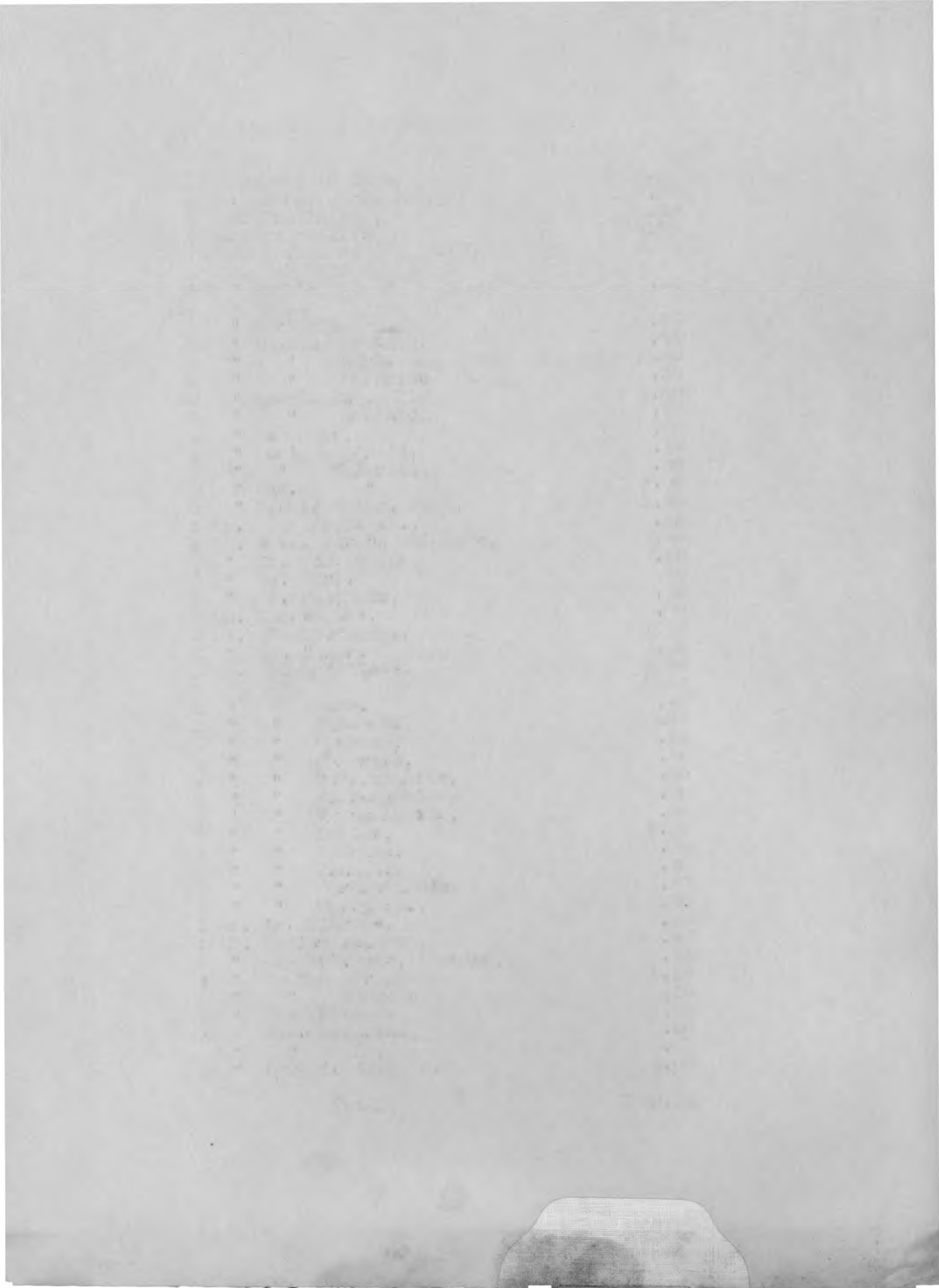
REAGENTS ON HAND, CHARGED TO OPERATING AS BOUGHT:

1#	Microcosmic Salt,	\$.80
4 Oz.	Hydroflouric Acid,	.50
1#	Acetic Glacial,	.40
5	Carboys, @\$1.75,	8.75
75#	H. Cl. S. G. 130, @ 8¢,	6.00
2 Lbs.	Molybdic Acid,	3.60
3/4 "	Oxalic, "	.30
150	" H2SO4 " @ 8¢	12.00
1/2 "	Tartaris,	.40
1/2 "	Amonium Acetate,	.44
1 "	" Carb.	.40
1 "	" Chloride,	.32
40	" Amonia H2O, @11¢,	4.40
1 "	" Oxalate,	.52
1/2 "	Asbestos,	.80
1/4 "	Borium Hydrate,	.15
1/2 "	" Chloride,	.20
1/2 "	Cad. "	1.00
3	" Double Chlor. Cu&K,	1.44
1 Oz.	Iodine, Resub.,	.32
1 Lb.	Amon. Ferrus Sulphate,	.40
1/2 "	Pb. Per. Oxide,	.40
1/2 "	Mg. Carb.	.40
1 "	Mg. Sulphate,	.20
1/2 Oz.	Glass Wool,	.80
1 Lb.	Bi-Chlor. Hg.,	1.12
1 "	Mg. Chlor.	.28
1 Oz.	Phenaacellene,	1.20
1 Lb.	Pot. Bi-Chromate,	.40
1 "	" Carb.	.48
1 "	" Chromate,	.60
1 "	" Hydrate,	.64
1 "	" Chlorate,	.40
1/2 "	" Ferricyanide,	.60
1 "	" Ferrocyanide,	.60
1/2 "	" Hyposulphate,	.50
1/2 "	" Iodide,	2.40
1 "	" Nitrate,	.28
1 "	" Oxalate,	.48
1/2 "	" Permanganate,	.26
1/2 "	" Phosphate,	.50
1 Oz.	Ag. Nitrate,	.60
1 Lb.	Sodium Acetate,	.28
1 "	Bi-Carbonate, (Sodium),	.24
1 "	Sodium Carbonate,	1.12
1 "	" Hydrate,	.60
3 "	Tin Chloride,	1.44
1 "	Zinc Chloride,	.40
10 "	" Oxide,	6.00
1 "	Chromic Acid, C.P.	2.00

Total,

\$ 68.36

Spook W. Gray
12
Jingv



DETAIL STATEMENT OF ACCOUNTS

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OPERATING LAND DEPARTMENT.

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	1899	1900
Insurance on Rented Houses,	47.42	53.25
Insurance on Buildings,	60.85	48.34
Repairing Rented Houses,	479.80	403.31
Repairing buildings,	210.03	37.40
Expense; Driving Horse,	137.53	145.94
Salaries,	2250.00	2250.00
Expense of Lands,	481.06	370.23
Expense of Timbered Lands,	184.07	271.21
Taxes on Rented Houses,	297.34	520.24
Taxes on Vacant Lots,	137.83	233.53
Taxes on Lands,	5712.51	6629.99
Taxes on Timbered Lands,	1360.76	2108.01
Expense of plants for office yard,	125.45	120.00
Street Improvement in Pioneer I.Co., 2nd Add,	160.33	107.11
Depreciation on Inventory, "Gen'l Supplies"	87.99	47.72
Total,	\$12234.12	\$13406.23

OPERATING NURSERY

	1899	1900
Nursery Cultivation,	254.05	600.27
Expense; Salesman,		143.00
Depreciation on Inventory, "Nursery Supplies"	194.62	55.35
Total,	\$ 448.67	\$ 798.62

OPERATING GREENHOUSE.

	1899	1900
Labor,	1316.89	1422.41
Miscellaneous Expense,	459.19	390.92
Fuel,	494.68	391.42
Freight & Express,	51.29	47.64
Cut Flowers Bought,	114.70	13.00
Taxes on Greenhouse Plant,	25.90	42.96
Insurance,	50.63	50.63
Depreciation on Inventory, "G.H. Supplies"	167.75	315.13
Total,	\$2631.03	\$2674.11

OPERATING HOUSTON FARM.

	1899	1900
Seed grain bought,	48.74	100.39
Feed Bought,	445.22	469.36
Miscellaneous Expense,	73.75	348.22
Labor,	252.41	1434.28
Repairing old buildings,		56.79
Insurance,		13.33
Depreciation of Improvement Acct (i/3)		449.96
Total,	\$ 825.12	\$2922.33

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