TABLE II.

		1901.	1900.
Motors	1	466.52	584.25
	2	752.16	882.12
	3	450.12	1104.44
	4	255.19	684.07
	5	218.91	New
General Expense		818.33	793.75
		2961.23	4048.69

The No. 4 motor has been on the third level during the entire year. This motor when on the second level was very expensive to maintain, owing to the heavy loads handled by it. The table shows the maintenance cost for 1900 to be $684.07 while for 1901 it has become $255.19; but it must be borne in mind that the motor was taken to the third level with all the armature and fields just as it was run on second level and that they had been badly roasted so that we have had about two burn outs during the year both being on old material which came down on the motor from the second level. The repairs of old cars for 1901 has cost $4621.93 tonage handled in them has been 785,887 while the saddle back cars on third level have handled 82,956 tons with the repair cost of $24.86. The repair cost for old cars during 1900 was probably higher than normal, owing to the rebuilding of many of these cars. This repairing has made very little improvement in their running. If we take the repair cost of the old cars for 1900 we find it has amounted to 1.06¢ per ton while the repair cost to the saddle back cars has been a little under three-tenths of a mill per ton. These saddle back cars cost $140 each so that thirty new cars would cost $4200 in addition to which there would have been considerable expense in changing the pocket of the shaft so that the repair cost to the old cars is apparently sufficient each year to entirely replace them with new cars. In addition to this we would undoubtedly effect a great saving in repairs of our motors . However, the second level will soon be largely worked

out and the work for the old cars will decrease rapidly from this time on as very shortly the drifting on third level to south deposit will be completed when all the ore from this part of the mine will go to the shaft through the third level. The table attached shows the number of cars of ore, rock and timber handled during the year.

TABLE III.

1901.

Cars of Ore----------	149,613
" " Rock filling----------	8288
" " " to surface----------	7,819
" " Timber----------	3,517
Total Cars	169,237

Total for last year being 172,721.

The car milage has probably been almost as high as last year, while the locomotive milage is probably considerably higher owing to the fact that we reduced the number of cars per train owing to the poor condition of track and cars. Considering the type of car and character of tracks and method of handling these locomotives have been subjected to, I am not at all willing as yet to admit that the electric system of under g ground tram is not as economical as anyother as I have hopes of greatly reducing the cost of traming on third level with new cars.

MINE PUMP.

The water from the mine is handled by the 12" & 20"& 6" x 12" Duplex Deane pump, located on the third level. Under ordinary conditions, this pump handles all the water made by the mine. The only other pump running regularly is a No. 6 Knowles in bottom of No. 3 shaft, second level which throws the water up to the second level, whence it runs across to the No. 1 shaft and is taken down to third level to this compound pump. It is hoped shortly to have the drifting to the south deposit on the third level complete when this pumping in No. 3 shaft will be dispensed with.

The only other pumps installed in the mine is a No. 7 Knowles for pumping out skip pits in the bottom of No. 1 shaft and the two No. 10 Knowles, installed on second level for relay in case of accident or repairs to the Duplex pump.

We,however, had two runs of mud in the mine during the year which we have pumped out. This pumping of mud is very expensive as we cannot use our compound pump, owing to the great damage the mud would do to this type of water end so that it is necessary to run a No. 7 or 8 at the third level to lift the water and mud up to the second level where it is taken by the No. 10 and thrown to surface. We also have to run a No. 7 pump to take water from the sump at the third level and throw it back into the drift to be used for stirring up the mud. It is also necessary on surface to allow the mud and water to run down on to the lake bottom to give the mud a chance to settle when the water is then pumped from the lake bottom up into the launder by a No. 7 pump, located in the "Root House". When not pumping mud, the water comes

to a tank in the basement of the engine house where it is used in the hoisting engine condenser and is then allowed to run to the No. 10 Knowles back of the dry whence it is put into a 17" pipe, leading to the launder. We do not dare pump mud into this pipe as it would soon choke up. We pumped mud from Feb. 14th until Mar. 11 and from June 15th until Aug. 9th. During the time of pumping mud our coal consumption has considerably increased as it is readily seen from the monthly summaries of engineer's logs for July which shows a consumption of 862.2 tons of coal while the amount of air made was only normal, I wish also to state that we do not keep account of the amount of water handled while we are pumping mud as we have a revolution counter on the mining pump only so that the water indicated by the logs for Feb. is from the 1st to the 15th and the amount for Aug. was handled between Aug. 9th and 31st. The volume of water handled at this mine seldom exceeds 150 gallons per minute which amount, lifted 400 ft, requires 15 H. P. I believe it would prove very economical to install an electric pump for use at this mine as soon as the No. three shaft is abandoned as after that time we will not require steam in the mine for any other purpose except pumping the small amount of water. In case this were done, steam could be cut off from the mine entirely but the pipe and pumps should be left as they are for use when an emergency requires. The installation of this pump would not involve any great expense while it would afford an excellent opportunity to test the efficiency of the electric pump.

STEAM AUXILIARIES.

The Webster Camp & Lane steam driven hoist with the pair of 12" x 16" engines are still in use at the No. 3 shaft, second level south deposit. This hoist will soon be taken to the Maas mine for sinking purposes. It will be necessary, however, to install a small Lidgerwood hoist in its place until drift on third level is completed. Your

Master Mechanic will be very glad when we can cut off this long run of pipe, amounting to 1200 ft. of 4" and be through with the constant care and cost for its maintenance. The amount of work actually done by this hoist and pump probably does not exceed 10 or 12 H. P. but it is necessary to keep steam on this pipe continuously as arranged at present. In addition to this auxiliary hoist, we still use the 7" x 10" Duplex engine in the shaft house for handling the tram cars to the pockets. We also have a 6" x 12" engine in the shaft house which was running the sample crusher until Nov. when it was removed to the ground floor of shaft house and used to operate a small shop in addition to this crusher. This engine is not in operation much of the time. The shop tools consists of the six inch Curtis & Curtis pipe cutter and grind stone and the old drill press from the hard ore shop. These tools are a great convenience as it is not now necessary to send all pieces of pipe to the hard ore shop to be cut. The drill press is of very great assistance in makin g car repairs. There is also a 9" x 12" engine, driving the fans in the boiler house Deane Condenser and Duplex 5 1/2 and 3 1/2 x 5" Duplex Knowles pump for operating the brake on the hoisting engine. In addition to this auxiliary service there is also a pair of the 13" x 12" engines in the shaft house, running during the winter to operate the new tram system for stocking ore. These engines were the most uneconomical we had in service at any place as they did not cut off earlier than 15/16 of the stroke. During the Spring we removed the No. 10 Knowles pump which had been in use in the basement of engine house to take the mine water from the condenser and pump it across the lake into the launder. This pump will not be used again for this purpose.

STOCK PILE TRAM SYSTEM.

This system consists of the trestle work for carrying the cars the full length of the stock pile and a system of shives, controlled by levers and clutches for handling two endless ropes so arranged that the ropes could be run in either direction the general system being very

similar to a street railway cable plant with the exception that our ropes are reversible and the railway is not.

This system proved very satisfactory in operation after we succeeded in getting our old engines to work as the snow and bad weather did not in any way interfere with its operation. The cars handled are saddle back side dump cars which automatically dump the ore. These cars were handled entirely by the man at the engine and it is not necessary for a man to go out on the trestle with the car, as it is in the old system of end dump cars. With the old end dump car, running out by gravity, we experienced a great deal of difficulty of making these cars run out while it was snowing, ~~xxxx~~ neither could we tram out any considerable distance until our stock pile became too low to have much capacity. With the old system it is also necessary to have about four men on each stock pile, working day shift all the time, to maintain the tracks. This labor was dispensed with, with the trestle system as after it was once put up there is no more labor on it until time to take it down in the Spring to allow the steamshovels to remove the ore. Removing this trestle consists in taking up the track, ties, stringers and caps from the legs, which was done in very short time, leaving the legs in the ore to be removed by the steam shovel as it digs them out. We could not see that the legs caused any delay to the shovels. As is customary with our company, this system was not ready for operation until considerably past the time when it should have been so that it was necessary to finish the work in the very stormy weather of early winter and also necessary to start up before we were quite finished. Owing to this, any little adjusting or experimenting had to be done at the expense of delaying the hoisting. When finally completed, it worked very satisfactorily. We did not run this system long enough to determine absolutely, the saving over stocking by the old method, but we think it is considerable. One inconvenient feature of using a system of this kind at the Lake Mine is the fact that there is considerable shipping of Lake ore from the pocket during the winter making it necessary to take the Lake ore a part of the time to the pocket by the old system, making it necessary to have a crew to operate the old system as well as the new, causing more expense to the new system than

would be caused if the shaft was so arranged that it dumped directly into the pockets. The greatest argument, however, in favor of the new system is in the fact that stormy weather and long trams does not cause any delay to the hoist as the tonage produced during March and April of the past year was almost as high as anyother months during the year while in previous years there had been a considerable reduction in capacity, due to delay, caused by the inability of the old tram system to keep the ore away.

The old engines used on the stock pile tram were about as uneconomical and as unreliable as it would be possible for engines to be. However, for the winter of 1901 & 1902 we have only one-half the amount of rope to haul so that we will not require so much power. For this reason we have taken the cylinders off and bushed them down to 10" diameter, making false valve seats and new valves so that they cut off at about half stroke. The engines run considerably better and will not use nearly as much steam as they formerly used, but they are very uneconomical. If we are to continue the use of this system at the Lake Mine it would almost be necessary to install a Corliss engine.

LAKE ANGELINE DRAINAGE.

The No. 1 emergency pump was moved last January to a position about 400 ft. east of its former location, owing to the cave of ground, cutting away the ditch so we were unable any longer to bring water to its former position. This pump is run only in case of heavy rains there being but few days during the summer when it had to be started. During the latter part of the Fall of 1900 it was discovered by our mining engineers that by digging a ditch some few hundred feet in length, the outlet from Lake Minnie could be changed to Partridge Creek instead of through Lake Angeline as formerly. Since that time we have had no trouble from water on the lake bottom, whatever. A small condenser, changed into a pump is now located alongside the No. 1 emergency pump

which is large enough to take all water, under ordinary conditions, which comes to this point. We are still running No. 10 Knowles pump back of the the dry. This pump takes the mine water from the condenser, also the small amount of water coming to the rock dump and also from some of the small caves on the south side of the lake. It is run continuously.

During Aug. we began investigating the cause of the flow of water into the rock dump which we had always been informed came from a spring. We found the quantity of water to amount to 135 gallons per minute which came to this point day and night without increase or decrease throughout the year. It was finally discovered that this was a leak from the city water main, and when thiswas repaired, there is but very little water, coming in the pit at the rock dump as it is now necessary to pump only about one-half hour per day. This leak in the city water main has cost us considerable money as it has been pumped here night and day for years, in addition to which we had considerable trouble from caving ground at this place which was probably aggrivated by the amount of water. The number of pumps on the lake bottom is practically the same as last year, there being the No. 7 Cameron at the rock dump, two No. 5's in open pits on the south side of the lake, two No. 7's in the "Root House" and 14 & 10 5/8" x 12" Worthington Duplex and two No. 7 Knowles on the scow. The discharge from the scow pumps has been changed and brought back to its old position running straight into the launder as by the reconstruction of a portion of the launder, there is now no further danger of caves, affecting the main launder. We still use five steam syphons for removing water from the various caves. During September we changed the run of the main steam pipe owing to caving ground, taking it more directly across the lake, thus reducing the length by about 600 ft. In addition to this, the pipe was very well covered so there is not now nearly as much condensation in this pipe as formerly.

The No. 2 emergency pump plant at the west end of the lake has to be kept under steam throughout the year, owing to the considerable amount of water draining to this pump during bad wet weather and also to take care of the considerable flow, coming from under the rock dump

near Lake Angeline ware house. This place is called a spring by the men familiar with the lake bottom, but your Master Mechanic has been of the opinion for some time that it comes from the city water mains but the Board of Public Works has been unable to determine whether it was or not, though a great deal of the water main on that side of the lake has been examined.

The condensation of steam in the pipes and the uneconomical type of pumps used, makes this A ngeline drainage very expensive.

LAKE BOILER PLANT.

We are using all five boilers at the Lake Mine, the only change in the boiler plant during the year being the removal of the "Jones Underfeed Stokers" from the four boilers originally installed. We still, however, use the fan and force draft on the Nos. 1, 2, 3, & 4 boilers while the No. 5 boiler uses natural draft. Before advising the removal of these stokers, we made a number of very careful tests to determine the relative economy of boilers, equiped with stokers and the No. 5 hand fired with flat grates and natural draft. The results of these tests are shown and explained in the tables, accompaning the report made at that time which is given in full.

TABLE IV. REPORT IN FULL.

Ishpeming, Mich., May 8, 1901.

LAKE BOILER TESTS.

M. M. Duncan, Esq., Agent,

City.

Dear Sir,--

I submit herewith a report on the boiler tests recently made at the Lake Mine to determine the relative efficiency of the hand fired boiler, stokers as ordinarily run, and using forced draft with the stoker removed. The latter test was made on No. 1 Boiler while the stoker was in the shop for repairs, using the tuyeres and grates as installed for

the stoker with forced draft.

TABLE IV.

Date.	Jan. 30	Jan. 31	Feb. 20	Feb. 6	Feb. 7	Mar. 13
No. of Boiler	#1	#2	#1&2	#5	#5	#1
How fired	Stoker	Stoker	Stoker	Hand	Hand	Forced Draft
Duration of test in hrs.	24.	24.	21.75	24.42	24.17	24.33
Ave. Boiler press.	118.2	118.1	116.6	115.2	117.	119.
" Draft press.	.55"	.55"	.55"	.55"	.55"	.55 "
" feed water temper. deg.	41.2	40.	38.67	39.52	39.8	39.
Total coal	11,456	11,763	19,153	16,801	15,927	11,062
Coal per boiler per hr.	477.3	490.1	440.3	688.	659	455.
% moist. in coal	7.	6.5	6.6	7.5	7.5	3.5
Total dry coal	10,654	11,000	17,889	15,541	14,732	10,674
Total refuse	1.825	1.783	2.574	2.433	2.191	1.339
% refuse	17.1	16.2	13.4	15.6	14.9	12.5
% coal fired by stoker	23%					
Total dry combustible	8829	9217	15,315	13,108	12,541	9335
Total water	73,304	78,302	127,629	101,711	95,338	76,430
Lbs. water per #coal actual	6.398	6.656	6.66	6.053	5.986	6.909
" " " " dry coal	6.87	7.12	7.15	6.54	6.48	7.17
" " " " combustible	8.28	8.50	8.35	7.76	7.60	8.18
Equiv. water per # moist coal	7.818	8.135	8.13	7.396	7.320	8.44
" " " " dry coal	8.40	8.70	8.75	7.98	7.93	8.76
" " " " combust.	10.10	10.39	10.20	9.48	9.28	10.10
Sq. ft. of grate surface	31-3/4	31-3/4	63-1/2	31.	31.	31-3/4
Rate of combustion	15.4	15.4	13.9	22.2	21.3	14.3
Comp. efficiency all blrs.	97.2%	100%	98.17%	91.24%	89.32%	97.2%
H. P. develpd Franklin Ins. Std.	109.6	117.5		149.7	142.2	113.

By referring to tests made in Oct. and Nov., 1895, to determine the efficiency of the stokers as compared to hand firing, two boilers being then equipped with stokers, and two hand fired, I find that it required 130# steam per hour to operate the stokers and blowing engine when both were new and in good condition, and when burning 306# coal per hour. As we burn much more coal and as the plant is much older, I think it safe to assume the stokers will use more steam in proportion to the increased amount of fuel consumed. I therefore think it will still be favorable to the stokers to assume that they require steam directly in proportion to the amount of coal burned. Since on the test of Jan.30th on No. 1 Boiler, we burned 477.3# coal per hour. The stokers should be charged with 4867.2# water for the 24 hours of the test.

Following same reasoning we find the steam required to operate stokers on test of Jan. 31st to be 4992# for 24 hours and on No. 1 and No.2 Boiler test of Feb. 20th the steam used by the stokers is 8137.5#. Deducting the above amounts from the respective amounts of water evaporated in each test gives the amount of steam actually made by the boilers and available for use to drive exterior mechanism. Subtracting these amounts we have the following table as the economical evaporation of the boilers and stokers as a whole:

TABLE V.

Date	Jan. 30.	Jan. 31	Feb.20
No. of boiler	#1	#2	#s1&2
Total water evaporated	73,304	78,302	127,629
Total water used by furnaces	4,867	4,992	8,138
Total water evaporated for exterior use	68,437	73,310	119,491
# water per # coal actual	5.97	6.24	6.25
# " " " dry coal	6.42	6.66	6.69
# " " " combustible	7.75	7.95	7.80
Equiv. water per # moist. coal	7.29	7.62	7.64
" " " " dry coal	7.84	8.14	8.19
" " " " " combustible	9.46	9.71	9.52
Comparative efficiency of boilers with stokers and hand firing on No. 5 Boiler as 100%	100.8%	103.5%	101.5%
When best data on No. 5 is used as 100%	99.75%	102.4%	100.4%

I wish to add that in my opinion the No. 2 Boiler gives a better evaporation than No. 1 simply because the No. 1 boiler has one side exposed while No. 2 has no external exposure. This is also true of the No.5 Boiler and in a more marked degree, on account of it being 2 ft. longer than the other boilers. It has four feet more exposed area than has even the No. 1.

Further the No. 5 Boiler is set nearest the east door, which was at that time always open on account of bringing in coal and got the full benefit of the cold draft especially when the wind was from the east, which was the case during the trst of Feb. 7th, and in my opinion accounts for the 2% duty on the test of Feb. 6th, when the wind was northeast.

The No. 2 Boiler gives apparently 2.8% better duty than the No. 1 which I believe is due solely to the No. 1 having greatest exposed area. This leads me to believe the No. 5 boiler would give 3% better evaporation if it were in a battery with no exposed side walls and not subjected to the cold draft from the door.

If this is a fact the equivalent evaporation per lb. combustible average of two tests would be 9.66#, which is practically as good as is shown b y the stokers.

The consideration of the above facts leads me to believe the virtue of our stoker plant, if any, lies in the forced draft, and when we consider the test on No, 1 Boiler without stoker and with forced draft is made with the tuyere blocks and dead plates instead of grates, it confirms me in the opinion that the stokers are quite unnecessary and probably do not give any economy, whatever.

Again, they will not now burn over one-half the coal required to do the work at this plant, and as they require considerable repairs I fail to see any advantage to be gained from their use at this plant.

I would therefore recommend the removal of these furnaces and the operation of the plant with forced draft only for the present.

There is a deep seated objection to these stokers by firemen, owing to the crowded condition of the firing alley as well as to the great inconvenience of the arrangement of these stokers, their being so much in the way makes the cleaning of fires very laborious and inconvenient. It is almost impossible to keep firemen in this plant owing to the excessively hard labor and the very long hours, and I believe the removal of these stokers will greatly add to the comfort and convenience of the men, and not detract in any manner from the efficiency of the plant.

Respectfully submitted,

Will E. McKee,
M. M.

These stokers were removed during the month of April since which time the boilers have been worked with forced draft, using the old tuyeres as originally used when the stokers were in service. The coal consumption at the Lake Mine has been very heavy throughout the year, and it was thought by some that the trouble lay in the removal of the stokers. To prove this, additional tests were made with the new coal on No. 1 boiler, first without the stoker on September 25th and 26th after which the boiler was shut down, cleaned and the stoker put on, the boiler then put in service and the stoker tests made on Oct. 3rd & 4th. The only question that could enter, to my mind, covering the absolute accuracy of this test would be in the fact that while the boiler was shut down to install the stoker, we received a new cargo of coal but as nearly as we could determine, it was of the same quality as the preceeding cargo with which the test had been made without the stoker. The accompaning table and letter gives the result in this test, fully.

Ishpeming, Mich., Oct. 8, 1901.

M. M. Duncan, Esq., Agent,

General Office.

Dear Sir:-

I submit herewith report of boiler tests made on No. 1 Boiler at the Lake Mine, both with and without stoker, using coal which has not been injured by being stocked any considerable length of time.

In my opinion the only possible question that can arise regarding the accuracy of these tests is in the fact that the test made with the stoker was made on a different cargo of coal from that used on hand fired test, and as I have not at the present time analysis of the last cargo, I cannot compare them. However, from the way the coal worked, I think they are very much alike.

Yours truly,

Master Mechanic.

Encl.

TABLE Vl.

Ishpeming, Mich., Oct. 7, 1901.

RESULTSLOFm BOILER TESTS AT THE LAKE MINE.

	WITHOUT STOKER.		WITH STOKER.	
Boiler	#1	#1	#1	#1
Date	9/25/01	9/26/01	10/3/01	10/4/01
Duration of Trial(hours)	23.92	23.5	24	23,58
Average Boiler pressure	107	108	107	105.4
Average Draft pressure	.49"	.5"	.33"	.3"
Average temp. of feed water	56 deg.	56 deg.	53.7 deg.	52.7deg
Total coal consumed (pounds)	14042	13343	14521	13156
Percent. moisture in coal	5%	5%	5%	5%
Total dry coal	13340	12676	13794	12498
Refuse	1727	1646	1811	1753
Percent. refuse	12.2%	12.3%	13.15%	14%
Total dry combustible	11613	11030	11983	10740
Total water	95133	94140	94023	87509
Water per lb. of coal(actual)	6.774	7.052	6.407	6.65
Water per lb. of dry coal	7.13	7.44	6.816	7
Water per lb. of combustible	9.19	8.535	7.848	8.147
Equiv. water per lb. of coal	8.16	8.51	7.74	8.03
" " " " " Dry coal	8.6	8.96	8.22	8.45
" " " " comb.	9.86	10.27	9.45	9.82
Rate of combustion	18.5	17.9	19.1	17.7
Percent. efficiency(Average of two trials)	100%		95.7%	

Comparing the two tests as above, it will be noted that the No. 1 boiler when run with the stoker has only 95.7% efficiency, shown by the same boiler run without the stoker. From these tests and thorough observations made about the plant it appears to me there can be no question that the removal of the stokers have notmaterially influenced the increased consumption of coal. No general tests were made during the summer to determine the character of coal we received this year but it is my opinion

partly borne out by the chemical analyses of our slack coal that the slack coal received this year is not quite up to the standard of the slack of last year.. We burn nothing but slack at the Lake Mine and the equivalent evaporation in pounds of water per pound of dry coal is in my opinion very good for hand fired boilers.

I believe a good type of stoker would decrease the fuel consumption from 12 to 15% on this plant and possibly more; but in view of the fact that the plant will shortly have to be removed I would not advise the installation of other stokers. I do not believe the Jones Under-feed Mechanical Stoker is of any special merit and that if it ever shows any economy over hand fired it is only by substituting the stokers on boilers that had been improperly set in the first place. The stokers installed under our boilers have not sufficient capacity to burn the coal which we are now using there.

CLEVELAND #3.

There has been no changes at this plant during the year and we continue the use of the same boilers and machinery on which we have had some repairs. We have had some reports from the Hartford Steam Boiler Insurance Co. not entirely favorable to these boilers, copies of which follows. We only use boilers one, two and four, Nos. 3, 5, &6 being permanently laid up.

Six Boilers. House #3

Internally;-- There is a heavy incrustation of scale on heads of all the boilers, but otherwise they are practically clean. #5 and 6 which have not been in use recently, have some grease deposite, but are in fair condition. We advise to let these boilers dry out perfectly and have all plates removed to allow the air to circulate through them freely. This will prevent pitting and corrosion. Boiler #3 is in fair condition but has had a single riveted fire sheet put on which naturally reduces its efficiency to a single riveted boiler, thus making it too weak for present pressure. Braces are sound and taut.

Openings to outside attachments are clear.

Externally;-- Boilers #3 and 4 have a couple small blisters on fire sheets which should be chipped off. #2 has several fire cracks at first girth seam, but is not serious. Heads and flanges have no serious defects to note. Tubes and seams show no leakage or distress. Furnace walls of #2 require attention. Outside attachments in good order.

HARTFORD STEAM BOILER INSP &INS CO.
Signed H. M. Lemon, Manager.

The compressor has had little repairs during the year, the total being one new crank pin, one set of crank boxes and the renewal of all air valves. This machine is now operating all the drills it can handle and maintain present pressure. The economy of this type of compressor has been commented on before.

We operate but one engine on the hoist which has had no repairs of any importance or any delays during the year. The only auxiliary use for steam at this plant is the shop engine which is getting pretty well worn out. It has been in continual service every day for about twenty years and is consequently about worn out.

MORO MINE #4 ENGINE HOUSE.

The Cornish pump in this mine has caused little trouble and is running very economically. There has been no repairs of any kind to the engine.

The Hydraulic Balance, installed last January has proven very satisfactory as this pump is now in almost perfect balance and the strain on rods is greatly reduced. This balance proved so satisfactory that we installed one on the Salisbury pump and will shortly install one at Cliff Shaft.

BOILERS.

The two boilers in this house are becoming almost unfit for use as the accompaning report from the Hartford Inspector clearly shows.

I may add that the load on the engine is such that it will not run the pump at all with less than about 55 pounds steam and even then with greatly reduced economy. This engine should have 90 pounds steam pressure for economical work. However, we are allowing but 75 pounds pressure on No. 1 and 65 pounds on No. 2 and since it is necessary to keep the working pressure about five pounds below the pressure at which the safety valves open we have but 70 pounds working pressure on one boiler and about 60 on the other. If we are to continue the use of steam for machinery much longer it will be necessary to install at least one good boiler in this plant.

Two H. T. Boilers. House #4.

Internally;-- These boilers have no excessive incrustation of scale; shell plates, heads and flanges show no serious defects; seams are intact. Braces are sound and taut; openings to outside attachments are clear.

Externally;-- Patch on fire sheet of #1 has small bulge, but this we are informed has been there for a number of years. Tubes and seams show no seepage of distress. Attachments are in good working order.

HARTFORD STEAM BOILER INSP & INS. CO.
Signed H. M. Lemon, Manager.

ENDORSEMENT #1.

Chicago, Nov. 5, 1901.

The maximum load on the safeth-valve of boiler #1 at House #4 approved by the Company's Inspector, is seventy-five (75) pounds per square inch, being a reduction of five pounds from the load originally permitted by this policy. The safety-valve should be at once adjusted to blow freely at 75 pounds pressure.

J. M. ALLEN,
President.

Signed H. M. Lemon, Manager.

ENDORSEMENT #1.

Chicago, Nov. 5, 1901.

The maximum load on the safety-valve of Boiler #2 at House#4 approved by the Company's Inspector, is sixty-five (65) pounds per square inch, being a reduction of ten pounds from the load originally permitted by this Policy. The safety-valve should be at once adjusted to blow freely at 65 pounds pressure.

J. M. ALLEN,

President.

Signed H. M. Lemon, Manager.

28th of April to 27th of May,1901.

Two Boilers. House #4.

Internally:-- These boilers are practically free from any incrustation of scale or deposit. Boiler #2 is about 20 years old, made of iron and single riveted; you will readily see this is a very weak boiler to be run at a steam pressure of 80 pounds; to obtain a factor of safety of 4, which is reasonable, we should allow a pressure of but 63 pounds. Boiler #1 is about the same age as #2 but has a higher percentage of joint. although ~~altogether~~ hardly sufficient for present pressure considering above conditions. We would, therefore, recommend a change here as soon as convenient, particularly in #2. Advise two new higher pressure boilers, or one 18' x 72" we think will be sufficient and will prove economy over the two now in service.

Externally;-- Boiler #1 has small bulge on fire sheet which should be driven up. #2 has several fire cracks at first girth seam, not serious. Tubes and seams show no leakage or distress. Attachments in good order.

HARTFORD STEAM BOILER INSP & INS. CO.

Signed, H. M. Lemon, Manager.

ENDORSEMENT #1.

Chicago, Nov. 5, 1901.

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J. M. ALLEN,

President.

Signed H. M. Lemon, Manager.

PRESQUE ISLE TRAM PLANT.

For the tram plant at Presque Isle we have installed a 66" x 16' boiler where from and are installing the 14" x 36" Allis Corliss engine, formerly used to drive the Michigamme crusher. This engine will be connected to a pair of 54" x 54" drums, with one end of the rope attached to either drum so that the rope unwinds from one drum as it winds up on the other. This arrangement is made necessary by the fact that the approach to the trestle is up a 20 deg. grade and your Master Mechanic did not believe a cheaper construction with shives and endless rope would transmit sufficient power to pull the loaded car up this grade.

The plant is working very satisfactorily and we do not anticipate any trouble with the machinery. The only probable source of annoyance will be from the ore freezing in the railroad cars while in transit from the mine.

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HARD ORE SHOPS.-

The only change in the hard ore shop during the past year has been the installation of a 30" plain radial drill, manufactured by American Tool Works Co. in place of the old drill press which had been in this shop for about 30 years. This new tool has proven very satisfactory as we can now readily drill a 2" hole in steel at a good speed, a thing which was almost impossible to do at all with the old press. This new tool will do about as much work again as the old machine could. There has been no other changes but we are very much in need of a lathe capable of swinging from 16 to 18 ft. between centers to replace the old 16" lathe 13 ft. centers which has been in service about 30 years. This old lathe is quite unfit for any work except boreing car wheels and it will do only about 1/2 as much work as a lathe should do and even then the work is of a very unsatisfactory character. It is impossible with this lathe to bore a round hole or to turn a piece of metal straight. We should also have in the shop a lathe which would swing from 54" to 60" as we sometimes get work that we cannot swing in the present lathe. We have raising blocks for blocking up the 36" lathe so that it will swing 42" but this lathe will only take 5ft. centers. It is almost impossible to make a long piston rod or do any long job on our present old lathe, the result being that many repairs that should be made are let go too long. In addition to this when a break down occurs, compelling the use of this long lathe we are greatly delayed in getting the work out. This was painfully illustrated when we broke a piston rod on Cliff Shaft compressor as it took us about 8 days to repair this when it should have been done in 2 1/2 or 3.

The amount of work now being done in this shop is considerably less than we have had the past 2 1/2 years due partly to the fact that our equipment is being gradually brought up to a better condition. I may add that it keeps one man almost constantly employed on lathe work for second level tram cars at Lake Mine.

We are now building in our own shops all the parts for Rand drills with the exception of the Rockers. We can build a 3 1/4 Rand

drill with tripod equipped with steel castings instead of cast iron as turned out by the Rand Co., for about 1/2 charged for them by the Rand Drill Co.

We also make the pinions for our electric motors at the Lake from wrot steel instead of buying cast steel pinions from the manufacturers. The pinions we make cost us about 1/2 more than we can buy them for but they run from 3 to 4 times as long. For this work we find the universal milling machine very convenient and many of these parts we could not make at all without it.

MAAS MINE.

At the Maas Mine, the entire situation has been carefully canvassed and we have located our boiler and engine houses in what I hope will prove the permanent place. We are installing the three 66" x 18' Tubular Boilers which we purchased new two years ago for the Michigamme Mine and are putting them up in a substantial manner with the expectation that they will remain in this position permanently. We will also use the smoke stack, steam header, feed water heater and boiler feed pump from the Michigamme Mine and in the engine house will install the pair of 12" x 16" engines geared to two 4' x 4' drums, built by the Webster Camp & Lane Co. and installed in No. 3 shaft, Lake Mine.

We have repaired the small shop engine, injured in the fire at Salisbury shop and will install it in a temporary shop to run the Curtis & Curtis pipe machine from Michigamme, and the emery grinder and wheels. We will also install the 14" lathe, purchased for the Michigamme Mine. We have also ordered a 1 1/2" Jareki combined bolt and pipe cutter; for sinking the shaft, we will use a derrick with a 50' boom, set back full length in order to escape the settling which will take place around the shaft. The pumps used will be the three 14" & 8" x 12" Prescott sinking pumps, purchased two years ago.

The buildings at this mine are the cheapest possible construction being only temporary. Your Master Mechanic believes we should rush the installation of the new plant and shaft at the Lake Mine in order that we may remove the present Lake hoist, and by making considerable changes, install it at the Maas Mine for the regular hoisting work; thereby saving a stopage of the Lake Mine which will be necessary if the present Lake hoist was removed to the new Lake shaft. By this arrangement the new hoist will be purchased for the Lake Mine and the present Lake hoist taken to the mine by the time it is ready for regular hoisting.

MICHIGAMME MINE.

This mine was closed September 28th and the removal of our machinery, tools and buildings, begun. The machinery at the Michigamme Mine was run without any changes until the time we closed down. The old compressor gave us a great deal of annoyance and we broke a number of crank pins due to their being entirely too small for the load upon them.

With the hoisting engine we were very fortunate as we had no repairs of any description on the plant which was much better for time than we anticipated. If this plant is ever started again, it should be remembered that the friction pinion driving the No. 6 drum has all arms but one broken and it would not stand any further service. The frame of the hoisting engine is broken under the main bearing very similar to the breaks in Cliff Shaft engine. It will be necessary to repair this in a substantial manner if the engine is worked again in its present position. I may add that this crack was in the frame before we took hold of the property. I believe the hoisting plant is in almost as good condition as when we took charge of it with the exception of the No. 6 pinion. The compressor is in somewhat better condition as we relined the machine throughout, putting a new cross head and new brasses all round and I believe we left it in much better condition than we found it. The boilers are removed and shipped to the Maas Mine, together with the shop tools which we had purchased and all pumps, feed water heater and tools of every description.

CRUSHER PLANT.

This plant was in operation continuously throughout the entire time that we were hoisting at the mine and gave us almost no trouble, whatever. Since April we had hoisted on one shift only so that it was necessary to run the crusher but one shift. The 14" x 36" Allis engine was removed and sent to Presque Isle for use in connection with the tram plant, located there. The crusher shaft, pulleys, belts, top tram drums and stock pile tram machinery were all sent to Cliff Shaft. The crusher building was also torn down and the lumber stored at Cliff Shaft mine.

The crusher plant has a whole run with the minimum of labor while the amount of oil and repairs were very light. For the operation of this plant we required one man to handle top tram drums for pulling the ore from either shaft house to the crusher plant where it was automatically dumped into the crusher. There was one other man about the plant who attended to the duties of feeding the crusher, oiling the crusher shafting and also ran the engine. At the pocket below, two laborers were stationed for the purpose of picking rock. Aside from rock picking, one man could easily have done this work of loading the ore either into the railroad cars or the stock pile tram cars and since the lever for operating the stock pile tram was located at the shute, this laborer also put the ore in the stock pile. The stock pile tram system was driven from the main engine by means of a belt and was constructed of some old V frictions and drums, the clutches being made and the whole thing assembled in our shops. The cost of crushing ore at this mine was very low both for operating and maintenance. In addition the plant as installed, working the same number of men could easily have handled 4 times the quantity of ore which came to it. The average production while working one shift was only about 3,000 tons per month while the operating cost of the crusher ran from 2 1/2 to 4 ¢ per ton, the maintenance cost running from 1/2 ¢ to about 2 1/2 ¢ or 3 ¢ per ton. In addition top landing and traming was kept at minimum by the very inconvenient top traming system installed which for the entire top landing and traming required but one man aside from the lander in either shaft house. I believe that the cost of crushing ore at the Michigamme mine with its small production as compared with Cliff Shaft mine and its large production would show very unfavorably the arrangement at Cliff shaft and that the cost per ton for operation and maintenance at Cliff shaft could be brought below the cost at Michigamme. There can be no question in view of the much larger tonage handled. In justification of the purchase of the Corliss engine for driving the Michigamme plant I wish to say the coal consumption for driving the entire crusher and tram plant was but 2,500 pounds per day while the

present engine in use at Cliff shaft probably requires not less than three tons. The fuel saved by this engine while it was in service at Michigamme over our old type slide valve engines has probably very nearly paid for the engine while the engine is practically as good as new.

ASHLAND MINE.

Our Engineer's logs were started at the Ashland Mine on June 4th. We have no records of the work done during May, nor have we full information for the six months shown but have summaries of the information in our possession.

HOIST.

The hoisting equipment consists of a pair of 26 1/2" x 48" engines, equipped with gridiron slide valves and a releasing valve gear, controlled by dash pots, built by the Webster Camp & Lane Co. probably about twenty years ago. The valve gear is of a type of which there were several brought out between 1876 and about 1885 after the value of the Corliss valve gear had been demonstrated principally by the engine shown at the Centennial Exposition but before the patents on this engine had expired. There were a number of engines designed of which this particular pair is a type, with the idea in view, of securing the advantages of the Corliss gear without infringing the Corliss patents. Very few of these engines were successful and are comparatively few of any one design, was manufactured. I know of but two pair of Webster Camp & Lane engines of thid design.

This pair of engines were originally designed to run coupled geared to four 10' drums with the ratio of 3 2/3 to one with standard Lane frictions and brakes similar to those in use at the Cleveland and Salisbury mines. It was soon found, however, that these engines could not be run coupled owing to some peculiarity in their governor since which time they have been run uncoupled, each engine driving two drums. Some years ago owing to the large number of shafts at this mine and the desire to hoist from all of them, a fifth drum was installed to be driven from the left hand on No. 1 engine. This drum has not recently been in use.

These engines have cylinders considerably larger than required for their work as was the case with the majority of the hoisting engines built about that time so that the load is not heavy enough to give the

engines good economy except when hoisting on all drums together, something that is very seldom done. From the nature of the valves of these engines, I fear they will give some trouble if the steam pressure is raised to 130# which we must do to get good duty from our mine pumps. We found from tests made in June, the steam required to hoist one skip of ore was 132#. The average load hoisted at this mine is about 2 tons while the average depth, I think is about 450'. At the Moro Mine where somewhat lighter loads are hoisted of approximately the same depth, the steam required per skip hoisted is 171#. This saving of about 23% is chargeable I believe, entirely to the superiority of the releasing gear or Mongrel Corliss over a slide valve engine. This is another argument in favor of the installation of more economical machinery at our old mines and to a certain extent bears out the calculations made as to the saving that would be effected by Modern machinery over what we are now running.

COMPRESSORS.

The compressor consists of a pair of 18" x 42" C. & G. Cooper Duplex single expansion Corliss engine with a pair of 18" x 42" Ingersoll Sargeant piston inlet air cylinders, the whole apparatus furnished complete by the Ingersoll Sargeant Co. This compressor is run, condensing; the water for boiler feed purposes is used on the condenser ~~or heater~~ part of the time until the supply becomes too hot when the condenser is switched over on the mine water. This is undoubtedly the best compressor which we have in operation any where and is a fairly economical machine. However, it would be much better when we raise our steam pressure if we could exchange one of the steam cylinders for a larger cylinder thereby compounding the machine. This would probably reduce the fuel consumed by the compressor from 20 to 25%. I am informed by the Engineers at the mine that this compressor has been running for a number of years with scarcely any repairs at all and has never given them any trouble, an illustration of the value of Modern Corliss engines for this class of work. The amountof air made by this machine is about from 30 to 33 1/2 million ft. free air per month and the demand for air is increasing regularly.

During the month of June, your Master Mechanic and his assistant, Mr. Frazier went to the Ashland Mine and made a number of tests on their boilers also determining at the same time the fuel required by the different machines at the mine. The piping at this mine is not so arranged that the compressor, hoist and mine could be separated but the amount of steam required by each was found by making test on mine pumps on Sunday then a test on Wednesday with boilers 6, 7, 8, supplying steam for the mine pumps, compressor machine shop, and the small amount of steam used at the dry laboratory. The amount of steam used by the machine shop was found by running the machine shop's and mine pumps together, subtracting the amount used by the mine pumps, chargeing the remainder to the machine shop. By this method of running the compressor and mine pumps on the same pipe I make the corrections shown by our tests and observations. We found that the one pound of steam on this compressor made about 11.1 cu. ft. of air while on the slide valve Rand machines in general use by our company where the tests were very accurately made and no corrections necessary. We find one pound of steam makes only 9.8 cu. ft. of air, a saving of over 12%, while the tests on the Rand compressors at the Cleveland were very accurately made as the boiler supplying steam to the compressor did not supply any other machinery and since the tests on the Ashland compressor could not be made with such accuracy the corrections and estimates had to be substituted to get results. I feel from the nature of the work done that we charged too much steam to the compressor. However, the saving in fuel shows clearly the advantage of the Corliss gear while the reliability of the operation is also greatly favored by this type of machine. I regret very much that the piping at the Ashland Mine is not so arranged that this compressor could be run on a pair of boilers and careful tests made in order to show the exact difference between a Corliss compressor and our Rand slide valve machines.

MINE PUMPS.

At the time we took hold of this property, the mine pumping had been very uneconomically done, owing to the shafts all being sunk in the ore bodies., they were continually crushing and shifting so that it required constant labor and attention on both steam pipes and discharge colums to keep them in serviceable condition. It was also considered necessary by the former management, owing to the amount of water making in the mine and the liability of a line of pumps being put out of commission by trouble in the shaft to maintain a second line of pumps for emergency work in case of accident to the principal mine pump.

The principal mine pump is a 15" & 23" & 9 1/4" x 24" Worthington Duplex running condensing, the condenser beinga 7 1/2" & 8 1/2" x 10" Worthington jet condenser. This pump is located on the 10th level, No. 4 shaft and throws to surface. The steam cylinders of this pump are rather small for the work and the steam pressure drops below 92# on the gage at the pump it begins to slow down. When standing alongside the pump the starting of the hoisting engine may be readily noticed as the large engines on the hoist pull the pressure down slightly and this causes the pump to lag. There is at present a No. 8 Knowles pump located at this same place drawing water through the 10th level over from No. 7 shaft this being necessary on account of a rise of about 12 ft. in the 10th level between the No. 7 and No. 3 shaft, No. 3 ,10th level being that amount above tenth level No. 7. The amount of water coming from No. 7 shaft was about 150 gallons per minute. Recently this has increased somewhat owing to the tapping of a body of water by the Diamond Drill the greater part of the water amounting to over 300 gallons per minute makes in the bottom of the 13th level of No. 3 shaft. This water is lifted to the 10th level by a compound condensing Prescott sizes 14" & 26" & 10" x 18" with a 7" & 12" x 12" Prescott jet condenser. There is also a 14" & 8" x 12" Prescott sinking pump in the shaft near this compound pump for handling the water in case of accident or repairs to the Prescott. The 13th level No. 3 shaft has

been opened but very little and if this pump is stopped for only a few minutes, the water rises in the level. There is also a pair of No. 8 Cameron in the 11th level No. 4 shaft for taking what little water comes in there and forcing it up to the Worthington. These pumps are all supplied by steam brought down No. 4 shaft the steam being supplied to the Prescott by being carried across the 10th level thence down No. 3 shaft to the 13th.

In case of accident to the Worthington pump there is a line of pumps, located in the No. 7 shaft with their own steam and discharge pipes which pumps out the water, passing it from one to another to surface. The 10th level will not flood owing to its being 12' higher than the No. 7 so that the water readily runs across from the Worthington pump. I believe this auxiliary line of pumps has not been started since we took hold of the property. These pumps are not compound and are consequently very uneconomical. Until our new Superintendent, Mr. Ellard, took charge, they had kept steam on the pipe in No. 7 shaft continually, the condensation requiring about $9.00 per day for fuel. This rehandling of water in No. 4 shaft is very uneconomical besides we are at the expense of maintaining two pumps and also providing two sets of pump men where one should do the work. It is further proposed in the new shaft we are sinking back of No. 7 to install a triple expansion pump low enough to bring all the water from all the separate levels in the mine making it the only pump shaft in use. This will cut off a run of about 700' of steam pipe on surface and will also dispense with one set of pump men. I believe this arrangement will reduce the cost of the pumping at this mine by about 1 /2 but it will be necessary to carry 125# steam pressure at the pump. We should have at least 100# pressure on our present Worthington mine pump but it is quite impossible to do this owing to the condition of our boilers. In addition to the pumps here enumerated, there is a great line of pumps from No. 6 to No. 10 principally the Knowles and Cameron makes in addition to which there are several other sizes. This line will be shown from the inventory of pumps at this mine.

BOILER PLANT.

Boilers No. 1 & 2 are a pair of 60" x 16' Horizontal tubular, built by Webster Camp & Lane Co. the two being set over one furnace so that it is necessary to operate both at once. This pair of boilers should not carry over about 85# steam pressure. Nos. 3 & 4 are a pair of 60" x 16' Horizontal Tubulars very old and are really unsafe at the pressure carried at the mine and your Master Mechanic ordered them closed down when he was at the mine in June. I do not consider these boilers safe at all and I hope shortly to remove them altogether. Nos. 5 & 6 are a pair of 66" x 16' Horizontal Tubulars, made by the Parish Mfg. Co. of Ashland, Wis. and are the most economical boilers at the mine and are probably all right for 100# pressure. Our tests on these boilers using all coal for fuel showed an equivalent evaporation of 7 1/2# of water to pound of coal and an equivalent evaporation of 8.22# of water per pound of combustible being a very fair duty. These boilers, however, are not as well set as they should be and we ordinarily get better duty from our boilers at the Cleveland. I believe the kind of coal used on this test was Hocking run of mine which of course, has not quite as high a fuel value as the Pittsburg coal used at our mines at Ishpeming.

Boilers No. 7 & 8 are a pair of Sterling water tube boilers of about 165 H. P. each. These boilers when run with all coal showed an equivalent evaporation per pound of coal of 7.01 while the equivalent water evaporated per pound combustible was 7.86. Comparing the Sterlings with the No. 5 & 6 Horizontal Tubulars as 100 we find the Sterlings to have about 94% the efficiency of the Horizontal Tubular boilers.

We have ordered a pair of 72" x 18' Horizontal Tubular boilers, similar to the No. 5 boiler at the Lake Mine, on which we can carry about 135# steam pressure. The Sterling boilers would probably be allowed about 150. When we first took hold of the property they were using eight boilers. On the visit of your Master Mechanic in June, the Nos. 3 & 4 were closed down, and by changes in the pumping system and closing of the steam from No. 6 shaft we were able by hard crowding to run on the Nos. 5, 6, 7 & 8. This required considerable forcing and

after running some time this way we changed over and are now running five boilers. When the two new boilers are installed, these two with the assistance of the Sterlings will undoubtedly be able to do all the work at the mine and we will also then raise the steam pressure to about 125# giving our pumps a much better margin. We have not insured these boilers as I did not believe the Hartford people would write insurance on the old boilers at the pressure we were obliged to carry.

The fuel in use at the mine was a mixture of wood and coal; the wood runnming about 60% hard wood and 40% soft wood there being a very large supply of wood in stock. The tests showed but very little economy approximating 1% when burning mixed coal and wood as against all coal, owing to the inconvenience of handling wood and the probability that we would not be able much longer to securewood at the prices at which the last supply was obtained, we will ultimately abandon the use of wood altogether.

MACHINE SHOP.

The machine shop is driven by a small 6" x 10" rice Automatic engine there being one 16" lathe and small planer, drill press, 6" Curtis & Curtis pipe machine and the small bolt cutter. We have added a 14" x 5' American Tool Co. lathe, a duplicate of the one purchased for the Michigamme Mine. For the carpenter shop there is also a circular saw, these being the only tools requiring power. There was but one man and a helper in the shop.

GENERAL RECOMMENDATION.

I wish again to call your attention to the very uneconomical machinery we have in service almost every where and to earnestly advise that steps be taken to improve the efficiency as soon as possible. In my opinion if we are not to install electric power for general purposes we should at least install about a 500 H. P. unite consisting of about a 375 K. W. multiphase generator direct connected to about a 500 H. P. tandem compound condensing engine either Corliss, or high speed four valve type and from this generator operate our own electric lights, replace our small shop engines, tram engines, crusher engine, electric tram plant and probably a part of our pumps. These motors would take care of our most uneconomical loads and at the same time we could cut off our longest run of steam pipe and greatly improve our general service. It would probably be preferable with the view to reliability of operation to install two smaller units for this work, the two together equal to about 375 K. W. as by this method we could always have one unit in operation while the other was closed down for necessary repairs in addition to which we would not need to run the larger unit for the small amount of work required Saturday night, Sunday night and Sunday. This installation would probably not cost a large amount of money but would probably pay for its installation from the saving of fuel alone in 3 or 4 years.

It would be much better, however, could we secure the exclusive control of the small stream which we have been considering, as we could then undoubtedly develop this amount of power. There is something like 500 ft. of fall available along the length of this stream which we wish to secure and I find the mining water together with the city sewerage, both of which are constant quantities and do not diminish during dry weather, sufficient to develop about 88H. P. per hundred ft. of fall. This is exclusive of the natural flow of the river which probably is not less than 3 or 4 times the quantity coming from the mines and sewers. In my opinion it would be advisable to pay almost any reasonable price asked for the small amount of land necessary to secure control of the upper part

of this stream so th at we could undertake its development at once and derive a benefit there from as speedily as possible. I do not believe from my inspection of this stream that the amount of power to be had below the low body of land would be of much value for our purpose. Neither do I believe there is any power available on the small amount of land in this lower tract; by securing the upper piece of land we could proceed with the development, leaving out of our calculations any development which might be undertaken below us. I believe we should at least make an approximate survey of this stream during the coming summer and also determine the amount of water flowing. The past would have been a very good time to have done this work as we have had a particularly dry season and quantity of water flowing has probably been almost a minimum.

Respectfully submitted,

Will. E. McKee

Master Mechanic.

HASKINS & SELLS,
CERTIFIED PUBLIC ACCOUNTANTS.
30 BROAD STREET,
NEW YORK.

204 DEARBORN STREET, CHICAGO, ILL.
30 COLEMAN STREET, LONDON, E.C.
CABLE ADDRESS "HASKSELLS."

NEW YORK, June 28, 1902.

William G. Mather, Esq.,
President, Munising Railway Company,
Cleveland, Ohio.

Dear Sir:-

Agreeable with your request we have made an examination and audit of the books and accounts of the Munising Railway Company for the year ended December 31, 1901.

We submit herewith three Exhibits, lettered "A" to "C" inclusive, accompanied by five Schedules, together with our comments, as follows:

EXHIBIT
"A" - COMPARATIVE GENERAL BALANCE SHEET - DECEMBER 31, 1901 AND 1900.
Schedule
#1 - Bills Receivable - December 31, 1901.
2 - Due from Agents and Conductors - December 31, 1901.
3 - Due from Railway Companies and others - December 31, 1901.
4 - Due Railway Companies and individuals - December 31, 1901.

"B" - INCOME AND PROFIT AND LOSS ACCOUNTS - FOR THE YEAR ENDED DECEMBER 31, 1901.
Schedule
#1 - Earnings, Expenses and Loss - Land Department - for the year ended December 31, 1901.

"C" - RESOURCES AND THEIR APPLICATION.

COST OF PROPERTY

The Cost of Property December 31, 1901 shows an increase over December 31, 1900 of $73,338.07 subdivided as follows:

Cost of Road, Increased,.....	$ 6,446.42	
Real Estate, " ,.....	1,433.34	
Construction and New Equipment, increased,.....	64,831.10	
Munising Townsite, increased,.....	36.96	
" " , Improvements, incd.	919.45	
Total,.....	$73,667.27	
Less:		
Equipment decreased,.....	329.20	
Net Increase in Cost of Property as above,.....		$73,338.07

The increase for the year in the Cost of Road represents the following expenditures:

Vault at General Office,.....	$ 37.66	
Round House and Freight House, Munising,.....	4,752.35	
Improvement at Chatham,.....	1,825.65	
Changing Scales at Munising,.....	191.27	
Total,.....	$ 6,806.93	
Less:		
Items transferred to General Expenses,.....	360.51	
Net Increase in Cost of Road,.....		$ 6,446.42

The increase of $1,433.34 in the Real Estate account for the year represents the balance standing against the Financial Agent at Munising December 31, 1900 and consists of items which had been erroneously credited to Real Estate account on account of Sales of Land made prior to the period under review.

The following items constitute the increase in Construction and New Equipment, viz:

East Branch Extension,.....	$42,376.06
Ballasting Main Line,.....	6,573.69
Munising Passenger Station,.....	2,929.22
Munising Junction Crossing,.....	3,085.86
Grading Round House and Tracks,.....	486.68
Bridge Repairs,.....	365.06
New Water Station, - Slapneck,.....	1,500.13
Two Combination Cars,.....	4,634.30
Two Locomotives,.....	2,880.10
TOTAL, AS ABOVE,.....	$64,831.10

The Accounts Munising Townsite and Munising Townsite Improvements show an increase of $956.41 over the end of the previous year, the result of charges for improvements, fencing, grading, etc. made by the Land Department.

The decrease of $329.20 in Equipment Account results from fire loss on three flat cars, $302.20, and freight allowance on snowplow, $27.00.

MATERIAL AND SUPPLIES

The amount shown on the Balance Sheet for Material and Supplies on hand December 31, 1901, $16,462.75, includes Coal to the amount of $5,380.60. The last actual inventory was taken in March, 1900. The Auditor of the Company states, however, that the book value of Material and Supplies is approximately correct, as in previous years only slight corrections have been necessary to adjust this account.

BILLS RECEIVABLE

The Balance of Bills Receivable account as shown by the Ledger December 31, 1901 was $464.29 and represents the Bills Receivable at the Marquette office only. At the Land Department office at Negaunee the Balance of Bills Receivable account was $22,606.15. These two items make the total of $23,070.44 shown by the Balance Sheet. We were unable to verify the note of C. E. Closser for $11.75, included in the Land Department Schedule of Bills Receivable. There were two Notes of Anna Woods aggregating $187.50 that are in the possession of the Land Department but not carried on the books of the Company, making a net difference of $175.75.

WASHBURN, BAYFIELD AND IRON RAILWAY RECEIVER'S CERTIFICATES

The Company carries in its Assets an item entitled Washburn, Bayfield and Iron Railway Receiver's Certificates amounting to $4,000.00. The Auditor of the Company states that in all probability these certificates will never have any value.

BONDED DEBT

The increase of $49,000.00 resulted from the following refunding and readjustment of bonded debt and floating debt, viz:

There were issued:

160 First Mortgage 4% Bonds @ $1,000.00 each, dated October 1, 1900 and due in 25 years,	$160,000.00
Bills Payable to Cleveland-Cliffs Iron Co. (includes this amount),	369,708.35
Bills Payable to The Munising Co. (since reduced)	11,737.08
Total,	$541,445.43

In liquidation and retirement of:

Old 5% Gold Bonds,	$111,000.00
Collateral Trust Loan,	100,000.00
Bills Payable,	299,130.17
Accrued Interest,	31,315.26
Total,	$541,445.43

OPERATIONS

Gross Earnings of the Company for the year were,		$ 56,773.13
Operating Expenses and Taxes,		41,313.59
Per cent of Operating Expenses and Taxes to Earnings,	72.77	
Net Earnings,		$ 15,459.54
Other Income,		215.48
Total Income,		$ 15,675.02
Deductions from Income:		
Interest on Bonds,	$ 6,400.00	
Miscellaneous Interest,	36,042.82	
Expenses Land Department Less Receipts,	1,979.19	
Uncollectible Accounts Charged off,	4,819.09	
Total,		49,241.10
Deficit for the year,		$ 33,566.08

FREIGHT TRAFFIC

	YEAR 1901	YEAR 1900	DECREASE
Earnings from freight,	$40,271.30	$46,537.79	$6,266.49
Tons carried one mile,	1,741,478	1,778,502	37,024
Average ton miles per mile operated (density),	37,053	37,840	787
Earnings per ton mile, in cents,	2.31	2.61	.30

Results for 1900 are taken from the Company's annual report and the tons carried one mile are taken from the Auditor's compilations.

PASSENGER TRAFFIC

	YEAR 1901	YEAR 1900	DECREASE
Earnings from passengers,	$12,805.57	$13,622.30	$ 816.73
Passengers carried one mile,	379,986	418,968	38,982
Average passenger miles per mile operated (density),	8,085	8,914	829
Earnings per passenger mile, in cents,	3.37	3.25	Inc., .12

Results for 1900 are taken from the Company's annual report and the passengers carried one mile are taken from the Auditor's compilations.

ADJUSTMENTS

The Surplus on December 31, 1901 as shown by the Company's Books was,.....		$4,508.74
The profit of Land Department (Wm. G. Mather Treasurer, account),.....		136.30
Total,.....		$4,645.04
Less:		
Taxes accrued 1901:		
Land Department,.....	$3,141.19	
Railway Department,.....	126.47	
Total,.....		3,267.66
Surplus, Per Balance Sheet, Exhibit "A",.....		$1,377.38

Yours truly,

Haskins & Sells

Certified Public Accountants.

MUNISING RAILWAY COMPANY

COMPARATIVE GENERAL BALANCE SHEET - DECEMBER 31, 1901 AND 1900

— A S S E T S —	DECEMBER 31, 1901	DECEMBER 31, 1900	INCREASE	DEC
COST OF PROPERTY:				
Cost of Road,	$ 534,865.74	$ 528,419.32	$ 6,446.42	$
Real Estate,	353,207.70	351,774.36	1,433.34	
Permanent Contracts,	263,732.50	263,732.50		
Terminal Property,	150,500.00	150,500.00		
Equipment,	82,076.34	82,405.54		329
Construction and New Equipment,	64,831.10		64,831.10	
Munising Town Site,	44,442.30	44,405.34	36.96	
Munising Town Site Improvements,	919.45		919.45	
TOTAL,	$1,494,575.13	$1,421,237.06	$ 73,338.07	$
MATERIALS AND SUPPLIES,	$ 16,462.75	$ 4,963.61	$ 11,499.14	$
CURRENT ASSETS:				
Cash at Banks and on Hand,	$ 4,430.13	$ 4,427.10	$ 3.03	$
Cash on Hand - Land Agent,	3,654.75		3,654.75	
Bills Receivable - Schedule #1,	23,070.44	26,467.09		3,396
Due from Agents and Conductors - Schedule #2,	2,589.16	1,951.62	637.54	
Due from Railway Companies and Others - Schedule #3,	3,377.55	4,010.43		632
W. B. & I. R. R. - Receivers' Certificates,	4,000.00	4,000.00		
Accounts Receivable - Jos. Colwell, Trustee,	1,361.00	2,273.50		912
" " - C. C. I. Co., Ishpeming,	563.70		563.70	
" " - H. B. Freeman,	107.23		107.23	
TOTAL,	$ 43,153.96	$ 43,129.74	$ 24.22	$
INSURANCE PREMIUMS PREPAID,	$ 482.50	$ 2,832.35	$	$
TOTAL ASSETS,	$1,554,674.34	$1,472,162.76	$ 82,511.58	$

EXHIBIT "A"

MUNISING RAILWAY COMPANY.
COMPARATIVE GENERAL BALANCE SHEET, ETC.

—LIABILITIES—	DECEMBER 31, 1901	DECEMBER 31, 1900	INCREASE	DECREASE
CAPITAL STOCK:				
8,700 shares, par value $100.00 each,.....	$ 870,000.00	$ 870,000.00	$	$
BONDED DEBT:				
160 First Mortgage 4% Gold Bonds, $1,000.00 each,.....	$ 160,000.00	$ 111,000.00	$ 49,000.00	$
COLLATERAL TRUST LOAN,.....	$	$ 100,000.00	$	$100,000.00
CURRENT LIABILITIES:				
Audited Vouchers,.....	$ 13,870.70	$ 14,211.80	$	$ 341.
Pay Roll,.....	2,781.85	2,281.86	499.99	
Due Railway Companies and Individuals - Schedule #4,....	2,802.59	8,706.01		5,903.
Bills Payable - Cleveland-Cliffs Iron Company,.....	376,728.35	307,003.29	69,725.06	
Accounts Payable - " " " " ,.....	107,916.18		107,916.18	
" " - Munising Company,.....	11,523.26		11,523.26	
TOTAL,.....	$ 515,622.93	$ 332,202.96	$183,419.97	$
DEFERRED AND SUSPENDED LIABILITIES:				
Interest on Bonds,.....	$ 1,600.00	$ 15,800.00	$	$ 14,200.
Taxes,.....	4,556.65	2,674.67	1,881.98	
Miscellaneous Interest,.....	1,517.38	5,541.67		4,024
TOTAL,.....	$ 7,674.03	$ 24,016.34	$	$ 16,342
PROFIT AND LOSS - SURPLUS,.....	$ 1,377.38	$ 34,943.46	$	$ 33,5
TOTAL LIABILITIES,.....	$1,554,674.34	$1,472,162.76	$ 82,511.58	$

EXHIBIT "A"

MUNISING RAILWAY COMPANY

BILLS RECEIVABLE - DECEMBER 31, 1901

LAND DEPARTMENT:		
Emil Weiss,	$	63.75
" ,		62.50
C. Jacobson,		100.00
J. E. O'Rourk,		118.12
F. Theriault,		150.00
Emil Erickson,		131.25
Emil Weiss,		50.00
" ,		75.00
" ,		75.00
" ,		30.00
" ,		75.00
" ,		75.00
" ,		75.00
" ,		75.00
A. Olsson,		150.00
J. Jasper,		137.00
S. Hallam,		235.00
A. I. Thompson,		75.00
Ella B. Morris,		125.00
A. C. Hartho,		300.00
P. J. Slater,		229.25
M. E. McDonnell,		375.00
G. A. Trueman,		375.00
" ,		281.25
C. W. & W. H. Closser,		187.50
Thos. Dixon,		100.00
F. R. Mullen,		375.00
Robt. Taitt,		262.50
Louis Lefevre,		77.50
Emil Weiss,		187.50
Herman Johnson,		105.00
Miller Bros.,		300.00
C. E. & W. H. Closser,		187.50
A. Vassar,		82.50
Emil Weiss,		187.50
F. Carriere,		86.66
Isabella Thompson,		100.00
T. C. Sheridan,		175.00
A. E. Grace,		250.00
Field & Berkeland,		125.00
Trepley & Largeness,		112.50
E. P. Bohn,		500.00
Louis Rowe,		995.00
M. St. Martin,		40.00
Chas. Carlson,		114.00
J. W. Taylor,		115.00
Maurice Harvey,		67.50
A. Pelissier,		102.50
J. Schliss,		275.00
M. B. Coury,		375.00
FORWARD,	$	8,923.78

EXHIBIT "A"

(Continued) - 1.

MUNISING RAILWAY COMPANY.
BILLS RECEIVABLE, ETC.

FORWARD,.....	$ 8,923.78
Bertha Schweitzer,.....	125.00
J. C. Dougherty,.....	150.00
A. Van Alstyn,.....	375.00
M. Vadnais,.....	141.00
T. A. McGuire,.....	112.50
M. Morissey,.....	1,406.25
Neal Benton,.....	393.75
Isaac Berg,.....	82.50
John Ripley,.....	150.00
John Duby,.....	98.25
Aug. Lefevre,.....	100.00
W. Featherly,.....	106.25
L. Oulette,.....	287.50
J. Levanduke,.....	375.00
Martin Lawson et al,.....	468.75
W. M. McGuire,.....	64.25
Axel Johnson,.....	100.00
H. A. St. John,.....	325.00
Nellie O'Rourk,.....	131.25
Bowerman & Macey,.....	100.00
James Bergon,.....	150.00
Peter Hathaway,.....	843.75
Geo. E. Smith,.....	542.00
N. Fouchard,.....	345.00
F. L. Baldwin,.....	375.00
L. Menier,.....	75.00
C. Rivard,.....	37.50
W. B. Shaver,.....	55.00
J. Meehan,.....	175.00
" ,.....	172.50
R. C. Young,.....	187.50
J. C. Dougherty,.....	187.50
A. D. Mac Intyre,.....	150.00
E. I. & I. Griffiths,.....	227.25
David Young,.....	131.25
William Shok,.....	150.00
L. S. Carlson,.....	87.50
William Daniels,.....	150.00
H. B. Freeman,.....	75.00
Gabriel Courion,.....	125.00
G. E. Slusser,.....	276.50
Oscar Johnson,.....	300.00
Aron Lawson,.....	99.99
R. T. McLean,.....	168.75
S. S. Bell,.....	300.00
Lizzie Powell,.....	75.00
J. C. Lehman,.....	52.50
James Corey,.....	356.25
A.T. Anderson,.....	178.38
C. F. Allen,.....	250.00
O. C. Bendhall,.....	175.00
Matt. Sampson,.....	75.00
M. A. & I. Hallam,.....	200.00
A. C. Hartho,.....	150.00
" ,.....	50.00
W. Brown,.....	75.00
H. Pelky,.....	30.00
J. J. Cousack,.....	375.00
Emil Weiss,.....	41.75
R. C. Young,.....	25.00
FORWARD,.....	$21,411.90

EXHIBIT "A"
SCHEDULE #1

(Continued) - 2.

MUNISING RAILWAY COMPANY.
BILLS RECEIVABLE, ETC.

FORWARD,.....	$21,411.90
R. C. Young,.....	50.00
" ,.....	50.00
" ,.....	2.50
L. Brown,.....	67.50
J. Seaman,.....	62.50
E. Green,.....	31.25
Louis Rowe,.....	50.00
C. E. Closser et al,.....	11.75
R. T. McLean,.....	25.00
Flora Baudin,.....	750.00
Anna Woods,.....	93.75
AT LAND DEPARTMENT OFFICE, MUNISING,.....	$22,606.15
AT MARQUETTE OFFICE,.....	464.29
TOTAL,.....	$23,070.44

EXHIBIT "A"
SCHEDULE #1

(Concluded) - 3.

MUNISING RAILWAY COMPANY

DUE FROM AGENTS AND CONDUCTORS - DECEMBER 31, 1901.

AGENTS:	
Munising,	$2,258.16
Munising,	51.68
Chatham,	110.75
Carlshend,	86.99
Little Lake,	29.08
CONDUCTORS:	
Louis Rome,	13.75
William Schley,	23.30
T. E. Bissell,	.75
A. R. Wiltsi,	14.00
B. L. McDonald,	.70
TOTAL,	$2,589.16

EXHIBIT "A"
SCHEDULE #2

MUNISING RAILWAY COMPANY

DUE FROM RAILWAY COMPANIES AND OTHERS - DECEMBER 31, 1901.

RAILWAY COMPANIES:		
C. M. St.P. & O.,	$ 31.95	
C. R. I. & P.,	35.53	
Chicago & Alton,	.23	
Great Northern,	183.69	
B. C. R. & Nor. Ry.,	10.45	
Mineral Range Ry.,	.80	
N. Y. C. & H. R. R. R.,	1.75	
D. S. S. & A. Ry.,	5.40	
Cincinnati, Hamilton & Dayton Ry.,	.50	
Canadian Pacific Ry.,	.25	
B. & O. Ry.,	2.45	
Penn. R. R.,	1.50	
C. M. & St.P. Ry.,	6.00	
D. S. S. & A.,	283.45	
C. & N. W. Ry.,	493.90	
Marquette & S. E. Ry.,	522.68	
D. S. S. & A. Ry. Mileage,	35.05	
Chicago & N. W. Ry.,	57.68	
Wabash,	3.81	
M. St.P. & S. Marie Ry.,	.15	
L. S. & I. Ry.,	5.78	
C. B. & Q. Ry.,	.77	
E. J. & E.,	.68	$1,684.45
COMPANIES AND INDIVIDUALS:		
George L. Burtis,	14.50	
State Board of Agriculture,	776.92	
Post Office Department,	403.48	
U. P. Brewing Company,	15.00	
American Express Company,	61.29	
Sundry Accounts,	421.91	1,693.10
TOTAL,		$3,377.55

EXHIBIT "A"
SCHEDULE #3

MUNISING RAILWAY COMPANY

DUE RAILWAY COMPANIES AND INDIVIDUALS - DECEMBER 31, 1901.

RAILWAY COMPANIES:	
D. S. S. & A. Ry.,	$ 541.03
C. M. & St.P. Ry.,	14.93
M. St.P. & S. St. Marie,	27.72
No. Pacific Ry.,	14.41
Wis. Central Ry.,	.16
Freight Suspense - Joint Accounts,	1,584.90
Ill. Central Ry.,	.43
Chicago & N. W. Ry.,	60.06
C. St.P. & M. & O. Ry.,	1.61
Marquette & S. E.,	4.63
Cudahy Milw. Ref. Line,	1.43
Can. Pac. Ry.,	1.22
C. & N. W. Ry.,	160.22
TOTAL,	$2,412.75
INDIVIDUALS:	
H. N. Morris, F. A.,	389.84
TOTAL,	$2,802.59

EXHIBIT "A"
SCHEDULE #4

MUNISING RAILWAY COMPANY

INCOME AND PROFIT AND LOSS ACCOUNTS - FOR THE YEAR ENDED DECEMBER 31, 1901.

EARNINGS:		
Freight		$40,271.30
Passenger		12,805.57
Mail		1,628.64
Express		1,174.66
Miscellaneous		738.30
Car Mileage		154.66
TOTAL EARNINGS		$56,773.13
OPERATING EXPENSES:		
Maintenance of Way and Structures:		
Repairs of Roadway	$ 7,917.63	
" " Bridges and Culverts	133.82	
" " Buildings and Fixtures	412.31	
" " Docks and Wharves	73.63	
" " Telegraph	30.52	
Tie Renewals	2,251.48	
Repairs of Fences	1.25	
Stationery and Printing	51.39	
Other Expenses	39.61	$10,911.64
Maintenance of Equipment:		
Superintendence	$ 978.33	
Repairs of Passenger Cars	344.44	
" " Shop and Tool Machinery	79.85	
" " Freight Cars	930.06	
" " Locomotives	973.26	
" " Work Cars	1.24	
Stationery and Printing	51.39	
Other Expenses	39.61	3,398.18
Conducting Transportation:		
Superintendence	$ 978.32	
Engine and Roundhouse Men	4,966.54	
Fuel for Locomotives	5,593.77	
Water " "	131.11	
Other Supplies - Locomotives	.18	
Oil Tallow and Waste	180.47	
Train Service	3,216.29	
" Supplies and Expenses	577.37	
Telegraph Expenses	10.43	
Station Service	3,582.52	
" Supplies	333.83	
Loss and Damages	232.58	
Clearing Wrecks	34.25	
Advertising	524.18	
Stationery and Printing	205.56	
Other Expenses	158.42	20,725.82
General Expenses:		
Salaries - General Office	$ 1,835.00	
" - Clerks	680.00	
Legal Expenses	1,241.34	
General Office Supplies	630.01	
Insurance	107.66	
Stationery and Printing	205.55	
Other Expenses	158.43	4,857.99
TOTAL OPERATING EXPENSES		$39,893.63
Per cent. of Operating Expenses to Earnings		70.27
TAXES		1,419.96
Per cent. of Taxes to Earnings		2.50
TOTAL OPERATING EXPENSES AND TAXES		$41,313.59
Per cent. of Operating Expenses and Taxes, to Earnings		72.77
NET EARNINGS		$15,459.54
OTHER INCOME:		
Vouchers charged off		215.48
TOTAL INCOME - (Forward)		$15,675.02

MUNISING RAILWAY COMPANY.
INCOME AND PROFIT AND LOSS ACCOUNTS, ETC.

TOTAL INCOME - (Forward),.....		$15,675.02
DEDUCTIONS FROM INCOME:		
Interest on Bonds,.....	$ 6,400.00	
Miscellaneous Interest,.....	36,042.82	
Loss in Land Department - per Schedule #1,...	1,979.19	
Bad Accounts charged off,.....	4,819.09	
TOTAL,.....		49,241.10
NET INCOME - DEFICIT - FOR THE YEAR,.....		$33,566.08
PROFIT AND LOSS - SURPLUS - AT BEGINNING OF THE YEAR,.....		34,943.46
PROFIT AND LOSS - SURPLUS - PER EXHIBIT "A",.....		$ 1,377.38

MUNISING RAILWAY COMPANY

EARNINGS, EXPENSES AND LOSS - LAND DEPARTMENT -
FOR THE YEAR ENDED DECEMBER 31, 1901.

EARNINGS:		
Leased Lots,	$1,243.89	
Sale of Lots,	525.00	
Townsite Rentals,	105.00	
Interest,	920.01	
TOTAL,		$2,793.90
EXPENSES:		
Taxes,	$3,141.19	
Reduction and Allowances, Bills Receivable,	1,204.75	
Townsite Expenses,	385.00	
Legal Expenses,	5.20	
General Expenses,	36.95	
TOTAL,		4,773.09
BALANCE - DEFICIT,		$1,979.19

EXHIBIT "B"
SCHEDULE #1

MUNISING RAILWAY COMPANY

RESOURCES AND THEIR APPLICATION -
SHOWING CHANGES IN THE GENERAL BALANCE SHEET
DURING THE YEAR ENDED DECEMBER 31, 1901.

RESOURCES:		
Bonded Debt, Increased,		$ 49,000.00
Deferred and Suspended Assets, Decreased,		2,349.85
Net Current Liabilities Increased:		
Current Liabilities,	$183,419.97	
Current Assets,	24.22	183,395.75
TOTAL,		$234,745.60
HOW APPLIED:		
Cost of Property, Increased,		$ 73,338.07
Materials and Supplies, " ,		11,499.14
Collateral Trust Loan, Decreased,		100,000.00
Deferred and Suspended Liabilities, Decreased,		16,342.31
Profit and Loss - Surplus, Decreased,		33,566.08
TOTAL,		$234,745.60

EXHIBIT "C"

COPY.

HASKINS & SELLS,
CERTIFIED PUBLIC ACCOUNTANTS.
30 BROAD STREET,
NEW YORK.

204 DEARBORN STREET, CHICAGO, ILL.
30 COLEMAN STREET, LONDON, E.C.
CABLE ADDRESS "HASKSELLS."

NEW YORK, June 28, 1902.

William G. Mather, Esq.,
President, Munising Railway Company,
Cleveland, Ohio.

Dear Sir:-

Agreeable with your request we have made an examination and audit of the books and accounts of the Munising Railway Company for the year ended December 31, 1901.

We submit herewith three Exhibits, lettered "A" to "C" inclusive, accompanied by five Schedules, together with our comments, as follows:

EXHIBIT
"A" - COMPARATIVE GENERAL BALANCE SHEET - DECEMBER 31, 1901 AND 1900.
Schedule
#1 - Bills Receivable - December 31, 1901.
2 - Due from Agents and Conductors - December 31, 1901.
3 - Due from Railway Companies and others - December 31, 1901.
4 - Due Railway Companies and individuals - December 31, 1901.

"B" - INCOME AND PROFIT AND LOSS ACCOUNTS - FOR THE YEAR ENDED DECEMBER 31, 1901.
Schedule
#1 - Earnings, Expenses and Loss - Land Department - for the year ended December 31, 1901.

"C" - RESOURCES AND THEIR APPLICATION.

COST OF PROPERTY

The Cost of Property December 31, 1901 shows an increase over December 31, 1900 of $73,338.07 subdivided as follows:

Cost of Road, Increased,.....	$ 6,446.42	
Real Estate, " ,.....	1,433.34	
Construction and New Equipment, increased,.....	64,831.10	
Munising Townsite, increased,.....	36.96	
" " , Improvements, incd.	919.45	
Total,.....	$73,667.27	
Less:		
Equipment decreased,.....	329.20	
Net Increase in Cost of Property as above,.....		$73,338.07

The increase for the year in the Cost of Road represents the following expenditures:

Vault at General Office,.....	$ 37.66	
Round House and Freight House, Munising,.....	4,752.35	
Improvement at Chatham,.....	1,825.65	
Changing Scales at Munising,.....	191.27	
Total,.....	$ 6,806.93	
Less:		
Items transferred to General Expenses,.....	360.51	
Net Increase in Cost of Road,.....		$ 6,446.42

The increase of $1,433.34 in the Real Estate account for the year represents the balance standing against the Financial Agent at Munising December 31, 1900 and consists of items which had been erroneously credited to Real Estate account on account of Sales of Land made prior to the period under review.

The following items constitute the increase in Construction and New Equipment, viz:

East Branch Extension,.....	$42,376.06
Ballasting Main Line,.....	6,573.69
Munising Passenger Station,.....	2,929.22
Munising Junction Crossing,.....	3,085.86
Grading Round House and Tracks,.....	486.68
Bridge Repairs,.....	365.06
New Water Station, - Slapneck,.....	1,500.13
Two Combination Cars,.....	4,634.30
Two Locomotives,.....	2,880.10
TOTAL, AS ABOVE,.....	$64,831.10

The Accounts Munising Townsite and Munising Townsite Improvements show an increase of $956.41 over the end of the previous year, the result of charges for improvements, fencing, grading, etc. made by the Land Department.

The decrease of $329.20 in Equipment Account results from fire loss on three flat cars, $302.20, and freight allowance on snowplow, $27.00.

MATERIAL AND SUPPLIES

The amount shown on the Balance Sheet for Material and Supplies on hand December 31, 1901, $16,462.75, includes Coal to the amount of $5,380.60. The last actual inventory was taken in March, 1900. The Auditor of the Company states, however, that the book value of Material and Supplies is approximately correct, as in previous years only slight corrections have been necessary to adjust this account.

BILLS RECEIVABLE

The Balance of Bills Receivable account as shown by the Ledger December 31, 1901 was $464.29 and represents the Bills Receivable at the Marquette office only. At the Land Department office at Negaunee the Balance of Bills Receivable account was $22,606.15. These two items make the total of $23,070.44 shown by the Balance Sheet. We were unable to verify the note of C. E. Closser for $11.75, included in the Land Department Schedule of Bills Receivable. There were two Notes of Anna Woods aggregating $187.50 that are in the possession of the Land Department but not carried on the books of the Company, making a net difference of $175.75.

WASHBURN, BAYFIELD AND IRON RAILWAY RECEIVER'S CERTIFICATES

The Company carries in its Assets an item entitled Washburn, Bayfield and Iron Railway Receiver's Certificates amounting to $4,000.00. The Auditor of the Company states that in all probability these certificates will never have any value.

BONDED DEBT

The increase of $49,000.00 resulted from the following refunding and readjustment of bonded debt and floating debt, viz:

There were issued:

160 First Mortgage 4% Bonds @ $1,000.00 each, dated October 1, 1900 and due in 25 years,	$160,000.00
Bills Payable to Cleveland-Cliffs Iron Co. (includes this amount),	369,708.35
Bills Payable to The Munising Co. (since reduced)	11,737.08
Total,	$541,445.43

In liquidation and retirement of:

Old 5% Gold Bonds,	$111,000.00
Collateral Trust Loan,	100,000.00
Bills Payable,	299,130.17
Accrued Interest,	31,315.26
Total,	$541,445.43

OPERATIONS

Gross Earnings of the Company for the year were,		$ 56,773.13
Operating Expenses and Taxes,		41,313.59
Per cent of Operating Expenses and Taxes to Earnings,	72.77	
Net Earnings,		$ 15,459.54
Other Income,		215.48
Total Income,		$ 15,675.02
Deductions from Income:		
Interest on Bonds,	$ 6,400.00	
Miscellaneous Interest,	36,042.82	
Expenses Land Department Less Receipts,	1,979.19	
Uncollectible Accounts Charged off,	4,819.09	
Total,		49,241.10
Deficit for the year,		$ 33,566.08

FREIGHT TRAFFIC

	YEAR 1901	YEAR 1900	DECREASE
Earnings from freight,	$40,271.30	$46,537.79	$6,266.49
Tons carried one mile,	1,741,478	1,778,502	37,024
Average ton miles per mile operated (density),	37,053	37,840	787
Earnings per ton mile, in cents,	2.31	2.61	.30

Results for 1900 are taken from the Company's annual report and the tons carried one mile are taken from the Auditor's compilations.

PASSENGER TRAFFIC

	YEAR 1901	YEAR 1900	DECREASE
Earnings from passengers,	$12,805.57	$13,622.30	$ 816.73
Passengers carried one mile,	379,986	418,968	38,982
Average passenger miles per mile operated (density),	8,085	8,914	829
Earnings per passenger mile, in cents,	3.37	3.25	Inc., .12

Results for 1900 are taken from the Company's annual report and the passengers carried one mile are taken from the Auditor's compilations.

ADJUSTMENTS

The Surplus on December 31, 1901 as shown by the Company's Books was,.....		$4,508.74
The profit of Land Department (Wm. G. Mather Treasurer, account),.....		136.30
Total,.....		$4,645.04
Less:		
Taxes accrued 1901:		
Land Department,.....	$3,141.19	
Railway Department,.....	126.47	
Total,.....		3,267.66
Surplus,Per Balance Sheet,Exhibit "A",.....		$1,377.38

Yours truly,

(Signed) HASKINS & SELLS,

Certified Public Accountants.

MUNISING RAILWAY COMPANY

COMPARATIVE GENERAL BALANCE SHEET - DECEMBER 31, 1901 AND 1900

-- A S S E T S --	DECEMBER 31, 1901	DECEMBER 31, 1900	INCREASE	DECREASE
COST OF PROPERTY:				
Cost of Road,	$ 534,865.74	$ 528,419.32	$ 6,446.42	$
Real Estate,	353,207.70	351,774.36	1,433.34	
Permanent Contracts,	263,732.50	263,732.50		
Terminal Property,	150,500.00	150,500.00		
Equipment,	82,076.34	82,405.54		329.20
Construction and New Equipment,	64,831.10		64,831.10	
Munising Town Site,	44,442.30	44,405.34	36.96	
Munising Town Site Improvements,	919.45		919.45	
TOTAL,	$1,494,575.13	$1,421,237.06	$ 73,338.07	$
MATERIALS AND SUPPLIES,	$ 16,462.75	$ 4,963.61	$ 11,499.14	$
CURRENT ASSETS:				
Cash at Banks and on Hand,	$ 4,430.13	$ 4,427.10	$ 3.03	$
Cash on Hand - Land Agent,	3,654.75		3,654.75	
Bills Receivable - Schedule #1,	23,070.44	26,467.09		3,396.65
Due from Agents and Conductors - Schedule #2,	2,589.16	1,951.62	637.54	
Due from Railway Companies and Others - Schedule #3,	3,377.55	4,010.43		632.88
W. B. & I. R. R. - Receivers' Certificates,	4,000.00	4,000.00		
Accounts Receivable - Jos. Colwell, Trustee,	1,361.00	2,273.50		912.50
" " - C. C. I. Co., Ishpeming,	563.70		563.70	
" " - H. B. Freeman,	107.23		107.23	
TOTAL,	$ 43,153.96	$ 43,129.74	$ 24.22	$
INSURANCE PREMIUMS PREPAID,	$ 482.50	$ 2,832.35	$	$ 2,349.85
TOTAL ASSETS,	$1,554,674.34	$1,473,162.76	$ 82,511.58	$

MUNISING RAILWAY COMPANY.
COMPARATIVE GENERAL BALANCE SHEET, ETC.

— L I A B I L I T I E S —	DECEMBER 31, 1901	DECEMBER 31, 1900	INCREASE	DECREASE
CAPITAL STOCK:				
8,700 shares, par value $100.00 each,.....	$ 870,000.00	$ 870,000.00	$	$
BONDED DEBT:				
160 First Mortgage 4% Gold Bonds, $1,000.00 each,.....	$ 160,000.00	$ 111,000.00	$ 49,000.00	$
COLLATERAL TRUST LOAN,.....	$	$ 100,000.00	$	$100,000.00
CURRENT LIABILITIES:				
Audited Vouchers,.....	$ 13,870.70	$ 14,211.80	$	$ 341.10
Pay Roll,.....	2,781.85	2,281.86	499.99	
Due Railway Companies and Individuals - Schedule #4,....	2,802.59	8,706.01		5,903.42
Bills Payable - Cleveland-Cliffs Iron Company,.....	376,728.35	307,003.29	69,725.06	
Accounts Payable - " " " " ,.....	107,916.18		107,916.18	
" " - Munising Company,.....	11,523.26		11,523.26	
TOTAL,.....	$ 515,622.93	$ 332,202.96	$183,419.97	$
DEFERRED AND SUSPENDED LIABILITIES:				
Interest on Bonds,.....	$ 1,600.00	$ 15,800.00	$	$ 14,200.00
Taxes,.....	4,556.65	2,674.67	1,881.98	
Miscellaneous Interest,.....	1,517.38	5,541.67		4,024.29
TOTAL,.....	$ 7,674.03	$ 24,016.34	$	$ 16,342.31
PROFIT AND LOSS - SURPLUS,.....	$ 1,377.38	$ 34,943.46	$	$ 33,566.08
TOTAL LIABILITIES,.....	$1,554,674.34	$1,472,162.76	$ 82,511.58	$

EXHIBIT "A"

(Concluded) - 2.

MUNISING RAILWAY COMPANY

BILLS RECEIVABLE - DECEMBER 31, 1901

LAND DEPARTMENT:		
Emil Weiss,	$	63.75
" ,		62.50
C. Jacobson,		100.00
J. E. O'Rourk,		118.12
F. Theriault,		150.00
Emil Erickson,		131.25
Emil Weiss,		50.00
" ,		75.00
" ,		75.00
" ,		30.00
" ,		75.00
" ,		75.00
" ,		75.00
" ,		75.00
A. Olsson,		150.00
J. Jasper,		137.00
S. Hallam,		235.00
A. I. Thompson,		75.00
Ella B. Morris,		125.00
A. C. Hartho,		300.00
P. J. Slater,		229.25
M. E. McDonnell,		375.00
G. A. Trueman,		375.00
" ,		281.25
C. W. & W. H. Closser,		187.50
Thos. Dixon,		100.00
F. R. Mullen,		375.00
Robt. Taitt,		262.50
Louis Lefevre,		77.50
Emil Weiss,		187.50
Herman Johnson,		105.00
Miller Bros.,		300.00
C. E. & W. H. Closser,		187.50
A. Vassar,		82.50
Emil Weiss,		187.50
F. Carriere,		86.66
Isabella Thompson,		100.00
T. C. Sheridan,		175.00
A. E. Grace,		250.00
Field & Berkeland,		125.00
Trepley & Largeness,		112.50
E. P. Bohn,		500.00
Louis Rowe,		995.00
M. St. Martin,		40.00
Chas. Carlson,		114.00
J. W. Taylor,		115.00
Maurice Harvey,		67.50
A. Pelissier,		102.50
J. Schliss,		275.00
M. B. Coury,		375.00
FORWARD,	$	8,923.78

EXHIBIT "A"
SCHEDULE #1

(Continued) - 1.

MUNISING RAILWAY COMPANY.
BILLS RECEIVABLE, ETC.

FORWARD,.....	$ 8,923.78
Bertha Schweitzer,.....	125.00
J. C. Dougherty,.....	150.00
A. Van Alstyn,.....	375.00
M. Vadnais,.....	141.00
T. A. McGuire,.....	112.50
M. Morissey,.....	1,406.25
Neal Benton,.....	393.75
Isaac Berg,.....	82.50
John Ripley,.....	150.00
John Duby,.....	98.25
Aug. Lefevre,.....	100.00
W. Featherly,.....	106.25
L. Oulette,.....	287.50
J. Levanduke,.....	375.00
Martin Lawson et al,.....	468.75
W. M. McGuire,.....	64.25
Axel Johnson,.....	100.00
H. A. St. John,.....	325.00
Nellie O'Rourk,.....	131.25
Bowerman & Macey,.....	100.00
James Bergon,.....	150.00
Peter Hathaway,.....	843.75
Geo. E. Smith,.....	542.00
N. Fouchard,.....	345.00
F. L. Baldwin,.....	375.00
L. Menier,.....	75.00
C. Rivard,.....	37.50
W. B. Shaver,.....	55.00
J. Meehan,.....	175.00
" ,.....	172.50
R. C. Young,.....	187.50
J. C. Dougherty,.....	187.50
A. D. Mac Intyre,.....	150.00
E. I. & I. Griffiths,.....	227.25
David Young,.....	131.25
William Shok,.....	150.00
L. S. Carlson,.....	87.50
William Daniels,.....	150.00
H. B. Freeman,.....	75.00
Gabriel Courion,.....	125.00
G. E. Slusser,.....	276.50
Oscar Johnson,.....	300.00
Aron Lawson,.....	99.99
R. T. McLean,.....	168.75
S. S. Bell,.....	200.00
Lizzie Powell,.....	75.00
J. C. Lehman,.....	52.50
James Corey,.....	356.25
A.T. Anderson,.....	178.38
C. F. Allen,.....	250.00
O. C. Bendhall,.....	175.00
Matt. Sampson,.....	75.00
M. A. & I. Hallam,.....	200.00
A. C. Hartho,.....	150.00
" ,.....	50.00
W. Brown,.....	75.00
H. Pelky,.....	30.00
J. J. Cousack,.....	375.00
Emil Weiss,.....	41.75
R. C. Young,.....	25.00
FORWARD,.....	$21,411.90

EXHIBIT "A"
SCHEDULE #1

(Continued) - 2.

MUNISING RAILWAY COMPANY.
BILLS RECEIVABLE, ETC.

FORWARD,.....	$21,411.90
R. C. Young,.....	50.00
" ,.....	50.00
" ,.....	2.50
L. Brown,.....	67.50
J. Seaman,.....	62.50
E. Green,.....	31.25
Louis Rowe,.....	50.00
C. E. Closser et al,.....	11.75
R. T. McLean,.....	25.00
Flora Baudin,.....	750.00
Anna Woods,.....	93.75
AT LAND DEPARTMENT OFFICE, MUNISING,.....	$22,606.15
AT MARQUETTE OFFICE,.....	464.29
TOTAL,.....	$23,070.44

EXHIBIT "A"
SCHEDULE #1

MUNISING RAILWAY COMPANY

DUE FROM AGENTS AND CONDUCTORS - DECEMBER 31, 1901.

AGENTS:	
Munising,	$2,258.16
Munising,	51.68
Chatham,	110.75
Carlshend,	86.99
Little Lake,	29.08
CONDUCTORS:	
Louis Rome,	13.75
William Schley,	23.30
T. E. Bissell,	.75
A. R. Wiltsi,	14.00
B. L. McDonald,	.70
TOTAL,	$2,589.16

EXHIBIT "A"
SCHEDULE #2

MUNISING RAILWAY COMPANY

DUE FROM RAILWAY COMPANIES AND OTHERS - DECEMBER 31, 1901.

RAILWAY COMPANIES:		
C. M. St.P. & O.,	$ 31.95	
C. R. I. & P.,	35.53	
Chicago & Alton,	.23	
Great Northern,	183.69	
B. C. R. & Nor. Ry.,	10.45	
Mineral Range Ry.,	.80	
N. Y. C. & H. R. R. R.,	1.75	
D. S. S. & A. Ry.,	5.40	
Cincinnati, Hamilton & Dayton Ry.,	.50	
Canadian Pacific Ry.,	.25	
B. & O. Ry.,	2.45	
Penn. R. R.,	1.50	
C. M. & St.P. Ry.,	6.00	
D. S. S. & A.,	283.45	
C. & N. W. Ry.,	493.90	
Marquette & S. E. Ry.,	522.68	
D. S. S. & A. Ry. Mileage,	35.05	
Chicago & N. W. Ry.,	57.68	
Wabash,	3.81	
M. St.P. & S. Marie Ry.,	.15	
L. S. & I. Ry.,	5.78	
C. B. & Q. Ry.,	.77	
E. J. & E.,	.68	$1,684.45
COMPANIES AND INDIVIDUALS:		
George L. Burtis,	14.50	
State Board of Agriculture,	776.92	
Post Office Department,	403.48	
U. P. Brewing Company,	15.00	
American Express Company,	61.29	
Sundry Accounts,	421.91	1,693.10
TOTAL,		$3,377.55

EXHIBIT "A"
SCHEDULE #3

MUNISING RAILWAY COMPANY

DUE RAILWAY COMPANIES AND INDIVIDUALS - DECEMBER 31, 1901.

RAILWAY COMPANIES:	
D. S. S. & A. Ry.,	$ 541.03
C. M. & St.P. Ry.,	14.93
M. St.P. & S. St. Marie,	27.72
No. Pacific Ry.,	14.41
Wis. Central Ry.,	.16
Freight Suspense - Joint Accounts,	1,584.90
Ill. Central Ry.,	.43
Chicago & N. W. Ry.,	60.06
C. St.P. & M. & O. Ry.,	1.61
Marquette & S. E.,	4.63
Cudahy Milw. Ref. Line,	1.43
Can. Pac. Ry.,	1.22
C. & N. W. Ry.,	160.22
TOTAL,	$2,412.75
INDIVIDUALS:	
H. N. Morris, F. A.,	389.84
TOTAL,	$2,802.59

EXHIBIT "A"
SCHEDULE #4

MUNISING RAILWAY COMPANY

INCOME AND PROFIT AND LOSS ACCOUNTS - FOR THE YEAR ENDED DECEMBER 31, 1901.

EARNINGS:		
Freight,		$40,271.30
Passenger,		12,805.57
Mail,		1,628.64
Express,		1,174.66
Miscellaneous,		738.30
Car Mileage,		154.66
TOTAL EARNINGS,		$56,773.13
OPERATING EXPENSES:		
Maintenance of Way and Structures:		
Repairs of Roadway,	$ 7,917.63	
" " Bridges and Culverts,	133.82	
" " Buildings and Fixtures,	412.31	
" " Docks and Wharves,	73.63	
" " Telegraph,	30.52	
Tie Renewals,	2,251.48	
Repairs of Fences,	1.25	
Stationery and Printing,	51.39	
Other Expenses,	39.61	$10,911.64
Maintenance of Equipment:		
Superintendence,	$ 978.33	
Repairs of Passenger Cars,	344.44	
" " Shop and Tool Machinery,	79.85	
" " Freight Cars,	930.06	
" " Locomotives,	973.36	
" " Work Cars,	1.24	
Stationery and Printing,	51.39	
Other Expenses,	39.61	3,398.18
Conducting Transportation:		
Superintendence,	$ 978.32	
Engine and Roundhouse Men,	4,966.54	
Fuel for Locomotives,	5,593.77	
Water " " ,	131.11	
Other Supplies - Locomotives,	.18	
Oil Tallow and Waste,	180.47	
Train Service,	3,216.29	
" Supplies and Expenses,	577.37	
Telegraph Expenses,	10.43	
Station Service,	3,582.52	
" Supplies,	333.83	
Loss and Damages,	232.58	
Clearing Wrecks,	34.25	
Advertising,	524.18	
Stationery and Printing,	205.56	
Other Expenses,	158.42	20,725.82
General Expenses:		
Salaries - General Office,	$ 1,835.00	
" - Clerks,	680.00	
Legal Expenses,	1,241.34	
General Office Supplies,	630.01	
Insurance,	107.66	
Stationery and Printing,	205.55	
Other Expenses,	158.43	4,857.99
TOTAL OPERATING EXPENSES,		$39,893.63
Per cent. of Operating Expenses to Earnings,		70.27
TAXES,		1,419.96
Per cent. of Taxes to Earnings,		2.50
TOTAL OPERATING EXPENSES AND TAXES,		$41,313.59
Per cent. of Operating Expenses and Taxes to Earnings,		72.77
NET EARNINGS,		$15,459.54
OTHER INCOME:		
Vouchers charged off,		215.48
TOTAL INCOME - (Forward),		$15,675.02

MUNISING RAILWAY COMPANY.
INCOME AND PROFIT AND LOSS ACCOUNTS, ETC.

TOTAL INCOME - (Forward),.....		$15,675.02
DEDUCTIONS FROM INCOME:		
Interest on Bonds,.....	$ 6,400.00	
Miscellaneous Interest,.....	36,042.82	
Loss in Land Department - per Schedule #1,...	1,979.19	
Bad Accounts charged off,.....	4,819.09	
TOTAL,.....		49,241.10
NET INCOME - DEFICIT - FOR THE YEAR,.....		$33,566.08
PROFIT AND LOSS - SURPLUS - AT BEGINNING OF THE YEAR,.....		34,943.46
PROFIT AND LOSS - SURPLUS - PER EXHIBIT "A",.....		$ 1,377.38

MUNISING RAILWAY COMPANY

EARNINGS, EXPENSES AND LOSS - LAND DEPARTMENT -
FOR THE YEAR ENDED DECEMBER 31, 1901.

EARNINGS:		
Leased Lots,	$1,243.89	
Sale of Lots,	525.00	
Townsite Rentals,	105.00	
Interest,	920.01	
TOTAL,		$2,793.90
EXPENSES:		
Taxes,	$3,141.19	
Reduction and Allowances, Bills Receivable,	1,204.75	
Townsite Expenses,	385.00	
Legal Expenses,	5.20	
General Expenses,	36.95	
TOTAL,		4,773.09
BALANCE - DEFICIT,		$1,979.19

EXHIBIT "B"
SCHEDULE #1

MUNISING RAILWAY COMPANY

RESOURCES AND THEIR APPLICATION -
SHOWING CHANGES IN THE GENERAL BALANCE SHEET
DURING THE YEAR ENDED DECEMBER 31, 1901.

RESOURCES:		
Bonded Debt, Increased,		$ 49,000.00
Deferred and Suspended Assets, Decreased,		2,349.85
Net Current Liabilities Increased:		
Current Liabilities,	$183,419.97	
Current Assets,	24.22	183,395.75
TOTAL,		$234,745.60
HOW APPLIED:		
Cost of Property, Increased,		$ 73,338.07
Materials and Supplies, " ,		11,499.14
Collateral Trust Loan, Decreased,		100,000.00
Deferred and Suspended Liabilities, Decreased,		16,342.31
Profit and Loss - Surplus, Decreased,		33,566.08
TOTAL,		$234,745.60

EXHIBIT "C"

HASKINS & SELLS,
CERTIFIED PUBLIC ACCOUNTANTS.
30 BROAD STREET,
NEW YORK.

204 DEARBORN STREET, CHICAGO, ILL.
30 COLEMAN STREET, LONDON, E.C.
CABLE ADDRESS "HASKSELLS."

NEW YORK, June 28, 1902.

William G. Mather, Esq.,

Cleveland, Ohio.

Dear Sir:

In accordance with your request, we have made an examination and audit of the books and accounts of the partnership, known as Pease & Planet, for the year ended December 31, 1901.

We submit herewith, in relation thereto, four exhibits, lettered "A" to "D" inclusive, accompanied by two schedules, together with our comments, as follows:

EXHIBIT
"A" - COMPARATIVE GENERAL BALANCE SHEET - DECEMBER 31, 1901, AND DECEMBER 31, 1900.
Schedule
#1 - Accounts Receivable - December 31, 1901.
2 - Accounts Payable - December 31, 1901.

"B" - INCOME AND PROFIT AND LOSS ACCOUNTS - FOR YEAR ENDED DECEMBER 31, 1901.

"C" - EARNINGS, EXPENSES, NET LOSS, TOTAL GROSS TONS OF FREIGHT CARRIED AND AVERAGE RATE PER GROSS TON, IN CENTS - FOR YEAR ENDED DECEMBER 31, 1901.

"D" - RESOURCES AND THEIR APPLICATION, OR CHANGES IN THE GENERAL BALANCE SHEET - DURING THE YEAR ENDED DECEMBER 31, 1901.

OPERATIONS

The combined gross earnings of Pease & Planet for the year ended December 31, 1901, were,.....		$18,010.56
Expenses,.....		20,403.63
Making a deficit from operations of,.....		$ 2,393.07
Deduct:		
Interest received,.....		3.37
		$ 2,389.70
Add:		
Legal expenses,.....	$60.00	
Damages from accidents from prior period,.....	31.96	91.96
Balance - Total Deficit for period,.....		$ 2,481.66

GENERAL REMARKS

The books of the company do not show any assets representing the cost of the boats, Pease and Planet, neither are there any accounts to show the partners' investment. We were informedthat the steamer "Pease" and the schooner "Planet" were sold subsequent to the period under review, but this sale had not been recorded on the books of the company prior to the completion of our examination.

Yours truly,

Haskins & Sells

Certified Public Accountants.

PEASE AND PLANET

COMPARATIVE GENERAL BALANCE SHEET - DECEMBER 31, 1901 AND 1900

	DECEMBER 31, 1901	DECEMBER 31, 1900	INCREASE	DECREASE
ASSETS				
CASH ON HAND,.....	$ 706.99	$ 902.53		$ 195.54
ACCOUNTS RECEIVABLE - SCHEDULE #1,	614.87	303.28	$ 311.59	
PROFIT AND LOSS - DEFICIT,.....	1,316.50		1,316.50	
TOTAL ASSETS,.....	$2,638.36	$1,205.81	$1,432.55	
LIABILITIES				
CURRENT LIABILITIES:				
Accounts Payable, Schedule #2,..	$2,622.66	$ 40.65	$2,582.01	
Cleveland Cliffs Iron Company,..	15.70		15.70	
TOTAL,.....	$2,638.36	$ 40.65	$2,597.71	
PROFIT AND LOSS - SURPLUS,.....		1,165.16		$1,165.16
TOTAL LIABILITIES,.	$2,638.36	$1,205.81	$1,432.55	

EXHIBIT "A"

PEASE AND PLANET

ACCOUNTS RECEIVABLE - DECEMBER 31, 1901.

Due from Insurance Companies account accidents Steamer "Pease",	$ 50.00
Due from Insurance Companies account accidents Schooner "Planet",	535.01
Capt. C. A. McCoy,	29.86
TOTAL,	$614.87

EXHIBIT "A"
SCHEDULE #1

PEASE AND PLANET

ACCOUNTS PAYABLE -- DECEMBER 31, 1901

Great Lakes Towing Company,.....	$ 429.30
American Ship Building Company,.....	1,221.28
Pickands Mather & Company,.....	202.38
R. Parry Jones,.....	25.75
Hoyt, Dustin & Kelly,.....	15.00
Stanley B. Smith & Company,.....	57.75
Pittsburg Coal Company,.....	607.26
Wm. Sweeney,.....	11.82
Mather & Company,.....	34.37
John Thomson,.....	17.75
TOTAL,.....	$2,622.66

EXHIBIT "A"
SCHEDULE #2

PEASE AND PLANET

INCOME AND PROFIT AND LOSS ACCOUNTS - FOR YEAR ENDED DECEMBER 31, 1901.

	STEAMER "PEASE"	SCHOONER "PLANET"	TOTAL
EARNINGS:			
Freight - Ore,	$ 4,999.85	$ 5,639.20	$10,639.05
" - Coal,	2,622.09	2,671.71	5,293.80
TOTAL EARNINGS,	$ 7,621.94	$ 8,310.91	$15,932.85
EXPENSES:			
Wages - Captain and Crew,	$ 4,947.38	$ 2,449.71	$ 7,397.09
Fuel,	2,361.16		2,361.16
Handling Cargoes,	1,480.51	1,691.22	3,171.73
Extraordinary and General Repairs,	829.03	276.62	1,105.65
Marine Insurance,	694.72	307.80	1,002.52
Fitting out,	588.90	178.15	767.05
Provisions,	791.57	433.51	1,225.08
Laying up,	261.68	105.23	366.91
Tug Service,	19.06	369.10	388.16
Supplies - Mate's,	77.35	168.33	245.68
" - Steward's,	31.28	17.91	49.19
" - Engineer's,	36.17		36.17
Lubricants - " ,	16.50		16.50
Ship-keeping and Winter Dockage,	23.25	23.25	46.50
Freight List Insurance,	23.02	49.44	72.46
Repairs - Machinery,	2.53		2.53
Captain's Expenses,	19.65	9.34	28.99
Miscellaneous,	21.79	20.76	42.55
TOTAL EXPENSES,	$12,225.55	$ 6,100.37	$18,325.92
NET EARNINGS (DEFICIT IN RED),	$ 4,603.61	$ 2,210.54	$ 2,393.07
OTHER INCOME:			
Towing Schooner "Planet",	$ 2,077.71		$ 2,077.71
Interest,	1.84	$ 1.53	3.37
TOTAL,	$ 2,079.55	$ 1.53	$ 2,081.08
TOTAL INCOME (DEFICIT IN RED),	$ 2,524.06	$ 2,212.07	$ 311.99
DEDUCTIONS FROM INCOME:			
Towing by Steamer "Pease",		$ 2,077.71	$ 2,077.71
Damages by Accident - prior period,		31.96	31.96
Legal Expenses,	$ 30.00	30.00	60.00
TOTAL,	$ 30.00	$ 2,139.67	$ 2,169.67
NET INCOME FOR THE YEAR (DEFICIT IN RED),	$ 2,554.06	$ 72.40	$ 2,481.66
PROFIT AND LOSS - SURPLUS - AT BEGINNING OF THE YEAR,			1,165.16
PROFIT AND LOSS - DEFICIT - PER EXHIBIT "A",			$ 1,316.50

EXHIBIT "B"

PEASE AND PLANET

EARNINGS, EXPENSES, NET LOSS, TOTAL GROSS TONS OF FREIGHT CARRIED AND AVERAGE RATE PER GROSS TON IN CENTS - FOR YEAR ENDED DECEMBER 31, 1901.

	STEAMER "PEASE"	SCHOONER "PLANET"	TOTAL
EARNINGS:			
9 cargoes of iron ore from Marquette,.	$ 4,999.85	$ 5,639.20	$10,639.05
Total gross tons of iron ore carried,.	6,701	7,597	14,298
Average rate per gross ton, in cents,.	74.61	74.23	74.41
9 cargoes of coal to Marquette,.....	$ 2,622.09	$ 2,671.71	$ 5,293.80
Total gross tons of coal carried,.....	6,134	6,318	12,452
Average rate per gross ton, in cents,.	42.75	42.29	42.51
TOTAL EARNINGS,.....	$ 7,621.94	$ 8,310.91	$15,932.85
Total gross tons of iron ore and coal carried,.....	12,835	13,915	26,750
Average rate per gross ton, in cents,.	59.38	59.72	59.56
EXPENSES PER EXHIBIT "B",.....	$12,225.55	$ 6,100.37	$18,325.92
Average rate per gross ton, in cents,.	95.25	43.84	68.51
NET EARNINGS (DEFICIT IN RED),.....	$ 4,603.61	$ 2,210.54	$ 2,393.07
Average rate per gross ton, in cents,.	35.87	15.88	8.95

EXHIBIT "C"

PEASE AND PLANET

RESOURCES AND THEIR APPLICATION,
OR CHANGES IN THE GENERAL BALANCE SHEET,
DURING THE YEAR ENDED DECEMBER 31, 1901.

RESOURCES:		
Cash decreased,		$ 195.54
Current Liabilities increased,	$ 2,597.71	
Less:		
Accounts Receivable increased,	311.59	2,286.12
TOTAL,		$2,481.66
HOW APPLIED:		
Profit and Loss - Deficit - increased,		$2,481.66

EXHIBIT "D"

COPY.

HASKINS & SELLS,
CERTIFIED PUBLIC ACCOUNTANTS.
30 BROAD STREET,
NEW YORK.

204 DEARBORN STREET, CHICAGO, ILL.
30 COLEMAN STREET, LONDON, E.C.
CABLE ADDRESS "HASKSELLS."

NEW YORK, June 28, 1902.

William G. Mather, Esq.,

Cleveland, Ohio.

Dear Sir:

In accordance with your request, we have made an examination and audit of the books and accounts of the partnership, known as Pease & Planet, for the year ended December 31, 1901.

We submit herewith, in relation thereto, four exhibits, lettered "A" to "D" inclusive, accompanied by two schedules, together with our comments, as follows:

EXHIBIT
"A" - COMPARATIVE GENERAL BALANCE SHEET - DECEMBER 31, 1901, AND DECEMBER 31, 1900.
Schedule
#1 - Accounts Receivable - December 31, 1901.
2 - Accounts Payable - December 31, 1901.

"B" - INCOME AND PROFIT AND LOSS ACCOUNTS - FOR YEAR ENDED DECEMBER 31, 1901.

"C" - EARNINGS, EXPENSES, NET LOSS, TOTAL GROSS TONS OF FREIGHT CARRIED AND AVERAGE RATE PER GROSS TON, IN CENTS - FOR YEAR ENDED DECEMBER 31, 1901.

"D" - RESOURCES AND THEIR APPLICATION, OR CHANGES IN THE GENERAL BALANCE SHEET - DURING THE YEAR ENDED DECEMBER 31, 1901.

OPERATIONS

The combined gross earnings of Pease & Planet for the year ended December 31, 1901, were,.....		$18,010.56
Expenses,.....		20,403.63
Making a deficit from operations of,.....		$ 2,393.07
Deduct:		
Interest received,.....		3.37
		$ 2,389.70
Add:		
Legal expenses,.....	$60.00	
Damages from accidents from prior period,.....	31.96	91.96
Balance - Total Deficit for period,.....		$ 2,481.66

GENERAL REMARKS

The books of the company do not show any assets representing the cost of the boats, Pease and Planet, neither are there any accounts to show the partners' investment. We were informed that the steamer "Pease" and the schooner "Planet" were sold subsequent to the period under review, but this sale had not been recorded on the books of the company prior to the completion of our examination.

Yours truly,

(Signed) HASKINS & SELLS,

Certified Public Accountants.

HASKINS & SELLS,
CERTIFIED PUBLIC ACCOUNTANTS.
30 BROAD STREET,
NEW YORK.

204 DEARBORN STREET, CHICAGO, ILL.
30 COLEMAN STREET, LONDON, E.C.
CABLE ADDRESS "HASKSELLS."

NEW YORK, June 28, 1902.

William G. Mather, Esq.,
President, Munising Company,
Cleveland, Ohio.

Dear Sir:

We have made an examination and audit of the books and accounts of the Munising Company for the year ended December 31, 1901.

We hand you herewith four exhibits, lettered "A" to "D", accompanied by one schedule, together with our comments, as follows:

EXHIBIT
"A" - COMPARATIVE GENERAL BALANCE SHEET - DECEMBER 31, 1901 AND 1900.
Schedule
#1 - Accounts Receivable - December 31, 1901.

"B" - INCOME AND PROFIT AND LOSS ACCOUNTS - FOR YEAR ENDED DECEMBER 31, 1901.

"C" - RESOURCES AND THEIR APPLICATION, OR CHANGES IN THE GENERAL BALANCE SHEET - DURING THE YEAR ENDED DECEMBER 31, 1901.

"D" - SALES OF LAND, TIMBER, BARK AND WOOD, BY MONTHS - FOR THE YEAR ENDED DECEMBER 31, 1901.

COST OF PROPERTY - ALGER COUNTY LANDS

The value of the Alger County Lands as it appears on the books of the company December 31, 1901, is $287,681.07 being decreased from the previous years' valuation by $12,935.84. This decrease represents the sales of land, wood, timber, and bark made during the period under review, as follows:

Sales of Land,.....	$ 2,340.00
Sales of Timber,.....	2,006.11
Sales of Bark,.....	4,808.05
Sales of Wood,.....	3,781.68
Total,.....	$ 12,935.84

The details of these sales by months are given in exhibit "D".

INVESTMENTS

During the period under review the bonds of the Munising Railway Company, which were in the company's treasury December 31, 1900, were surrendered to the Railway Company and the amount represented thereby on the company's books, $9,100.00, charged to the Railway Company. This charge is included in the item account receivable, Munising Railway Company $12,172.16.

ADJUSTMENTS

Profit and Loss deficit, December 31, 1901, shown by the books,		$ 94,984.36
Taxes accrued during the year 1901, not taken up on the books,		9,673.54
Total,		$104,657.90
Less error in the books for liability on audited vouchers:		
Per books,	$599.58	
Should be,	599.44	
Difference,		.14
Profit and Loss - Deficit, December 31, 1901 - per exhibit "A",		$104,657.76

GENERAL

It has been the policy of the company to charge all the expenses incidental to the sales of land, timber, bark and wood to its income account. These charges during the past year have been as follows:

Wages - Agent, Clerk and Landlookers,	$ 2,157.08
Commissions,	721.21
Measuring Bark and Scaling Hemlock,	118.45
Rebates and Allowances,	355.81
Total,	$ 3,352.55

The entire cost of a new building erected at Chatham, $466.02, has been charged to the income account during the period under review.

Yours truly,

Haskins & Sells

Certified Public Accountants.

MUNISING COMPANY

COMPARATIVE GENERAL BALANCE SHEET - DECEMBER 31, 1901 AND 1900

	DECEMBER 31, 1901	DECEMBER 31, 1900	INCREASE	DECREASE
A S S E T S				
COST OF PROPERTY:				
Alger County Lands,.....	$287,681.07	$300,616.91	$	$12,935.84
INVESTMENT:				
Munising Railway Company Bonds,.....	$	$ 9,100.00	$	$ 9,100.00
CURRENT ASSETS:				
Cash - Negaunee,.....	$ 4,651.89	$ 267.18	$ 4,384.71	$
Cash - Cleveland,.....	1,388.97	8,358.67		6,969.70
Bills Receivable,.....		10,513.84		10,513.84
Accounts Receivable - Schedule #1,.....	16,739.59	3,196.59	13,543.00	
Accounts Receivable, Munising Railway Company,.....	12,172.16	1,073.63	11,098.53	
TOTAL,.....	$ 34,952.61	$ 23,409.91	$11,542.70	$
PROFIT AND LOSS - DEFICIT,.....	$104,657.76	$ 92,274.10	$12,383.66	$
TOTAL ASSETS,.....	$427,291.44	$425,400.92	$ 1,890.52	$
L I A B I L I T I E S				
CAPITAL STOCK:				
4159 shares, par value $100.00 each,.....	$415,900.00	$415,900.00	$	$
CURRENT LIABILITIES:				
Audited Vouchers,.....	$ 599.44	$	$ 599.44	$
Accounts Payable,.....	1,118.46	2,259.19		1,140.73
Taxes Accrued,.....	9,673.54	7,241.73	2,431.81	
TOTAL,.....	$ 11,391.44	$ 9,500.92	$ 1,890.52	$
TOTAL LIABILITIES,.....	$427,291.44	$425,400.92	$ 1,890.52	$

EXHIBIT "A"

MUNISING COMPANY

ACCOUNTS RECEIVABLE - DECEMBER 31, 1901

Comstock Bros.,	$ 55.03
Peter Punstinen,	400.00
Cleveland - Cliffs Iron Company,	11,363.33
H. Hellwig,	35.60
Felix Vusink,	125.00
August Traschance,	208.40
C. A. Knowlton,	87.60
H. Laage,	320.00
George H. Slater,	160.00
William Clark,	120.00
John Johnson,	40.00
George Moore,	120.00
William Davidson,	80.00
Jason Clement,	160.00
Robert Vaughn,	194.96
Jason Clement,	160.00
Donald McKinnon,	200.00
James Connors,	480.00
A. Lucia,	110.40
Thomas Bushey,	120.00
William Davidson,	160.00
Chris Kempenny,	100.00
Cleveland - Cliffs Company,	739.27
Lewis Lavory,	200.00
Mat Kurieme,	200.00
John Kampmen,	200.00
Simon Kukkauen,	400.00
John Kamppmer,	200.00
TOTAL,	$16,739.59

EXHIBIT "A"
SCHEDULE #1

MUNISING COMPANY

INCOME AND PROFIT AND LOSS ACCOUNTS - FOR YEAR ENDED DECEMBER 31, 1901.

INCOME:		
Interest and Discounts,	$2,083.38	
Rents - East Munising less expenses,	188.60	
Rents - Chatham,	8.00	
Sales of old material,	350.00	
TOTAL,		$ 2,629.98
EXPENSES:		
Wages - Agent, Clerks, Landlookers,	$2,157.08	
Legal Services and Expenses,	1,107.51	
Cost of Building - Chatham,	466.02	
Rebates and Allowances,	355.81	
Commissions,	721.21	
Measuring Bark, Scaling Hemlock,	118.45	
Stationery & Printing,	68.35	
Traveling Expenses,	167.55	
Miscellaneous,	164.29	
TOTAL,		$ 5,326.27
TAXES,		9,687.37
TOTAL EXPENSES AND TAXES,		$ 15,013.64
NET INCOME - DEFICIT - FOR THE YEAR,		$ 12,383.66
PROFIT AND LOSS - DEFICIT - AT BEGINNING OF THE YEAR,		92,274.10
PROFIT AND LOSS - DEFICIT - PER EXHIBIT "A",		$104,657.76

EXHIBIT "B"

MUNISING COMPANY.

RESOURCES AND THEIR APPLICATION,
OR CHANGES IN THE GENERAL BALANCE SHEET -
DURING THE YEAR ENDED DECEMBER 31, 1901

RESOURCES:		
Cost of Property, decreased,.....		$12,935.84
Investments, " ,.....		9,100.00
TOTAL,.....		$22,035.84
HOW APPLIED:		
Current Assets, increased,.....	$11,542.70	
Less:		
Current Liabilities, increased,.....	1,890.52	$ 9,652.18
Profit and Loss - Deficit, increased,.....		12,383.66
TOTAL,.....		$22,035.84

EXHIBIT "C"

MUNISING COMPANY

SALES OF LAND, TIMBER, BARK AND WOOD, BY MONTHS -
FOR YEAR ENDED DECEMBER 31, 1901.

	LAND	TIMBER	BARK	WOOD	TOTAL
1901 January,.....	$	$	$1,193.38	$	$ 1,193.38
February,.....	200.00		1,836.85		2,036.85
March,.....	120.00		1,492.57		1,612.57
April,.....		266.86			266.86
May,.....	20.00				20.00
June,.....	80.00	49.00		262.84	391.84
July,.....			285.25	748.25	1,033.50
August,.....	720.00	2.00		385.45	1,107.45
September,.....		1,402.24		459.65	1,861.89
October,.....	240.00	2,584.01		615.55	3,439.56
November,.....	720.00			570.67	1,290.67
December,.....	240.00	2.00		739.27	981.27
	$2,340.00	$4,306.11	$4,808.05	$3,781.68	$15,235.84
Deduct Adjustment on Sale to Powell & Mitchell,.....		2,300.00			2,300.00
TOTAL,.....	$2,340.00	$2,006.11	$4,808.05	$3,781.68	$12,935.84

EXHIBIT "D"

PEASE AND PLANET

COMPARATIVE GENERAL BALANCE SHEET - DECEMBER 31, 1901 AND 1900

	DECEMBER 31, 1901	DECEMBER 31, 1900	INCREASE	DECREASE
ASSETS				
CASH ON HAND,.....	$ 706.99	$ 902.53		$ 195.54
ACCOUNTS RECEIVABLE - SCHEDULE #1,	614.87	303.28	$ 311.59	
PROFIT AND LOSS - DEFICIT,.....	1,316.50		1,316.50	
TOTAL ASSETS,.....	$2,638.36	$1,205.81	$1,432.55	
LIABILITIES				
CURRENT LIABILITIES:				
Accounts Payable, Schedule #2,..	$2,622.66	$ 40.65	$2,582.01	
Cleveland Cliffs Iron Company,..	15.70		15.70	
TOTAL,.....	$2,638.36	$ 40.65	$2,597.71	
PROFIT AND LOSS - SURPLUS,.....		1,165.16		$1,165.16
TOTAL LIABILITIES,..	$2,638.36	$1,205.81	$1,432.55	

Exhibit "A"

EXHIBIT "A"

PEASE AND PLANET

ACCOUNTS RECEIVABLE - DECEMBER 31, 1901.

Due from Insurance Companies account accidents Steamer "Pease",	$ 50.00
Due from Insurance Companies account accidents Schooner "Planet",	535.01
Capt. C. A. McCoy,	29.86
TOTAL,	$614.87

EXHIBIT "A"
SCHEDULE #1

PEASE AND PLANET

ACCOUNTS PAYABLE - DECEMBER 31, 1901

Great Lakes Towing Company,	$ 429.30
American Ship Building Company,	1,221.28
Pickands Mather & Company,	202.38
R. Parry Jones,	25.75
Hoyt, Dustin & Kelly,	15.00
Stanley B. Smith & Company,	57.75
Pittsburg Coal Company,	607.26
Wm. Sweeney,	11.82
Mather & Company,	34.37
John Thomson,	17.75
TOTAL,	$2,622.66

EXHIBIT "A"
SCHEDULE #2

PEASE AND PLANET

INCOME AND PROFIT AND LOSS ACCOUNTS - FOR YEAR ENDED DECEMBER 31, 1901.

	STEAMER "PEASE"	SCHOONER "PLANET"	TOTAL
EARNINGS:			
Freight - Ore,	$ 4,999.85	$ 5,639.20	$10,639.05
" - Coal,	2,622.09	2,671.71	5,293.80
TOTAL EARNINGS,	$ 7,621.94	$ 8,310.91	$15,932.85
EXPENSES:			
Wages - Captain and Crew,	$ 4,947.38	$ 2,449.71	$ 7,397.09
Fuel,	2,361.16		2,361.16
Handling Cargoes,	1,480.51	1,691.22	3,171.73
Extraordinary and General Repairs,	829.03	276.62	1,105.65
Marine Insurance,	694.72	307.80	1,002.52
Fitting out,	588.90	178.15	767.05
Provisions,	791.57	433.51	1,225.08
Laying up,	261.68	105.23	366.91
Tug Service,	19.06	369.10	388.16
Supplies - Mate's,	77.35	168.33	245.68
" - Steward's,	31.28	17.91	49.19
" - Engineer's,	36.17		36.17
Lubricants - " ,	16.50		16.50
Ship-keeping and Winter Dockage,	23.25	23.25	46.50
Freight List Insurance,	23.02	49.44	72.46
Repairs - Machinery,	2.53		2.53
Captain's Expenses,	19.65	9.34	28.99
Miscellaneous,	21.79	20.76	42.55
TOTAL EXPENSES,	$12,225.55	$ 6,100.37	$18,325.92
NET EARNINGS (DEFICIT IN RED),	$ 4,603.61	$ 2,210.54	$ 2,393.07
OTHER INCOME:			
Towing Schooner "Planet",	$ 2,077.71		$ 2,077.71
Interest,	1.84	$ 1.53	3.37
TOTAL,	$ 2,079.55	$ 1.53	$ 2,081.08
TOTAL INCOME (DEFICIT IN RED),	$ 2,524.06	$ 2,212.07	$ 311.99
DEDUCTIONS FROM INCOME:			
Towing by Steamer "Pease",		$ 2,077.71	$ 2,077.71
Damages by Accident - prior period,		31.96	31.96
Legal Expenses,	$ 30.00	30.00	60.00
TOTAL,	$ 30.00	$ 2,139.67	$ 2,169.67
NET INCOME FOR THE YEAR (DEFICIT IN RED),	$ 2,554.06	$ 72.40	$ 2,481.66
PROFIT AND LOSS - SURPLUS - AT BEGINNING OF THE YEAR,			1,165.16
PROFIT AND LOSS - DEFICIT - PER EXHIBIT "A",			$ 1,316.50

EXHIBIT "B"

PEASE AND PLANET

EARNINGS, EXPENSES, NET LOSS, TOTAL GROSS TONS OF FREIGHT CARRIED AND AVERAGE RATE PER GROSS TON IN CENTS - FOR YEAR ENDED DECEMBER 31, 1901.

	STEAMER "PEASE"	SCHOONER "PLANET"	TOTAL
EARNINGS:			
9 cargoes of iron ore from Marquette,.	$ 4,999.85	$ 5,639.20	$10,639.05
Total gross tons of iron ore carried,.	6,701	7,597	14,298
Average rate per gross ton, in cents,.	74.61	74.23	74.41
9 cargoes of coal to Marquette,.....	$ 2,622.09	$ 2,671.71	$ 5,293.80
Total gross tons of coal carried,.....	6,134	6,318	12,452
Average rate per gross ton, in cents,.	42.75	42.29	42.51
TOTAL EARNINGS,.....	$ 7,621.94	$ 8,310.91	$15,932.85
Total gross tons of iron ore and coal carried,.....	12,835	13,915	26,750
Average rate per gross ton, in cents,.	59.38	59.72	59.56
EXPENSES PER EXHIBIT "B",.....	$12,225.55	$ 6,100.37	$18,325.92
Average rate per gross ton, in cents,.	95.25	43.84	68.51
NET EARNINGS (DEFICIT IN RED),.....	$ 4,603.61	$ 2,210.54	$ 2,393.07
Average rate per gross ton, in cents,.	35.87	15.88	8.95

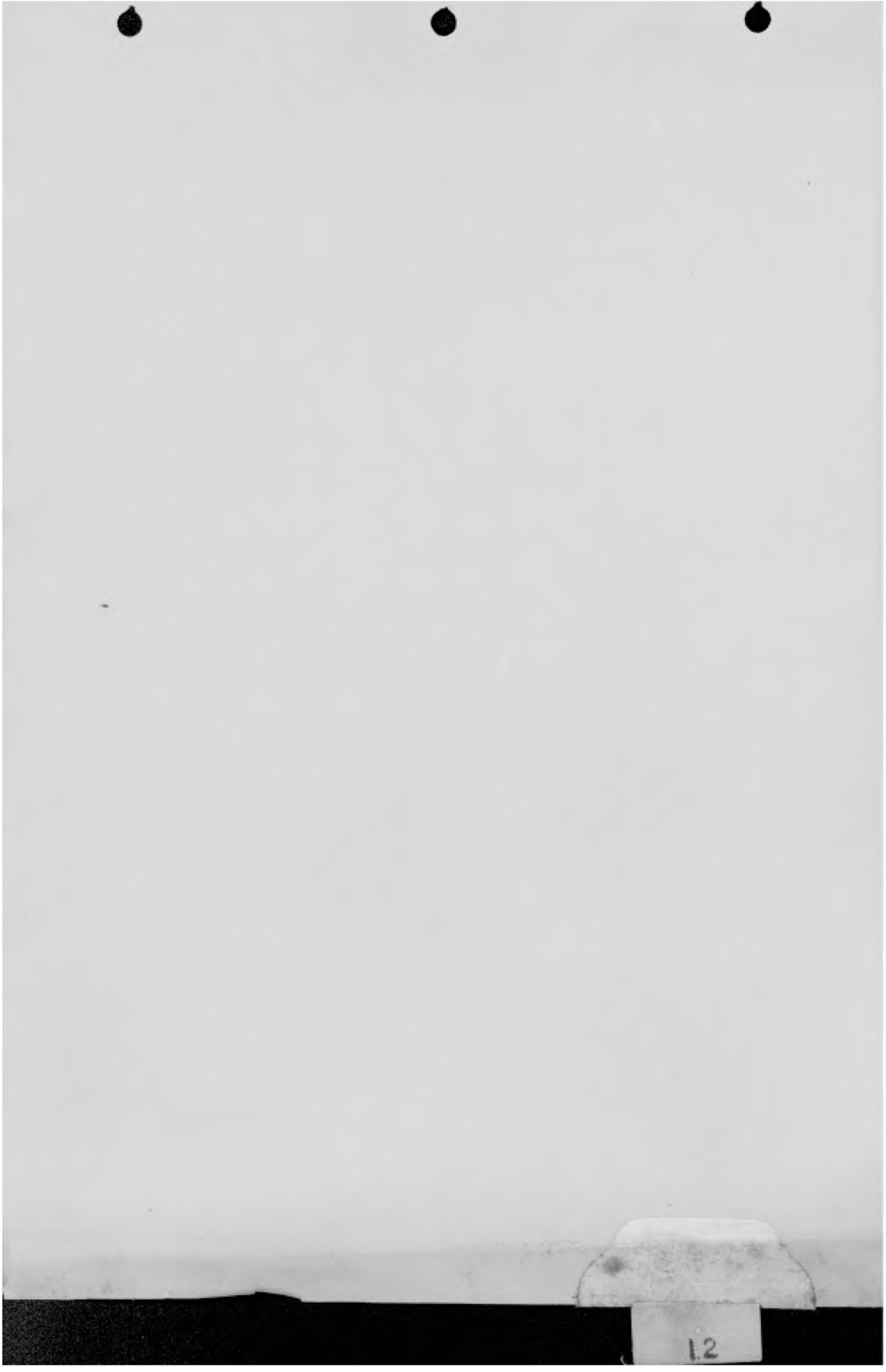
EXHIBIT "C"

PEASE AND PLANET

RESOURCES AND THEIR APPLICATION,
OR CHANGES IN THE GENERAL BALANCE SHEET,
DURING THE YEAR ENDED DECEMBER 31, 1901.

RESOURCES:		
Cash decreased,.....		$ 195.54
Current Liabilities increased,.....	$ 2,597.71	
Less:		
Accounts Receivable increased,.....	311.59	2,286.12
TOTAL,.....		$2,481.66
HOW APPLIED:		
Profit and Loss - Deficit - increased,.....		$2,481.66

EXHIBIT "D"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1901-C-23

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ANNUAL REPORT

OF THE

RECEIVED
JAN 1 2 1902

Munising

RAIL Ray COMPANY

TO THE

COMMISSIONER OF RAILROADS

FOR THE

STATE OF MICHIGAN

: 1901 :

1901
WYNKOOP HALLENBECK CRAWFORD CO. OF LANSING, MICHIGAN
STATE PRINTERS

23

Mining Annual Report_MS86100_2068_1901_2 of 2_563.pdf

Group 3

STATISTICAL RETURNS

OF THE

Operations, Earnings, and Financial Condition

OF THE

Munising Ry

FOR THE YEAR ENDING, Dec. 31, 1901

FOR

POOR'S MANUAL

OF THE

RAILROADS OF THE UNITED STATES

FOR 1902.

THE INFORMATION CONTAINED WITHIN IS FURNISHED BY

_____

(To be signed by officer furnishing information).

_____ R. R. CO.

PROOF OF STATEMENT, WHEN IN TYPE, TO BE FORWARDED, FOR REVISION, TO

_____

(Please give name, title and address of officer to whom proof should be sent).

_____

POOR'S MANUAL OF RAILROADS,

No. 44 Broad Street,

NEW YORK CITY.

RECEIVED
MAR 29 1902
Poor's Manual of Railroads