

of this kind, it was decided that new couplers should have a face of 12" instead of 6", which is the size of the couplers now being used. A sheet iron cage was furnished by the American Steel Foundries for showing the minimum and maximum distance from the guard arm to the knuckle of couplers, so that worn parts can be removed when there is danger of the couplers becoming separated.

Fuse - Rate it burns - Lengths to be used.

A miner was killed at the Gwinn mine when a hole, which he had fired in the top of a raise, exploded before he had climbed ^{to} the bottom of the raise and to safety. It could not be decided that this fatality was caused by the fuse burning too fast. The prevailing opinion was that the miner had probably used a shorter length of fuse than customary. Many tests were made by the Safety Inspector, mining captains, and fuse representatives to determine if there was much variation in the speed with which fuse burns, but these tests did not reveal information which would prove that the fatality might have been caused by the fuse burning too rapidly, nor did we find that the fuse did not burn within the specified time limits, which are guaranteed by fuse makers. The question then arose whether or not it would be advisable to formulate rules governing the lengths of fuse that should be used by miners when blasting in high raises. This subject was referred to a committee composed of Messrs Conibear, Graff and Eaton. After consultation with a number of the Company's captains and skilled miners the committee recommended that no rule should be adopted, but that it would be more practical to have superintendents, mining captains and foremen continually advise miners of the danger of using short fuse.

Speed of Hoisting Men.

The Company's rules which prohibits hoisting men at a speed greater than 1000' per minute was amended with respect to the Republic mine on recommendation of Supt. Stakel and with the approval of Mr McClure.

Underground Storage of Dynamite.

It has been the rule of the Company that dynamite must not be kept in underground magazines. While complying with Federal Laws, which were enacted during the war, it was found advantageous at several of our mines to store limited supplies in magazines at various points underground. This practice resulted in less use of dynamite and where contracts are working in close proximity, one with another, does away with the rule which requires contracts' supplies stored 50' apart. Several of the superintendents, therefore, asked to be allowed to continue the war time magazines. A committee composed of Capt. Rough, Supt. Graff and the safety Inspector were appointed to investigate the subject and to submit rules to the Central Safety Committee. Seven recommendations were submitted to the Central Safety Committee and adopted. The Negau-nee, Cliffs-Shaft, Holmes, Francis and Mackinaw-Gardner mines have magazines which have been constructed to comply with these requirements.

Fire Extinguishers.

The Fire Protection Sales Corp. issued a series of pamphlets dealing with the proper method of testing fire extinguishers and fire hose. It was decided at the December meeting of the Central Safety Committee that all of our extinguishers should be inspected accordingly, and the safety Inspector was instructed to give all the superintendents the information necessary for this work. The Company has approximately 200 extinguishers at its Michigan properties.

Ventilation

The Athens, Gwinn and Francis mines have no second outlet, and hence the ventilation is not as good as it is in mines that have two openings to surface. The poor air is more noticeable during the hot period of summer, especially on Mondays and on the day following a holiday. As the amount of timber in the gob of these mines increases there will be a constant rise in the volume of carbon dioxide in the air, and although the volume may increase slowly yet if the future life of the mine has many years it will be

sufficient to cause danger to the health of the men employed in the mine as well as reducing their efficiency.

The air in the Gwinn and Francis mines was very poor in July and tests would have been made to determine its contents but it was found that the Arsatt apparatus for making determinations was out of order. It was August 15th before a series of tests were made and time then the air had improved so much that very few complaints were heard. These tests revealed a carbon dioxide content that varied from 1.6% to 2.4% in all places where the conditions were normal.

The ventilation of these mines will be given careful attention next year during the hot period of summer, and determinations will be recorded and reported for a consideration of a solution of this problem.

Company's Calendar.

The Company distributed 4000 calendars to employees. The calendar was purchased from the National Safety Council and many industrial organizations throughout the United States used the same calendars, each company being allowed to attach its name to the calendars bought.

The calendar had twelve sheets with a comic pictures of the late European powers, who went astray because they had not observed safe regulations. It also was well labeled with safety admonitions.

GENERAL SAFETY CONDITIONS AT MINES.

Angeline

The Angeline and Gardner-Mackinaw mines had the lowest accident rate of the Company's mines for 1919. At both of these mines the time lost by men being incapacitated due to injuries compared to the time worked by the mine employees, measured in hours, was 3.88 per 1000, where as the average for all mines was 13.2 per 1000.

The working conditions at the Angeline from a safety viewpoint are favorable. Operations are confined largely to drifting for ore and mining the small quantities of ore that have been found. The more hazardous occupations, which usually characterize development work, are to a large extent

SAFETY DEPARTMENT.

lacking. The employees are old and skillful miners and few changes are observed in their personal.

The pump station has been made fire proof and with this exception there are no special safety measures to record for the year.

Athens.

At this mine development work has been advanced very rapidly. The size of the ore body has necessitated the construction of many high raises and the association of dikes in the ore together with treacherous slips, all combine to increase the trade risk of extracting the ore. The mine suffered two fatalities and a number of serious accidents by falls of ground which brought the loss of time up to the high rate of 22.9 hours per 1000 hours worked.

The 11th level of the Negaunee mine was connected with the Athens shaft and while this passageway does not represent a second outlet for the main workings of the Athens it does provide a second opening to surface if fire or accident damaged the collar of the shaft. A second pump station, fully equipped, has been built, which assures additional safety to underground employees in case a large flow of water should be encountered. All levels have not yet been connected by raises but this work is being done. The high raises, which are used for travelling, were equipped with collars at regulation distances.

Barnes-Hecker.

Shaft sinking at the Barnes-Hecker, which extended over a two year period, was completed last year without sustaining a serious or fatal accident, but the record was shortly after broken when pocket construction was in progress by a fatality. The average number of men employed was but 54 and the accident rate was thereby raised to 28.7 per 1000 hours worked, which represents the highest rate sustained by a Company's mine for the year.

Three main levels, a pump station and a sump are being developed. The ladder road in shaft has not been made permanent because pipe lines, electric wires, etc. are being installed. A cage, with all safety devices, attached, is used and regulation gates have been hung at shaft stations. The temporary pump stations and second level platt were lighted and the electrician was instructed to hang lights at the other platts as soon as drifting had advanced.

SAFETY DEPARTMENT.

ced far enough to eliminate breakage. Dynamite is stored in a surface magazine and freezes in winter and Rundle heaters were provided for thawing it. The ladder road to top sheave in headframe was cased and permanent trestle have railing and toe boards erected.

Cliffs-shaft.

The safety conditions of this mine would be greatly enhanced if it had two standard shafts instead of two antique ones. Approximately 250 men are handled four times daily in two small cages and as there are eleven stations in each shaft the time and labor utilized in this work is proportionally much more than it is at other mines. The cages must be removed twice a shift and then it is necessary for employees to ride the skips, which expose them to danger, although we have been very fortunate to have escaped serious and fatal accidents by this method of riding. It is an illustration of the fact that, as a general rule, when danger is very real and apparent we are more apt to be on guard when facing it occasionally but when danger is less apparent but more constant we are apt to become careless with respect to our safety. The cage riders at this must be given frequent inspection in order to have the rules for hoisting employees observed. There has been a tendency on the part of the hoisting engineers to pull skips away too soon after signals have been given that men were riding.

There are many miles of drifts and stopes that are used daily by employees when traveling to and from work. The second fatal accident to occur in the history of this mine by a piece of ground falling from the back, away from regular working places, happened last year, and the first occurred shortly after the company opened the mine in 1897. This is a very credible showing and has been possible because the ground, once trimmed, resists exposure to air to a remarkable degree.

The principle cause of accidents in the Cliffs-shaft is the squeezing of fingers by lifting chunks of ore. Trammers, who have been engaged at this work many years, suffer injuries by this cause as well as the man who is new at the work. No recommendation has been advanced to eliminate this danger. We provided gloves but the men refuse to wear them.

SAFETY DEPARTMENT.

Francis

With the exception of the ventilation, which is poor because there is no second outlet, safety conditions at this property are very satisfactory. The mine suffered its first fatality last year when a cage rider was killed when he failed to use a device that the mining captain had warned him to use a few days prior to his death. This was the first fatality to occur to an employee under the charge of Capt. Ellis since the inauguration of the Safety Department and the captain has been in charge of mines throughout this period.

The ore body at the Francis is small and the hanging rock very friable. There is no difficulty in mining the ore by the sub-level caving system. The mine is worked day shift only and the miners can be held to account for the safety conditions in their contracts.

Gwinn

Another mine safety record was broken last year when the Gwinn mine suffered its first fatality since special safety instruction was started in March, 1911. The captain's nephew was fatally injured on a main level, within several hundred feet of the shaft, where the captain was waiting to take the cage to surface. A second fatality followed on the same level and about the same distance from the shaft but on the opposite side. The shift boss was at the shaft when it occurred. It is strange that in a small mine like the Gwinn, where supervision has been so careful and constant, that a long record of no fatalities should be broken by two fatalities in a short period and both of which could have been so easily avoided if proper care had been exercised.

The Gwinn shaft was sunk a lift and a new level opened. The cage, which was used in sinking the Athens shaft and two lifts in the Holmes mine, was used after it had been referred to the Central Safety Committee for approval. To use this cage, which is smaller than our standard cage, special doors were placed at all levels and the tunnel to fill the gap which resulted by the change.

The working conditions have been normal. The ore is somewhat hard for easy sub-level slicing but the captains and bosses do not have a very large territory to inspect. As the mine is dry and is the nearest to Gwinn, men are satisfied to work there rather than the Princeton or Stephenson. These facts have made the mine a safer proposition for the captain to handle.

Gardner-Mackinaw

This mine under Capt. Bath, had a very good accident record last year. The captain has a very pleasing way with men and the method of mining is such as appeals to men also, so that from a labor situation the conditions existing there are fine, especially for a mine that is located several miles in the country.

The dty is rather small for the number of men employed and a standard first aid room has not been provided although an equipment for one has been bought.

Holmes

The Holmes and the Morris-Lloyd had the best accident records last year for mines employing a large force of men. At the Holmes the ore body is composed of hard and soft varieties which stand very steep. It is comparatively small and as a consequence a sub-level is soon mined. Contracts work close together and have to cut out new subs frequently. The hanging rock does not follow with like caving conditions.

Two pump houses have been cut and equipped but have not been made fire proof, although this ^{will be} done as soon as the material is received. A raise has been put up from the pump stations to the 3rd level and a concrete pillar for daming back a heavy flow of water has been built in the main drift. Mining operations on the boundary line with Section 16 mine are more favorable now than they were early in the year and in 1918. The new stations and levels have been lighted and all standard safety devices are being installed.

Lake

The Lake mine had numerous minor accidents which caused a loss of 10.2 hours per 1000 hours worked. It has always ranked highest in the number of accidents by falls of ground. The product per man has been high and as there has always been ore in the back of the sub levels to mine, the danger has been constant and employees have been proven to work underground having a high back, which may explain the high rate. The mine is almost depleted and no changes, especially worth of note are to be recorded, excepting that the bottom of the water in the old Lake Superior Hematite has ^{been} tapped and mining in that vicinity is completed.

Morris-Lloyd

This property extends over a vast territory ^{and is} under the supervision of the captain, a day foreman and three shift bosses. The open pit mining was completed without a serious accident, which was very fortunate in view of the fact that the walls exposed much danger. Several caves occurred on sub levels in both the Morris and Lloyd ore bodies but they happened when employees were not working. The Morris shaft was put down 250 feet by using a bucket without a crosshead. Long distance drifts are being driven but proper ventilation is provided by fans. Canvass pipes are now used to carry air from the permanent line to the head of the drifts.

Maas

New second outlets to the Negaunee mine from the 3rd level to the 4th level were made. The sub levels between the 3rd and 4th levels have had smoke and gas condition due to much blasting but an improvement has been noted since new openings to the 3rd level drift were developed. The new pump station has been made fire proof and the moving machinery and belting have been guarded.

Negaunee

The largest property of the Company presented many difficult problems but they have been so successfully met by the Superintendents and the mining captain that the mine bids fair to rank highest as a safe place

in which to work. When men are entrapped in a mine it is apt to cause unfavorable comment by the public upon its working conditions, whereas such an event may be only spectacular in attracting public attention to a fatal accident rather than indicating that the mine was dangerous or was poorly managed.

Four men were entrapped in the Negaunee mine for three days in 1918, one being killed, and the other three recovered practically without injury. Last year two men were caught by a cave, but were released within eight hours without suffering any injury. To those unfamiliar with mining these accidents mark the mine as having unusual conditions which may not be favorable for the men employed there. Narrow escapes, similar to these, occur from time to time at most soft ore mines. Today the Negaunee mine has been brought to a condition which is not surpassed by any large or small mine in the Lake Superior district.

Princeton

The pillars in the big stopes between No. 1. and No. 2 shafts are being mined and so far they have been extracted very successfully. The pumphouse at No. 2. shaft is not completed but when it is ready for operation No. 1. shaft will not be used by pumpmen as a traveling road. The cage is in balance with the skip and cannot be kept in good condition as it receives hard usage and the doors are warped and cannot be closed when employees are hoisted. The tibble dump at shaft has caused the introduction of a new haulage car which has not been equipped with automatic couplers. This, I believe, will be a cause of accidents, as the couplers and drawheads are short and do not provide ample clearance between the cars for making safe coupling.

Republic

The steam hoisting plant at No. 9 shaft has been discarded and a modern electric plant replaces it. This marks a vast improvement in the safety of handling underground employees. The cage is now in balance with the skip but there does not seem to be the rough usage of it thereby as is evident with the cage at the Princeton mine. The counterweight pipe has been taken out of the shaft but the ladder road has not been completely overhauled since its

-removal. A cage is used for hoisting the ore which is being mined in the winze and a locking device is provided for holding tram cars securely. The pump station at the bottom level, No. 9 shaft, was white-washed and made fire proof.

Salisbury.

Mining at the Salisbury is divided between working old scrams and taking out the new deposit which was found southeast of the old workings. This deposit is narrow and six or seven contracts are working there. A shift boss devotes his entire time to these contracts and the accident record for this portion of the mine has been very low. The sub-levels are small and wet and were nearly 300 feet above the 14th level when the ore body was first opened. During the past four years the crews employed on this deposit have not suffered a serious accident. The water which penetrates through from surface, has kept the ventilation in good condition.

A small volume of water was cut in the old workings of the mine, which at first caused considerable excitement to the men in the lower levels of the mine. However, it abated before the pumps were drowned or men were endangered. The early method of mining in the Salisbury was so irregular that no practical provision can be made that will eliminate a recurrence of a similar flow, providing there are openings which carry water.

Minnesota Mines.

One inspection was made of the mines in Minnesota and a number of recommendations were made, particular attention being given to conditions which were favorable for underground

Open Pits.

All the Company's open pits were inspected and fences were repaired and test pits covered when openings were found.

PERSONAL INJURIES

A personal injury that cause a person a loss of less than fourteen days' work has usually been classified as a slight accident and one causing more than fourteen days a serious accident. This classification is used by the U. S. Bureau of Mines in its reports and was originally adopted by many of the States, when they enacted Compensation Acts, as a basis whether or not an injured person should receive compensation. Several States, among the number being Michigan, has reduced the time from fourteen days to seven days. In order to use the statistical data of previous years for comparative purposes, the 14 days distinction is used in this report.

The number of slight accidents is not increasing but more are constantly being reported. In 1917, the Michigan Industrial Board instructed all employees of labor to report all slight injuries regardless of the loss of time involved. It has taken ever since then to persuade all our mine officials that this order must be granted and even now many of them are reluctant to report them. And when it is remembered that the majority of these officials are old miners who have, in their day of hard labor, disdained to report slight injuries, time and again, even when the injury has been personal, the problem can be understood. The publicity, that is being given by attracting attention to the danger of infection that may result if an injury is neglected, also adds to the number of slight injuries being reported.

In the following table the average number of employees, the number of fatalities, the total number of accidents and rates per 1000 men employed are given.

Year	Average Number of Employees.	Fatalities	TABLE		Rate 1000 men
			Rates per 1000 Employees	All Accids.	
1911	2633	5	1.89	243*	92
1912	2335	4	1.71	207*	89
1913	2621	11	4.12	316	126
1914	2435	10	4.10	443	182
1915	2308	5	2.16	427	185
1916	3063	8	2.61	592	193
1917	3457	6	1.73	639	184
1918	3765	13	3.45	590	156
1919	3938	11	2.79	670	170

* Not including accidents which cause a loss of time less than 6 days.

SAFETY DEPARTMENT.

We suffered eleven fatalities in 1919, seven of which should not have occurred. While this number is high yet compared with the record of 1910, the year previous to special safety activity, it shows up very favorably. If the accident rate ~~---~~ were the same in 1919 as it was in 1910 we would have lost twenty-six men. If it were the average rate for the nine years prior to 1911, we would have lost 18 men. The fatality rate per 1000 men in 1919 was 2.79 as compared with an average rate of 2.73 for the past nine years of safety work.

TABLE

Showing number of fatalities and rates per 1000 employee for nine years prior to safety work and also for nine years of safety work.

Year	Fatalities	Rate	Year	Fatalities	Rate
1902	8	5.38	1911	5	1.89
1903	8	5.15	1912	4	1.71
1904	4	2.97	1913	11	4.12
1905	12	6.54	1914	10	4.10
1906	10	4.13	1915	5	2.15
1907	17	5.97	1916	8	2.61
1908	6	2.52	1917	6	1.73
1909	13	5.15	1918	13	3.45
1910	14	6.52	1919	11	2.79
	<u>97</u>	<u>5.02</u>		<u>73</u>	<u>2.73</u>

Tons of ore
mined per fatality 177,142

319,849.

Why should the years 1911 and 1922 have low fatality rates and the two preceding years so much higher rates, as are shown in the above table? The installation of safety devices and educational instruction of employees cannot be credited for the entire reduction because there has been no relaxation in the maintenance of standard safety devices and the introduction of new ones and new educational features are constantly being utilized. I am of the opinion that because safety was a new slogan in 1911, which everybody in and about the mines were thinking about while employed at their daily tasks, is an explanation for the few accidents that occurred in that year and the following year. It is my conviction that we must devise ways and means whereby employees' interest in their own safety is kept active. My recommendation to the Central Safety Committee that examinations of employees on Rules and Regulations be held frequently and regularly was not made with the object of ascertaining if employees

know them; most of them could pass a very creditable examination. It was offered with the object of getting men to think more about them when at work. SEVEN men were killed last year not because they were not familiar with our safety rules but because they disobeyed them. Those men were skillful and experienced at their various occupations and were killed when they were of most valuable to their families and the community in which they lived. Five of them were negligent in their work and the other two lost their lives because their fellow workmen were negligent. My previous recommendation relative to a new inspection committee was made with the idea of bringing employees in touch with the Company's higher officials, as another method of keeping alive their interest in their own safety.

TABLE

Showing comparative record of loss of time by accidents.

Mine	Average no. of Employees	Total Hrs.	Total Hrs. lost	Hrs. Lost
	Undg. Sur.	Worked.	by Injuries.	per 1000 hrs. wkld.
Gardn-Mack.	78 40	307,200	1,192	3.88
Angeline	43 27	184,200	716	3.88
Step-Austin	24 46	195,600	1,028	5.2
Morris-Lloyd	211 53	665,400	4,760	7.3
Holmes	158 48	523,200	4,068	7.7
Salisbury	97 30	322,800	2,948	9.1
Meadow	56 22	200,400	2,040	10.2
Lake	171 70	620,400	6,552	10.5
Princeton	162 48	532,800	6,072	11.25
Negaunee	294 63	894,600	10,064	11.25
Republic	168 71	616,200	7,000	11.36
Crosby	57 47	277,800	3,380	12.1
Maas	237 69	775,300	9,480	12.3
Wade-Helmer	111 125	649,800	9,995	15.4
Francis	58 34	241,200	4,224	17.5
Cliffs-Shaft	251 127	983,400	20,584	20.9
Athens	112 44	400,800	9,204	22.9
Gwinn	96 40	350,400	8,128	23.2
Barnes-Hecker	37 19	145,800	4,182	28.7
SAFETY DEPARTMENT.	2,421 1,023	8,887,800	115,617	13.2

FATAL ACCIDENTS

No. 1. Matt Marjamma, a miner, was instantly killed at the Negaunee mine at 2:00 A. M., Jan. 23rd, by a fall of ground. He and his partner had made two attempts to cave two sets of timber by blasting but a part of a cap did not come down, being supported by a prop. Marjamma did not blast a third time because he was afraid that the miners, who were working on the same sub-level, would complain that he was making too much smoke. He, therefore, decided to cut the prop with an axe although his partner advised him that it would be dangerous. When cutting the prop a cave occurred, and he was caught beneath it. Classified 111-A-3, Violation of Rules.

No. 2. J. W. Fagerberg, a motorman, was fatally injured at the Gwinn Mine at 12:20 A. M., Jan. 24th by being dragged between the motor and a car. Fagerberg threw two switches and signalled to his brakeman to advance the train. In attempting to mount the motor he fell between the cars. It was classified 111-A-3. Violation of Rules.

No. 3. Tom Mazer, a miner, was instantly killed at 4:50 A. M., March 11th., at the Maas mine, by being knocked down and squeezed by cars which had become separated from a motor train. Mazer was going to the shaft and stepped to one side to avoid the train but, not knowing the train had separated, stepped back on the track and was struck by the second. Classified 1. Trade Risk.

No. 4. Andrew Barlund, a miner, was instantly killed at the Athens mine at 10:30 P. M., May 1st., by a fall of ground. He was ordered by the shift boss to drill the back of a drift by standing under the last set of timber. He disobeyed the order and drilled beyond the timber. When drilling the second hole a large chunk of ore fell from the back causing his death. Classified 111-A-4, Improper Method of Doing Work.

No. 5. James Mascaretto, a miner, was instantly killed at the Gwinn mine at 4:50 P. M., May 6th., by a charged hole exploding before he had climbed to a safety zone. This man and his partner fired thirteen holes in the top of a raise that was 80 feet high. When retreating down the raise a hole

exploded as they reached the bottom ladder. Mascheretti, was buried under the falling debris. Classified I. Trade Risk.

No. 6. Henry Karkainen, a trammer, was fatally injured at the Cliffs-Shaft mine at 10:30 P. M., July 10th, by a fall of ground. At the time of the accident, this trammer and partner had just reached the top of a raise with a car of rock, when they saw the shift boss climbing the raise. They waited for him to reach the top before dumping the rock. As the boss stepped off the ladder, a piece of rock, weighing about 30 pounds, fell from the back, which was about 20 feet high. Heavy blasting in a drift, near the raise, was supposed to cause the rock to loosen. Classified I. Trade Risk.

No. 7. John Rukonen, a trammer, was instantly killed at the Cliffs-Shaft mine at 10:50 A. M., July 23rd., by a fall of ground. A few minutes before this accident occurred the shift boss saw some loose ground, which he decided to have the miners bar down. The miners were working in another stope and the boss immediately started towards this stope but he did not take any precaution against keeping the trammers out of the stope where the ground was loose. The trammers returned with an empty car and before the miners arrived there, the ground fell. Classified 11-4, Improper Method of Doing Work by Foreman.

No. 8. August Smude, a pitman, was fatally injured at the Wade mine at 5:45 P. M., Sept. 4th., by being crushed between a locomotive and a steam shovel. A pocketman lost control of a loaded railroad car and it ran into the yard and collided into the locomotive and shovel. Classified 111-B-4. Improper Method of Doing Work by Other Workman.

No. 9. Einar Salmenin, a foreman carpenter, was instantly killed at the Barnes-Hecker mine at 1:10 P. M., Sept. 29th by falling from the second level pocket to the bottom of the shaft. He was placing a steel plate in the pocket and slipped from a ladder. He had failed to block the opening at the pocket into the shaft. It was classified 111-A-4, Improper Method of Doing Work.

No. 10. John Luoma, a miner, was fatally injured at the Athens mine at 3:00 A. M., Oct. 9th, by a fall of ground. The ground had been trimmed by the miners and also by the shift boss a short time before the accident. Classified I. Trade Risk.

No. 11. James Morlini, a cage rider, was instantly killed at the Francis mine at 1:05 P. M., Oct. 29th by being knocked off the cage and falling to the bottom of the shaft. He was riding in the cage, from one to another, with an empty timber truck but he failed to lock the safety device for holding the truck on the cage. When the cage was started the truck caught in the shaft timber, throwing Morlini out. Classified 111-A-2, Failure to use Appliance Provided.

TABLE

Showing classification of fatal accidents for nine years prior to safety work and also for nine years of safety work.

	Trade Risk	Negligence of Company	Negligence of Workmen	Total
1902	4	0	4	8
1903	3	1	4	8
1904	2	0	2	4
1905	6	0	6	12
1906	4	1	5	10
1907	4	0	13	17
1908	3	2	1	6
1909	8	1	4	13
1910	6	5	8	19
Total	40	10	47	97
1911	2	1	2	5
1912	0	3	1	4
1913	3	1	7	11
1914	8	0	2	10
1915	5	0	0	5
1916	2	4	2	8
1917	2	0	4	6
1918	8	1	4	13
1919	4	1	6	11
Total	34	11	28	73

	1902-1910	1911-1919
Accident rate per 1000 employees	5.02	2.73

TABLE

CLASSIFICATION OF NON-FATAL ACCIDENTS.

1919

A. Fall of Ground or Timber.

1. By fall from back or side (drift, raise or stope)	118
2. By fall or run from chute	12
3. By fall of stray chunk or stick down raise or stope	5
4. By run of mud or sand	1
5. By lagging sprag, or timber falling from back or side	1
Total	137

B. Shaft Accidents.

1. By falling down shaft	1
2. By rock or timber falling down shaft, etc.	2
3. By being struck or caught by cage, skip, bucket or tool	3
4. By falling from cage, skip or bucket	1
Total	7

C. Use of Explosives.

1. By explosion of powder, detonator, etc.	3
2. By fall of ground or timber due to blast	1
3. By being overcome by gas	0
4. Miscellaneous cause.	1
Total	5

D. Mine and Railroad Cars.

1. By being caught between cars or motor and drift.	9
2. By riding or attempting to ride cars	2
3. By squeezing finger, hand or foot between box and truck, car and drift, chute, etc.	28
4. By being run over by railroad car or haulage car	1
5. By cars falling back or off track	9
6. By falling from car	1
7. By car running over foot	1
8. By being struck by car handle, car rebounding, etc.	3
10. By miscellaneous causes	2
Total	56

E. Miscellaneous Causes.

1. By falling down raise, stope or mill	8
2. By falling from ladder, trestle or stage	10
3. By falling with machine or tripod, drill breaking, etc.	4
4. By squeezing finger, hand or foot between pieces of timber, chunks of ore, etc.	73
5. By straining or wrenching arm, back, side or leg by lifting, etc.	57
6. By chunk rolling down dirtpile, stockpile, off car, etc.	59
7. By being struck by glancing dirt, tool or timber, etc.	56
8. By being struck by pick, shovel, hammer, timber etc.	34
9. By tools or material falling or slipping from hand, staging or platform, etc.	35
10. By running nail into hand, foot or leg	14
11. By stumbling or slipping causing a fall, etc.	31
12. By catching finger, hand or foot in blocks, gears, brakes, struck by windlass, parts of machinery, etc.	22
13. By wrench or tong slipping causing a fall, etc.	2
14. By blood poison or infection from various causes.	18
15. By contact with electric wire	1

TABLE (Con'd)

Miscellaneous Causes.

16. By being scalded or burnt	4	
17. By listering hand	4	
18. By sliver in finger, etc.	6	
19. By miscellaneous underground causes	7	
20. By miscellaneous surface accidents	9	
Total	454	
Grand Total	659.	

TABLE

Number of accidents, number classified preventable
and percentage preventable.

Year	Number of Accidents	Preventable Accidents	Percentage Preventable
1912.	207	51	25
1913	316	77	24
1914	443	118	37
1915	427	97	23
1916	592	120	20
1917	639	149	23
1918	590	124	21
1919	670	159	22

TABLE

CLASSIFICATION OF FATAL AND MINOR ACCIDENTS

FOR THE YEAR 1919.

BY THE CENTRAL SAFETY COMMITTEE

I	TRADE RISKS, (INCIDENTAL & NON-PREVENTABLE)	Total	511
II	NEGLIGENCE OF COMPANY:		
	1. Failure to Use Safety Devices Provided		
	2. Failure to Use Proper Tools or Appliances Provided		1
	3. Violation of Rules		
	4. Improper Act or Selection of Improper Method of Doing Work. (By Foreman)		1
	5. Failure to Instruct Men as to Method of Doing Work and hazards incident thereto.		
	6. Failure to Provide Safety Devices		2
	7. Failure to Provide Proper Tools, Appliances or Place to Work		2
		Total	6
III	NEGLIGENCE OF WORKMEN:		
	1. Failed to use Safety Devices Provided		6
	2. Failed to use Proper Tools or Appliances Prov.		7
A. INJURED MEN:	3. Violation of Rules		16
	4. Improper Act or Selection of Improper Method of Doing Work. (By Workman)		42
	5. Carelessness. (By Workman)		59
		Total	130
	1. Failed to use Safety Devices Provided.		
B. OTHER WORKMEN:	2. Failed to use Proper Tools or Appliances Prov.		
	3. Violation of Rules		1
	4. Improper Act or Selection of Improper Method of Doing Work. (By Workman)		12
	5. Carelessness. (By Workman)		10
		Total	23
		Grand Total	670

TABLE

CLASSIFICATION OF FATAL ACCIDENTS BY CAUSES

SINCE THE BEGINNING OF SAFETY WORK

<u>A. Fall of Ground</u>	'11	'12	'13	'14	'15	'16	'17	'18	'19
1. By fall of ground from back or side (drift, raise or stope)	1	0	7	5	4	2	2	5	5
3. By fall of stray chunk or stick down raise or stope								1	0
4. By run of mud or sand	0	0	0	1	0	0	0	2	0
Total	1	0	7	6	4	2	2	8	5 35
<u>B. Shaft Accidents.</u>									
1. By falling down shaft	1	1	0	1	0	4	1	1	1
2. By timber or rock falling down shaft	0	0	0	1	0	0	0	0	0
3. By being caught or struck by cage, skip, bucket or tool	0	1	0	0	0	0	0	1	0
4. By falling from cage, skip or bucket								1	1
Total	1	2	0	2	0	4	1	3	2 15
<u>C. Use of Explosives.</u>									
1. By explosion of powder at working face	0	0	1	0	0	0	1	0	1
4. By being overcome with gas	0	0	0	0	1	0	0	0	0
Total	0	0	1	0	1	0	1	0	1 4
<u>D. Mine and Railroad Cars</u>									
1. By being run over by haulage car	0	1	2	0	0	1	0	1	2
2. By riding or attempting to ride cars	0	0	0	0	0	0	1	0	0
3. By being run over by railroad car	1	0	0	0	0	0	0	0	1
Total	1	1	2	0	0	1	1	1	3 10
<u>E. Miscellaneous Causes</u>									
1. By falling down raise, stope or mill	0	0	0	0	0	0	1	0	0
2. By falling from ladder, trestle or stage	1	1	0	0	0	1	0	1	0
6. By asphyxiation due to mine fire	1	0	0	2	0	0	0	0	0
15. By contact with electric wire	0	0	1	0	0	0	0	0	0
TOTAL	2	1	1	2	0	1	1	1	0 9

Grand Total. 73

TABLE

CLASSIFICATION OF CAUSES OF FATAL ACCIDENTS.

FROM DEC. 1st, 1898 to JAN. 1st, 1920.

A. Fall of Ground or Timber.

1. By fall from back or side (Drift, raise or Stope)	70
2. By fall of chunk of ore from chute	1
3. By fall of stray chunk or stick down raise or stope	1
4. By run of mud or sand	9
Total	81

B. Shaft Accidents.

1. By falling down shaft	15
2. By rock or timber falling down shaft	3
3. By being struck or caught by cage, skip, bucket or tool	6
4. By falling from cage, skip or bucket	8
5. By falling from ladder in shaft	6
6. By being carried or pushed into shaft by car	3
7. By attempting to jump on or off cage, skip or bucket	3
8. By being struck by crosshead	5
Total	47

C. Use of Explosives

1. By explosion of powder	15
2. By premature blast	2
3. By fall of ground or timber due to blast	3
4. By being overcome by gas	2
5. By erysipelas resulting from blast	1
Total	23

D. Mine and Railroad Cars.

1. By being caught by haulage cars	14
2. By riding or attempting to ride cars	3
3. By falling with car from trestle	3
4. By being run over by railroad car	3
Total	23

E. Miscellaneous Causes.

1. By falling down raise	3
2. By falling from ladder, trestle or stage	5
3. By falling with machine or tripod	2
4. By being caught under pump rod	2
5. By supposing to have come in contact with trolley wire	2
6. By asphyxiation due to mine fires	3
7. By being ruptured	1
8. By being pulled into sheave	1
10. By contact with electric wire	1
Total	20

Grand Total 194

Average percent of accidents by causes.

A. 41.75% B. 24.23% C. 11.85% D. 11.85% 10.30%

SUPPLIES AND REPAIRS FOR MINE RESCUE AND FIRST AID WORK

The supplies and repairs, represented by the money spent in Table , was charged to operative mines. These supplies consisted of oxygen, potash cartridges, first aid bandages and the necessary parts to replace worn out or broken portions of the rescue apparatus. The total amount spent in 1918 for similar supplies and repairs amounted to \$773.98.

TABLE

Rescue apparatus supplies	\$ 165.05
" " repairs	\$ 278.54
Total	\$ 463.59
First aid supplies	211.99
Grand Total	\$ 675.58

EXPENSES OF THE SAFETY DEPARTMENT FOR 1919

TABLE

Supplies

Printing, etc.	40.85
Central Safety Committee, etc.	42.02
Mine Rescue and First Aid	43.86
Total	\$ 126.73

Traveling.

Inspector	\$ 376.04
Foreman	424.17
Central Safety Committee	85.08
Miscellaneous Committees	51.92
Total	\$ 937.21
Salaries	Total 7094.43
Grand Total	\$8158.37

Respectively submitted,

William Corcoran
Safety Inspector.

ANNUAL REPORT
OF THE PENSION DEPARTMENT
FOR THE YEAR 1919.

* * * * *

PENSION SYSTEM:

The year 1919 completed the eleventh year of the operation of the Pension System.

There are quite a number of the older men who are approaching the limit of service and a considerable number of these have been put on the pension roll during the year:

	Mine	Date Pen- sion began.	Monthly Payment
#82 Edward Connell	Cliffs-Shaft	Jan. 1, 1919	\$15.00
#83 Josiah Broad	Negaunee	Feb. 1, 1919	18.00
#84 Michael Alanen	Angeline	Feb. 1, 1919	18.00
#85 William C. Quayle	Salisbury	Apr. 1, 1919	25.96
#86 Joseph Dugas	Princeton	June 1, 1919	18.00
#87 Adolph Pepin	Stephenson	July 1, 1919	18.00
#88 Richard Kinnish	Salisbury	Aug. 1, 1919	21.10
#89 Peter Rean	Lake	Sep. 1, 1919	23.16
#90 Mangus Anderson	Stephenson	Nov. 1, 1919	23.74
#91 Frank Johnson	Cliffs-Shaft	Nov. 1, 1919	26.86
#92 Gust Larson	Lake	Nov. 1, 1919	23.83
#93 Matt Jaaksi	Cliffs-Shaft	Dec. 1, 1919	21.31

The following pensions have ceased during the year:

# 6 Charles Renberg	Pension began January 1, 1910, Died May 8th, 1919.
#34 Samuel Metherell	Pension began February 1, 1912; Died June 17th, 1919.
#37 Andrew P. Peterson	Pension began May 1st, 1912; Died September 14th, 1919.
#82 Edward Connell	Pension began January 1st, 1919; Died May 24th, 1919.

PENSION SYSTEM: (Continued)

There were twelve additions to the pension roll in 1919 as compared with two in 1918. There were four deaths in 1919 as compared with six in 1918.

The five Widows' and Orphans' Pensions end this year on November 30th. These pensions are as follows:

#15	Widow and 3 children of Herman Hupala	Pension Allowance, \$15.00
#16	" " 5 " " John Lepisto	" " 17.00
#17	" " 2 " " Abel Himottu	" " 14.00
#18	" " 2 " " Edward Honkala	" " 14.00
#19	" " 2 " " Gustaf Johnson	" " 14.00

On July 1st, 1919, the minimum old-age pension allowance was increased from \$15.00 to \$18.00. This increase affected 21 pensioners, the total increase amounting to \$49.59 per month.

The following table shows the number of pensioners on the roll at the end of the years 1918 and 1919:

	Dec.31,1918.	Dec.31,1919.
Old Age Pensions	36	44
Widows' & Orphans' Pensions	<u>5</u>	<u>5</u>
	41	49

Total number of Widows and Orphans on Pension Roll:

	Dec.31,1918.	Dec.31,1919.
Widows	5	5
Orphans	<u>14</u>	<u>14</u>
	19	19

The average yearly pensions for the last two years are as follows:

	Dec.31,1918.	Dec.31,1919.
Old Age	\$234.48	\$248.40
Widows and Orphans	177.60	177.60

One pensioner was put on the Furnace Department Roll during the year. This was Pension No. 3, John Ollila, his pension becoming effective on June 1st, 1919 at the rate of \$18.65 per month. During the first five months of the year there was no pensioner on the roll of the Furnace Department, Mr. Wm. H. Fuller having died in December, 1918.

Pension payments for the years 1909 to 1919 inclusive are as follows:

Mining Department:

<u>Year</u>	<u>Old Age</u>	<u>Widows & Orphans</u>	<u>Total</u>
1909	\$ 351.92	\$ 464.00	\$ 815.92
1910	896.44	1043.00	1939.44
1911	1690.37	2649.00	4339.37
1912	3865.95	3113.00	6978.95
1913	5133.62	3025.00	8158.62
1914	6179.57	3403.00	9582.57
1915	7910.35	2372.00	10282.35
1916	8787.02	1694.00	10481.02
1917	9227.22	1366.00	10593.22
1918	8889.14	944.00	9833.14
1919	9605.02	888.00	10493.02
Totals	\$ 62536.62	\$ 20961.00	\$ 83497.62

Furnace Department:

<u>Year</u>	<u>Old Age</u>	<u>Widows & Orphans</u>	<u>Total</u>
1910	\$ 111.75	\$	\$ 111.75
1911	268.20	120.00	388.20
1912	268.20	180.00	448.20
1913	268.20	180.00	448.20
1914	268.20	180.00	448.20
1915	268.20	180.00	448.20
1916	268.20	60.00	328.20
1917	268.20		268.20
1918	268.20		268.20
1919	130.55		130.55
Totals	\$ 2387.90	\$ 900.00	\$ 3287.90

PENSION SYSTEM: (Continued)

Total amount paid to Old Age Pensioners, 1909 to 1919 inclusive:

Mining Department	\$62536.62
Furnace Department	<u>2387.90</u>
	\$64924.52

Total amount paid to Widows & Orphans, 1909 to 1919 inclusive:

Mining Department	\$20961.00
Furnace Department	<u>900.00</u>
	\$21861.00

The following statement shows a comparison between the amounts paid for pensions during the eleven years and the estimated possible pensions for the same period, this estimate having been made in 1908.

Mining Department:

Old Age Pensions:

Estimate for 1909 to 1918 inclusive	\$59880.00
Estimate for 1919	<u>9195.00</u>
Total	\$69075.00

Total amount paid from 1909 to 1919 inclusive:

Old Age Pensions	\$62536.62
------------------	------------

The Old Age Pensions for the year 1919 were \$1298.02 more than the estimate for 1919 made in 1908.

The total amount paid since the system went into effect is \$6538.38 less than the estimated possible amount required up to and inclusive of December 31st, 1919.

The pensioners living at Ishpeming when in good health come to the office each month for their pensions. Formerly the pensions were taken around by our Visiting Nurse, but several of the old men expressed their desire to call at the office and see us, since which time they have done so. If anyone is in poor health we take the pension to them. In Negaunee and at Gwinn, our Visiting Nurse delivers these pensions regularly and we see them occasionally.

At the end of the year all of the pensioners were in fairly good health.

PENSION SYSTEM: (Continued)

On the following sheet is the annual statement of the Pension Fund which shows a balance on hand December 31st, 1919 of \$171,213.03.

The interest allowance on the fund during 1919 amounted to \$5844.98 which is practically 55% of the amount paid for pensions during the year.

The following statement shows the contributions to the Pension Fund by the different Departments since the Pension System went into effect on January 1st, 1919.

YEAR	MINING	FURNACE	LAND	LUMBERING	PAYMENTS
1909	7916.89	1628.21	555.17	1274.51	815.92
1910	12440.52	1899.59	447.54	1824.75	2051.19
1911	11168.41	1782.00	494.48	978.77	4727.57
1912	9690.71	1854.42	497.43	1152.35	7427.15
1913	11486.56	1754.91	529.55	1742.11	8606.82
1914	10447.19	1278.20	568.69	1426.87	10030.77
1915	9631.29	1648.30	478.15	1284.70	10730.55
1916	14985.44	2663.56	745.46	1691.12	10809.22
1917	20602.01	3798.79	951.19	2295.85	10861.42
1918	28733.60	5638.48	1153.90	3092.16	10101.34
1919	<u>34375.42</u>	<u>5544.21</u>	<u>1526.07</u>	<u>2901.06</u>	<u>10623.57</u>
	171478.04	29490.67	7947.63	19664.25	86790.52

Investigation has been made of the cost of a Pension System for the employees at the Republic Mine. The sum is going to be large as the men were employed at the mine without much change so that there is a rather large number comparatively, who in a few years will be of pensionable age. I strongly believe that these men should by all means be included in the regular provisions of the Pension System as it will always be true that some one mine will have a larger percentage of Old Age Pensions than some other, but considering the benefits to be derived from pensioning the old employees, I see no reason why the employees of the Republic Mine should not share in the plan, as I am satisfied that the present percentage of the payroll which is credited to the Pension Fund with the interest on the accumulated payrolls is going to be suf-

PENSION SYSTEM: (Continued)

efficient to take care of the system.

Investigation is being continued at the end of the year and a special report will be prepared upon this matter.

THE CLEVELAND-CLIFFS IRON COMPANY

- ANALYSIS OF "PENSION FUND" FOR YEAR 1919 -

CREDITS SET UP DURING YEAR:	MINE	FURNACE	LAND	LUMBER- ING	TOTAL DEPART- MENTS.	INT.ALLOWED AT CLEVELAND OFFICE	PAYMENTS
January, 1919	2836.00	551.62	109.83	274.36	3772.81		777.56
February, "	2653.46	461.79	107.23	277.22	3499.70		807.56
March, "	2936.90	514.77	110.38	235.46	3797.51	1317.45	852.56
April, "	2667.39	492.36	107.36	245.37	3512.48		848.52
May, "	2867.25	499.11	124.12	219.43	3709.91		848.52
June, "	2850.66	494.01	133.36	194.44	3672.47	1401.88	836.52
July, "	2794.07	398.05	138.28	216.89	3547.29		907.79
August, "	2976.80	404.39	151.07	265.24	3797.50		892.79
September, "	2930.78	385.79	134.78	239.47	3690.82	1512.91	958.15
October, "	3187.76	428.73	160.05	242.47	4019.01		907.81
November, "	2762.49	416.41	111.96	234.38	3525.24		982.24
December, "	2910.86	497.18	137.65	256.33	3802.02	1612.74	1003.55
	34375.42	5544.21	1526.07	2901.06	44346.76	5844.98	10623.57

- SUMMARY -

Balance December 31st, 1918. \$ 131649.86

CREDITS SET UP DURING 1919:

Mine Department	34375.42
Furnace "	5544.21
Land "	1526.07
Lumbering "	2901.06
Int. Allowed at Cleveland Office	5844.98
	<u>\$ 181841.60</u>

Less payments made during year 10623.57

Balance \$ 171218.03

Less error in Lbr. Dept. credit for
December, 1917 5.00

Balance, December 31st, 1919 \$ 171213.03

WORKMEN'S COMPENSATION:

As in previous years, Mr. T. H. Bargh as Cashier of Workmen's Compensation has taken care of all compensation work for the Mining Department.

The method pursued in handling this work has been found very satisfactory. As soon as possible after a man has been injured, he is seen in regard to the injury and the compensation to be paid and when he is ready the agreement is presented to him for his signature. In nearly all cases, the first weekly payment is ready at the same time so that the matter of settlements is easily effected. There have been no disagreements during the year requiring a hearing before the Industrial Accident Board.

The following lump sum settlements were made during the year:

Advanced Payment, Mrs. John Ravell, Accident Report #10 Dead River McClure Plant	\$1999.66
Settlement with Mrs. Selma Kangas, Accident Report #16, Meadow Mine	\$2592.52
Settlement with William and Ellen Hooper, Accident Re- port #182, Maas Mine	\$ 500.00
Final payment to Mrs. Josephine Carilli, Accident Report #220, Negaunee Mine	\$1820.48
The case of Tom Bukkala, Accident Report #6, Wade Mine, who commenced law suit proceedings against the com- pany was settled without hearing in Virginia, agree- ment being that the Company would pay him a lump sum payment of \$1,100.00	\$1100.00
Settlement with Tom Duovich, Accident Report #20, Meadow Mine on account of injury sustained to 2nd and 3rd fingers, left hand	\$ 456.00
Advanced payment Mrs. Matt Marjamaa, Accident Report #262 Negaunee Mine	\$1007.27

The annual statement which is attached gives the number of accidents which have occurred during the year at the different mines. It also shows the number for which compensation was paid and the number for which no compensation was paid. The report shows that there were 659 non-fatal accidents of which number, 321 received compensation payments and 338 received no compensation.

For the last five years the reports show the following:

WORKMEN'S COMPENSATION: (Continued)

Of the accidents that occurred in 1915, 36.3% received compensation.
Of the accidents that occurred in 1916, 43.7% received compensation.
Of the accidents that occurred in 1917, 41.7% received compensation.
Of the accidents that occurred in 1918, 37.6% received compensation.
Of the accidents that occurred in 1919, 48.7% received compensation.

The annual statement shows the payments made during the year on account of accidents which had occurred in 1919 and also those which had occurred in the years 1913, 1914, 1915, 1916, 1917 and 1918.

In those cases for which a definite amount is still to be paid at the end of the year, these amounts are set up in the column on the annual statement as "Compensation Still Pending".

Some accidents occur late in the year in which it is impossible to know definitely how long the disability may continue and in these cases an estimate is made based on the reports of the physicians and these amounts are included as "Compensation Still Pending". There are only a few of such cases so that the amount involved is very small and will not effect the comparison or data secured from the statement.

The total amount of compensation to be paid after December 31st, 1919, is \$63722.22, this being the total for all of the mines of the Company. Of the above amount, there is pending for the years 1914, 1915, 1916, 1917 and 1918, \$42303.46 and for the year 1919, \$21418.76.

The compensation for the accidents which occurred in 1919 including the payments made to the physicians during 1919 amounts to .9012 percent of the payrolls for the year.

The percentage of the compensation costs since the law was enacted are given in the following table:

Year		Percentage of Payrolls.
1912	4 months	.00649
1913		.01104
1914		.0160
1915		.01095
1916		.01903
1917		.012689
1918		.012141
1919		.009012

WORKMEN'S COMPENSATION: (Continued)

The rate of payments for medical and hospital service which was adopted in July, 1918, has continued for the year.

This rate is \$1.10 per each employe per month which is paid to the physicians for medical service for each employe and his family. The Company pays 40¢ per man per month for the care of the men who are injured while at work for the Company, this to cover the payments provided for by the Compensation Law.

The total amounts paid to the physicians, therefore, is at the rate of \$1.50 per man per month.

The payments on account of Workmen's Compensation including payments to the physicians are given in the following table for the years 1912 to 1919, inclusive.

Year	Cleveland-Cliffs Iron Company	Negaunee Mine	Athens Mng. Company	Total
1912	1075.91	105.08	.30	1181.29
1913	13149.70	1152.87	27.15	14329.72
1914	27416.82	2842.13	446.03	30702.98
1915	15647.71	1699.28	656.07	18013.06
1916	32404.74	3496.75	672.29	36573.78
1917	45129.92	5301.30	911.46	51342.68
1918	43816.47	6198.93	1115.87	51131.27
1919	59680.51	11724.68	2234.77	73639.96
	238431.78	32518.92	6063.94	276914.74

As arranged for and begun in 1915, the compensation due in fatal cases and in those other cases for which a definite total amount is to be paid is credited to Personal Injury Accounts Payable and the charge is made against the mine at which the accident occurred in the month of occurrence whenever possible. The compensation payments to the men in these cases are made in the regular way, weekly, and charged to this account. The following statements shows the balances due in the different accident cases from the years 1914 to 1919 inclusive.

WORKMEN'S COMPENSATION: (Continued)

Balance due Personal Injury Accounts Payable Dec. 31, 1919.

Year of Accident	Name of Dependents to whom compensation is payable		
1914	Sophie Kostamo	\$ 242.73	
			242.73
1915	Sara Asplund	501.60	
	Elvera Hanttula	492.80	
	Anna Olson	<u>271.46</u>	
			1265.86
1916	Cecelia Brandt	928.79	
	Isabella Graham	1420.00	
	Ellen Kneebone	1075.76	
	Mary Maki	1420.00	
	Louis Dreon, Guardian (Est. of Angelo Mongiat)	1173.76	
	John Kandelin, Guardian (Est. of Gust Myllimaki)	1420.00	
	Bortolo Pesenti	1000.00	
	Nels Rajala	<u>648.87</u>	
			9087.18
1917	Michael Alanen	975.00	
	Annie May Dally	1930.00	
	Hilma Pitila	1810.00	
	Anna Rayburn	<u>1590.00</u>	
			6305.06
1918	Celina Badger	2130.00	
	Maria C. Bergman	2090.00	
	Rose Bertucci	2470.00	
	Martina D. Bianchi	2360.00	
	Matilda Carlson	2160.00	
	Emily Coole	2470.00	

WORKMEN'S COMPENSATION: (Continued)

Year of Accident	Name of Dependents to whom compensation is payable		
1918	Hulda Jamback	2541.00	
	Nestor Kauppinen	1130.00	
	Margaret Paddock	2110.00	
	Mamie Ravell	<u>90.00</u>	
			19551.00
1919	Matt Kakkonen	30.00	
	Josephine Karkkainen	2760.00	
	Battista & Maria Margherita Mascheretti	760.50	
	George Pepin	28.00	
	Riita Riikonen	2780.00	
	Anna Salminen	<u>4032.00</u>	
			<u>10390.50</u>
	Total --- The C. C. I. Co.		46842.27
1916	Lilly J. Johnson - Reichel	1282.26	
			1282.26
1917	John Chirio	68.46	
	Amanda Lisku	1850.00	1918.46
1918	Mary E. Medlin	2470.00	2470.00
1919	Wilhelmina Marjamaa	1320.00	
			<u>1320.00</u>
	Total --- Negaunee Mine		6990.72
1914	Kati Larson		179.97
1919	Sanna L. Luoma		<u>4046.00</u>
	Total --- Athens Mng. Co.		<u>4225.97</u>
	TOTAL ALL MINES		\$ 58058.96

The following is a list of more serious cases occurring during the year for which payments of \$100.00 or more were made:

WORKMEN'S COMPENSATION: (Continued)

	Acc. Rept. Number.	Nature of Injury	Compensation Paid
<u>Dead River McClure Plant:</u>			
Eino Larson	12	Infection of 1st finger left hand	\$ 150.00
<u>Carp River Water Power:</u>			
Clinton S. Heald	2	Right hand, deep burn of hypothenor, eminence and less severe of inside of palm and front and back of fingers. Moderate burns left hand. Slight blisters both feet. Moderate degree of shock.	250.00*
<u>Athens:</u>			
George Jutila	45	Infection of 2d finger, right hand	160.00
James Tregoning	52	Lacerated tip, 3d finger, left "	107.33
<u>Barnes-Hecker:</u>			
Gust Blomgren	19	Crushing wound of left foot	133.33
Napoleon Lequia	24	Contusion & strain of back	114.33
<u>Meadow:</u>			
Tom Duovich	20	Severe injury to 2nd & 3d fingers, left hand.	456.00
<u>Wade:</u>			
Tom Bukkala	6	Ulceration of left eye 4/5	1100.00
Matt Johnson	24	Amputation of distal phalanx right index finger	262.50
<u>Cliffs-Shaft:</u>			
Leonard Codut	483	Infection of right hand	170.00
George Straus	488	Compound fracture index finger right hand	175.00
William Karvonen	496	Infection 4th finger right hand	163.33
Matt Kukkonen	499	Compound comminuted frac. right great toe with lacerated destruction soft tissues - toe amputated	300.00
Matt L. Maki	507	Lacerated wound left hand	101 .67
Victor Carlson	523	Contusion left shoulder	120.00
George Tampari	525	Wound of cornea of left eye	298.66
Martin Tarokehuca	532	Lacerated & contused wound left thumb	280.00

WORKMEN'S COMPENSATION: (Continued)

	Acc.Rept. Number	Nature of Injury	Compensation Paid
<u>Francis:</u>			
Jacob Maki	75	Lacerated wounds of head	212.33
<u>Gwinn:</u>			
Dominick Inglese	207	Fracture left leg	126.67
William F. Martin	215	" " "	195.00
<u>Holmes:</u>			
Henry Hanson	112	Compound fracture of right leg	548.00
John Halso	116	Laceration of right knee	105.00
Joe Ferrolì	122	Lacerated index finger, left hand	101.67
<u>Lake:</u>			
Matt Eddy	386	Compound fracture right leg	252.00 *
<u>Maas:</u>			
John Iskola	191	Fractured left leg	375.00
Fred Grasso	206	Bruised & lacerated 1st & 2d fingers left hand	137.67
Peter Riota	209	Scalp wound	102.66
<u>Gardner:</u>			
Geo. Pepin	21	Loss of 4th finger, left hand	210.00
<u>Morris-Lloyd:</u>			
Otto Laiho	341	Infection and contusion of index fin- ger, right hand	116.67
Karl Kallio	348	Fracture 1st finger, right hand	116.67
<u>Negaunee:</u>			
Sylvester Arbelius	267	Sprained right ankle	330.05
William Arbelius	272	Entombed 63½ hrs. In nervous condi- tion.	755.24
Cyrus E. Willis	285	Fractured left fibula	189.00
Peter Tenetti	286	Bruised index ginger, right hand	105.00
Isaac Hillman	288	Fractured 4th & 5th ribs, left side	109.67

WORKMEN'S COMPENSATION: (Continued)

	Acc.Rept. Number	Nature of Injury	Compensation Paid
<u>Princeton:</u>			
Battista Pessotti	77	Loss $\frac{1}{2}$ portion thumb, left hand	300.00
Carl A. Beckman	106	Lacerated wound thumb, right "	102.00
<u>Republic:</u>			
Arthur Bice	426	Fracture left leg	230.00
Fred Upperstrom	461	Contusion of back & right hip, thigh and ankle.	140.00
Carl Bjork	462	Fracture of left femur about 6" above knee	140.00
<u>Salisbury:</u>			
William C. Scarffe	137	Dislocation, 4th metacarpal bone, left hand	105.00
Ole Stolen	143	Contusion legs - Scalp wound	142.23

* Indicates payments still continuing at end of year.

The following list shows the fatalities which occurred during the year, the family or dependents in each case and the rate of compensation.

Matt Marjamaa	Negaunee Mine, Accident Report #262. Occurred January 23d, 1919. Married. Compensation for 300 weeks at \$10.00 per week.
John W. Fagerberg	Gwinn Mine, Accident Report #199. Occurred January 22d, 1919. Single - No one dependent upon him for support. Funeral bill paid amount- ing to \$240.40.
Tom Mazar	Maas Mine, Accident Report #193. Occurred March 11th, 1919. Single - No one dependent upon him for support. Funeral bill paid amount- ing to \$200.00.
Andrew Barlund	Athens Mine, Accident Report #41. Occurred May 1st, 1919. Single - No dependents. Funer- al bill paid amount to \$200.00.
Jim Mascheretti	Gwinn Mine, Accident Report #210. Occurred May 6th, 1919. Single - Partial dependents. Brother 14 yrs. and sister 20 yrs. Compensation for 300 wks. at \$3.00 per week.
Henry Karkkainen	Cliffs-Shaft Mine, Accident Report #505. Occurred July 10th, 1919. Married; three chil- dren. Compensation for 300 wks. at \$10.00 per week.

WORKMEN'S COMPENSATION: (Continued)

John Riikonen

Cliffs-Shaft Mine, Accident Report #509, Occurred July 23d, 1919. Married; one child. Compensation for 300 wks. at \$10.00 per wk.

August Smude

Wade Mine, Accident Report #20. Occurred September 4th, 1919. Single - no dependents. Funeral bill paid amounting to \$195.00 and in accordance with the Minnesota Law payment of \$100.00 has been made to the State Treasurer.

Einar Salminen

Barnes-Hecker Mine, Accident Report #23. Occurred September 29th, 1919. Married; one adopted child. Compensation for 300 weeks at \$14.00 per week.

John Luoma

Athens Mine, Accident Report #60. Occurred October 9th, 1919. Married - four children. This case is still pending on account of Mrs. Luoma's refusal to sign agreement. Compensation for 300 weeks at \$14.00 per week.

James Morlini

Francis Mine, Accident Report #76. Occurred October 29th, 1919. Single. Partial dependents. Compensation for 300 weeks at \$1.20 per week.

In 1918 there were 13 fatal accidents of whom 11 were married and two were single. The compensation and funeral expenses in the 13 cases amounted to \$34000.00.

In 1919 there were 11 fatal accidents of whom 5 were married and 6 single, the compensation and funeral expenses in those cases amounting to \$19595.00. In all accidents which occurred in 1919, settlements have been effected with the exception of one, this one being the case of a widow who lives out in the country on a farm. She has been seen a few times, and undoubtedly will sign the agreement the next time she is in town.

In the following cases of fatalities, payments ceased during the year 1919:

Name	Year	Acc. Rept. No.	Place of Accident.
Charles N. Sackrider	1913	1	Electric Power System
J. J. McCarthy	1913	42	Maas Mine
Mike Stefanalli	1914	61	Maas Mine
Peter Allen	1914	62	Maas Mine
Isaac Keskimaki	1916	27	Holmes Mine
Andrew Kangas	1918	16	Meadow Mine
Jos. Mallett	1913	62	Negaunee Mine
Frank Carilli	1917	220	Negaunee Mine

WORKMEN'S COMPENSATION: (Continued)

The compensation law as enacted provides for a weekly payment for 300 weeks in the case of a fatality. The law went into effect on September 1st, 1912 and the earlier cases of fatality are now being closed up, the first one of the regular weekly payments in these cases ending in April of this year.

The Compensation Law was amended during the year and the changes went into effect on August 14th, 1919. The following list shows the changes from the old law to the new:

	Old Law	New Law
Maximum Weekly Benefit	\$10.00	\$14.00
Minimum Weekly Benefit	4.00	7.00
Waiting Period	2 weeks	1 week
Free Medical Service	21 days	90 days
Retroactive After	8 weeks	6 weeks
Maximum for Death	\$3,000.	\$4,200.
Minimum for Death	\$1,200.	\$2,100.
Maximum Payment for Permanent Disability	\$4,000.	\$6,000.
Minimum Payment for Permanent Disability	\$2,000.	\$3,500.
Percentage of Weekly Wage paid	50%	60%

When the amendments to the law were being considered by the State Legislature, we made some investigation of the probable increase of cost at the different rates of compensation and the different waiting periods. On the basis of compensation payments at the rate of 60% of their wages and a waiting period of one week, the estimate made at that time was as follows:

Percentage of increase in compensation to employees	- 42.91%
Percentage of increase in cost to the Company	30.55%

The percentage of increase in cost to the Company is less than the percentage of increase in payments to the men on account of the payments to the physicians remaining at the same rate.

Computations have been made covering the accidents which have occurred at all of the mines since August 14th and the actual figures are as

WORKMEN'S COMPENSATION: (Continued)

follows:

Percentage of increase in compensation to employees - 46.7%
Percentage of increase in cost to the Company - 29.2%

The changes in the law require a great deal additional work in handling the details of the accident records and compensation payments.

Record has been kept of reports to be furnished to the Industrial Accident Board at Lansing and the changes in the law as above stated have increased the number of papers to be written and reports made, 51.8%. The lessening of the waiting period from two weeks to one week brings in a large number of accidents for which the payment of a few days is made which had no payments, under the provisions of the old law.

The change in the law is, of course, very satisfactory to the men and in view of the laws in the other states, it is undoubtedly a fair one. There is one thing about the law which I believe should be made more liberal. In those cases of fatality in which there are no dependents, the law provides for the payment of medical and hospital service and the payment of the funeral bills not to exceed \$200.00. In those cases in which there is a family or dependents left, the medical and hospital service is to be paid, but not the funeral expenses.

In my opinion, the funeral expenses up to \$150.00 or \$200.00 should be paid for in all cases.

It frequently happens that the funeral expenses are a burden to the family who otherwise would be able to get along with the weekly compensation, but if they have no funds on hand at the time of the accident, the payment of the funeral expense is a continual burden to them and in some cases it has been necessary to allow a lump sum payment to cover this. At the present time 34 states and territories pay the funeral expenses in all cases and I think our law ought to be so amended as the item is not large in comparison with the total compensation paid.

The following table shows the average payments for funeral expen-

WORKMEN'S COMPENSATION: (Continued)

ses as provided for in the laws of the different states and territories:

Provisions of laws if no dependent.	No. of States.	Average Max- imum Amount.
Last sickness and burial	2	\$150.00
Burial	8	146.87
Burial	<u>1</u>	Reasonable amount.
Total	11	
In all Cases.		
Last sickness and burial	6	108.33
Burial	27	100.00
Burial	<u>1</u>	No limit fixed.
Total	34	

There have been some changes made in the personnel of the Industrial Accident Board during the year. Mr. Wm. M. Smith, who was Chairman of the Board, was appointed to a State Office by Governor Sleeper and Grant M. Hudson, formerly Superintendent of the Michigan Anti Saloon League, was appointed in his place. In December, Mr. Hudson resigned to take charge of the work of the Baptist churches in the State of Michigan and up to January 1st, his successor had not been appointed. The other members of the board are Mr. James A. Kennedy and Mr. Thomas B. Gloster.

During the year there has been an important change made in the Minnesota Law. The law formerly provided for a maximum total of \$5000.00 in cases of total disability. The law has now been amended by omitting the following paragraph: "The total amount of compensation payable under this section shall not exceed five thousand (\$5000.00) dollars in any case". This amendment became effective on and after September 23, 1919. This change in the law would make possible a payment of \$8250.00 instead of a maximum of \$5000.00. This is based on the payment of \$15.00 per week for a period of 550 weeks and is for cases of permanent total disability. Since the en-

WORKMEN'S COMPENSATION: (Continued)

actment of the Compensation Law, we have had no case of this kind in Minnesota and but one in Michigan.

THE CLEVELAND-CLIFFS IRON COMPANY
STATEMENT OF COMPENSATION AND BENEFIT PAYMENTS FROM
FEBRUARY 1ST, 1919 TO DECEMBER 31ST, 1919.

Compensation paid on 1919 accidents	20183.05	
Compensation still pending	63722.22	
Cost of medical and hospital services	<u>20403.07</u>	104308.34
Less pending for years 1914,1915,1916,1917 and 1918		<u>42303.46</u>
		62005.88
Percentage of pay-roll		.009018933

Note:-

- Denotes reports of slight accidents which caused one day's time lost.
- + Denotes accidents on which compensation payments were made.
- Denotes accidents on which no compensation payments were made.

No. of Employees - Miscellaneous, 34. This figure includes men employed at Section "3" Exploration, Section "4" Exploration, Jackson Exploration and Section "5" Exploration.

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THE CLEVELAND-CLIFFS IRON COMPANY
STATEMENT OF COMPENSATION AND BENEFIT PAYMENTS FROM JANUARY 1ST, 1919 TO DECEMBER 31ST, 1919.

	No. of Employees	No. of Fatal Accidents	No. of Non-Fatal Accidents			ACTUAL COM-PENSATION PAID IN 1919	1913	1914	1915	1916	1917	1918	1919	Com-pensation Still Pending	Actual Payments To Phy-sicians	Fatal Cases Pending	Injury Cases Pending	Benefit Payments
Personal Injury Accounts Payable						18031.09												
Maas	306	1	22	25	8	2203.47	264.95	1660.76	1523.60	3342.12	1820.00	7964.66	1455.00	44301.27				
Maas Crusher Plant														1551.80		5	354.18	
Austin	13		1	2		21.00							21.00	18.66		1		
Gwim	140	2	20	10		880.91						15.00	865.91	18.66		2	667.91	
Stephenson	57		3	5	3	369.34						268.34	101.00	23.33		1	147.66	
Princeton	210		20	26	4	1155.30						490.00	665.30	184.33		6	562.32	
Gardner-Mackinaw	118		12	5	4	232.32						195.00	37.32				50.01	
Gwim District Crusher														14.80				
" " Laboratory					1									37.00				
" " Office Expense														23.40				
Francis	92	1	9	4	3	444.83							444.83	360.00		1	611.83	
Morris-Lloyd	264		39	22	34	1318.54				520.00	75.00		723.34	289.32		4	98.84	
" " Laboratory														14.40				
Barnes-Hecker	56	1	5	4	2	264.33							264.33				579.17	
Imperial														2.00				
Jackson	13		3	1		4.66							4.66					
Dead River-McClure Plant	36		1	1	2	171.67						21.67	150.00					
Carp River Water Power	25		1	1		250.00							250.00	270.00		1		
Miscellaneous	34																	
General Storehouse	43		1	3	1	36.33							36.33				18.00	
Lake	241		38	23	19	1021.02						191.67	829.35	1001.00		3	557.63	
Cliffs-Shaft	378	2	68	51	20	3261.08			349.44			560.00	2351.64	570.66		7	1216.86	
" " Laboratory														33.60				
Salisbury	127		6	11	4	554.35						11.67	542.68	35.00		1	1195.33	
Holmes	206		11	10	37	2209.39			615.04			705.01	889.34	408.33		2	148.32	
Re-Opening Angeline	6													33.00				
Operating "	64		2	3		99.00							99.00			1	16.67	
Republic	239		39	26	5	1735.31				518.96	115.36		1100.99	834.66		6		
Spies	44		1	2		81.67							81.67					
Central Office	201													371.60				
Pension Department	5													23.40				
Purchasing Department	9													49.60				
Section "3" Exploration														69.80				
" " " " "4" "														11.40				
Jackson Exploration														30.60				
Section "5" Exploration														13.20				
Personal Injury Accounts Payable						6526.13	200.26			469.56	3719.04	650.00	1487.27	6990.72				
Negaunee	357	1	13	21	26	3322.69				520.00	1191.68	1611.01	534.27	1875.86		2		
Personal Injury Accounts Payable						599.64		445.64					154.00	4225.97				
Opening Athens						60.00							60.00					
Operating "	156	2	10	19		791.66							791.66	128.33		3		
Total-- Michigan Mines	3440	10	325	275	172	45645.53	465.21	2106.40	1873.04	4426.72	7098.00	13215.54	16424.29	60391.50	17716.47	1	45	6224.73
Crosby Crude Ore	109		6	16	50	426.18							426.18	310.00		3		
" Concentrating Plant	21													93.35				
Meadow - (P. I. A. P.)						3296.52						3296.52		2541.00				
Meadow	80		4	2		488.00						18.00	470.00	105.72		3		
Helmer	37		1	1		12.00							12.00					
Opening Wade		1	2	26		2287.41						554.41	1733.00	234.00		1		
Operating Wade	206				1	1081.25							1081.25	45.00		3		
Great Northern Ore Properties														3.20				
Bourne Mine Operations	27				2									153.80				
Hill-Trumbull Stripping	9				1								95.00			1		
" " Washing Plant	9													12.60				
Total--Minnesota Mines	498	1	13	46	53	7591.36						3868.93	3296.25	3330.72	2686.60		11	
Total-- ALL MINES	3938	11	338	321	225	53236.89	465.21	2106.40	1873.04	4426.72	7098.00	17084.47	20183.05	63722.22	20403.07	1	56	6224.73

BENEFIT FUNDS:

These funds have continued to be paid out in cases of injury sustained by the men while in the employ of the company and who had worked for the company previous to August 1st, 1912 and had during that time contributed to the Benefit Funds. No collections from the men on account of Benefit Funds were made after July 31st, 1912.

The funds of the different mines were consolidated several years ago into one account and will last for five or six years, as the interest allowed is quite a proportion of the amount paid each year. The rate of payments from this fund is \$20.00 per month for single men and \$25.00 per month for married men, no payment being made for the first 5 days of disability.

In the case of a fatality of a man who has contributed to these funds, \$500.00 is paid to the widow or to the dependents and for the loss of a member or for an eye, one-third of this amount is paid.

On the following sheet is found a statement of the disbursements from this fund from September 1st, 1912 to December 31st, 1919. There is also shown a credit to the fund by interest allowed for 1919 of \$1376.11. These sheets show a disbursement during the year 1919 of \$6224.73.

During the year 1919, Benefit payments were made to the following number of men:

	Non Fatal	Fatal
Angeline	1	
Barnes-Hecker	2	1
Cliffs-Shaft	25	1
Francis	4	1
Gwim	6	1
General Storehouse	2	
Holmes	6	
Lake	36	
Maas	7	
Gardner	1	
Mackinaw	1	
Morris-Lloyd	8	
Princeton	23	
Salisbury	6	
Stephenson	3	
	<hr/> 131	4

135

Of the 659 men injured during the year 1919,

321 Received Compensation Payments

135 Received Benefit Payments

CONDENSED STATEMENT OF
BENEFIT FUNDS
ALL COMPANIES

CREDITS TO FUND

January 1st, 1912 Balance		65194.87
1912 Contributed by men		6182.50
1913 No Credits		
1914 Interest C. C. I. Co.	3511.43	
" C. I. M. Co.	1096.89	
" I. C. Co.	832.01	
" Negaunee	301.83	
" Athens	<u>1.11</u>	5743.27
1915 Interest C. C. I. Co.	2083.85	
" Negaunee	<u>55.25</u>	2139.10
1916 Interest C. C. I. Co.	1949.27	
" Negaunee	<u>32.85</u>	1982.12
1917 Interest C. C. I. Co.	1704.18	
" Negaunee	<u>6.37</u>	1710.55
1918 Interest C. C. I. Co.	1553.08	1553.08
1919 Interest C. C. I. Co.	1376.11	<u>1376.11</u>
Total Credits		85881.60

DISBURSEMENTS - ALL COMPANIES

January to August	1912	2562.66
September to December	1912	4713.97
Year	1913	6987.32
"	1914	11081.75
"	1915	6445.56
"	1916	8855.94
"	1917	5081.14
"	1918	5854.69
"	1919	<u>6224.73</u>
Total Debits		<u>57807.76</u>
Balance in Fund, December 31st, 1919		<u>\$28073.84</u>

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BENEFIT FUND DISBURSEMENTS FROM SEPTEMBER 1ST, 1912 TO DECEMBER 31ST, 1919.

ALL COMPANIES

	1912	1913	1914	1915	1916	1917	1918	1919	TOTAL
Ashland (a)	2952 71								2952 71
Carp River Water Power					79 16				79 16
Austin	14 05	345 90	145 83	1 67	20 83	134 83	11 67		674 78
Cliffs-Shaft	575 52	739 30	1074 55	1210 33	1128 14	640 99	1315 19	1216 86	7900 88
Morris-Lloyd	98 59	920 41	996 18	1142 51	752 00	197 81	55 83	98 84	4262 17
Hard Ore	77 50	267 67	205 83						551 00
Lake	565 00	1401 83	940 35	1712 01	1035 17	908 16	1571 02	557 63	8691 17
Jackson	9 52	194 67	24 67			69 17	29 33		327 36
Salisbury	65 84	292 50	1308 82	1 67	165 48	170 17	145 33	1195 33	3345 14
Maas	4 17	685 03	1272 16	90 01	908 00	373 00	390 65	354 18	4077 20
Stephenson	185 57	1010 66	739 66	1499 16	1653 51	849 18	102 50	147 66	6187 90
Princeton		99 83	23 33	67 51	6 67	7 33	1022 34	562 32	1789 33
Gwinn			397 18	154 68	356 50	277 47	165 33	667 91	2019 07
Chase			31 00	15 00					46 00
General	52 67	52 54							105 21
Gardner-Mackinaw		18 50	329 18			13 67		50 01	421 36
Francis				26 00	114 50	252 33	48 67	611 83	1053 33
Dead River Water Power					88 34				88 34
Holmes					1696 14	647 50	930 00	148 32	3421 96
Angeline					10 00		10 00	16 67	36 67
Spies					40 49		6 84		47 33
Golf Club Exploration						4 67			4 67
Central Office					61 01	111 67	26 66		199 34
Barnes-Hecker							23 33	579 17	602 50
General Storehouse								18 00	18 00
Negaunee Mine	112 83	958 48	1846 66	525 01	740 00	(d)423 19			4606 17
Athens Mining Company			(b) 23 61						23 61
Crosby			(c)1712 74						1712 74
	4713 97	6987 32	11081 75	6445 56	8855 94	5081 14	5854 69	6224 73	55245 10

On January 1st, 1914 the Benefit Fund to the credit of the different mines of the Cleveland-Cliffs Iron Company were transferred to one General Fund in one account. On May 1st, the Funds to the credit of the mines of the Iron Cliffs Company and the Cleveland Iron Mining Company were also transferred to the above account. The Jackson Iron Company's Benefit Fund was transferred to above account January 31st, 1914.

(a) Paid on account of injury cases 30.93
 Turned over to Hayes Brothers 2921.78
 Total as above 2952.71

(b) \$500.00 paid to widow of Oscar Larson, killed at the Athens Mine on August 14th, 1914.
 Payment made on the following basis:

From Benefit Fund 23.61
 Charged to Opening and Equipping Athens Mine 476.39
 Total 500.00

Above payment of \$23.61 exhausted the Athens Benefit Fund August 31st, 1914.

(c) Used in paying compensation in the case of Christ Matunovich.

(d) Above payment of \$423.19 wiped out the Negaunee Mine Benefit Fund. In order to pay men on the Benefit Fund Pay-roll when the Fund was exhausted in July 1917 additional payments of \$95.15 were made which were charged to Gratuities.

*1912 column covers payment made from September 1st to December 31st.

SUSPENSE FUNDS:

In the 1918 annual report there was a complete statement of the payments made from the Suspense Funds from September 1st, 1912 at which time the Compensation Law went into effect. These funds are all exhausted and reference is made here from year to year so that it can always be determined where to look for the final report of the Suspense Funds.

VISITING NURSES:

Without question, the work performed by the nurses is one of the best things undertaken by the Company for the benefit of the employees and their families. The following nurses have been employed during the year:

Ishpeming:

Miss Ruth Hassler	Jan. to Apr.
Mrs. C. F. Stanford	May and June.
Miss Edith Peterson	Jul. to Oct.
Miss E. R. McLeod	Nov. and Dec.

Negaunee:

Miss Ina E. Atkin

Gwinn:

Miss Johanna L. Hirwas

Iron River:

Miss L. N. Fiske	During the time that mine was in operation.
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Miss Hassler, who has been employed by us since January, 1914, was married to Mr. C. F. Stanford, our Chief Electrician, in May, 1919. She continued her work for us up to and including June. From July to October inclusive, Miss Edith Peterson, one of the hospital force, looked after our visiting work. On November 1st, Miss E. R. McLeod, who was formerly our nurse at Gwinn, returned from Red Cross service in Germany and began her work with us at Ishpeming, Miss Hirwas who was filling her place at Gwinn being very satisfactory and willing to remain there. All of these nurses are especially qualified for this work.

The following statement shows the salary and expenses of the Visiting Nurses for the year 1919:

Place	Total for Year	Average per Mo.
Ishpeming	\$1535.50	\$127.96
Negaunee	2164.20	180.35
Gwinn	1258.30	104.86
Iron River - Our Prop.	83.43	13.90

Iron River - Jan. to June inclusive. Spies Mine closed,
June 30th, 1919.

VISITING NURSES: (Continued)

Some consideration has been given during the year to the employment of a nurse for the Minnesota Mines. The value to the men and their families would be just as great in Minnesota as it has proved to be in Michigan, but the mines are so scattered that I do not consider it practicable at this time. Further consideration will be given to this matter and recommendation made, if at any time it is considered feasible to adopt the plan at these properties.

The following detail sheets show the number of patients cared for during the year, number of new cases, total visits to patients, number of families visited for the first time. They also include the number of adults and children of each sex, the nationalities, and the different diseases or ailments cared for.

VISITING NURSE - ISHPEMING

1919

Miss Hassler - Jan. to June
Miss Peterson - June to Nov.
Miss McLeod - Nov. to Dec.

Total number of patients cared for during year	363
Number of new cases cared for during year	318
Total number of visits to patients	1677
Number of families visited for the first time	168
Number of social calls	33
Number died	14

Classification of new cases for the year:

Number of Adults	187	Male	19	Female	168
Number of Children	131	Male	72	Female	59

Nationalities of new cases for the year:

American	64	Irish	11
English	46	Italian	39
Finnish	84	Norwegian	7
French	37	Polish	1
German	3	Swedish	26

Diseases of new cases:

Appendicitis	4	Infants newborn	41	Post Operative	9
Bowel Trouble	17	Infections	9	Pul. Tuberculosis	6
Bronchitis	8	Influenza	26	Ptomaine Poison	1
Burns	9	Injury	3	Rheumatism	8
Cancer	1	Kidney Trouble	2	Salpingitis	2
Carcinoma	2	La Grippe	2	Scarlet Fever	1
Cold	15	Mal-Nutrition	2	Senility	2
Ear Trouble	2	Measles	2	Sore Eyes	1
Empyema	2	Nephritis	1	Sprains	2
Enteritis	1	Obstetrical	52	Stomach Trouble	2
Fibroid Phthisis	2	Paralysis	4	Tonsillitis	2
Gall Stones	1	Pelvic Trouble	1	Typhoid Fever	1
Gastritis	1	Peritonitis	1	Unclassified	11
Gen. Debility	4	Pleurisy	2	Undiagnosed	11
Heart Trouble	13	Pneumonia	27	Var. Ulcer	1
PENSION DEPT.		Whooping Cough	1		

VISITING NURSE - NEGAUNEE

Miss Ina E. Atkin,
Nurse.

1919

Total number of patients cared for during year	818
Number of new cases cared for during year	626
Total number of visits to patients	3634
Number of families visited for the first time	72
Number of pension calls	49
Number of social calls	946
Number died	12

Classification of new cases for the year:

Number of adults	262	Male	38	Female	224
Number of children	364	Male	189	Female	175

Nationalities of new cases for the year:

American	180	French	44
Austrian	4	Irish	3
Danish	5	Italian	73
English	54	Swedish	93
Finnish	170		

Diseases of new cases:

Abscess	2	Impetigo	3	Post Operative	1
Aenemia	1	Infants newborn	59	Pregnancy	48
Appendicitis	4	Infections	6	Pre-Natal	7
Bowel Trouble	16	Influenza	232	Pul. Tuberculosis	4
Bronchitis	14	Injury	8	Rheumatism	7
Burns	1	Insanity	3	Scabies	1
Cold	26	Kidney Trouble	1	Scarlet Fever	12
Eczema	7	Mal-Nutrition	3	Sclerosis of Liver	1
Empyema	1	Measles	36	Stomach Trouble	3
Gall Stones	2	Obstetrical	69	Tonsilitis	14
Gen. Debility	2	Otitis Media	3	Unclassified	7
Heart Trouble	2	Pleurisy	1	Undiagnosed	3
Hysteria	1	Pneumonia	15		

VISITING NURSE - GWINN

1919

Miss Johanna L. Hirwas,
Nurse.

Total number of patients cared for during year	854
Number of new cases cared for during year	665
Total number of visits to patients	2355
Number of families visited for the first time	128
Number of pension calls	13
Number of social calls	331
Number died	14

Classification of new cases for the year:

Number of adults	180	Male	25	Female	155
Number of children	485	Male	261	Female	224

Nationalities of new cases for the year:

American	21	German	2
Austrian	19	Irish	5
English	68	Italian	144
Finnish	216	Norwegian	2
French	83	Swedish	105

Diseases of new cases:

Appendicitis	6	Infants newborn	69	Obstetrical	75
Bowel Trouble	81	Infections	11	Pleurisy	2
Bronchitis	8	Influenza	28	Pneumonia	19
Burns	6	Injury	18	Pul. Tuberculosis	9
Carcinoma	1	Jaundice	8	Quincy	5
Cold	57	Kidney Trouble	4	Rheumatism	8
Colic	4	Mal-Nutrition	5	Rupture	9
Eczema	28	Measles	122	Scarlet Fever	9
Encephalitis	2	Miscarriage	1	Sore Eyes	7
Gas Poisoning	3	Neuralgia	1	Stomach Trouble	3
Gen. Debility	1	Nephritis	1	Tonsillitis	14
Heart Trouble	3	Neurasthenia	1	Undiagnosed	36

VISITING NURSE - IRON RIVER

1919

Miss L. N. Fisk,
Nurse.

Total number of patients cared for during year	7
Total number of new cases cared for during year	7
Total number of visits to patients	52

Classification of new cases for the year:

Number of adults	3	Male		Female	3
Number of children	4	Male	1	Female	3

Nationalities of new cases for the year:

American	
Austrian	2
English	2
Polish	2
Swedish	1

Diseases and number of new cases:

Infants newborn	3
Obstetrical	3
Undiagnosed	1

Damascus
Bond

NUMBER OF PATIENTS ATTENDED AND CALLS MADE BY VISITING NURSES:

	No. of Cases	No. of Cases	Male Adults	Female Adults	Male Children	Female Children
Ishpeming	363	318	19	168	72	59
Negaunee	818	626	38	224	189	175
Gwinn	854	665	25	155	261	224
Iron River	7	7		3	1	3
TOTAL -	2042	1616	82	550	523	461

	Total No. Visits	Total No. Patients Died	Social Calls	Families Vis. 1st Time	Pension Calls
Ishpeming	1677	14	33	168	0
Negaunee	3634	12	946	72	49
Gwinn	2355	14	331	128	13
Iron River	52	0	0	0	0
TOTAL -	7718	40	1310	368	62

NATIONALITY OF CASES

	American	Austrian	Danish	English	Finnish	French
Ishpeming	64	0	0	46	84	37
Negaunee	180	4	5	54	170	44
Gwinn	21	19	0	68	216	83
Iron River	0	2	0	2	0	0
TOTAL -	265	25	5	170	470	164

	German	Irish	Italian	Polish	Norwegian	Swedish
Ishpeming	3	11	39	1	7	26
Negaunee	0	3	73	0	0	93
Gwinn	2	5	144	0	2	105
Iron River	0	0	0	2	0	1
TOTAL -	5	19	256	3	9	225

REST COTTAGE:

The Rest Cottage was opened for guests from July 14th to September 15th, a total of 64 days. The results were very satisfactory as in previous years. Mrs. Goldsworthy again acted as cook and house-keeper in a very acceptable manner. The sanitary conditions were good and Deer Lake caused no inconvenience of any kind during the summer. The work can undoubtedly be continued during the season of 1920 with little change. Some minor repairs are necessary every Spring, but no large items of repairs will be necessary for the coming season.

The following table gives the number of guests and the cost of maintenance of the Rest Cottage work for the last 12 years:

Year	Place	Number of Guests	Cost of Operation
1908	The Maples	21	\$ 89.93
1909	Deer Lake	29	305.82
1910	"	24	403.45
1911	"	45	482.89
1912	"	57	270.23
1913	"	82	358.45
1914	"	107	625.56
1915	"	137	572.40
1916	"	82	543.00
1917	"	111	745.11
1918	"	51	720.20
1919	"	<u>84</u>	<u>797.69</u>
	Total	830	\$5914.73

Details of Operation for the year 1919.

Number of meals furnished	2342
Total days	536
Number of people at Rest Cottage	84
Average number of days per person	6.4
Number of days Cottage was open for guests	64
Average number of people at Cottage per day	8.4
Total cost of operation reduced to cost per person per day	\$1.482

GWINN ASSOCIATION:

Mr. Adler, who had had charge of the Club for a few years, left in December, 1918. Local men looked after the work of the club until we were able to secure the services of Mr. E. L. Miller in August. Mr. Miller had been in charge of war camp activities during the entire war period following which he had returned to his former employment as a Cost Clerk for the Fairbanks Morse Company. He has carried on the work with very good success. He has had the assistance since August of Mr. A. S. Quinnell, who was a Lieutenant in the Army during the war. Mr. Quinnell is employed by the schools in their physical educational work during each forenoon. The School Board and the Association pay his salary in proportion to the services rendered.

There is urgent need for an increase in the size of the moving picture room to accommodate the people who desire to attend. They are forced to sit so near the screen that the eye strain is bad and the present room does not begin to accommodate the number of people who wish to attend. There has also been some talk of an outside party building a moving picture house there.

I most strongly recommend that the building be added on to so that we can meet the need. Unless we do this, I am afraid that some time a new house will be put up in the town which will very greatly interfere with our Club work.

The annual statement following, shows the receipts and expenditures for the year.

GWINN CLUB HOUSE

GWINN, MICHIGAN.

Balance on hand January 1st, 1919.	\$	135.71
Receipts during the year		9749.57
Total	\$	9885.28
Total Expenditures		9684.45
Balance on hand December 31st, 1919.	\$	200.83

RECEIPTS

Membership fees - Men	\$	1,352.75
Theatre		4,716.61
Coupon Books		215.00
Bowling Alley		299.13
Pool and Billiards		377.65
Lockers		12.75
Buffet		2,037.91
Towels and soap		72.61
Camp		18.30
Discount		24.01
Miscellaneous		860.70
Total	\$	9,987.42
Less coupons returned		237.85
Net Receipts	\$	9,749.57

EXPENDITURES

Building, Maintenance	\$	763.82
Equipment		415.51
Education		102.20
Lighting		455.99
Heating		603.09
Water		103.98
Bowling Alleys		256.96
Pool Room		161.66
Buffet		1,456.34
Stationery and Printing		2.75
Entertainments		621.35
Towels and Soap		26.14
Laundry		33.81
Office Expense		117.20
Camp		154.95
Salaries		573.50
Theatre		3,304.81
Library		12.45
Reading Room		201.63
Gymnasium		85.31
Miscellaneous		143.39
Boy Scouts		23.75
Bulletins		63.86
Total	\$	9,684.45

GWINN ASSOCIATION: (Continued)

Attention is called to certain features from which a revenue was received during the year.

	Receipts	Expenditures	Profit
Pool & Billiards	\$ 377.65	\$ 161.66	\$ 215.99
Lockers	12.75	0.00	12.75
Buffet	2037.91	1456.34	581.57
Towels & Soap	72.61	26.14	46.47
Moving Pictures	4716.61	3304.81	1411.80
Bowling Alley	<u>299.13</u>	<u>256.96</u>	<u>42.17</u>
	\$7516.66	\$5205.91	\$2310.75

NORTH LAKE CLUB HOUSE:

The club house has been in active operation through the year and is filling a very useful place in the community.

It has been found difficult to find a man of the right capabilities for North Lake and we thought we were successful in getting a man by the name of E. W. Gumert, who had been in war camp service at Camp Custer, but his services were not satisfactory after a time. One of our local men, a returned soldier, has been looking after the work since Mr. Gumert left and the club activities have been handled in a very successful manner, Mr. Bush giving his assistance in the direction of it. The moving pictures have continued very popular and much use is made of the building by the people living there in the way of parties and dances in addition to regular use of the game rooms and reading rooms and baths. The barber shop has been very useful. The work has been very successful in every way.

The following sheet shows the receipts and expenditures for the year.

NORTH LAKE CLUB HOUSE

ISHPEMING, MICHIGAN.

Balance on hand January 1st, 1919	\$	167.30
Receipts during the year		<u>3853.86</u>
Total	\$	4021.16
Total Expenditures		<u>3735.88</u>
Balance on hand December 31st, 1919.	\$	285.28

RECEIPTS

Membership Fees - Men	\$	768.49
Theatre		1929.68
Bowling Alley		644.97
Pool and Billiards		490.62
Towels and Soap		.05
Lockers		
Miscellaneous		1.75
Tolls		<u>18.30</u>
Total	\$	3853.86

EXPENDITURES

Building, Maintenance		67.24
Equipment		206.52
Education		
Lighting		167.49
Heating		
Water		
Bowling Alleys		459.31
Pool Room		127.45
Lockers		
Stationery and Printing		
Entertainments		
Towels and Soap		.90
Laundry		1.29
Office Expense		106.93
Salaries		91.23
Theatre		2058.98
Library		
Reading Room		73.30
Miscellaneous		1.52
Last Year's Accounts		<u>373.72</u>
Total	\$	3735.88

WADE MINE:

The Wade Mine location is somewhat isolated being from a mile to a mile and a half from Kinney. Kinney is a poor town and according to the reports there is a good deal of socialistic element there and it would seem very desirable to do something to help the men who will live at the Wade location.

Apparently, there will be sufficient number of people to warrant a club building for the use of the men and their families.

A building for such a purpose should have first of all a moving picture room with removable seats so that the hall could be used for dancing. There should be two bowling alleys, a lobby in which the pool and billiard tables could be placed, a reading room, shower baths and toilet facilities. There should also be some separate rooms for the women with toilet facilities.

We have some blue prints of typical industrial buildings for club purposes having nearly all of the facilities on one floor, only the rooms for the women or club rooms being on the second floor. This provides easy supervision of the building and I believe an arrangement of that kind would serve the purpose and that there would be no necessity for two halls such as is provided for in the North Lake Club building.

I think a building of this kind would be very serviceable in attracting and retaining men at this mine as without some special facilities, I believe, it is going to be difficult to retain the best men at this location. I would recommend, therefore, that the matter be taken up and some tentative plans made and estimates procured.

ISHPEMING Y. M. C. A.:

The work of the Association has continued during the year with Mr. T. E. Ludlow in charge as General Secretary. There have been a great many activities in the building both in the early part and in the later part of the year, basketball being one of the principal features. The former Y. M. C. A. Basketball Team has been taken over by the Legion largely on account of the expenses for outside trips and the men feeling that the association should not be responsible for this cost. They, of course, are making use of the Y. M. C. A. for their practice and regular games and are making a regular payment for the nights on which regular games are held, which takes care of the necessary expenses. An Industrial League has been formed by Mr. Rex St. Clair of the Aetna Explosives Company and this Department. Teams from the Aetna Company, the different mines in the city and one team from the office have been meeting each week playing for a trophy to be awarded at the end of the season.

In the summer the swimming pool was put into use and kept in operation throughout the summer months of the year, being closed in the fall. A summer camp was conducted at Lake Michigamme at the Champion Beach and the boys had a very enjoyable time. This was done at no expense to the Association other than the oversight of it.

The year of the Association ends on April 30th, but we have usually shown in our report the operation of the regular calendar year. On the following sheet is a statement of the receipts and expenditures.

Mr. Ludlow has been economical in the operation of the "Y" and in many ways it has been more satisfactory than for some time, but the work done has been almost entirely for the younger members of the community.

The statement of receipts and expenditures show profits on certain features as is given below:

	Receipts	Expenditures	Profit
Dormitory	\$1852.00	\$ 303.57	\$1548.43
Gymnasium	140.75	59.28	81.47
Bowling	485.60	144.82	340.78
Billiards	395.40	31.14	364.26
Athletic Games	173.48	98.49	74.99
Spa	802.39	737.49	64.90
Baths	299.73	124.45	175.28
Totals	\$4149.35	\$1499.24	\$2650.11

ISHPEMING Y. M. C. A. - YEAR 1919.

RECEIPTS:

Membership Fees:		
Sustaining Members	\$	230.00
Senior "		381.50
Boy "		179.60
		<u>791.10</u>
Subscriptions		10.00
Miscellaneous		139.80
Mining Company		3600.00
Total Contributions		<u>3749.80</u>
Dormitory Rentals		1852.00
Gymnasium Fees		140.75
Bowling		485.60
Billiards		395.40
Athletic Games		173.48
Bath Towels		299.73
Spa		802.39
Socials & Entertainments		13.25
Educational		102.50
Total Other Income		<u>4265.10</u>
Total Receipts	\$	8806.00

EXPENDITURES:

Miscellaneous & Advertising		441.51
Building & Equipment		35.39
Repairs		159.88
Fuel		720.00
Electricity & Gas		214.46
Water		76.91
Supplies		47.92
Salaries		5111.00
Stationery & Printing		18.00
Telephone Service		58.67
Postage & Office Supplies		87.93
Reading Room Supplies		114.68
Religious Work		165.37
Interest		40.27
Dormitory Maintenance		303.57
Gymnasium		59.28
Bowling Alley		144.82
Billiards		31.14
Athletic Games		98.49
Bath		124.45
Spa		737.49
Socials & Entertainments		30.70
Educational Class Work		16.75
Total Expenditures	\$	<u>8838.68</u>

ALGER COUNTY CLUB:

The Y. M. C. A. building at Munising was turned over to the County for its club work in 1918. It has continued during the year 1919 in the charge of Mr. Francis Deane in a very successful manner. It is serving Munising so far as we can see equally as well as it did when used as a Y. M. C. A., and in addition it is proving of real use to the inhabitants of the County. The plan certainly is a very satisfactory one.

SAFETY WORK:

The Central Safety Committee has held its meetings each month and a good deal of attention has been given to the matters of safety in all of our mines. Mr. Conibear has continued in charge of the work with Mr. J. H. Williams as his assistant in First Aid and Mine Rescue Training. Mr. Conibear's report covers the work of his Department.

In April, a general safety meeting was held by the Bureau of Mines at Houghton. Men from all over this range and from the other ranges and some from Minnesota were in attendance at the meeting. The meeting was in charge of Mr. Pickard, engineer of the Bureau of Mines Service in this section and the meeting was held in the College of Mines Building. It is the purpose of the Department to have these meetings from time to time.

In the fall we had photographs taken of the Ex-Service men who are now in our employ and which were used in the calendar of the Safety Department, these men being in fourteen different groups.

HOSPITALS:

During the year the Department has been in close touch with the hospitals at Ishpeming, Negaunee, Gwinn, Republic and Iron River.

It has been a busy year for all of the physicians. Influenza, which had begun in October and November of 1918, kept the physicians and hospitals busy until April and a few cases in May.

ISHPEMING HOSPITAL:

The new hospital building which was opened on the last day of October, 1918 continued its work through the entire year of 1919 under the direction of Miss A. D. Cron, as Superintendent.

The building and its equipment has been found to meet all of the requirements in a very satisfactory manner and very few things have suggested any changes in the original plan. The method adopted of paying the physicians a regular salary and operating the hospital ourselves instead of requiring the physicians to bear the expense of it, has worked out very well. I believe this plan of service has been entirely satisfactory and is probably a better plan than the old one in which we had less direct contact and supervision.

The physicians have kept accurate records of the visits to them by patients at their offices and also of the house calls made by them.

The report for the first year is exceedingly interesting and in all probability the number of patients will increase the coming year as the people get to understand the benefits of hospital treatment and the facilities that are available. The following sheet shows the general statistics for the year. Some items are of special interest showing the help that the hospital has been to the people of the community and which so closely affect the welfare of our men. The report shows a total number of 320 patients admitted. Of these, 121 have been operative cases and 33 confinements. In this respect alone, the hospital has been of great benefit.

The report shows an average of 12.25 patients per day.

On account of Dr. Felch's retiring from active service, it was necessary to secure a new man on the force. Dr. Carney, formerly in the U. S. Health

ISHPEMING HOSPITAL: (Continued)

service, was secured followed shortly by Dr. Stowe, of Petosky and his wife, who was engaged to look after the bacteriological work. During the period following Dr. Carney, Dr. W. J. Hewson, who was visiting in this region, worked with us until the arrival of Dr. Stowe and his wife, they remaining with us only a short time. Dr. J. D. Crane was then secured and began work on July 1st, at which time, Dr. Rice left for Wisconsin.

Dr. A. V. Braden returned from war service and again began his work at the Hospital on July 1st. The hospital met with a great loss in its force by the death of Dr. Braden on November 8th from Pneumonia.

Miss Lucy H. Pope was secured as a Bacteriologist in April and has continued her work through the balance of the year in a very satisfactory manner.

In September, the Aetna Explosives Company resumed operations and arrangements were made by which the employees and their families are taken care of at the hospital on the same basis as our own employees, their company to participate in the cost and operating deficit in addition to the regular payments for their employees on the basis of \$1.50 per man per month.

On the following sheet is a statement of the total receipts and expenditures during the year 1919. There will also be found a statement showing the number of office calls cared for by each physician giving the number of the employees and members of their families of our own Company, those of the Oliver Iron Mining Company, and the Aetna Explosives Company and also the private cases of each physician. There will also be noted the list of office calls made to the employees and families of different companies and the private cases of each of the different physicians and the percentage of work done for our own people of the total service rendered by the physicians.

THE CLEVELAND-CLIFFS IRON COMPANY
MINE DEPARTMENT

- STATEMENT OF COST OF OPERATING ISHPEMING HOSPITAL FOR THE YEAR 1919 -

		12 MOS. 1919
		AMOUNT
1.	<u>GENERAL EXPENSE:</u>	
	a. Printing & Stationery	\$ 263.99
	b. Postage	24.88
	c. Office Expense	570.12
	d. Telephone & Telegraph	433.10
	e. Insurance	23.40
	f. Personal Injury Expense	6.40
	g. Taxes	1291.11
	h. Central Office	1704.14
	Total,	4317.14
2.	<u>MAINTENANCE:</u>	
	a. Building	\$ 1006.70
	b. Equipment	771.58
	c. Linen, Bedding, etc.	164.45
	d. Surgical Instruments	201.73
	e. Grounds	1779.20
	Total,	3923.66
3.	<u>OPERATING:</u>	
	a. Salaries	\$ 31148.72
	1. Physicians	Year. 21214.78
	2. Nurses	5970.97
	3. Orderlies	2410.50
	4. Maids	81.25
	5. Janitor Service	773.64
	6. Bacteriologist	697.58
	b. Drugs & Medical Supplies	8382.92
	c. X-Ray Supplies	154.38
	d. Laundry	980.82
	e. Kitchen	1137.64
	f. Groceries & Provisions	3025.70
	g. Meats	448.51
	h. Electric Current	377.57
	i. Water & Ice	618.91
	j. Fuel	2293.01
	k. Stable Expense	2057.34
	l. Freights, Exp. & Drayage	69.06
	m. Miscellaneous	369.23
	Total,	51063.81
	Grand Total Cost,	59304.61
	<u>REVENUE:</u>	
	Cleveland-Cliffs Iron Co.	29558.05
	Oliver Iron Mining Co.	9270.47
	Aetna Explosives Company	474.00
	Outside Companies:	
	Negaunee Mine	247.90
	Athens Mining Company	76.50
	Jones & Laughlin Ore Co.	84.90
	Outside Parties	13579.89
	Total Revenue,	53291.71
	Loss and Gain,	6012 90
	<u>DEPRECIATION:</u>	
	Plant Account A-4	13475.28
	Loss, Including Depreciation,	19488.18

Plant Account not Charged Off - \$229,687.68

ISHPEMING HOSPITAL

Hospital Report for the Year 1919.

Number of patients remaining in the hospital at beginning of year	14
Number of patients admitted during year	330
Number of operations	121
Number of births	29
Number discharged during year	329
Number of patients remaining at end of year	8
Number of deaths	36
Number of patients, days	4479
Number of meals for patients	13437
Number of meals for nurses	6529
Number of meals for help	3285

Miss A. D. Cron, Superintendent.

ISHPEMING HOSPITAL
1919
OFFICE AND HOUSE CALLS OF
THE DIFFERENT PHYSICIANS.

	C.C.I.CO.	O.I.M.CO.	A.EXP.CO.	PRIVATE	TOTAL	C.C.I.CO PERCENT.
HOUSE CALLS:						
Braden	1384	81	—	44	1509	91.72
Barnett	3669	977	5	538	5189	70.71
Crane	984	308	65	37	1394	70.59
Hewson	778	4	00	—	782	99.49
Rice	1301	885	—	153	2339	52.62
Smith	2749	437	—	418	3604	76.28
Stowe	39	22	—	1	62	62.90
Vandeventer	2752	456	4	809	4021	68.44
Total	13656	3170	74	2000	18900	72.25
OFFICE CALLS:						
Braden	803	169	—	87	1059	75.82
Barnett	5295	1281	8	403	6987	75.78
Crane	1183	129	13	39	1364	86.73
Hewson	650	38	—	12	700	92.86
Rice	1037	165	—	77	1279	81.08
Smith	1110	618	9	204	1941	57.19
Stowe	8	—	—	—	8	100.00
Vandeventer	3407	816	15	432	4670	72.95
Total	13493	3216	45	1254	18008	74.93
TOTAL CALLS:						
Braden	2187	250	—	131	2568	85.12
Barnett	8964	2258	13	941	12176	73.62
Crane	2167	437	78	76	2758	78.57
Hewson	1428	42	—	12	1482	96.36
Rice	2338	1050	—	230	3618	64.62
Smith	3859	1055	9	622	5545	69.59
Stowe	47	22	—	1	70	67.14
Vandeventer	6159	1272	19	1241	8691	70.86
Total	27149	6386	119	3254	36908	73.55

NEGAUNEE HOSPITAL:

The Negaunee hospital has continued under the direction of Drs. Sheldon and Andrus assisted by Dr. W. A. Mudge. The work at Palmer is in charge of Dr. Whittemore.

The statistical report for the year is attached.

HOSPITAL REPORT

NEGAUNEE HOSPITAL

Statistical Report for Months from March to December, 1919.

Patients in hospital first of March	1
Number of C. C. I. injury cases admitted during year	10
Number of other cases admitted during year	58
Number of births during year	0
Number of deaths during year	4
Number discharged during year	63
Patients remaining in Hospital --- C. C. I. injury cases	0
Patients remaining in Hospital --- Other cases	2
Number of operations during year	46
Number of Hospital calls --- C. C. I. families)	14773
Number of Hospital calls --- outside cases)	
Number of visits --- C. C. I. families	10477
Number of visits --- outside cases	3245
Number of nurses employed during year	2
Number of meals served to patients	2111
Number of meals served to nurses, help, etc.	4530
Total number of meals served	6641
Total number of days of patients	732

GWINN HOSPITAL:

Dr. MacIntyre was in poor health quite a little of the year 1919, but was able to look after the work most of the time. During the summer months, he had the assistance of two men from Ann Arbor and Dr. Eisle, who was with him previously returned from War Service in October and has been with him the balance of the year. During the time of the Influenza epidemic, it was found necessary to get additional help and Dr. Felch of Ishpeming and Dr. Bennett of Marquette were both at Gwinn for a time until the epidemic let up.

On the following sheet is a statement of work done during the year and also the receipts and expenditures.

HOSPITAL REPORT

GWINN HOSPITAL

Statistical Report for Year of 1919.

Patients in Hospital first of year	3
Number of C. C. I. injury cases admitted during year	9
Number of other cases admitted during year	87
Number of births during year	10
Number of deaths during year	6
Number discharged during year	103
Patients remaining in Hospital — C. C. I. injury cases	0
Patients remaining in Hospital — other cases	0
Number of operations during year	65
Number of Hospital calls — C. C. I. families	5202
Number of Hospital calls — outside cases	122
Number of visits — C. C. I. families	2208
Number of visits — outside cases	676
Number of nurses employed during year	2
Number of meals served to patients	1481
Number of meals served to nurses, help, etc.	4967
Total number of meals served	6448
Total number of days of patients	713

HOSPITAL REPORT

GWINN HOSPITAL

Financial Report for the Year 1 9 1 9.

RECEIPTS:

From Cleveland-Cliffs Iron Co.,	\$12503.95
From Hospital Service	3078.95
From other sources	<u>240.00</u>
	\$ 15822.90

EXPENDITURES:

Salaries - Physicians	521.78
Salaries - Nurses	814.00
Wages - Help	1623.68
Electricity and Lamps	56.65
Fuel	917.50
Provisions	1776.94
Telephone	72.81
Drugs	788.63
Repairs	212.66
Insurance and Taxes	256.49
Equipment	79.96
Laundry	477.34
Kitchen Supplies	10.52
Hospital supplies	398.54
Miscellaneous	1136.64
Barn	<u>1905.18</u>
	\$ 11049.32
Net Income	\$ 4773.58

REPUBLIC HOSPITAL:

Dr. H. H. Loveland has continued in charge through the year and the work has been satisfactory. There have been very few cases in the hospital. Dr. Loveland began his financial reports to us on July 1st and the following statement shows receipts and disbursements for the last 6 months of 1919.

HOSPITAL REPORT

REPUBLIC HOSPITAL

Financial Report for months from July to December, 1919.

RECEIPTS:

From Cleveland-Cliffs Iron Company	\$ 2475.96
From other sources	<u>1079.83</u>
	\$ 3555.79

EXPENDITURES:

Salaries - Physicians	213.32
Salaries - Nurses	145.00
Wages - Help	110.00
Electricity and Lamps	25.95
Fuel	282.18
Water	6.00
Telephone	21.84
Drugs	507.10
Insurance and taxes	59.76
Equipment	18.12
Hospital supplies	5.27
Miscellaneous	12.15
Barn	<u>415.84</u>
	\$ 1622.51
Net income-6 months	\$ 1733.28

HEALTH:

The Influenza started up at Ishpeming in October, 1918 just before we moved into the new hospital and shortly after developed at Gwinn and later at Negaunee. The conditions for a considerable period were very serious, it being difficult to find sufficient physicians or nurses to take care of the work to be done. At Ishpeming the upper floor of the hospital was devoted to influenza work. At Gwinn, the Club House was closed and turned into an emergency hospital. At Negaunee, the old Kings Inn was secured and made into an emergency hospital. At Republic, there were practically no cases, only one being at all of a serious nature and that was brought in from Camp Custer. The cases continued up until April, but everything was cleaned up the first of May. We do not know how much effect the vaccination of our men had, but the epidemic did not seem to have the same severity as it had in many other places where less vaccinating was done.

In the early winter of 1919, preparations were made to take care of any recurrence of influenza, but up to the first of January, practically no cases had developed, but it began to be prevalent in other locations and reached here a little later in the season.

In view of the uncertain value of the vaccines, it was decided not to employ the method of vaccination generally as adopted the preceding winter, but vaccines were secured at the hospital and anyone could be vaccinated, if desired, only paying for the cost of the vaccine administered in the cases of Company employees and members of their families and \$1.00 for the outside patients.

The general health of the communities following the epidemic was quite good and remained so throughout the summer.

WAR SERVICE:

Early in the year our men began to return from war service activities. Walter Johnson, the Chief Clerk of this Department, arrived home and began work on April 21st. The following table shows the number of service men who have been reported to us as again at work for the Company:

Central Office	8
Cliffs-Shaft	39
Lake	21
Salisbury	10
Holmes	23
Gen. Storehouse	4
Angeline	4
Miscellaneous	4
Morris-Lloyd	22
Barnes-Hecker	1
McClure Plant	4
Princeton	14
Austin	1
Stephenson	8
Gwinn	16
Gardner-Mackinaw	7
Francis	1
Republic	17
Negaunee	48
Maas	34
Athens	16
Jackson	1
Spies	4
Crosby	12
Helmer	1
Meadow	2
Wade	4
Bourne	<u>1</u>
Total	327

CIVILIAN RELIEF:

The work of the Committee on Civilian Relief has continued. The work has been largely in looking after the welfare of the returned soldiers and their families previous to their return. We have also assisted in securing work for a number of returned men and have arranged for hospital and medical treatment and Red Cross Relief up to the time that employment was secured for those needing it.

There has been very little difficulty in finding work for all of the returned men with the exception of a few cases in which the men were considerably incapacitated for labor of anything but a very light character, but even in these cases employment has been found for all that were able to do work of any kind.

IMPROVEMENT WORK:

- Mr. Manning made two visits here during the year; one early in May and one the latter part of September and the first of October. In addition to visiting the mines in this district, he also went over our properties in Minnesota.

Our local improvement work was in charge of John Endahl for the season the main work being the finishing up of the hospital grounds. It was a very dry season and it was necessary to keep the grounds watered continually through the season and on this account the grass did not do as well as it should have done. The general work was taken care of at the different mines. The North Lake Club House grounds were also finished up.

BEST KEPT PREMISES AND VEGETABLE GARDENS:

Prizes were offered as in previous years for the Best Kept Premises and Vegetable gardens and as during the war period garden lots were assigned to our men so far as it was possible which were used for the cultivation of potatoes and other vegetables. The men found it so satisfactory to raise these vegetables that there is a strong desire on their part to continue the use of these gardens from year to year and it has been found a very good thing.

On the following sheet is a report of the awards of the different districts.

BEST KEPT PREMISES AND VEGETABLE GARDENS: (Continued)

The following prize awards were made for the season of 1919:

Ishpeming:

Best Kept Premises	\$100.00	
Vegetable Gardens	<u>100.00</u>	
		\$200.00

Negaunee:

Vegetable Gardens		50.00
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Gwinn District:

Best Kept Premises	50.00	
Vegetable Gardens	<u>50.00</u>	
		100.00

Republic:

Best Kept Premises	36.00	
Vegetable Gardens	<u>45.00</u>	
		81.00

North Lake:

Best Kept Premises	50.00	
Vegetable Gardens	<u>50.00</u>	
		100.00

Ishpeming Schools:

		<u>53.50</u>
Total		\$ 584.50

COST OF LIVING:

On the 15th of each month, we receive from one of the local stores complete costs of all articles of food and twice each year we receive the cost of clothing and other commodities making up the family requirements. A careful computation of the cost of living was made in August and a comparison shown with the cost of 1900, 1910 and 1916.

The increase in cost of food of 1919 over 1900 was	167.4%
The increase in total living expenses of 1919 over 1900 was	137.3%
The increase in wages of 1919 over 1900 was	166.2%

At the end of the year prices were still as high as at any period in the general list of food articles. The high prices are also very noticeable in all articles of wearing apparel and especially that of shoes and, apparently, there is no prospect of the lowering of prices.

BOY SCOUTS:

We have assisted with the general committees for the County in Boy Scout activities, and troops have been organized in our own districts at Negaunee, Ishpeming, Gwinn, North Lake, and Republic. The work has gone along very successfully especially at Ishpeming where there are now 8 troops. In the fall the troops were given the use of a building called "The Maples" on the Cliffs Drive, which was the former residence of one of the mining captains when the mines in that locality were in operation and which had been occupied by a caretaker until early this summer.

We consider this a very essential work for the boys of the community and it should receive all the support that it may actually require to keep it in good working order.

EMPLOYMENT:

All applications for employment have been referred to this Department and careful investigations have been made by correspondence with their former employees. Complete records of all employees of the Mining Department are taken care of in this office especially for compensation purposes and also for pension records.

We have investigated applications of 1676 men.

INCAPACITATED EMPLOYEES:

During the year, payments have been made to certain men whose years of service did not quite bring them within the provisions of the Pension System and some who were incapacitated on account of injury and whose condition made some assistance necessary in addition to the regular Workmen's Compensation.

The following list shows the families to whom these payments were made:

INCAPACITATED EMPLOYEES: (Continued)

	Per Month	Per Year	
John Trembath	\$ 15.00	\$180.00	
Fred Fredette	25.00	225.00	No check in Sept. Oct. & Nov.
John Beale	15.00	180.00	
Wm. Holman	15.00	180.00	
John Salson	25.00	300.00	
Andrew Lerlie	15.00	180.00	
Solomon Kangas	25.00	300.00	
Mrs. John Makela	25.00	300.00	
Alex Clevin	15.00	180.00	
Wm. H. Harris	15.00	180.00	
Mrs. Cecelia Brandt	<u>12.00</u>	<u>96.00</u>	Beginning in May.
	202.00	2301.00	

Fred Fredette was able to work for three months as shown above.

Of the above number at the meeting of the Pension Board held in December, John Trembath and Alex Clevin were put on the Pension Payroll. During the year there was added to the original list the name of Wm. H. Harris, who lost the sight of both eyes a number of years ago and who has a boy about 21 who is unable to work. The other case added this year was that of Mrs. Cecelia Brandt whose husband was accidentally killed at the Morris-Lloyd Mine on September 23d. The compensation of \$10.00 per week, under the previous provisions of the Compensation Law, in some cases on account of the present high cost of living and large number of children has been found to be inadequate and special assistance has been rendered to these families. In December the following families were helped to the amounts indicated:

Mrs. Rose Bertucci	\$15.00
Mrs. Isabella Graham	15.00
Louis Dreon, Guardian	15.00
John Kandelin, "	15.00
Mrs. Hilma Pitila	15.00
Mrs. Kati Larson	<u>15.00</u>
	\$90.00

COMMUNITY SERVICE:

A law was passed by the State Legislature providing for Community Councils in the different counties of the state and local community councils in the various cities. Following out the provisions of this law, a list of five men and five women was suggested to Governor Sleeper, at his request, by Mr. Duncan, who formed the Marquette County Community Council. Plans were entered into for the formation of local councils in Marquette, Ishpeming, and Negaunee and the various people interested in this movement met from time to time in the three cities. The plan at first outlined was to employ a community director jointly by the three cities, but Marquette was not able to get the matter satisfactorily arranged for and at the last of the year it was determined that Ishpeming and Negaunee would enter into a two-city agreement by which a director would be employed jointly by the two cities giving half of his time to each. A number of men and women representing the State Community Service have been sent here under the direction of the Community Service Incorporated of New York City, that being the general Headquarters of Community Service Work, but nearly all of their work has been done at Marquette.

There is, apparently, a wide field of usefulness in community work, if wisely undertaken and judiciously conducted.

There has been more or less discussion about the necessity of having buildings for community work at Ishpeming and at Negaunee. At Ishpeming it has been generally thought that the community building for the larger activities could be erected near the present Y. M. C. A. and that this building could be used more broadly from community work and probably turned over to community activities instead of being conducted under the Y. M. C. A. name.

At Negaunee there is a building now used as a hall on the second floor and store on the ground floor that could be purchased at a reasonable price and could be made into a community building with such additions as the ground space would permit and it apparently would be sufficient for the needs of Negaunee.

Undoubtedly, these plans will be actively taken up before many months and should receive the cordial support of the Company.

RAILROAD DEPARTMENT:

We have been in frequent consultation with Mr. Harris and the Railroad Department and especially in regard to the matter of pensions. A careful investigation has been made of the probable cost of the adoption of a Pension System for the Two Railroads and the suggested provisions of a Pension System thoroughly discussed.

OTHER DEPARTMENTS:

We have been in frequent consultation with Mr. Farrell, Dr. Hudson and Mr. Slining concerning the general matters at Marquette and at Gladstone and with Mr. Townsend and Mr. Ackerman and their forces in regard to general welfare.

We have frequently been called into consultation by all of these Departments in matters of Workmen's Compensation.

GROUP LIFE INSURANCE:

There has been a considerable study put upon the matter of Group Life Insurance which has been introduced by a good many large concerns in the United States. Various plans have been investigated and estimates made and a special committee consisting of Mr. Wm. P. Belden and the Secretary have the matter in charge to make such report as may be deemed advisable.

I personally doubt very much the desirability of entering upon this plan.

CLUBS:

The Mining Club has continued its meetings through the year after the Influenza epidemic was over in the city. The annual outing was held at Little Lake in August at the Camp of Captain Rough and a very large number of men were present.

This is a very desirable organization and is productive of much good.

OUT-OF-DOOR SPORTS:

On account of being just at the end of war conditions and the influenza which was prevailing in February, no Ski Tournament was held, but the Dog Races were conducted as usual on Washington's Birthday.

On the following sheets will be found the statement of expenditures for special purposes of the Mining, Furnace, Lumbering, Land, and Railroad Departments.

STATEMENT OF EXPENSES OF PENSION DEPARTMENT

FOR FIVE YEAR PERIOD FROM JANUARY 1ST, 1915 TO DECEMBER 31ST, 1919.

ACCT. NO.		1915	1916	1917	1918	1919
A-1	Salaries of Superintendent of Pension Department and assistants	3570 00	4370 50	5476 24	6805 83	8962 01
B	Prizes to tenants and employees for Best Kept Premises, gardens, etc.	671 25	661 00	654 50		584 50
C	All expenses of Supt. of Pension Department including travelling expenses and livery	417 48	195 58	358 21	321 72	323 46
D	Salary and expenses of Visiting Nurse - Ishpeming	1155 48	1154 40	1333 38	1653 27	1535 50
	Rest Cottage - Deer Lake	572 40	543 00	745 11	720 20	797 69
	Salary and expenses of Visiting Nurse - Negaumee	1077 64	1157 03	1252 38	1605 60	2164 20
	Salary and expenses of Visiting Nurse - Gwinn	1174 56	1177 11	641 09	1280 79	1258 30
	Rest Cottage - Bass Lake					285 76
	Our proportion of Visiting Nurse Expense - Iron River		65 75	134 23	265 39	83 43
E	Apparatus, Expenses and Freight	21 17	36 41	23 66	15 13	18 12
F	Miscellaneous Expense					
	Books, cuts, magazines, papers, etc.	17 00	18 00	42 05	57 90	80 02
	Incidental Expenses - Mining Department			86 75	6 78	40 26
	Incidental Expenses - To Treasurer	33 00	44 08	27 50	19 50	4 50
	Donations to Incapacitated Employees	169 92	757 76	1471 48	1820 00	2205 00
	Other Donations	196 24	20 00	273 04	547 10	415 79
	Membership in Associations	130 00	215 00	105 00	220 00	281 00
	Spanish Influenza Epidemic - Gwinn				1357 02	255 11
	Expense of Vaccine in connection with Spanish Influenza Epidemic				1161 70	381 19
	Food Preparedness - Including parcels of Land used by employees for gardens					251 59
G	Employees Clubs					
	Bowling Alley and Club Work	66 90	146 47	215 42	383 65	374 19
	Tennis Courts - Ishpeming, Negaumee and Gwinn Districts	11 21				
	Superintendents Lunches and Incidentals	30 36	85 31	149 12	88 16	86 50
	Gwinn Club House	2969 47	3439 37	3591 05	5226 54	4082 47
	Ishpeming Y. M. C. A.	1680 00	1680 00	1680 00	2412 00	2412 00
	North Lake Club House				1957 71	3643 33
H	Office Expense					
	Stationery, Office Supplies and Expenses - To Treasurer	144 98	223 03	374 80	616 49	557 80
	Stationery, Office Supplies and Expenses - Mining Department	91 85	46 39	84 15	23 73	57 05
	Office Furniture and Equipment	22 50	215 71	152 27	255 81	144 36
	Postage	76 76	140 00	172 00	194 25	187 75
	SCHOOL OF INSTRUCTION					
I-1	Salary of Instructor	2260 00	2020 08	868 00		
	Travelling expenses; livery, printing, stationery, etc.	403 00	547 22	88 71		41 56
	TOTAL	16963 17	18959 20	20000 14	29016 27	30752 06
	DISTRIBUTION					
	Mining Department	11718 05	13024 55	14060 29	18923 64	22475 84
	General Expense - To Treasurer	250 60				
	Land Department	122 48	192 43	252 48	281 74	380 19
	Furnace Department	402 83	694 75	872 08	1271 18	1296 26
	Lumbering Department	325 18	430 99	583 15	675 36	718 13
	Gwinn District Office Expense	4144 03	4616 48	4232 14	7864 35	5881 64
	TOTAL	16963 17	18959 20	20000 14	29016 27	30752 06

THE CLEVELAND-CLIFFS IRON COMPANY

LAND DEPARTMENT

COMPARATIVE STATEMENT OF GENERAL WELFARE EXPENSES

FOR THE YEARS 1915 TO 1919 INCLUSIVE

	1915	1916	1917	1918	1919
General Welfare Acct. #11					
A-2 Prop. charged by Treasurer	163 85	192 43	252 48	281 74	380 19
b. Prizes to tenants, etc., Munising	55 00	69 20	52 50		
Donations:					
Churches			50 00		
Fire Department	10 00	20 00	10 00	10 00	10 00
Munising Hospital	150 00	150 00	150 00	150 00	150 00
Munising Y. M. C. A.	900 00	450 00			
Playground - Negaunee	10 00	10 00	10 00	10 00	10 00
American Red Cross Assn. (Seals)	10 00	10 00	20 00		10 00
Munising City Band		100 00			
Munising Baseball Grounds					82 40
American Red Cross			160 00		
Y. M. C. A. War Work Fund			81 00		
Marquette County War Fund				360 13	
Alger County War Fund				1294 98	145 95
Influenza Epidemic				5 00	
Paper Mfg. Association				40 00	
War Resources Committee				20 31	
Minnesota Fire Sufferers				25 00	
Liberty Loan Campaign				6 00	
U. P. Development Bureau				1000 00	1000 00
Roman Catholic Church - Munising					1575 00
Safety Work:					
Charges for Safety Work and Equipment	86 62	50 89			
Compensation:					
Compensation payments	160 47	701 23	1255 27	1497 26	1508 68
Medical Expense	394 03	785 95	1067 10	630 53	519 25
Totals	1939 97	2539 70	3108 35	5330 95	5391 47

Compensation payments:					
Percentage of payroll	.00579	.00622	.012207	.009220	.006644

THE CLEVELAND-CLIFFS IRON COMPANY

RAILROAD DEPARTMENT

COMPARATIVE STATEMENT OF GENERAL WELFARE EXPENSES

FOR THE YEARS 1915 TO 1919 INCLUSIVE

	1915	1916	1917	1918	1919
Prizes to Tenants	25 00	25 00			
Donations:					
Fire Department	25 00	30 00	30 00	10 00	25 00
Societies	5 00	10 00			
Celebrations	9 00	12 00			
Visiting Nurse - Marquette	120 00	120 00	120 00	120 00	120 00
Munising Hospital	150 00	150 00	150 00	150 00	150 00
St. Luke's Hospital	200 00	200 00	200 00	200 00	175 00
Safety Work:					
Equipment & Work					
Compensation:					
Compensation paid	3937 59	2387 49	3461 06	3788 40	2364 34
Medical Expense	746 50	744 50	1941 42	1422 22	1469 02
Totals	5218 09	3678 99	5902 48	5690 62	4303 36

Compensation Payments:					
Percentage of Payrolls	.0127	.0063	.0085	.0063	.0049

THE CLEVELAND-CLIFFS IRON COMPANY

PIONEER IRON COMPANY - FURNACE DEPARTMENT

COMPARATIVE STATEMENT OF GENERAL WELFARE EXPENSES

FOR THE YEARS 1915 TO 1919 INCLUSIVE

	1915	1916	1917	1918	1919
General Welfare Acct. #11					
A-2 Prop. charged by Treasurer	526 61	694 75	872 08	1271 18	1209 14
b. Prizes to tenants, etc.	50 00	50 00	50 00	50 00	50 00
c. Visiting Nurse	300 00	300 00	400 00	550 00	550 00
f. Miscellaneous Expenses				66 67	
Gladstone Club:					
Total Cost of Operation	(4226 81)	(5040 06)	(2631 57)	(2618 17)	(1677 94)
Net Loss or Gain	69 53	308 20	83 29	734 47	502 02
Donations:					
Churches	25 00				
Salvation Army					25 00
Y. M. C. A. War Fund			375 00		
Fire Department	10 00	10 00			40 00
Societies	140 00	25 00	70 00	151 00	16 50
Celebrations		10 00	10 00	10 00	125 00
Persons	62 78	12 00	35 00		
Miscellaneous	50 00	15 00			
Institutions:					
St. Luke's Hospital	300 00	300 00	300 00	300 00	300 00
Young Men's Reading Room - Gladstone		100 00	100 00		
Red Cross			650 00		10 00
Marquette County War Fund				5249 34	
Delta County War Fund				3029 30	
Pensions:					
Pensions Paid	448 20	328 20	268 20	268 20	130 55
Safety Work:					
Charges for Safety Work and Equipment	3 32	139 10	111 47	310 36	
Compensation:					
Medical & Hospital Expense					
Compensation Paid	603 66	470 05	1712 22	3510 86	3953 44
Totals	2589 10	2762 30	4870 68	15501 38	6911 65

Compensation Payments - Percentage
of Payrolls

Pioneer Iron Company	.00141	.00150	.00150	.00150	.002829
The Cleveland-Cliffs Iron Co.	.11541	.100030	.100030	.100030	.005637

Gladstone Club: Red figures show a gain.

Totals include net loss or gain account Gladstone Club.

THE CLEVELAND-CLIFFS IRON COMPANY

LUMBERING DEPARTMENT

COMPARATIVE STATEMENT OF GENERAL WELFARE EXPENSES

FOR THE YEARS 1915 TO 1919 INCLUSIVE

	1 9 1 5	1 9 1 6	1 9 1 7	1 9 1 8	1 9 1 9
General Welfare Acct. #11 Prop. charged by Treasurer	410 63	430 99	583 15	675 36	718 13
Donations:					
Various Societies			10 00	10 00	125 00
Red Cross			514 00	10 00	
Y. M. C. A.			256 50		
Persons	129 55	64 00	13 22		26 66
Hospital at Munising	350 00	350 00	262 50	437 50	675 00
Delta County War Relief Assn.				335 20	25 50
Alger County War Relief Assn.				830 25	106 00
Safety Work: Equipment					
Compensation:					
Medical and Hospital	1217 55	1456 03	1611 52	1912 15	1880 38
Compensation Payments	352 02	932 96	1431 71	1683 24	4581 92
Totals	2459 75	3234 23	4682 60	5893 70	8138 59

Compensation Payments: Percentage of Payroll	.006	.007	.003	.006	.0111
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G E N E R A L.

While there was a shortage of men at our outside operations, it was not so pronounced as the previous year, and on the whole we were fairly successful in getting our estimates of production. There has been a slight decrease in efficiency, measured in terms of ore per man per day, as is shown by the comparative statement of production and wages for the years 1917, 1918, and 1919. In most cases, however, this can be explained by local conditions. There is nevertheless a tendency on the part of the men to let down in their work, and it is with great difficulty that the Superintendents have been able to secure a maximum production. The labor outlook for the coming year is not promising, as there is a great demand for labor on all ranges and the single men have a tendency to move from one place to another. This may result in a more or less acute shortage after the farmers, who work during the winter, return to their farms.

There were no increases in wages in 1919, but of course the several increases in 1918 were reflected in the total during 1919, so that there was an increase of 16.5% in the average rate of pay per day. There was also an increase in supply costs per ton in 1919 over 1918 of 27.2%.

A statement is appended showing the cost of spotting at steamshovels for the season of 1919. I understand that several companies have taken this question up with the Public Utilities Commission of this State and the Interstate Commerce Commission, in an attempt to have the railroads discontinue this practice.

It is always a pleasure to record the excellent work of our

Superintendents and to express my appreciation of their loyal support. The loyalty of the entire organization cannot be too highly praised, and the results of the past year are largely due to this.

LEASES.

During the year the Lease issued to the Empire Iron Company, covering the $E\frac{1}{2}$ of the $SW\frac{1}{4}$, was extended and the $W\frac{1}{2}$ of the $SW\frac{1}{4}$ of Section 19-47-26 added.



Vice Pres. & Gen. Mgr.

THE CLEVELAND CLIFFS IRON COMPANY
MINING DEPARTMENT.

STATEMENT SHOWING COST OF SPOTTING ENGINES AT STEAM SHOVELS FOR SEASON 1919.

<u>MINES:</u>	<u>CARS LOADED</u>	<u>TONS LOADED</u>	<u>E N G I N E S E R V I C E</u>			<u>TOTAL</u>	<u>COST PER CAR</u>	<u>COST PER TON</u>
			<u>HOURS</u>	<u>COST</u>	<u>WAR TAX-3%</u>			
<u>ISHPEMING DISTRICT.</u>								
Lake,	1223	53607	270 1/3	2027.50	60.83	2088.33	1.71	.0389
Salisbury,	1847	82005	386 5/6	2901.25	87.04	2988.29	1.62	.0364
Cliffs Shaft,	241	11718	63 1/2	476.25	14.29	490.54	2.04	.0419
Holmes,	422	21878	111 3/4	838.13	25.14	863.27	2.05	.0394
Angeline,	208	23254	76	570.00	17.10	587.10	2.82	.0252
TOTAL 1919,	3941	192462	908 5/12	6813.13	204.40	7017.53	1.78	.0365
TOTAL, 1918,	11453	533861	2874 11/12	20549.38	616.78	21168.86	1.85	.0397
<u>NEGAUNEE DISTRICT:</u>								
Negaunee,	4435	211523	646 1/2	4848.75	145.46	4994.21	1.13	.0236
Maas,	2726	129470	525 1/12	3938.13	118.14	4056.27	1.44	.0313
Athens,	547	24679	150	1125.00	33.75	1158.75	2.12	.0469
TOTAL 1919,	7708	365672	1321 7/12	9911.88	297.35	10209.23	1.32	.0279
TOTAL 1918,	8461	422895	1511 1/4	11334.38	340.03	11674.41	1.38	.0276
North Lake District-1919 -	1407	62374	302 1/2	2268.75	68.06	2336.81	1.66	.0375
North Lake District-1918 -	2678	117127	632 5/12	4743.12	142.29	4885.41	1.82	.0417
# Republic District-1919 -	792	29070	336	2520.00	75.60	2595.60	3.29	.0892
Republic District-1918 -	1229	70601	439 1/4	3294.38	98.83	3393.21	2.76	.0481
Gwinn District, 1919 -	2012	91945	366 1/4	2746.88	82.41	2829.29	1.41	.0308
Gwinn District, 1918 -	4281	206501	1025 1/12	7690.12	230.70	7920.82	1.74	.0363
GRAND TOTAL, 1919 -	15860	741523	3234 3/4	24260.64	727.82	24988.46	1.58	.0337
1918 -	28102	1350885	6482 11/12	47611.38	1428.63	49040.01	1.74	.0363
*Total Shipments, 1919		1824476						.0136
1918		2977595						.0165

* Does not include tonnage from Spies Mine and Mesabi Range.

Increase cost due to ore loaded from _____ and re-stocked as fine ore.

I N D E X .

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MORO MINE:

Shipments	1
Avg. Mine Analysis and Shipments ...	2

LAKE MINE:

Production	3-5
Delays	6
Estimate of Ore Reserves	6-7
Surface	7-8
Underground	8-10
Comparison of Cost Sheets	11-16
Avg. Mine Analysis and Shipments ...	17
Statement Comparative Mining Cost ..	18
" " Wages and Product	19
Timber Statement	20
Statement of Explosives Used	21

CLIFFS SHAFT MINE:

Production	22-26
Delays	26-27
Estimate of Ore Reserves	28
Fatal Accident	29
Labor	29
Exploration	29-30
New Construction	30-32
Surface	32-33
Underground	33-38
Comparison of Cost Sheets	38-43
Avg. Mine Analysis and Shipments ...	44
Statement Comparative Mining Cost ..	45
" " Wages and Product	46
" Explosives	47

SALISBURY MINE:

Production	48-51
Delays	51-52
Estimate of Ore Reserves	52-53
Surface	53-55
Underground	56-57
Comparison of Cost Sheets	58-61
Avg. Mine Analysis and Shipments ...	62-63
Statement Comparative Mining Cost ..	64
" " Wages and Product ..	65
" Timber	66
" Explosives Used	67

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THE CLEVELAND CLIFFS IRON COMPANY

RAILROAD DEPARTMENT

COMPARATIVE STATEMENT OF GENERAL WELFARE

EXPENSES FOR THE YEARS 1913 to 1917 INCLUSIVE.

	1913	1914	1915	1916	1917
Prizes to tenants	25 00	25 00	25 00	25 00	0.00
Donations:					
Fire Department	35 00	20 00	25 00	30 00	30 00
Societies	23 00	2 00	5 00	10 00	0 00
Celebrations & Entertainments	132 45	13 00	9 00	12 00	0 00
Visiting Nurse - Marquette	120 00	120 00	120 00	120 00	120 00
Munising Hospital	150 00	150 00	150 00	150 00	150 00
St. Luke's Hospital			200 00	200 00	200 00
Safety Work:					
Equipment and work	197 24				
Compensation:					
Compensation Paid	3143 15	2174 48	3937 59	2387 49	3461 06
Hospital & Medical service	1293 31	842 37	746 50	744 50	1941 42
Totals	5119 15	3347 35	5218 09	3678 99	5902 48

Compensation payments
Percentage of total pay-rolls .0093 .0127 .0063 .0095

