



ANNUAL REPORT  
OF THE (1918)  
SAFETY DEPARTMENT

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The work of the Safety Department of the Company for the year 1918 is outlined under the following heads: mine rescue equipment and training, first aid equipment and training and treatment of personal injuries, safety inspection, safety precautions and devices, fatal, serious and slight accidents and statistics relative thereto.

MINE RESCUE EQUIPMENT AND TRAINING

At the present time there is a divergence of opinion relative to the merits of the various types of mine rescue apparatus in use in this country. The Bureau of Mines has not recorded itself in favor of one particular type of machine in preference to any other but simply outlines what are the necessary qualifications of a desirable machine. There are those who condemn the Draeger apparatus but we are of the opinion that it should not be replaced until there are decided improvements made in the other types of machines which are recommended; namely, the Fluess, Gibbs and Paul apparatus. Mr. Williams, our mine rescue foreman, who has been with us since 1912, has given close attention to mine rescue apparatus and we know no man in the Lake Superior district who is more competent to pass judgment upon mine rescue apparatus. He and Mr. Stevenson contend that if our apparatus is maintained in first class condition and if our men are trained regularly in their use, we shall be in a position to fight an underground fire just as capably as any company which may use another type of machine. The Draeger Company has changed its name and has taken over the Paul Apparatus, which in many respects resembles the Draeger. We believe that it is not advisable at the present time to exchange our apparatus for the Paul or to purchase any other type of machine, and that our present equipment should be retained until there is more unanimity of opinion upon this subject. Mr. C. E. Pettibone, Chief Safety Inspector of Pickands Mather and Co., informs us that he recently used the Draeger apparatus in a fire at the Belgrade mine, Minnesota, and that the results were very satisfactory. He also stated that the equipment is reliable providing

it is maintained in good shape and if competent men are properly trained in its use. Mr. Williams devotes all of his time to training employees in rescue and first aid work and keeping the entire equipment in as near perfect condition as possible.

One argument against the Draeger apparatus in comparison with other types of machines was the fact that the cost of training men was higher. This has been considerably reduced by using loose caustic soda in a retainer in lieu of the retainers which were purchased with soda in them. Two pounds of loose caustic soda, valued at 15¢, answers the purpose of a retainer which costs \$1.75. This reduces the cost of caustic soda for a training lesson from \$8.00 to 75¢. We have purchased 6 retainers, in which loose caustic soda can be used for training, at \$10.00 each. It only required a few practices of the rescue teams to pay for this new equipment.

Training of rescue men was continued throughout the year at all the operating mines in the county. A total of 121 practices were given in which 101 men participated. The total number of men should have been larger but as we endeavor to train men who are not only competent but also are familiar with the mines, they are not always obtainable when desired; hence at a number of the practices a full quota of men was not available when Mr. Williams reported for them.

It was hoped that smoke rooms would have been provided at Negaunee and North Lake, but we have been denied this equipment to date. At the Ishpeming station employees from the mines of Ishpeming and Negaunee are being trained. We have a station at Gwinn which is accessible for all men employed at the Gwinn district mines, excepting those employed at the Gardner-Mackinaw mines. It is very important that an outlying mine have trained men, and we make it a point to visit these places endeavoring to train the men as best as can be done under the conditions. We have 137 men in the employment of the Company at the present time who have been trained in the use of the apparatus.



## FIRST AID EQUIPMENT AND TRAINING

There was a scarcity of first aid supplies during the latter part of the year but our annual order at the beginning of the year was duplicated by mistake. This gave us a supply for 1919 at 1917 prices. No new equipment was purchased. The amount of roller bandages, gauze, etc., being used, is increasing. The larger portion of it is not used for injuries which incapacitated employees but is used to treat slight injuries which call for repeated treating. In Table V the number of injuries which received treatment is recorded but this does not give an adequate figure of the actual service which has been rendered. Many workmen may be seen each morning at the first aid room asking the dryman for treatment in order to prevent an infection of a slight injury while he is employed during the day. At the Cliffs Shaft mine the demand is so urgent it is necessary to employ a second man to distribute carbide.

First Aid cabinets were furnished to the Power plants of Marquette, Dead River and Au Train. A number of the ambulance rooms in the dries, which were not completed last year, now comply with the standard equipment.

Nine teams, representing twelve mines in Marquette county, completed the regular first aid course of training and participated in a first aid demonstration at the Company's General Office. The contest, which occurred in August, was witnessed by the General Manager, the superintendents, mine captains and a number of other officials. Drs. Vandeventer and Barnett of Ishpeming and Dr. Haynes of Negaunee were judges. Since the contest we have taken up the training of former first aid men, who had been given the work since 1911. A total of 107 practices were held and 116 men received instruction.

Mr. Williams and the Safety Inspector assisted the local physicans in November and December when all miners were offered the Influenza inoculation. This necessitated three tours to all mines at Ishpeming and North Lake and reduced the number of first aid lessons which otherwise would have been given.



The number of injured employees who received first aid treatment in proportion to the number reported injured compares approximately with the figures of 1917. It was hoped that a better showing would be indicated in this report but it is not always possible to determine whether first aid was necessary. Many injuries, such as strains, bruises, etc., are recorded and first aid work not credited. In many of these cases the injured man refused assistance. We are positive, however, that every injury of a serious nature received first aid and that there is not reason for neglect as there are sufficient number of trained men at all mines to treat injuries providing they are asked to render aid.

Table I

Showing the number of Helmet and First Aid Practices and the number of men receiving training at mines during year.

| Mine             | First Aid Practices | No. of Men Trained | Helmet Practices | No. of men Trained |
|------------------|---------------------|--------------------|------------------|--------------------|
| Cliffs shaft     | 12                  | 15                 | 12               | 5                  |
| Lake             | 11                  | 8                  | 12               | 8                  |
| Holmes           | 10                  | 11                 | 12               | 6                  |
| Salisbury        | 8                   | 2                  | 12               | 6                  |
| Morris-Lloyd     | 11                  | 15                 | 9                | 6                  |
| Negaunee-Athens  | 11                  | 17                 | 11               | 12                 |
| Athens           | 0                   | 0                  | 11               | 7                  |
| Maas             | 11                  | 10                 | 11               | 7                  |
| Gwinn-Francis    | 11                  | 17                 | 9                | 16                 |
| Mackinaw-Gardner | 9                   | 5                  | 0                | 0                  |
| Republic         | 8                   | 6                  | 10               | 17                 |
| Princeton        | 2                   | 10                 | 3                | 11                 |
|                  | 104                 | 116                | 112              | 101                |

Table II

Showing Occupation and Nationality of Mine Rescue  
and First Aid Men Receiving Training During 1918.

| <u>Occupation</u> | <u>Helmet</u> | <u>First Aid</u> | <u>Nationality</u> | <u>Helmet</u> | <u>First Aid</u> |
|-------------------|---------------|------------------|--------------------|---------------|------------------|
| Shift Bosses      | 22            | 23               | American           | 4             | 17               |
| Miners            | 32            | 24               | English            | 47            | 45               |
| Timberman         | 16            | 8                | Skandinavian       | 18            | 24               |
| Trackman          | 4             | 2                | Finnish            | 14            | 9                |
| Sampler           | 1             | 2                | Italian            | 9             | 8                |
| Electrician       | 4             | 4                | Austrian           | 1             | 1                |
| Motorman          | 2             | 3                | French             | 7             | 11               |
| Skip Tender       | 4             | 2                | Arabian            | 1             | 1                |
| Surface Foreman   |               | 3                |                    | 101           | 116              |
| Surface Laborer   | 1             | 3                |                    |               |                  |
| Top Lander        | 2             | 4                |                    |               |                  |
| Machinists        |               | 5                |                    |               |                  |
| Blacksmith        |               | 1                |                    |               |                  |
| Clerks            |               | 2                |                    |               |                  |
| Chemists          |               | 2                |                    |               |                  |
| Dryman            | 1             | 10               |                    |               |                  |
| Engine House Man  |               | 3                |                    |               |                  |
| Cage Rider        | 1             | 3                |                    |               |                  |
| Pipeman           | 6             | 7                |                    |               |                  |
| Pumpmen           | 2             | 2                |                    |               |                  |
| Miscellaneous     | 3             | 3                |                    |               |                  |
|                   | 101           | 116              |                    |               |                  |

Table III

Showing Total Number of First Aid Men Trained.  
1912-1918

|                                |     |
|--------------------------------|-----|
| Number trained-----            | 310 |
| " received certificates-----   | 235 |
| " left service of Company----- | 49  |
| " deceased-----                | 3   |
| " now employed-----            | 258 |

Table IV

Showing Total Number of Mine Rescue Men Trained  
1912-1918

|                                |     |
|--------------------------------|-----|
| Number trained-----            | 223 |
| " left service of Company----- | 35  |
| " disqualified-----            | 48  |
| " deceased-----                | 3   |
| " now employed-----            | 137 |

Table V, showing number of accidents\* receiving first aid treatment, etc.

| Mine                  | Received Treatment | Treatment not Necessary | Information Lacking |
|-----------------------|--------------------|-------------------------|---------------------|
| Athens                | 9                  | 1                       | 1                   |
| Cliffs Shaft          | 53                 | 10                      | 23                  |
| Francis               | 13                 | 2                       | 1                   |
| Gwinn                 | 22                 | 1                       | 3                   |
| Holmes                | 42                 | 3                       | 4                   |
| Lake                  | 41                 | 6                       | 6                   |
| Morris-Lloyd          | 29                 | 7                       | 9                   |
| Maas                  | 26                 | 8                       | 11                  |
| Mackinaw              | 10                 | 1                       |                     |
| Gardner               | 7                  |                         |                     |
| Negaunee              | 23                 | 1                       | 2                   |
| Princeton             | 22                 | 11                      | 4                   |
| Republic              | 33                 | 22                      | 1                   |
| Salisbury             | 10                 | 3                       | 3                   |
| Spies                 | 5                  | 1                       | 3                   |
| Stephenson            | 2                  |                         |                     |
| Barnes & Hecker       | 2                  |                         | 4                   |
| McClure Plant         | 7                  |                         | 1                   |
| Angeline              | 3                  |                         | 2                   |
| General Storehouse    |                    |                         |                     |
| Jackson               |                    |                         | 1                   |
| Hospital Grounds      |                    |                         |                     |
| Crosby                | 1                  |                         | 3                   |
| Meadow                |                    | 2                       |                     |
| Helmer                |                    |                         | 1                   |
| Wade                  |                    |                         |                     |
| North Lake Club House |                    |                         |                     |
|                       | 363                | 79                      | 63                  |

\*Fatalities not included; number not receiving treatment 52.

#### SAFETY INSPECTION

The Company gave employment last year to approximately 2300 men, who worked underground. These men were lowered and hoisted twice daily with a factor of safety that probably is not exceeded in the handling of people in the elevator of a modern hotel. To insure the maximum amount of safety possible these men ride in an enclosed cage and under the supervision of a cager. The cager makes out a daily report in which he indicates if the safety rules of the Company have been observed. The cage is inspected every morning or noon hour by the blacksmith. The hoisting cable is inspected daily by the mine mechanic, who makes out a report. Cage catches are tested once a month by either the mine mechanic or the surface foreman and in the presence of either the superintendent or the mining captain. At most of our mines a re-



peating bell signal has been installed and hence the possibility of a misunderstanding of signals is eliminated. The only mine in which danger exists at the present time is the Cliffs Shaft mine where there is not a regulation cage compartment, skips being replaced by cages for hoisting men. The bell levers at the plats can not be placed where the cager can reach them from the cage, as the ore and rock, which falls from the skip dump, destroys them. On this account the bell levers are located several feet from the edge of the shaft compartment and therefore the cager must step from the cage when giving a signal.

Our underground employees are required to travel the second outlet of the mine in which they work once in three months. Unless there is an accident to the hoisting equipment the men do not use the ladder roads in shaft or the second outlet with this exception. In order to be sure that the ladderways are kept in good condition they are inspected weekly by the timberman of the mine, who makes a weekly report of his inspection. The timberman also inspects the cage and skip compartments in shaft, paying particular attention to the runners, and <sup>in</sup> winter time, to the possible accumulation of ice. He also files a report of this inspection.

The fire equipment on surface, such as hose, hydrants and etc., are tested once in three months either by the mechanic or the surface foreman, who makes a report of his inspection.

These various reports are initiated by the superintendents of the mines and forwarded to the general office where they are received by the Safety Department. Each report is checked and any unfavorable comments are called to the attention of the Safety Inspector. Whenever a report is missing or delayed in reaching the office of the Safety Department, the mine is notified. The safety of employees and property is better assured by this process. A laxity in the enforcement of the rules governing these various operations would be contagious and it is only by constant attention and supervision that we succeed in having the reports come in promptly. To the man at the mine the most important work absorbs his attention and in the daily routine of his duties he is apt to overlook the reports without being guilty of negligence.

All of the mines in Marquette county were inspected monthly by the Safety Inspector with the exception of the mines of the Gwinn district, which were not inspected in December because of the Influenza which was at its height when the regular inspection should have been made. The Spies mine was inspected three times during the year. No inspection was made of the mines in Minnesota.

#### Workmen's Committee

Committees of workmen inspected all producing mines in Marquette county during May.

#### Foreman's Committee

A committee of shift bosses, consisting of Henry Rogers, Negaunee mine, Edward Trenery, Princeton mine, and Roger Wilcox, Lake mine, made a tour of inspection of the mines of Marquette county in October.

#### Committee on Mechanical and Surface Equipment

The members of this committee were G. R. Thompson, Mechanic, Republic mine, L. S. Voelker, Electrician, Ishpeming District, and Ole Wallin, Mechanic, Lake mine. The inspection was made in September.

#### Central Safety Committee

The Central Safety Committee met monthly during the year, with an average attendance of eight members. Mr. Eaton and Mr. Meyers were absent after the April meeting, at which time they enlisted in the United States Army. Mr. Jackson continued to preside as chairman during the absence of Mr. Elliot.

#### TABLE VI

The following table gives the number of foreman and workmen by mines, who have served on safety inspection committees since the beginning of safety work.

| <u>Mines</u>     | <u>Foreman</u> | <u>Workmen</u> |
|------------------|----------------|----------------|
| Athens           | 1              | 0              |
| Austin           | 1              | 12             |
| Chase            | 1              | 18             |
| Cliffs Shaft     | 5              | 36             |
| Gardner-Mackinaw | 0              | 3              |
| Gwinn            | 2              | 27             |
| Holmes           | 0              | 3              |



Table VI (Con'd)

| <u>Mines</u> | <u>Foremen</u> | <u>Workmen</u> |
|--------------|----------------|----------------|
| Lake         | 6              | 26             |
| Maas         | 6              | 36             |
| Morris-Lloyd | 5              | 36             |
| Princeton    | 2              | 12             |
| Republic     | 4              | 18             |
| Salisbury    | 4              | 30             |
| Stephenson   | 4              | 33             |
| Shops, etc.  | 3              | 0              |
|              | <u>51</u>      | <u>324</u>     |

GENERAL SAFETY PRECAUTIONS

Rules and Regulations

Our supply of rules and regulations for workmen became exhausted and it was necessary to print another issue. A committee consisting of Mr. Moulton and the Safety Inspector was appointed by the Central Safety Committee to revise the rules so that they would comply with the changes which have been made during the past seven years. The revised form has been printed in English, Italian and Finnish Languages and a sufficient supply was printed to last several years. Copies of these rules were distributed to all the mines. Receipts for these books are returned to the Safety Department when they are given to new employees.

Rules for Hoisting Engineers

The rules for hoisting engineers were printed and a copy was given to each hoisting engineer in the employment of the Company. Many of the engineers had previously received the rules but as it was many years ago, it was decided advisable to remind them of the responsibility of their work, by having them sign again. We also realize that it was possible that a number of the hoisting engineers may have failed to receive a copy.

Cage Devices

There are times when it is necessary to handle cars of rock on the cage and it is not feasible to use the standard chair for supporting the cage. It was decided by the Central Safety Committee that when chairs are provided for cages, such chairs must be of a type approved by the Central Safety Committee. It was also decided when hoisting rock on the cage, the

hoisting engineers should lift the cage on the first signal to hoist and



should not hoist the cage further until a second signal is given. The cager must operate the catches from the stations. These precautions have been recommended in order to prevent a repetition of the fatality which occurred to the cage rider at the Gwinn mine, Jan. 6th.

The accident in the Cliffs Shaft mine in which one man was killed and another seriously injured, called attention to the necessity of adopting some measure by which a repetition of a similar accident could not occur. A committee consisting of Mr. McClure, Captain Rough and Mr. Conibear was appointed to inspect the cages and report to the Central Safety Committee. Two recommendations were submitted by this Committee, namely:

(1) The placing of a bar of iron  $3/4$  inches by 3 inches in cross section in the floor of a cage with each end turned up sufficient to make two inches engagement of the swinging doors.

(2) A devise for holding a car in place on a cage, which is to be standard in all mines.

#### Underground Storage of Explosives

Specific rules were made by the Federal Government for the storage of explosives in the mines. These rules have been enforced in all the mines of the Company.

#### Barnes & Hecker Crosshead

Six members of the Central Safety Committee inspected the Barnes & Hecker mine crosshead on April 11th. A number of changes were offered to Superintendent Bush and after changes were made to comply with these suggestions, the crosshead was installed.

#### Shaft Sinking - Holmes Mine

Four members of the Central Safety Committee inspected the cage which is used in the Holmes mine. It had been decided to use the same cage which was used in sinking the Athens shaft but as the conditions were different it was necessary to have a thorough inspection made before operating

the cage. Doors and side casing were not practicable and in place of these three iron bars were recommended. The cage is smaller than the standard cage and on this account filling in pieces at the collar of shaft, tunnel, and plats were recommended.

#### Overwinding Device.

Six overwinding devices were installed on electric hoists, there remaining but a few hoists that are not equipped with this important device. The slack rope device has been installed wherever it will be of value.

#### Electric Sub Stations

It was the custom formerly to erect electric sub stations in enclosed buildings, but recently they are placed in the opening. To keep boys from coming in contact with the high voltage wires, it is necessary to place a very strong and effective protection around them. This has been done at the Cliffs Shaft and Gwinn sub stations but the stations located at Morris-Lloyd, Barnes & Hecker, and Republic mines have not been completed.

#### Company's Calander

3700 calenders were distributed to employees. This calander was a picture of the Company's Fifth Annual First Aid Contest, which was held in 1916 at the Company's general office and in which forty men participated. A safety admonition was printed on the calander.

#### Repeating bell signals.

This system is used in the Gwinn, Francis, Mackinaw, Gardner, Maas, Negaunee, Athens, Holmes and Morris-Lloyd mines. It is to be installed in the Republic mine and has been recommended for the Cliffs Shaft. The Salisbury mine has a pull wire system for the cage and the life of the Lake mine does not warrant a change. All employees employed underground in the Princeton mine climb down although they ride up. It is expected to handle the men in No. 3 shaft when it is completed to the bottom level.



SUMMARY OF THE MOST IMPORTANT SAFETY DEVICES ADOPTED AT THE MINES

Angeline

Open cage has been replaced by standard enclosed cage.  
Level plats lighted; wiring in shaft entirely overhauled.  
Ladder roads in shaft and in second outlet repaired.  
Top tram trestle equipped with guard rails, toe boards, etc.  
Collar of shaft protected in accordance with safety rules  
Turn sheaves of hoisting ropes guarded.  
Moving machinery and electric wires in the engine house guarded.  
Lights placed along traveling roads between dry and collar of shaft.  
Ambulance room in dry constructed but not completed in accordance with the rules of the Central Safety Committee.

Athens

A derailing device installed at entrance to cage compartment of shaft at plats.  
All plats wired, pockets equipped with gratings, etc. in accordance with the rules.  
Pump station made fire proof, moving machinery guarded.  
Railing at collar of shaft replaced by gates. Shaft cased between compartments from collar of shaft to dumps; runways and ladders at pockets guarded; top tram equipped with guards, toe boards, etc.  
Gears and belting of machinery in shop equipped with guards.  
First aid room completed with standard equipment.  
Carbide room built for storage of carbide and for distribution of same. Steam pipes in change house covered with asbestos to prevent accidental contact.  
Passage ways and roads across surface railway and locomotives tracks guarded.

Barnes & Hecker

Special passage ways around shaft have been provided for top lander,  
Sheaves in head frame guarded.  
Safety crosshead installed, rope resocketed twice since installation.  
Protection provided around steam pipes.  
Ambulance room constructed in dry house.

Cliffs Shaft

The trestle from "A" shaft to crusher extends over shops. Large



CLIFFS SHAFT (CON'D)

Pieces of ore occasionally fall off car. Protection erected to prevent pieces falling upon buildings.

Gears, belting and runways of coal conveyor guarded.

Gears of shear and punch press guarded.

The 15th level pump station made fire proof; moving machinery guarded; permanent stairs and runways provided.

Bottom of shaft compartment is on level with plat and has been cased off completely to prevent chunks bounding on to plat.

There are 22 plats in this mine. Gates and chains protecting same have been largely reconstructed and made more secure.

Traveling roads between the 10th and 15th levels, other than three shafts, have been opened.

FRANCIS

Pump station made fire proof. Underground wiring placed in conduit wherever necessary.

Casing of the skip compartment completed.

Moving machinery of new hoist and compressor protected.

Ambulance room overhauled and equipped.

Carbide room built for storage of carbide and distribution of same.

GWINN

Rope and moving machinery of underground hoist guarded.

Sollars placed in high raises.

9th level equipped with standard safety devices.

Bottom levels of mine connected with upper raises.

Wiring of sub station guarded.

The top of shaft has been enclosed, which required new runways, guards, etc.

GARDNER-MACKINAW

Pump stations made fire proof.

Both shafts connected, providing a second outlet, for both.

Doors installed to prevent accumulation of ice in shaft.

Shaft stations equipped with standard safety device.

Light wires, haulage wires, etc., installed according to

GARDNER-MACKINAW (CON'D)

code and guarded at timber and at chutes.

Permanent trestle at both shafts equipped with runways, guards, etc.

HOLMES

Sollars placed in high raises.

Safety cage installed for shaft sinking.

Chute and runways for handling shaft dirt at the second level constructed so as to provide safety for shaft men.

Protection taken to provide against inrush of water from Section 16 Mine, such as installing pumps, two dams, etc.

Special care given to safety of men working in close proximity to boundary line of Section 16.

A number of changes made in the shaft house, crusher, and pockets.

A shed was erected at the lower entrance to dry to protect employees from stray chunks falling from overhead trestle.

Floor of trestle extended where it crosses over buildings.

LAKE

Ladder in engine house equipped with non-skidding device.

Ladder road in shaft repaired from collar of shaft to the bottom; much of it was very defective. Especial attention was given to casing.

New sub levels connected directly with second outlet.

Control of air coming through the second outlet is such that the ventilation is highly satisfactory.

The bottom of water in the old Lake Superior mine has been drained and the danger from an inrush of water has been passed. Safety precautions were carried out until this was reached.

MORRIS-LLOYD

Casing planks between cage and skip compartments strapped to prevent projecting in descending cage.

Double doors placed across cage compartment at all plats to prevent chunks of ore or rock from bounding off cage onto plats.

New levels of Morris shaft connected by raises.

New plats and pump stations equipped with standard safety device.

Switch boards in engine house guarded on the sides.

A number of new runways <sup>and</sup> guards provided around trestle of both shafts.



MORRIS-LLOYD (CON'D)

Haulage drifts between Section 16 and Lloyd shaft, switches, chutes, etc., lighted.

The guards on sub level tram cars were not sufficiently strong; replaced with new ones.

New caved area, at Section 6 open pit, fenced.

Position of cage bell lever changed at a number of plats so that riders can reach them without stepping off cage.

MAAS

Runways and gears of coal crusher protected.

Outside entrance to sub stations closed, passage way placed inside, from the engine house building.

Counterweight ropes in tram shanty protected.

Fence placed around outside sub station.

New second outlet provided from lower levels.

Shaft cased from collar to dump.

Driving and bevel gear of bolt cutter guarded.

Sub level tram cars equipped with guards.

Permanent protection against falling ice at entrance to boiler house.

Guards erected on sides of switch boards.

Basement of engine house and boiler house cleaned; many obstructions removed.

NEGAUNEE

Exposed steam pipes in dry house protected.

Drift has been started towards the Athens mine to make a second outlet for the latter mine.

New level has been equipped with standard safety device.

Head frame around the collar of No. 2 shaft over-hauled and made more fire proof. Combustible material in vicinity removed.

Tracks leading from the yards and shops into tunnel cleaned; loose lumber piled and general appearance improved.

PRINCETON

Head frame remodeled and a number of passageways, guards, etc., constructed.

New level equipped with standard safety device; main drift lighted; frogs at switches equipped with finning in pieces.

New level connected with the second outlet; second outlet repaired.



PRINCETON (CON'D)

Ambulance room erected in the dry; steam pipes protected.

REPUBLIC

There are many surface buildings at this mine; wiring of same inspected and many repairs made.

Counterweight pipe in shaft completed and the ladder road from the bottom of shaft to surface made safe.

Doors erected in both shafts where shaft sinking is in progress.

It is now the practice, when a lense of ore has been encountered, to immediately put a raise up to the level above. This results in a decided improvement in ventilation.

Skip road in Pascoe shaft is safer than formerly as the concrete portion has been blasted out and replaced by wooden bearers.

Underground locomotives are being installed and tracks, drifts, etc., are being placed in a condition to make its operation safe.

Moving machinery ropes, etc., of underground hoists guarded.

Working condition of fireman in No. 6 engine house has been greatly improved by the increased efficiency of water plant. This has resulted in much less dissatisfaction, which prevailed there for a long time.

SALISBURY

Rail along the inclined ladder road in shaft erected.

Fence around open pit repaired.

Wiring repaired and made to conform with the National Code.

First aid room equipped in accordance with rules.

SPIES

Belting of new air compressor guarded.

Fly wheel of top tram guarded.

Safer passage ways between sub levels and stopes made.

Casing from collar of shaft to tunnel completed. Additional railing provided.

Top sheave at head frame guarded.

Electric wires overhauled and made to conform with National Code.

Passage way around crusher and to top sheave made more secure.

GENERAL STOREHOUSE

In General Storehouse a board partition has been erected between electric sub station and storing place for bars of iron and steel.

SUPPLIES AND REPAIRS FOR MINE RESCUE AND FIRST AID WORK

The supplies and repairs, represented by the money spent in Table VII, 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 1917 for similar supplies and repairs amounted to \$735.41.

TABLE VII

|                           |             |                 |
|---------------------------|-------------|-----------------|
| Rescue apparatus supplies |             | \$151.70        |
| "    "    repairs         |             | 238.02          |
| Lungmotor repairs         |             | 26.20           |
|                           | Total       | <u>\$415.92</u> |
| First aid supplies        |             | 358.06          |
|                           | Grand Total | <u>\$773.98</u> |

EXPENSES OF THE SAFETY DEPARTMENT FOR 1918

Table VIII

Supplies

|                                 |       |                 |
|---------------------------------|-------|-----------------|
| Printing rules, Calenders, etc. |       | \$268.66        |
| Central Safety Committee, etc.  |       | 46.50           |
| Mine Rescue and First Aid       |       | 63.88           |
|                                 | Total | <u>\$379.04</u> |

Traveling

|                              |       |                 |
|------------------------------|-------|-----------------|
| Inspector                    |       | \$245.10        |
| Foreman                      |       | 194.56          |
| Committee on Fatal Accidents |       | 72.21           |
| Central Safety Committee     |       | 58.87           |
| Miscellaneous Committees     |       | 40.86           |
|                              | Total | <u>\$603.60</u> |

General Equipment 2.35

Salaries

|             |       |                  |
|-------------|-------|------------------|
|             | Total | \$6672.53        |
| Grand Total |       | <u>\$7657.52</u> |



## ACCIDENTS

We had thirteen fatalities during the year, the highest number in one year since 1910. As the number of employees was the highest in the history of the Company, the fatal rate is less than the rates in 1913 and 1914 but higher than the rates recorded for the other years of Safety Work. The rate for 1918 was 3.45, whereas in 1913 and 1914 it was 4.20 and 4.10 respectively. The average rate for the past eight years is 2.73 and the average for the eight years prior to 1911 was 4.77. Eight of the thirteen fatalities in 1918 were classified trade risk accidents by the Central Safety Committee, seven of which were accidents by falls of ground. Two cage riders were killed early in the year, and one employee was killed in the Stephenson mine in December, 1917, while in the act of stepping on a cage. We therefore suffered three fatalities of workmen in the operation of cages within five months, whereas previously to these accidents we had had an eight year record which was not marred by a fatality in the use of cages. Lowering and hoisting employees in cages in 1918 aggregated a total of more than 2,500,000 men a single trip. Two of these three fatalities were caused by carrying cars on cages, and the third was due to a misunderstanding of signals which resulted from extraordinary work incidental to the flooding of the Stephenson mine. Of the five accidents in 1918, which were classified preventable, two were caused by thoughtlessness on the part of young men, and the other three occurred to older men who were skillful and experienced in their occupations. We have endeavored to impress on all employees the lessons which these accidents have taught by posting notices on the Safety Bulletins Boards, describing the accidents and urging employees to refrain from practices which result in personal injuries.

There are times when the problem of eliminating preventable accidents seems almost hopeless. The ratio of the number of these accidents to the total number occurring bears about the same proportion year after year. The number of non-fatal accidents last year is the lowest in eight years, both in the number reported and in the number which were so serious as to call for compen-



sation. However, we do not feel confident that this record will be maintained. All the risks involved in deep mining can not be safe guarded but in the work of accident prevention more depends upon the thoughtfulness and carefulness of the workmen themselves than upon safety devices. Last year our Company bought 2,109,00 pounds of dynamite, 3,839,300 feet of fuse and 672,860 detonators. Most of this material was used without sustaining a serious injury. We cannot expect that this record can be maintained from year to year. When an eight year period of operating cages without a fatality is followed by a three fatalities within five months period, we can reasonably assure ourselves that the more dangerous occupation of using explosives is bound to be characterized sooner or later by fatalities. A study of the preventable accidents does not indicate that it is the new and inexperienced man who is most liable to injury, but it <sup>does</sup> indicate that very many preventable accidents are caused by men being so fully absorbed in obtaining certain results that they are apparently not cognizant of the danger involved in doing this work until it is too late. For instance, a superintendent of a large mining company was inspecting a shaft which needed his attention. Standing on the collar of the lower level he leaned forward in the shaft to make an upward observation. The skip was being loaded below in the same compartment of the shaft. He had every opportunity to observe the position of the skip and to note that it was starting upward by the rope in front of him. His over attention to the work in hand caused his death. Just recently a safety inspection committee, comprising a mining superintendent, captain, Safety Inspector and two workmen were inspecting a mine. As they walked along they talked of the war and labor conditions and before they realized, the forenoon was almost passed and their remained two contracts that had not been inspected. They did not wish to return to the mine after the noon hour and so they hastened into the breast of the drift, just as several holes exploded. A serious accident resulted, The miners of the contract were discharged, but it was the consensus of opinion that the committee was as much to blame as the miners. They were thinking of completing the task before the noon hour, but on the other hand the danger should have been apparent to them.

From 1903 to 1910 forty-three fatal accidents were attributed to negligence of workmen; from 1910 to 1918, twenty-two fatalities were given this classification. For the same period trade risk accidents fell from thirty-six to thirty, and accidents classified due to negligence of the Company were ten for each period. This is conclusive proof that were it not for special safety activity the number of preventable accidents would have been high, when it is remembered that the Company has materially increased its operation and has opened a number of new properties, the development of which entails a higher risk than that which is involved in a mine which is opened and mining is in full swing.

TABLE IX

CLASSIFICATION OF ALL ACCIDENTS FROM 1912 TO 1918 INCLUSIVE

BY THE

CENTRAL SAFETY COMMITTEE

|                       |      |      |      |      |      |      |      |
|-----------------------|------|------|------|------|------|------|------|
| I. Trade Risks        | 1912 | 1913 | 1914 | 1915 | 1916 | 1917 | 1918 |
| Trade Risks           | 156  | 239  | 325  | 330  | 472  | 490  | 466  |
| II.                   |      |      |      |      |      |      |      |
| Negligence of Company | 8    | 4    | 7    | 11   | 24   | 12   | 10   |
| III.                  |      |      |      |      |      |      |      |
| Negligence of Workmen |      |      |      |      |      |      |      |
| A. Injured Man        | 36   | 57   | 97   | 72   | 74   | 112  | 98   |
| B. Other Workmen      | 7    | 16   | 14   | 14   | 22   | 25   | 16   |
| Total                 | 207  | 316  | 443  | 427  | 592  | 639  | 590  |



FATAL ACCIDENTS

No. 1. John Oien, a cage rider, was instantly killed in the Mackinaw mine shaft at 2:15 A.M., Jan. 26, when the rail on the cage, which was used in place of a chair, caught in the shaft timber, striking Oien and throwing him between cage and shaft timber. A rule was adopted to prevent a recurrence of a similar accident. Classified preventable accident.

No. 2. Dan Paddock, a laborer, was instantly killed at the Holmes mine, April 9th, when a stick of lagging slipped from a load which he lashed and sent to the level above, striking him on the head. Classified preventable accident.

No. 3. Andrew Bergman, a miner, was caught under a heavy slab of ore in the Lake mine, March 30th, and was injured so seriously that he died at the hospital about two hours later. Bergman and his partner were retimbering a drift and after a set was put up, they blasted an old cap to make room for another set, and while he was cutting out old lagging, ore fell, striking him on the back and side. Classified as a trade risk.

No. 4. George Badger, a cage rider, was instantly killed and Nestor Kauppinen was injured at the Cliffs Shaft mine, April 22nd, when a ton car which they were taking from the 1st. level to the 10th level, caught in the shaft timber and throwing Badger off. He fell to the bottom of the shaft, a distance of 500 feet. Classified preventable accident.

No. 5. Andrew Carlson, a miner, was killed at the Lake mine, May 18, by a fall of ground. After blasting, he and his partner tried to replace a cap which had been lifted up from the joggle by the blast and while so doing, ground on the off side of the drift came in and knocked down the set, catching Carlson. Classified as a trade risk accident.

Nos. 6 - 7. Andrew Kangas and John Zamback were killed at the Meadow mine, Sept. 3rd, by a sand run from the back and side of working place. Classified as a trade risk accident.

No. 8. Frank Bianchi, a miner, was killed at the Princeton mine, October 4th. He and his partner were bracing a set of timber. The motor-man was pushing in a train of empty cars and the switch being turned into



this crosscut, he ran the cars onto Bianchi, who was about 45 feet from the switch. He was squeezed against the staging plank, causing injuries which resulted in his death at the hospital the next morning. Classified preventable accident.

No. 9. John Ravell, a mason, was killed at the McClure Plant, Dead River, Nov. 14th, while doing some construction work on the scaffold near the hoist. He was pulled through an opening in the roof to the floor below, falling about 30 feet, which caused his death a short time later. Classified preventable accident.

No. 10. George Hooper, a shaftman, was injured Dec. 8th, at 10:00 A.M., at the Negaunee mine, when he fell from a plank and a divider to the bottom of the shaft, a distance of 107 feet. He died an hour later. Classified trade risk accident.

No. 11 - 12. Fred Coole and Antonio Bertucci, two miners, were instantly killed by a fall of ground at the Salisbury mine, about 2:00 A.M., Dec. 18th. Classified trade risk accident.

No. 13. William Medlin was instantly killed on Dec. 19th, at 3:30 P.M. at Negaunee mine, and Eino Ekeluoma was slightly injured by a fall of ground. Ekeluoma and two other men, William and Sylvester Arbelius, escaped the falling ground and took refuge in an old abandoned stope where they were rescued after being entombed for more than 63 hours. Classified as a trade risk accident.

TABLE X

Fatal Accidents in 1918.

| <u>No.</u> | <u>Date</u> | <u>Mine</u>  | <u>Name</u>                     | <u>Occupation</u> | <u>Cause.</u>                         |
|------------|-------------|--------------|---------------------------------|-------------------|---------------------------------------|
| 1.         | Jan. 26.    | Mackinaw     | John Oien                       | Cage rider        | Caught between cage and shaft timber. |
| 2.         | April 9.    | Holmes       | Dan Paddock                     | Laborer           | Struck by falling stick of lagging.   |
| 3.         | March 30.   | Lake         | Andrew Bergman                  | Miner             | Fall of ground.                       |
| 4.         | April 22.   | Cliffs Shaft | George Badger                   | Cage Rider        | Fell down shaft.                      |
| 5.         | May 19.     | Lake         | Andrew Carlson                  | Miner             | Fall of ground.                       |
| 6-7.       | Sept. 3.    | Meadow       | Andrew Kangas -<br>John Zamback | Miners            | Run of sand.                          |
| 8.         | Oct. 4.     | Princeton    | Frank Bianchi                   | Miner             | Struck by motor car.                  |

TABLE X CON'D

| No.    | Date     | Mine          | Name                                    | Occupation | Cause              |
|--------|----------|---------------|---|------------|--------------------|
| 9      | Nov. 14  | McClure Plant | John Ravell                             | Mason      | Fell from scaffold |
| 10.    | Dec. 8   | Negaunee      | George Hooper                           | Shaftman   | Fell down shaft    |
| 11-12. | Dec. 18. | Salisbury     | Fred Coole -<br>Antonio Bertucci Miners |            | Fall of ground     |
| 13.    | Dec. 19. | Negaunee      | William Medlin                          | Miner      | Fall of ground     |

TABLE XI

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

|              | Trade Risk | Negligence of Company | Negligence of Workmen | Total     |
|--------------|------------|-----------------------|-----------------------|-----------|
| 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        |
| <b>Total</b> | <b>36</b>  | <b>10</b>             | <b>43</b>             | <b>89</b> |
| 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        |
| <b>Total</b> | <b>30</b>  | <b>10</b>             | <b>22</b>             | <b>62</b> |

|                                      | 1904-1910 | 1911-1918 |
|--------------------------------------|-----------|-----------|
| Accident rate per 1000 employees     | 4.77      | 2.73      |
| Tons of ore mined per fatal accident | 178, 161  | 319,723   |

Non-Fatal

The number of non-fatal accidents reported to the Michigan and Minnesota State Industrial Boards was 545. We paid compensation on 196.

The number of accidents and the rates per 1000 men employed, since the compensation law in Michigan and Minnesota was enacted, are as follows:

|                              | 1913 | 1914 | 1915 | 1916 | 1917 | 1918 |
|------------------------------|------|------|------|------|------|------|
| Number reported to State     | 514  | 443  | 427  | 592  | 639  | 577  |
| Rate per 1000 employees      | 195  | 182  | 185  | 193  | 184  | 156  |
| Number received compensation | 201  | 179  | 155  | 263  | 264  | 230  |
| Rate per 1000 employees      | 80   | 82   | 67   | 86   | 76   | 62   |

TABLE XII

Showing Number of Accidents by Mines Reported to State  
from 1913 to 1918, and the Rates per 1000 Men Employed.

| Mine             | Number Reported<br>to State |      |      |      |      |      | Rate per 1000 Men<br>Employed |      |      |      |      |      |
|------------------|-----------------------------|------|------|------|------|------|-------------------------------|------|------|------|------|------|
|                  | 1913                        | 1914 | 1915 | 1916 | 1917 | 1918 | 1913                          | 1914 | 1915 | 1916 | 1917 | 1918 |
| Angeline         |                             |      |      |      |      | 6    |                               |      |      |      |      | 95   |
| Athens           | 1                           | 5    | 7    | 3    | 6    | 12   | 130                           | 156  | 162  | 53   | 85   | 80   |
| Austin           |                             |      |      |      | 5    |      |                               |      |      |      | 109  |      |
| Barnes & Hecker  |                             |      |      |      |      | 13   |                               |      |      |      |      | 28   |
| Cliffs Shaft     | 78                          | 49   | 43   | 89   | 93   | 86   | 267                           | 164  | 138  | 247  | 248  | 238  |
| Crosby           |                             |      |      | 15   | 25   | 21   |                               |      |      | 134  | 167  | 146  |
| Francis          |                             |      | 6    | 19   | 19   | 17   |                               |      | 222  | 333  | 268  | 180  |
| Gwinn            | 4                           | 34   | 42   | 46   | 44   | 27   | 80                            | 250  | 236  | 255  | 260  | 166  |
| Gardner-Mackinaw |                             |      |      |      | 16   | 20   |                               |      |      |      | 254  | 202  |
| Holmes           |                             |      |      | 31   | 26   | 51   |                               |      |      | 413  | 183  | 309  |
| Lake             | 82                          | 45   | 42   | 47   | 49   | 55   | 239                           | 183  | 161  | 165  | 148  | 146  |
| Maas             | 35                          | 22   | 9    | 19   | 32   | 45   | 130                           | 98   | 90   | 81   | 107  | 143  |
| Meadow           |                             |      |      | 5    | 6    | 8    |                               |      |      | 75   | 83   | 112  |
| Morris-Lloyd     | 43                          | 62   | 53   | 44   | 55   | 46   | 221                           | 243  | 192  | 143  | 207  | 187  |
| Negaunee         | 53                          | 35   | 33   | 45   | 46   | 29   | 148                           | 113  | 119  | 121  | 124  | 85   |
| Princeton        |                             |      |      |      |      | 40   |                               |      |      |      |      | 167  |
| Republic         |                             | 61   | 110  | 97   | 77   | 61   |                               | 344  | 402  | 358  | 318  | 266  |
| Salisbury        | 27                          | 21   | 5    | 29   | 18   | 17   | 182                           | 178  | 109  | 230  | 140  | 134  |
| Stephenson       | 124                         | 72   | 57   | 73   | 57   |      | 378                           | 255  | 230  | 200  | 295  |      |
| Spies            |                             |      |      | 23   | 26   | 10   |                               |      |      | 460  | 309  | 119  |
| Wade             |                             |      |      |      |      | 2    |                               |      |      |      |      | 17   |
| Miscellaneous    | 67                          | 37   | 20   | 23   | 23   | 22   | 190                           | 80   | 31   | 94   | 109  | 43   |

TABLE XIII

Showing Number receiving Compensation Payments by Mines  
from 1913 to 1918, and the Rates per 1000 Men Employed.

| Mine             | Received Compensation |      |      |      |      |      | Rate per 1000 Men Employed |      |      |      |      |      |
|------------------|-----------------------|------|------|------|------|------|----------------------------|------|------|------|------|------|
|                  | 1913                  | 1914 | 1915 | 1916 | 1917 | 1918 | 1913                       | 1914 | 1915 | 1916 | 1917 | 1918 |
| Angeline         |                       |      |      |      |      | 4    |                            |      |      |      |      | 63   |
| Athens           | 1                     | 4    | 3    | 0    | 4    | 6    | 130                        | 125  | 70   | 0    | 57   | 41   |
| Austin           |                       |      |      |      | 4    |      |                            |      |      |      | 87   |      |
| Cliffs Shaft     | 32                    | 17   | 19   | 47   | 44   | 27   | 112                        | 52   | 60   | 130  | 117  | 74   |
| Barnes & Hecker  |                       |      |      |      |      | 2    |                            |      |      |      |      | 44   |
| Crosby           |                       |      |      | 6    | 11   | 6    |                            |      |      | 53   | 74   | 44   |
| Francis          |                       |      | 3    | 5    | 7    | 3    |                            |      | 111  | 88   | 98   | 31   |
| Gwinn            | 1                     | 13   | 10   | 18   | 17   | 13   | 20                         | 95   | 56   | 78   | 100  | 79   |
| Gardner-Mackinaw |                       |      |      |      | 2    | 4    |                            |      |      |      | 32   | 40   |
| Holmes           |                       |      |      | 15   | 8    | 21   |                            |      |      | 200  | 56   | 127  |
| Lake             | 37                    | 26   | 18   | 23   | 28   | 21   | 110                        | 105  | 68   | 81   | 84   | 61   |
| Maas             | 16                    | 14   | 5    | 14   | 12   | 21   | 58                         | 62   | 50   | 60   | 40   | 65   |
| Meadow           |                       |      |      | 3    | 3    | 6    |                            |      |      | 50   | 37   | 84   |
| Morris-Lloyd     | 19                    | 15   | 22   | 25   | 16   | 15   | 98                         | 58   | 79   | 81   | 60   | 65   |
| Negaunee         | 17                    | 25   | 17   | 32   | 31   | 23   | 48                         | 80   | 61   | 86   | 83   | 65   |
| Princeton        |                       |      |      |      |      | 20   |                            |      |      |      |      | 84   |
| Republic         |                       | 23   | 26   | 25   | 22   | 13   |                            | 130  | 100  | 92   | 91   | 55   |
| Salisbury        | 12                    | 6    | 0    | 14   | 8    | 10   | 81                         | 50   | 0    | 111  | 62   | 78   |
| Stephenson       | 37                    | 26   | 25   | 25   | 30   |      | 121                        | 92   | 101  | 88   | 121  |      |
| Wade             |                       |      |      |      |      | 3    |                            |      |      |      |      | 26   |
| Spies            |                       |      |      | 6    | 12   | 2    |                            |      |      | 120  | 143  | 23   |
| Miscellaneous    | 29                    | 10   | 8    | 9    | 15   | 9    | 85                         | 12   | 22   | 37   | 52   | 17   |

The following table gives the number of accidents and also the  
number which were classified as preventable by the Central Safety Committee



for the past seven years.

TABLE XIV

| Year | Number of Accidents | Preventable Accidents | Percent 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                  |

TABLE XV

Percentage of Fatal and Non-Fatal Injuries.

Compared by Causes.

|                             | Fatalities       |         | Non-Fatal Injuries |         |
|-----------------------------|------------------|---------|--------------------|---------|
|                             | <u>1898-1918</u> |         | <u>1918</u>        |         |
|                             | Number           | Percent | Number             | Percent |
| Falls of ground, sand, etc. | 76               | .41     | 132                | .22     |
| Shaft                       | 45               | .24     | 13                 | .02     |
| Explosives                  | 22               | .12     | 4                  | .007    |
| Mine and Railroad Cars      | 20               | .11     | 62                 | .12     |
| Miscellaneous Causes        | 20               | .11     | 366                | .63     |
| Total                       | 183              | .99     | 577                | .997    |

TABLE XVI

CLASSIFICATION OF NON-FATAL ACCIDENTS

1918

|   |   |                    |
|---|---|--------------------|
| <b>A. <u>Fall of Ground or Timber</u></b> |   |                    |
| 1.  | By fall of ground from back or side (drift, raise or stope)                         | 88                 |
| 2.  | By fall or run from chute   | 24                 |
| 3.  | By fall of stray chunk or stick down raise or stope                                 | 12                 |
| 4.  | By run of mud or sand   | 5                  |
| 5.  | By lagging, sprag or timber falling from back or side                               | 3                  |
|   | Total   | <u>132</u>         |
| <b>B. <u>Shaft Accidents.</u></b>         |   |                    |
| 2.  | By rock or timber falling down shaft, etc.  | 7                  |
| 3.  | By being struck or caught by cage, skip bucket or tool                              | 4                  |
| 5.  | By falling from ladder, staging, etc. in shaft                                      | 1                  |
| 6.  | Miscellaneous   | 1                  |
|   | Total   | <u>13</u>          |
| <b>C. <u>Use of Explosives</u></b>        |   |                    |
| 2.  | By fall of ground or timber due to blast  | 1                  |
| 4.  | Miscellaneous causes  | 3                  |
|   | Total   | <u>4</u>           |
| <b>D. <u>Mine and Railroad Cars.</u></b>  |   |                    |
| 1.  | By being caught between cars or motor and drift                                     | 13                 |
| 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                 |
| 5.  | By cars falling back or off track   | 6                  |
| 6.  | By falling from car   | 2                  |
| 7.  | By running car over foot  | 2                  |
| 8.  | By being struck by car handle, car rebounding, etc.                                 | 4                  |
| 9.  | By being struck by motor or car.  | 4                  |
| 10.                                       | By miscellaneous causes   | 1                  |
|   | Total   | <u>62</u>          |
| <b>E. <u>Miscellaneous Causes</u></b>     |   |                    |
| 1.  | By falling down raise, stope or mill  | 3                  |
| 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.     | 57                 |
| 5.  | By straining or wrenching arm, back, side, or leg by lifting                        | 36                 |
| 6.  | By chunk rolling down pile, stockpile, off car, etc.                                | 46                 |
| 7.  | By being struck by glancing dirt, tool or timber                                    | 67                 |
| 8.  | By being struck by pick, shovel, hammer, timber, etc.                               | 23                 |
| 9.  | By tools or material falling or slipping from hand, staging or platform.            | 27                 |
| 10.                                       | By running nail into hand, foot or leg  | 11                 |
| 11.                                       | By stumbling or slipping causing a fall   | 29                 |
| 12.                                       | By catching finger, hand or foot in blocks, gears, brakes, struck by windlass       | 22                 |
| 13.                                       | By wrenching or tong slipping causing a fall  | 1                  |
| 14.                                       | By blood poison or infection from various causes                                    | 10                 |
| 15.                                       | By contact with electric wire   | 1                  |
| 16.                                       | By being scalded or burnt   | 4                  |
| 17.                                       | By blistering hand  | 1                  |
| 18.                                       | By sliver in finger, etc  | 3                  |
| 19.                                       | By miscellaneous accidents (underground)  | 1                  |
| 20.                                       | By miscellaneous accidents (surface)  | 9                  |
|   | Total   | <u>366</u>         |
|   |   | <u>Grand Total</u> |
|   |   | 577                |

TABLE XVII

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 |                |
|--|-----|-----|-----|-----|-----|-----|-----|-----|----------------|
| 1. By fall of ground from back or side (drift, raise or stope) | 1   | 0   | 7   | 5   | 4   | 2   | 2   | 5   |                |
| 3. By fall of stray chunk or stick down raise or stope         |     |     |     |     |     |     |     |     | 1              |
| 4. By run of mud or sand                                       | 0   | 0   | 0   | 1   | 0   | 0   | 0   | 2   |                |
| Total  | 1   | 0   | 7   | 6   | 4   | 2   | 2   | 8   | 30             |
|  |     |     |     |     |     |     |     |     |                |
| <u>B. Shaft Accidents</u>                                      |     |     |     |     |     |     |     |     |                |
| 1. By falling down shaft                                       | 1   | 1   | 0   | 1   | 0   | 4   | 1   | 1   |                |
| 2. By timber or rock falling down shaft                        | 0   | 0   | 0   | 1   | 0   | 0   | 0   | 0   |                |
| 3. Be being caught or struck by cage, skip, bucket or tool     | 0   | 1   | 0   | 0   | 0   | 0   | 0   | 1   |                |
| 4. By falling from cage, skip or bucket                        |     |     |     |     |     |     |     |     | 1              |
| Total  | 1   | 2   | 0   | 2   | 0   | 4   | 1   | 3   | 13             |
|  |     |     |     |     |     |     |     |     |                |
| <u>C. Use of Explosives</u>                                    |     |     |     |     |     |     |     |     |                |
| 1. By explosion of powder at working face                      | 0   | 0   | 1   | 0   | 0   | 0   | 1   | 0   |                |
| 4. By being overcome with gas                                  | 0   | 0   | 0   | 0   | 1   | 0   | 0   | 0   |                |
| Total  | 0   | 0   | 1   | 0   | 1   | 0   | 1   | 0   | 3              |
|  |     |     |     |     |     |     |     |     |                |
| <u>D. Mine and Railroad Cars</u>                               |     |     |     |     |     |     |     |     |                |
| 1. By being run over by haulage car                            | 0   | 1   | 2   | 0   | 0   | 1   | 0   | 1   |                |
| 2. By riding or attempting to ride cars                        | 0   | 0   | 0   | 0   | 0   | 0   | 1   | 0   |                |
| 4. By being run over by railroad car                           | 1   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |                |
| Total  | 1   | 1   | 2   | 0   | 0   | 1   | 1   | 1   | 7              |
|  |     |     |     |     |     |     |     |     |                |
| <u>E. Miscellaneous Causes</u>                                 |     |     |     |     |     |     |     |     |                |
| 1. By falling down raise, stope or mill                        | 0   | 0   | 0   | 0   | 0   | 0   | 1   | 0   |                |
| 2. By falling from ladder, trestle or stage                    | 1   | 1   | 0   | 0   | 0   | 1   | 0   | 1   |                |
| 6. By asphyxiation due to mine fire                            | 1   | 0   | 0   | 2   | 0   | 0   | 0   | 0   |                |
| 15. By contact with electric wire                              | 0   | 0   | 1   | 0   | 0   | 0   | 0   | 0   |                |
| Total  | 2   | 1   | 1   | 2   | 0   | 1   | 1   | 1   | 9              |
|  |     |     |     |     |     |     |     |     | Grand Total 62 |



TABLE XVIII

CLASSIFICATION OF CAUSES OF FATAL ACCIDENTS

FROM DEC. 1ST, 1898 TO JAN. 1ST, 1919.

A. Fall of Ground or Timber.

|  |           |
|--|-----------|
| 1. By fall from back or side (drift, raise or stope)   | 65        |
| 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  | <u>76</u> |

B. Shaft Accidents

|  |           |
|--|-----------|
| 1. By falling down shaft                                   | 14        |
| 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                    | 7         |
| 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  | <u>45</u> |

C. Use of Explosives

|   |           |
|---|-----------|
| 1. By explosion of powder                   | 14        |
| 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                                       | <u>22</u> |

D. Mine and Railroad Cars

|   |           |
|---|-----------|
| 1. By being caught by haulage cars      | 12        |
| 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    | 2         |
| Total                                   | <u>20</u> |

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 fire                       | 3         |
| 7. By being ruptured                                      | 1         |
| 9. By being pulled into sheave                            | 1         |
| 10. By contact with electric wire                         | 1         |
| Total   | <u>20</u> |

Grand Total      183

Average percent of accident<sup>s</sup> by causes

A. 41.50%      B. 24.60%      C. 12.00%      D. 10.90%      E. 10.90%

TABLE XIX  
CLASSIFICATION OF FATAL AND MINOR ACCIDENTS  
FOR THE YEAR 1918  
BY THE CENTRAL SAFETY COMMITTEE

|     |  |             |     |
|-----|--|-------------|-----|
| I   | TRADE RISKS, (INCIDENTAL & NON-PREVENTABLE)  | Total       | 466 |
| II  | NEGLIGENCE OF COMPANY  |             |     |
|     | 1 Failure to Use Safety Devices Provided   |             |     |
|     | 2 Failure to Use Proper Tools or Appliances Provided                               |             |     |
|     | 3 Violation of Rules   |             |     |
|     | 4 Improper Act or Selection of Improper Method of Doing Work (By Foreman)          |             | 2   |
|     | 5 Failure to Instruct Men as to Method of Doing work and Hazards Incident Thereto. |             | 1   |
|     | 6 Failure to Provide Safety Devices  |             | 6   |
|     | 7 Failure to Provide Proper Tools, Appliances, or Place to Work                    |             | 1   |
|     |  | Total       | 10  |
| III | NEGLIGENCE OF WORKMEN:   |             |     |
|     | (1 Failed to Use Safety Devices Provided   |             | 5   |
|     | (2 Failed to Use Proper Tools or Appliances Provided                               |             | 4   |
| A   | INJURED MAN- (3 Violation of Rules   |             | 5   |
|     | (4 Improper Actor Selection of Improper Method of Doing Work. (By Foreman)         |             | 35  |
|     | (5 Carelessness. (By Workman)  |             | 49  |
|     |  | Total       | 98  |
|     | (1 Failed to Use Safety Devices Provided   |             |     |
|     | (2 Failed to Use Proper Tools or Appliances Provided                               |             | 2   |
| B   | OTHER WORKMEN- (3 Violation of Rules   |             |     |
|     | (4 Improper Actor Selection of Improper Method of Doing Work. (By Workman)         |             | 8   |
|     | (5 Carelessness. (By Workman)  |             | 6   |
|     |  | Total       | 16  |
|     |  | Grand Total | 590 |

Respectively submitted,

*William Cowher*  
 Safety Inspector



ANNUAL REPORT  
OF THE PENSION DEPARTMENT  
FOR THE YEAR 1918.

\* \* \* \* \*

PENSION SYSTEM:

The year 1918 completed the tenth year of the operation of the Pension System which has continued satisfactorily in every way.

During the year the wages have been very high and in consequence of this every man has continued to work who was able to do so. There have been very few applications for new pensions and there have been only two additions to the roll during the year:

|       |                   | Mine           | Date Pen-<br>sion began | Monthly<br>Payment |
|-------|-------------------|----------------|-------------------------|--------------------|
| No.80 | Lars Stuen        | Salisbury      | May 1, 1918             | \$ 22.17           |
| No.81 | Cyrille Tourville | Hard Ore Shops | Oct. 1, 1918            | 31.58              |

The following pensions have ceased during the year:

|       |                       |   |
|-------|-----------------------|---|
| No.20 | Chas. Ericksen        | Pension began Feb. 1, 1911;<br>Died March 17th, 1918.               |
| No.21 | Mrs. Serafiina Hill   | End of five year period<br>April 30, 1918. Pension<br>discontinued. |
| No.33 | Gunder Vinge          | Pension began Dec.1, 1911;<br>Died Nov. 8th, 1918.                  |
| No.42 | Patrick Kennedy       | Pension began Mar.1, 1913;<br>Died Feb. 16, 1918.                   |
| No.47 | Andrew G. Wallenstein | Pension began Dec.1, 1913;<br>Died June 15, 1918.                   |
| No.73 | Nick Johnson          | Pension began Jan.1, 1917;<br>Died Nov. 30, 1918.                   |
| No.76 | Robert McDowell       | Pension began Aug.1, 1917;<br>Died Aug. 29th, 1918.                 |

It will be noted that there were two additions to the roll this year for 1918 as compared with seven for 1917. There were six deaths in 1918 as compared with eight in 1917.

The following table shows the number of pensioners on the roll at the

PENSION SYSTEM(Continued)

end of the years 1917 and 1918:

|                               | Dec. 31<br>1917 | Dec. 31<br>1918 |
|-------------------------------|-----------------|-----------------|
| Old Age pensions              | 40              | 36              |
| Widows' and Orphans' pensions | <u>6</u>        | <u>5</u>        |
|                               | 46              | 41              |

Total number of Widows and Orphans on Pension roll:

|         | Dec. 31<br>1917 | Dec. 31<br>1918 |
|---------|-----------------|-----------------|
| Widows  | 6               | 5               |
| Orphans | <u>16</u>       | <u>13</u>       |
|         | 22              | 18              |

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

|                    | Dec. 31<br>1917 | Dec. 31<br>1918 |
|--------------------|-----------------|-----------------|
| Old Age            | \$230.16        | \$234.48        |
| Widows and Orphans | 175.92          | 177.60          |

During the year the pension payroll for the Furnace Department remained the same as during the last two years, but the pensioner on that list, No. 1, William H. Fuller, died on December 17th. This leaves the Furnace Department without anyone on the pension payroll. The payments during 1917 and 1918 were as follows:

|         | Dec. 31<br>1917 | Dec. 31<br>1918 |
|---------|-----------------|-----------------|
| Old Age | \$268.20        | \$268.20        |



Pension payments for the years 1909 to 1918 inclusive are as follows:

Mining Department:

| <u>Year</u> | <u>Old Age</u> | <u>Widows' &amp;<br/>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        | <u>8865.26</u> | <u>944.00</u>                     | <u>9809.26</u> |
| Totals      | \$52967.72     | \$20073.00                        | \$72980.72     |

Furnace Department:

| <u>Year</u> | <u>Old Age</u> | <u>Widows' &amp;<br/>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        | <u>268.20</u>  |                                   | <u>268.20</u> |
| Totals      | \$2257.35      | \$900.00                          | \$3157.35     |

PENSION SYSTEM(Continued)

Total amount paid to Old Age pensioners, 1909 to 1918 inclusive:

|                    |                 |             |
|--------------------|-----------------|-------------|
| Mining Department  | \$52,907.72     |             |
| Furnace Department | <u>2,257.35</u> |             |
|                    |                 | \$ 55165.07 |

Total amount paid to Widows and Orphans, 1909 to 1918 inclusive:

|                    |               |             |
|--------------------|---------------|-------------|
| Mining Department  | \$20073.00    |             |
| Furnace Department | <u>900.00</u> |             |
|                    |               | \$ 20973.00 |

Total Pensions Paid \$ 76138.07

The following statements show a comparison between the amounts paid for pensions during the ten 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 1917 inclusive | \$ 51789.00    |
| Estimate for 1918                   | <u>8091.00</u> |
| Total                               | \$ 59880.00    |

Total amount paid from 1909 to 1918 inclusive:

|                  |             |
|------------------|-------------|
| Old Age pensions | \$ 52907.72 |
|------------------|-------------|

The old age pensions for the year 1918 were \$774.26 more than the estimate for 1918 made in 1908.

The total amount paid since the system went into effect is \$6972.28 less than the estimated possible amount required up to and inclusive of December 31st, 1918.

No comparative statement is put in this report concerning estimated amounts paid to widows and orphans as the number is now so much reduced and no new pensions of this kind added, that there is no method of comparison. One Widows' and Orphans' pension No. 21 expired April 30th, 1918 and the remaining five Widows' and Orphans' pensions expire on November 30th, 1920.

The pensioners who live in Ishpeming, when in good health, come to the office each month for their pensions and for any who are ill their pensions

PENSION SYSTEM(Continued)

are taken to them. The visiting nurses at Negaunee and Gwinn personally deliver the pensions to those receiving pensions in those localities.

At the close of the year the pensioners were in fairly good health with the exception of Andrew P. Peterson, Pension No. 37, who has been very feeble for over a year. He has had a slight stroke, but is able to get around some.

On the following sheet is the annual statement of the pension fund, this showing an amount on hand December 31st, 1918 of \$131,649.86.

The interest on the fund during 1918 amounted to \$4371.60 which is 43.3% of what was paid out for pensions during the year.

In the annual report of 1917 reference was made to the possible increase of the minimum pension from \$15.00 to \$16.00 per month. I still think this a desirable thing to do.

The following statement shows the contributions to the pension fund by the different departments since the Pension System went into effect on January 1st, 1909.

| 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         | 2300.85        | 10861.42        |
| 1918 | <u>28733.60</u> | <u>5638.48</u> | <u>1153.90</u> | <u>3092.16</u> | <u>10101.34</u> |
|      | 137102.62       | 23946.46       | 6421.56        | 16768.19       | 76161.95        |



THE CLEVELAND-CLIFFS IRON COMPANY

ANALYSIS OF "PENSION FUND" FOR YEAR 1918.

|                |      | MINE     | FURNACE | LAND    | LUMBER-<br>ING | TOTAL<br>DEPART-<br>MENTS. | INT.ALLOWED<br>AT CLEVELAND<br>OFFICE | PAYMENTS |
|----------------|------|----------|---------|---------|----------------|----------------------------|---------------------------------------|----------|
| CREDITS SET UP |      |          |         |         |                |                            |                                       |          |
| DURING YEAR:   |      |          |         |         |                |                            |                                       |          |
| January        | 1918 | 2060.72  | 442.06  | 88.39   | 223.61         | 2814.78                    |                                       | 874.21   |
| February       | "    | 1833.05  | 384.88  | 80.31   | 210.92         | 2509.16                    |                                       | 874.21   |
| March          | "    | 2008.66  | 235.68  | 91.69   | 415.40         | 2751.43                    | 988.16                                | 850.81   |
| April          | "    | 2092.90  | 425.93  | 84.88   | 175.13         | 2778.84                    |                                       | 835.81   |
| May            | "    | 2486.19  | 461.73  | 91.29   | 287.75         | 3326.96                    |                                       | 821.81   |
| June           | "    | 2368.50  | 449.71  | 110.13  | 258.36         | 3186.70                    | 1041.84                               | 866.15   |
| July           | "    | 2493.22  | 470.15  | 116.33  | 239.62         | 3319.32                    |                                       | 828.56   |
| August         | "    | 2738.61  | 540.46  | 117.58  | 291.87         | 3688.52                    |                                       | 828.56   |
| September      | "    | 2493.14  | 499.67  | 104.53  | 217.26         | 3314.60                    | 1130.77                               | 861.49   |
| October        | "    | 3051.66  | 593.53  | 106.19  | 285.60         | 4036.98                    |                                       | 829.91   |
| November       | "    | 2527.11  | 553.79  | 72.69   | 250.13         | 3403.72                    |                                       | 829.91   |
| December       | "    | 2579.84  | 580.89  | 89.89   | 236.51         | 3487.13                    | 1210.83                               | 799.91   |
|                |      | 28733.60 | 5638.48 | 1153.90 | 3092.16        | 38618.14                   | 4371.60                               | 10101.34 |

SUMMARY.

Balance Dec. 31st, 1917 98761.46

CREDITS SET UP DURING 1918:

Mine Department 28733.60  
 Land " 1153.90  
 Furnace " 5638.48  
 Lumbering " 3092.16  
 Int. allowed at Cleveland Office 4371.60

141751.20

Less payments made during year 10101.34

Balance end of year 131649.86

WORKMEN'S COMPENSATION:

The work of taking care of all compensation cases has been handled as in previous years by Mr. T. H. Bargh in a very satisfactory manner.

We have continued to find it very advantageous to see the injured men as quickly as possible and settlements have been effected in every case except one, Mrs. Martina D. Bianchi. This one is not quite decided in regard to the matter, but undoubtedly will be in a short time. There were no lump sum settlements made during the year. No disagreements during the year caused any application for hearing before the Industrial Accident Board.

The annual statement which is attached gives the number of accidents which occurred during the year at the different mines showing the number for which compensation was paid and the number for which compensation was not paid, the former being those which caused a loss of less than two weeks' time. Report shows that there were 577 non-fatal accidents of which number, 217 received compensation payments and 360 which received no compensation.

For the last four years the report shows the following:

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.

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

In all accident cases for which a definite amount is still to be paid, these amounts are set up in the columns "Compensation Still Pending". In those cases continuing beyond the end of the year and which occurred late in the year an estimate of probable duration is made, based on the physicians' reports. These cases are of such a small number that it does not effect the comparison or data secured from the statement.

WORKMEN'S COMPENSATION: (Continued)

The total amount of compensation to be paid after December 31st, 1918 is \$72,767.46, this being a total for all mines of the company. Of the above amount there is pending for the 1913, 1914, 1915, 1916, and 1917 accidents, \$33,896.91 and \$38,870.55 for the year 1918.

The compensation for the accidents which occurred in 1918 including the payments made to physicians during 1918 amounts to .012141 of the payrolls for the year.

The rates since the law was enacted are as follows:

| Year |          | Percentage of<br>Payrolls |
|------|----------|---------------------------|
| 1912 | 4 months | .00649                    |
| 1913 |          | .01104                    |
| 1914 |          | .0160                     |
| 1915 |          | .01095                    |
| 1916 |          | .01903                    |
| 1917 |          | .012689                   |
| 1918 |          | .012141                   |

The rate paid physicians was changed beginning July 1st, the payment being 40¢ per man per month instead of 35¢, the rate for the men for the medical service being changed at the same time from 90¢ to 1.10 making the total amount paid the physicians per man per month \$1.50 instead of \$1.25.

The payments on account of workmen's compensation including payments to physicians are given in the following table for the years 1912 to 1918 inclusive.

| Year | Cleveland-Cliffs<br>Iron Company | Negaunee<br>Mine | Athens Mng.<br>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  |
|      | 178751.27                        | 20794.24         | 3829.17                | 203274.78 |



WORKMEN'S COMPENSATION: (Continued)

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 payment made in these cases is made in the regular way and charged to the account. The following statement shows the balance due in the different accident cases for the years from 1913 to 1918 inclusive.

Balance due from Personal Injury Accounts Payable Dec. 31, 1918.

| Year of Accident | Name of Dependent to whom compensation is payable |    |                |
|------------------|---|----|----------------|
| 1913             | Martta E. Sackrider                               | \$ | 180.25         |
|                  | Annie McCarthy                                    |    | <u>84.70</u>   |
|                  |   |    | 264.95         |
| 1914             | Cornavetra Stefanalli                             |    | 384.93         |
|                  | August Allen                                      |    | 63.45          |
|                  | Beatrice Frost                                    |    | 387.10         |
|                  | Robert W. Greer, Guardian                         |    | 390.04         |
|                  | Ellen Kneebone                                    |    | 1570.80        |
|                  | Sophie Kostamo                                    |    | <u>677.97</u>  |
|                  |   |    | 3473.29        |
| 1915             | Sara Asplund                                      |    | 936.32         |
|                  | Anna Olson  |    | 559.54         |
|                  | Elvura Hanttula                                   |    | <u>1293.60</u> |
|                  |   |    | 2789.46        |
| 1916             | Cecelia Mongiot                                   |    | 1650.60        |
|                  | Cecelia Brandt                                    |    | 1297.47        |
|                  | Isabella Graham                                   |    | 1940.00        |
|                  | John Kandelin, Guardian                           |    | 1940.00        |
|                  | Mary Maki   |    | 1940.00        |
|                  | Bortola Pesenti                                   |    | 1000.00        |
|                  | Hanna Keskimaki                                   |    | 180.00         |
|                  | Nels Rajala                                       |    | <u>910.43</u>  |

10858.50

WORKMEN'S COMPENSATION: (Continued)

| Year of Accident | Name of Dependent to whom compensation is payable |                |                             |
|------------------|---|----------------|-----------------------------|
| 1917             | Annie May Dally                                   | 2450.00        |                             |
|                  | Hilma Pitila                                      | 2330.00        |                             |
|                  | Anna Rayburn                                      | 2110.00        |                             |
|                  | Michael Alanen                                    | <u>1235.00</u> |                             |
|                  |   |                | 8125.00                     |
| 1918             | Earl Chase  | 500.00         |                             |
|                  | Napoleon Peppin                                   | 160.00         |                             |
|                  | Anna Jetty, Guardian                              | 145.00         |                             |
|                  | Maria C. Bergman                                  | 2610.00        |                             |
|                  | Margaret Paddock                                  | 2630.00        |                             |
|                  | Celina Badger                                     | 2650.00        |                             |
|                  | Nestor Kauppinen                                  | 1650.00        |                             |
|                  | Peter Bessola                                     | 270.00         |                             |
|                  | Matilda Carlson                                   | 2680.00        |                             |
|                  | Selma Kangas                                      | 3113.00        |                             |
|                  | Hulda Jamback                                     | 3113.00        |                             |
|                  | Martina D. Bianchi                                | 3000.00        |                             |
|                  | Mamie Ravell                                      | 2940.00        |                             |
|                  | Samuel Roberts                                    | 90.00          |                             |
|                  | Rose Bertucci                                     | 2990.00        |                             |
|                  | Emily Coole                                       | <u>2990.00</u> |                             |
|                  | Total --- The C-C I. Co.                          |                | <u>31531.00</u><br>57043.20 |
| 1913             | Divina Mallett                                    | 200.26         |                             |
| 1916             | Lilly J. Johnson                                  | 1751.82        |                             |
| 1917             | John Chirio                                       | 577.02         |                             |
|                  | Amanda Lisku                                      | 3000.00        |                             |
|                  | Josephine Carilli                                 | 2230.00        |                             |
| 1918             | Henry Pekkola                                     | 120.00         |                             |
|                  | Mary E. Medlin                                    | <u>3000.00</u> |                             |
|                  | Negaunee Mine                                     |                | 10879.10                    |

WORKMEN'S COMPENSATION: (Continued)

| Year of Accident | Name of Dependent to whom compensation is payable |               |
|------------------|---|---------------|
| 1914             | Kati Larson                                       | <u>625.61</u> |
|                  | Athens Mng. Co.                                   | <u>625.61</u> |
|                  | TOTAL ALL MINES                                   | \$ 68547.91   |

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

|                      | Acc. Rept. Number. | Nature of Injury  | Compensation Paid |
|----------------------|--------------------|---|-------------------|
| <u>Cliffs Shaft:</u> |                    |   |                   |
| Nestor Kauppinen     | 404                | Crushing injury left forearm and elbow joint - amputation necessary                 | \$ 350.00 *       |
| Eugene Carlson       | 406                | Lacerated wound right middle finger - infected                                      | 110.00            |
| Donato Sicesari      | 438                | Compound fracture and dislocation left ankle joint                                  | 180.00 *          |
| Chas. Westrom        | 439                | Compound wound right knee with synovitis knee joint                                 | 156.67            |
| <u>Gwinn Mine:</u>   |                    |   |                   |
| John Tuomisto        | 175                | Bruised right big toe   | 105.00            |
| Peter Laveau         | 196                | Fracture of right leg and lacerated wound of scalp                                  | 215.00            |
| <u>Lake Mine:</u>    |                    |   |                   |
| Toivo Parvianen      | 297                | Simple fracture of both bones left leg  | 341.67            |
| <u>Maas Mine:</u>    |                    |   |                   |
| Earl Chase           | 141                | Loss of right eye   | 460.00 *          |
| Matt Hemala          | 145                | Fracture of right ulna at lower and middle thirds                                   | 100.00            |
| Peter Bessola        | 159                | Laceration in cornea of left eye with foreign body in eye                           | 330.00 *          |
| Frank Rhodda         | 163                | Crushing blow to pelvis and side  | 111.67            |
| Harold Leaf          | 179                | Infected left index finger-infection extending up forearm                           | 130.00            |
| <u>Morris-Lloyd:</u> |                    |   |                   |
| Napoleon Pepin       | 285                | Entire loss of 2nd, 3d and 4th fingers right hand                                   | 460.00 *          |
| Wm. Estola           | 302                | Fracture left tibia; extensive scalp wounds; lacerated wound left eyebrow           | 190.00            |
| Waino Hegman         | 313                | Hernia  | 193.33            |
| <u>Negaunee:</u>     |                    |   |                   |
| Enrico Cinfini       | 245                | Crushing injury right side of abdomen and pelvis-considerable hemorrhage in abdomen | 121.67            |



WORKMEN'S COMPENSATION: (Continued)

|                         | Acc. Rept.<br>Number | Nature of Injury   | Compensation<br>Paid |
|-------------------------|----------------------|--|----------------------|
| <u>Negaunee (Cont.)</u> |                      |  |                      |
| Arne Ahola              | 248                  | 1st and 2nd fingers torn from left hand except skin on dorsal surface; fracture of metacarpal bones; deep infected wound of finger involving hand and lymphatics | 220.00               |
| Henry Pekkola           | 251                  | Infected wound index finger involving hand and lymphatics  | 230.00               |
| Henry Wiik              | 254                  | Infection left ring finger extending to palm and forearm   | 180.00 *             |
| <u>Princeton Mine:</u>  |                      |  |                      |
| Joe Ducas               | 53                   | Fracture of right leg  | 283.33               |
| Angelo Rosie            | 62                   | Contusion right shoulder and hip   | 106.67               |
| <u>Republic Mine:</u>   |                      |  |                      |
| John Aho                | 385                  | Sprain and contusions of left wrist; small scalp wound and contusions of chest and left hip  | 105.00               |
| <u>Stephenson Mine:</u> |                      |  |                      |
| Joseph E. McNamee       | 436                  | Sprained right ankle and bruised left ankle  | 430.00               |
| Adolph Pepin            | 440                  | Sprain and bruise of left ankle and bruised hip  | 191.67               |
| <u>Holmes Mine:</u>     |                      |  |                      |
| Samuel Roberts          | 101                  | Loss 1/2 portion of 4th finger left hand   | 150.00               |
| Edwin Rendell           | 103                  | Infected knee from infected finger   | 190.00 *             |
| <u>Wade Mine:</u>       |                      |  |                      |
| Henry Wilen             | 2                    | Loss Distal Phalanx of left middle finger  | 180.00               |

\* 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 compensation.

|                |   |
|----------------|---|
| John Oien      | Gardner-Mackinaw Mine, Acc. Rept. No. 15, Occurred Jan. 6th, 1918. Single-contributed to the support of his brother, Ross Oien. Compensation for 80 weeks at \$5.00 per week. |
| Andrew Bergman | Lake Mine, Acc. Rept. No. 311, Occurred Mar. 30, 1918. Married; three children. Compensation for 300 wks. at \$10.00 per week.  |
| Dan Paddock    | Holmes Mine, Acc. Rept. No. 76, Occurred Apr. 9, 1918. Married; three children. Compensation for 300 wks at \$10.00 per week.   |

WORKMEN'S COMPENSATION: (Continued)

|                  |   |
|------------------|---|
| George Badger    | Cliffs-Shaft Mine, Acc. Rept. No.172 Occurred Apr. 9, 1918. Married; two children. Compensation for 300 wks at \$10.00 per week.                  |
| Andrew Carlson   | Lake Mine, Acc. Rept. No.319, Occurred May 18, 1918. Married four children. Compensation for 300 wks at \$10.00 per week.                         |
| Andrew Kangas    | Meadow Mine, Acc. Rept. No.16, Occurred Sept. 3, 1918. Married; two children. Compensation for 300 wks at \$11.00 per wk.                         |
| John Jamback     | Meadow Mine, Acc. Rept. No.17, Occurred Sept. 3, 1918. Married; three children. Compensation for 300 wks at \$11.00 per week.                     |
| Frank Bianchi    | Princeton Mine, Acc. Rept. No.59, Occurred Oct. 4, 1918. Married; seven children. Compensation for 300 wks at \$10.00 per wk.                     |
| John Ravell      | Dead River-McClure Plant, Acc. Rept. No.10, Occurred November 14, 1918. Married; one daughter. Compensation for 300 weeks at \$10.00 per week.    |
| George Hooper    | Maas Mine, Acc. Rept. No.182, Occurred Dec. 8, 1918. Single; contributed to the support of his parents. Compensation payments not yet determined. |
| Fred Coole       | Salisbury Mine, Acc. Rept. No.129, Occurred Dec. 18, 1918. Married; seven children. Compensation for 300 weeks at \$10.00 per week.               |
| Antonio Bertucci | Salisbury Mine, Acc. Rept. No.130, Occurred Dec. 18, 1918. Married; six children. Compensation for 300 weeks at \$10.00 per week.                 |
| William Medlin   | Negaunee Mine, Acc. Rept. No.257, Occurred Dec. 19, 1918. Married; one step-daughter. Compensation for 300 wks at \$10.00 per wk.                 |

We have assisted the other departments frequently during the year in the adjustment of compensation cases.

The Industrial Accident Board has continued as it was during 1917, Mr. Wm. M. Smith, Chairman, Mr. James A. Kennedy and Mr. Thomas B. Gloster. Mr. Fred S. Johnson has continued as Secretary. During 1918 there has been considerable discussion concerning amendments to the compensation law and a commission was appointed by Governor Sleeper to investigate the matter. Hearings were held at Lansing in September on the 5th, 6th, and 7th which were

WORKMEN'S COMPENSATION: (Continued)

attended by Mr. Belden and myself. The commission seemed to be a fair one at the hearing. Arguments were made by men representing all sides of the question. The labor leaders were there in large numbers advocating a change in rate from 50% to 56-2/3% of the payroll. An increase of the maximum rate of payments from \$10.00 to \$18.00. Waiting period of one week instead of two weeks, this first week to be paid for if the disability continues for four weeks or longer. Increase of duration of medical service from three weeks to three months.

The general feeling seemed to be that these changes would make the cost too burdensome at this time and that the recommendation of the commission would be for somewhat less changes than those stated above.

The Compensation law in Minnesota has remained without change during the year.



THE CLEVELAND-CLIFFS IRON COMPANY  
STATEMENT OF COMPENSATION AND BENEFIT PAYMENTS FROM JANUARY 1ST, 1916 TO DECEMBER 31ST, 1918.

|                                       | No. of Employees | No. of Fatal Accidents | No. of Non-Fatal Accidents |            |            | Actual Compensation paid in 1918 | 1913           | 1914           | 1915           | 1916           | 1917           | 1918            | Com-pensation Still Pending | Actual Payments To Phy-sicians | Less 1917 Pending | Phy-sicians Still Pending | Fatal Cases Pending | Injury Cases Pending | Benefit Payments |
|---------------------------------------|------------------|------------------------|----------------------------|------------|------------|----------------------------------|----------------|----------------|----------------|----------------|----------------|-----------------|-----------------------------|--------------------------------|-------------------|---------------------------|---------------------|----------------------|------------------|
|                                       |                  |                        |                            |            |            |                                  |                |                |                |                |                |                 |                             |                                |                   |                           |                     |                      |                  |
| Personal Injury Accounts Payable      |                  |                        |                            |            |            | 15078.86                         | 1194.48        | 2048.98        | 886.80         | 4032.45        | 3591.15        | 3375.00         | 50817.20                    |                                |                   |                           |                     |                      |                  |
| Maas                                  | 321              | 1                      | 10                         | 20         | 23         | 1137.71                          |                |                |                |                |                |                 | 2077.17                     |                                |                   | 1                         | 3                   | 390.65               |                  |
| Maas Crusher Plant                    |                  |                        | 1                          |            |            |                                  |                |                |                |                |                | 296.06          | 841.65                      |                                |                   |                           |                     |                      |                  |
| Austin                                | 4                |                        |                            |            |            | 40.00                            |                |                |                | 40.00          |                |                 |                             |                                |                   |                           |                     | 11.67                |                  |
| Gwinn                                 | 165              |                        | 1                          | 13         | 14         | 553.35                           |                |                |                | 10.00          | 543.35         | 15.00           | 806.47                      |                                |                   |                           |                     | 165.33               |                  |
| Stephenson                            | 71               |                        | 1                          | 3          | 3          | 760.10                           |                |                |                | 334.32         | 425.78         | 41.67           | 404.73                      |                                |                   |                           | 1                   | 102.50               |                  |
| Princeton                             | 231              | 1                      | 1                          | 19         | 20         | 895.00                           |                |                |                | 61.66          | 833.34         | 276.67          | 1015.61                     |                                |                   | 1                         | 6                   | 1022.34              |                  |
| Gardner                               | 47               |                        | 3                          | 2          | 5          | 41.66                            |                |                |                | 20.00          | 21.66          |                 | 187.80                      |                                |                   |                           |                     |                      |                  |
| Macinaw                               | 52               | 1                      | 3                          | 1          | 11         | 199.50                           |                |                |                |                | 199.50         | 200.00          | 248.00                      |                                |                   |                           | 1                   |                      |                  |
| Gwinn District Crusher                |                  |                        |                            |            |            |                                  |                |                |                |                |                |                 | 27.90                       |                                |                   |                           |                     |                      |                  |
| Francis                               | 95               |                        | 1                          | 3          | 14         | 51.66                            |                |                |                |                | 51.66          |                 | 418.30                      |                                |                   |                           |                     | 48.67                |                  |
| Jopling                               | 7                |                        |                            |            |            |                                  |                |                |                |                |                |                 | 3.50                        |                                |                   |                           |                     |                      |                  |
| Morris-Lloyd                          | 246              |                        | 22                         | 16         | 30         | 1410.01                          |                |                |                | 805.00         | 605.01         | 75.00           | 1212.15                     |                                |                   |                           | 3                   | 55.83                |                  |
| Barnes-Hecker                         | 45               |                        | 2                          | 2          | 11         | 3.34                             |                |                |                |                | 3.34           |                 | 206.31                      |                                |                   |                           |                     | 23.33                |                  |
| Jackson                               | 17               |                        |                            | 1          | 1          | 47.25                            |                |                |                |                | 47.25          |                 | 87.09                       |                                |                   |                           |                     | 29.33                |                  |
| Dead River-McClure Plant              | 73               | 1                      |                            | 3          | 5          | 241.46                           |                |                |                | 38.13          | 203.33         | 16.67           | 206.11                      | 14.00                          | 57.14             |                           | 1                   |                      |                  |
| Dead River Water Power                |                  |                        |                            |            |            |                                  |                |                |                |                |                |                 |                             |                                |                   |                           |                     |                      |                  |
| Carp River Water Power                | 47               |                        |                            |            |            |                                  |                |                |                |                |                |                 | 402.32                      |                                |                   |                           |                     |                      |                  |
| Dead River Storage Basin              |                  |                        |                            |            |            |                                  |                |                |                |                |                |                 |                             |                                |                   |                           |                     |                      |                  |
| Lake                                  | 304              | 2                      | 26                         | 19         | 34         | 986.68                           |                |                |                | 256.68         | 730.00         | 158.34          | 1436.70                     |                                |                   |                           | 3                   | 1571.02              |                  |
| Cliffs-Shaft                          | 359              | 1                      | 31                         | 26         | 59         | 1822.42                          |                |                | 356.16         | 647.93         | 816.33         | 290.00          | 1696.29                     |                                |                   |                           | 3                   | 1315.19              |                  |
| Salisbury                             | 126              | 2                      | 12                         | 8          | 7          | 233.34                           |                |                |                |                | 233.34         | 11.67           | 607.41                      |                                |                   |                           | 1                   | 145.33               |                  |
| Holmes                                | 167              | 1                      | 29                         | 20         | 32         | 1215.34                          |                |                | 668.67         |                | 546.67         | 158.34          | 811.85                      |                                |                   |                           | 4                   | 930.00               |                  |
| Angeline                              | 57               |                        |                            | 4          | 2          | 72.47                            |                |                |                |                | 72.47          |                 | 296.82                      |                                |                   |                           |                     | 10.00                |                  |
| Republic                              | 226              |                        | 17                         | 13         | 48         | 1076.75                          |                |                |                | 718.92         | 357.83         | 120.36          | 1037.05                     |                                |                   |                           | 1                   |                      |                  |
| Hard Ore                              | 40               |                        | 2                          |            |            |                                  |                |                |                |                |                |                 | 18.90                       |                                |                   |                           |                     |                      |                  |
| Spies                                 | 35               |                        | 2                          | 2          | 8          | 56.66                            |                |                |                |                | 56.66          |                 | 405.41                      |                                |                   |                           |                     | 6.84                 |                  |
| Central Office                        | 127              |                        |                            | 1          | 1          | 21.67                            |                |                |                |                | 21.67          |                 | 910.92                      |                                |                   |                           |                     | 26.66                |                  |
| Pension Dept.                         | 4                |                        |                            |            |            |                                  |                |                |                |                |                |                 | 15.60                       |                                |                   |                           |                     |                      |                  |
| Purchasing Dept.                      | 10               |                        |                            |            |            |                                  |                |                |                |                |                |                 | 36.20                       |                                |                   |                           |                     |                      |                  |
| New Hospital                          |                  |                        |                            |            | 1          |                                  |                |                |                |                |                |                 | 47.28                       |                                |                   |                           |                     |                      |                  |
| Section "3" Exploration               | 6                |                        |                            |            |            |                                  |                |                |                |                |                |                 | 25.59                       |                                |                   |                           |                     |                      |                  |
| Section "4" Exploration               | 11               |                        |                            |            |            |                                  |                |                |                |                |                |                 | 23.10                       |                                |                   |                           |                     |                      |                  |
| Section "5" Exploration               | 5                |                        |                            |            |            |                                  |                |                |                |                |                |                 | 11.60                       |                                |                   |                           |                     |                      |                  |
| Golf Club Exploration                 | 3                |                        |                            |            |            |                                  |                |                |                |                |                |                 | 17.28                       |                                |                   |                           |                     |                      |                  |
| Jackson Exploration                   | 10               |                        |                            |            |            |                                  |                |                |                |                |                |                 | 35.09                       |                                |                   |                           |                     |                      |                  |
| Union Park Exploration                | 4                |                        |                            |            |            |                                  |                |                |                |                |                |                 | 11.64                       |                                |                   |                           |                     |                      |                  |
| Personal Injury Accounts Payable      |                  |                        |                            |            |            | 2089.31                          | 342.38         | 450.00         |                | 478.59         | 588.34         | 230.00          | 10879.10                    |                                |                   |                           |                     |                      |                  |
| Negamee                               | 350              | 1                      | 2                          | 22         | 7          | 2441.74                          |                |                |                |                | 1653.41        | 739.33          | 1163.34                     | 1667.88                        |                   |                           | 6                   |                      |                  |
| Personal Injury Accounts Payable      |                  |                        |                            |            |            | 454.21                           |                | 454.21         |                |                |                |                 | 625.61                      |                                |                   |                           |                     |                      |                  |
| Athens                                | 157              |                        | 6                          | 6          |            | 20.33                            |                |                |                |                |                | 28.33           | 60.00                       | 633.33                         |                   |                           | 2                   |                      |                  |
| <b>Total--Michigan Mines</b>          | <b>3452</b>      | <b>11</b>              | <b>166</b>                 | <b>204</b> | <b>342</b> | <b>30953.82</b>                  | <b>1536.86</b> | <b>2953.19</b> | <b>1192.96</b> | <b>5179.71</b> | <b>9061.60</b> | <b>11034.50</b> | <b>65884.45</b>             | <b>17075.13</b>                | <b>14.00</b>      | <b>57.14</b>              | <b>2</b>            | <b>35</b>            | <b>5854.69</b>   |
| Personal Inj. Accts. Payable (Meadow) |                  |                        |                            |            |            | 83.00                            |                |                |                |                |                | 88.00           | 6226.00                     |                                |                   |                           |                     |                      |                  |
| Crosby                                | 137              |                        | 4                          | 6          | 15         | 686.57                           |                |                |                | 350.57         |                |                 | 264.00                      |                                |                   |                           |                     | 1                    |                  |
| Meadow                                | 73               | 2                      |                            | 4          | 2          | 594.00                           |                |                |                |                |                | 594.00          | 18.00                       |                                |                   |                           |                     | 1                    |                  |
| Helmer                                | 57               |                        | 1                          |            | 1          |                                  |                |                |                |                |                |                 | 330.50                      |                                |                   |                           |                     | 1                    |                  |
| Wade                                  | 71               |                        | 2                          | 3          |            |                                  |                |                |                |                |                |                 | 378.60                      |                                |                   |                           |                     | 3                    |                  |
| <b>Total--Minnesota Mines</b>         | <b>338</b>       | <b>2</b>               | <b>51</b>                  | <b>13</b>  | <b>18</b>  | <b>1369.57</b>                   |                |                |                | <b>350.57</b>  | <b>1018.00</b> | <b>6883.01</b>  | <b>1726.75</b>              |                                |                   |                           |                     | <b>6</b>             |                  |
| <b>Total-- All Mines</b>              | <b>3790</b>      | <b>13</b>              | <b>* 217</b>               | <b>217</b> | <b>360</b> | <b>32327.39</b>                  | <b>1536.86</b> | <b>2953.19</b> | <b>1192.96</b> | <b>5179.71</b> | <b>9412.17</b> | <b>12052.50</b> | <b>72767.46</b>             | <b>18003.88</b>                | <b>14.00</b>      | <b>57.14</b>              | <b>2</b>            | <b>41</b>            | <b>5854.69</b>   |

Note:- \* Denotes reports of slight accidents which caused one day's time lost.  
 ' Denotes accident reports on which compensation payments were made.  
 - Denotes accident reports on which no compensation payments were made

Compensation paid on 1918 accidents 12052.50  
 Compensation still pending 72767.46  
 Cost of medical and hospital services 13847.02  
 Less pending for years 1913, 1914, 1915, 1916 and 1917. 33896.91  
 69770.07

103666.98  
 33896.91  
 69770.07  
 .012141

Percentage of payroll

BENEFIT FUNDS.

These funds have continued to be paid out in cases of injuries 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 on account of Benefit Funds were made after July 31st, 1912. The funds of different mines were consolidated several years ago into one account and will last for a good many years if paid out on the present basis. The rate is \$20.00 per month for single men and \$25.00 per month for a married man, no payment being made for the first five days.

In the case of a fatality of a man who has contributed to these funds, \$500.00 is paid to the widow or other dependents and for the loss of a member or for an eye \$166.66 is paid.

On the following sheet is found a statement of the disbursement of these funds from September 1st, 1912 to December 31st, 1918. There is also shown a credit to the fund by interest allowed of \$1553.08. These sheets show a disbursement during the year 1918 of \$5854.69.

During the year 1918 Benefit payments were made to the following number of men:

|                    |       | Fatal |
|--------------------|-------|-------|
| Angeline           | 1     |       |
| Barnes-Hecker      | 3     |       |
| Cliffs-Shaft       | 25    | 1     |
| Francis            | 4     |       |
| Gwinn              | 8     |       |
| General Storehouse | 2     |       |
| Holmes             | 17    | 1     |
| Lake               | 25    | 2     |
| Maas               | 8     |       |
| Gardner-Mackinaw   | 0     |       |
| Morris-Lloyd       | 5     |       |
| Negaumee           | 0     |       |
| Princeton          | 18    | 1     |
| Republic           | 0     |       |
| Spies              | 2     |       |
| Salisbury          | 8     | 2     |
| Stephenson         | 1     |       |
| Jackson            | 1     |       |
|                    | <hr/> |       |
|                    | 128   | 7     |

135

Of the 577 men injured,

217 Received Compensation Payments

135 Received Benefit Fund Payments



**BENEFIT FUND DISBURSEMENTS FROM SEPTEMBER 1ST, 1912 TO DECEMBER 31ST, 1918.**  
**ALL COMPANIES**

|                        | 1912    | 1913    | 1914       | 1915    | 1916    | 1917      | 1918    | 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 | 6684 02  |
| Morris-Lloyd           | 98 59   | 920 41  | 996 18     | 1142 51 | 752 00  | 197 81    | 55 83   | 4163 33  |
| 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 | 8133 54  |
| 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  | 2149 81  |
| Maas                   | 4 17    | 685 03  | 1272 16    | 90 01   | 908 00  | 373 00    | 390 65  | 3723 02  |
| Stephenson             | 185 57  | 1010 66 | 739 66     | 1499 16 | 1653 51 | 849 18    | 102 50  | 6040 24  |
| Princeton              |         | 99 83   | 23 33      | 67 51   | 6 67    | 7 33      | 1022 34 | 1227 01  |
| Gwinn                  |         |         | 397 18     | 154 68  | 356 50  | 277 47    | 165 33  | 1351 16  |
| Chase                  |         |         | 31 00      | 15 00   |         |           |         | 46 00    |
| General                | 52 67   | 52 54   |            |         |         |           |         | 105 21   |
| Gardner-Mackinaw       |         | 18 50   | 329 18     |         |         | 13 67     |         | 371 35   |
| Francis                |         |         |            | 26 00   | 114 50  | 252 33    | 48 67   | 441 50   |
| Dead River Water Power |         |         |            |         | 88 34   |           |         | 88 34    |
| Holmes                 |         |         |            |         | 1696 14 | 647 50    | 930 00  | 3273 64  |
| Angeline               |         |         |            |         | 10 00   |           | 10 00   | 20 00    |
| 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   | 23 33    |
| 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 | 49020 37 |

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 payroll when the Fund was exhausted in July 1917 additional payments of \$95.15 were made which were charged to Gratuities.

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

K



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       |                |          |
| "    Negaumee             | 301.83       |                |          |
| "    Athens               | <u>1.11</u>  | 5743.27        |          |
| 1915 Interest C.C. I. Co. | 2083.85      |                |          |
| "    Negaumee             | <u>55.25</u> | 2139.10        |          |
| 1916 Interest C.C. I. Co. | 1949.27      |                |          |
| "    Negaumee             | <u>32.85</u> | 1982.12        |          |
| 1917 Interest C.C. I. Co. | 1704.18      |                |          |
| "    Negaumee             | <u>6.37</u>  | 1710.55        |          |
| 1918 Interest C.C. I. Co. | 1553.08      | <u>1553.08</u> |          |
| Total Credits             |              |                | 84505.49 |

7157737

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 | <u>5854.69</u> |                 |
| Total Debits                         |      |                | <u>51583.03</u> |
| Balance in Fund, December 31st, 1918 |      |                | 32922.46        |

WHK  
3/12/19

SUSPENSE FUNDS.

On the following sheet there is a complete statement of the payments made from the Suspense Funds from September 1st, 1912 at which time the compensation law went into effect. This is put in this year's annual report in order to have these sheets for easy reference.

CONDENSED STATEMENT OF

SUSPENSE FUNDS

ALL COMPANIES

\*\*\*\*\*

CREDITS TO FUND

|                               |                |          |
|-------------------------------|----------------|----------|
| On hand January 1st, 1912     | 47540.67       |          |
| Contributed by Company - 1912 | <u>4628.38</u> |          |
| Total                         |                | 52369.05 |

DISBURSEMENTS - ALL COMPANIES

|                                     |      |                 |                 |
|-------------------------------------|------|-----------------|-----------------|
| January to August                   | 1912 | 2970.79         |                 |
| September to December               | 1912 | 931.99          |                 |
| Year                                | 1913 | 12261.63        |                 |
| "                                   | 1914 | 26136.71        |                 |
| January to October                  | 1915 | <u>10067.93</u> |                 |
| Total Disbursements                 |      |                 | <u>52369.05</u> |
| Balance in Fund October 31st, 1915. |      |                 | 0.00            |

Contributions by the Company ceased in July 1912.  
The Cleveland-Cliffs Iron Company Suspense Funds were exhausted in October 1915; Negaunee Mine Fund in July 1914 and Athens Mining Company Fund in November 1913.

K.-3/19/19



SUSPENSE FUND

DISBURSEMENTS FROM SEPTEMBER 1ST 1912 TO OCTOBER 1915.

|                       | SEPT-DEC |    | 1913  |    | 1914  |    | 1915  |    | TOTAL |    |
|-----------------------|----------|----|-------|----|-------|----|-------|----|-------|----|
|                       | 1912     |    |       |    |       |    |       |    |       |    |
| Ashland               | 11       | 77 | 150   | 00 |       |    |       |    | 161   | 77 |
| Austin                |          |    | 739   | 16 | 1090  | 36 |       |    | 1829  | 52 |
| Cliffs-Shaft          | 155      | 31 | 1787  | 56 | 2686  | 70 | 1103  | 86 | 5733  | 43 |
| Morris-Lloyd          | 110      | 42 | 1250  | 52 | 3420  | 55 | 1863  | 11 | 6644  | 60 |
| Hard Ore              | 7        | 70 | 309   | 58 |       |    |       |    | 317   | 28 |
| Lake                  | 45       | 31 | 1666  | 41 | 2833  | 10 | 2054  | 01 | 6598  | 83 |
| Jackson               | 90       | 90 | 210   | 70 | 45    | 70 | 46    | 80 | 394   | 10 |
| Salisbury             | 96       | 24 | 497   | 59 | 1094  | 39 | 654   | 97 | 2343  | 19 |
| Maas                  | 192      | 76 | 1406  | 67 | 2672  | 76 | 1561  | 55 | 5833  | 74 |
| Stephenson            | 66       | 65 | 1729  | 98 | 1331  | 31 | 1298  | 42 | 4426  | 34 |
| Princeton             |          |    | 200   | 86 | 14    | 20 | 69    | 38 | 284   | 46 |
| Gwinn                 |          |    | 58    | 30 | 727   | 82 | 738   | 77 | 1524  | 89 |
| Chase                 |          |    | 619   | 13 | 983   | 33 | 71    | 39 | 1673  | 85 |
| Gardner-Mackinaw      |          |    | 39    | 60 | 913   | 43 |       |    | 953   | 03 |
| Francis               |          |    |       |    |       |    | 48    | 65 | 48    | 65 |
| Imperial              |          |    | 8     | 10 |       |    |       |    | 8     | 10 |
| Miscellaneous         |          |    | 110   | 57 | 388   | 92 | 289   | 87 | 789   | 36 |
| General Shops         |          |    |       |    | 137   | 30 | 25    | 20 | 162   | 50 |
| C-C I. Co. - General  | 86       | 55 |       |    |       |    |       |    | 86    | 55 |
| Negamee Mine          | 68       | 38 | 1177  | 87 | 1435  | 03 |       |    | 2681  | 28 |
| Athens Mining Company |          |    | 13    | 50 |       |    |       |    | 13    | 50 |
| Crosby                |          |    | 285   | 53 | 6361  | 81 | 241   | 95 | 6889  | 29 |
|                       | 931      | 99 | 12261 | 63 | 26136 | 71 | 10067 | 93 | 49398 | 26 |

DETAIL OF THE CLEVELAND-CLIFFS IRON COMPANY'S GENERAL SUSPENSE FUND.

|                          | BALANCE  |    | CREDIT |    | TOTAL |    | PAID |    | BALANCE  |    |
|--------------------------|----------|----|--------|----|-------|----|------|----|----------|----|
|                          | 12/31/11 |    | 1912   |    |       |    | 1912 |    | 12/31/12 |    |
| The D. S. S. & A. Ry.    | 6        | 60 |        |    | 6     | 60 |      |    | 6        | 60 |
| Michigamme               | 456      | 52 |        |    | 456   | 52 |      |    | 456      | 52 |
| Clowry                   | 1        | 50 |        |    | 1     | 50 |      |    | 1        | 50 |
| Volunteer                | 463      | 42 |        |    | 463   | 42 |      |    | 463      | 42 |
| Agents Choreman          | 16       | 20 | 2      | 40 | 18    | 60 |      |    | 18       | 60 |
| Crosby                   | 1027     | 63 |        |    | 1027  | 63 |      |    | 1027     | 63 |
| Steam Electric Instal.   | 125      | 80 | 9      | 00 | 134   | 80 |      |    | 134      | 80 |
| Steam Electric Operating | 9        | 00 | 1      | 20 | 10    | 20 |      |    | 10       | 20 |
| Iron Belt                | 142      | 94 |        |    | 142   | 94 |      |    | 142      | 94 |
| Athens                   | 13       | 50 |        |    | 13    | 50 |      |    | 13       | 50 |
| Carp River Water Power   | 499      | 63 | 212    | 10 | 711   | 73 | * 90 | 06 | 621      | 67 |
| " " " " OPT.             |          |    | 2      | 70 | 2     | 70 |      |    | 2        | 70 |
| Section 35               | 11       | 10 |        |    | 11    | 10 |      |    | 11       | 10 |
|                          | 2773     | 84 | 227    | 40 | 3001  | 24 | 90   | 06 | 2911     | 18 |

\* Of this amount \$3.51 was paid out prior to September 1st, 1912.

K.-3/19/19

VISITING NURSE.

The work of our nurses has continued throughout the year with great satisfaction to everyone. The following nurses are now employed:

Miss Ruth Hassler, Ishpeming.  
Miss Ina E. Atkin, Negaunee.  
Miss L. N. Fisk, Iron River.

Miss E. R. McLeod, who started to work at Gwinn in November, 1917, left on June 3d entering Red Cross work for Overseas duty. Miss Hirwas was employed to succeed her, coming to work on the first of June. Her work during the year continued very satisfactory.

As our visiting nurses were Registered Red Cross Nurses, the matter of their services with us was taken up with the Division Headquarters at Chicago. Miss Hassler and Miss Atkin were assigned by them to our work until such time as the war conditions become so serious that their services might be required in active war duty. Chevrons were issued to them, which they wore, indicating that they were in the Red Cross service, assigned to regular duty here.

The following statement shows the expense of the Visiting nurses for the year 1918. This includes their salaries and the expense incidental to their work:

| Place      | Total for year | Average per Mo. |
|------------|----------------|-----------------|
| Ishpeming  | 1653.27        | 137.77          |
| Negaunee   | 1605.60        | 133.80          |
| Gwinn      | 1280.79        | 106.73          |
| Iron River | 265.39         | 22.11           |

On account of the Influenza Epidemic, No Christmas parties were given by the nurses for the children of our employees, as has been done for a number of years.

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

VISITING NURSE ISHEMING

1918

Miss Ruth Hassler,  
Nurse.

|  |      |
|--|------|
| Total number of patients cared for during year | 319  |
| Number of new cases cared for during year      | 227  |
| Total number of visits to patients             | 1440 |
| number of families visited for the first time  | 65   |
| Number of social calls                         | 71   |
| Number died                                    | 13   |

Classification of new cases for the year:

|                    |     |      |    |        |     |
|--------------------|-----|------|----|--------|-----|
| Number of Adults   | 126 | Male | 24 | Female | 102 |
| Number of children | 101 | Male | 62 | Female | 39  |

Nationalities of new cases for the year:

|          |    |           |    |
|----------|----|-----------|----|
| American | 15 | Irish     | 6  |
| German   | 3  | Italian   | 15 |
| English  | 55 | Norwegian | 3  |
| Finnish  | 73 | Swedish   | 20 |
| French   | 36 | Polish    | 2  |

Diseases of new cases:

|                 |    |                 |    |                   |   |
|-----------------|----|-----------------|----|-------------------|---|
| Appendicitis    | 11 | Heart trouble   | 6  | Post Operative    | 2 |
| Bladder trouble | 1  | Influenza       | 43 | Pelvic Trouble    | 5 |
| Bowel trouble   | 9  | Infants Newborn | 23 | Operation         | 1 |
| Bronchitis      | 3  | Infections      | 13 | Pul. Tuberculosis | 1 |
| Burns           | 2  | Injury          | 6  | Rheumatism        | 3 |
| Carbuncle       | 1  | Kidney Trouble  | 2  | Rupture           | 3 |
| Carcinoma       | 2  | Mal-Nutrition   | 1  | Sprains           | 1 |
| Colds           | 12 | Mastoditis      | 1  | Stomach Trouble   | 2 |
| Discharging ear | 1  | Nephritis       | 4  | Tumor             | 2 |
| Empyema         | 1  | Neuralgia       | 1  | Unclassified      | 3 |
| Epileptic       | 1  | Obstetrical     | 31 | Undiagnosed       | 4 |
| Gastritis       | 1  | Peritonitis     | 3  | Var. Ulcer        | 1 |
| Gen. Deb.       | 1  | Pneumonia       | 19 | Var. Veins        | 1 |



VISITING NURSE NEGAUNEE

1918

Miss Ina E. Atkin, Nurse.

|  |      |
|--|------|
| Total number of patients cared for during year | 555  |
| Number of new cases cared for during year      | 374  |
| Total number of visits to patients             | 2123 |
| Number of families visited for the first time  | 55   |
| Number of pension calls                        | 57   |
| Number of social calls                         | 632  |
| Number died                                    | 14   |

Classification of new cases for the year:

|                    |     |      |    |        |     |
|--------------------|-----|------|----|--------|-----|
| Number of Adults   | 202 | Male | 18 | Female | 184 |
| Number of Children | 172 | Male | 92 | Female | 80  |

Nationalities of new cases for the year:

|          |     |           |    |
|----------|-----|-----------|----|
| American | 120 | Irish     | 3  |
| Austrian | 4   | Italian   | 23 |
| English  | 42  | Norwegian | 2  |
| Finnish  | 91  | Swedish   | 29 |
| French   | 52  | Belgian   | 8  |

Diseases of new cases:

|                  |    |                |    |                   |    |
|------------------|----|----------------|----|-------------------|----|
| Appendicitis     | 1  | Injury         | 8  | Pneumonia         | 32 |
| Bowel Trouble    | 8  | Insanity       | 3  | Post Operative    | 6  |
| Bronchitis       | 7  | Kidney Trouble | 1  | Pregnancy         | 33 |
| Burns            | 2  | Mal. Nutrition | 6  | Pul. Tuberculosis | 4  |
| Carcinoma        | 2  | Mastoditis     | 4  | Rheumatism        | 2  |
| Cold             | 11 | Meningitis     | 1  | Rupture           | 2  |
| Epileptic        | 1  | Mumps          | 1  | Stomach Trouble   | 1  |
| Gall stones      | 1  | Neuralgia      | 1  | Tonsillitis       | 6  |
| Lagrippe         | 19 | Obstetrical    | 42 | Typhoid fever     | 2  |
| Heart Trouble    | 1  | Operative      | 70 | Unclassified      | 12 |
| Infants, Newborn | 64 | Peritonitis    | 1  | Undiagnosed       | 11 |
| Infections       | 3  | Pleurisy       | 3  | Var. Ulcer        | 2  |

VISITING NURSE-GWINN DISTRICT  
1918

Miss E. R. McLeod,  
Miss Johanna Hirwas,  
Nurses.

|  |      |
|--|------|
| Total number of patients cared for during year | 724  |
| Number of new cases cared for during year      | 498  |
| Total number of visits to patients             | 2365 |
| Number of families visited for the first time  | 308  |
| Number of social calls                         | 258  |
| Number died                                    | 12   |

Classification of New cases for the year:

|                    |     |      |     |        |     |
|--------------------|-----|------|-----|--------|-----|
| Number of Adults   | 238 | Male | 53  | Female | 185 |
| Number of Children | 260 | Male | 127 | Female | 133 |

Nationalities of new cases for the year:

|          |     |           |     |
|----------|-----|-----------|-----|
| American | 46  | Irish     | 5   |
| Austrian | 13  | Italian   | 109 |
| English  | 51  | Norwegian | 13  |
| Finnish  | 118 | Swedish   | 77  |
| French   | 55  | German    | 8   |
| Scotch   | 2   | Jew       | 1   |

Diseases and number of new cases:

|                  |    |                   |    |                       |    |
|------------------|----|-------------------|----|-----------------------|----|
| Appendicitis     | 2  | Influenza         | 25 | Quinsy                | 3  |
| Acme             | 1  | Jaundice          | 1  | Rheumatism            | 4  |
| Asthma           | 2  | Kidney Trouble    | 2  | Rupture               | 5  |
| Bowel Trouble    | 30 | Mal-Nutrition     | 7  | Sore Eyes             | 9  |
| Bronchitis       | 3  | Nephritis         | 2  | Sprain                | 1  |
| Burns            | 3  | Neuralgia         | 4  | Stomach Trouble       | 12 |
| Colds            | 59 | Obstetrical       | 90 | Tonsillitis           | 18 |
| Chicken Pox      | 4  | Pleurisy          | 1  | Tubercular Meningitis | 2  |
| Eczema           | 9  | Pneumonia         | 4  | Ringworm              | 1  |
| Diphtheria       | 1  | Post Operative    | 2  | Unclassified          | 6  |
| Ear Trouble      | 8  | Ptomaine Poison   | 1  | Undiagnosed           | 20 |
| Grippe           | 25 | Measles           | 2  | Var. Ulcer            | 1  |
| Infants, Newborn | 87 | Mumps             | 19 | Scarlet Fever         | 1  |
| Infections       | 5  | Pul. Tuberculosis | 4  | Sore Mouth            | 1  |
| Injury           | 11 |                   |    |                       |    |

VISITING NURSE - IRON RIVER.

1918

Miss L. N. Fisk, Nurse.

|  |     |
|--|-----|
| Total number of patients cared for during year | 39  |
| Number of new cases cared for during year      | 38  |
| Total number of visits to patients             | 125 |
| Number died                                    | 1   |

Classification of new cases for year:

|                    |    |      |    |        |    |
|--------------------|----|------|----|--------|----|
| Number of Adults   | 22 | Male | 1  | Female | 21 |
| Number of Children | 16 | Male | 10 | Female | 6  |

Nationalities of new cases for the year:

|          |    |         |   |
|----------|----|---------|---|
| Austrian | 2  | Swedish | 7 |
| English  | 14 | Polish  | 9 |
| Finnish  | 6  |         |   |

Diseases of new cases:

|                  |    |             |    |                |   |
|------------------|----|-------------|----|----------------|---|
| Bowel trouble    | 1  | Infections  | 2  | Pneumonia      | 3 |
| Bronchitis       | 2  | Influenza   | 1  | Post Operative | 1 |
| Lagrippe         | 1  | Injury      | 1  | Tonsillitis    | 1 |
| Infants, Newborn | 12 | Obstetrical | 13 |                |   |



Number of patients attended and calls made by Visiting Nurses:

|            | No. of Cases | No. of New cases | Male Adults | Female Adults | Male Children | Female Children |
|------------|--------------|------------------|-------------|---------------|---------------|-----------------|
| Ishpeming  | 319          | 227              | 24          | 102           | 62            | 39              |
| Negaunee   | 555          | 374              | 18          | 184           | 92            | 80              |
| Gwinn      | 724          | 498              | 53          | 185           | 127           | 133             |
| Iron River | 39           | 38               | 1           | 21            | 10            | 6               |
| Total      | 1637         | 1137             | 96          | 492           | 291           | 258             |

|            | Total Visits | No. of Patients died | Social Calls | Families Vis. 1st. time | Pension calls |
|------------|--------------|----------------------|--------------|-------------------------|---------------|
| Ishpeming  | 1440         | 13                   | 71           | 65                      | 0             |
| Negaunee   | 2123         | 14                   | 632          | 55                      | 57            |
| Gwinn      | 2365         | 12                   | 258          | 308                     | 0             |
| Iron River | 125          | 1                    | 0            | 0                       | 0             |
| Total      | 6053         | 40                   | 961          | 428                     | 57            |

NATIONALITY OF CASES

|            | Belgian | American | Austrian | English | Finnish | French | German |
|------------|---------|----------|----------|---------|---------|--------|--------|
| Ishpeming  | 0       | 15       | 0        | 55      | 73      | 36     | 3      |
| Negaunee   | 8       | 120      | 4        | 42      | 91      | 52     | 0      |
| Gwinn      | 0       | 46       | 13       | 51      | 118     | 55     | 8      |
| Iron River | 0       | 0        | 2        | 14      | 6       | 0      | 0      |
| Total      | 8       | 181      | 19       | 162     | 288     | 143    | 11     |

|            | Irish | Italian | Norwegian | Polish | Swedish | Scotch | Jew |
|------------|-------|---------|-----------|--------|---------|--------|-----|
| Ishpeming  | 5     | 15      | 3         | 2      | 20      | 0      | 0   |
| Negaunee   | 3     | 23      | 2         | 0      | 29      | 0      | 0   |
| Gwinn      | 5     | 109     | 13        | 0      | 77      | 2      | 1   |
| Iron River | 0     | 0       | 0         | 9      | 7       | 0      | 0   |
| Total      | 13    | 147     | 18        | 11     | 133     | 2      | 1   |

REST COTTAGE:

The Rest Cottage was open from June 24th, to September 21st, a total of eighty-nine days.

The results were just as satisfactory as in previous years. Mrs. Goldsworthy continued her work as cook and housekeeper, and her work was very satisfactory. The sanitary conditions are good and Deer Lake, as in other years, caused no inconvenience through the summer.

The work can be continued in the same cottages next year with little change. Some repairs will be necessary on the buildings, but it is not worth while to expend very much on these old houses.

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

| Year | Place      | Number of<br>Guests | Cost of<br>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 | "          | <u>51</u>           | <u>720.20</u>        |
|      | Total      | 746                 | \$ 5117.04           |

Details of Operation for the Year 1918

|  |         |
|--|---------|
| Number of meals furnished                                      | 1883    |
| Total Days   | 640     |
| Number of people at Rest Cottage                               | 51      |
| Average number of days per person                              | 12.5    |
| Number of days the Cottage was open                            | 89      |
| Average number of people at Cottage per day                    | 7.2     |
| Total cost of operation reduced to cost per person,<br>per day | \$1.125 |

GWINN ASSOCIATION:

The work continued during the year with Mr. Adler in charge up to December 1st, at which time he left to enter Americanization work with the Y. M. C. A., at New Haven, Connecticut. During the months of November and December, the building was closed for Club House purposes, on account of the epidemic of influenza; during which time the Club House was used as an Emergency Hospital, having at one time twenty-seven patients in it.

The annual statement following shows the receipts and expenditures for the year:



GWINN CLUB HOUSE

GWINN, MICHIGAN.

|                                     |                |                 |
|-------------------------------------|----------------|-----------------|
| Balance on hand January 1st, 1918   | \$ 15.79       |                 |
| Receipts during the year            | <u>9989.26</u> |                 |
| Total                               |                | \$10,005.05     |
| Total Expenditures                  |                | <u>9,869.34</u> |
| Balance on hand December 31st, 1918 |                | \$ 135.71       |

RECEIPTS

|                                      |               |               |
|--------------------------------------|---------------|---------------|
| Membership fees - Men                | \$1,526.00    |               |
| Theatre                              | 4,248.75      |               |
| Coupon Books                         | 769.00        |               |
| Bowling alley                        | 70.75         |               |
| Pool & Billiards                     | 334.65        |               |
| Donation                             | 1,091.26      |               |
| Lockers                              | 6.50          |               |
| Buffet                               | 2,323.27      |               |
| Towels and soap                      | 68.95         |               |
| Camp Office Ex. Fund                 | 75.00         |               |
| Discount                             | 29.98         |               |
| Miscellaneous (Edu. 5.00 Bult. 4.68) | <u>136.55</u> |               |
| Total                                |               | \$10,680.66   |
| Less Coupons returned                |               | <u>691.40</u> |
| Net Receipts                         |               | \$ 9,989.26   |

EXPENDITURES.

|                         |               |
|-------------------------|---------------|
| Building Maintenance    | 339.45        |
| Equipment               | 189.36        |
| Power                   | 12.39         |
| Education               | 136.80        |
| Lighting                | 494.24        |
| Heating                 | 1,343.68      |
| Water                   | 225.03        |
| Bowling Alleys          | 89.48         |
| Pool Room               | 63.44         |
| Lockers                 |               |
| Buffet                  | 1,880.14      |
| Stationery and printing |               |
| Entertainments          | 75.70         |
| Towels and soap         |               |
| Laundry                 | 53.66         |
| Office Expense          | 199.64        |
| Camp                    | 303.44        |
| Salaries                | 793.18        |
| Theater                 | 2,912.24      |
| Library                 | 49.58         |
| Reading Room            | 227.37        |
| Gymnasium               | 4.53          |
| Miscellaneous           | 140.49        |
| Bulletins               | <u>335.50</u> |

\$ 9,869.34

GWINN ASSOCIATION: (Continued)

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

|                 | Receipts       | Expenditures   | Profit         |
|-----------------|----------------|----------------|----------------|
| Pool & Billards | 334.65         | 63.44          | 271.21         |
| Lockers         | 6.50           | 0.00           | 6.50           |
| Buffet          | 2323.27        | 1880.14        | 443.13         |
| Towels and soap | 68.95          | 53.66          | 15.29          |
| Moving Pictures | <u>4248.75</u> | <u>2912.24</u> | <u>1336.51</u> |
| Total           | 6982.12        | 4909.48        | 2072.64        |

The camp at Bass Lake was open during the months of July and August and it proved a very satisfactory adjunct to the club house work.

NORTH LAKE CLUB HOUSE:

The North Lake Club House was completed and opened for the public January 23d, 1918. On the night of January 29th, a fire occurred in the building which burned out one wing and injured the wood work, and the main part of the building. Adjustment was made with the Insurance people and work started immediately on its repairs. As fast as any part of the building was cleaned up, it was immediately occupied, so that we could have some use of the building. Mr. E. C. Shimondle was secured as Superintendent of the work and it has been very successful. The men made good use of the building, the bowling alleys and pool tables being constantly in use.

A barber was secured who furnished his own equipment, and this man acts as Janitor of the building. The movies have been very popular, a good selection of films being secured.

The women's rooms have been used for Red Cross work throughout this season. The hall up-stairs has been used during the season for dances and parties so that there has always been something going on in the building.

We closed the building during the influenza epidemic, so the total receipts from the various accounts of the building will probably be much larger in the succeeding year than they were in 1918. The following sheet shows the receipts and expenditures for the year.



NORTH LAKE CLUB HOUSE

JANUARY 23 to DECEMBER 31, 1918.

\* \* \* \* \*

RECEIPTS:

|                       |             |            |
|-----------------------|-------------|------------|
| Membership Fees - Men | 382.75      |            |
| Theater               | 1393.10     |            |
| Bowling alleys        | 557.37      |            |
| Pool and Billiards    | 379.50      |            |
| Miscellaneous         | <u>5.10</u> |            |
|                       |             | \$ 2717.62 |

EXPENDITURES:

|                               |             |                |
|-------------------------------|-------------|----------------|
| Building, Maintenance         | 422.25      |                |
| Equipment                     | 182.68      |                |
| Lighting                      | 243.45      |                |
| Heating                       | 413.39      |                |
| Water                         | 7.00        |                |
| Bowling alleys                | 186.66      |                |
| Pool room                     | 3.15        |                |
| Stationery & Printing         | 15.00       |                |
| Office expense                | 65.97       |                |
| Janitor                       | 48.50       |                |
| Theater                       | 1236.32     |                |
| Reading Room                  | 57.14       |                |
| Miscellaneous                 | 131.91      |                |
| Telephone                     | 13.28       |                |
| Internal Revenue & Inspection | 60.90       |                |
| Miscellaneous                 | 24.24       |                |
| Insurance                     | 141.45      |                |
| Personal Injury Expense       | <u>5.85</u> |                |
|                               |             | <u>3239.14</u> |
| Deficit in local club work    |             | \$ 541.32      |

ISHPEMING Y. M. C. A.

Mr. E. J. Townsend was Secretary of the Association up to the month of April at which time he resigned to go to Flint, Michigan. He was succeeded by Ernest Ludlow, who took charge on May 1st. Mr. Ludlow went to Lake Geneva during the month of July where he attended a summer school.

The building was shut down during October, November, and December, on account of the influenza epidemic during which time the salaried officers worked upon the cleaning, renovating, and painting of the interior of the building, putting it in thoroughly good shape.

The year of the Association ends on April 31st. The following sheet shows the receipts and expenditures during the calendar year. On certain features of the work, the following profits are shown:

|                       | Receipts | Expenditures | Profit. |
|-----------------------|----------|--------------|---------|
| Dormitory Maintenance | 1000.15  | 195.12       | 805.03  |
| Gymnasium             | 158.25   | 102.50       | 55.75   |
| Bowling               | 253.89   | 189.24       | 64.65   |
| Billiards             | 258.81   | 53.41        | 205.40  |
| Athletic Games        | 370.19   | 355.98       | 14.21   |
| Spa                   | 685.59   | 601.42       | 84.17   |
| Baths                 | 255.58   | 162.45       | 93.13   |
|                       | 2982.46  | 1660.12      | 1322.34 |

A campaign for funds was undertaken early in the year. There was received from local sources, \$1067.10. There was received from Mr. Wm. G. Mather, an amount the equivalent of that not paid by the Pittsburgh and Lake Angeline Company, \$1442.86. There has also been credited to this special fund the \$61.00 per month now paid by the Cleveland-Cliffs Iron Co., this being the amount formerly paid monthly by the Pittsburgh and Lake Angeline Co., a total of \$549.00, making the credit to the special fund, \$3058.96. This has been paid out on account of old bills with the exception of \$31.40 which was turned into the general fund.

ISHPEMING Y. M. C. A. - YEAR 1918.

RECEIPTS:

|                             |                |                |
|-----------------------------|----------------|----------------|
| Membership Fees             |                |                |
| Sustaining members          | 366.00         |                |
| Senior members              | 387.00         |                |
| Boy           "             | <u>103.50</u>  | 856.50         |
| Subscriptions               | 277.50         |                |
| Miscellaneous               | 104.56         |                |
| Mining Company contribution | <u>3234.00</u> | 3616.06        |
| Dormitory Rentals           | 1000.15        |                |
| Gymnasium Fees              | 158.25         |                |
| Bowling                     | 253.89         |                |
| Billiards                   | 258.81         |                |
| Athletic Games              | 370.19         |                |
| Bath Towels & Soap          | 255.58         |                |
| Spa                         | 685.59         |                |
| Educational                 | 10.45          |                |
| Summer Camp                 | <u>15.00</u>   |                |
|                             |                | <u>3607.91</u> |

EXPENDITURES:

|                             |             |         |
|-----------------------------|-------------|---------|
| Miscellaneous & Advertising | 478.25      | 8080.47 |
| Buildings & Equipment       | 47.20       |         |
| Repairs                     | 117.26      |         |
| Fuel                        | 732.85      |         |
| Electricity & Gas           | 178.74      |         |
| Water                       | 60.15       |         |
| Supplies                    | 48.84       |         |
| Salaries                    | 4664.50     |         |
| Stationery & Printing       | 35.75       |         |
| Telephone                   | 50.75       |         |
| Postage & Office Supplies   | 87.24       |         |
| Reading Room Supplies       | 25.05       |         |
| Religious Work              | 96.22       |         |
| Interest                    | 125.03      |         |
| Dormitory maintenance       | 195.12      |         |
| Gymnasium                   | 102.50      |         |
| Bowling Alleys              | 189.24      |         |
| Billiards                   | 53.41       |         |
| Athletic Games              | 355.98      |         |
| Bath                        | 162.45      |         |
| Spa                         | 601.42      |         |
| Socials & entertainments    | 25.29       |         |
| Educational Class Work      | 30.23       |         |
| Summer Camp                 | <u>2.35</u> |         |
|                             |             | 8465.82 |



MUNISING Y. M. C. A.:

On account of the war conditions making such work as the Y. M. C. A. very difficult, it was suggested that the building be made into a County Community Center and this was done through the authority of Mr. Mather, and it has proven very successful. They secured a very good man in Mr. Francis Dean and the institution has been very well patronized. The change was made in April.

SAFETY WORK:

This department has been conducted by Mr. W. Conibear and its work is covered by a complete report from him.

EDUCATIONAL WORK:

On account of the absence of M r. Stevenson, the regular educational work which had been under his instruction was discontinued, he having completed the work with the men before he left.

Mr. Stanford continued his cla sses in Electrical work with the men at Ishpeming, Negaumee, and Gwinn District. In the Fall of 1918 he secured lantern slides and films from the General Electric Company which demonstrated the advancement in Electrical science. These have been shown to the members, engineers, and office people who have been interested in it. The slides and films have been shown at North Lake and Gwinn as well as at Ishpeming. This was a very satisfactory part of the electrical class work.

HOSPITALS:

During the year the Department has been in touch with the hospitals at Ishpeming, Negaunee, Gwinn, Republic, and Iron River. In many respects, it has been a hard year on account of the demand for Physicians in the service. At the Ishpeming Hospital, Dr. Mudge came the first of January, but remained for only one month. Dr. M. H. Rice came in February and has been with the hospital force during the year. Dr. A. V. Braden, who entered the U. S. Service in 1917, went to France in 1918 and was there at the end of the year.

On moving into the new hospital on November first, Dr. T. A. Feleh resigned from the hospital staff.

The services of Dr. F. R. Curney, who had been in Panama and later in the Philippines, was secured and he came in November.

At Negaunee the conditions have been only to a degree satisfactory. Dr. Haines left during the year to go West, and his place was filled by Dr. Mudge, who was at the Ishpeming Hospital during the month of January, but later returned to work with Dr. Robbins at Negaunee.

Dr. Whittemore has been at Palmer, but has assisted in the work at Negaunee occasionally.

At Gwinn Dr. Isley, who was assistant to Dr. MacIntyre, left on April 21st, to enter the service. At the time he left, Dr. MacIntyre was in bed with ulcer of the stomach. We immediately took Dr. Rice to Gwinn for a short time, later securing the services of Dr. Snyder of Escanaba, who was at Gwinn for one month during the time that Dr. MacIntyre was laid up. We tried in many ways to get an assistant for Dr. MacIntyre during his illness, but as there were so many men asked for in the service, we were unable to secure any one, nor was the Doctor for the balance of the year. At the very last of the year he was able to find a man at Ann Arbor who can come in March.

At Republic, Dr. Loveland has been in charge of the work as in former years with his health very much improved. He has worked with no assistance with the exception of one week during the year. The accident cases have not been hospital cases and, therefore, he has been able to handle the cases easily.

HOSPITALS: (Continued)

In the following sheets will be found financial statement for the Old Ishpeming Hospital up to November 1st; The Statistical and Financial statement of the Gwinn Hospital for the year, and statements for the New Hospital for the months of November and December.

NEW HOSPITAL AT ISHPEMING:

The work upon the New Hospital was continued to some extent during the winter and as soon as Spring set in, work was actively undertaken. It was difficult to get sufficient men at all times and the work was slow.

The building was completed during October and the equipment which had been purchased before and stored at the Lake Angeline Mine was put in the building.

Transfer from the old hospital to the new was made on the last day of October, during which time the influenza epidemic was developing. The matter of using the old hospital for influenza patients was considered, but it was decided that it would not be feasible as the extra work for the physicians at the two hospitals would be too great and it was impossible to secure sufficient nurses to care for both buildings. Immediately upon opening the new building the third floor was given over to Flu cases.

Miss A. D. Cron, graduate of John Hopkins, who had been in charge of a large number of nurses at the State Hospital at Traverse City, and was in charge of the General Hospital there, was secured as Superintendent of the new building. She came to Ishpeming on October 1st, looked after the settling of the building during the month and the installation of equipment.

The Hospital as planned has worked out very satisfactorily and is very well adapted for our use.



RECEIPTS AND EXPENDITURES - OLD ISHEMING HOSPITAL

BUSINESS OF JANUARY TO NOVEMBER, 1918.

RECEIPTS:

|                          |              |
|--------------------------|--------------|
| G. C. I. Co.             | \$ 23363.49  |
| Oliver Iron Mng. Co.     | 7184.73      |
| Jones & Laughlin         | 52.00        |
| Michigan Gas & Elec. Co. | 393.50       |
| Aetna Explosives Co.     | 970.47       |
| Rent                     |              |
| Operations               | 2783.89      |
| Pharmacy                 | 1809.32      |
| Foundation Co.           | 1856.31      |
| Negaunee                 | <u>80.00</u> |

\$ 38494.71

EXPENDITURES:

|                            |              |
|----------------------------|--------------|
| Salaries paid Physicians   | 8250.00      |
| Salaries of nurses         | 2028.00      |
| " of other employees       | 4069.10      |
| Rent                       | 139.28       |
| Light and Gas              | 148.28       |
| Groceries and Provisions   | 951.27       |
| Fuel                       | 885.19       |
| Telephone                  | 48.70        |
| Drugs and Medical Supplies | 3731.94      |
| Horses and Auto            | 907.31       |
| Insurance                  | 119.74       |
| Taxes                      | 71.86        |
| Dressings and Office       | 497.30       |
| Water                      | 19.31        |
| Laundry                    | 186.66       |
| Library                    | 26.10        |
| Other Expenses             | 468.72       |
| Gas                        | <u>22.24</u> |

22570.90

\$ 15923.81

| Dr. Felch      | Dr. Vandeventer | Dr. Smith      | Dr. Barnett    |
|----------------|-----------------|----------------|----------------|
| 1650.00        | 1650.00         | 1650.00        | 1650.00        |
| <u>6369.53</u> | <u>3184.76</u>  | <u>3184.76</u> | <u>3184.76</u> |
| 8019.53        | 4834.76         | 4834.76        | 4834.76        |

THE CLEVELAND-CLIFFS IRON CO.  
MINE DEPARTMENT  
STATEMENT FOR OPERATING ISHPERING HOSPITAL-NOV. & DEC. 1918.

|                              | MONTH OF<br>NOVEMBER | MONTH OF<br>DECEMBER | TOTAL<br>TO DATE |
|------------------------------|----------------------|----------------------|------------------|
| <b>GENERAL EXPENSE</b>       |                      |                      |                  |
| Printing & Stationery        | 22 71                | 128 72               | 151 43           |
| Postage                      |                      | 3 00                 | 3 00             |
| Office Expenses              |                      | 12 16                | 12 16            |
| Telephone and Telegraph      |                      | 5 49                 | 5 49             |
| Insurance                    |                      |                      |                  |
| Personal Injury Expense      |                      |                      |                  |
| Taxes                        |                      |                      |                  |
| Central Office               |                      | 360 49               | 360 49           |
| <b>Total</b>                 | <b>22 71</b>         | <b>509 86</b>        | <b>532 57</b>    |
| <b>MAINTENANCE</b>           |                      |                      |                  |
| Buildings                    | 1 84                 | 122 13               | 123 97           |
| Equipment                    | 48 46                | 129 68               | 178 14           |
| Linens, bedding, etc.        |                      | 63 28                | 63 28            |
| Surgical Instruments         |                      | 17 84                | 17 84            |
| Grounds                      |                      |                      |                  |
| <b>Total</b>                 | <b>50 30</b>         | <b>332.93</b>        | <b>383 23</b>    |
| <b>OPERATING</b>             |                      |                      |                  |
| Salaries:                    | 2910 36              | 3497 44              | 6407 80          |
| Physicians 1                 | 1733.32              | 1733.32              |                  |
| Nurses                       | 264.32               | 471.60               |                  |
| Pharmacists                  | 274.99               | 274.99               |                  |
| Other Labor                  | 637.73               | 1017.53              |                  |
| Drugs and Medical Supplies   | 206 35               | 2891 07              | 3097 42 *        |
| X-Ray Supplies               | 50                   | 50                   | 1 00             |
| Laundry                      |                      | 18 57                | 18 57            |
| Kitchen                      | 17 32                | 17 35                | 34 67            |
| Groceries and Provisions     | 320 32               | 123 11               | 443 43 **        |
| Meats                        | 8 07                 | 9 50                 | 17 57            |
| Lighting                     | 60 79                | 39 51                | 100 30           |
| Water                        |                      |                      |                  |
| Fuel                         | 267 87               | 532 90               | 800 77           |
| Stable Exp., Incl. Ambulance | 119 53               | 97 94                | 217 47           |
| Miscellaneous                | 2 23                 | 45 42                | 47 65            |
| Freights, Express, Drayage   |                      | 30 82                | 30 82            |
| <b>Total</b>                 | <b>3913 34</b>       | <b>6946 60</b>       | <b>10859 94</b>  |
| <b>DEPRECIATION</b>          |                      |                      |                  |
| Plant a/c A-4                |                      |                      |                  |
| Unc. Construction A-6        |                      |                      |                  |
| <b>Grand Total</b>           | <b>3986 35</b>       | <b>8146 92</b>       | <b>12153 27</b>  |
| <b>REVENUES</b>              |                      |                      |                  |
| C. C. I. Company             | 2403 15              | 2443 68              | 4846 83          |
| Other Companies              |                      | 729 82               | 729 82           |
| Outside Parties              | 512 25               | 930 27               | 1442 52          |
| <b>Total Revenue</b>         | <b>2915 40</b>       | <b>4103 77</b>       | <b>7019 17</b>   |
| Loss and Gain                | 1070 95              | 4043 15              | 5114 10          |

\* includes supplies from old hospital.

\*\* Credit of 6.08 on groceries, Capp. Cook Co.

PENSION DEPT.

STATISTICAL REPORT

GWINN HOSPITAL

1918

\* \* \* \*

|  |      |
|--|------|
| Number of C. C. I. injury cases admitted during year | 5    |
| Number of other cases admitted during year           | 151  |
| Number of births during year                         | 16   |
| Number of deaths during year                         | 14   |
| Number of operations during year                     | 34   |
| Number of hospital calls - C. C. I. families         | 6065 |
| Number of Hospital calls - outside cases             | 125  |
| Number of visits - C. C. I. families                 | 2338 |
| Number of visits - outside cases                     | 106  |
| Average number of nurses employed per month          | 4    |
| Number of meals served to patients                   | 3534 |
| Number of meals served to nurses, help, etc.         | 5936 |
| Total number of meals served                         | 9470 |
| Total number of days of patients                     | 3187 |



THE CLEVELAND-CLIFFS IRON CO.

HOSPITAL REPORT

GWINN.

RECEIPTS:

|                                |               |             |
|--------------------------------|---------------|-------------|
| The Cleveland-Cliffs Iron Co., | \$ 11861.27   |             |
| Other Companies                |               |             |
| Hospital service               | 2048.07       |             |
| Other sources                  | <u>240.00</u> |             |
| Total Receipts                 |               | \$ 14149.34 |

EXPENDITURES:

|                        |              |                 |
|------------------------|--------------|-----------------|
| Salaries -- Physicians | 490.00       |                 |
| Salaries -- Nurses     | 1618.44      |                 |
| Wages -- Help          | 1545.24      |                 |
| Electricity and Lamps  | 80.56        |                 |
| Fuel                   | 974.47       |                 |
| Water                  |              |                 |
| Provisions             | 1818.54      |                 |
| Telephone              | 68.80        |                 |
| Drugs                  | 882.48       |                 |
| Repairs                | 293.52       |                 |
| Insurance and Taxes    | 188.53       |                 |
| Equipment              | 40.55        |                 |
| Laundry                | 491.82       |                 |
| Kitchen Supplies       | 39.74        |                 |
| Hospital Supplies      | 467.43       |                 |
| Miscellaneous          | 5.70         |                 |
| Barn                   | 1286.24      |                 |
| Office                 | 20.15        |                 |
| Freight                | <u>92.73</u> |                 |
| Total Expenditures     |              | <u>10404.94</u> |
| Revenue                |              | \$ 3744.40      |

HEALTH:

During the early part of the year, the health conditions were very good, but in the early Fall the influenza started and there was quite an epidemic at Gwinn. It was soon found that the hospital was not large enough to take care of the patients and the Club House was closed for club purposes and turned into an Emergency Hospital. Dr. T. A. Felch was sent to the assistance of Dr. MacIntyre for about ten days, Dr. Bennett of Marquette was secured for a month.

Mr. Graff looked after the operation of the Emergency Hospital and fine service was secured and maintained by him.

Great credit is due the school teachers of Gwinn, eleven of whom volunteered to care for the influenza patients. They were mainly young women, most of them without any practical experience in the care of sick except for the training received at some local nursing classes for the war work. The Catholic priest gave up the use of his house for their headquarters during this time. Too much commendation to the people of the district can not be given for the way in which the work was handled. Mr. Graff's work of general oversight and care of the Emergency hospital was of the greatest assistance.

During this same time the influenza developed in Ishpeming, but the cases were scattered and at no time as serious as at Gwinn. For some time there were apparently no cases at Negaunee, but these developed later on and the old "King's Inn" was used as an Emergency Hospital. We sent to Gwinn some equipment from the old hospital, also furnished them with sheets, bedding, and utensils from the new hospital. Some of the beds of the old hospital were sold to help equip the Emergency hospital at Negaunee.

Influenza vaccine was secured from Mayo Brothers and later on from the laboratories of Parke Davis & Co. and some from the Lily Chemical Company of Boston. We made use of the vaccine at all of the mines giving the vaccinations one week apart. Special help in this was rendered by Mr. Conibear and Mr. Williams of the Safety Department. The following data shows the number of vaccinations given at the mines in the city.

HEALTH: (Continued)

The first general vaccinations for the City were given at the Hospital, but as the hours of the physicians were very crowded, the City Hall was then used for this purpose, being open from 9:00 to 12:00 in the morning and from 1:00 to 4:00 in the afternoon all of the Physicians in the city taking one hour each.

The same method of vaccination was employed at Negaunee, in the Gwinn District, and at Republic.

A larger proportion of the people of Ishpeming, than in any other community in the Upper Peninsula, were vaccinated, and we believe that the smaller amount of influenza cases was a direct result of this.



VACCINATIONS GIVEN FROM  
OCTOBER 24, 1918 TO DECEMBER 31, 1918.

| <u>ROSENOW:</u>                 | FIRSTS | SECONDS | THIRDS |
|---------------------------------|--------|---------|--------|
| Hospital and City Hall          | 3429   | 2604    | 2124   |
| North Lake Families             | 232    | 162     | 123    |
| Cleveland-Cliffs Iron Co. Mines | 1080   | 774     | 520    |
| Oliver Iron Mining Co.          | 176    | 72      | 39     |
|                                 |        |         |        |
| <u>LILLY:</u>                   |        |         |        |
| Hospital and City Hall          | 526    | 437     | 395    |
| TOTAL                           | 5443   | 4049    | 3201   |

The vaccinations recorded at the Hospital and City Hall include those given by Doctor Picotte at his office, but do not include those given at Doctor Holm's Hospital of which we have no record.

The above list includes the vaccinations given at all of the mines of the Cleveland-Cliffs Iron Company in Ishpeming, North Lake, and also includes those given at the McClure Water Power Plant and the people living at the North Lake Location given at the Club House.

WAR DRAFT:

The work of the War Draft, which began in 1917, was continued throughout the year. There was only one change in the Local Board, Mr. Dennis Hughes was replaced by Mr. Albert Bjork. The men in our employ were given help in the matter of filling out their Questionnaires and the matter of exemptions by the Clerks and this Department. At the time of the first draft, some of our men of skilled occupations asked for Deferred Classification on industrial grounds, and in this case, blanks were furnished and sent to the District Board at Houghton.

In June, 1918 there was another registration of men who had reached the age of twenty-one. In September, there was further registration of men who were from eighteen to twenty-one, and from thirty to forty-five. At this time, Deferred Classification on industrial grounds was made more general and affidavits were filled out for all men not aliens in the following list of occupations:

Mine Foreman  
Shift Bosses  
Pipeman, Foreman  
Timber Foreman  
Pumpman  
Miners  
Electrician  
Motormen  
Engineer, (Auxiliary Hoist)  
Blacksmith Shop, Foreman  
" " Blacksmith  
" " Drill Sharpeners  
" " " Temperers  
Carpenter Shop, Foreman  
" " Carpenters  
Machine Shop, Foreman  
" " Machinist  
Engine House, Engineer  
" " Brakeman  
Timber Framers, Foreman  
Top Tram, Engineers  
Crusher Engineer  
Machinery Foreman  
Chain Gang (Special Sub-Foreman)  
Electrician  
Steam Shovels, Engineer  
" " Cranesman  
Diamond Drilling, Superintendent  
" " Foreman  
" " Setters  
" " Runners  
" " Runners, Underground

WAR DRAFT: (Continued)

Chief Electrician  
Foreman Lineman  
Linemen  
Water Power Plants, Chief Operator  
" " " Operator  
Chemists  
First Asst. Chemists  
Assistant Chemists  
Mine Clerk  
Supply Clerk  
Mining Engineers  
Mechanical Engineers

We were in constant co-operation with the local boards of Ishpeming, Marquette, and the District Board at Houghton.

The Chief Clerk of this Department, who entered the Service in 1917, went across early in the year, and has been in France up to the present time. He was made Regimental Sergeant Major and is having a first class experience although not being at the immediate fighting front. Even with the industrial deferred classification, the Mining Department has been very well represented in the service. The following sheets show the men in service from the different mines and departments.

Following the signing of the Armistice, it was understood that many of these men would begin to return shortly, but only a few came back up to the first of the year and these from the camps in this Country.

The spirit of the men who entered the service and also that of the men here that were not in direct war service, was very fine and they are all entitled to the greatest commendation.

We have kept records in this office of all registered men in District No. 2 which comprises Ishpeming, North Lake, Gwinn, Republic, and adjacent territories. We also have a list of registered men of the first district living at Negaunee. There is made a part of this report a complete record of the men in the service from all departments classified according to their occupation. This sheet also shows the branch of service in which these men served. From this record it will be seen that there were from the Mining Department, 488 men in service. In addition to that number there were 21 men who went to



WAR DRAFT: (Continued)

the various camps and were rejected after their arrival there. A great many men who went across the water were in active service at the front. Many of those who were inducted into the service later were still in camp in this country when the Armistice was signed. We have seen quite a number of these men who have returned from the front, some of whom were wounded in the service. A summary of the detail sheet shows the following occupations of men in the service:

|                  |       |                 |     |
|------------------|-------|-----------------|-----|
| Engineer & Asst. | 11    | Pumpmen         | 1   |
| Clerks & Steno.  | 24    | Laborers        | 113 |
| Supt. & General  | 3     | Machinist       | 4   |
| Elec. Haulage    | 19    | Pufferman       | 3   |
| Trammers         | 62    | U.G. Laborer    | 34  |
| Miners           | 128   | Blksmth Hlprs.  | 8   |
| Top Landers      | 8     | Policeman       | 6   |
| Chain-Gang       | 16    | Elec. & Hlprs.  | 13  |
| S. S. Runner     | 2     | Timbermen       | 5   |
| S. S. Laborer    | 9     | Loco. Engineers | 2   |
| D. Drill men     | 7     | Teamster        | 5   |
| Asst. Chemist    | 3     | Surface Foreman | 2   |
|                  | Total |                 | 488 |

We have a list of seven men who were employed by the company at the time of their induction into the service who gave their lives during the war.

Private William Bath - Co. 3, 168th Infantry. Killed in the battle of St. Mihiel, September 13th, 1918. Employed as sampler at the Maas Mine.

Private John H. Mitchell - Co. "C" 337th Inf. 47th Division. Killed in action. Employed at the Negaunee Mine.

Candidate Martin W. Sather - 2d Co. 1st Bat. Inf. C.O.T.S. Camp Grant, Illinois. Died of influenza at Camp Grant on October 6th. Employed by us as motorman in the Gwinn Mine.

Arthur Berale - Enlisted with Canadian Troops. Died at Fort William, Canada. Employed as miner at Morris-Lloyd Mine.

WAR DRAFT: (Continued)

Walfred Nyland - Was in the Electrical Department in the Navy.  
Died in Naval Hospital at Newport, R. I. August 29th,  
1918. Employed at Carp River Water Power as Assistant  
Operator.

Private Henry Huot - 3d Tunnel Co. Canadian Engineer Forces.  
Died of wounds, Oct. 26th at No. 10 Casualty Clearing  
Station, France. Was employed at the McClure Plant at  
the time of enlistment.

Cecil A. Fowler - 2d Class seaman. U. S. N. R. F. Died of  
influenza or pneumonia at Brooklyn Naval Hospital,  
September 21st, 1918. Employed as a Warehouseman at  
Stephenson Mine.

We have secured a list of men from Marquette County who have died  
while in the service, this being information required by Governor Sleeper.

On this list are the names of 34 men.

THE CLEVELAND-CLIFFS IRON COMPANY

LIST SHOWING EMPLOYEES IN MILITARY AND NAVAL SERVICE.

|                    | ENGINEER & ASST. | CLERKS & STENO. | SUPT. & GENERAL | ELEC. HAULAGE | TRAMMERS | MINERS | TOP LANDERS | CHAIN-GANG | S.S. HUNTER | S.S. LABORER | D. DRILL MEN | ASST. CHEMIST | PUMPER | LABORERS | MACHINEIST | PUFFERMAN | U.G. LABORER | ELEKTH. HELPERS. | POLICEMAN | ELEC. & HELPERS. | TIMBERMEN | LOOC. ENGINEERS | TRANSFER | SURFACE FOREMAN | TOTAL | REPROCTED | BRANCH OF SERVICE |    |      |       |       |           |      |         |          |           |   |   |   |  |
|--------------------|------------------|-----------------|-----------------|---------------|----------|--------|-------------|------------|-------------|--------------|--------------|---------------|--------|----------|------------|-----------|--------------|------------------|-----------|------------------|-----------|-----------------|----------|-----------------|-------|-----------|-------------------|----|------|-------|-------|-----------|------|---------|----------|-----------|---|---|---|--|
|                    |                  |                 |                 |               |          |        |             |            |             |              |              |               |        |          |            |           |              |                  |           |                  |           |                 |          |                 |       |           | ARMY              |    | NAVY | RADIO | ENGR. | AVIA-TION | CAN. | ITALIAN | S.A.P.C. | DESERTERS |   |   |   |  |
|                    |                  |                 |                 |               |          |        |             |            |             |              |              |               |        |          |            |           |              |                  |           |                  |           |                 |          |                 |       |           | D                 | E  |      |       |       |           |      |         |          |           |   |   |   |  |
| Central Office     | 8                | 8               | 3               |               |          |        |             |            |             |              |              |               |        |          |            |           |              |                  |           |                  |           |                 |          |                 | 19    |           | 4                 | 7  | 2    | 1     | 2     | 1         |      |         |          | 2         |   |   |   |  |
| Cliffs-Shaft       | 1                |                 |                 | 2             | 13       | 6      | 1           |            |             | 3            |              | 1             |        | 5        | 1          | 2         | 2            |                  |           |                  |           |                 |          |                 | 37    | 1         | 29                |    | 3    | 1     | 1     |           |      |         |          | 3         |   |   |   |  |
| Lake               |                  | 2               |                 | 3             | 6        | 10     |             |            |             |              |              |               |        | 11       |            |           | 2            | 1                |           |                  |           |                 |          |                 | 35    | 1         | 23                | 1  | 6    |       | 2     |           |      | 2       |          | 1         |   |   |   |  |
| Salisbury          |                  |                 |                 |               | 5        | 6      |             |            |             |              |              |               |        | 2        |            |           | 1            |                  |           |                  |           |                 |          |                 | 14    | 2         | 11                |    | 1    |       |       |           |      | 1       |          | 1         |   |   |   |  |
| Holmes             |                  |                 |                 |               | 5        | 3      | 1           | 3          |             |              | 1            |               |        | 6        |            |           | 1            |                  | 1         |                  |           |                 | 1        |                 | 22    |           | 18                | 2  | 2    |       |       |           |      |         |          |           | 1 |   |   |  |
| General Storehouse |                  | 1               |                 |               |          |        |             |            |             |              |              |               |        | 5        |            |           |              |                  | 2         | 1                |           |                 |          |                 | 9     |           | 5                 | 1  | 1    |       |       |           | 1    |         |          | 1         |   |   |   |  |
| Angeline           |                  | 1               |                 |               |          | 1      |             |            |             |              |              |               |        | 3        |            |           |              |                  |           |                  |           |                 |          |                 | 5     |           | 4                 | 1  |      |       |       |           |      |         |          |           |   |   |   |  |
| Miscellaneous      |                  |                 |                 |               |          |        |             |            |             | 1            | 4            |               |        | 1        |            |           |              |                  | 1         | 6                |           |                 |          |                 | 13    |           | 5                 | 2  | 5    |       | 1     |           |      |         |          |           |   |   |   |  |
| Morris-Lloyd       |                  |                 |                 | 3             | 13       | 1      | 1           |            |             |              | 1            |               | 1      | 9        |            |           | 1            |                  |           |                  |           | 2               |          |                 | 32    | 2         | 23                |    | 4    |       | 1     | 1         | 3    |         |          |           |   |   |   |  |
| Barnes-Hecker      |                  |                 |                 |               |          | 1      |             |            |             |              |              |               |        | 1        |            |           |              |                  |           | 1                |           |                 |          |                 | 3     |           | 3                 |    |      |       |       |           |      |         |          |           |   |   |   |  |
| D.R.-McClure Plant |                  |                 |                 |               |          |        |             |            |             |              |              |               |        | 1        |            |           |              |                  |           | 3                |           | 1               |          |                 | 5     |           | 3                 |    | 1    |       |       |           |      |         |          |           |   |   |   |  |
| Princeton          |                  |                 |                 |               | 3        | 3      | 1           |            |             |              |              |               |        | 2        |            |           |              |                  |           |                  |           |                 |          |                 | 9     |           | 7                 |    | 2    |       |       |           |      |         |          |           |   |   |   |  |
| Austin             |                  |                 |                 |               |          | 1      |             |            |             |              |              |               |        | 2        |            |           |              |                  |           |                  |           |                 |          |                 | 3     |           | 2                 |    | 1    |       |       |           |      |         |          |           |   |   |   |  |
| Stephenson         |                  | 1               |                 | 1             |          | 7      | 1           | 1          |             | 1            |              |               |        | 6        |            |           | 2            | 2                |           |                  | 1         |                 |          |                 | 25    | 1         | 15                | 1  | 4    |       | 1     |           |      |         |          |           | 1 |   | 1 |  |
| Gwinn              |                  | 2               |                 | 2             |          | 9      |             | 2          |             |              |              |               |        | 4        |            |           |              | 1                |           | 1                |           |                 |          |                 | 21    | 2         | 15                | 2  | 3    |       |       |           |      |         |          |           |   | 1 |   |  |
| Gardner-Mackinaw   |                  | 1               |                 |               | 3        | 4      |             |            |             |              |              |               |        | 1        |            |           |              |                  |           |                  |           |                 |          |                 | 9     | 1         | 6                 |    | 2    |       |       |           |      |         |          |           |   | 1 | 1 |  |
| Francis            |                  |                 |                 | 1             | 1        | 2      |             |            |             | 1            |              |               |        |          |            |           | 1            |                  |           |                  |           |                 |          |                 | 6     |           | 5                 |    | 1    |       |       |           |      |         |          |           |   |   |   |  |
| Republic           |                  |                 |                 |               |          | 3      |             |            |             | 2            | 1            |               |        | 6        | 1          |           | 12           |                  |           |                  |           |                 |          |                 | 25    | 2         | 22                | 2  | 1    |       |       |           |      |         |          |           |   |   |   |  |
| Megunsee           |                  | 2               |                 | 3             | 3        | 23     | 1           | 2          |             |              |              | 2             |        | 19       |            | 1         | 5            | 3                | 1         |                  |           |                 |          |                 | 75    | 4         | 56                | 2  | 8    |       |       |           |      |         |          | 2         |   | 7 | 1 |  |
| Maas               |                  | 2               |                 | 5             | 7        | 18     | 1           | 3          |             |              |              |               |        | 13       |            |           | 4            |                  |           |                  | 2         |                 | 2        |                 | 57    | 4         | 45                | 3  | 6    |       |       |           |      | 1       |          |           | 2 |   |   |  |
| Athens             |                  | 1               |                 |               | 12       | 7      |             | 1          |             |              |              |               |        | 4        |            |           |              | 1                | 1         |                  |           |                 |          |                 | 27    | 1         | 21                | 1  | 3    |       |       |           |      |         |          |           |   | 2 |   |  |
| Jackson            |                  |                 |                 |               |          |        |             |            |             |              |              |               |        | 5        |            |           |              | 1                |           |                  |           |                 |          |                 | 6     |           | 6                 |    |      |       |       |           |      |         |          |           |   |   |   |  |
| Spies              |                  |                 |                 |               | 1        | 1      | 1           |            |             |              |              |               |        |          |            |           |              | 1                |           |                  |           |                 | 3        |                 | 7     |           | 5                 | 2  |      |       |       |           |      |         |          |           |   |   |   |  |
| Grosby             |                  | 2               | 1               | 2             |          |        | 1           |            | 1           | 1            |              |               |        | 6        | 2          |           |              |                  |           | 1                |           | 2               |          |                 | 19    |           | 8                 | 5  | 5    |       |       |           |      |         |          |           |   | 1 | 2 |  |
| Helmer             |                  | 1               |                 |               |          |        |             |            | 1           |              |              |               |        | 1        |            |           |              |                  |           |                  |           |                 |          |                 | 3     |           | 3                 |    |      |       |       |           |      |         |          |           |   |   |   |  |
| Meadow             |                  |                 |                 |               |          |        |             |            |             |              |              |               |        |          |            |           |              | 1                |           |                  |           |                 |          |                 | 1     |           | 1                 |    |      |       |       |           |      |         |          |           |   |   |   |  |
| Wade               |                  | 1               |                 |               |          |        | 2           |            |             |              |              |               |        |          |            |           |              |                  |           |                  |           |                 |          |                 | 3     |           | 2                 |    |      |       |       |           |      |         |          |           |   |   | 1 |  |
|                    | 11               | 24              | 3               | 19            | 62       | 128    | 8           | 16         | 2           | 9            | 7            | 3             | 1      | 113      | 4          | 3         | 34           | 8                | 6         | 13               | 5         | 2               | 5        | 2               | 468   | 21        | 347               | 32 | 59   | 2     | 8     | 3         | 11   | 1       | 25       |           | 3 |   |   |  |



RED CROSS:

It has been a very active year in Red Cross Work and we have co-operated with the officers and committees in Ishpeming, North Lake, Negaunee, Gwinn, Republic, and Champion.

In Ishpeming, after Mr. Belden's removal to Cleveland, the following officers were in charge:

Judge W. T. Potter, President,  
Mrs. V. H. Vandeventer, Vice-President,  
Mr. Carl Brewer, Secretary,  
Mr. John G. Welsh, Treasurer.

The women have been exceedingly busy using the room at the Library throughout the year.

On account of the war work service of the Red Cross there was no sale of Christmas Seals in 1918.

EMPLOYMENT:

On account of the large number of men entering War Service, a good many new men were put to work to fill the vacancies.

We have made careful inquiry concerning all new men, securing from their former employers as complete a record of them as possible.

INCAPACITATED EMPLOYEES:

During the year payments have been made to certain men whose years of service did not quite bring them under the provisions of the Pension System, and to some who were incapacitated for work on account of injury and whose family conditions made it necessary to render assistance in addition to the regular workmen's compensation.

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

|                  | Per<br>Month | Per<br>Year   |   |
|------------------|--------------|---------------|---|
| John Trembath    | 15.00        | 180.00        | Old and incapacitated.                            |
| Fred Fredette    | 25.00        | 300.00        | Not recovered from injury.                        |
| John Beale       | 15.00        | 180.00        | Old and incapacitated.                            |
| Wm. Holman       | 15.00        | 180.00        | " " "   |
| John Salson      | 25.00        | 300.00        | Not recovered from injury.                        |
| Andrew Lerlie    | 15.00        | 180.00        | Old and incapacitated.                            |
| Solomon Kangas   | 25.00        | 250.00        | Died after one year, having a broken back.        |
| Mrs. John Makela | 25.00        | 75.00         | Husband died in the Athens Mine of heart failure. |
| " " "            |              |               |   |
| Special Donation |              | <u>150.00</u> |   |

\$ 1945.00

PENSION DEPT.

ENGAPACITATED EMPLOYEES: (Continued)

Mr. Frank Carilli died October 21st, 1918.

PHYSICAL EXAMINATION:

Consideration has been given to the need for regular examination of employed men.

Occasionally we have a compensation case which shows that the man had some injury before coming to work for us. These cases are very infrequent and the additional cost to the company because of this has been almost negligible.

There are two classes of cases concerning which special care is required. First, the partial loss of sight of one or both eyes and second, existing hernias.

The added cost to us thus far is much less than the expense and time necessary for a complete examination of all the men, but the examination would be of real help to the men in discovery of ailments not already known or extent realized and the treatment for these which would be recommended by the physicians should tend to put the men in better physical condition than they would otherwise be.

The greatest actual benefit to the men would come from this feature of the plan and the greatest value to the company would be in having some of the men in an improved condition, and the freedom from the danger of employing men who might come to be a burden because of physical disability.



IMPROVEMENT WORK:

Warren H. Manning made two visits here during the season.

His nephew, Gerald G. Manning, was sent here to look after the work in place of Mr. Cotter.

The main work of the season was at the New Hospital grounds and at the Athens Mine. Some work, started at the Holmes Mine and North Lake Club House, was finished, and some work done at the Barnes-Hecker. The general work at all locations was taken care of as usual.

Some work in the Barnum location should be done. This includes the fixing up of roads and especially the drainage as since the stopping of the work at the Oliver No. 7 shaft, there has been no flow of water as in previous year, and there is much stagnant water mixed with sewerage, etc., which is liable to cause trouble, if some provision is not made for its care.

Estimate will be made by the Land Department of the cost of the necessary work.

CLUBS:

The Mining Club has continued its meetings except in the Fall of the year when the influenza was prevalent, no gatherings of over 12 being permitted.

The Annual outing was held at Little Lake in August at the Camp of Captain Rough, formerly that of Joseph Richardson.

It was one of the best that the Club has ever held.

OUT-OF-DOOR-SPORTS:

On account of war conditions, no ski tournament was held.

MEETINGS:

During the year, I attended only one special meeting, this being a hearing at Lansing before the State Commission appointed by Governor Sleeper to investigate the matter of the operation of Workmen's Compensation and to suggest such amendments to the law as might be necessary.



FOOD SHOW:

In February, a food show or exhibit was given in the Y. M. C. A. to help with the war conditions with Mr. K. I. Sawyer as manager. The attendance was very good and it was a very satisfactory exhibit and demonstration. This was followed by one at Negaunee and one at the Gwinn District and the people took great interest in it. The demonstration work was cared for by the County Agents and local helpers.

FOOD CONSERVATION:

The campaign for conservation was continued by the county agents in different cities and townships with special emphasis on the methods of cooking with recipes using the substitutes provided.

GARDENING:

The plan of 1917 of interesting the men in the growing of potatoes and other vegetables was continued, but as there was a good supply of seed potatoes the company did not purchase them for sale to the men as in 1917.

There was a continued interest in this work and the planting of potatoes was very general.

The following quantities of potatoes grown are made up from the reports submitted to us by the men who almost without exception, wish to continue it.

Ishpeming:

|                |            |
|----------------|------------|
| Cliffs-Shaft   | 422        |
| Central Office | 318        |
| Helmes         | 257        |
| Storehouse     | 318        |
| Angeline       | 48         |
| Lake           | 760        |
| Salisbury      | <u>230</u> |
|                | 2353       |

Negaunee:

|            |             |
|------------|-------------|
| Negaunee   | 2302        |
| Maas       | 1444        |
| Athens     | <u>643</u>  |
|            | 4389        |
| North Lake | 1661        |
| Republic   | 1480        |
| Gwinn      | <u>1802</u> |
|            | 11685       |

There were not as many potatoes grown in 1918 as there were in 1917 in which year 18250 bushels were harvested.

WAR FUNDS:

The plan of a County War Fund with one campaign for all purposes was advocated and I visited Kenosha in February and investigated the results of their plan. I discussed the matter with the secretaries of the Chamber of Commerce and a number of the head business men and professional men and with a number of workmen and clerks. They were unanimous in commendation.

A meeting of Marquette County men was held in the Club Room at our office, a plan similar to that of Kenosha adopted and officers and committees elected to carry out its various features. The campaign was undertaken and every body was heartily interested in it. Contributions were made by the employers generally equalling that contributed by their employees. A total fund of \$219629.45 was paid in up to Dec. 31st, 1918.

This was distributed by the finance committee as was required by the needs of the General War Funds, the total amount being \$125073.67.

Collections were discontinued after the armistice was signed and there was a balance on hand in the Treasury on Dec. 31st, 1918 of \$94555.78 to be further distributed in Red Cross and other War Relief Work as might be required.

CIVILIAN RELIEF:

A county committee for Civilian Relief was organized with E. A. MacDonald, Chairman and W. H. Moulton, Secretary.

Certain persons were selected in each community to look after the needs of returned soldiers and sailors and assistance to their families, while they were in the service, whenever such was required.

We have helped financially with Red Cross funds in cases of urgent need, secured information about men in the service, helped in getting assigned pay and government allowances when it was not being received regularly, and helped men in presenting claims for Compensation.



THRIFT STAMPS:

The sale of Thrift Stamps was undertaken vigorously in the County with Mr. A. F. Maynard of Marquette, County Chairman. We assisted this committee in this work.

At this time Mr. Mather offered to any of the school children of the districts in which our business is represented in the Upper Peninsula, the gift of the 1st, 9th, and 16th Thrift Stamps.

This plan was gladly accepted in all except some of the Rural Schools and the Thrift Stamp Card was furnished to each pupil with the first stamp affixed. When they had filled up the rest of the card up to and including the 8th stamp, the 9th stamp furnished by Mr. Mather was then affixed. When the card was filled up to and including the 15th stamp the 16th stamp furnished by Mr. Mather was then affixed.

The superintendents of the schools have all reported a very great interest in this matter. Many children have begun the establishment of a savings account who had not had one before and the result will undoubtedly be that a great many children will acquire a habit of saving because of this effort.

We prepared record forms for use by the different schools and looked after the distribution of the stamps at Ishpeming, North Lake, Republic, Michigamme, and Marquette.

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

*J. H. Moulton*

THE CLEVELAND-CLIFFS IRON COMPANY

PIONEER IRON COMPANY - FURNACE DEPARTMENT

COMPARATIVE STATEMENT OF GENERAL WELFARE

EXPENSES FOR THE YEARS 1913 TO 1918 INCLUSIVE.

|  | 1913           | 1914           | 1915           | 1916           | 1917           | 1918            |
|--|----------------|----------------|----------------|----------------|----------------|-----------------|
| <b>General Welfare Acct. #11</b>         |                |                |                |                |                |                 |
| A-2 Prop. charged by Treasurer           | 534 59         | 444 59         | 526 61         | 694 75         | 872 08         | 1271 18         |
| b Prizes to tenants, etc.                | 50 00          | 50 00          | 50 00          | 50 00          | 50 00          | 50 00           |
| d Visiting nurse                         | 300 00         | 300 00         | 300 00         | 300 00         | 400 00         | 550 00          |
| f Miscellaneous expenses                 |                |                |                |                |                | 66 67           |
| <b>Gladstone Club:</b>                   |                |                |                |                |                |                 |
| Total cost of operation                  | (4587 49)      | (3487 95)      | (4226 81)      | (5040 06)      | (2631 57)      | (2618 17)       |
| Net Loss or Gain                         | ( 122 30)      | ( 411 90)      | ( 69 53)       | ( 308 20)      | ( 83 29)       | ( 734 47)       |
| <b>Donations:</b>                        |                |                |                |                |                |                 |
| Churches                                 | 40 00          | 55 00          | 25 00          | 0 00           |                |                 |
| Y. M. C. A. War Fund                     |                |                |                |                | 375 00         |                 |
| Fire Department                          | 10 00          | 10 00          | 10 00          | 10 00          |                |                 |
| Societies                                | 39 00          | 50 00          | 140 00         | 25 00          | 70 00          | 151 00          |
| Celebrations                             |                |                |                | 10 00          | 10 00          | 10 00           |
| Persons                                  | 21 00          | 25 00          | 62 78          | 12 00          | 35 00          |                 |
| Miscellaneous                            |                |                | 50 00          | 15 00          |                |                 |
| <b>Institutions:</b>                     |                |                |                |                |                |                 |
| St. Luke's Hospital                      |                |                | 300 00         | 300 00         | 300 00         | 300 00          |
| Young Men's Reading room-<br>Gladstone   |                |                |                | 100 00         | 100 00         |                 |
| Red Cross                                |                |                |                |                | 650 00         |                 |
| Marquette Co. War Fund                   |                |                |                |                |                | 5249 34         |
| Delta County War Fund                    |                |                |                |                |                | 3029 30         |
| <b>Pensions:</b>                         |                |                |                |                |                |                 |
| Pensions Paid                            | 448 20         | 448 20         | 448 20         | 328 20         | 268 20         | 268 20          |
| <b>Safety Work:</b>                      |                |                |                |                |                |                 |
| Charges for Safety Work and<br>equipment | 502 40         | 2525 00        | 3 32           | 139 10         | 111 47         | 310 36          |
| <b>Compensation:</b>                     |                |                |                |                |                |                 |
| Medical & Hospital Expense               |                |                |                |                |                |                 |
| Compensation Paid                        | 96 96          | 31 31          | 603 66         | 470 05         | 1712 22        | 3510 86         |
| <b>Totals</b>                            | <b>2042 15</b> | <b>3939 10</b> | <b>2519 57</b> | <b>2454 10</b> | <b>4953 97</b> | <b>18271 87</b> |
| <b>Compensation payments:</b>            |                |                |                |                |                |                 |
| Percentage of payrolls Pioneer Iron Co.  | .000371        | .00141         | .00150         | .00150         | .00150         | .00150          |
| Cleveland-Cliffs Iron Company            | .000000        | .11541         | .00080         | .00030         | .00030         | .00030          |

Gladstone Club:  
Red figures show a gain.



THE CLEVELAND-CLIFFS IRON COMPANY

LUMBERING DEPARTMENT

GENERAL WELFARE EXPENSES FOR YEARS

1913, 1914, 1915, 1916, 1917, AND 1918.

|                               | 1913           | 1914           | 1915           | 1916           | 1917           | 1918           |
|-------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|
| General Welfare Acct. #11     |                |                |                |                |                |                |
| Prop. charged by Treasurer    | 491 73         | 504 28         | 410 63         | 430 99         | 583 15         | 675 36         |
| <b>Donations:</b>             |                |                |                |                |                |                |
| Various societies             | 15 00          |                |                |                | 10 00          | 10 00          |
| Red Cross                     |                |                |                |                | 514 00         | 10 00          |
| Y. M. C. A.                   |                |                |                |                | 256 50         |                |
| Persons                       | 7 29           | 4 00           | 129 55         | 64 00          | 13 22          |                |
| Hospital at Munising          | 350 00         | 350 00         | 350 00         | 350 00         | 262 50         | 437 50         |
| Delta Co. War Relief Ass'n.   |                |                |                |                |                | 335 20         |
| Alger Co. " " "               |                |                |                |                |                | 830 25         |
| <b>Safety Work:</b>           |                |                |                |                |                |                |
| Equipment                     |                |                |                |                |                |                |
| <b>Compensation:</b>          |                |                |                |                |                |                |
| Medical and Hospital          | 730 84         | 1537 52        | 1217 55        | 1456 03        | 1611 52        | 1912 15        |
| Payments                      | 573 28         | 841 11         | 352 02         | 932 96         | 1431 71        | 1683 24        |
| <b>Totals</b>                 | <b>2168 05</b> | <b>3236 91</b> | <b>2459 75</b> | <b>3234 23</b> | <b>4682 60</b> | <b>5893 70</b> |
| <b>Compensation payments:</b> |                |                |                |                |                |                |
| Percentage of payroll         |                | .0082          | .006           | .007           | .003           | .006           |

THE CLEVELAND-CLIFFS IRON COMPANY

LAND DEPARTMENT

COMPARATIVE STATEMENT OF GENERAL WELFARE

EXPENSES FOR THE YEARS 1913 TO 1918 INCLUSIVE.

|  | 1913    | 1914    | 1915    | 1916    | 1917    | 1918          |
|--|---------|---------|---------|---------|---------|---------------|
| <b>General Welfare Account #11</b>                       |         |         |         |         |         |               |
| A-2 Prop. Charged by Treas.                              | 154 40  | 197 84  | 163 85  | 192 43  | 252 48  | 281 74        |
| " Charged Welfare work                                   |         |         |         |         |         |               |
| b Prizes to tenants, etc.,                               |         |         |         |         |         |               |
| Munising   |         |         | 55 00   | 69 20   | 52 50   |               |
| d Rest Cottage   |         |         |         |         |         |               |
| Equipment  | 12 00   |         |         |         |         |               |
| <b>Donations:</b>  |         |         |         |         |         |               |
| Churches   |         |         |         |         | 50 00   |               |
| Fire Department  | 15 00   | 25 00   | 10 00   | 20 00   | 10 00   | 10 00         |
| Societies  | 10 00   |         |         |         |         |               |
| Celebrations   | 10 00   |         |         |         |         |               |
| Munising Hospital  | 160 00  | 160 00  | 150 00  | 150 00  | 150 00  | 150 00        |
| Munising Y. M. C. A.                                     | 900 00  | 900 00  | 900 00  | 450 00  |         |               |
| Playground - Negaunee                                    | 10 00   | 10 00   | 10 00   | 10 00   | 10 00   | 10 00         |
| American Red Cross Ass'n(Seals)                          |         |         | 10 00   | 10 00   | 20 00   |               |
| Munising City Band                                       |         |         |         | 100 00  |         |               |
| American Red Cross Association                           |         |         |         |         | 160 00  |               |
| Y. M. C. A. War Work Fund                                |         |         |         |         | 81 00   |               |
| Marquette County War Fund                                |         |         |         |         |         | 360 13        |
| Alger County War Fund                                    |         |         |         |         |         | 1294 98       |
| 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       |
| <b>Safety Work:</b>                                      |         |         |         |         |         |               |
| Charges for Safety Work and equipment                    |         |         | 86 62   | 50 89   |         |               |
| <b>Compensation:</b>                                     |         |         |         |         |         |               |
| Office Expense   |         |         |         |         |         |               |
| Compensation Paid  | 451 00  | 838 37  | 160 47  | 701 23  | 1255 27 | 1497 26 -     |
| Medical Attendance                                       | 311 90  | 231 92  | 394 03  | 785 95  | 1067 10 | <u>630 53</u> |
| Totals   | 2043 30 | 2363 13 | 1939 97 | 2539 70 | 3108 35 | 2127 79       |
| <b>Compensation payments-<br/>percentage of pay-roll</b> |         | .0094   | .00579  | .00622  | .012207 | .009220       |

THE CLEVELAND-CLIFFS IRON CO.

RAILROAD DEPARTMENT

COMPARATIVE STATEMENT OF GENERAL WELFARE

EXPENSES FOR THE YEARS 1913 TO 1918 INCLUSIVE.

|                                 | 1913    | 1914    | 1915    | 1916    | 1917    | 1918    |
|---------------------------------|---------|---------|---------|---------|---------|---------|
| Prizes to tenants               | 25 00   | 25 00   | 25 00   | 25 00   | 0 00    | 0 00    |
| Donations:                      |         |         |         |         |         |         |
| Fire Department                 | 35 00   | 20 00   | 25 00   | 30 00   | 30 00   | 10 00   |
| Societies                       | 23 00   | 2 00    | 5 00    | 10 00   |         |         |
| Celebrations and entertainments | 132 45  | 13 00   | 9 00    | 12 00   |         |         |
| Visiting Nurse - Marquette      | 120 00  | 120 00  | 120 00  | 120 00  | 120 00  | 120 00  |
| Munising Hospital               | 150 00  | 150 00  | 150 00  | 150 00  | 150 00  | 150 00  |
| St. Luke's Hospital             |         |         | 200 00  | 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 | 3788 40 |
| Hospital and Medical service    | 1293 31 | 842 37  | 746 50  | 744 50  | 1941 42 | 1422 22 |
| Totals                          | 5119 15 | 3347 35 | 5218 09 | 3678 99 | 5902 48 | 5380 62 |
| Compensation Payments           |         |         |         |         |         |         |
| Percentage of Total pay-rolls   |         | .0093   | .0127   | .0063   | .0085   | .0063   |



STATEMENT OF EXPENSES OF PENSION DEPARTMENT

FOR FIVE YEAR PERIOD FROM JANUARY 1ST, 1914 TO DECEMBER 31ST, 1918.

| ACCT. NO. |  | 1914     | 1915     | 1916     | 1917     | 1918     |
|-----------|--|----------|----------|----------|----------|----------|
| A-1       | Salaries of Superintendent of Pension Department and assistants.                     | 3822 26  | 3570 00  | 4370 50  | 5476 24  | 6805 03  |
| B         | Prizes to tenants and employees for Best Kept Premises, gardens etc.                 | 947 25   | 671 25   | 661 00   | 654 50   |          |
| C         | All expenses of Supt. of Pension Department including travelling expenses and livery | 481 72   | 417 48   | 195 58   | 358 21   | 321 72   |
| D         | Salary and expenses of Visiting Nurse - Ishpeming                                    | 1135 24  | 1155 48  | 1154 40  | 1333 38  | 1653 27  |
|           | Rest Cottage - Deer Lake   | 625 56   | 572 40   | 543 00   | 745 11   | 720 20   |
|           | Salary and expenses of Visiting Nurse - Negaunee                                     | 1012 82  | 1077 64  | 1157 03  | 1252 38  | 1605 60  |
|           | Salary and expenses of Visiting Nurse - Gwinn  | 1191 03  | 1174 56  | 1177 11  | 641 09   | 1290 79  |
|           | Our proportion of Visiting Nurse Expense - Iron River                                |          |          | 65 75    | 134 23   | 265 39   |
| E         | Apparatus, Expenses and Freight  | 63 87    | 21 17    | 36 41    | 23 66    | 15 13    |
| F         | Miscellaneous Expense  |          |          |          |          |          |
|           | Books, cuts, magazines, papers, etc.   | 9 25     | 17 00    | 18 00    | 42 05    | 57 90    |
|           | Incidental Expenses - Mining Department  |          |          |          | 86 75    | 6 78     |
|           | Incidental Expenses - To Treasurer   | 58 15    | 33 00    | 44 08    | 27 50    | 19 50    |
|           | Donations to Incapacitated Employees   | 266 40   | 169 92   | 757 76   | 1471 48  | 1820 00  |
|           | Other Donations  |          | 196 24   | 20 00    | 273 04   | 547 10   |
|           | Membership in Associations   | 80 00    | 130 00   | 215 00   | 105 00   | 220 00   |
|           | Spanish Influenza Epidemic - Gwinn   |          |          |          |          | 1357 02  |
|           | Expense of Vaccine in connection with Spanish Influenza Epidemic                     |          |          |          |          | 1161 70  |
| G         | Employees Clubs  |          |          |          |          |          |
|           | Bowling Alley and Club Work  | 62 46    | 66 90    | 146 47   | 215 42   | 383 65   |
|           | Tennis Courts - Ishpeming, Negaunee and Gwinn Districts                              | 4 74     | 11 21    |          |          |          |
|           | Superintendents Lunches and Incidentals  | 34 57    | 30 36    | 85 31    | 149 12   | 88 16    |
|           | Gwinn Club House   | 3162 17  | 2969 47  | 3439 37  | 3591 05  | 5226 54  |
|           | Ishpeming Y. M. C. A.  | 4999 29  | 1680 00  | 1680 00  | 1680 00  | 2412 00  |
|           | Gwinn Club Moving Pictures - Equipment and Installation                              | 828 11   |          |          |          |          |
|           | North Lake Club House  |          |          |          |          | 1957 71  |
| H         | Office Expense   |          |          |          |          |          |
|           | Stationery, Office Supplies and Expenses - To Treasurer                              | 112 06   | 144 98   | 223 03   | 374 80   | 616 49   |
|           | Stationery, Office Supplies and Expenses - Mining Department                         |          | 91 85    | 46 39    | 84 15    | 23 73    |
|           | Office Furniture and Equipment   | 121 58   | 22 50    | 215 71   | 152 27   | 255 81   |
|           | Postage  | 83 00    | 76 76    | 140 00   | 172 00   | 194 25   |
|           | SCHOOL OF INSTRUCTION  |          |          |          |          |          |
| I-1       | Salary of Instructor   | 2340 00  | 2260 00  | 2020 08  | 868 00   |          |
|           | Travelling expenses, livery, printing, stationery, etc.                              | 772 71   | 403 00   | 547 22   | 88 71    |          |
|           | TOTAL  | 22214 24 | 16963 17 | 18959 20 | 20000 14 | 29016 27 |
|           | DISTRIBUTION   |          |          |          |          |          |
|           | Mining Department  | 12201 04 | 11718 05 | 13024 55 | 14060 29 | 18923 64 |
|           | General Expense - To Treasurer   | 4831 89  | 250 60   |          |          |          |
|           | Land Department  |          | 122 48   | 192 43   | 252 48   | 281 74   |
|           | Furnace Department   |          | 402 83   | 694 75   | 872 08   | 1271 18  |
|           | Lumbering Department   |          | 325 18   | 430 99   | 583 15   | 675 36   |
|           | Gwinn District Office Expense  | 5181 31  | 4144 03  | 4616 48  | 4232 14  | 7864 35  |
|           | TOTAL  | 22214 24 | 16963 17 | 18959 20 | 20000 14 | 29016 27 |

G E N E R A L.

There was a shortage of men during the entire year, which was more pronounced at our outside operations than in the towns of Ishpeming and Negaunee. The men were very independent, and it was more difficult than at any former time to keep the efficiency of the force at a maximum. However, we were able to accomplish this, and there was actually a slight increase in ore per man per day. In order to eliminate variations in ore per man per day at the individual mines, due to local conditions which would require an explanation for each property, I have shown below a comparative statement for the years 1918 and 1917 for the following eleven mines which operated both years: Lake, Cliffs Shaft, Salisbury, Maas, Morris-Lloyd, Gwinn, Republic, Meadow, Crosby, Maas, Negaunee:

|                      | <u>1917.</u> | <u>1918.</u> | <u>INCREASE%.</u> |
|----------------------|--------------|--------------|-------------------|
| Avg. Rate per Day    | 3.82         | 4.92         | 28.8              |
| Labor Cost Per Ton   | .962         | 1.235        | 28.4              |
| Tons Per Man Per Day | 3.97         | 3.98         | .3                |
| Supply Cost Per Ton  | .411         | .504         | 22.6              |

You will note from this that while wages increased 28.8%, the labor cost per ton increased only 28.4, showing a slight increase in efficiency. It is an axiom that when wages increase, efficiency decreases, but this has not been the case since we began advancing our men in 1915. Each year has shown an increase per ton per man per day over the previous one.



In addition to the higher prices of labor and supplies there was added to the cost a new item, viz, the expense of engines for spotting cars at steam shovels. This amounted, during the year, at our Michigan mines, to \$49,040.01, or at the rate of .0363 per ton of ore handled. This, spread over the total shipments, added .0165 to the cost. The appended statement shows the cost at the several mines of the Company for this service.

In my last annual report I stated that it was not unlikely that the adoption of Prohibition would result in the loss of some of our men. I am glad to say that this has not proved the case. As a matter of fact, the men have put in more time than in any previous year, and as far as I can learn, there is very little dissatisfaction with the operation of the law. Of course there are a number of our foreign born employees who would prefer an amendment which would permit them to buy beer and wine, but should this be passed, it would undoubtedly result in bringing in hard liquor as well. The amendment will be voted on at the Spring Election. All employers with whom I have talked are doing their utmost to defeat it.

I am very proud of the record of our employees in the last two Liberty Loans. The Third Loan was well taken, and 100% of our men subscribed for the Fourth Loan. It is not necessary for me to go into details, as you already have this information.

Four Hundred and Thirty-three of our employees either enlisted or entered the Army through the Draft. Among these men were only eight deaths. The men are now beginning to return, and are being given, as far as possible, their old places, but if these are not available, are




given positions equally as good.

The past year has been a strenuous one for the Superintendents and other heads of departments, but they have met the additional work in a patriotic spirit and have secured excellent results, in spite of many drawbacks.

LEASES.

The only outstanding lease on lands of this Company is held by the Empire Iron Company, covering the E $\frac{1}{2}$  of the SW $\frac{1}{4}$  of Section 19, 47-26.

  
General Manager.

THE CLEVELAND-CLIFFS IRON COMPANY  
MINING DEPARTMENT.

STATEMENT SHOWING COST OF SPOTTING ENGINES AT STEAM SHOVELS FOR SEASON OF 1918.

| <u>MINES.</u>              | <u>CARS</u> | <u>TONS</u> | <u>ENGINE SERVICE</u> |               |              | <u>TOTAL</u> | <u>COST</u> | <u>COST</u> |             |
|----------------------------|-------------|-------------|-----------------------|---------------|--------------|--------------|-------------|-------------|-------------|
|                            |             |             | <u>LOADED</u>         | <u>LOADED</u> | <u>HOURS</u> |              |             |             | <u>COST</u> |
| <u>ISHPEMING DISTRICT:</u> |             |             |                       |               |              |              |             |             |             |
| Lake,.....                 | 2357        | 103066      | 543                   | 1/6           | 4073.75      | 122.21       | 4195.96     | 1.78        | .0407       |
| Salisbury,.....            | 3982        | 174394      | 907                   | 1/4           | 6804.38      | 204.13       | 7008.51     | 1.76        | .0402       |
| Cliffs Shaft,.....         | 2316        | 115117      | 592                   | 5/6           | 4446.25      | 133.39       | 4579.64     | 1.98        | .0398       |
| Holmes,.....               | 863         | 45578       | 257                   | 1/2           | 1928.13      | 57.84        | 1985.97     | 2.30        | .0436       |
| Moro,.....                 | 1935        | 95606       | 574                   | 7/12          | 3296.87      | 98.91        | 3395.78     | 1.75        | .0355       |
| TOTAL,.....                | 11453       | 533861      | 2874                  | 11/12         | 20549.38     | 616.78       | 21168.86    | 1.85        | .0397       |
| <u>NEGAUNEE DISTRICT:</u>  |             |             |                       |               |              |              |             |             |             |
| Negaunee,.....             | 5001        | 238367      | 727                   | 1/2           | 5456.25      | 163.69       | 5619.94     | 1.12        | .0236       |
| Maas,.....                 | 3460        | 184528      | 783                   | 9/12          | 5878.13      | 176.34       | 6054.47     | 1.75        | .0328       |
| TOTAL,.....                | 8461        | 422895      | 1511                  | 1/4           | 11334.38     | 340.03       | 11674.41    | 1.38        | .0276       |
| North Lake District,...    | 2678        | 117127      | 632                   | 5/12          | 4743.12      | 142.29       | 4885.41     | 1.82        | .0417       |
| Republic Mine,.....        | 1229        | 70601       | 439                   | 1/4           | 3294.38      | 98.83        | 3393.21     | 2.76        | .0481       |
| Gwinm District,.....       | 4281        | 206501      | 1025                  | 1/12          | 7690.12      | 230.70       | 7920.82     | 1.85        | .0384       |
| GRAND TOTAL,..             | 28102       | 1350885     | 6482                  | 11/12         | 47611.38     | 1428.63      | 49040.01    | 1.74        | .0363       |
| * Total Shipments,.....    |             | 2977595     |                       |               |              |              |             |             | .0165       |

\* Does not include tonnage from Spies Mine and Mesaba Range.

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THE CLEVELAND-CLIFFS IRON COMPANY  
MINE DEPARTMENT  
COMPARATIVE STATEMENT OF PRODUCTION AND WAGES FOR YEARS 1918 AND 1917, INCLUDING OVERRUNS AS REPORTED  
BY SHIPPING DEPARTMENT

|                                  | LAKE    | NEG-AUNSER | MORRIS-LLOYD | MAAS    | SALIS-BURY | HOLMES  | CLIFFS SHAFT | REP-UBLIC | GWINN   | PRINCETON | FRANCIS | SPIES   | MEADOW  | CROSBY  | HELMER  |
|----------------------------------|---------|------------|--------------|---------|------------|---------|--------------|-----------|---------|-----------|---------|---------|---------|---------|---------|
| <b>TOTAL PRODUCT:</b>            |         |            |              |         |            |         |              |           |         |           |         |         |         |         |         |
| Year 1918                        | 438,114 | 516,161    | 289,500      | 317,009 | 114,339    | 121,336 | 373,734      | 142,476   | 155,534 | 148,265   | 27,665  | 123,675 | 93,389  | 262,235 | 216,428 |
| Year 1917                        | 477,964 | 543,757    | 267,787      | 320,356 | 98,999     | 68,773  | 367,595      | 153,425   | 161,963 |           |         | 74,530  | 103,987 | 290,795 |         |
| Average per Month 1918           | 36,510  | 43,015     | 24,125       | 26,415  | 9,528      | 10,110  | 31,140       | 11,870    | 12,960  | 12,350    | 3,458   | 10,350  | 7,782   | 26,223  | 24,047  |
| Average per Month 1917           | 39,835  | 45,315     | 22,310       | 26,750  | 8,250      | 7,238   | 30,630       | 12,785    | 13,495  |           |         | 9,316   | 8,666   | 24,230  |         |
| <b>AVERAGE DAILY PRODUCT:</b>    |         |            |              |         |            |         |              |           |         |           |         |         |         |         |         |
| Year 1918                        | 1,193   | 1,732      | 975          | 1,071   | 384        | 407     | 1,254        | 473       | 522     | 497       | 146     | 413     | 303     | 1,079   | 971     |
| Year 1917                        | 1,584   | 1,794      | 887          | 1,057   | 328        | 291     | 1,217        | 506       | 540     |           |         | 364     | 337     | 935     |         |
| <b>TONS PER MAN PER DAY</b>      |         |            |              |         |            |         |              |           |         |           |         |         |         |         |         |
| <b>SURFACE:</b>                  |         |            |              |         |            |         |              |           |         |           |         |         |         |         |         |
| Year 1918                        | 19.80   | 29.74      | 20.41        | 16.94   | 12.59      | 8.90    | 15.54        | 7.65      | 14.61   | 9.66      | 5.19    | 18.79   | 13.51   | 20.63   | 48.20   |
| Year 1917                        | 20.90   | 30.79      | 18.47        | 19.73   | 9.50       | 9.02    | 15.09        | 7.38      | 16.33   |           |         | 16.65   | 15.95   | 24.03   |         |
| <b>UNDERGROUND:</b>              |         |            |              |         |            |         |              |           |         |           |         |         |         |         |         |
| Year 1918                        | 6.41    | 6.00       | 5.05         | 4.31    | 4.08       | 3.67    | 4.93         | 2.97      | 4.16    | 2.80      | 2.41    | 6.46    | 5.89    | 12.77   | 17.08   |
| Year 1917                        | 6.29    | 5.94       | 4.29         | 4.67    | 3.67       | 3.93    | 4.65         | 2.93      | 4.44    |           |         | 5.41    | 5.76    | 10.50   |         |
| <b>TOTAL:</b>                    |         |            |              |         |            |         |              |           |         |           |         |         |         |         |         |
| Year 1918                        | 4.84    | 4.99       | 4.05         | 3.44    | 3.08       | 2.60    | 3.74         | 2.14      | 3.24    | 2.17      | 1.64    | 4.81    | 4.10    | 7.89    | 12.61   |
| Year 1917                        | 4.83    | 4.98       | 3.48         | 3.78    | 2.65       | 2.74    | 3.55         | 2.10      | 3.49    |           |         | 4.09    | 4.23    | 7.31    |         |
| <b>STOPING:</b>                  |         |            |              |         |            |         |              |           |         |           |         |         |         |         |         |
| Year 1918                        | 10.28   | 10.78      | 10.46        | 8.05    | 6.94       | 6.52    | 12.60        | 7.37      | 9.15    | 7.56      | 6.30    | 16.45   | 9.63    | 23.71   | 32.52   |
| Year 1917                        | 10.20   | 10.84      | 9.48         | 8.99    | 6.23       | 7.50    | 11.80        | 8.69      | 8.67    |           |         | 10.53   | 10.20   | 17.65   |         |
| <b>RATE PER DAY-SURFACE:</b>     |         |            |              |         |            |         |              |           |         |           |         |         |         |         |         |
| Year 1918                        | 4.24    | 4.20       | 4.51         | 4.15    | 4.26       | 4.32    | 4.21         | 4.50      | 4.33    | 4.33      | 4.57    | 4.16    | 4.55    | 5.06    | 4.75    |
| Year 1917                        | 3.25    | 3.26       | 3.44         | 3.28    | 3.39       | 3.38    | 3.31         | 3.56      | 3.38    |           |         | 3.36    | 3.60    | 4.00    |         |
| <b>RATE PER DAY-UNDERGROUND:</b> |         |            |              |         |            |         |              |           |         |           |         |         |         |         |         |
| Year 1918                        | 5.36    | 5.02       | 5.10         | 4.89    | 5.00       | 5.06    | 5.10         | 5.01      | 5.16    | 5.06      | 5.61    | 4.80    | 5.50    | 5.22    | 5.15    |
| Year 1917                        | 4.15    | 3.88       | 3.90         | 3.91    | 3.86       | 4.57    | 3.81         | 3.82      | 4.03    |           |         | 3.87    | 4.19    | 4.06    |         |
| <b>RATE PER DAY-TOTAL:</b>       |         |            |              |         |            |         |              |           |         |           |         |         |         |         |         |
| Year 1918                        | 5.09    | 4.88       | 4.99         | 4.66    | 4.82       | 4.85    | 4.88         | 4.87      | 4.98    | 4.90      | 5.28    | 4.64    | 5.21    | 5.16    | 5.04    |
| Year 1917                        | 3.94    | 3.78       | 3.81         | 3.79    | 3.73       | 3.81    | 3.70         | 3.75      | 3.89    |           |         | 3.74    | 4.03    | 4.04    |         |
| <b>MEMORANDUM:</b>               |         |            |              |         |            |         |              |           |         |           |         |         |         |         |         |
| Stockpile Overrun 1918           |         | 10,000     | - -          | 17,638  | 3,624      | 2,081   | - -          | - -       | 3,612   | 394       |         | - -     | 282     | 4,574   | - -     |
| Stockpile Overrun 1917           |         | 12,000     | 2,495        | - -     | 392        | 2,244   | - -          | - -       | - -     |           |         | - -     | 3,183   | 1,906   |         |

EER/LVN  
3/31/19-3

Holmes Mine - Started on Operating basis March 14th, 1917.  
 Spies Mine - Started on Operating basis May 1st, 1917  
 Gwinn Mine - 1917 Operated double shift 177 days, Single Shift 123  
 1918 Operated double shift 51 days, Single shift 247  
 Helmer Mine - Production started April 17th, 1918.  
 Princeton Mine - Resumed Operating January 2nd, 1918.  
 Francis Mine - Started on Operating Basis May 1st, 1918.  
 Product as above 27,665 tons.  
 Ore Produced in Development 13,870 "  
 Product as per Cost Sheet, 41,535 tons.  
 Wages:- The following average rates per day, and per cent of increase  
 based on Labor at above Mines only including Mining Captains.  
 Average rate per day 12 months 1918, \$4.92  
 Average rate per day 12 months 1917, 3.81  
 Increase 12 months 1918 over 12 months 1917, 29.1%



