

such things or else the work will become odious and the very object of its existence will be frustrated.

Foremen Committees.

The safety reports of the foremen committees do not now contain as many suggestions and recommendations as formerly, and in this respect they bear testimony to the enforcement of the safety rules. There were more comments brought out by the last workmen committees than by the last foremen committee, whose inspections were made in the fall. This is also evidence of the growing confidence among workmen in the work of accident prevention and has been attained because they are fully aware that no workman who may have served in this capacity has been treated unfriendly by the Company's officers because he may have offered recommendations. There is now no reluctance shown by workmen to serve on a committee of inspection.

The first inspection by a foremen committee was made from April 15th x to April 25th and shift bosses Wm. Pascoe of the Morris-Lloyd Mine, Nestor Erkkila of the Cliffs Shaft Mine and Wm. Goyen of the Gwinn Mine were the committee. The second committee, which inspected the mines from Oct. 4th to Oct. 14th, consisted of head-timber foreman August Peppin of the Lake Mine, and shift bosses Chas. Anderson of the Morris-Lloyd Mine and Richard Uren of the Negaunee Mine.

Workmen Committees.

The mines were inspected by workmen committees in June and also in December.

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

Table VI.

| <u>Mine</u> | <u>Foreman</u> | <u>Workman</u> |
|------------------|----------------|----------------|
| Austin | 1 | 12 |
| Chase | 1 | 18 |
| Cliffs Shaft | 3 | 27 |
| Gardner-Mackinaw | 0 | 3 |
| Lake | 3 | 27 |
| Maas | 3 | 15 |

Table VI.(continued)

| <u>Mine</u> | <u>Foreman</u> | <u>Workman</u> |
|--------------|----------------|----------------|
| Morris-Lloyd | 4 | 27 |
| Negaunee | 4 | 27 |
| Princeton | 1 | 9 |
| Republic | 1 | 9 |
| Salisbury | 3 | 21 |
| Stephenson | 2 | 27 |
| Gwinn | 1 | 18 |
| Total | <u>27</u> | <u>240</u> |

Central Safety Committee.

The day this committee holds a session was changed from the second Wednesday of the month to the last Wednesday, providing this day is not the last day of the month. The committee met monthly and all meetings were held at Ishpeming, excepting the March meeting which was held at Princeton. The new rules and regulations which were adopted by the committee during the year are as follows;

It is the opinion of the Central Safety Committee that a man who has lost an eye while in the employment of the Company shall not be allowed underground for one year after the injury and that a man who has lost an eye while working for another company, should not be employed by The Cleveland-Cliffs Iron Company.

Sub-level cars shall be equipped with guards.

Riding on the rim of a bucket in shafts or raises is prohibited.

Drill sharpeners shall be provided with goggles.

All sets of timber at all mines shall be securely laced.

In shaft sinking men shall be required to wear a regulation miner's hard hat.

All discarded waste shall be deposited in a metal receptacle.

When a new hoisting rope is installed it must be run for at least ten trips under full load before it is used for lowering or hoisting men and after each re-socketing, re-clipping, re-clamping, every rope shall be similarly run for at least four trips before it is used for lowering or hoisting men.

The top of all shafts shall be protected by a tight fence, which may be provided with the necessary gates to give access to the shaft, but such gates shall be kept closed when access to the shaft is not necessary.

It shall be unlawful to carry explosives on an electric locomotive, or in a car next to an electric locomotive, or on a gasoline locomotive or in any car hauled by a gasoline locomotive.

It shall be unlawful to place or leave explosives near live electric wires.

The use of Red Cross gelatine powder shall be discontinued, neither shall it be used for trial purposes.

When tight tamping has been used, or when for any other reason a new primer can not be inserted, no attempt shall be made to extract the explosives, but a new hole shall be drilled, which shall not be nearer to the original hole than two feet, and shall be pointed at such an angle as to eliminate all danger of its meeting or coming closer to the old hole than two feet, and such new hole shall be charged with a fresh charge of explosive and then detonated.

Calcium carbide shall be stored only in water-proof, dry and well ventilated buildings, not with other inflammable materials, and shall be contained in the original metal packages not exceeding 100 pounds each. All such packages but one in such storage place shall remain sealed except that a new package may be opened when in the only other open package there remains less than one pound of calcium carbide. No calcium carbide shall be stored underground.

GENERAL SAFETY PRECAUTIONS.

Safety Cigars.

The distribution of safety cigars was discontinued in January but charts showing a comparative record of accidents was continued until October.

Bulletin Boards.

We are receiving hundreds of safety placards, pictures and admonitions from the National Safety Council, and thus we can keep the interest of employes centered in the bulletin boards. Whenever a serious accident occurs or one that may have resulted seriously and it could have been prevented, a notice is placed in the boards describing the same and calling attention to its prevention. Several of our superintendents use the board for posting all mine matters of interest to the men, such as pay day notices, etc. This is

a plan that was suggested to the Central Safety Committee but has not been generally adopted.

Examination of Workmen.

Several members of the Central Safety Committee have felt that to examine workmen on the safety rules would entail labor possibilities that might cause discontent among workmen but it was the opinion of the Safety Inspector that if ever it was to be done the labor situation was such last summer that it was questionable if ever a more favorable opportunity would be found. It was decided to leave the subject to the discretion of the Safety Inspector and accordingly notices were placed in the bulletin boards stating that all employes had been furnished copies of the book of rules; that in the foreword the President of the Company had informed them that no one who is unwilling or unable to comply with the rules and regulations would be retained in the Company's service; and that an examination would be held to ascertain if employes were familiar with the rules and regulations governing their work. Without additional notice the mining captains were asked to select three men at random to appear at the mine office to undergo an examination. Ten questions, which were first submitted to the Central Safety Committee, were asked of each individual in the presence of his captain. The result of the examinations were placed in the bulletin boards and also an announcement of a second examination at a later date. About sixty men were examined and there were but two or three who failed to pass the first test. They were prepared for the second examination and passed with high honors.

Supt. Elliott informed the members of the Central Safety Committee that he felt that the examination had been an unqualified success and that the men of his district had benefited thereby. Requests for copies of the rules were numerous and no other effort towards safety caused so much discussion as was heard during the period of examination.

Prevention of Infection.

Cases of infection or blood poisoning are often common in shaft sinking and is probably traceable to slight cuts or bruises being exposed

to water that is charged with ingredients not found in water percolating through ore deposits. Rubber gloves were used at first by the shaftmen in the Athens Mine but a substitute has been found in a disinfectant which is used by the men when washing. The Francis Mine shaftmen have been supplied with this disinfectant as will other workmen if cases of infection are apt to be of frequent occurrence.

Injuries to Fingers and Hands.

Ten percent of all accidents are caused by workmen injuring fingers or hands when employed in lifting chunks of ore or rock into cars. To reduce these accidents an assortment of gloves and mittens were given to a number of trammers who worked in the Cliffs Shaft and Republic Mines. Superintendents Bush and Eaton were requested by the Central Safety Committee to keep careful scrutiny of the test and to report on the results obtained. The reports submitted agreed that gloves and mittens were not practicable.

Ventilation.

The present time is the period in the Company's history which is characterized by unusual construction work, such as water power, shaft sinking, high raises and long drifts. Modern mining demands little loss of time, and to overcome delays caused by heavy blasting fans are installed to clear away smoke and gases. Fans were used last year in the Morris and Lloyd rock drifts, the Salisbury rock drift, the Lake raise to surface, and the Athens and Francis shafts.

Dynamite.

The loss of a workman and several others being rendered unconscious by powder fumes were the direct cause of an investigation of the dynamite being used where the accidents had occurred. The question arose whether or not the various grades of dynamite used in our mines came under the class which has been designated "Permissible Explosives" by the Bureau of Mines. Samples of 60% strength ammonia low freezing dynamite and 80% strength gelatine dynamite manufactured by the Pluto Powder Company, and 50% strength Red Cross dynamite and 80% strength gelatine dynamite manufactured by the DuPont

Company were sent to the Bureau's Experimental Station at Pittsburgh, Pa. The analyses returned indicated that the 80% Pluto powder gave off more noxious gases than is suited for underground use. It was decided to send a second sample of this dynamite to be tested for gases, although it is not being used at the present time. ~~The DuPont Company~~

The DuPont Company had endeavored to introduce a brand of Red Cross gelatine powder at several of our mines but it was the ^{cause} of "knocking out" men at the Negaunee and Morris-Lloyd mines and the Central Safety Committee recommended that it should not be used even for trial purposes.

Samples of 80% strength DuPont and Pluto dynamite are to be sent to the Bureau to test not only for gases but also for a comparative disruptive strength.

Safety Suggestions.

Mr. C. S. Stevenson suggested to the Central Safety Committee a plan to offer a prize, either money or a watch, for every safety suggestion that might be offered by an employe, providing it was considered worthy of adoption. It was decided to place a box in the dry-house of each mine and to give a cheap watch for each suggestion which would meet with the approval of the committee. Notices were placed in the bulletin boards announcing the plan. Eleven suggestions were received in December, of which six were deemed worthy of watches. These suggestions are as follows;

1. A device to transport dynamite by motor where it is necessary to haul it a long distance, as is being done in the Morris-Lloyd Mine. Submitted by J. E. Hayden, a mining engineer.

2. A method of carrying dynamite and detonators up raises. Submitted by W. H. Matthews, a surface employe at the Gwinn Mine.

3. That notices be placed at shaft stations, Cliffs shaft Mine, advising employes to keep a safe distance from shaft plat when waiting for cage. Cages are operated in skip compartments and there is always danger of pieces of ore falling down and bounding out onto plats. Submitted by Samuel Hawke, a miner.

4. That a curtain be hung in front of electric switch board to prevent electric flashes interfering with brakeman's vision of indicator. Submitted by J. H. Dunstan, Jr., night watchman, Salisbury Mine.

5. That every motor pole be equipped with a strain insulator and a length of hemp rope for brakeman to manipulate pole. Submitted by E. J. Young, stationary engineer, Maas Mine.

6. That bar switches for electric lights and motors be covered to prevent contact with points of switches. Submitted by A. F. Dodge, Republic Mine.

Timbering.

Prior to the beginning of special safety work the principal cause of fatal accidents was falls of ground, which represented about 30% of the whole. The fatality rate has been reduced but accidents by this cause for the past five years have increased to 50%, showing that we have not been as successful in eliminating accidents by this cause as we have by other causes. The fatality rate in Dickinson County is the lowest attained for any iron range in the Lake Superior district, and a comparison of its record for the past five years and that of our Company for the same period shows about the same fatality rate for other causes but a marked difference for accidents by falls of ground. Four of the five fatalities of last year were caused by falling ground and three of this number were in timbered stopes where employes and foremen felt there was little likelihood of accident. It has been decided that henceforth every set of timber must be securely laced to prevent, so far as possible, the riding of sets and the running of dirt, which is usually found in the hanging under our system of mining. It was suggested that instead of mining ore in slices of 14 to 16 feet in thickness that it might be safer to work slices from 8 to 12 feet thick. Supt. Elliott is to work out this method in his mines and report to the Central Safety Committee upon its practicability.

STATEMENT OF MOST IMPORTANT SAFETY DEVICES INSTALLED IN 1915.

Athens.

Resistant coils in engine house removed to safer position and guarded.

Ladders to pulley stands incased.

Safer landing installed at top of headframe.

Shield placed around gear of electric pump.

Railing along passageway to engine house constructed.

Ladder with hooks provided for engine house employes.

Chase and Dexter.

Shafts and raise safely sealed.

Cliffs shaft.

Cages are much smaller than size of shaft compartments and filling in pieces were installed at several stations.

Trolley wire at shaft stations protected.

Cage door locked on one side to prevent employes entering cage from both sides at the same time.

Notices posted limiting number of men permitted to ride skips.

Francis.

Guard rails on inside of stairway to top tram.

A fence around hoisting rope between engine house and turn sheave.

Double doors over shaft compartment.

Platform with guards for puffer operator stationed on coal bin.

Lights along ladderway in shaft and a covering directly above men working in the bottom of shaft to protect them from objects falling from above where other men are working.

Gwinn.

Pump station sealed off from shaft on 6th level station.

Levels connected other than through shaft.

Lights placed at switchpoints where tramping on main levels and along new haulage drifts.

Lake.

Shower baths repaired and sufficient supply of hot and cold water now supplied in dry.

Stairways and platform of crusher guarded; also crusher pit.

New outlet to surface made; more direct than old outlet.

More fans installed for better ventilation and raises constructed for proper circulation of fresh air.

Pump station made fire proof and moving machinery guarded.

Morris-Lloyd.

Door to swing across edge of winze to prevent workmen falling into shaft when entering or leaving skip.

Moving machinery of hoist and pulleys at winze protected.

Additional guard rails along outer edge of stairs to top trams and toe rails along edge of platforms.

Crusher stairways and platforms guarded.

Morris-Lloyd(continued)

Slack rope device installed in both engine houses.

Table in ambulance room.

Fences around enlarged area of caves.

Completed new ladderway from surface to 4th level, through Section 6 shaft and put in safe condition.

Maas.

New ladderway from 1st to 2nd levels constructed.

Ladderway in winze being cased from skip compartment. (Not completed.)

Ladderway in shaft made safe for travel when skips are in operation. (First time since concrete work was done)

Protection of moving machinery in transfer building completed.

Main drifts and shaft stations greatly improved by cleaning up debris.

Danger signs and guard boards erected along roadway under trestles.

Negaunee.

Shift bosses in congested territory have personal control of powder supplies.

Crusher stairways and platforms guarded.

Slack rope device installed.

Machinery and hoisting ropes of hoist at winze protected.

Pump station equipped with water proof door in order to operate pumps in case of flooding.

Mining ore directly under timber mat formed by old workings; introduced on a large scale as an experiment.

Republic.

Guards around belting of electric generator, No. 5 Plant.

Guards around belting and moving machinery in Power Plant building.

Hoisting ropes and pulleys, where near ~~xx~~ surface, guarded.

New pulley stands between engine house and Pascoe shaft with ladders instead of cleats for passageway.

Electric bell signal code in Pascoe shaft, has been

changed from a current of 220 volts to one of 110 volts.

Telephone numbers posted at each mine telephone.

Guards along stairways, platforms, and moving machinery of picking belt system.

Republic(continued)

Pull wire bell signal installed.

Belting of grindstone guarded.

A modern cage installed in No. 9 shaft.

Danger signs placed along railways and crossings.

Stephenson.

Use of end dump cars for transporting ore on top tram stopped and additional haulage cars installed.

New permanent trestle and haulage rope stands guarded.

Lights installed in transfer building to designate location of haulage cars.

Enlarged caved area fenced off.

Miscellaneous Properties.

A watchmen was kept to guard approach to swinging bridge across Carp River on Sundays during the summer.

Planer and several pieces of moving machinery in Central Shops were condemned by State Factory Inspector. (Changes ordered were made.)

Numerous old test pits either filled in or fenced off.

Pyrene fire extinguishers placed in buildings where there is electrical equipment.

Dynamite supplies for diamond drill operations stored according to regulations.

Safety crosshead used in sinking new lifts in Princeton No. 2 shaft.

Ladderway in Salisbury shaft repaired from bottom to surface.

ACCIDENTS.

Fatal.

Five fatal accidents occurred in 1915; a miner in the Lake Mine by entering powder fumes in a rock raise, a rock picker in the Cliffs Shaft Mine by a fall of ground and miners in the Lake, Stephenson and Maas mines by falls of ground. All of them were classified as trade risk accidents by the Central Safety Committee.

There were employed an average of 2308 workmen, which gives a fatality rate of 2.16 per thousand men employed. The average rate for the past five years is 2.62 per thousand. The average rate for five years previous to safety work was 4.98 per thousand employes. The data contained in the following tables states more plainly than words the effectiveness of special precautions to prevent accidents.

Table VII.

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

| | Trade Risk | Negligence of Company | Negligence of Workmen | Total |
|---|------------|--------------------------|--------------------------|-----------|
| 1906 | 4 | 1 | 5 | 10 |
| 1907 | 4 | 0 | 13 | 17 |
| 1908 | 3 | 2 | 1 | 6 |
| 1909 | 8 | 1 | 4 | 13 |
| 1910 | 6 | 5 | 8 | 19 |
| Total | 25 | 9 | 31 | 65 |
| 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 |
| | 18 | 5 | 12 | 35 |
| | | | 1906-1910 | 1911-1915 |
| Accident rate per 1000 Employes | | | 4.98 | 2.62 |
| Tons of ore mined per fatal accident | | | 180,267 | 293,430 |

Table VIII.

Comparison of Fatality Rates for Coal Mines, Metal Mines, etc.

(Based on 300 working days per man)

| | 1911 | 1912 | 1913 | 1914 | 1915 | Ave. |
|---------------------------------|------|------|------|------|------|------|
| U. S. Coal Mines | 3.73 | 3.27 | 3.73 | 3.30 | | 3.51 |
| U. S. Metal Mines* | 4.45 | 4.09 | 3.72 | 3.92 | | 4.04 |
| Minnesota Metal Mines* | 4.59 | 3.15 | 4.16 | 2.93 | | 3.71 |
| Michigan Metal Mines* | 4.24 | 3.22 | 3.12 | 3.97 | | 3.64 |
| Marquette County Mines** | 5.42 | 3.32 | 2.46 | 5.00 | 3.10 | 3.86 |
| Cleveland-Cliffs Iron Co. Mines | 1.86 | 1.77 | 4.20 | 4.10 | 2.16 | 2.82 |

*Rates for 1915 not out of press.

**Exclusive of The Cleveland-Cliffs Iron Company.

Non-Fatal.

The total number of non-fatal accidents reported to the Michigan and Minnesota Accident Industrial Boards was 422, as compared to 433 for 1914 and 499 for 1913. The total number which received compensation payments, including fatalities, was 155, as compared to 179 for 1914 and 201 for 1913. The total amount of money paid by the company to the workmen in 1915 was considerably less than in 1914, which is an accurate gauge of determining the seriousness of the accidents.

The most serious accidents were complete or partial loss of sight to one eye, loss of fingers and broken limbs. No workman was completely incapacitated for work by a serious accident.

A comparison of the total number of accidents by years shows that their causes occurred with about the same frequency and that they received about the same classification by the Central Safety Committee.

Table IX.

Showing number of accidents reported to state 1913, 1914 and 1915 and rate per 1000 men employed.

| <u>Mine</u> | Number Reported to State | | | Rate per 1000 Men Employed | | |
|--------------|--------------------------|------|------|----------------------------|------|------|
| | 1913 | 1914 | 1915 | 1913 | 1914 | 1915 |
| Athens | 1 | 5 | 7 | 130 | 156 | 162 |
| Chase | 15 | 15 | 4 | 224 | 181 | 154 |
| Cliffs Shaft | 78 | 49 | 43 | 267 | 164 | 138 |
| Francis | | | 6 | | | 222 |
| Gwinn | 4 | 34 | 42 | 80 | 250 | 236 |
| Lake | 82 | 45 | 42 | 239 | 183 | 161 |
| Maas | 35 | 22 | 9 | 130 | 98 | 90 |

Table IX. (continued)

| <u>Mine</u> | <u>Number Reported to State</u> | | | <u>Rate per 1000 Men Employed</u> | | |
|---------------|---------------------------------|-------------|-------------|-----------------------------------|-------------|-------------|
| | <u>1913</u> | <u>1914</u> | <u>1915</u> | <u>1913</u> | <u>1914</u> | <u>1915</u> |
| Morris-Lloyd | 43 | 62 | 53 | 221 | 243 | 192 |
| Negaunee | 53 | 35 | 33 | 148 | 113 | 119 |
| Republic | | 61 | 110 | | 344 | 402 |
| Salisbury | 27 | 21 | 5 | 162 | 178 | 109 |
| Stephenson | 124 | 72 | 57 | 378 | 255 | 230 |
| Miscellaneous | 52 | 22 | 16 | 190 | 80 | 31 |
| | <u>514</u> | <u>443</u> | <u>427</u> | <u>195</u> | <u>182</u> | <u>185</u> |

Table X.

Table showing number who received compensation payments and rate per 1000 men employed for 1913, '14 and '15.

| <u>Mine</u> | <u>Received Compensation</u> | | | <u>Rate per 1000 Men Employed</u> | | |
|---------------|------------------------------|-------------|-------------|-----------------------------------|-------------|-------------|
| | <u>1913</u> | <u>1914</u> | <u>1915</u> | <u>1913</u> | <u>1914</u> | <u>1915</u> |
| Athens | | | | | | |
| Athens | 1 | 4 | 3 | 130 | 125 | 70 |
| Chase | 7 | 6 | 2 | 104 | 88 | 76 |
| Cliffs Shaft | 32 | 17 | 19 | 112 | 52 | 60 |
| Francis | | | 3 | | | 111 |
| Gwinn | 1 | 13 | 10 | 20 | 95 | 56 |
| Lake | 37 | 26 | 18 | 110 | 105 | 69 |
| Maas | 16 | 14 | 5 | 58 | 62 | 50 |
| Morris-Lloyd | 19 | 15 | 22 | 98 | 58 | 79 |
| Negaunee | 17 | 25 | 17 | 48 | 80 | 61 |
| Republic | | 23 | 26 | | 130 | 100 |
| Salisbury | 12 | 6 | 0 | 81 | 50 | 0 |
| Stephenson | 37 | 26 | 25 | 121 | 92 | 101 |
| Miscellaneous | 23 | 4 | 5 | 85 | 12 | 22 |
| | <u>201</u> | <u>179</u> | <u>155</u> | <u>80</u> | <u>82</u> | <u>67</u> |

Table XI.

Record of Fatal Accidents.

| <u>No.</u> | <u>Date</u> | <u>Mine</u> | <u>Name</u> | <u>Occupation</u> | <u>Cause</u> | <u>Classification</u> |
|------------|-------------|--------------|---------------------|-------------------|----------------|-----------------------|
| 1 | March 4th | Cliffs Shaft | Ole Olson | Rock Picker | Fall of Ground | Trade Risk |
| 2 | May 14th | Lake | Chas. Asplund | Miner | " " " | " |
| 3 | June 18th | Lake | Oscar Hanttula | " | Gased | " |
| 4 | Aug. 13th | Stephenson | Louis Gasparini | " | Fall of Ground | " |
| 5 | Oct. 30th | Maas | Ferdinand Gronzotto | " | " " " | " |

Table XII.

Expenses of Safety Department.

| | |
|--------------------------------|-------------------|
| Salaries----- | \$5799.50 |
| Travelling Expenses, etc.----- | 735.54 |
| Supplies----- | 436.86 |
| Office Expenses----- | 4.11 |
| Total | \$4976.01. |

Table XIII.

CLASSIFICATION OF FATAL ACCIDENTS BY CAUSES

SINCE THE BEGINNING OF SAFETY WORK.

| | 1911 | 1912 | 1913 | 1914 | 1915 | |
|--|------|------|------|------|------|----|
| A. <u>Fall of Ground.</u> | | | | | | |
| 1. By fall from back or side (drift, raise or stope) | 1 | 0 | 7 | 5 | 4 | |
| 4. By run of mud or sand | 0 | 0 | 0 | 1 | 0 | |
| Total | 1 | 0 | 7 | 6 | 4 | 18 |
| B. <u>Shaft Accidents.</u> | | | | | | |
| 1. By falling down shaft | 1 | 1 | 0 | 1 | 0 | |
| 2. By timber or rock falling down shaft | 0 | 0 | 0 | 1 | 0 | |
| 3. By being caught or struck by cage, skip, bucket or tool | 0 | 1 | 0 | 0 | 0 | |
| Total | 1 | 2 | 0 | 2 | 0 | 5 |
| C. <u>Use of Explosives.</u> | | | | | | |
| 1. By explosion of powder at working face | 0 | 0 | 1 | 0 | 0 | |
| 4. By being overcome by gas | 0 | 0 | 0 | 0 | 1 | |
| Total | 0 | 0 | 1 | 0 | 1 | 2 |
| D. <u>Mine and Railroad Cars.</u> | | | | | | |
| 1. By being run over by haulage car | 0 | 1 | 2 | 0 | 0 | |
| 4. By being run over by railroad car | 1 | 0 | 0 | 0 | 0 | |
| Total | 1 | 1 | 2 | 0 | 0 | 4 |
| E. <u>Miscellaneous Causes.</u> | | | | | | |
| 2. By falling from ladder | 1 | 0 | 0 | 0 | 0 | |
| 10. By contact with electric wire | 0 | 0 | 1 | 0 | 0 | |
| 6. By asphyxiation due to mine fire | 1 | 0 | 0 | 2 | 0 | |
| 8. By falling from staging | 0 | 1 | 0 | 0 | 0 | |
| Total | 2 | 1 | 1 | 2 | 0 | 6 |
| Grand total | | | | | | 35 |

Table XIV.

CLASSIFICATION OF CAUSES OF FATAL ACCIDENTS

FROM DEC. 1ST, 1898 TO JAN. 1ST, 1916.

A. Fall of Ground or Timber.

| | |
|--|-------|
| 1. By fall from back or side(drift, raise or stope) | 56 |
| 2. By fall of chunk from chute | 1 |
| 3. By fall of stray chunk or stick down raise or stope | 1 |
| 4. By run of mud or sand | 6 |
| | <hr/> |
| Total | 64 |

B. Shaft Accidents.

| | |
|--|-------|
| 1. By falling down shaft | 8 |
| 2. By rock or timber falling down shaft | 3 |
| 3. By being struck or caught by cage, skip, bucket or tool | 5 |
| 4. By falling from cage, skip or bucket | 4 |
| 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 |
| | <hr/> |
| Total | 37 |

C. Use of Explosives.

| | |
|---|-------|
| 1. By explosion of powder | 13 |
| 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 |
| | <hr/> |
| Total | 21 |

D. Mine and Railroad Cars.

| | |
|---|-------|
| 1. By being caught by haulage cars | 10 |
| 2. By riding or attempting to ride cars | 2 |
| 3. By falling with car from trestle | 3 |
| 4. By being run over by railroad car | 2 |
| | <hr/> |
| Total | 17 |

E. Miscellaneous Causes.

| | |
|---|-------|
| 1. By falling down raise | 2 |
| 2. By falling from ladder | 2 |
| 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 pulled into sheave | 1 |
| 8. By falling from staging | 1 |
| 9. By being ruptured | 1 |
| 10. By contact with electric wire | 1 |
| | <hr/> |
| Total | 17 |

Grand Total

 156

Average percent of accidents by causes.

A. 41.00% B. 23.70% C. 13.40% D. 10.90% E. 10.90%

Table XV.

CLASSIFICATION OF FATAL AND MINOR ACCIDENTS

FOR THE YEAR 1915.

BY THE CENTRAL SAFETY COMMITTEE.

| | | | |
|-----|---|-------------|-----|
| I | TRADE RISKS, (INCIDENTAL & NON-PREVENTABLE) | Total | 330 |
| II | NEGLIGENCE OF COMPANY | | |
| | 1 Failure to Use Safety Devices Provided | | 0 |
| | 2 Failure to Use Proper Tools or Appliances Provided | | 0 |
| | 3 Violation of Rules | | 1 |
| | 4 Improper Act or Selection of Improper Method of Doing Work (By Foreman) | | 0 |
| | 5 Failure to Instruct Men as to Method of Doing Work and Hazards Incident Thereto | | 0 |
| | 6 Failure to Provide Safety Devices | | 5 |
| | 7 Failure to Provide Proper Tools, Appliances, or Place to Work | | 5 |
| | | Total | 11 |
| III | NEGLIGENCE OF WORKMEN: | | |
| | (1 Failed to Use Safety Devices Provided | | 7 |
| | (2 Failed to Use Proper Tools or Appliances Provided | | 2 |
| A | INJURED MEN - (3 Violation of Rules | | 2 |
| | (4 Improper Act or Selection of Improper Method of Doing Work. (By Workman) | | 19 |
| | (5 Carelessness. (By Workman) | | 42 |
| | | Total | 72 |
| | (1 Failed to Use Safety Devices Provided | | 0 |
| | (2 Failed to Use Proper Tools or Appliances Provided | | 0 |
| B | OTHER WORKMEN - (3 Violation of Rules | | 3 |
| | (4 Improper Act or Selection of Improper Method of Doing Work. (By Workman) | | 2 |
| | (5 Carelessness. (By Workman) | | 9 |
| | | Total | 14 |
| | | Grand Total | 427 |

Table XVI.

CLASSIFICATION OF NON-FATAL ACCIDENTS

1915.

A. Fall of Ground or Timber.

| | |
|--|-----------|
| 1. By fall from back or side (drift, raise or stope) | 58 |
| 2. By fall of chunk from chute | 12 |
| 3. By fall of stray chunk or stick down raise or stope | 2 |
| 5. By lagging, sprag or timber falling from back or side | 3 |
| Total | 75 |

B. Shaft Accidents.

| | |
|--|----------|
| 2. By rock or timber falling down shaft | 2 |
| 3. By being struck or caught by cage, skip, bucket or tool | 1 |
| 10. By miscellaneous shaft accidents | 1 |
| Total | 4 |

C. Use of Explosives.

| | |
|---|----------|
| 1. By explosion of powder | 2 |
| 3. By fall of ground or timber due to blast | 1 |
| Total | 3 |

D. Mine or Railroad Cars.

| | |
|---|-----------|
| 1. By being caught between cars or motor and drift | 3 |
| 2. By riding or attempting to ride cars | 2 |
| 4. By being run over by railroad car or haulage car | 1 |
| 5. By cars falling back or off track | 2 |
| 6. By falling from car | 1 |
| 8. By being struck by car handle, etc. | 1 |
| 9. By being struck by motor or car | 5 |
| Total | 15 |

E. Miscellaneous Causes.

| | |
|--|------------|
| 1. By falling down raise, stope or mill | 1 |
| 2. By falling from ladder, trestle or stage, etc. | 11 |
| 7. By being pulled into sheave | 1 |
| 8. By squeezing finger, hand or foot between car and chute, car and drift, timber and drift, pieces of timber, box and truck, etc. | 65 |
| 9. By squeezing finger, hand or foot between chunks or car and chunk | 40 |
| 10. By straining or wrenching arm, back or side by lifting, etc. | 37 |
| 11. By chunk rolling down dirtpile or stockpile, etc. | 24 |
| 12. By being struck by glancing dirt, tool or timber | 55 |
| 13. By being accidentally struck by pick, shovel, hammer, etc. | 23 |
| 14. By tools or material falling or slipping from hand, staging or platform | 10 |
| 15. By running nail into hand, foot or leg | 5 |
| 16. By stumbling or slipping causing a fall | 16 |
| 17. By catching finger, hand or foot in blocks, gears, brakes, or struck by windlass or parts of machinery, etc. | 4 |
| 18. By wrench or tong slipping causing a fall | 1 |
| 19. By blood poison or infection from various causes | 11 |
| 20. By miscellaneous surface accidents | 6 |
| 21. By miscellaneous underground accidents | 7 |
| 22. By contact with electric wire | 1 |
| 23. By being hurt by acetylene gas | 4 |
| 24. By blistering hand | 1 |
| 25. By being scalded | 1 |
| 26. By rope sliver in finger | 1 |
| Total | 325 |

Grand total, 422

Table XVII.

Fatal Accident Rates per 1000 Men Employed from 1898 to 1915 Inclusive.

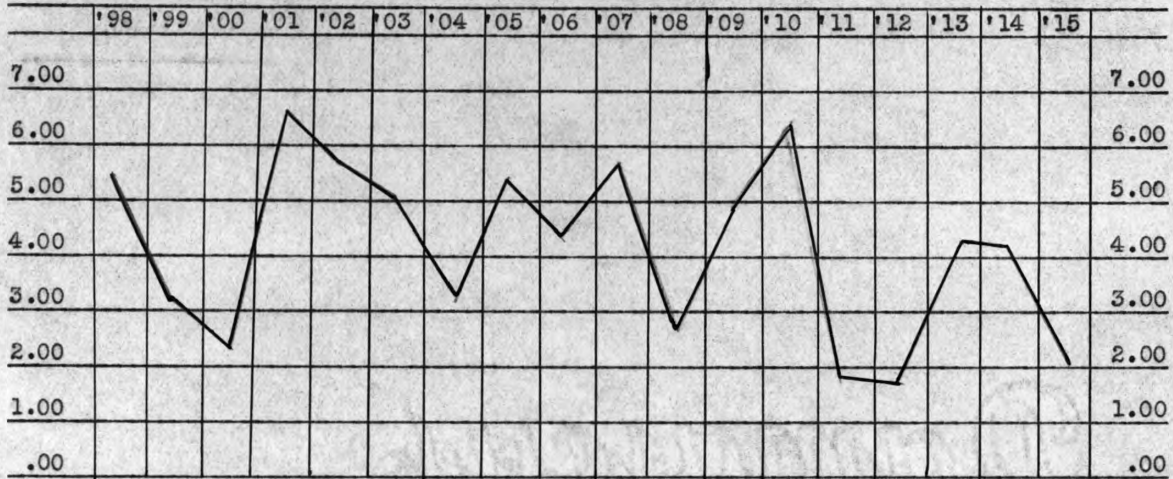
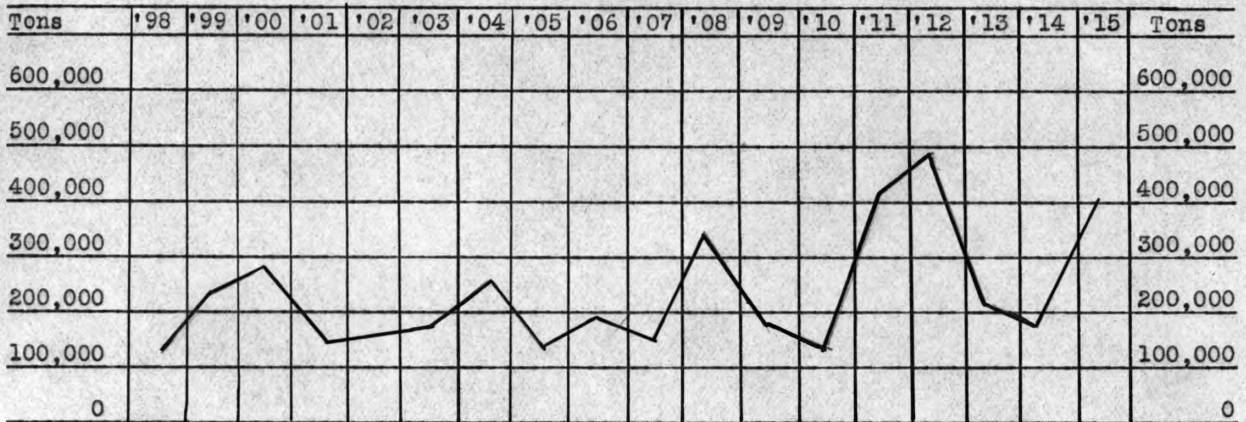


Table XVIII.

Number of Tons of Ore Mined per Fatal Accident.



ANNUAL REPORT
OF THE PENSION DEPARTMENT
FOR THE YEAR 1915

- - - - -

PENSION SYSTEM.

The year 1915 completed the seventh year of the operation of the pension system. The advantages of the system are just as apparent as ever and the satisfaction of the employes is very often referred to. During the year there have been the following additions to the pension roll of the Mining Department.

| | | Date Pen- sion Began | Monthly Payment |
|--------|------------------|-------------------------|--------------------|
| No. 58 | David Brisette | Nov. 1, 1914 | \$ 16.70 |
| No. 59 | Thomas Andrews | Mar. 1, 1915 | 15.00 |
| No. 60 | Charles Ayotte | Mar. 1, 1915 | 17.76 |
| No. 61 | Andrew Dinette | Apr. 1, 1915 | 15.00 |
| No. 62 | Berdina Jondreau | Mar. 1, 1915 | 15.00 |
| No. 63 | Wm. A. Walton | June 1, 1915 | 15.00 |
| No. 64 | Nicholas Jobe | June 1, 1915 | 15.00 |
| No. 65 | Charles Paynter | July 1, 1915 | 23.52 |
| No. 66 | Rasmus Anderson | Aug. 1, 1915 | 19.50 |
| No. 67 | August Vidlynd | Oct. 1, 1915 | 26.19 |
| No. 68 | Peter Cullen | Nov. 1, 1915 | 15.00 |

The following pensions have ceased during the year:

| | | |
|--------|---|--|
| No. 10 | Children of Nicholas Pearce Richard Harvey, Guardian | End of five year period, June 30, 1915. |
| No. 13 | Anna Carso | End of five year period, August 31, 1915. |
| No. 14 | Mary E. Williams | End of five year period, September 30, 1915. |
| No. 48 | Children of John Tahtinen | End of five year period, June 30, 1915. |
| No. 56 | Frederick Sandberg | Pensioned October 1, 1914. Died November 11th, 1915. |
| No. 59 | Thomas Andrews | Pensioned March 1st, 1915. Died September 17th, 1915. |

Pension No. 17, Mrs. Hilja Himottu, which was originally granted for five years, expired on November 30th. When this was granted the understanding was that the matter would be brought up to the Pension Board for a renewal. We were unable to secure her signature to this renewal for some time as she was waiting to discuss the matter with her brother. The pension has now been renewed and will continue for another period of five years, beginning December 1st, 1915, when it will again be brought up for further extension if she is in need of it at that time.

On December 31st, 1914, the following number of pensioners were on the pension roll:

| | |
|--------------------|-----------|
| Old Age | 28 |
| Widows and Orphans | <u>17</u> |
| Total | 45 |

Total number of widows and orphans on pension roll December 31, 1914:

| | |
|---------|-----------|
| Widows | 15 |
| Orphans | <u>31</u> |
| Total | 46 |

On December 31st, 1915, the following number of pensioners were on the pension roll:

| | |
|--------------------|-----------|
| Old Age | 37 |
| Widows and Orphans | <u>13</u> |
| Total | 50 |

Total number of widows and orphans on pension roll December 31, 1915:

| | |
|---------|-----------|
| Widows | 13 |
| Orphans | <u>25</u> |
| Total | 38 |

Included in the above statements is the pension of Mrs. Hilja Himottu which, at the time of writing the report, had been renewed.

The average yearly pension for old age pensioners on December 31st, 1915, is \$ 236.28.

The average yearly pension for Widows and orphans on December 31st, 1915, is \$ 167.04.

There have been no changes in the pension payroll for the Furnace Department during the year, there being one Old Age pension and one Widows and Orphans pension.

Pension payments for the years 1909 to 1914 inclusive are as follows:

Mining Department:

Old Age Pensions

| | |
|------|----------------|
| 1909 | \$ 351.92 |
| 1910 | 896.44 |
| 1911 | 1690.37 |
| 1912 | 3865.95 |
| 1913 | 5133.62 |
| 1914 | 6179.57 |
| 1915 | <u>7910.35</u> |

Total \$ 26028.22

Widows and Orphans Pensions

| | |
|------|----------------|
| 1909 | \$ 464.00 |
| 1910 | 1043.00 |
| 1911 | 2649.00 |
| 1912 | 3113.00 |
| 1913 | 3025.00 |
| 1914 | 3403.00 |
| 1915 | <u>2372.00</u> |

Total \$ 16069.00

Total Mining Department \$ 42097.22

Furnace Department

Old Age Pensions

| | |
|------|---------------|
| 1910 | \$ 111.75 |
| 1911 | 268.20 |
| 1912 | 268.20 |
| 1913 | 268.20 |
| 1914 | 268.20 |
| 1915 | <u>268.20</u> |

Total \$ 1452.75

1452.75

Widows and Orphans Pensions

| | |
|------|---------------|
| 1911 | \$ 120.00 |
| 1912 | 180.00 |
| 1913 | 180.00 |
| 1914 | 180.00 |
| 1915 | <u>180.00</u> |

Total \$ 840.00

Total Furnace Department \$ 2292.75

Total amount paid to Old Age pensioners - 1909 to 1915 inclusive

| | |
|--------------------|----------------|
| Mining Department | \$ 26028.22 |
| Furnace Department | <u>1452.75</u> |

Total \$ 27480.97

Total amount paid to Widows and Orphans - 1909 to 1915 inclusive.

| | |
|--------------------|---------------|
| Mining Department | \$ 16069.00 |
| Furnace Department | <u>840.00</u> |

Total 16909.00

Total Pensions paid \$ 44389.97

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

Mining Department,
Old Age Pensions.

| | |
|-------------------------------------|----------------|
| Estimate for 1909 to 1914 inclusive | \$ 30252.00 |
| Estimate for 1915 | <u>6855.50</u> |

Total \$ 37107.50

Widows and Orphans Pensions

| | |
|-------------------------------------|----------------|
| Estimate for 1909 to 1914 inclusive | \$ 10350.00 |
| Estimate for 1915 | <u>2790.00</u> |

Total \$ 13140.00

Total Estimate \$ 50247.00

Total amount paid from 1909 to 1915 inclusive

| | |
|-----------------------------|-----------------|
| Old Age Pensions | \$ 26028.22 |
| Widows and Orphans Pensions | <u>16069.00</u> |

Total \$ 42097.22

The pensions paid for Old Age for 1915 are considerably over the estimate for that year but the total amount paid since the beginning of the Pension System is \$11,079.28 less than the estimated possible amount required up to December 31st, 1915.

The pensions paid to widows and orphans is less than the amount estimated for the year 1915. These will grow less quite rapidly from now on, they having reduced from \$3403.00 in 1914 to \$2373.00 in 1915. As no widows and orphans have been put on the pension rolls for any accident which occurred after September 1st, 1912, there can be no real comparison between the estimate and amounts paid, but are given for reference and total costs.

| | |
|--|------------|
| Old Age Pensions estimated for 1915 | \$ 6855.50 |
| Old Age Pensions paid for 1915 | 7910.35 |
| Widows and Orphans Pensions estimated for 1915 | 2790.00 |
| Widows and Orphans Pensions paid for 1915 | 2372.00 |

During the year 1916 the following Widows and Orphans Pensions will cease unless some maybe renewed by action of the Pension Board.

| | | |
|--------|-------------------------------------|-------------------------|
| No. 24 | Widow of Oscar Johnson | Ending May 31, 1916. |
| No. 25 | Widow and children of Jacob Hannula | Ending May 31, 1916. |
| No. 26 | Widow of Simon Mattson | Ending May 31, 1916. |
| No. 29 | Widow of Nicholas Peterson | Ending August 31, 1916. |
| No. 32 | Widow and children of Kreggo Koski | Ending August 31, 1916. |

The rest of the Widows and Orphans pensions will expire as follows: One in 1917, one in 1918, and five will continue until 1920 on account of young children at the time of the accident.

I have visited all the pensioners during the year and they have been seen each month by the visiting nurse. On December 31st, they were all in fairly good condition with the exception of Isaac Moss, Pension No. 28, who is in fair health a portion of the time but has spells when he is not well. He died in 1916 before final report was written. Mr. Moss went on the pension roll on September 1st, 1911.

Mr. John K. Stevens, Pension No. 41, whose pension was granted Novem-

ber 11th, 1912, is growing worse rapidly from dropsy and heart trouble and cannot last very long.

Mr. Chas. A. Forsberg, Pension No. 39, whose pension began October 1, 1912, is now ill at Duluth, with no probability of recovery. He has been taken to the Mayo Hospital at Rochester, Minn., but nothing of permanent help could be done for him.

Of the two pensioners of the Furnace Department, one, Mr. Harry Fuller, is in fairly good health. Early in the year Mrs. Wightman, the other pensioner, became mentally unbalanced and was sent to Newberry. There are four children in the family, the oldest a young lady who is studying to be a nurse at Dr. Yates' Hospital at Milwaukee. She came home at the time her mother was sent to Newberry and arrangements were made to send one of the boys to the Good Will Farm at Houghton, one to an uncle in the West, and the oldest boy, about eighteen years of age, secured a good boarding place with the foreman of the Machine Shop of the D. S. S. & A. Ry., by whom he is employed. After being at Newberry a few months Mrs. Wightman recovered and there seems to be a fair probability of her retaining her reason. The family is now getting along satisfactorily. The period for which the pension was originally granted ends in April of 1916 and an investigation will be made and if they are in need of continued assistance a renewal of the pension will be recommended to the Pension Board.

Thomas Wolfendale, Pension No. 11, who was despondent on account of the illness and death of his old house-keeper who had been taken to St. Luke's Hospital, tried to commit suicide by shooting himself with a revolver on May 14th, 1915. He was not successful, but being in such a serious mental and physical condition was taken temporarily to St. Luke's Hospital at Marquette. While the physicians were considering whether he should be sent to Newberry he improved so rapidly that he was brought home and is now living with Mr. Wm. Walton, one of our pensioners.

The pension of \$15.00 to Thomas Wolfendale has been sufficient for his purposes up to the present time but all his money is now used up and he will soon be in need of clothes, etc. The friends who are taking care of him feel

that \$15.00 per month is not sufficient for his care, as he is also some responsibility.

It will be necessary to do something in the matter and it would seem that a special donation of perhaps \$5.00 per month should be made to provide for satisfactory care.

We believe that he was led to attempt suicide, thinking that possibly he would have to go to the County Poor Farm.

VISITING NURSES.

The work of the visiting nurses has continued as in previous years, with continued satisfactory results.

Miss Ruth Hassler is at Ishpeming.

Miss Ina E. Atkin is at Negaunee.

Miss Tucker, who had been with us since April, 1911, left our employ the first of May to live with her parents who had moved from Oak Park, Illinois, to Oregon. Her place was filled by Miss L. C. Poyseor, daughter of Wm. Poyseor, the missionary of the Episcopal Church in this district. The services rendered by the nurses is of increasing usefulness as they become friends of the people. We very frequently hear words of appreciation from the people in whose homes the nurses have rendered assistance.

In the early part of the year the nurses were very busy in the investigation of families of needy men who had formerly been at work for us and were then out of employment. They kept in close touch with Mr. Sporley during this period, advising him of all cases coming to their attention and we have rendered some assistance in those cases which were of an emergency character and of short duration, but any family that was in hard circumstances for any considerable period were put upon Mr. Sporley's roll. The nurses also co-operated with the people of the different churches who were interested in helping, and with the members of the Welfare League in Ishpeming and in Negaunee.

In April, Miss Hassler took Mr. John Chillman to Chicago for an operation for goitre, it being found that the goitre was growing so fast that he would be able to live only a short time. He refused to go to have the operation performed unless Miss Hassler would go with him and be in the operating room. The operation was very successful and since that time he has been getting along very well, although it is not known positively whether there will be a return of the trouble or further growth.

The following statement shows the expenses of the Visiting Nurses for the year 1915:

Total for Year Average Month

| | Total For Year | Ave. per Month |
|-----------|----------------|----------------|
| Ishpeming | \$ 1155.48 | \$ 96.29 |
| Negaunee | 1077.64 | 89.80 |
| Gwinn | <u>1174.56</u> | <u>97.88</u> |
| Total | \$ 3407.68 | \$283.97 |

The following tables show in detail the cases visited, the number of adults and children of each sex, and the different diseases or ailments.

At Gwinn, Miss Poyseor made a physical examination of the school children, which adds greatly to the number of cases seen.

YEARLY REPORT OF VISITING NURSE.

Ishpeming.

Miss Ruth Hassler, Nurse.

| | |
|---|------|
| Total cases cared for as reported monthly during the year | 260 |
| Number of new individual cases during the year | 182 |
| Total number of visits | 1232 |
| Number of families visited for the first time | 73 |
| Number of pension calls | 357 |
| Number of social calls | 407 |
| Number died | 9 |

Classification of new cases for the year:

| | | | | | |
|--------------------|-----|------|----|--------|----|
| Number of adults | 120 | Male | 27 | Female | 93 |
| Number of children | 62 | Male | 30 | Female | 32 |

Nationalities of new cases for the year:

| | | | |
|----------|----|-----------|----|
| American | 10 | Irish | 5 |
| English | 46 | Italian | 17 |
| Finnish | 45 | Norwegian | 9 |
| French | 22 | Polish | 1 |
| German | 6 | Swedish | 23 |

Diseases and number of new cases: Patients for the year:

| | | | | | |
|-----------------|-----|----------------|----|---------------|-----|
| Appendicitis | 15 | Infections | 1 | Paralysis | 1 / |
| Bowel Trouble | 1 | Injury | 6 | Tuberculosis | 2 |
| Bronchitis | 3 | Kidney Trouble | 4 | Rheumatism | 6 |
| Catarrhal Fever | 2 | Mal-Nutrition | 5 | Rupture | 1 |
| Eczema | 2 | Mastoditis | 1 | Tonsillitis | 5 |
| Heart Trouble | 2 | Obstetrical | 38 | Typhoid Fever | 1 |
| Hernia | 3 / | Peritonitis | 2 | Unclassified | 24 |
| Diabetes | 1 / | Pneumonia | 14 | Undiagnosed | 1 |
| Goitre | 2 / | Post Operative | 2 | Var. Ulcer | 1 |
| Infants Newborn | 36 | | | | |

YEARLY REPORT OF VISITING NURSE

Negaunee

Miss Ina E. Atkin, Nurse.

| | |
|---|------|
| Total cases cared for as reported monthly during the year | 353 |
| Number of new cases cared for during the year | 235 |
| Total number of visits | 1656 |
| Number of families visited for the first time | 74 |
| Number of pension calls | 38 |
| Number of social calls | 918 |
| Number died | 3 |

Classification of new cases for the year:

| | | | | | |
|--------------------|-----|------|----|--------|-----|
| Number of adults | 147 | Male | 17 | Female | 130 |
| Number of children | 88 | Male | 45 | Female | 43 |

Nationalities of new cases for the year:

| | | | |
|----------|----|---------|----|
| American | 65 | German | 6 |
| English | 39 | Irish | 3 |
| Finnish | 53 | Italian | 16 |
| French | 33 | Swedish | 20 |

Diseases and number of new cases: Patients for the year:

| | | | | | |
|------------------|-----|----------------|-----|-------------------|------|
| Appendicitis | 7 | Infections | 5 | Post Operative | 4 |
| Bowel Trouble | 6 | Injury | 9 | Pregnancy | 18 |
| Bronchitis | 2 | Insanity | 2 ✓ | Senility | 3 |
| Cold | 4 | Kidney Trouble | 1 | Sore Eyes | 1 |
| Colic | 1 | Mal-Nutrition | 1 | Spinal Meningitis | 1 ✓ |
| Diabetes | 1 ✓ | Mastoditis | 2 | Sprains | 6 |
| Eczema | 1 | Miner's Con. | 1 ✓ | Stomach Trouble | 8 |
| Epileptic | 1 | Nephritis | 2 | Tonsilitis | 7 |
| Gall Stones | 4 ✓ | Neuralgia | 2 | Typhoid Fever | 4 |
| Gastritis | 1 | Obstetrical | 40 | Unclassified | 26 ✓ |
| Gen. Debility | 1 | Pleurisy | 2 | Undiagnosed | 7 ✓ |
| Grippe | 12 | Pneumonia | 5 | Var. Ulcer | 1 ✓ |
| Infants, Newborn | 41 | | | | |

YEARLY REPORT OF VISITING NURSE.

Gwinn

Miss L. C. Poyseor, Nurse.

| | |
|---|------|
| Total cases cared for as reported monthly during the year | 768 |
| Number of new individual cases during the year | 656 |
| Total number of visits | 4068 |
| Number of families visited for the first time | 285 |
| Number of pension calls | 20 |
| Number of social calls | 674 |
| Number died | 9 |

Classification of new cases for the year:

| | | | | | |
|--------------------|-----|------|-----|--------|-----|
| Number of Adults | 235 | Male | 17 | Female | 218 |
| Number of children | 421 | Male | 110 | Female | 311 |

Nationalities of new cases for the year:

| | | | |
|----------|-----|-----------|-----|
| American | 53 | Irish | 2 |
| Austrian | 9 | Italian | 125 |
| Danish | 5 | Norwegian | 22 |
| English | 101 | Swedish | 116 |
| Finnish | 144 | Syrian | 1 |
| French | 68 | Welsh | 1 |
| German | 9 | | |

Diseases and number of new cases: Patients for the year:

| | | | | | |
|---------------|------|------------------|-----|-----------------|-------|
| Appendicitis | 4 | Infants, Newborn | 57 | Post Operative | 8 |
| Bowel Trouble | 5 | Infections | 194 | Rheumatism | 6 |
| Bronchitis | 21 | Injury | 12 | Rupture | 5 |
| Burns | 33 | Kidney Trouble | 9 | Sore Eyes | 7 |
| Cold | 21 | Mastoditis | 3 | Stomach Trouble | 6 |
| Colic | 4 | Nephritis | 3 | Tonsilitis | 8 |
| Eczema | 10 | Neuralgia | 2 | Tuberculosis | 7 |
| Feeding | 22 ✓ | Obstetrical | 79 | Unclassified | 120 ✓ |
| Gastritis | 2 | Pleurisy | 2 | Undiagnosed | 11 |
| Grippe | 3 | Pneumonia | 14 | Var. Ulcer | 1 |
| Heart Trouble | 7 | | | | |

120
11
11
12
134

Number of patients attended and calls made by Visiting Nurses.

| | No. of Cases | Male Adults | Female Adults | Male Children | Female Children | Total No. of Visits |
|-----------|--------------|-------------|---------------|---------------|-----------------|---------------------|
| Ishpeming | 182 | 27 | 93 | 30 | 32 | 1232 |
| Negaunee | 235 | 17 | 130 | 45 | 43 | 1656 |
| Gwinn | 656 | 17 | 218 | 110 | 311 | 4068 |
| Total | 1073 | 61 | 441 | 185 | 386 | 6956 |

NATIONALITY OF CASES

| | American | Austrian | English | Finnish | French | German | Danish |
|-----------|----------|----------|---------|---------|--------|--------|--------|
| Ishpeming | 10 | | 46 | 45 | 22 | 6 | |
| Negaunee | 65 | | 39 | 53 | 33 | 6 | |
| Gwinn | 53 | 9 | 101 | 144 | 68 | 9 | 5 |
| Total | 128 | 9 | 186 | 242 | 123 | 21 | 5 |

| | Italian | Irish | Norwegian | Swedish | Syrian | Welsh | Polish |
|-----------|---------|-------|-----------|---------|--------|-------|--------|
| Ishpeming | 17 | 3 | 9 | 23 | | | 1 |
| Negaunee | 16 | 3 | | 20 | | | |
| Gwinn | 125 | 2 | 22 | 116 | 1 | 1 | |
| Total | 158 | 8 | 31 | 159 | 1 | 1 | 1 |

| | Number Patients Died | Social Calls | Families Visited For First Time | Pension Calls |
|-----------|----------------------|--------------|---------------------------------|---------------|
| Ishpeming | 9 | 407 | 73 | 357 |
| Negaunee | 3 | 918 | 74 | 38 |
| Gwinn | 9 | 674 | 285 | 20 |
| Total | 21 | 1999 | 432 | 415 |

For several years the nurses gave a Christmas entertainment at Ishpeming, Negaunee and Gwinn and this has been held in the second story of some building. After the disaster at the Calumet Christmas entertainment it was felt that this plan of entertainment should not be continued and in order to give the children and their mothers something in place of it moving pictures were shown to them at the Club House at Gwinn, the Ishpeming Theatre, and the Star Theatre at Negaunee. The pictures shown were fairy stories and other films of special interest to children. They seemed greatly pleased with the

pictures. The reels were shown twice, enabling the mothers to come with the younger children to the first entertainment and the older children to the second.

REST COTTAGE

The Rest Cottage at Deer Lake was made use of during the summer as has been done in previous years. Miss Hassler with the aid of Miss Atkin looked after the work at the Cottage and Mrs. Daniel Oie, widow of one of our former pension men, did the house work with the assistance of Mrs. Fallon, widow of one of our former employes. There were no interruptions at the Cottage as was the case in 1914 because of the several conventions held in the city, and although the weather conditions were not very favorable as many went to the Cottage as could be accomodated. The work is very beneficial.

Close watch was kept of the sanitary conditions, especially in reference to the water in the Carp River Storage Basin, but we had no trouble from any odor or annoyance of any kind during the season.

The following data gives the number of guests and the cost of maintenance at the Rest Cottage during the last eight years:

| Year | | No. of Guests | Cost of Operation |
|------|------------|------------------|----------------------|
| 1908 | The Maples | 21 | \$ 89.93 |
| 1909 | Deer Lake | 29 | 305.82 |
| 1910 | " | 24 | 403.45 |
| 1911 | " | 45 | 482.89 |
| 1912 | " | 57 | 270.23 |
| 1913 | " | 82 | 358.45 |
| 1914 | " | 107 | 625.56 |
| 1915 | " | 137 | 572.40 |
| | Total | 502 | \$3108.73 |

Of the number at the Cottage in 1915, 48 were from Negaunee, and 16 were young ladies who did the housework while their mothers were at the Cottage. These were taken out there one Saturday, remaining until Sunday morning breakfast.

| | |
|---|-------|
| Number of meals furnished | 3267 |
| Total days | 1089 |
| People at Rest Cottage | 137 |
| Average number of days per person | 7.95 |
| Number of days Cottage was open | 74 |
| Average number of people at Cottage per day | 14.72 |
| Cost of meals - per meal | 17.27 |

ISHPEMING Y. M. C. A.

We have co-operated with the Association in the work during the year and have had on the Board of Directors - Mr. Conibear, Mr. Bargh and myself. Mr. Hillyer, who had been President of the Association for the last two years, left Ishpeming the last of November to be superintendent and engineer of the Wisconsin and Minnesota Power Company at Eau Claire, Wis. The new officers are:

W. H. Johnston, President

F. P. Needham, Vice President

Chas. H. Moss, Secretary

Wm. M. Argall, Treasurer

The work has continued through the year with a reduced force, but with careful management and voluntary assistance the work has been kept up to a good standard and the expenditures kept within the revenue from the various sources. If the best work of the Association is to be continued, and for the greatest usefulness, there should be another competent man on the work, if there were any means of securing the increased income to cover such expenditure.

The following data is taken from the monthly reports, the fiscal year of the Association ending April 30th.

Members in good standing on December 31st, 1915:

| | |
|-------------------------|-----------|
| Mining Company employes | 72 |
| City | 168 |
| Boys | 249 |
| Sustaining | <u>36</u> |
| Total | 525 |

The activities of the building are shown by the following data:

| | Men | Boys | Total |
|--------------------------------------|------|------|-------|
| Average daily attendance at building | 158 | 193 | 351 |
| Baths taken | 6425 | 8389 | 15814 |
| Total at Gymnasium Classes | | | 7089 |

The following table shows the number of meetings of various kinds held at the building, and the attendance.

| | No. of Meetings | Attendance |
|--------------------|-----------------|------------|
| Men's Meetings | 19 | 1264 |
| Committee Meetings | 33 | 181 |
| Socials | 28 | 268 |
| Entertainments | 1 | 150 |

In Addition to the above the following events were of especial importance:

Charity Concert given in March by the Y. M. C. A. Minstrels; \$110 turned over to the Ladies Welfare League.

Minstrel show given on June 3rd; net receipts of \$65 applied to camp fund.

Burbank lecture in gymnasium in May; proceeds given to Ladies Welfare League.

Membership contest held in October in conjunction with a similar contest held at the same time in Calumet.

Memorial services were held in December in honor of Mr. J. C. W. Chipman, at which time a portrait of him was hung in the building.

The Association rooms have been used each month by the Advancement Association and Mr. Wise has co-operated with the officials of that organization in their work.

Basket Ball has been very popular and the teams have had a good season. There have been wrestling classes, checker tournaments and other social features.

The School Board, which had the use of the gymnasium, gave this up in June, but have now made use of their High School building for the purpose of physical exercise which was conducted for the classes in the gymnasium.

WORKMEN'S COMPENSATION

The work pertaining to compensation payments and records has continued in charge of Mr. T. H. Bargh, who has been looking after this work since December 1st, 1912. The payments provided by the Law have continued satisfactory to our men and there is very little trouble in making settlements. We have had the cordial co-operation of the superintendents and clerks, which has made it very easy to take care of the cases of the injured men.

During the year there has been only one case that has caused us any special concern. Joseph Sgro received a slight injury at the Maas Mine on February 26th, 1913. He was operated upon for hernia on March 5th of the same year. He returned to work on May 12th and worked until May 24th. He later went to Minneapolis and in December, 1914, had another operation for hernia and asked the Industrial Accident Board, through a Minneapolis attorney, Mr. Stevenson, to have the case reopened. Testimony was given here by Dr. Sheldon, Dr. Wilson, Joseph Thomas, Captain of the Maas Mine, and Mr. Bargh, and on consideration by the Industrial Accident Board Sgro's petition to have the case reopened was denied. This decision was made in the month of October, 1915. This is the only case since coming under the Law that we have had any serious difficulty with, although there have been a good many that have taken some time for proper adjustment.

There has been five fatalities during the year, as follows:

| | |
|---------------------|--|
| Ole Olson | Cliffs Shaft Mine, Accident Report No. 153, Married, Occurred March 4th, 1915. Compensation payment \$5.54 per week for 300 weeks. |
| Charles Asplund | Lake Mine, Accident Report No. 175, Married, Occurred May 14th, 1915. Compensation payment \$8.36 per week for 300 weeks. |
| Oscar Hanttula | Lake Mine, Accident Report No. 176, Married, Occurred June 18th, 1915. Compensation payment \$7.70 per week for 300 weeks. |
| Louis Gasparini | Stephenson Mine, Accident Report No. 276, Married, Occurred July 13th, 1915. Compensation payment \$7.93 per week for 300 weeks. |
| Ferdinand Gronzotto | Maas Mine, Accident Report No. 85, Single, Occurred October 30th, 1915. |

Gronzotto has been helping in the support of his parents in Italy and investigation is under way at the end of the year to determine the amount of

payments made by him while working for us. The amount is not going to be very large, but will be something more than the funeral expenses.

Payments were made during the year in sixteen fatal accident cases, four of which occurred in 1913, eight in 1914 and four in 1915.

Some lump sum settlements were made during the year after petition to the Industrial Accident Board and instructions by them.

Mrs. Hilda Juhola, whose husband, John Juhola, lost his life in an accident at the Maas Mine on March 2nd, 1914, Accident Report No. 63, wished to make some improvements at her farm north of Negaunee and petitioned the Industrial Accident Board for an advance payment of \$500.00. The payment was made on the basis of present worth at 5%, amounting to \$499.79. The regular payments will continue but the period is shortened up to that extent.

Louis Nault was injured at North Lake on April 22nd, 1914, Accident Report No. 87, injury being to side and ankles. It was quite a serious injury and as he was well along in years he thought it would be better not to resume work in the mines. He had a farm some little distance from North Lake which he desired to operate and in February, 1915, we made a lump sum settlement with him amounting to \$512.11 making, with payments already received, a total of \$771.25.

Emil Filpula was injured at the Morris Mine on January 16th, 1914, Accident Report No. 125. Some dirt fell, bruising his head and shoulders. He returned to work on the 21st, being off only three days, but in the spring of 1915 he had some spells during which he became unconscious, evidently from some pressure, and it seemed unsafe for him to continue work in the mine. He had purchased from the Land Department a farm near Rumley and expressed a desire to go there at once, if he could get a little help. He asked for a payment of a lump sum which was approved and in May we made him a payment of \$205.85, which, in addition to compensation previously paid, amounted to \$260.94. He is now getting along very satisfactorily.

Elvura Hanttula, widow of Oscar Hanttula, who was fatally injured at the Lake Mine on June 18th, 1915, Accident Report No. 176, lives in Finland. Her friends asked the Industrial Accident Board for a lump sum settlement but

the Board objects to this unless absolutely necessary and refused the application. We are accordingly paying her the money once in three months instead of weekly payments. She lives some distance from a banking town and desires to have it in this way. This is satisfactory to the Board. The payment is at the rate of \$7.70 per week, amounting to about \$100.00 every three months.

Ernest Harpn, Cliffs Shaft Mine, Accident Report No. 126. Accident occurred May 7th, 1915. A piece of ground fell, injuring his side and right leg, dislocating right knee, fracturing two ribs and badly bruising his body. He returned to work on December 9th, 1914. After paying him \$189.46, a settlement was made in September, 1915, at which time he was paid \$122.39.

There were three serious eye cases during the year.

Arthur Maki was injured at the Morris-Lloyd Mine on July 7th, 1915, Accident Report No. 149, which resulted in the loss of an eye. He is to receive \$6.72 per week for 100 weeks.

Tony Clement was injured at the Cliffs Shaft Mine on September 1st, 1915, Accident Report No. 176. One eye was quite seriously injured and after the eye was seen by Dr. Cunningham and taken care of by him, Clement made a trip to Milwaukee to consult with Dr. Black. It now seems probable that he will save the eye.

Odin Iverson was injured at the Stephenson Mine on September 17th, 1915, Accident Report No. 289, by getting something in one eye which later caused a loss of sight in that eye. He will be paid \$7.47 per week for 100 weeks.

In each of these three cases the medical service was quite an item in addition to the regular services rendered by the physicians at Ishpeming and Gwinn.

The attached sheet gives the number of accidents which occurred during the year by mines, showing the number upon which compensation was paid and the number on which no compensation was paid. The report shows that of 422 non-fatal accidents, 269 were continued for less than two weeks and for which no compensation was paid.

The sheets show all payments made on account of accidents which oc-

curred during the years 1913, 1914 and 1915, and shows the amount of compensation which is to be paid in these cases. In all fatal cases, or where there has been the loss of a member, the payments are for a specific amount and this is accurately determined in this pending amount. In a few cases - accidents which occurred late in 1915 - the amount is estimated, but they are only a very few so that the total pending amount will be very close to the amount actually paid.

The total amount to be paid after December 31st, 1915, in cases of accidents which have occurred previously is \$29,192.27.

The compensation payments for accidents which occurred during 1915 will amount to 1.095 per cent of the payroll for the year. This is in comparison with 1.60 per cent for 1914 and 1.104 per cent for 1913.

There was further consideration given to the matter of a fund for the payment of compensation, this fund to be secured by the charge of a certain percentage per month of the pay roll at the different mines. After a great deal of discussion and correspondence it was finally decided that the compensation payments should be charged directly to the operating costs of the mines at which they occurred and in fatal cases the charge is to be made as quickly as settlement has been arranged for and if possible in the month in which the fatality occurred. The plan was to adopt this system whenever the Suspense Funds were exhausted, which occurred in the month of October, 1915.

A new account was opened up called "Personal Injury Accounts Payable" to which account is credited the amount of compensation payments which are to continue for a definite period. The account was opened in November, 1915. This makes it possible to have the cost of a serious accident put into operating costs within a short time following the accident.

The following list gives the names and amounts to the credit in this account on December 31st, 1915:

BALANCE DUE PERSONAL INJURY ACCOUNTS PAYABLE.

| | | | |
|-------------------------------------|----|----------|---------|
| August Allen | \$ | 275.40 | |
| Charles Anderson | | 382.58 | |
| Sara Asplund | | 2248.84 | |
| Edmond Durante | | 531.84 | |
| Beatrice Frost | | 1627.40 | |
| Robert W. Creer, Guardian | | 1639.76 | |
| Mary Gasparini | | 2188.68 | |
| Elvura Hanttuly | | 2094.40 | |
| Kalle Hytenen | | 60.21 | |
| Odin Iverson | | 642.42 | |
| Hilda Juhola | | 1120.24 | |
| Sophie Kostamo | | 2000.43 | |
| Maria A. Linna | | 1262.25 | |
| Arthur Macki | | 510.72 | |
| Annie McCarthy | | 1293.60 | |
| Anna Olson | | 1429.32 | |
| Martha E. Sackrider | | 1312.22 | |
| Cornavetra Stefanalli | | 1670.76 | |
| Total The Cleveland-Cliffs Iron Co. | \$ | 22291.07 | ✓ |
| Mary L. Barrett | | 1490.00 | |
| Divina Mallett | | 1214.48 | |
| Total Negaunee Mine | | | 2704.48 |
| Kati Larson | | 1971.10 | |
| Total Athens Mining Co. | | | 1971.10 |
| Grand Total | \$ | 26966.65 | |

The Industrial Accident Board has continued during the year with the same officers, but they have appointed two deputy commissioners to work in arbitration cases and assist the Board in the details of the work. Mr. Ora E. Reeves, who was formerly a member of the Board, was appointed one of the deputies, and Mr. Fred. A. Zierleyn is the other.

There has been more or less agitation during the year in regard to changes in the Law, most of the agitation being instigated by the Michigan Federation of Labor. This agitation was brought to a definite basis at the annual meeting of the Federation held early in 1916, at which time they proposed to initiate legislation in amendments to the Law with the following special provisions:

Change the waiting period before compensation is paid from two weeks to one week.

Raise the time that the employer must furnish medical service from three weeks to three months.

Raise the compensation percentage from 50% to 66 2/3%; also providing

for special specific compensation for the loss of a nose, ear, and also for the partial loss of the sight of an eye, which are not now covered by the Law. They also plan a new method of computing the average weekly wages, all of the amendments, of course, being favorable to the employe, and which will increase the cost. Some of these changes were agreed to by the employers at a conference held in 1914 but as the amendments to the Law were rejected by the House of Representatives at that session of the legislature, none of them went into effect.

In Minnesota there were some changes made in the Law at the last session of the Legislature but these changes were not such as to materially affect the service which we are rendering to the men.

We have been in frequent consultation with the other Departments and have co-operated with them during the year in all special cases as they come up.

THE CLEVELAND-CLIFFS IRON COMPANY.
STATEMENT OF COMPENSATION AND BENEFIT PAYMENTS FROM JANUARY 1ST, 1915 TO DECEMBER 31ST, 1915.

| | No. of Employees | No. of Fatal Accidents | No. of Non-Fatal Accidents | Actual Com- pensation paid in 1915 | 1913 | 1914 | 1915 | Pending | Actual Payments To Phy- sicians | Less 1914 Pending | Fatal Cases Pending | Injury Cases Pending | Benefit Payments | |
|----------------------------------|---------------------|------------------------------|----------------------------------|---|-----------------|----------------|----------------|----------------|--|-------------------------|---------------------------|----------------------------|---------------------|----------------|
| Personal Injury Accounts Payable | | | | 571.14 | 92.64 | 234.32 | 244.18 | 22291.07 | | | | | | |
| Maas | 99 | 1 | 4 | 4 | 1910.75 | 369.60 | 1358.99 | 162.16 | 227.60 | | 5 | 2 | 90.01 | |
| Austin | 1 | | | 1 | | | | | | | | | 1.67 | |
| Gwinn | 177 | | 10 | 32 | 158.52 | | 10.84 | 147.68 | 13.25 | 817.58 | | 2 | 154.68 | |
| Stephenson | 247 | 1 | 24 | 32 | 983.66 | | 280.18 | 703.48 | 708.58 | 1109.24 | 1 | 8 | 1499.16 | |
| Princeton | 16 | | 4 | 1 | 47.69 | | | 47.69 | | 66.45 | | | 67.51 | |
| Gardner-Mackinaw | 2 | | | | | | | | | | | | | |
| Francis | 27 | | 3 | 3 | 13.50 | | | 13.50 | 5.92 | 101.82 | | 1 | 26.00 | |
| North Lake | 276 | | 22 | 31 | 1645.13 | | 983.13 | 662.00 | | 484.01 | | 1 | 1142.51 | |
| Chase | 27 | | 2 | 2 | 32.49 | | 13.55 | 18.94 | | 38.90 | | | 15.00 | |
| Imperial | 1 | | | | | | | | | | | | | |
| Jackson | 42 | | 1 | | 10.58 | | | 10.58 | | 52.90 | | | | |
| Dead River Water Power | 6 | | | | | | | | | 4.10 | | | | |
| Miscellaneous | 9 | | | | 346.08 | 346.08 | | | | 8.60 | | | | |
| General Shops | 30 | | | | | | | | | 25.20 | 1 | | | |
| Lake | 261 | 2 | 16 | 24 | 1823.97 | 396.00 | 534.03 | 893.94 | 175.67 | 612.56 | 75.06 | 3 | 3 | 1712.01 |
| Cliffs-Shaft | 312 | 1 | 18 | 24 | 1140.05 | 194.67 | 122.39 | 822.99 | 949.37 | 428.24 | | 1 | 4 | 1210.33 |
| Salisbury | 46 | | | 5 | 761.28 | | 761.28 | | | 55.80 | | 2 | | 1.67 |
| Angeline | 5 | | | | | | | | | 6.40 | | | | |
| Holmes | 2 | | | | | | | | | 1.60 | | | | |
| Republic | 260 | | 26 | 84 | 1501.35 | | 1014.11 | 487.24 | 31.02 | 331.67 | | 1 | 3 | |
| General Office | 98 | | | | | | | | | 158.75 | | | | |
| Pension Dept. | 3 | | | | | | | | | 10.50 | | | | |
| Personal Injury Accounts Payable | | | | | 65.84 | 25.84 | 40.00 | | 2704.48 | | | | | |
| Wegamee | 277 | | 20 | 13 | 1285.74 | 310.08 | 549.92 | 425.74 | 54.21 | 347.70 | | 2 | 3 | 525.01 |
| Personal Injury Accounts Payable | | | | | 34.28 | | 34.28 | | 1971.10 | | | | | |
| Athens | 43 | | 3 | 4 | 570.49 | | 474.79 | 95.70 | 60.00 | 51.30 | | 1 | 1 | |
| Crosby | 35 | | | 9 | 92.50 | | 92.50 | | | 178.15 | | | | |
| Meadow | 6 | | | | | | | | | 3.85 | | | | |
| Total | 2308 | 5 | 153 | 269 | 12995.04 | 1734.91 | 6504.31 | 4755.82 | 29192.27 | 5018.02 | 75.06 | 17 | 28 | 6445.56 |

* On which Compensation was paid
** On which no Compensation was paid

| | |
|--------------------------------------|----------|
| Compensation paid on 1915 accidents | 4755.82 |
| Compensation still pending | 29192.27 |
| Cost of Medical and hospital service | 4942.96 |
| Total | 38891.05 |
| Less pending for years 1913 and 1914 | 17792.06 |
| | 21098.99 |

Percentage of Pay Roll .01095

SUSPENSE FUNDS.

The Cleveland-Cliffs Iron Co.

Balance on hand Jan. 1st, 1915 \$ 10,067.93

Negaunee Mine

Suspense Funds exhausted in 1914.

Athens Mining Co.

No Suspense Funds.

The Suspense Funds of The Cleveland-Cliffs Iron Company were exhausted in October, 1915, following which time all compensation payments were charged directly to operating cost to the mines at which the accidents occurred.

BENEFIT FUNDS.

The Benefit Funds remaining to the credit of the different mines of The Cleveland-Cliffs Iron Company were transferred in 1914 to one general Benefit Fund. The statement for 1915 follows:

| | |
|---------------------------------|----------------|
| Balance on hand Jan. 1st, 1915 | \$ 50181.21 |
| Interest | <u>2200.45</u> |
| Total | \$ 52381.66 |
| Disbursements during year | <u>6037.15</u> |
| Balance on hand Dec. 31st, 1915 | \$ 46344.51 ✓ |

NEGAUNEE MINE:

| | |
|---------------------------------|---------------|
| Balance on hand Jan. 1st, 1915 | \$ 1593.73 |
| Interest | <u>55.25</u> |
| Total | \$ 1648.98 |
| Disbursements during year | <u>525.01</u> |
| Balance on hand Dec. 31st, 1915 | \$ 1123.97 |

ATHENS MINE:

The Benefit Funds at the Athens Mine were exhausted during the year 1914.

These funds are paid out in cases of accidental injury to the men who were employed by us previously to August 1st, 1912, at which time collections on account of Benefit Funds ceased. The funds of The Cleveland-Cliffs Iron Co., will last for a good many years if paid out on the same basis for injury that is now being done. This is at the rate of \$20.00 per month for a single man and \$25.00 per month for a married man, no payment being made for the first five days. In case of a fatality to a man who had contributed to this fund \$500.00 is paid, and for the loss of a member \$166.66 is paid.

GWINN CLUB.

Mr. Austin, who had been superintendent at the Club House for three years, was re-instated in the Navy and on February 1st he left the employ of the Club to return to his former position as ensign.

Mr. Adler, who had been Boys' Secretary at the Ishpeming Y. M. C. A., was transferred to Gwinn and the work was continued in the same general way. Mr. Adler's services have proven very satisfactory and the work is going along very well. The Club is popular and the men have made constant use of all the privileges. The moving pictures still draw large numbers and have been a good source of revenue.

The report for December 1915 shows the following membership:

| | | |
|--------------|-----------|-----|
| Men | 549 | |
| Boys' Club | 80 | |
| Girls' Clubs | <u>78</u> | |
| Total | | 707 |

Average daily attendance at building:

| | | |
|-------|-----------|-----|
| Men | 109 | |
| Boys | 24 | |
| Girls | <u>20</u> | |
| Total | | 153 |

It has been the plan to have frequent entertainments at the building to which the people in general attend. The following are the principal events of the season :

January - 1 Wrestling exhibition and 4 basket-ball games.

February- 3 basket-ball games followed with a dance; attendance 150.

March - 3 basket-ball games.

April - Basket-ball dance, attendance 150. Open house and dance, attendance 400.

May - 1 Wrestling exhibition. Two dances.

July - 4th of July celebration at camp at Bass Lake, attendance 400.

October - Hallowe'en Party given by the Sun Shine Club.

December - Firemen's Annual New Year's Eve dance; attendance 125.

A number of organizations have been started during the year. There are three groups of Camp-Fire Girls who have held various meetings. An orchestra has been organized under the leadership of Mr. C. Isaacson. The Boy Scouts have also been organized with proper leadership and have continued through the year.

Mrs. Reigart is chairman of the Women's Committee which co-operates with Miss Poyseor in the work with the women and girls in the building, and a number of other ladies are actively helping. The older girls are organized into a club called the Busy Bees and the younger girls into a Sun Shine Club, of which Miss Poyseor has charge. These different organizations have the use of the gymnasium at certain times of the week and have given a great many small parties and entertainments.

Educational work was taken up early in the fall and classes for the study of English by the non-English speaking men have continued very successfully. They have a regular membership of fifty and the attendance has been very good. The men are divided up into five classes. They pay a small fee each month which covers the cost of the educational work. A number are preparing for citizenship.

In addition to the entertainments given directly by the Club the churches have frequently made use of the building, a nominal charge being made to them for its use. These have served as general entertainments as well as those arranged for by the Club itself.

Basket ball has been very popular in Gwinn as well as in our other cities.

The camp at Bass Lake was finished and has been operated during the summer and it has proven very satisfactory. There were 732 people who visited the camp during 1915; of this number 102 stayed at the camp over night. A regular charge is made to those remaining over night and also for the use of the boats. The grounds were cleared of underbrush and a fire-break was put in on the little peninsula on which the camp is located.

Attached is the annual statement of the Club for the year.

GWINN CLUB HOUSE

Financial Statement for

Year 1915.

| | |
|-----------------------------------|----------------|
| Balance on hand January 1st, 1915 | \$ 563.83 |
| Received during year | <u>6368.49</u> |
| Total Receipts | 6932.32 |
| Total Expenditures | <u>6916.82</u> |
| On hand December 31, 1915 | \$ 15.50 |

RECEIPTS.

| | | |
|--|---------------|------------|
| Membership Fees | 1394.75 | |
| Theatre Fees | 3012.05 | |
| Bowling Alleys | 547.25 | |
| Pool and Billards | 146.60 | |
| Lockers | 45.50 | |
| Buffet | 484.57 | |
| Towels and soap | 45.10 | |
| Educational | 128.10 | |
| Miscellaneous | 580.92 | |
| Sale of Coupon Books | <u>382.25</u> | |
| | 6767.09 | |
| Less Coupons returned, included in receipts during year and previously | <u>398.60</u> | |
| Net Receipts | | \$ 6368.49 |

EXPENDITURES.

| | | |
|-----------------------|---------------|------------|
| Buildings maintenance | 339.19 | |
| Equipment | 209.34 | |
| Care of Grounds | 35.71 | |
| Lighting | 632.22 | |
| Heating | 786.35 | |
| Water | 59.01 | |
| Bowling Alleys | 375.50 | |
| Pool Room | 17.46 | |
| Buffet | 354.38 | |
| Office Expense | 185.53 | |
| Entertainments | 112.96 | |
| Laundry and soap | 42.76 | |
| Power | 30.68 | |
| Salaries | 834.23 | |
| Educational | 144.62 | |
| Reading Room | 89.82 | |
| Gymnasium | 27.74 | |
| Camp | 114.96 | |
| Theatre | 2291.92 | |
| Miscellaneous | <u>232.34</u> | |
| Total | | \$ 6916.82 |

Certain features of the Club work are a source of revenue as shown in the following table:

| | Receipts | Expended | Excess of Receipts over Expenditures. |
|--------------------|----------------|----------------|--|
| Bowling Alley | 547.25 | 342.19 | 205.06 |
| Pool and Billiards | 146.60 | 16.11 | 130.49 |
| Lockers | 45.50 | 0.00 | 45.50 |
| Buffet | 484.47 | 331.25 | 153.22 |
| Towels and Soap | 45.10 | 42.76 | 2.34 |
| Moving Pictures | <u>3012.15</u> | <u>2168.03</u> | <u>844.12</u> |
| | \$ 4281.07 | 2900.34 | 1380.73 |

MUNISING Y. M. C. A.

The work on the new building was continued through the summer and it was occupied by the Club in August and by the Association the first of October. Under Mr. L. L. Earle, the Secretary, the work was started in very good shape and with the additional equipment will make the Association a very useful influence in the community. Mr. E. P. Strong has been elected President to succeed Mr. Freeman who expects to leave Munising in the spring.

HOME GARDENING.

I co-operated with the Women's League in home improvement work. Special prizes were awarded for the display of products. The season was very cold and the ordinary garden products were very backward, sweet corn not ripening. We had frost every month in the year and it practically destroyed the entire crop of beans and other tender vegetables. The full amount of money authorized was not used on this account.

The prizes for home gardening were offered in the same general way as before, with special emphasis on the desirability of vegetables for an exhibition in the fall. While the people worked perhaps harder than before on their grounds the vegetables were poor while the best kept premises were in good shape, owing to a very cold summer. Vine planting and window boxes were also very good.

Prizes were offered at Republic and a very good effort was made by the people there. They were very much interested and worked as hard as in any of our districts for the awards.

The awards were as follows:

Ishpeming:

| | |
|--------------------|---------------|
| Best Kept Premises | \$ 111.00 |
| Vine Planting | 28.00 |
| Window Boxes | 22.00 |
| Vegetable gardens | 29.00 |
| Special Prize | 10.00 |
| | <u>200.00</u> |

Negaunee:

| | |
|--------------------|--------------|
| Best Kept Premises | 42.00 |
| Vine Planting | 12.50 |
| Window Boxes | 12.50 |
| Vegetable Gardens | <u>26.00</u> |
| | 93.00 |

Gwinn, Austin and Princeton:

| | |
|--------------------|--------------|
| Best Kept Premises | 28.00 |
| Vine Planting | 12.50 |
| Window Boxes | 12.50 |
| Vegetable Gardens | <u>23.00</u> |
| | 76.00 |

North Lake:

| | |
|--------------------|--------------|
| Best Kept Premises | 30.00 |
| Vine Planting | 12.50 |
| Window Boxes | 12.50 |
| Vegetable Gardens | <u>45.00</u> |
| | 100.00 |

Republic:

| | |
|--------------------|--------------|
| Best Kept Premises | 35.00 |
| Vine Planting | 12.50 |
| Window Boxes | 8.00 |
| Vegetable Gardens | <u>40.00</u> |
| | 95.50 |

Gladstone:

| | |
|--------------------|--------------|
| Best Kept Premises | 18.50 |
| Vine Planting | 10.00 |
| Window Boxes | 7.00 |
| Vegetable Gardens | <u>14.00</u> |
| | 50.00 |

Railroad Department:

| | |
|-----------------------------|----------|
| Best Section House Grounds: | \$ 25.00 |
|-----------------------------|----------|

| | |
|----------|----------|
| Munising | \$ 55.00 |
|----------|----------|

EDUCATIONAL WORK.

Mr. C. S. Stevenson continued in charge of the educational work through the year. On July 29th the men who had completed their work, after one and one-half year's study, were served a supper in the Club Rooms and an exhibition of their work was presented. These were the men of Ishpeming and Negaunee. The work of these two classes showed up very well.

Mr. Stevenson's report is attached.

I would call attention to the fact that he expects that the work with the classes which are now under instruction will be completed in March 1917 and it is essential that careful consideration be given as early as possible to the future of the educational work.

EMPLOYES' RECORDS.

The Department is looking after the records of employes. In July of this year a plan was adopted which required the applicant for work to fill out a blank giving his previous record with authority to inquire concerning it of his former employer. These applications are handled through this Department. The records are retained here, the information being sent in duplicate to the mine office. These blanks have undoubtedly eliminated some undesirable men who might have perhaps otherwise secured employment.

SAFETY WORK.

We have co-operated with the Safety Department and have looked after the records of the Central Safety Committee. I have from time to time visited the different mines with the Safety Inspector and the Superintendents.

All of the meetings of the Central Safety Committee were held at Ishpeming with one exception, the Committee going to Gwinn in March for the special purpose of inspecting the top tram of the Stephenson Mine.

Mr. Edwin Higgins of the Bureau of Mines was at Republic on November 11th, 1915 and exhibited moving picture films showing mine conditions with special reference to safety work. Two exhibitions were

given, one in the afternoon and one in the evening. On the following day two exhibitions were given at the Club House at Gwinn. The pictures were excellent especially those of Mineville, New York, and a New Jersey zinc company.

UNEMPLOYED MEN:

Early in the winter of 1914-1915 there were a great many men out of work and the matter was taken up by the Advancement Association to see if employment could be secured for them. A meeting was held at which Mr. Duncan advocated the extension of the sewer from the foot of Oak street to the Carp River, which had been previously voted upon and voted down. Mr. Belden informed the meeting that a sum up to \$5,000 could be expended in public improvements without a bond issue and the Board of Public Works decided to begin the work at once and submit the matter of the bond issue again to the citizens of Ishpeming. A committee consisting of W. H. Moulton, C. H. Moss, and R. J. Wise was appointed to conduct an investigation and make records of the number of men unemployed, and the Committee, with the assistance of five others, canvassed the entire city in a few days. A list of unemployed men, with complete record of their families and conditions, was made. From this list the most needy men were selected for the sewer work and employed one week on and one week off. This was very general with the exception of a few men who were especially efficient and who were kept on some jobs where it was important that the work be very carefully done. The bond issue carried very strongly and the men were given work for the rest of the winter.

Whenever any of the superintendents required men they referred to this office, and from our list of our own unemployed, men were furnished for their work.

We co-operated with Mr. Sporley in the work and also with the Women's Welfare League, which was appointed by the Advancement Association to look after the cases of want that were reported. Our visiting nurses kept closely in touch with these different organizations and with Mr. Sporley in this work and rendered very valuable assistance. A special fund was provided by Mr. Mather for use in case of serious need, not to take the place of the work of the County, but to supplement it in connection with our own men.

From December 1, 1914 to July 1, 1915 the following families were helped:

| | No. Families | Total Assistance |
|-----------|--------------|------------------|
| Ishpeming | 32 | \$479.06 |
| Negaunee | 18 | 192.13 |
| Republic | 23 | <u>170.00</u> |
| | | \$841.19 |

At Gwinn they were able on short time to use the greater part of the men so that while there was some need it was possible to handle it locally. There is this much to be said in connection with the matter that the store-keepers in Ishpeming, Negaunee and Gwinn were very reasonable in their treatment of those men who had been fairly prompt in their payment and those trading regularly at a store were continued all through the winter. This made the conditions very much better than they otherwise would have been.

IMPROVEMENT WORK.

Mr. Cotter was here only for a short time during the year, and I looked over the work with him in the fall with a view to getting things in shape for the winter, this work being handled by the superintendents after his departure.

ISHPEMING ADVANCEMENT ASSOCIATION.

The Association has held monthly meetings in the Y. M. C. A., and had an annual banquet in the spring. The Association has helped to bring the business men somewhat more closely together and it is a desirable thing to be assisted so far as possible. They pay a small sum, usually \$25 per year, to the Y. M. C. A. for the use of their rooms.

RED CROSS SEALS.

We assisted the Visiting Nurse Association, which is made up of our visiting nurses, the visiting nurses of the Oliver Iron Mining Company and the Metropolitan Life Insurance Company and the head nurse at the Hospital, in the sale of the Christmas seals. The sale was fairly satisfactory for the year, 8,990 stamps being sold. \$29.97 was sent to the Michigan Anti-Tuberculosis Association, the balance being retained by the Visiting Nurse Association here for any tuberculosis work that may occur.

PLAYGROUNDS AND SOCIAL CENTERS.

We have consulted with the school officials in Ishpeming and Negaunee in regard to playground and social center work. After a playground director was secured for Ishpeming the apparatus was put in at the different school grounds although it was our opinion very strongly that all apparatus should be where it could be more properly supervised. At Negaunee everything was grouped in one playground.

The High School building at Negaunee is being made more use of by the older scholars and their friends for recreation purposes but it is not open to the public.

The cities of Ishpeming and Negaunee have kept the skating rinks open during the winter and they have been just as well patronized as ever. At Gwinn the tennis court grounds at the Club House are used as a skating rink during the winter.

HOSPITALS

Investigation has continued in regard to the operation of our hospitals and the attached reports show the revenues and expenditures during 1915 for Ishpeming, Negaunee, Gwinn and Republic. The work is being taken care of in a satisfactory manner. The Gwinn Hospital has been paid 35 cents per man per month, but the others are being paid at the old rate of 10 cents per man per month. Considerable investigation was carried out in regard to the revenues of the physicians at the above hospitals and consultation was had with Mr. Olcott, President of the Oliver Iron Mining Company, in regard to the suggestion of putting the Ishpeming and Negaunee hospitals on the same basis as is becoming quite general on other ranges. The physicians handling our work at Nashwauk are also paid 35 cents per man per month, the same as all physicians on that range are receiving.

STATEMENT OF RECEIPTS AND EXPENDITURES

ISHPEMING HOSPITAL

For Year 1915.

RECEIPTS:

| | | |
|-------------------------------|--------------|-------------|
| The Cleveland-Cliffs Iron Co. | \$ 13556.30 | |
| Oliver Iron Mining Co., | 3385.00 | |
| Lake Angeline Mine | 314.60 | |
| Iron Mountain Lake Mine | 82.00 | |
| Rolling Mill Mine | 261.30 | |
| Operations, etc., | 4111.75 | |
| Pharmacy | 2324.67 | |
| Rent, | <u>60.00</u> | |
| Total | | \$ 24095.62 |

EXPENDITURES:

| | | |
|---|---------------|-------------|
| Total of monthly payments to Physicians | 8700.00 | |
| Salaries of Nurses | 2040.00 | |
| Salaries of other employes | 4116.00 | |
| Rent | 156.28 | |
| Light and gas | 276.81 | |
| Groceries and provisions | 997.16 | |
| Fuel | 565.69 | |
| Telephone | 56.92 | |
| Drugs and medical supplies | 3732.32 | |
| Horses and automobiles | 704.07 | |
| Insurance | 329.50 | |
| Repairs to Hospital | 160.20 | |
| Hospital Equipment | 0.00 | |
| Taxes | 62.58 | |
| All other expenses | <u>463.16</u> | |
| Total Expenditure | | \$ 22360.69 |
| Balance | | \$ 1734.93 |

INCOME OF PHYSICIANS OWNING INTEREST IN HOSPITAL.

| | Felch | Vandevanter | Smith | Barnett | Total |
|-----------------|---------------|---------------|---------------|---------------|----------------|
| Annual payments | 1800.00 | 1800.00 | 1800.00 | 1800.00 | 7200.00 |
| Dividend | <u>693.99</u> | <u>346.98</u> | <u>346.98</u> | <u>346.98</u> | <u>1734.93</u> |
| For the Year | 2493.99 | 2146.98 | 2146.98 | 2146.98 | 8934.93 |

STATEMENT OF RECEIPTS AND DISBURSEMENTS FOR 1915.

Negaunee Hospital, Negaunee, Mich.

Submitted by Drs. Sheldon and Andrus.

RECEIPTS.

| | |
|--|---------------|
| Income from The Cleveland-Cliffs Iron Co., | 5514.70 |
| Income from other Mining Companies | 8693.00 |
| Income from Private Practice | <u>866.00</u> |
| Total | \$ 15073.70 |

DISBURSEMENTS.

| | |
|---|--------------------|
| Salary of Physicians | 5660.00 |
| Salary of Nurses | 1485.00 |
| Salary of other help | 1800.00 |
| Board of Patients | 495.70 |
| Drugs, Dressings, etc., | 1037.42 |
| Light, (and gas for fuel) | 236.46 |
| Coal | 258.63 |
| Taxes | 129.01 |
| Telephone | 42.00 |
| Laundry | 75.00 |
| Insurance | 111.21 |
| Fees to Assistants for Operations | 555.00 |
| Horses and automobiles | 720.00 |
| Interest and Depreciation | 1000.00 |
| Incidentals, (Water, Repairs, and Equipment, Ambulance, etc.,) | <u>416.32</u> |
| Total | \$ <u>14021.75</u> |
| Net Receipts | \$ 1051.95 |

| | Dr. Sheldon | Dr. Andrus | Total |
|-----------------|-------------|------------|------------|
| Net Income 1915 | \$525.98 | \$525.97 | \$ 1051.95 |

PENSION DEPARTMENT.

STATEMENT OF RECEIPTS AND EXPENDITURES

GWINN HOSPITAL

For Year 1915.

RECEIPTS:

| | |
|--------------------------------|---------------|
| The Cleveland-Cliffs Iron Co., | \$ 7359.30 |
| Other Companies | 722.00 |
| Hospital Service | 321.92 |
| Other Sources | <u>204.85</u> |
| Total Income | \$ 8608.07 |

EXPENDITURES:

| | |
|------------------------|-------------------|
| Salaries of Physicians | 705.50 |
| Salaries of Nurses | 532.25 |
| Wages - Help | 667.76 |
| Electricity & Lamps | 46.40 |
| Fuel | 317.18 |
| Water | |
| Provisions | 1105.65 |
| Telephone | 59.26 |
| Drugs | 484.52 |
| Repairs | 207.67 |
| Insurance and Taxes | 176.05 |
| Equipment | 200.27 |
| Laundry | 407.28 |
| Kitchen Supplies | 22.57 |
| Hospital Supplies | 201.15 |
| Miscellaneous | 20.28 |
| Barn | 1370.75 |
| Office Expense | 19.32 |
| Books | 24.00 |
| Freight | <u>60.99</u> |
| Total Expenditure | \$ <u>6628.95</u> |
| Income | 1979.12 |

GENERAL WELFARE.

The regular annual meeting of the Pension Department and Welfare Club was held at Mr. Mather's Cottage on January 20th, 1915.

During the year I have visited the other Departments, looking after the matter of safety work and have had frequent consultations with them.

The attached statements show the comparative cost for the last five years of the special work, including the matter of safety. The reports are for the following Departments:

Mining Department
Railroad Department
Furnace Department
Lumbering Department
Land Department.

INCAPACITATED EMPLOYES.

There have been a few cases which required special attention.

August Larson, now living at Rockford, Illinois; donation payment has continued through the year.

Special payment has also continued to Julius Larson, who has never fully recovered from an injury at the Cliffs Shaft Mine; and also to Fred Fredette, who has never recovered from an injury at the Negaunee Mine.

Thomas Hollow, employed at the Maas Mine, lost the sight of both eyes through cataract, and we rendered assistance to him in having an operation performed on his eye at St. Luke's Hospital at Marquette. The sight of one eye was recovered. He is at work and later the other eye will be operated upon.

Alex Cleven, who had been employed nearly twenty years at the Lake Mine, became incapacitated through vertigo and heart trouble. We have kept careful oversight of his family, which consists of his wife and eight children. A collection was taken up for him by his friends at the Lake Mine and with the assistance rendered by the County Poor Commissioner they have got along up to this time but will need some special assistance in the spring of 1916.

CLUBS.

The Cleveland-Cliffs Mining Club continued with interesting meetings through the winter. The annual picnic was held at the Pescheke river on August 22nd, with a large attendance, the men going to the picnic grounds in automobiles.

SCHOOLS.

We have kept more or less in touch with the school officials in various ways during the year. The school suffered a great loss on May 18th, Mr. E. E. Scribner dieing suddenly at the Grammar School building. He has been succeeded by Mr. C. L. Phelps, who has been principal at Calumet and who was formerly principal of the Ishpeming High School. The general reports of the school work are very satisfactory.

MUNISING PAPER MILL

I have visited the paper mill at different times and consulted with the officials and went over fully with Mr. Strong the matter of some improvements in the conditions surrounding the houses of employes near the mill.

GENERAL CONDITIONS.

In the spring some survey was made of the conditions in the Carp River flats at Ishpeming, with reference to the floods which have prevailed for the last few years, or since the L. S. & I. Ry., was extended to North Lake. There is a 10" pipe under the track but in the flood time it does not seem to be sufficiently large to take care of the water, which formerly flowed across this ground without interruption. The bed of the river had been cleaned from the point at which the Ishpeming sewer enters to the outlet of the river into Deer Lake and as the 1915 spring thaw was quite gradual there was very little trouble from flood conditions. If a large amount of snow should move off quickly with heavy rains it is to be expected that flooded conditions would again prevail.

Some consideration has been given to the needs of the people at North Lake, which is at a considerable distance from town, and the men have very little to keep them occupied during the winter. In the summer time they are quite generally interested in their gardens, but having spare time on their hands in the winter there is some trouble by the men trying to provide for this by bringing in liquor and thus making the conditions not good as they should be. A small building in which the men could spend their evenings and which might be cared for by a barber who could have his shop in the building, would be a very desirable thing. I believe that such a building would serve a very good purpose and would make the whole matter very much more easily controlled. This need be only a small building which could be maintained at a very small expense. I believe that the matter should be further investigated and some provision made for this if possible.

We have had some consultation with Mr. Bush at Republic in regard to the old building which was formerly used as a town hall and for fire apparatus. The township board is using a part of the building but there is a good size hall remaining vacant which would make a very desirable room for use of the men of the town. Mr. Mennie looked over the building and has made an estimate that repairs, without painting, would cost perhaps from \$400 to \$500 to put this part of the building in good shape. I believe that the work at Republic would be helped by rooms of this kind and think that arrangements could be made for their care which would make it a desirable feature.

H. H. Moulton

STATEMENT OF EXPENSES OF PENSION DEPARTMENT

FOR FIVE YEAR PERIOD FROM JANUARY 1ST, 1911 TO DECEMBER 31ST, 1915.

| ACCT. NO. | | 1911 | 1912 | 1913 | 1914 | 1915 |
|-----------------------|--|----------|----------|----------|----------|----------|
| A-1 | Salaries of Superintendent of Pension Department and assistants | 3646 50 | 3409 19 | 3754 70 | 3822 26 | 3570 00 |
| B | Prizes to tenants and employes for Best Kept Premises, gardens, etc. | 774 00 | 894 00 | 609 38 | 947 25 | 671 25 |
| C | All expenses of Supt. of Pension Department including travelling expenses and livery | 577 56 | 312 65 | 517 37 | 481 72 | 417 48 |
| D | Salary and expenses of Visiting Nurse - Ishpeming | 1143 94 | 1143 04 | 1177 03 | 1135 24 | 1155 48 |
| | Rest Cottage - Deer Lake | 482 89 | 270 23 | 358 45 | 625 56 | 572 40 |
| | Salary and expenses of Visiting Nurse - Negaunee | 362 50 | 1033 60 | 927 01 | 1012 82 | 1077 64 |
| | Salary and expenses of Visiting Nurse - Gwinn | 752 80 | 1068 14 | 1129 78 | 1191 03 | 1174 56 |
| E | Apparatus, Express and Freight | 113 35 | 43 22 | 30 33 | 63 87 | 21 17 |
| F | Miscellaneous Expenses | | | | | |
| | Tina Lehtinen, Care at Gwinn Hospital | 150 00 | | | | |
| | Books, cuts, magazines, papers, etc. | 218 21 | 51 62 | 11 38 | 9 25 | 17 00 |
| | Leader of Gwinn Band | | 103 33 | | | |
| | Peter A. Anderson - Assistance previous to pension | 45 00 | | | | |
| | Land Department Account - Auto for Warren H. Manning | 5 00 | 5 00 | | | |
| | Expenses of Housing Committee | 541 23 | | | | |
| | Mr. Belden's expenses, National Civic Fed. Meeting, N. Y. Jan. 12-24, 1911 | 17 80 | | | | |
| | Incidental Expense - Mining Department | 20 06 | 48 25 | 16 67 | | |
| | Incidental Expense - To Treasurer | 88 00 | 75 50 | 60 00 | 58 15 | 33 00 |
| | Donations to Incapacitated Employes | | | 712 75 | 266 40 | 169 92 |
| | Other Donations | | | 60 00 | | 196 24 |
| | Membership in Associations | | | | 80 00 | 130 00 |
| G | Employe's Clubs | | | | | |
| | Bowling Alley and Club Work | 40 60 | 50 70 | 42 45 | 62 46 | 66 90 |
| | Tennis Courts - Ishpeming, Negaunee and Gwinn Districts | 78 77 | 48 89 | 42 97 | 4 74 | 11 21 |
| | Phonograph - 200 records - making record case -- For Club at Ishpeming | | 107 96 | | | |
| | Superintendents lunches and incidentals | 83 50 | 13 30 | 17 40 | 34 57 | 30 36 |
| | Gwinn Club House | 3677 48 | 3327 29 | 3267 19 | 3162 17 | 2969 47 |
| | Ishpeming Y. M. C. A. | 1680 00 | 1680 00 | 1680 00 | 4999 29 | 1680 00 |
| | Gwinn Club Moving Pictures - Equipment and installation | | | | 828 11 | |
| H | Office Expense | | | | | |
| | Stationery, Office Supplies and Expenses - To Treasurer | 132 08 | 91 60 | 115 31 | 112 06 | 144 98 |
| | Stationery, Office Supplies and Expenses - Mining Department | | | 118 50 | | 91 85 |
| | Office Furniture and Equipment | | 129 58 | 58 55 | 121 58 | 22 50 |
| | Postage | 55 00 | 54 50 | 68 00 | 83 00 | 76 76 |
| | Pension System Stationery and Pension Booklets | | 127 43 | | | |
| SCHOOL OF INSTRUCTION | | | | | | |
| I-1 | Salary of Instructor | | 800 00 | 1587 12 | 2340 00 | 2260 00 |
| I-2 | Travelling expenses, livery, printing, stationery, etc. | | 691 60 | 329 04 | 772 71 | 403 00 |
| TOTAL | | 14686 27 | 15581 02 | 16691 38 | 22214 24 | 16963 17 |
| DISTRIBUTION | | | | | | |
| | Mining Department | 5420 29 | 6870 90 | 7666 77 | 12201 04 | 11718 05 |
| | General Expense - To Treasurer | 4830 70 | 4167 86 | 4615 64 | 4831 89 | 250 60 |
| | Land Department | 5 00 | 5 00 | 12 00 | | 122 48 |
| | Furnace Department | | | | | 402 83 |
| | Lumbering Department | | | | | 325 18 |
| | Gwinn District Office Expense | 4430 28 | 4537 26 | 4396 97 | 5181 31 | 4144 03 |
| TOTAL | | 14686 27 | 15581 02 | 16691 38 | 22214 24 | 16963 17 |

THE CLEVELAND-CLIFFS IRON COMPANY.

PIONEER IRON COMPANY.

FURNACE DEPT.

COMPARATIVE STATEMENT OF GENERAL WELFARE

EXPENSES FOR THE YEARS 1911 TO 1915 INCLUSIVE.

| | 1911 | 1912 | 1913 | 1914 | 1915 |
|---------------------------------------|----------------|----------------|----------------|----------------|----------------|
| General Welfare Acct. #11 | | | | | |
| A-2 Prop. charged by Treasurer | | 586 00 | 534 59 | 444 59 | 526 61 |
| b. Prizes to tenants, etc. | 50 00 | 50 00 | 50 00 | 50 00 | 50 00 |
| d. Visiting Nurse | 300 00 | 300 00 | 300 00 | 300 00 | 300 00 |
| f. Miscellaneous Expenses | 50 00 | | | | |
| Gladstone Club | | | | | |
| Total Cost of Operation | (3405 79) | (3857 96) | (4587 49) | (3586 95) | (4226 81) |
| Net Loss or Gain | 602 23 | 111 98 | 122 30 | 411 90 | 69 53 |
| Donations | | | | | |
| Churches | | 25 00 | 40 00 | 55 00 | 25 00 |
| Fire Department | 20 00 | 60 00 | 10 00 | 10 00 | 10 00 |
| Societies | 215 00 | 65 00 | 39 00 | 50 00 | 140 00 |
| Celebrations | 70 00 | 41 00 | | | |
| Persons | | 254 50 | 21 00 | 25 00 | 62 78 |
| Miscellaneous | | | | | 50 00 |
| Institutions - St. Lukes Hospital | | | | | 300 00 |
| Pensions | | | | | |
| Pensions Paid | 388 20 | 448 20 | 448 20 | 448 20 | 448 20 |
| Safety Work | | | | | |
| Charges for Safety Work and Equipment | 524 28 | 1245 23 | 502 40 | 2525 00 | 3 32 |
| Compensation | | | | | |
| Compensation Paid | | 13 20 | 96 96 | 31 31 | 603 66 |
| TOTALS | 2219 71 | 3200 11 | 1919 85 | 4351 00 | 2589 10 |

Compensation payments - Percentage of Payroll

Pioneer Iron Co.

.000371

.00141

The Cleveland-Cliffs Iron Co.

.000000

.00541

THE CLEVELAND-CLIFFS IRON COMPANY

RAILROAD DEPARTMENT

COMPARATIVE STATEMENT OF GENERAL WELFARE

EXPENSES FOR THE YEARS 1911 TO 1915 INCLUSIVE.

| | 1911 | 1912 | 1913 | 1914 | 1915 |
|---------------------------------|----------------|----------------|----------------|----------------|----------------|
| Prizes to tenants | 24 00 | 24 00 | 25 00 | 25 00 | 25 00 |
| Donations | | | | | |
| Fire Department | 25 00 | 35 00 | 35 00 | 20 00 | 25 00 |
| Societies | | 15 00 | 23 00 | 2 50 | 5 00 |
| Celebrations and Entertainments | 45 16 | 91 00 | 132 45 | 13 00 | 9 00 |
| Visiting Nurse - Marquette | 120 00 | 120 00 | 120 00 | 120 00 | 120 00 |
| Munising Hospital | | | 150 00 | 150 00 | 150 00 |
| St. Luke's Hospital | | | | | 200 00 |
| Safety Work | | | | | |
| Equipment and Work | 2718 36 | 775 51 | 197 24 | | |
| Compensation | | | | | |
| Compensation Paid | | 550 38 | 3143 15 | 2174 48 | 3937 59 |
| Hospital and Medical Service | | 156 03 | 1293 31 | 842 37 | 746 50 |
| TOTALS | 2932 52 | 1766 92 | 5119 15 | 3347 35 | 5218 09 |

Percentage of Payroll

.0093

.0127

Note:-

\$900.00 of the amount charged to L.S. & I. Ry. was in settlement of all claims for an injury to John Pantilla in 1911, paid in 1914.

THE CLEVELAND-CLIFFS IRON COMPANY

LAND DEPARTMENT

COMPARATIVE STATEMENT OF GENERAL WELFARE

EXPENSES FOR THE YEARS 1911 TO 1915 INCLUSIVE.

| | 1911 | 1912 | 1913 | 1914 | 1915 |
|---------------------------------------|----------------|----------------|----------------|----------------|----------------|
| General Welfare Account #11 | | | | | |
| A-2 Prop. charged by Treas. | | 157 13 | 154 40 | 197 84 | 163 85 |
| " general welfare work | | | | | |
| b. Prizes to tenants, etc. | | | | | 55 00 |
| Munising | | | | | |
| c. Travelling expenses | | | | | |
| Housing Committee | 204 71 | | | | |
| d. Rest Cottage | | | 12 00 | | |
| Equipment | | 30 00 | | | |
| 1/2 expenses of rink and tennis court | | | | | |
| Donations | | | | | |
| Churches | | 50 00 | | | |
| Fire Department | 15 00 | 15 00 | 15 00 | 25 00 | 10 00 |
| Societies | | 75 00 | 10 00 | | |
| Celebrations | | 10 00 | 10 00 | | |
| Munising Hospital | 125 00 | 160 00 | 160 00 | 160 00 | 150 00 |
| Munising Y.M.C.A. | 900 00 | 900 00 | 900 00 | 900 00 | 900 00 |
| Playground - Negaunee | | 10 00 | 10 00 | 10 00 | 10 00 |
| American Red Cross Ass'n. | | | | | 10 00 |
| Safety Work | | | | | |
| Charges for Safety Work and Equipment | 27 41 | 27 41 | | | 86 62 |
| Compensation | | | | | |
| Office Expense | | | | | |
| Compensation Paid | | | 451 00 | 838 37 | 160 47 |
| Medical Attendance | | | 311 90 | 231 92 | 394 03 |
| TOTALS | 1272 12 | 1434 54 | 2043 30 | 2363 13 | 1939 97 |

Percentage of Payroll

.0094 .00579

ANNUAL REPORT
(1915)
OF THE
EDUCATIONAL DEPARTMENT.

During the year 1915 the Educational Department was concerned with two groups of men. The first of these, representing the mines of the Ishpeming and Negaunee districts, completed its work on June 1st. The second group, representing the mines of the North Lake and Gwinn districts, began its work in September. Part I of this report reviews the work of the Ishpeming-Negaunee group and part II that of the North Lake-Gwinn group.

Part I.

In January 1914, 38 men, selected by the superintendents and mining captains of the Negaunee and Ishpeming districts, began the work offered by the department and of these 34 completed the work successfully. Below in table I is given the names of those who were granted the diploma offered by the department, together with their nationality, occupation, age at the time of beginning the course, number of classes attended and previous schooling.

Table I.

| Name | Birthplace | Occupation | Age | Classes Attended | Previous Schooling |
|-------------------|---------------------|----------------------|-----|------------------|--------------------|
| | (Cliffs Shaft Mine) | | | | |
| Errkila, Nestor | Finland | Shift boss | 29 | 103 | None |
| Glanville, John | England | Miner | 26 | 99 | 1 year |
| Harris, Wesley | America | Blacksmith | 27 | 95 | 2 years |
| Larson, Chas. | America | Miner | 40 | 101 | 2 " |
| Latunen, Elias | Finland | " | 34 | 102 | 1 " |
| Maiden, Wm. J. | England | " | 39 | 104 | 3 " |
| Schadt, Otto B. | America | Shift boss | 50 | 93 | 4 " |
| Tervo, John H. | Finland | Electrician's helper | 22 | 105 | 3 " |
| | (Lake Mine) | | | | |
| Freethy, John | America | Shift boss | 43 | 102 | 5 " |
| Mandley, Edw. | " | Miner | 26 | 101 | 3 " |
| Skewis, Herbert | " | " | 33 | 93 | 4 " |
| Traise, Richard | " | Shift boss | 28 | 106 | 6½ " |
| Wilcox, Robert | " | Miner | 32 | 105 | 6 " |
| Wilcox, Wm. | " | " | 26 | 96 | 7 " |
| Williams, Harclus | England | " | 33 | 98 | 5 " |
| | (Salisbury Mine) | | | | |
| Comish, Thos. | America | Shift boss | 22 | 97 | 4 " |
| Creer, Oscar | " | Timberman | 21 | 102 | 7 " |
| Corlett, Thos. | " | Miner | 22 | 98 | 3 " |

Table I. (continued)

| Name | Birthplace | Occupation | Age | Classes Attended | Previous Schooling |
|---------------------|-----------------|-------------|-----|------------------|--------------------|
| Cheyneweth, Francis | England | Miner | 32 | 95 | 3 years |
| Hill, Wm. E. | Finland | Trammer | 26 | 98 | 2 months |
| Kirschner, Thos. | America | Miner | 32 | 106 | 4 years |
| Kennaugh, Wm. | England | Shift boss | 45 | 104 | 5 " |
| Prudom, Fred H. | America | " " | 38 | 104 | 10 " |
| Quayle, John J. | England | Miner | 35 | 94 | 5 " |
| Saccoccia, Antonio | Italy | " | 31 | 94 | 3 " |
| | (Maas Mine) | | | | |
| Easterbrook, Thos. | England | Shift boss | 34 | 105 | 6 " |
| Gambotto, Jos. | Italy | " " | 31 | 105 | 6 " |
| Hawke, Jas. | England | " " | 41 | 98 | 2 " |
| | (Negaunee Mine) | | | | |
| Erickson, Victor | Sweden | Timber boss | 30 | 105 | 6 " |
| Frederickson, John | " | Shift boss | 31 | 102 | 4 " |
| Hares, Noah | England | " " | 37 | 102 | 4 " |
| Tregoning, John | America | " " | 28 | 103 | 5 " |
| Uren, Richard | England | " " | 34 | 105 | 8 " |

(One hundred eight classes constituted perfect attendance)

Promotions. In so far as practicable all promotions have been made from the ranks of the Mining School. The following men received promotions previous to the close of the year.

1. Otto Schadt, pipeman, Cliffs Shaft Mine, promoted to shift boss at the same mine.
2. Wesley Harris, blacksmith's helper, Cliffs Shaft Mine, promoted to head blacksmith, Holmes Mine.
3. Richard Traise, miner, Lake Mine, promoted to shift boss at the same mine.
4. Thos. Comish, miner, Salisbury Mine, promoted to shift boss at the same mine.
5. Jos. Gambotto, sampler, Maas Mine, promoted to shift boss at the same mine.
6. Henry F. Rogers, miner, Maas Mine, promoted to shift boss at the Negaunee Mine.
7. John Tregoning, shift boss, Negaunee Mine, promoted to Mining Captain, Athens Mine.
8. John H. Tervo, trammer, Cliffs Shaft Mine, promoted to electrician's helper, Negaunee Mine.

Men Leaving Service. The following men left the service of the Company after the completion of their course.

Thos. Easterbrook, formerly shift boss at the Maas Mine, now shift boss at a mine located near Iron River.

Oscar Greer, formerly timberman at the Salisbury Mine, now employed in a machine shop, Hartford, Conn.

Wm. E. Hill, formerly trammer at the Salisbury Mine, now in business, Ishpeming, Mich.

Age, Nationality and Previous Schooling of the Men. The average age of the first group was 32 years at the time of beginning the course. The youngest student was 22 and the oldest 50 years of age.

The nationality of the men was as follows:

| | |
|-----------------------|----|
| American born----- | 14 |
| English " ----- | 12 |
| Finnish " ----- | 4 |
| Swedish " ----- | 2 |
| Italian " ----- | 2. |

The average number of years spent in school previous to attending the Mining School was 4.3 years. The range of time previously spent in school varied between two months and ten years.

Care Used In Selection of Men. The men of this group were selected on the basis of their personality, physique and health, age, reliability, industry and ambition. The selection was in the main well made in that each man was efficient in the particular work at which he was employed when selected. One of the very evident weaknesses, however, in a number of the men was their deficiency in general underground experience. One actual example of this will be cited. A miner with 12 years underground experience had worked continuously in sub-level work and knew practically nothing of rock drifting, shaft sinking, timbering or sampling. Yet this man was ambitious to become a shift boss and insisted that since his mining experience had covered a long period of years he should be considered for the position. It was explained to such men that they should accept every opportunity to broaden their experience in all lines liable to come under their supervision as a shift boss and that until such experience was acquired it would be unreasonable to expect promotion. The cooperation of the mining captains, necessary for these men

to secure more varied experience, has been secured in these cases where the men gave promise of ultimately becoming good shift bosses.

The American Type versus the "Old Country" Type of Workmen. One of the interesting features of the school work, in so far as the present experience of the department may be considered conclusive, has been the very evident superiority of the American workmen over what may be called the "Old Country" type. The American type may be defined as those of American birth and also those of foreign birth who emigrated to this country when young, thereby enabling them to obtain their early mining experience in this country. The "Old Country" type may be defined as those who grew to manhood abroad and may or may not have obtained mining experience in foreign countries. Due consideration is given to the fact that the genius and experience of the latter class has in the past contributed largely to successful mining operations on the Marquette Range, and that some of our present mining captains and shift bosses of proven efficiency are of this type. It should not be overlooked, however, that in the more recent years the supply of the higher grade "Old Country" type has rapidly declined. The first group of men taught by this department was about equally divided between the two types. Of these the American type were almost invariably more versatile, had a clearer idea of modern mining methods, a better fundamental education, were more open-minded and possessed a loyalty for the interests of the Company at least on a par with that of the "Old Country" type. Mining at present, in so far as this Company is concerned, is at a high standard of efficiency and that it is desirable to have underground executives trained in and accustomed to this standard of efficiency would seem to need no argument.

Character of Course and Method of Instruction.

The Unit Course. The system of instruction known as the unit course, in which only one subject is taught at a time, was used exclusively in the instruction of the first group and proved to be better suited to the needs than the usual system of teaching several subjects coincidentally. The merit in the unit course lies in the fact that the instruction in any particular

course covers the shortest possible period of time, thereby concentrating the attention of the men on the subject under consideration to such an extent that the relation of succeeding lessons to each other is not forgotten. The unit course has another desirable feature in that a machinist, for instance, may attend the units in mathematics and mechanical drawing and not attend the courses given on underground topics.

Instructional Features not Included in Outline of Course. In addition to the instruction given in the subjects listed below, attention was given to those personal qualifications so desirable in underground executives in their relations with the men they direct and with the Company. As this department views the matter a shift boss should have a true appreciation of the relation existing between his own efficiency and the success of the organization as a whole. He must realize that upon him rests the responsibility of securing the maximum output from his territory at minimum costs and this with a due regard for the safety of his men. He must be fair and impartial in his dealings with the men, entirely uninfluenced by such considerations as petty favors or nationality, and at the same time honest and reliable in his dealings with the Company. He must be a man of such broad experience and knowledge that he inspires entire confidence in the men who work for him. He must be a man of rigid discipline, accomplished through quiet but effective speech rather than by continual nagging and profanity. He must be an organizer with the ability to judge men so that he can put the right man in the right place. In short, the department has attempted to lift the position of shift boss from "just a job" to a position of honor and trust to which only real men need aspire.

In addition to the outlined course the instructor gave many short talks on practical mining subjects, elaborating in so far as practicable on the technical features in which men untrained in technical matters are usually inquisitive but in doubt. These talks invariably led to discussions in which the interchange of ideas was of value not only to the men but to the instructor as well.

During the latter part of their course each of the men were required to write a paper once each month on some practical mining subject, the idea being to stimulate independent thinking and good English. In many cases these papers were very commendable as to text and composition.

Desirability of the First Course. The department believes that school instruction and practical mining instruction are closely bound up in each other and that one without the other would not satisfy the needs of the Mining School. If both are given due consideration and a balanced ration given the men, so far as their instruction goes, the maximum of interest and profit is secured. The first course was outlined on this basis and no change in subjects is contemplated in the instruction of the other groups of men. However, experience proved that many changes in the instruction papers was desirable and this will be done before using them in succeeding courses.

Outline of Study. The following outline of courses was adhered to:-

1. Arithmetic
2. Elementary Drawing
3. Geometrical Drawing
4. Mechanical Drawing
5. Geology
6. Construction and Use of Mine Maps
7. First Aid to the Injured
8. Time Keeping
9. Mine Sampling
10. Mining Methods
11. Business Correspondence.

A detailed description of the first five of these courses was given in the annual report of this department for 1914. A detailed outline of those courses taught during 1915 is given below:-

The Construction and Use of Mine Maps. In this course it was desired to teach the fundamental details of map construction with a view to facilitating the student's interpretation of the maps supplied to him by the Engineering Department. The experience of our Engineering Department indicates that there is a definite need for instruction of this character. The course was based on a mimeographed instruction paper which follows the outline given below;

- A. The Use of a Compass.
1. Description of compass.
 2. Degree of accuracy secured in compass work-magnetic attraction.
 3. The reason for reversing the east and west points of the dial on the compass.
 4. The method of procedure in using a compass.
 5. Problems illustrating the use of a compass in sub-level work.
- B. The Use of a Clinometer.
1. Determination of the angle for putting up a raise and use of the lines given for a raise by the engineers.
- C. Templates for Track Curves.
1. The grades of tracks.
 2. Use of a hand level and track level.
- D. Description of the Protractor and Engineer's Scale.
- E. The Construction of Maps.
1. Coordinates.
 2. The relation of the coordinates of a sub-level to those of the sub-level above and below.
 3. The scale of mine maps with sufficient problems to enable the student to take distances from the maps.
 4. The zero point or origin of a survey.
 5. Government surveys.
 6. The explanation of the use of cross-hatching in constructing mine maps, also coloring.
 7. Problems in mine mapping.
- F. Mine Levels.
1. Sea level datum.
 2. The use of an arbitrary datum plane.
 3. The proper use of elevations, supplied by the engineers, at the top of each raise. The disadvantages of having sub-level drifts meet off level.
- G. General Considerations in the Use of Mine Maps.
1. Systematic sub-level work in relation to efficiency in handling timber and supplies.
 2. The relation of systematic sub-level work to maximum recovery of ore.
 3. The relation of systematic sub-level work to the safety of miners and its relation to the ventilation of a sub-level.
 4. Procedure in locating a block of ore which has been lost on the sub-level above.
 5. Assay maps and their use.
 6. Use of maps in holeing into or connecting with other workings, whether abandoned or where men are at work.

First-Aid to the Injured. The work of first-aid to the injured has taken a place of such importance in mining that it would seem unnecessary to elaborate on the reasons for including instruction thereon in a course of this character. This work was given through the medium of lectures, which followed the following outline:

1. The history of first-aid work and its aims and purposes.
2. The structure of the body.
3. Description of the various types of bandages used in first-aid work.
4. Description of wounds and prevention of infection, the treatment of shock and the use of stimulants.
5. The circulation of the blood and the control of hemorrhage.
6. Bruises, sprains, dislocations and burns.
7. The treatment of fractured bones.
8. Respiration and the standard methods of inducing artificial respiration.

Time-Keeping. In view of the fact that our Company is selecting its new shift bosses from the ranks of the Mining School it was important that the students be instructed on the methods of time-keeping. This subject was presented to the students in the form of a mimeographed instruction paper which explains in detail the system of time-keeping used by The Cleveland-Cliffs Iron Company.

Mine Sampling. The instruction in this subject followed the outline given below:

- A. Theory, and importance of close attention.
- B. Methods of application in use by The Cleveland-Cliffs Iron Company, in:
 1. Drifts
 2. Stopes
 3. Raises
 4. Mine cars
 5. Skips
 6. Railroad cars
 7. Steam shovel loading
 8. Stockpiles.

C. Treatment of samples.

1. Labelling
2. Crushing and drying
3. Quartering
4. Bucking-down.

Mining Methods. This subject was presented to the students in a mimeographed instruction paper covering the methods of mining common to the iron ranges of the Lake Superior District. The course followed the following outline:

1. General principles governing the selection of a mining method.
 - (a) Open cut mining.
 - (b) Steam shovel mining.
2. Method of mining medium and hard ores.
 - (a) Milling.
 - (b) Underhand stoping.
 - (c) Back stoping, Case 1 and 2.
 - (d) Block caving, Case 1 and 2.
 - (e) Sub stoping.
3. Method of mining soft ores.
 - (a) Room and pillar square set.
 - (b) Room and pillar square set using filling.
 - (c) Top slicing one set high.
 - (d) Top slicing two sets high.
 - (e) Sub caving, Case 1 and 2.
4. Detailed description of the methods of mining used by The Cleveland-Cliffs Iron Company in the Negaunee, Ishpeming, North Lake, Republic and Gwinn districts.

Business Correspondence. In view of the students' inexperience in business correspondence it was thought advisable as a final course to instruct them in the art of writing a good business letter. This subject was presented to the students in a mimeographed instruction paper, each student being required to write at least 12 business letters which were graded by the instructor for neatness and their conformability to established forms and customs in business correspondence.

PART II.

NORTH LAKE - GWINN GROUP.

In September of the year the department began its work with a group of 33 men selected from the North Lake and Gwinn districts.

The department insisted on the greatest possible care being used in the selection of this second group, avoiding in all cases men known to possess characteristics which would disqualify them for promotion. Due to these rigid requirements the total initial attendance was undoubtedly smaller than would otherwise have been the case but as a result of this careful selection the men receiving instruction are a serious minded lot, eager to improve themselves, and their preliminary education ranks better than that of the preceding class.

Below in table I is given the names, birthplace, occupation, age and previous schooling of the men who were in regular attendance at the close of the year.

Table I.

| Name | Birthplace (Morris-Lloyd Mine) | Occupation | Age | Previous Schooling |
|-------------------|-----------------------------------|-----------------|-----|-----------------------|
| Bray, Cecil | England | Machinist | 30 | 6 Years |
| Carlyon, Ernest | Canada | Head Timberman | 34 | 9 " |
| Erickson, Albert | America | Electrician | 26 | 7 " |
| Haikins, Thos. | " | Pipeman | 24 | 8 " |
| Hailala, John | Finland | Surface Laborer | 27 | 11 " |
| Hill, Geo. | " | Timberman | 21 | 4 " |
| Johnson, Jas. | America | Surface Laborer | 22 | 8 " |
| Lindholm, Reuben | " | Machinist | 23 | 7 " |
| Nault, Wm. | " | Shift boss | 30 | 7 " |
| Ryan, Thos. F. | " | Brakeman | 25 | 9 " |
| Tamblyn, Alfred | England | Machinist | 24 | 7 " |
| Tippett, Thos. | America | Shift boss | 30 | 8 " |
| " Walter | " | Skip Tender | 20 | 7 " |
| " Wm. | " | Shift boss | 32 | 3 " |
| (Francis Mine) | | | | |
| Anderson, Godfrey | Sweden | Pipeman | 29 | 2 $\frac{1}{2}$ " |
| Andrews, Jos. | England | Shift boss | 33 | 5 " |
| Pearce, John | " | Blacksmith | 35 | 7 " |

Table I. (continued)

| Name | Birthplace | Occupation | Age | Previous Schooling |
|-------------------|-------------------|--------------|------|-----------------------|
| | (Gwinn Mine) | | | |
| Bailey, David | America | Motorman | 23 | 4 Years |
| Blomquist, Agnar | " | Sampler | 30 | 5 " |
| Dabbs, Wm. J. | " | Cage Rider | 25 | 3 " |
| Fagerberg, Harold | " | D. D. Helper | 21 | 12 " |
| Field, Hugo | " | Pufferman | 27 | 8 " |
| Goyen, Wm. | " | Shift boss | 37 | 5 " |
| Hill, Carl | " | Miner | 20 | 7 " |
| Lundberg, Gust | " | " | 23 | 8 " |
| Nordeen, Peter | Sweden | Shift boss | 37 | 6 " |
| " Andrew | " | Miner | 28 | 5 " |
| Weeks, Henry | America | Skip Tender | 25 | 6 " |
| | (Stephenson Mine) | | | |
| Bone, Eldred | America | Timberman | 26 | 10 " |
| Dabbs, Jas. | " | Shift boss | 29 | 8 " |
| Johns, Wm. | " | " " | 29 | 4 " |
| Truscott, John | England | Miner | 35 | 4 " |
| Bailey, Ernest J. | America | Shift boss | 28 | 5 " |
| | | AVERAGE | 27.2 | 6.3 " |

Character of Instruction. The work given this group during the year followed the same general outline as that given the preceding group. To give additional interest to the work short talks on practical mining subjects have been given at the close of each instruction period, these being a strong factor in the maintenance of attendance.

Appreciation. The department is pleased to report that the men at various times have expressed their fullest appreciation for the opportunity afforded them by the Company, through the medium of the school, to improve their educational attainments. In appraising the value of the school work, the value of this feature in the stimulation of loyalty should not be overlooked.

Recommendations. This group should complete its work about March 1st, 1917. Granting that the men have been well selected it would seem that the requirements of the Company for shift bosses in its principal mining centers will have been met at this time. Additional groups ~~were~~ instructed thereafter might maintain their interest in the hope of improving their efficiency as workmen, however the strongest factor we now have for promoting interest, that of possible promotion, would be, to a certain extent, absent

and it is doubtful therefore if succeeding groups could be successfully instructed. It is therefore recommended that the officials of the Company immediately consider what disposition of the Educational Department should be made after the completion of the work being given to the North Lake and Gwinn groups.

Distribution of Expenses.

| | |
|---|------------------|
| Salaries | \$2260.00 |
| Office expense and supplies | 37.77 |
| Instruction Papers | 54.09 |
| Suppers | 63.64 |
| Expenses of Director | 191.65 |
| Furniture and equipment | 22.15 |
| Jackson School(Light, Janitor and heat) | 30.70 |
| Miscellaneous | 3.00 |
| Total | <u>\$2663.00</u> |

Respectfully submitted,



Educational Director.

REPUBLIC MINE RELIEF FUND
 COST OF OPERATING HOSPITAL FOR THE YEAR 1915.

| | | |
|-----------------------------------|----------------|----------------|
| Balance on hand January 1st, 1915 | \$ 515.54 | |
| Total Receipts for the year | <u>4350.48</u> | |
| Total | | \$ 4866.02 |
| Expenditures during the year | | <u>4981.41</u> |
| Debit Balance | | \$ 115.39 |

* * * * *

RECEIPTS

| | | |
|--|--------------|---------|
| Collections from men at \$1.20 per man per mo. | \$ 3939.00 | |
| From Company - 10cents per man per month | 328.20 | |
| Collections from men during injury | 23.10 | |
| From Dr. Loveland - for drugs, etc. | <u>60.18</u> | |
| Total | | 4350.48 |

EXPENDITURES

| | | |
|---------------------------|-------------|--|
| Physician | 2328.55 | |
| Secretary | 30.00 | |
| Janitor | 240.00 | |
| Payment for clerical work | 33.60 | |
| Nursing | 157.50 | |
| Benefits to Injured Men | 621.40 | |
| Electricity and Lamps | 84.84 | |
| Fuel | 143.85 | |
| Water | 12.00 | |
| Taxes | 23.50 | |
| Provisions | 3.40 | |
| Telephone | 48.00 | |
| Drugs | 838.68 | |
| Repairs | 125.35 | |
| Equipment | 33.15 | |
| Kitchen Supplies | 20.56 | |
| Hospital Supplies | 76.26 | |
| Express and Freight | 57.31 | |
| Artificial Limb | 100.00 | |
| Miscellaneous | <u>3.46</u> | |

\$ 4981.41

| | | |
|---|--------------|----------|
| Balance as above | \$ 115.39 | |
| December item - Not received in time for 1915 business | <u>74.70</u> | |
| Ledger Balance - December 31st, 1915 | | \$ 40.69 |

REPUBLIC MINE SICK BENEFIT FUND

FOR THE YEAR 1915.

| | | |
|-------------------------------------|-------|---------------|
| Balance on hand January 1st, 1915 | | \$ 148.55 |
| Total Receipts During the Year | | <u>692.20</u> |
| | Total | \$ 840.75 |
| Expenditures during the year | | <u>392.40</u> |
| Balance on hand December 31st, 1915 | | \$ 448.35 |

* * * * *

RECEIPTS

| | |
|--|--------------|
| Collections from men at 20 cents per man per mo. | \$ 656.50 |
| Collections from men while sick | <u>35.70</u> |
| Total | 692.20 |

| | Number of Cases | Amount Paid |
|-----------|--------------------|----------------|
| January | 4 | 29.30 |
| February | 4 | 34.10 |
| March | 7 | 57.00 |
| April | 4 | 39.00 |
| May | 2 | 16.00 |
| June | 3 | 31.00 |
| July | 4 | 43.00 |
| August | 3 | 40.00 |
| September | 3 | 29.00 |
| October | 1 | 15.00 |
| November | 2 | 19.00 |
| December | <u>5</u> | <u>40.00</u> |
| Total | 42 | \$ 392.40 |

| | |
|---|-------------|
| Balance as above | \$ 448.35 |
| December item - Not received in time for 1915 business | <u>2.10</u> |
| Ledger Balance - December 31st, 1915 | \$ 446.25 |

REPUBLIC MINE FATAL ACCIDENT FUND.

| | |
|-------------------------------------|-------------|
| Balance on hand January 1st, 1915 | \$ 5732.79 |
| Payments during year | <u>0.00</u> |
| Balance on hand December 31st, 1915 | \$ 5732.79 |

There are no collections made on account of this fund.

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.

I desire again to express my appreciation of the hearty cooperation and assistance of the various heads of departments. During my illness last fall no set of men could have worked harder or accomplished more. This is not only true of the heads of departments, but also of the other officials of the Company.

.....*W. H. Sullivan*.....
Agent.

