was underway at the end of the year. The new permanent buildings were started in May and the construction lines and grades were checked. Such lines, grades and elevations as required for construction purposes were given.

A new survey was run in Section 2, 47-27 to locate the L. S. & I. Railroad track to the shaft and to assist in locating future exploration work. The relocation of three of the Golf course holes required some field work and the final lay-out was mapped. Plans were prepared for the future mine water discharge and certain outstanding rights acquired.

NEGAUNEE MINE

Surveys were made as required for the diamond drilling explorations East of the shaft. Lines and grades were given at No. 2 shaft for the new ventilating fan installation. The development of the 13th and 14th Levels required constant attention throughout the year.

PRINCETON MINE

Orders for reopening the Princeton Mine were received in October. Although this had been anticipated and tentative plans had been drawn, considerable work in the field was necessary. The water levels in the shaft and open pit were checked. Lines and grades were given for the new headframe and construction at No. 3 shaft. The headframe from the Gardner Mine shaft will be used at No. 2 shaft. Plans and estimates of cut and fill were made for stockpile area South and East of No. 2 shaft. This involved the removal of part of the old rock pile and the grading of adjacent lands. Grades and lines for a sewer from the new dry were given. Plans for the rearrangement of a part of the central power plant for dry purposes were prepared. Lines and grades were also given for the installation of a hoist in the same building for No. 3 shaft. Grades and lines were given for the temporary mine water discharge for use during unwatering operations.

SPIES-VIRGIL MINE

Lines for underground development and drilling were given as required during the year.

TILDEN MINE

The drilling and blasting of the various cuts in both pits were planned and surveyed as required during the operating season. A study of the East Pit was made as to the advisability of dividing the face into two benches. Estimates of future stripping in the East Pit were prepared and drilling and test-pitting done to secure the necessary data.

WEBSTER MINE

Three cross-sections were run at the Webster property between the old pits and the Portland Mine on the West. This work was done for the Geological Department in making a study as to the possibility of re-opening.

J. MISCELLANEOUS

BUNKER HILL MINING COMPANY

A map of this property was prepared for the Cleveland office early in the year. This map shows, in color, the various outstanding surface rights.

COAL

Estimates of coal in stock at the various mines were made in May.

SHAFT GAUGING

Owing to the constant operation of the mines throughout the year, it has been impossible to gauge the shaft runners at all the mines twice during the year. The following table shows the dates on which the shaft runners were gauged:

Mine	

Date

Athens	October 26th.
Lloyd	August 17th.
Negaunee	November 2nd.
Spies-Virgil	June 21st.

STOCKPILES

The ore in stock at the various mines was estimated and reported as of November 1st. The following table shows the comparison of ore in stock at the various Michigan mines between 1940 and 1941:

Mine	November 1, 1940	November 1, 1941	Difference
Athens	57,746	23,264	-34,482
Cliffs-Shaft	67,331	53,548	-13,783
Gardner-Mackinaw	51,301	-	-51,301
Lloyd	80,199	195,018	+114,819
Maas	125,763	88,657	-37,106
Negaunee	30,596	22,979	-7,617
Princeton	125,863	120,799	-5,064
Stephenson	29,831	7,597	-22,234
Spies-Virgil	168,353	87,916	-80,437
TOTAL	736,983	599,778	-137,205

During May, Messrs. Trosvig and Koski made the estimate of ore in stock at the Otis Steel Company plant in Cleveland. This was reported directly to the Cleveland office.

TAXES

The usual tax lists of the Mining Department and Cliffs Power & Light Company lands were prepared in the fall. The published delinquent tax lists were checked over in the spring and recommendations made for the protection of Company property.

TRIANGULATION SURVEY

The final measuring of the base line was done on April 30th. During the summer, as weather permitted, additional angles were read. Most of this information is now at hand for the final calculations. There is, however, some field work to be done in connection with tying in section corners.

CARP RIVER STORAGE BASIN NO. 2

The construction of the dam to raise the water elevation to 1390' required some surveys along the South line of the Basin, where the contours had not been run out previously. A check survey was run along the South side of the Basin and permanent survey stations established and tied in with the original surveys. Surveys were also made of areas to be acquired from outside parties and negotiations made for their purchase. The elevations around the Basin were checked from the Deer Lake Location to the new dam and were also run up to the new levee near Opin Lake. These elevations checked very closely with the originals of 1912.

VENTILATION

Ventilation surveys were made in all the operating mines in February and September.

UNDERGROUND WATER

The elevation of the water at the various test holes in the Maas-Negaunee Mines were measured weekly during the year. The following table shows the difference in the water table between December 27th, 1940 and December 29th, 1941:

	Elevation of Wa	ter	
Test Hole.	12-27-40	12-29-41	Difference
EW	1246.6	1239.8	-6.8
W2	1238.8	1235.6	-3.2
W5	1249.6	1242.7	-6.9
W9	1272.2	1267.1	-5.1
W13	1332.4	1321.2	-11.2
W14	1302.2	1296.6	-5.6
W15	1320.4	1310.1	-10.3
W16	1283.2	1275.6	-7.6
W18	1246.1	1242.4	-3.7
W19	1259.0 (2/24/41)	1248.1	-10.9
W20	1253.9 (3/3/41)	1249.8	-4.1
W21	1229.1 (5/5/41)	1229.0	-0.1
6A	1174.4	1177.2	+2.8
7	1179.7	1183.0	+3.3

Test holes W19 and W20 were put down in Section 6, 47-26 East of the cave adjacent to Well No. 3 and Well No. 4 was located near them. Test Hole No. W21 was put down North of the cave. Negaunce Well No. 1 pumped throughout the year about 220 gallons per minute. Maas Well No. 1 pumped about 350 gallons and Well No. 2 about 550 gallons per minute throughout the year. Wells No. 3 and 4 pumped intermittently. Our records show that No. 4 well has more effect on the water in the test holes than No. 3.

The following tables show the average monthly gallons per minute flowing to the pumps on the various levels of the Maas and Negaunee Mines in December 1940 as compared with December 1941:

		December	December	
Maas Mine		1940	1941	Difference
1st Level		98	55	-43
2nd Level		22	13	-9
3rd Level		353	310	-43
4th Level		271	296	+25
5th Level		218	192	-26
TOTAL		962	866	-96
Negaunee Mine				
9th Level		338	324	-14
10th Level		128	113	-15
11th Level	*	22	17	-5
12th Level		40	79	+39
13th Level		13	13 .	-
14th Level		-	-	-
TOTAL		541	546	+5

This shows that the underground water at the Maas Mine has decreased about 10% where that in the Negaunee Mine is about the same.

OFFICE HOURS

The office hours during the year were from 8:30 to 12:00 A.M. and 1:15 to 5:00 P.M. except for Saturdays when there was no afternoon work. HOLIDAYS

The following holidays were granted during the year:

January 1st July 4th and 5th September 1st November 20th December 24th December 25th December 31st New Years Day Independence Day. Labor Day Thanksgiving Day. Christmas Eve (2 day) Christmas Day. New Years Eve (2 day)

Carl Orever

Chief Mining Engineer

CB: DWC 2-4-42

CLIFFS SHAFT MINE:

Small jib cranes were installed at "A" and "B" shaft houses for handling material on the trucks.

The idler shaft on the picking belt broke on January 30th. A new shaft was made at the General Shops and installed with no delay to hoisting operations.

On February 2nd. the pans, pan chain and rollers were changed on the picking belt. The old set was repaired and kept as a spare.

The steel trestle on the "B" shaft end had a broken channel on the second bent from the shaft house. Repairs were made on March 9th. by electric welding. In August some repairs were made to the first bent on the "A" shaft trestle. It was about 3" low on the south side. Steel fillers were placed between the bent and girder to level the track. In October several cracks were discovered in this trestle. Repairs were made by electric welding.

In March the new shower room in the dry was completed.

On May 29th. the condition of the hoist drums became very bad and the crack in the "B" shaft drum started to lengthen. Two jacks were placed inside to support the shell and hoisting operations were delayed about $2\frac{1}{2}$ hours. A temporary crane was installed on Sunday, June 1st. to be ready for any emergency that might arise. The drums continued to get worse. On July 3rd. work started to change the sheals on both the "A" and "B" shaft drums. This was completed on July 10th. and both hoists are now in good condition.

Air filters are being installed in the intake of the air compressors.

A new heating boiler was installed in the new addition to the laboratory.

During the shut down for hoist repairs, a new bowl section was installed in the #8 crusher.

In December the adjusting bolt on the "B" shaft hoist drum broke, causing considerable trouble and delay. The skip dropped to the bottom of the shaft and the counterweight broke the head sheave. The overwind operated satisfactorily but the speed of the skip and momentum of the drum was too much for the emergency brake to stop in so short a distance. The brake and sheave have been repaired and are now in good condition. A new adjusting screw has been installed on the "A" shaft brake band.

All other equipment gave good service for the year.

MATHER MINE:

On January 27th. the temporary air compressor instal lation was completed. The machine was formerly used at the Cliffs Shaft Mine. We had some trouble with this compressor in March. The water in the intercooler froze, splitting several tubes. Repairs were made by plugging the tubes with pine plugs so that operations could be continued. No further trouble was experienced with this machine.

The new sinking cage and crosshead were put in operation on March 28th.

In May it was necessary to ventilate the shaft. The 14" counterweight pipe is being installed as the shaft is sunk and used as a ventilating pipe with a fan on surface.

MATHER MINE: (Continued)

The new Allis-Chalmers crusher was received and unloaded on September 23rd. The 35-ton electric traveling crane was received on September 23rd.

On October 9th. the Type PRE 30"-18" x 21", 2700 cu. ft. Ingersoll-Rand air compressor was received and unloaded in the engine room. Erection of this machine was started on November 11th., and it will be ready to go into operation about February 15, 1942. On October 15th. the air receiver was received. The piping from receiver and aftercooler to compressor has been completed. The water circulating pumps for compressor have been installed, and the cooling system piping is almost completed. The air intake is completed and filters will be installed about February 10th.

On October 9th. the six 325 G.P.M., 3000 ft. head Aldrich Triplex pumps purchased from the Calumet & Heckla Company were received and unloaded in the Hard Ore yard. The two Goulds 300 G.P.M. 120 ft. head booster pumps for the mine water supply were received on October 24th.

The Worden-Allen Company started to erect the headframe on October 9th.

On October 27th. four carloads of cage hoist parts were received and unloaded in the engine room. The erecting engineer from the Nordberg Company started erecting the cage hoist on November 17th. This hoist will be ready for operation about February 15th, 1942.

Three 12 foot sheaves were received on November 3rd. and one on November 12th, complete with bearings.

On November 13th. four cars of skip hoist machinery were received. The erector is now installing the skip hoist.

Two hoist ropes were received on November 21st.

The motor for the second air compressor was received on November 19th.

The slip regulator for the skip hoist was received on December 26th.

All mechanical equipment operated satisfactorily during the year.

TILDEN MINE:

A very bad crack developed in the base of the #8067 - 10" Allis-Chalmers crusher. A new base was ordered in February. It was received and installed in April.

The concave section of the east crusher was turned on July 10th. A set of new concaves were installed in the west crusher on September 26th.

A new track was purchased and installed on the #46 shovel.

A fire in the bit sharpening shop destroyed the building completely in March. A temporary building was built over the equipment and a few repairs put it back in operating condition. A new steel building was purchased and prected in December.

Crushing operations started May 2nd. and stopped on November 25th. and tonnage totaled 302,943 tons.

TILDEN MINE: (Continued)

The firebox on the #2 locomotive was repaired on May 2nd. New bearings were placed in this locomotive in July.

On November 19th. the ram on the bit sharpener broke and repairs were made at the General Shops.

The wabbler shaft on the #29 shovel broke on November 22nd. It was replaced with a new one from stock. The A frame brace on the #31 shovel broke on November 22nd. and temporary repairs were made to finish the season.

A new chunk hoist was installed in the crusher building on September 26th.

ATHENS MINE:

On January 25th. two spokes broke in the drum spider on the cage hoist. This spider was replaced on February 2nd. with a spider from the Barnes-Hecker skip hoist. The brake support on the cage hoist broke in April and a new one from the Lake Shore Engineering Company was installed on April 6th.

In February some repairs were made to the bottom deck of the double deck cage.

The changes to the heating system and shower baths in the dry were started in March and completed in April.

The center skip dump plates dropped about 2" in April. The supporting steel was in very poor condition. It has been replaced with new steel.

In August one of the water cylinders on the underground pump developed some sand holes. After several attempts to repair it by welding it was necessary to replace it with a new cylinder.

Due to age the original control on the ore hoist reached a point where it was difficult to keep it in a safe operating condition. It was decided, therefore, that best practice required a new control. After careful consideration a new type called an Amplidyne was purchased, which had been used extensively on various industrial applications but never before applied to a mine hoist. This was purchased from the General Electric Company and put in service during June and July. After final adjustments and minor changes were made it operated very satisfactorily. It gives very smooth control and introduces definite limiting features that tend to prevent accidents and allows a slight increase in hoisting capacity. This, together with a new Lilly safety control, serves to give a reliable, economical and satisfactory hoist control which is easier to operate than the one replaced.

MAAS MINE:

A valve chamber on the third level Prescott pump that was leaking very badly was repaired at the General Shops on January 21st. On September 26th. a new crank pin was pressed in the crank disc to replace a loose pin. A motor on the Allis-Chalmers centrifugal pump was sent to the factory for balancing and it was returned on August 27th. A complete new shaft and impellers were installed in the 3rd. level Allis-Chalmers pump on July 18th.

The changes to the heating system and showers in the dry were completed in March.

The intercooler on the #2 air compressor developed a leak. It was replaced on February 27th.

MAAS MINE: (Continued)

On February 6th. the eye bolt on the adjusting turnbuckle of the skip hoist broke. A new one was installed without delay to hoisting. On June 7th. the brake band on the cage hoist broke and repairs were made on Sunday, June 8th. A new lilly hoist controller was installed on the cage hoist in October to replace the old one which was in poor condition.

A new pocket and screening plant for the Cliffs Shaft ore was constructed during March and April. This plant was put in operation on May 7th.

On May 19th. several links broke in the pan conveyor. Repairs were made and operations started on May 20th. Repairs have been ordered to overhaul this conveyor before shipping starts next season.

NEGAUNEE MINE:

In February a crack developed in the crank shaft on the 6" x 7" Aldrich pump on the 13th. level. A new crank shaft was ordered and installed.

The new skip hoist drum was installed on March 29th. Several new cracks developed in the old drum shell which made it necessary to make the change. The brake levers on this hoist broke on May 14th. New levers were made at the General Shops and installed on May 18th.

A fire in the Ingersoll-Rand air compressor on June 9th. split the discharge line. The thermostat cutout was tested and it tripped at 330°F. Air filters on the intake have been installed which should eliminate any future trouble. The intercooler on this compressor was changed on June 15th. on account of leaking tubes. On September 2nd. bearing trouble developed on both air compressors. On the Nordberg the main pillow block bearing burned out completely. It was necessary to install a complete new bearing. This compressor was out of service from 4:30 R.M. to 8:30 A.M. On the Ingersoll-Rand compressor the main bearing became so hot it was necessary to remove and scrape. This compressor was out of service from 5:00 PM to 4:30 AM. The cause of the trouble was stoppage of oil, due to small particles of waste getting into the oil system. A new cylinder has been ordered for the #2 Prescott pump on the 10th. level to replace one that is in poor condition.

The ventilating fan heaters for the #2 shaft are being installed, the boiler is in place and installation will be completed in January.

LLOYD MINE:

Considerable repairs were made to the headframe replacing steel that was in very poor condition.

The spider cap on the #6 McCully crusher broke on April 26th. Temporary repairs were made, a new cap was ordered and installed.

On October 3rd. repairs to the heating plant boiler were completed. A complete set of tubes and a mechanical stoker were installed in this boiler.

PRINCETON MINE:

Pumping was started at the #1 pit on October 18th. Pumping in the #3 shaft started December 24th. The cage hoist foundation for #3 shaft has been completed. Foundation for the air compressor has been started. The boiler for the heating plant at the #3 dry, engine house and shops has been installed.

PRINCETON MINE: (Continued)

The steel headframe taken from the Gardner shaft is being erected at the #2 shaft. It should be completed about February 15th. Repairs are being made to the timber in #2 shaft and as soon as completed pumping will be started with a 500 G.P.M. pump in this shaft.

GENERAL:

The steam shovels operated all season with few delays. They are now being conditioned for the 1942 season. We received two shovels, an 85-C and an 88-C, from the Mesaba Range. They are being repaired and will be put in operation the coming summer.

A new 40 ft. addition to the Hard Ore blacksmith shop was erected during the year. A set of plate rolls were installed. They were purchased second hand from the Ishpeming Boiler Works.

The steel headframe at the Francis Mine was blasted down and steel is being salvaged from it to replace worn out parts on Gardner headframe erected at the Princeton #2 shaft.

HILL-TRUMBULL MINE:

The structural steel changes necessary at the Washing Plant to install the two Akins classifiers were completed in the spring and the classifiers installed before ore season started April 18th. Concentrates for the year totaled 975,546 tons, with an additional 279,030 tons of direct shipping. The season closed October 31st.

Another change was necessary at the washing plant to improve operation. The 5' x 14' double deck Robbins screen came equipped with perforated plate. This was replaced with wire screen cloth to eliminate plugging. This vibrating screen gave some trouble during the summer from spring breakage. It seems too light for this heavy operation.

The storage pile equipment was heavily used during the season due to poor shipping service caused by scarcity of railroad cars.

In the pit practically all equipment was overhauled. Repairs were made on booms and dipper sticks of Shovels No. 34 and 35. The 30-yard cars were overhauled at the rate of one per week. One bad accident occured in May when a 15ton truck was driven head on over the bank, dropping 25 feet and bending the main frame. The driver jumped off.

In July the boom engine on 350-ton shovel was wrecked due to bank caving and catching dipper.

In October plans were underway to build a half unit heavy density cone plant near washing plant. Grover Holt was employed as consulting engineer and the Chemical Construction Corporation of New York City did the drafting.

It was also decided to run a 36" belt conveyor from a crushing and screening plant in bottom of pit thru a drift inclined at approximately 14° to a receiving pocket located on the south bank near the boundary line between the Hill and the Trumbull Mines. The drift is being driven and the conveyor equipment as well as structural steel for screening plant and receiving pocket have been ordered. This change will release the ore now in railroad approach running thru the center of pit. The locomotives will only be used to haul the cars from top of pit bank to washing plant.

HOLMAN-CLIFFS MINE:

As it was necessary to work the bottom of the Holman pit to get the required 1941 ore tonnage the 7000 G.P.M. pump was operated full time during the months of January and February. Ore operation started April 21st. and was completed October 30th. The tonnage of concentrates for the season was 988₇485, all but 49,722 tons being shipped.

In March a new electric Marion shovel, size 4101, was received and erected in the pit. This machine is equipped with a $3\frac{1}{4}$ yard bucket and carries C.C.I. #51. This, with the two 4 yard Bucyrus shovels Nos. 32 and 34, will supply the ore from the pit for this season. Considerable repairs were needed on No. 32 shovel which was equipped with new caterpillars treads and drive sprockets. On the No. 34 shovel the ball bearings on motor generator set gave some trouble but lasted through the season.

In the shops the four locomotives, Nos. 17, 104, 105 and 106, were overhauled as well as the 30 yard cars. The only serious trouble experienced with them for the season was the wreck on No. 105 when the four car train got away and smashed into it at the pocket, killing one man. It was repaired at the Hill-Trumbull shop.

At the Washing Plant it was necessary to rebuild the Robbins 5' x 14' double deck screen. Its speed was increased 100 R.P.M. and this improved the performance, and its condition when dismantled showed the machine is built too light for our heavy production. Repairs were needed during the shipping season due to frequent spring breakage.

As ore operations started in April it was necessary to build the pit pocket of timber and hold the structural steel pocket ordered for the pit for some future need. It is now being used in the heavy density cone plant being designed for the Hill-Trumbull Mine.

During the season's pit operation a new sump was dug about 50 feet below the present one and the 4400 G.P.M. pump installed on a floating platform. A pump of 2000 G.P.M. was installed in December to reduce the mine power peaks and give continuous operation.

A bad derailment due to broken car axle occured in September that caused the loss of one shift. This only occurs at rare intervals as the axles seldom break.

Due to wet weather in August a 600 G.P.M. pump was flooded in a sinking cut but was recovered the next day.

CANISTEO MINE:

Ore operations started May 5th. and closed October 8th, producing 585,679 tons concentrates. All was shipped with the exception of 30,066 tons held in stockpile for the 1942 season. In January a winter stripping program continued with all trucks operating that were not being overhauled. Overhauling continued during the spring so that all machines were in good condition for ore production.

In the pit a new floating raft was built for the 1500 G.P.M. Gould pump supplying clean water to the mill. A similar raft was built for the 2000 G.P.M. pump discharging over the south bank. The piping for these pumps was revamped so that both pumps could be used to lower the pit water.

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CANISTEO MINE: (Continued)

At the Washing Plant the structural steel floor under 25 ft. logs was lowered four feet in November; after it was found a better operation could be secured by placing the 66" Akins classifiers directly under the 25 ft. logs.

In April two Akins classifiers were installed to replace one Dorr bowl classifier that was in poor condition. Results during the summer proved the Akins classifiers were superior to the old Dorr machine so two more were purchased to be installed next spring.

In October during several days of heavy rains five wood supports under middle flight of 36" belt conveyor were washed out and had to be replaced in November with rock material and steel supports. This makes a stronger job than the original.

Some changes were made with tailings pump equipment. A sand pump of too small capacity for full operation formerly used for a spare was replaced with a 12" rubber lined Hydroseal pump duplicating the present pump. No slowing down of washing plant operations will be necessary in the future due to tailings pumps.

Three new Euclid 15-ton trucks equipped with superchargers were received in December and are now in use on the stripping. The old trucks are being overhauled as they can be spared so all machines will be in good condition by nex ore season.

Total con	mected 1	Load at	Mesaba	Range	Mines	Decem	ber 3	1, 1	941	7	,733 H.F	•
H	"		Spies-	Virgil		"				1	440 "	
#			Ishpen	ing Di	strict	Mines	Dec.	31,	1941	26	174 "	
Total sp	are motor	s on ha	and at	Ishpem	ing Dis	trict	Dec.	31,	1941	1	330 "	
				Mesaba	Range	Mines	-			1	1081 "	
" '		ŭ i		Spies-	Virgil	Mines			, Ņ		150 "	
). C. GEI	ERATORS	AND MOT	ORS									
	1 underg				ators .	- Ishp	eming	Dist	trict		935	K.W.
		ers and	genera	ators		-					388-3/4	and the second second
	motors	•			•	•	n		!	5	370	H.P.
Snat	e D.C. g	enerato	ors		-						500	K.W.
	U.G. h			tors				1			90	
	D. C.							- 1	1		195	H.P.
· #		exciters					n	,			10	K.W.
ESABA R	NGE MINE	5					-					
Tota	l haulag	e gener	a tor s								80	K.W.
	excit e			tors						1	,660	
			•							1	691-1/4	H.P.
Spar	e D. C.										53	"
SPIES-VIE	GIL MINE	1										
Tota	l haulag		ators								100	K.W.
H	excit e										10	=
	e haulag		ators								100	i
	1 D. C.										88	H.P.
Tota	1 mine t	ransfor	mers				309			3,	,026-1/2	K.V.

COMPARATIVE TABLES

YEAR	TONS ORE AND ROCK HOISTED	CU. FT. AIR USED	CUBIC FT. AIR FER TON HOISTED	GALLONS OF WATER PUMPED	G.P.M.
CLIFFS SHAFT MINE	•				
1932	92,125	188,127,000	2,042	369,057,075	
1933	61 623	160 033 500	2 596	362 896 379	
1934	235 639	394 168 500	1 672	348 670 324	1
1935	288 053	516 140 000	1 791	366 504 523	692
1936	484 310	907 194 600	1 873	389 395 743	739
1937	579 759	1,102,635,000	1 901	370 765 799	705
1938	352 983	735 452 000	2 083	362 700 824	689
1939	415 682	790 875 000	1 902	363 540 036	693
1940	573 487	1 053 990 000	1 837	362 590 686	686
1941	677 249	1 218 780 000	1 799	343 850 964	655
ATHENS MINE:					
1932	77,639	209,925,000	2,703	205,070,447	
1933	49 506	152 235 000	3 075	194 073 179	
1934	166 412	334 485 000	2 009	179 244 454	
1935	205 683	527 355 000	2 561	154 911 562	292
1936	318 604	698 985 700	2 193	134 999 491	255
1937	455 512	884 565 000	1 941	134 521 343	257
1938	276 800	643 005 000	2 322	165 316 266	313
1939	416 225	819 405 000	1 968	173 774 003	331
1940	526 456	1,196,505,000	2 272	185 418 833	351
1940	638 178	1 350 945 000	2 116	185 835 174	354
MAAS MINE:					
1932	97,295	210,825,000	2,166	576,727,573	
1933	143 845	367 560 000	2 555	554 157 402	
	294 372	601 920 000	2 044	550 020 020	
1934	370 399	686 520 000	1 853	597 349 626	1,129
1935		897 919 800	1 634	674 397 310	1 279
1936	549 615			686 467 622	1 307
1937	784 328	1,251,710,000	1 595		
1938	438 359	742 635 000	1 694	752 268 448	1 429
1939	528 389	1 005 165 000	1 902	726 916 014	1 386
1940 1941	709 755 849 963	1 288 665 000 1 646 145 000	1 815 1 936	710 849 782 595 239 587	1 346 1 135
NEGAUNEE MINE:					
1932	86,650	209,970,000	2,423	477,360,416	
1.933	65 661	166 050 000	2 528	448 928 213	
1934	240 808	437 985 000	1 818	435 724 897	
1935	311 446	481 680 000	1 546	485 600 207	918
1936	530 844	737 716 000	1 389	483 287 423	916
1937	839 283	1,096,200,000	1 306	562 290 718	976
1938	439 588	771 210 000	1 754	534 118 975	1,015
1939	577 510	1 026 945 000	1 778	532 642 228	1 015
1940	890 598	1 296 675 000	1 455	377 169 929	714
			1 391	338 385 511	644
1941	1,077,854	1 500 165 000	1 391	116 686 866	044

COMPARATIVE TABLES

YEAR	TONS ORE AND ROCK HOISTED	CU. FT. AIR USED	CUBIC FT. AIR PER TON HOISTED	GALLONS OF WATER PUMBER G.P.M.
TILDEN MINE:				
1932	19,957			
1933	94 194			
1934	167 688			
1935	190 511			
1936	291 341			
1937	305 418			
1938	85 889			
1939	170 276			
1940	205 612			
1941	302 943			
LLOYD MINE:	С			
1933	4,554			
1934	136 951	145,926,000	1,065	
1935	248 410	289 426 500	1 165	
1936	377 572	383 994 000	1 017	
1937	545 274	559 512 000	999	
1938	286 864	293 247 000	1 022	
1939	323 639	273 042 000	843	
1940	487 287	398 308 500	839	
1941	572 778	534 456 000	933	40,031,200 (10 Mo.) 91

THE CLIFFS POWER & LIGHT COMPANY ANNUAL REPORT YEAR 1941

Heavy production in the iron mines, the increase in consumption at the new Mather Mine now being opened and general prosperity in the territory served by our company combined to place record demands for energy upon the company during the year. The total sales amounted to 39,850,410 K.W.H. and the total energy generated and purchased amounted to 100,252,914 K.W.H., of which 16,085,000 K.W.H. were purchased and 84,167,914 K.W.H. were generated in our own plants. This increase in the amount of energy delivered to our lines was an approximate increase of 7% over the amount which was required during 1940. The increased sales of energy were accompanied by an increase in gross revenues of approximately 6%.

Water conditions during the year 1941 were unusual in that the spring thaw found comparatively little snow on the ground and the nature of the thaw was such that a large run-off was not obtained. This resulted in neither of the main storage dams, the Carp #2 and the Hoist reservoir, being filled to capacity. Following this small run-off was an extremely dry summer and the shortage of water in storage, coupled with the small run-off being experienced, necessitated heavy purchases of energy during the months of June to October inclusive. However, heavy fall rains were experienced in October, November and December which not only provided sufficient water for the power requirements of the system but added to the stored water to the point that the Hoist and Carp reservoirs were full to their flashboards in December. An unusually warm December resulted in there being practically no snow upon the ground at the first of the year and unless we have more precipitation the run-pff next spring may again be light. Accordingly, we are conserving as much water in the Carp storage basin as is practical and are drawing upon the Hoist in order that such spring freshets as we get will not be lost from that basin because of the water in it being too high at the time of the spring run-off.

The plans for additional plant capacity and energy producing facilities which were considered during 1940 were carried forward during 1941 with the result that a new unit was placed in operation in the Hoist Plant with a capacity of approximately 2000 K.W. on April 18th. of this year. This unit has been operating satisfactorily since that time and proved to be of considerable usefulness to us during difficulties which we experienced with one of the units at the McClure Plant later in the season. Plans were approved and construction work was carried forward on a new dam which would raise the water level of the Deer Lake #2 Storage approximately 10 feet and would practically double the amount of water which can be stored for use by the Carp Plant during years of favorable precipitation. This dam, though not completed by the first of the year, was in condition at that time to store water during the next spring run-off and the advantages of the dam will be available during the next season.

The transmission line system was strengthened by renewing conductors on one 30 K.V. circuit between Gwinn and Ishpeming and on both 30 K.V. transmission circuits between Ishpeming and the Maas substation. A permanent 30 K.V. transmission line and substation were built for the service of the Mather Mine and this service is now being rendered over these lines direct from the Brownstone substation. A supervisory control system has been installed connecting the Gwinn substation and the Brownstone substation in such a manner that all oil circuit breakers in the Gwinn station can be controlled from the central operating point at Ishpeming. This control includes the ability to synchronize our system with that of the Wisconsin Michigan Power Company from Ishpeming. The supervisory control system has been used several times during the year and has proven itself to be of great value by speeding the time necessary to obtain proper operation of the Gwinn breakers and thus shortening periods of interruption on the transmission system.

THE CLIFFS POWER & LICHT COMPANY ANNUAL REPORT <u>YEAR 1941</u>

The hydraulic turbine of the #1 generating unit at the McClure Plant was rebuilt during January but time was not available for the re-construction of the turbine on the #2 unit. However, lightning entered the plant on July 27th. and destroyed the winding of the #2 units generator. Since it was necessary to close this unit down for approximately a month in order to rewind the generator, the turbine was overhauled at the same time and was placed in service completely repaired as to both generator and turbine on August 28th. This unfortunate occurence happened during the peak period of our annual load, but with our interconnections and own power plant facilities, including the new unit at the Hoist Plant, we were able to supply our customers without any curtailment or restriction of use. Lightning also entered the 300 H.P. unit at Republic on April 14th. and necessitated repairs on that generator unit.

In December 1940 the Newberry village council retained Hamilton & Weeber, a firm of consulting engineers, to investigate and recommend a source of power for the village distribution system. After several months of negotiations, during which we submitted a proposition to the village for the construction of a transmission line from Seney, the village decided to purchase its power from a local sawmill and lumber company who were to install for them a steam turbine capable of serving their needs. Although no formal notice has been given to our company of the ultimate plan adopted by Newberry nor of the satisfaction which is being given by this method of service, it is my understanding that after several months of operation the village is still discontented with the service it is receiving and is continuing to work on some further method of obtaining an adequate supply of energy.

On August 25th. the company had a fatal accident at Rumely when Untio Keskimaki was electrocuted while restoring service to a rural customer during a lightning and rain storm. This accident was covered by a complete report giving all of the details thereto, and insorfar as is possible the conditions which made the accident possible have been remedied.

After much discussion between the City of Ishpeming and the Michigan Gas & Electric Company in regard to rates for retail service in Ishpeming that company made a reduction effective in September which applied to both the City of Ishpeming and Munising. This rate reduction was made prior to receiving approval from the City Council of Ishpeming and, after having been publicized by the company, was declared by a committee appointed by the Council to be unsatisfactory to that body. The rates, however, became effective as scheduled and though the committee has since that time voiced its disapproval of them no definite action has been taken to obtain further reductions. This subject will probably again become active some time during the coming spring.

In accordance with the plan which has been followed each year in the past work was carried for ward in the concreting of the wood stave pipe lines between the intake dams and both the Carp and McClure power plants. Good progress was experienced on both of these construction jobs, a distance of 12 feet being finished each working day on each pipe line. The total added to the work which had been done previously was 1,722 feet for the Carp and 1,829 feet for the McClure pipe line.

The usual statistical data is appended.

THE CLIFFS POWER & LIGHT COMPANY ANNUAL REPORT YEAR 1941

STATISTICAL DATA - 1941

 Month
 Jan.
 Feb.
 Mar.
 Apr.
 May
 June
 July
 Aug.
 Sept.
 Oct.
 Nov.
 Dec.

 Precipitation=
 1.13
 1.46
 0.31
 1.86
 2.98
 2.43
 4.11
 4.58
 4.10
 5.27
 2.49
 1.48

 Total
 Precipitation at Ishpeming during 1941
 = 32.20"
 (2.683
 ft.)
 - 32.80"
 (46
 year record)

CARP RIVER PLANT:

Drainage area above Intake Dam	66.66 sq. miles		
Cubic feet precipitation in 1941	4,986,637,300		
Kilowatt hours generated in 1941	16 997 800		
Cubic feet water utilized (90 cu.ft 1 Kwh)	1 529 802 000		
" " " in Carp Storage Basin Jan. 1, 1941	317 789 200		
" " " " " Dec.31, 1941	325 100 800		
" " " stored in 1941	7 311 600		
" " " wasted over Intake Dam	213 800 000		
Total run-off for year 1941 (Cubic feet)	1 750 913 600		
Run-off per sq. mile of drainage area	26 266 300		
Second-feet of run-off	0.83		

19131914191519161917191819191920192119221923Total Precipitation30.1126.5338.4036.8325.4631.0529.5027.4030.3833.6721.90Sec.ft. per sq.mile run-off1.030.670.931.290.700.790.830.730.681.060.59

19241925192619271928192919301931193219331934Total Precipitation22.9520.7135.6929.8636.0632.2823.1436.7031.2032.7232.87Sec.ft. per sq.mile run-off 0.500.250.850.981.110.671.100.831.131.141.00

1935193619371938193919401941Total Precipitation27.1030.2330.1035.3233.5830.3432.20Sec.ft. per sq.mile run-off 0.790.890.861.331.471.050.83

MCCLURE PLANT:

Draina	ge ar	ea at	ove Intake Dam	140.52
Cubic	feet	preci	pitation in 1941 (Hoist Plant 38.15")	12,457,563,400
			enerated at McClure Plant in 1941	39,750,000
			utilized (125 cu.ft 1 Kwh)	4 968 750 000
11		Ħ	wasted over Intake Dam	0
11	11		in Hoist Storage Basin Jan. 1, 1941	1 422 084 000
- 11	=		" " " Dec. 31, 1941	2 071 141 000
			stored in Hoist Storage Basin in 1941	649 057 000
		. 11	in Silver Lake Jan. 1, 1941	381 884 000
	n		" " " Dec. 31, 1941	446 433 000
11	11		stored in Silver Lake in 1941	64 549 000
Total	run-c	ff fo	or year 1941 (Cubic feet)	5 682 356 000
			mile of drainage area	40 438 000
			un-off	1.28

19201921192219231924192519261927192819291930Total Precipitation* 27.4035.1042.0326.6030.4924.0643.9535.5143.8038.7530.81Sec.ft. per sq.mile run-off1.221.021.540.850.920.521.521.802.221.361.45

 1931
 1932
 1933
 1934
 1935
 1936
 1937
 1938
 1939
 1940

 Total Precipitation
 37.02
 32.54
 35.07
 35.02
 29.96
 32.16
 38.1840.93
 41.22
 36.59
 38.15

 Sec.ft. per sq.mile run-off
 1.0
 1.23
 1.30
 1.16
 0.90
 1.05
 1.19
 1.75
 1.69
 1.47
 1.28

 * - 1920
 Precipitation figure is total precipitation at Ishpeming.

1	6	06
		-

THE	CLIFFS	POWER	& LIGHT	COMPANY
	A	INUAL.	REPORT	
		YEAR	1941	

SUBSTATION TRANSFORMERS: Substation transformers installed as of December 31, 1941.

66,000/2300 Volts		Phase	No.	K.V.A.	Total K.V.	<u>A.</u>
Munising Substat	ion	1	3	667	2,001	
Seney "		1	1	25	25	
Inland #1 "		1	3	500	1 500	
" #2 "		ī	3	500	1 500	
<i>"~</i>			-	,	1 100	5,026 K.V.A.
300/66,000 Volts						
AuTrain Substati	on	1	3	333-1/3	1 000	1 000
3,000/66,000 Volts						1 000
Gwinn Substation		1	3	1,250	3 750	
						3 750
3,000/110-220 Volts						
Clarksburg Subst	ation	1	3	37-1/2	1122	
		1	2	150		
						412 ¹ / ₂
3,000/2300 Volts Gwinn Substation		1	2	75	225	
			3		3 000	
Cliffs Shaft-Hol	mes Substation	1	6	500		
Morris-Lloyd		1	3	590	1 770	1 1 m
Hartford	"	1	36	400	1 200	
Maas		1	6	590	3 540	
Brownstone		1	32	625	1 875	
Palmer		1	2	625	1 250	
Greenwood	11	1	2	400	800	
Princeton		1	3	150	450	
Tilden		1 3	3	1 250	1 250	
Palmer Rural	"	í	4	15	60	
				1 000	3 000	
Negaunee-Athens		1	3			
Mather Mine		-	3	2 000	6 000	24 420
300/33,000 Volts						
Republic		1	3	250	750	
Hoist Plant	H	3	ì	2 500	2 500	
Escanaba Plant		3	3	590	1 770	
McClure "		3	32	5 000	10 000	
Carp "		3	2	1 900	5 700	
			3			
Hoist "		1	-	667	2 000	
		1	3	200	600	23 320
2,000/440-220 Volts						~> >~~
Piqua-Marquette	Substation	1	3	100	300	
0 000 /000 100 Walte						300
2,000/220-100 Volts D.S.S.&A.Ry. at	Clarkshung	1	1	2-1/2	21/2	
	otaryson.g	+	+	2-1/2		21/2
storer anny r ac						
2,000/2300 Volts						
2,000/2300 Volts	(Furnace Lines	3	2	1 250	2 500	
2,000/2300 Volts McClure Plant	(Furnace Lines Substation	3	23			
2,000/2300 Volts McClure Plant AuTrain		31	2 3 3	185	555	•
2,000/2300 Volts McClure Plant AuTrain Chatham	Substat ion	1	2 3 3	185 25	555 75	•
2,000/2300 Volts McClure Plant AuTrain Chatham Eben	Substat ion	1 1 1	2 3 3 1	185 25 25	555 75 25	-
2,000/2300 Volts McClure Plant AuTrain Chatham Eben Rumely	Substation " "	1 1 1	2 3 3 1 2	185 25 25 15	555 75 25 30	-
2,000/2300 Volts McClure Plant AuTrain Chatham Eben	Substation " "	1 1 1	2331233	185 25 25	555 75 25	-

					607
THE	CLIFFS POWE	REPORT	T COMPANY		
		1940			
SUBSTATION TRANSFORMERS: (CONT'D.)					
CODULATION MARIOTOMALIO, (COM DI)			B	rot. Fwd.	62,121 KVA
6,600/2300 Volts	Phase	No.	K.V.A.	Total K.V.A.	
Inland #1 Substation	1	3	25	75	
Blaney Park "	1	2		50	
	1	1	25 15	15	
AuTrain Lake "	1	1	25	25	
					165
6,600/115-230 Volts					
Furnace Substation Lighting	1	1	5	_ 5_	
					5
				GRAND TOTAL	62,291 KVA
A. C. MOTORS					
Total Cleveland-Cliffs Iron Co.		ted to P	ower Syste	em	26,174 H.P.
" Cliffs Power & Light Compa		11			192
" Outside		H			27 744
			* *		
	TO	TAL CONN	ECTED LOAI	D - DEC. 31, 1941.	
EXCITERS, GENERATORS & D. C. MOTORS					
			-		
Total Cliffs Power & Light Compa	any Exciters	and Gen	erators		456-3/4 K
					!
	D. C. Mo	tors			3-1/4 H
and the state of t					
DISTRIBUTION TRANSFORMERS			2	diana and	
and the second			Number Ca	apacity	
Total at first of year			342	1,932 KVA	
" purchased during year			22	2032	
" retired " "			0	0	
" at close of year			364	2 109	
· · · ·					
In stock at close of year			30	177	
" service " " "			305	1 7612	
C.P.&L.Co. plants and auxiliaria	88		29	170	
			364	2 109 K.V.A.	

THE CLIFFS POWER & LIGHT COMPANY

STATISTICAL DATA - 1941

		······································	KILOWATT I	HOURS GENE	RATED & PU	RC HA SED		NUT ON D		TRANSMISSION			
	MCCLURE	CARP	HOIST	AUTRAIN	REPUBLIC	ESCANABA	PURCHASED	TOTAL		O LINES	KWH SOLD	LOSSES KWH	×
Jan.	3,405,000	1,803,800	1,189,000	379,300	124,900	308,000	1,000	7,211,000	17,626	7,193,374	6,418,400	774,974	10.77
Feb.	3 797 000	966 000	1 225 000	483 000	100 000	264 000	856 000	7 691 000	18 825	7 672 17	5 6 825 757	846 418	11.03
Mar.	4 602 000	740 000	1 549 000	301 000	94 000	236 000	10 000	7 532 000	17 594	7 514 406	6 639 743	874 663	11.63
Apr.	3 487 000	1 848 000	1 155 000	380 000	160 000	659 000	47 000	7 736 000	17 827	7 718 173	3 7 013 109	705 064	9.13
May	4 341 000	658 000	1 590 000	612 000	295 000	671 000	993 000	9 160 000	16 394	9 143 606	6 8 048 493	1,095,113	11.97
June	2 764 000	1 799 000	1 047 000	557 000	224 000	550 000	1,696,000	8 637 000	14 922	8 622 078	3 7 760 711	861 367	9.99
July	2 538 000	770 000	1 010 000	444 000	95 000	232 000	3 059 000	8 148 000	14 197	8 133 803	3 7 400 582	733 221	9.01
Aug.	2 821 000	856 000	907 000	383 000	44 000	167 000	3 419 000	8 597 000	13 751	8 583 24	7 652 691	930 558	10.84
Sept.	1 970 000	1 378 000	760 000	306 000	117 000	566 000	3 689 000	8 786 000	16 400	8 769 600	7 887 851	881 749	10.05
Oct.	2 910 000	1 312 000	1 105 000	437 000	293 000	733 000	2 164 000	8 954 000	17 100	8 936 900	8 280 384	656 516	7.34
Nov.	3 346 000	2 518 000	1 221 000	646 000	256 000	937 000	143 000	9 067 000	17 900	9 049 10	0 8 150 696	898 404	9.92
Dec.	3 769 000	2 349 000	1 350 000	637 000	202 000	622 000	8 000	8 937 000	20 550	8 916 45	0 7 771 993	1,144,457	12.83
	399750,000	16,997,800	14,108,000	5,565 300	2,004,900	5,945,00	0 16,085,000	100,456,000	203,086	100,252,91	4 89,850,410	10,402,504	10.37

LOAD CONNECTED MOTOR 3 5000 3 20 00 Ξł. PEAK LOAD ON STATION 1 6000 STATION AVERAGE LOAD .

KILOWATTS

DISTRIBUTION OF ELECTRIC POWER TO C.C.I.CO. MINES

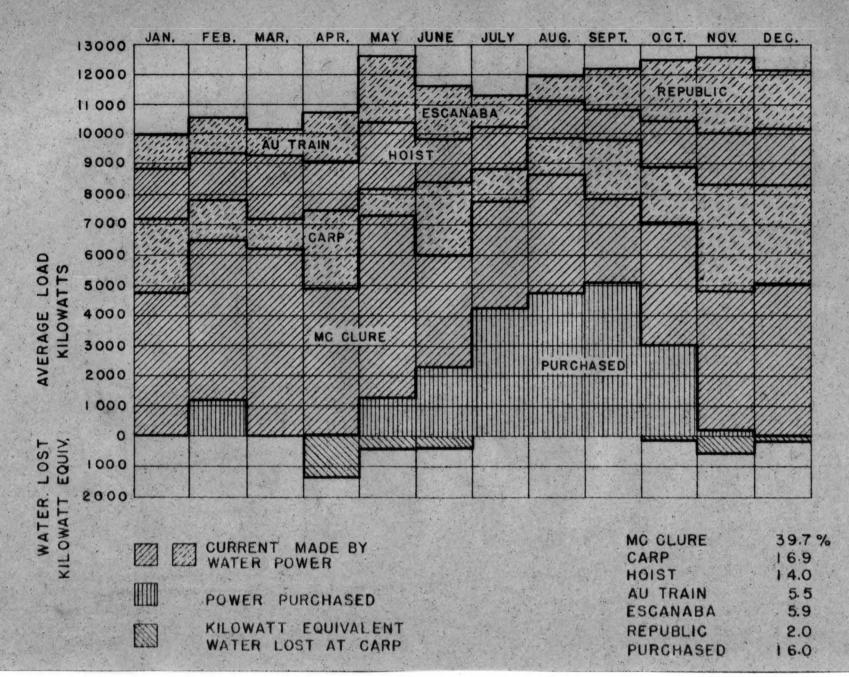
HAULAGE VENTILATING SCRAPERS 8 1/1/1 1940 1941 SURFACE POWER & LIGHTS HOISTS PUMPS COMPRESSORS

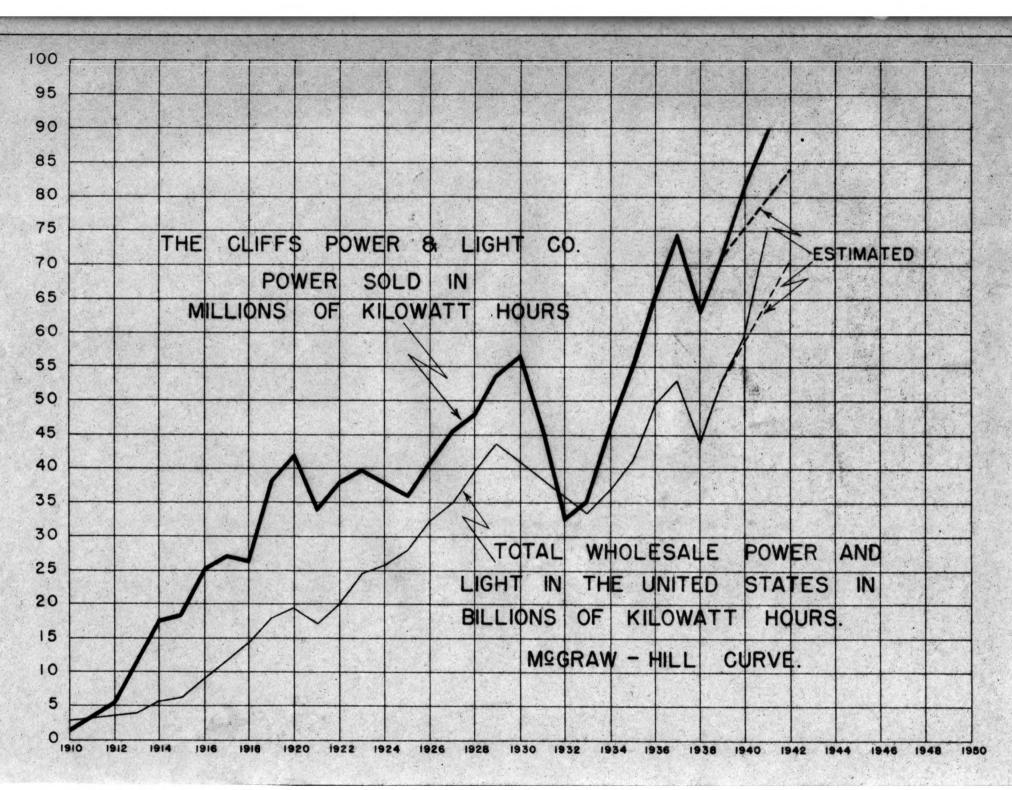
DISTRIBUTION OF ELECTRIC POWER 1937 - 1938 - 1939 - 1940 - 1941

				SID	* **		TIE	s													III	1				193 193 193 194 194	8 9 0

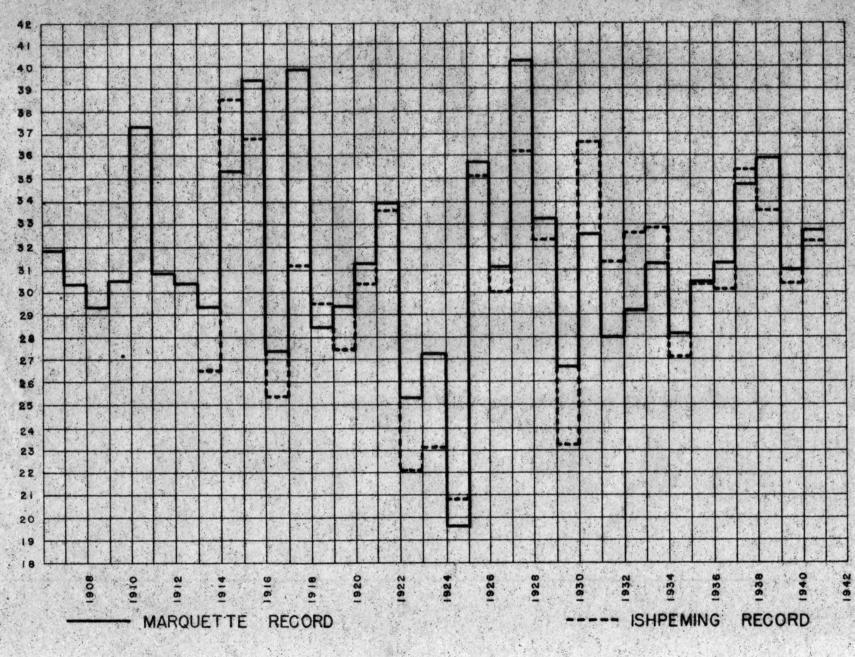
so	LD	TO	C.	¢.1. (0.	MIN	ES					1					1										
1111	111		777	77	111	22	12	122	121	1011	111	124	1111	12.	4		1	1.11	111								
	***		***																		****	<u> </u>	~~~~				
1. 20		> (000	000	500	400	-	1800		2200	2400	2600	0	3000	200	3400	600	3800	4000	1200	4400	600	4800	00	5200	-

1940 - 1941





INCHES



PRECIPITATION BY YEARS

614

1941 was an unusually busy year for this department. The usual functions were carried on and many new details which naturally arise with the increase of the number of employees were given consideration. The Welfare Department has charge of all matters pertaining to the general welfare and health of the Company's employees. Briefly, this department is concerned with the various public relations activities, personnel direction, workmen's compensation, group insurance, the Company's pension system organized many years ago, retirement allowances, donations to former employees, special relief cases, matters dealing with civic problems and public health and all problems dealing with the health and safety of our employees, as well as numerous other details which naturally fall within the scope of the Company's Welfare Department.

For the purpose of keeping the record intact and continuous, it is here recorded that this department was previously known as the Pension Department, and for many years Mr. W. H. Moulton, who retired on July 1, 1938, headed the department with the title of Secretary. In July of 1938 the name of the department was changed from the Pension Department to the Welfare Department and Walter F. Gries became the head of the department with the title of Superintendent.

It is a pleasure to report that throughout the year we have had the benefit of regular meetings and conferences with Mr. Moulton on any questions which needed his advice and attention. It is desired to enter into the record the fact that this service, cooperatively given by Mr. Moulton, has been helpful and greatly appreciated. We also wish to record that the cooperation of the Safety Department, under the direction of Assistant Superintendent William Conibear, with this department has, we believe, resulted in much good to the Company and its employees, and Mr. Conibear's cooperation and coordination of the work of his department with this department has also been very helpful and has been greatly appreciated.

615

a. WORKMEN'S COMPENSATION

The direct work of the Compensation Department has been taken care of by Mr. Walter E. Johnson, as has been the plan since 1926.

Following are the cases of those men who required some special attention during the year.

MATT HILL - Maas Mine - Acc. Rept. No. 540

Matt Hill was injured on February 15, 1940 when he suffered a severe contusion and laceration of the calf of the left leg when he was struck by a falling piece of ore. He was paid compensation for about three months and then returned to work. In September of 1940 the wound again broke open and continued to discharge. He was removed to the Ishpeming Hospital in December 1940 and died there on December 31st, the death certificate giving the cause of death as "cerebral hemorrhage with paralysis." Hill had refused to sign a Settlement Receipt at the time of his return to work in the spring of 1940, and we had petitioned to stop compensation, but in making his award the Deputy Commissioner had awarded Hill full compensation during the time he had been at work and earning wages. In order to correct the record in regard to this portion of the compensation the matter was again heard on January 15, 1941. Following Mr. Hill's death Mrs. Hill signed and filed a claim for compensation on the grounds that Matt's death was attributable to the injury. This matter was heard on April 11, 1941, and Mrs. Hill was awarded compensation for the balance of three hundred weeks.

WILFRED RUEL - Athens Mine - Acc. Rept. No. 351A

Ruel was injured at the Athens Mine on October 7, 1937 when he was squeezed between a steam shovel dipper and a railroad car. There were no apparent injuries and he lost no time, continuing to work until October of 1938 when he became ill with rheumatism. He was not re-employed and later filed a claim for compensation on the basis that his rheumatism was a result of the injury sustained on October 7, 1937. The case was scheduled for hearing on November 8, 1941 at which time a settlement was reached, Ruel to receive compensation at \$9.00 per week for a period of 163 weeks from October 5, 1938 to November 18, 1941, and in addition he was to be given surface work when available. Before the settlement was entered into, Ruel was advised in the presence of his attorney, Ray Derham, that he would be treated like any other employee and that he would be subject to seasonal lay-offs whenever they became necessary.

WELFARE DEPARTMENT

11.

11.

a. WORKMEN'S COMPENSATION (Continued)

FATALITIES

The following fatalities occurred in 1941.

Oscar Tenhunen, Jr.	Holman-Cliffs Mine	
Age 33	Occurred May 6, 1941	
	Runaway ore car crashed into	
	locomotive.	
	Dependent brother	
	Compensation - 300 weeks at \$11.35	\$3,405.00
	Funeral Expense	150.00
		\$3,555.00
		10,000000
George Newman	Maas Mine	
Age 38	Occurred July 14, 1941	
	Fall of ground	
	Dependent widow and three children	
	Compensation - 300 weeks at \$18.00	\$5,400.00
	Funeral expense	200.00
		\$5,600.00
		40,000,00
Otto Romo	Negaunee Mine	
Age 57	Occurred August 17, 1941	
	Ore from measuring pocket fell.	
	on cage. Inspecting shaft.	
	Dependent widow	
	Compensation - 300 weeks at \$18.00	\$5,400.00
	Funeral expense	200.00
		\$5,600.00
		40,000.00
Untio John Keskimaki	C. P. & L. Co.	
Age 28	Occurred August 25, 1941	
	Electrocuted.	
	Dependent widow and three children	
	Compensation - 300 weeks at \$18.00	\$5,400.00
	Funeral expense	200.00
		\$5 COO 00
		\$5,600.00
Emil Erick Maki	Lloyd Mine	
Age 45	Occurred November 26, 1941	
	Pulled into chute when ore settled.	
	Suffocated.	
	Dependent widow and three children.	
	Compensation - 300 weeks at \$18.00	\$5,400.00
	Funeral expense	200.00
		\$5,600.00
		40,000,00

11.

a. WORKMEN'S COMPENSATION (Continued)

Following is a list of the more serious cases occurring during 1941 other than fatalities:

Mine and Report No.	Name	Nature of Injury	Compensation Paid
Athens #388	Alex Forstrom	Fractured right hip.	576.00 *
Cliffs-Shaft #1112	Alex Witkela	Fracture, left tibia, fibula, and humerus.	573.00
Cliffs-Shaft #1115	Eino Hill	Linear fracture of skull. Frac- ture, right mandible. Central concussion.	288.00 *
Cliffs-Shaft #1118	William J. Cowling	Amputation, right little finger. Fracture of ring finger. Right hand badly lacerated.	(1)
Маа з #561	John Simu	Loss of thumb, index & middle fingers & half of ring finger including major portion of palm left hand.	828.00 *
Maas #564	Albert Mattson	Compound fracture, left femur.	792.00 *
Maas #574	Eli Merrila	Fracture, both legs just below knees. General body bruises.	396.00 *
Lloyd #809	Matt Helsten	Fracture, transverse processes, 3rd & 4th lumbar vertebra, left. Fracture, spinous process, 4th lumbar vertebra.	493.84 *
Negaunee #677	John Huhtala	Fracture of femur and patella, rt. leg.	756.00 *
Negaunee #678	Otto Martinen	2nd metatarsal completely fractur- ed at each end & displaced. Sev- eral other metatarsals fractur- ed and dislocated.	- 720.00 *
Mather #1	Allen Hjelt	Compound, comminuted fracture, low- er ends, rt. tibia and fibula. Frac., right 2nd & 3rd ribs.	(1)

* Payments still being made.

(1) Accident occurred in December 1941. Compensation payments not made until 1942.

11. a. WORKMEN'S COMPENSATION (Continued)

> ANNUAL STATEMENT OF COMPENSATION PAYMENTS FROM JANUARY 1st, 1941 TO DECEMBER 31st, 1941

Compensation paid on 1941 accidents	\$ 13,416.56	
Compensation still pending	85,134.80	
Cost of medical and hospital service, also special expense	21,960.98	
		120,512.34
Less pending for years 1931 to 1940 inclusive	53,525.04	
Less medical and special expense on accidents		
occurring prior to January 1, 1941	689.40	
		54,214.44
*		00 000 00
		66,297.90
Less compensation paid in 1941 on Occupational Disease cases Estimated compensation still pending on Occupational Disease	3,952.00	
Cases	4,212.00	
		8,164.00
Estimated cost of 1941 accidents		58,133.90
Percentage of payrolls	*	.00884
Percentage of payrolls including Occ. Dis	. cases	.01008
Number of fatal accidents		5
Number of compensable accidents		79
Number of non-compensable accidents		17
Number of slight accidents		753

The following Occupational Disease cases occurred during the year. The cost of these cases is included in the regular compensation costs, but for statistical purposes they are not included in the accident table.

Number of deaths Number of disability cases

a. WORKMEN'S COMPENSATION (Continued)

11.

Compensation Payments including Medical Expense

Year	C. C. I. Co.	Negaunee Mine Co.	Athens Ir. Mng. Co.	Cliffs Pr. & Light Co.	Mesaba-Cl. Mng. Co.	Holman-Cl. Mng. Co.	Canisteo Cl. Mng Co.	Alexandria Mine	TOTAL
1912	1,073.81	105.08							1,178.89
1913	13,149.70	1,152.87	27.15						14,329.72
1914	27,416.82	2,840.13	446.63						30,702.58
1915	15,657.71	1,699.28	656.07						18,013.06
1916	32,404.74	3,496.75	672.29						36,573.78
1917	45,129.92	5,301.30	911.46						51,342.68
1918	43,734.77	6,198.93	1,197.57	2					51,131.27
1919	59,417.51	11,724.68	2,234.77		263.00				73,639.96
1920	59,535.76	8,888.01	2,928.15		3.057.46				74,409.38
1921	59,065.26	4,709.80	5,208.92		2,953.08				71,937.06
1922	56,794.35	5,283.24	2,048.23		1,866.67				65,992.49
1923	57,856.37	4,142.00	5,007.88		4,874.48				71,880.73
1924	56,335.89	5,487.07	6,394.01		9,408.59				77,625.56
1925	49,376.47	4,464.79	8,305.60		7,316.55				69,463.41
1926	51,123.41	5,433.85	7,087.93	514.40	9,537.84				73,697.43
1927	86,156.10	5,311.69	5,489.81	939.86	7,147.98		-		105,045.44
1928	87,186.58	6.532.66	6,235,08	1,331.30	4,576.56	9.00			106,371.18
1929	76,959.01	8,899.76	6,303.92	1,895.50	3,557.86	292.83	4.50		97,913.38
1930	76,753.51	10,603.63	5,803.45	1,930.48	2,531.15	1,236.18	1,357.05	1,993.76	102,209.24
1931	75,167.79	10,723.30	5,233.65	1,867.50	1,489.36	559.63	1,346.64	1,700.87	98,088.74
1932	52,920.75	12,137.00	5,012.72	1,398.25	1,336.00	33.75	65.50	1,074.00	73,972.97
1933	23,425.69	9,605.70	5,298.56	993.45	2,180.61	-		614.00	42,128.01
1934	26,672.34	7,573.97	8,429.38	468.46	2,468.61				45,612.76
1935	34.874.17	6,854.34	5,154.12	218.75	3,778.56				50,879.94
1936	31,597.79	7,139.26	4,588.74	438.50	3,514.63				47,278.92
1937	32,509.48	8,695.66	7,235.96	615.72	3,647.16				52,703,98
1938	35,664.38	11,236.47	6,174.30	526.75	3,465.08				57,046.98
1939	39,532.53	7,183.99	6,838.49	855.50	4,110.34				58,520.85
1940	38,659.10	9,720.57	6,754.69	642.50	5,281.16			17	61,058.02
1941	37,451.05	11,985.67	12,376.95	1,238.50	5,501.05				68,553.22
	1,383,592.76	205,131.48	140,056.48	16,375.42	93,863.78	2,131.39	2,768.69	5,382.63	1,849,302.63

STATEMENT JANUARY																						
	Average No. of Employees	No. of Fatal Accs.	Nor	No. of Non-fata Accident	atal	Actual Comp. Paid in 1940	1930	1931	1932	1933	1934	1935	1936	1937	7 1938	1939	1940	1941	Estimated Compensation Still Pending	Medical & Special Expense	Fatal Cases Pending	Injury Cases Pending
Cliffs-Shaft Cliffs-Shaft Laboratory Chief of Police	471 9 1		9	4	91	7,925.28					936.00	36.00	792.00		2,340.00	-	2,774.28	1,047.00	10,298,72	2,984.90 57.00 6.00 18.00	2	4
District Welfare Employes Wood, Gwinn District Gardner-Mackinaw General Storehouse General Welfare Geological Department	3 22 160 2 4		1		1 21	624.00 1,014.56 81.00			624.00	-				42.56	972.00			81.00	204.00 2,556.00	109.50 782.00 12.00 22.50	1	1
Gwinn Office Ishpeming Office Lloyd Maas Mechanical Engineering Mining Engineering	1 22 320 510 4 9	1	6 19		3 96 127	5,155.79 10,624.92		216.00					57.12 936.00		936.00	620,00	156.00 4,035.40		14,842.16 24,408.00	3.00 133.75 1,912.50 4,228.70 25.00 53.25	13	5 7
Miscellaneous Princeton Purchasing Department Safety Department Shipping Department Spice-Virgil	7 43 4 2 6 81		1		3	6.00												6.00		42.25 43.50 27.75 12.00 40.50 498.50		
Tilden Workmen's Compensation Chemical Plant Cleveland Roll	37 2 15			1	7	478.40				478.40			100	S. C.					478.40	225.50 12.00 90.00		1
The Cliffs Power & Light Company	89	1	2	1	10	659.00	1		((1			()		()	1	659.00	5,436.00	579.50	1	1
Negaunee Mather	471 65	1	15 1		112 27	7,836.64 18.00					915.20			936.00			2,515.80	3,469.64 18.00	13,402.00 918.00	3,740.03 390.00	3	5 1
The Athens Iron Mining Company	396	1	14	3	85	9,657.60	1			(31.36			1,493.84	1,090.56		5,469.24	1,572.60	9,197.32	2,719.35	2	5
Total - Michigan Mines	2,750	4	70	n	601	44,282.19		216.00	624.00	478.40	1,882.56	36.00	1,785.12	5,580.40	5,338.56	620.00	14,950.72	12,770.43	81,740.60	18,769.98	13	30
Hibbing Office Holman-Cliffs Canisteo Hill-Trumbull	21 189 141 175	1	2 6 1	3		546.13 679.14 1,084.78	410.43				-		468.00	211.14		442.98	131.37	546.13 100.00	3,087.20 207.00 100.00	122.00 1,171.50 848.00 1,049.50	1	1
Total - Minnegota Mines	526	1	9	6	152	2,310.05	410.43						468.00	211.14		442.98	131.37	646.13	3,394.20	3,191.00	2	1
Total - All Mines	3,276	5	79	17	753	46,594.24	410.43	216.00	624.00	478.40	1,882.56	36.00	2,253.12	5,791.54	5,338.56	1,062.98	15,082.09	13,416.56	85,134.80	21,960.98	15	31

Canisteo Mine risk insured by The Employer's Mutual Liability Insurance Company since January 1, 1939.

11.

a. WORKMEN'S COMPENSATION (Continued)

The following made up the personnel of our Michigan Compensation Department for the year 1941:

> John W. Gibson, Chairman Frederick G. Palliaer David M. Martin Harold E. Bledsoe Elizabeth Belen James L. Hill Joseph Koski, Secretary

Jerome C. Nadolney served as Deputy Commissioner for this District throughout the year.

The following table shows the principal items of the changes made as different periods as affecting our properties:

. ~	When Law went into effect	As amended in effect	In effect	In effect
MICHIGAN LAW	Sept. 1, 1912	Aug.14,1919	Aug.18,1921	Sept. 4, 1927
Percentage of weekly wages	50	60	60	66 2/3
Maximum weekly compensation	10.00	14.00	14.00	18.00
Minimum weekly compensation	4.00	7.00	7.00	7.00
Waiting period	2 weeks	l week	1 week	l week
Waiting period picked up at				
end of	8 weeks	6 weeks	6 weeks	6 weeks
Maximum payment for death	3,000.00	4,200.00	4,200.00	5,400.00
Maximum compensation for				
total disability	4,000.00	6,000.00	7,000.00	9,000.00

The Occupational Disease law became effective on October 29, 1937.

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11.

a. WORKMEN'S COMPENSATION (Continued)

MINNESOTA COMPENSATION LAW

There were no changes made in the Minnesota Law in 1941.

The present members of the commission are as follows:

N. H. Debel, Chairman J. D. Williams P. J. O'Connor E. D. McKinnon, Secretary Emily L. Olson, Asst. Secretary

The following table shows the principal items of the changes made at different periods as affecting our properties:

	When Law went into	As amended	As amended	In effect since
	effect	April 26,	June 6,	Oct. 1,
MINNESOTA LAW	Oct.1,1913	19 19	19 21	19 23
Percentage of weekly wage	. 50	66 2/3	66 2/3	66 2/3
Maximum weekly compensation	10.00	15.00	18.00	20.00
Minimum weekly compensation	6.00	6.50	8.00	8.00
Waiting period	2 weeks	1 week	1 week	1 week
Waiting period picked up at				
end of	-	-	4 weeks	4 weeks
Maximum death payment	3,000.00	4,500.00	7,500.00	7,500.00
Maximum compensation for				
total disability	4,000.00	5,000.00	10,000.00	10,000.00

c. GROUP INSURANCE

11.

The group insurance plan, which became effective on October 1, 1936 at all of our properties, has continued in force during the year.

The following statement shows the total cost for the policy year ending September 30, 1941. It includes all cases in which disability began prior to September 30, 1941.

	Deat	h Claims	Health	& Accident	Total				
	No. o Cases		No. of Cases	Amount Paid	No. of Cases	Amount Paid			
Cliffs-Shaft Gardner-Mackinaw	7	11,875.00	34	2,055.13	40 1	13,930.13 1,875.00			
General Roll	4	7,500.00	17	1,666.70	20	9,166.70			
General Storehouse & Shops Ishpeming Hospital	i	1,875.00	14 8	1,451.71 387.70	14 8	3,326.71 387.70			
Lloyd	2	3,125.00	27	1,936.86	29	5,061.86			
Maas	6	10,000.00	54	2,983.72	60	12,983.72			
Spies-Virgil Tilden			7 2	264.29	7 2	264.29 208.00			
Retirement Roll	4	2,000.00			4	2,000.00			
Total - C. C. I. Co.	25	38,250.00	163	10,954.11	185	49,204.11			
Negaunee Mather	2	3,750.00	37 2	1,640.87 32.00	39 2	5,390.87 32.00			
Total - Neg. Mine Co.	2	3,750.00	39	1,672.87	41	5,422.87			
The Athens Iron Mining Co.	4	7,500.00	55	2,856.30	59	10,356.30			
The C. P. & L. Company	_1	1,875.00	4	133.43	5	2,008.43			
Total - All Companies	32	51,375.00	261	15,616.71	290	66,991.71			

Three of the thirty-two death claims shown above were paid disability benefits in addition to the death benefit which accounts for the discrepancy in the total number of cases shown.

- 1 - T.

WELFARE DEPARTMENT

c. GROUP INSURANCE (Continued)

11.

The direct work in connection with claims under the group insurance plan has been taken care of by Mr. Walter E. Johnson since the adoption of the plan on October 1, 1936. Every effort has been made to facilitate the prompt payment of claims. Frequent contacts are made with the men drawing benefits, and we find their attitude toward the plan exceedingly favorable.

The increase of 25% in life insurance, which became effective on December 20, 1937, remained in force throughout the year. A copy of the notice which was given to each employee at the time the increase was announced will be found in the annual report of the year 1937. This notice shows the amount of increase for each class of insurance, also the monthly premium, and the weekly benefit for sickness and accident.

The policy of allowing the men placed on our Retirement Roll to carry life insurance of \$500.00 was continued throughout the year.

11.

c. GROUP INSURANCE (Continued)

The following deaths occurred during the policy year ending September 30, 1941:

Name	Mine	Date of Death	Amount of Insurance
John Battaglio *	Athens Mine	1-4-41	\$ 1,875.00
Arthur Lajoie	T	8-15-41	1,875.00
James F. Mitchell		8-15-41	1,875.00
Oscar A. Joki **		9-9-41	1,875.00
Armas Frank Suomi **	Cliffs-Shaft	10-31-40	1,875.00
William J. Blewett	Ħ	2-12-41	1,875.00
John Nybacka		5-20-41	1,875.00
Nestor Kauppinen	T	5-24-41	1,250.00
Richard James Andrew		5-31-41	1,875.00
Edward P. Dougherty		6-23-41	1,875.00
Simon Carlson		7-1-41	1,250.00
Untio John Keskimaki *	C. P. & L. Co.	8-25-41	1,875.00
Charles Hocking	Gardner-Mackinaw	8-6-41	1,875.00
John Conibear	General Roll	4-20-41	1,875.00
Arnold Saladin		6-22-41	1,875.00
Howard C. Duquette **	H	6-15-41	1,875.00
Thomas Cassin	General Storehouse	6-25-41	1,875.00
Arthur Paloheimo	Lloyd Mine	10-12-40	1,875.00
Joseph Racine		3-27-41	1,250.00
Matt Hill	Maas Mine	12-31-40	1,250.00
Charles E. Stephens		5-28-41	1,250,00
Sidney Harvey		6-5-41	1,875.00
George Newman *		7-14-41	1,875.00
Attilio Vichellio		8-15-41	1,875.00
Abbo Niskonen **		8-30-41	1,875.00
Albin Seppanen *	Negaunee Mine	12-20-40	1,875.00
Otto Romo *		8-18-41	1,875.00
Jonas Johnson	Retirement Roll	1-28-41	500.00
Edward King	IT	6-1-41	500.00
Victor Kalmi	#	7-4-41	500.00
Peter Mariuzza	"	9-25-41	500.00

* Killed in the course of their employment. ** Killed in automobile accidents.

In addition to the thirty-one death claims listed above, payments were made during the year in the cases of Gustaf Afuhs, General Roll, and John Vivian, Spies-Virgil Mine. Both men died prior to October 1, 1940.

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23. a. PENSION SYSTEM.

The pension system which went into effect on January 1, 1909 completed the thirty-third year of its operation in 1941.

No changes in the rates of pensions were made during the year 1941. On January 1st, 1933 the pension payments were reduced 50%, those under \$20.00 remaining the same; those over \$20.00 having a minimum rate of \$20.00.

No new pensions were granted during the year 1941.

The following Mining Department pensioners passed away during 1941:

No.

85	William C. Quayle	4-1-1919	4-16-1941
146	Andrew G. Wahlberg	6-1-1921	2-17-1941
149	John Anderson	9-1-1921	1-12-1941
251	Williem Lofgren	1-1-1931	1-28-1941

	1940	1941
Number of deaths	7	4
Number of Old Age pensions in force December	r 31, 48	44
Average annual pension	\$ 297.46	283.56

There was one death in the Furnace Department pension payroll during the year 1941, this being

No.

8 George Bushman 6-1-1924 4-24-1941

On December 31, 1941 there were three pensioners on the Furnace Department pension roll and the average annual pension was \$308.91.

23.

8.

PENSION SYSTEM (Continued)

Republic Mine.

During the year 1941 no new names were added to the pension roll. There was one death during the year, this being

No.		Date Pensioned	Date Died.
24	H. R. Gamble	4-1-1926	9-16-1941

There were six pensioners remaining on the roll on December 31, 1941, and the average annual pension for the year was \$290.32.

The payments made from October 1, 1920 to December 31, 1941, follow:

1920	278.61
1921	34 27 . 97
1922	5672.84
1923	6641.51
1924	8172.96
1925	8379.08
1926	9539.90
1927	12185.24
1928	12768.21
1929	14199.74
1930	13148.40
1931	11809.51
1932	7673.30
1933	4908.04
1934	4400.52
1935	4160.52
1936	4031.36
1937	2853.58
1938	2028.88
1939	1868.88
1940	1868.88
1941	1741.92

\$ 141759.85

23.

a. PENSION SYSTEM (Continued)

Mining Department. Pension payments for the years 1908 to 1941, inclusive, are as follows:

1908 69:10 49:00 1909 351.92 464.00 1910 896.44 1043.00 1911 1690.57 2649.00 1912 3865.95 3113.00 1913 5133.62 30.25.00 1914 61.79.57 3403.00 1915 7910.35 2372.00 1916 8787.02 1694.00 1917 9327.22 1266.00 1918 8889.14 944.00 1919 9605.02 888.00 1920 12613.29 814.00 1921 21856.64 14.00	117.10 815.98 1939.44 4339.37 6978.95 8158.62 9582.57 10288.35 10481.02 10593.22 9833.14 10493.02 13427.29
1910 896.44 1043.00 1911 1690.57 2649.00 1912 3865.95 3113.00 1913 5133.62 3025.00 1914 6179.57 3403.00 1915 7910.35 2372.00 1916 8787.02 1694.00 1917 9327.22 1266.00 1918 8889.14 944.00 1919 9605.02 888.00 1930 12613.29 814.00	1939.44 4339.37 6978.95 8158.62 9582.57 10288.35 10481.02 10593.22 9833.14 10493.02
1911 1690.57 2649.00 1912 3865.95 3113.00 1913 5133.62 30.25.00 1914 6179.57 3403.00 1915 7910.35 2372.00 1916 8787.02 1694.00 1918 8889.14 944.00 1919 9605.02 888.00 1930 12613.29 814.00	4339.37 6978.95 8158.62 9582.57 10288.35 10481.02 10593.22 9833.14 10493.02
1918 3865.95 3113.00 1913 5133.62 3025.00 1914 6179.57 3403.00 1915 7910.35 2372.00 1916 8787.02 1694.00 1918 8889.14 944.00 1919 9605.02 888.00 1930 12613.29 814.00	6978.95 8158.62 9582.57 10288.35 10481.02 10593.22 9833.14 10493.02
1913 5133.62 30 25.00 1914 6179.57 3403.00 1915 7910.35 2372.00 1916 8787.02 1694.00 1917 9327.22 1266.00 1918 8889.14 944.00 1919 9605.02 888.00 1930 12613.29 814.00	8158.62 9582.57 10282.35 10481.02 10593.22 9833.14 10493.02
1914 6179.57 3403.00 1915 7910.35 2372.00 1916 8787.02 1694.00 1917 9327.22 1266.00 1918 8889.14 944.00 1919 9605.02 888.00 1930 12613.29 814.00	9582.57 10282.35 10481.02 10593.22 9833.14 10493.02
1915 7910.35 2372.00 1916 8787.02 1694.00 1917 9327.22 1266.00 1918 8889.14 944.00 1919 9605.02 888.00 1920 12613.29 814.00	10282.35 10481.02 10593.22 9833.14 10493.02
1916 8787.02 1694.00 1917 9327.22 1266.00 1918 8889.14 944.00 1919 9605.02 888.00 1920 12613.29 814.00	10481.02 10593.22 9833.14 10493.02
1917 9327.22 1266.00 1918 8889.14 944.00 1919 9605.02 888.00 1920 12613.29 814.00	10593.22 9833.14 10493.02
1918 8889.14 944.00 1919 9605.02 888.00 1920 12613.29 814.00	9833.14 10493.02
1919 9605.02 888.00 1920 12613.29 814.00	10493.02
1920 12613.29 814.00	
	13427.20
1921 21856.64 14.00	THE THE THE
	21870.64
1922 29063.85 168.00	29231.85
1923 29564.57 168.00	29732.57
1924 31987.64 168.00	32155.64
1925 34926.34 163.00	35089.34
1926 38924.98 143.00	39067.88
1927 45841.03 0.00	\$5841.03
1928 51869.03 0.00	51869.03
1929 52701.19 0.00	52701.19
1930 53779.24 0.00	53779.04
1951 56379.39 0.00	56379.39
1932 40615.13 0.00	40615.13
1933 30981.29 0.00	30981.29
1934 28205.25 0.00	28205 . 25
1935 24987.66 0.00	24987.66
1936 22736.32 0.00	22736.32
1937 20393.66 0.00	20393.66
1938 18360.44 0.00	18360.44
1939 16544.14 0.00	16544.14
1940 14237.87 0.00	14237.87
1941 12476.76 0.00	12476.76
\$ 751751.33 22547.09	774298.33
Payment made by	
Cleveland office	
in 1930 2500.00	2500.00
\$ 754251.33 \$ 22547.00 \$	

23.

8.

PENSION SYSTEM (Continued)

Furnace Department. Pension payments for the years 1910 to 1941, inclusive, are as follows.

	\$ 61753.46	\$ 900.00	\$ 63580.18
1941	926.72	0.00	926.72
1940	1158.78	0.00	1158.78
1939	1374.96	0.00	1374.96
1938	1446.90	0.00	1446.90
1937	1662.72	0.00	1662.72
1936	1902.72	0.00	1902.72
1935	1930.54	0.00	1930.54
1934	2309.43	0.00	2309.43
1933	2528.04	0.00	2528.04
1932	3327.09	0.00	3327.09
1931	5531.30	0.00	5531.30
1930	6191.42	0.00	6191.42
1929	6137.02	0.00	6137.08
1928	5481.50	0.00	5481.50
1927	4819.73	0.00	4819.73
1926	5351.35	0.00	5351.35
1925	2833.39	0.00	2833.39
1924	2085.32	0.00	2085.82
1923	1179.38	0.00	1179.38
1922	1118.04	0.00	1118.04
1921	781.63	0.00	781.63
1920	223.80	0.00	223.80
1919	130.55	0900	130.55
1918	268.20	0.00	268.20
1917	268.20	0.00	268.20
1916	268.20	60.00	328.20
1915	268.20	180.00	448.20
1914	268.20	180.00	448.20
1913	268.20	180.00	448.20
1912	268.20	180.00	448.20
1911	\$ 111.75 268.20	120.00	388.20
1910	@ 111 76	0.00	111.75

WELFARE DEPARTMENT.

23.

a. PENSION SYSTEM (Continued.)

Land Department.

Erick Johnson continued on the pension roll during the year 1941. His annual pension amounts to \$240.00.

Total pension payments from January 1, 1927 to December 31, 1941 are as follows:

1927		\$ 333.36
1928		333.36
1929		333.36
1930		333.36
1931		333.36
1932		250.08
1933		240.00
1934		240.00
1935		240.00
1936		240.00
1937		240.00
1938	1	240.00
1939		240.00
1940		240.00
1941	7	240.00

\$ 4076.88

b. REPUBLIC MINE FUNDS

Each year it is recorded in the annual report of this department that in the report for the year 1930 will be found a full statement of the Sick Benefit Relief and the Fatal Accident Funds of the closed Republic Mine.

The unused balances which remained in both these funds, with the exception of a few dollars held over for emergency, were turned over to the Marquette County Chapter of the American Red Cross. A report of the portion of the funds which have been kept on deposit in the Miners' First National Bank in Ishpeming is herewith recorded. For the past several years there have been no claims whatsoever against any of the remaining funds. Since no claims against the funds have been made for approximately ten or eleven years we wish to recommend again that permission be granted to close out the funds at once. It seems unnecessary to carry these funds any longer.

The original balances which were turned over to the Marquette County Chapter of the American Red Cross were used exclusively in Republic Township for health and general welfare purposes. The health and welfare activities in Republic Township have been carried on under the supervision of the Township Supervisor and the Superintendent of our Welfare Department, together with the Treasurer and Chairman of the Marquette County Chapter of the American Red Cross. Practically all of the money which was left over in these funds, and which funds have been exhausted for the past several months, were used for the maintenance of the old Republic Hospital as a health center. The old Republic Hospital is centrally located in the town of Republic and has been used all these years by Dr. Van Riper as a medical office and by the township for a health center. The Republic Improvement Association has a deed to the building and the township has assisted in maintaining a full-time nurse at the health center. A married woman who is a nurse lives in the building and is on duty all day and available at all times in case of accidents or emergencies.

It seems both desirable and essential to maintain a health center at Republic because of the fact that it is a community off by itself and the maintenance of a health center assures not only medical attention but emergency medical attention and it has been found from time to time that this service is absolutely necessary. It is again recommended that the money now on deposit in the two funds which are listed herewith be turned over to the Marquette County Chapter of the American Red Cross and be made available, as previous funds were, exclusively for health and general welfare work in Republic Township. At the present time the township has no source of funds for the purchase of fuel for the health center. This total of \$274.12 will take care of their fuel needs for over two years. Authority is again requested for permission to transfer the funds as outlined in this paragraph.

The funds now on hand in the Miners' First National Bank and the following statements agree with the bank book in each case.

b. REPUBLIC MINE FUNDS (Continued)

23.

Deposit Account #1672 Republic Mine Fatal Accident Fund

Miners' First National Bank:	
Balance on hand December 31, 1940	\$200.58
Interest for 1941	2.26

Total \$202.84

Deposit Account #1673 Republic Mine Relief and Sick Benefit Fund

Miners' First National Bank: Balance on hand December 31, 1940	\$ 70.49
Interest for 1941	.79
Total	71.28

Total--Deposit Account #1672 and #1673 \$274.12

Dr. Van Riper of Champion continues to make regular calls to Republic and he uses the old Republic Hospital, now the health center, for his office. Dr. Van Riper serves the medical needs not only of Republic Township but of the entire community in the Republic and Champion districts.

The Republic Hospital has been deeded over to the Republic Improvement Association, which no longer functions. As stated last year, if the future needs of Republic are to be carried on and if a program of health service is to be continued on the present basis in Republic Township it is again recommended that the Cleveland-Cliffs Iron Company, which has leased the hospital to the Improvement Association, take some steps as early as possible to see that the building is transferred from the Republic Improvement Association to the Republic Township Board or to the Republic Board of Education. Either or both of these governmental units can take over the supervision and maintenance of the building and we may be thereby assured that some type of a health service program is carried on and continued in Republic Township.

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c. SUSPENSE FUNDS

The 1918 annual report contains a complete statement of the payments made from the Suspense Funds from February 1, 1912, at which time the Michigan Compensation Law went into effect. Reference to these funds is made in the annual report every year so that it may always be easy to determine where to look for the final report on the Suspense Funds.

The Suspense Funds have now been disbursed. Mr. Henry Borchgrevink was in charge of this work and completed it several months ago.

d. VISITING NURSES

The work of the visiting nurses has been carried on as usual throughout 1941 and their services to our employees and their families have been very helpful and appreciated. The present large payrolls make it necessary for the nurses to work harder than they have before because they have more people to take care of. They are carrying on their work in a very commendable fashion.

The work was begun in Ishpeming on May 1, 1908 and in Negaunee on September 1, 1912. The services began at Gwinn on September 1, 1910 and were continued there until October 1, 1927 when the Gwinn mines were closed.

During 1941 the following nurses were employed:

Ishpeming	-	Miss Myrtle V. Welander
Negaunee	-	Miss Ina E. Atkin
Iron River	-	Miss Laura N. Fisk,
		(Miss Fisk is employed jointly with other companies)

Miss Welander and Miss Atkin submit weekly reports and monthly summaries of their work to the Welfare Department. Each month the monthly summaries are made a part of the monthly report of this department. A check of the monthly summary will give some idea of the extent of the work of our visiting nurses and the great number of cases they visit regularly. The service rendered by our visiting nurses is something which has become a very important part of the follow-up work in cases of illness among our employees. The work of the nurses undoubtedly has a good deal to do with reducing absenteeism.

23. d. <u>VISITING NURSES</u>

VISITING NURSES The following is the report of the Ishpeming visiting nurse for the year 1941:

Total number of patients cared for during year	623
Number of new cases cared for during year	299
Total number of visits to patients	3868
Number of families visited for the first time	54
Number died	7
Number of social calls	86

Classification of new cases for the year:

Number	of	Adults	143	Male	14	Female	129
Number	of	children	156	Male	79	Female	77

Nationalities of new cases for the year:

American	247	Italian	18
English	14	Norwegian	3
Finnish	9	Swedish	8

Diseases and number of new cases:

Aenemia 3 Kidney Trouble Asthma 2 Mestoditis	1 3 6
Dalas Waldens W Missionalaus	3 6
Baby Welfare 7 Miscarriage	6
Bowel Trouble 7 Obstetrical	
Brain Tumor 1 Otitis Media	6
Bronchitis 3 Pelvic Fracture	2
Burns 7 Pleurisy	1
Carcinome 2 Pneumonia	2
Colds 21 Post-Operative	29
Convulsions 1 Postnatal	14
Chicken Pox 2 Prenatal	20
Cystitis 1 Rash	1
Diabetes 2 Rheumatism	4
Dysentery 4 Sarcoma	1
Fracture 1 Stomach Trouble	9
Gen. Debility 1 Tonsilitis	20
Heart trouble 4 Unclassified	14
Infants, newborn 33 Undiagnosed	8
Infections 29 Var. Ulcer	7
Influenza 5 Whooping Cough	5
Injury 7	

Visiting Nurse: Miss Myrtle Welander.

23. d. VISITING NURSES (Con-

VISITING NURSES (Continued) Following is the report of the Negaunee visiting nurse for the year 1941:

Total number of patients cared for during year	943
Number of new cases cared for during year	598
Total number of visits to patients	3302
Number of families visited for the first time	34
Number of social calls	1006
Number died	1

Classification of new cases for the year:

Number of Adults	282	Male	89	Female	193
Number of Children	316	Male	158	Female	158

Nationaltties of new cases for the year:

American	403	Italian	50
Finnish	137	Swedish	8

Diseases and number of new cases:

Aenemia	4	Measles	22
Appendicitid	16	Mumps	14
Asthma	1	Nephritis	1
Bowel Trouble	14	Neuritis	3
Bronchitis	4	Obstetrical	9
Burns	4	Otitis Media	4
Carcinoma	3	Pertussis	16
Carvical Adenitis	1	Phlebitis	2
Chicken Pox	6	Pleurisy	1
Cholystitis	7	Pneumonia	15
Cold	23	Post Operative	71
Colic	2	Pregnancy	25
Cystitis	1	Pul. Tuberculosis	1
Diabetes	3	Quinsy	2
Epileptic	1	Rheumatism	8
Erysipelas	1	Rupture	7
Gen. Debility	5	Scarlet Fever	8
Heart Trouble	4	Sciatica	8
Heat Stroke	1	Scoliosis	1
Herpes Zester	1	Shingles	1
Impetigo	3	Sore Eyes	1
Infants, Newborn	13	Sprains	5
Infections	35	Stomach trouble	10
Influenza	87	Thrombosis	1
Injury	56	Tonsilitis	16
Insanity	1	Unclassified	7
Jaundice	1	Urticaria	1
Kidney Trouble	3	Var. Ulcer	6
Lumbago	1	Var. Veine.	3
Mal-Nutrition	35	18 Sector	+

Visiting Nurse: Miss Ina E. Atkin.

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23.

d. VISITING NURSES (Continued)

NUMBER OF PATIENTS ATTENDED AND CALLS MADE BY VISITING NURSE.

	No. of Patients	No. of New Cases	Male Adult	Female Adult	Male Children	Female Children
Ishpeming Negaunee	623 943 1566	299 <u>598</u> 897	14 <u>89</u> 103	129 <u>193</u> 322	79 <u>158</u> 237	77 <u>158</u> 235
	Total No. of Visits	Number Died	Social Calls		ies visited a first tim	
Ishpeming Negaunee	3868 <u>3308</u> 7170	7 1 8	86 1006 1086		54 34 88	

NATIONALITIES OF NEW CASES.

	American	English	Finnish
Ishpeming Negaunee	247 403 650	14 0 14	9 <u>137</u> 146
	Italian	Norwegian	Swedish
Ishpeming Negaunce	18 50 68	3 0 3	8 <u>8</u> 16

f. NORTH LAKE CLUB

The North Lake Clubhouse at the North Lake location has carried on its usual function of supervised recreation and community activity throughout 1941. Mr. Dewey Urguhart continues as the director of the club. The Inland Steel Company has cooperated throughout the year in the usual manner in the operation of the club and the supervisors and officials have assisted in the regular program which has been carried on in the building. During the year there were considerable repairs at the clubhouse and the building is in good condition. It has a high rate of use.

The employees of the Cleveland-Cliffs Iron Company and the Inland Steel Company have used the clubhouse for practically every type of community activity. Nearly all activities in the community are held and carried on in the clubhouse. The building serves as a community recreation center as well as a business and governmental headquarters for the township government.

Following is the statement showing the receipts and expenditures for 1941:

	TOTAL
	FOR YEAR
RECEIPTS:	
Membership Fees	\$424.50
Bowling Alleys	412.05
Pool and Billiards	27.85
Telephone Tolls	41.09
TOTAL	905.49
EXPENDITURES:	
Building Maintenance	2,249.14
Equipment	215.67
Lighting	133.92
Heating	405.86
Water	60.00
Bowling Alley	321.11
Pool Room	16.70
Office Expense - Telephone	57.26
Salaries and Wages	2,382.00
Reading Room	38.10
Miscellaneous	54.57
Telephone Tolls	34.87
Federal Spec. Excise Tax	33.00
Michigan Sales Tax	1.86
Personal Injury Expense	6.00
Unemployment Insurance Tax	112.63
Old Age Benefit Tax	34.14
Fire and Boiler Insurance	66.49
TOTAL	\$6,223.32
Deficit	\$5,317.83
Charged to Inland	\$ 960.00
Charged to Lloyd	\$4,357.83

GWINN ASSOCIATION

23.

g.

The report of the Gwinn Association and Clubhouse is herewith submitted.

Mr. E. L. Miller has continued as the director in charge of all the work throughout 1941. The Company supports the work at the clubhouse by matching the twenty-five cent monthly membership fee which is paid by our employees who are members of the club and a check is sent to them each month. This check includes the Company's donation towards the upkeep and program of the clubhouse.

The clubhouse building at Gwinn is a very busy place. It is used for practically all of the activities in the community, including the activities of the school district of Forsyth Township since the school authorities have contracted to use the clubhouse as an athletic center and gymnasium. Mr. Miller acts as one of the athletic instructors. There are many other activities such as the activities of the various organizations representing the churches, the Sportsmen's Club, the annual Christmas party, the annual New Year's Eve ball, the Junior Prom; there are also such meetings as special banquets and suppers, young people's meetings, card parties for the various organizations; meetings of the cribbage league, health classes, Red Cross meetings; music groups, Boy Scouts, Girl Scouts, and all types of activities which normally are held in a community. In Gwinn the clubhouse seems to be the center of practically all activity. The building serves a very excellent service and need in the community. It is the only place in the whole district which is available for the type of activities above described.

YEAR 1941. WELFARE DEPT. ANNUAL REPORT

g. GWINN ASSOCIATION.

23.

The following report and summary of the activities of the Association is compiled from the regular monthly reports issued during the year.

Membership;

Number on roll January 1, 1941	250
Number on roll January 1, 1942	267
High membership for year - December	267
Low membership for year - August	242
Average monthly member ship	251

The membership held up well considering that many of the young men who were carried as members and active workers are now in service.

Attendance;

The attendance at the building showed a slight increase over last year during the winter months, and the attendance during July and August was low, caused by the fact that many of the members or their families were having vacations at cottages on near-by lakes.

Total estimated attendance at building during year	76,800
Average monthly attendance	6,400
High monthly attendance	10,000
Low monthly attendance	3,200

The usual number of outdoor activities were sponsored by the Association, but owing to many of the younger men working on different shifts at the mines it was impossible to carry on the senior softball league. However, many turned out as spectators to other events. The following estimated attendance covers all activities conducted by the Association, or where equipment is 14,000 furnished by the Association. Attendance

Summary - Receipts and Expenditures. Taken from December financial statement.

	Total receipts including 1940 balance Total expenditures	\$ 6,462.34 4,850.61
	Balance on hand Jan. 1, 1942	1,611.73
Buffet-	Billiards and Bowling Accounts.	
1	Receipts for year	972.00
	Expenditures for year	528.78
	Profit	\$ 443.22
Receipt	s from membership and rental	\$ 3,843.75

WELFARE DEPT.

g. GWINN ASSOCIATION (Continued)

23.

General Activities and Organizations using building:

- 17 committee meetings.
- 22 nights' play in men's cribbage league 1 annual banquet.
- 15 sessions in women's card groups- bridge and cribbage 1 annual dinner.
 - 2 married folks parties.
- 15 meetings Women's Study Club 1 annual dinner party.
- 43 meetings by Federal Agencies.
- 5 meetings by local Red Cross Chapter.
- 5 meetings by Health Class- State extension Department.
- 4 meetings by local Sportsmen's Association.
- 3 wedding showers for newly marr ed couples by women.
- 29 rehearsals for different plays.
- 7 meetings Girls Junior Study Club 1 party.
- 3 meetings by Town Club- local businessmen.
- 34 dancing sessions in lobby recorded music.
- 1 annual tea party by Senior Girls of High School.
- 2 -- dinner parties by adult groups.
- 26 dances held during year; 8 social dances by High School- 2 by Scouts to raise funds; 5 annual dances as listed below, and 4 by ladies of Catholic Church to raise funds, and 7 by other groups.
- 170 all-day sessions kindergarten school.
- 116 days- noon lunches served pupils by NYA workers.
- 109 lunches or dinners served by different organizations at meetings.
- 32 times club equipment loaned for family parties.

Annual Events of Special Interest:

Annual	Banquet	by	Men's Cribbage League
Annual	Hunters' Ball	by	Local Sportsmen's Association
Annual	100 Couple Dance	by	Local Sportsmen's Association
Annual	President's Ball	by	Local Sportsmen's Association
Annual	Junior Prom	by	Junior Class High School
Annual	Masquerade Ball	by	Senior High School
Annual	Banquet	by	Women's card groups
Annual	Xmas treat for children	by	Entire Community.
Annual	New Year's Ball	by	Local Fire Department.

Church Organizations using building (not included in above.)

- 28 meetings 2 rummage sales 26 choir rehearsals and 1 party by Methodist church.
 - 18 meetings- 2 pot-luck suppers- 7 card parties- 4 dances to raise funds by ladies of Catholic Church.
 - 16 meetings- 2 parties Women's Guild.
 - 3 meetings Dorcas Society.
 - 2 meetings Finnish Lutheran League (young people)

g. GWINN ASSOCIATION (Continued)

23.

Library and Reading Room.

All books in the library were re-checked and put in good condition during September. Those beyong repair were discarded. It appears that members desire to read magazines of current interest and are not so interested in fiction books. During the year 32 books were donated to the library. All magazines received at the Association were subscribed for a two-year period in October.

Number of library books loaned on cards during year	Number	of	library	books	loaned	on	cards	during	year	•		• •					•		94.	L
---	--------	----	---------	-------	--------	----	-------	--------	------	---	--	-----	--	--	--	--	---	--	-----	---

Weekly magazines received	5	Daily newspapers	3
monthly magazines received	22	Wwekly newspapers	2

All magazines are placed on the reading tables and members are permitted to take them to their homes for short intervals.

Recreation Room;

This room was very popular during the year-many of the older men have again taken up the playing of billiards and pool. All tables were put in first-class condition; one pool table was re-conditioned with new rubber cusions and new cloth; the billiard table was equipped with new cushion and bed cloth. The table tennis set is used more by the younger boys and girls.

Card Playing Facilities.

The Association continues to promote card playing games for both men and women. The men enjoy cribbage and have a regular league. The women have a league for both bridge and cribbage.

During the year a 7-team league completed a schedule covering 22 sessions of cribbage for the men. A banquet was served the winners at the conclusion of the schedule.

The women played 15 nights and completed play with a dinner party.

The married folks parties were held on two occasions, and card playing was featured. The room used for card playing is also used by the younger people for dancing, using records to supply the music. 34 dancing sessions were held during the year.

Bowling.

As in other localities bowling is one of the most popular recreations and the alleys this year were opened by the first part of November. During the summer everything possible was done to put them in first class condition. Although they are quite old, they have stood up well and are considered to be in good shape. The one drawback the alleys have is the fact that the pins must be set by hand, as the automatic setters are not installed. No doubt the provision of automatic setters would improve the scores considerably.

.23.

g. GWINN ASSOCIATION (Continued)

Bowling (Continued)

During the year the men had a league of six teams of five members each and all teams completed a 45 game schedule. The women had a six teamthree member league and completed a 45 game schedule.

The members of the senior class, both boys and girls, are given instruction in bowling as part of the physical education program.

Physical Recreation and Athletic Department.

Including all activitis in the gymnasium- whether under High School or club supervision, and all outdoor recreations; such as, furnishing equipment for all softball teams and leagues, directing playground activities, supervision of Club Baseball team in the Rainbow League; supervision of Bass Lake grounds and cottage.

Summary

Supervised Gymnasium Activities.

	Periods	Attendance
High School classes (Girls)	129	3191
High School classes (Boys)	149	3647
High School basketball practice	77	808
High School mixed dancing classes	33	903
Tap dancing classes	51	335
Grade school	23	987
Archery - seniors	11	99
Senior members- basketball practice	13	95
Girls basketball league	10	345
Boys basketball league	18	1184
the second second is	18 514	11594

Basketball Games under High School and Club Supervision; High School team played 5 games at home and 9 away.

Club team played but two games during year- entering annual tournament in Negaunee in March.

Boys Junior League and tournament			•					97 games.
Girls Junior League and tournament								19 games.
Attendance at all home games								4700.

Outdoor Activities.

The Club was unable to organize the adult softball league, as many of the players were working different shifts at the mines. However, much interest was displayed in the Junior softball and 110 games were played. Adult teams played 26 games with outside teams. Two junior teams entered the softball tournament at Negaunes. Attendance - participants and spectators - all softball5300.

The Club sponsored a hardball team in the Rainbow League and they had a very successful season, considering that the opposition was made up of teams from Escanaba, Gladstone, Munising, Negaunes and Trenary. The team played 7 games at home and 9 away, attendance 2000 The team also held 55 practice sessions

23.

g.

GWINN ASSOCIATION (Continued)

Outdoor Activities (Continued)

	The tennis	court was	in	00	nd	11	tic	n	for	P	la	y	bu	t	50	de	ay	8	du:	ri	ng	
the	season.	Attendance	• •	•	•	•	•	•	• •	•	•	•	•	•	•	•	•	•	•	•	•	154
	Small play	ground near	· c.	lut		. 1	ise	bd	for	. 8	of	tb	a11	1,	te	ou	ch	fo	ot			

Scout Activities.

The three scout troops continued active during the year until September when lack of interest in the Boys Troopm forced it to disband. However, plans are underway to re-organize in the near future.

The two Girls Scout troops also functioned until September when those in charge thought it best to take the older of the girls and organize them into a Junior Study Club and make one larger troop of girl scouts. The plan has worked very well.

The following summary covers the work of all troops during the year:

77 meetings indoors - 12 meetings outdoors - attendance 1253.
14 hikes and field trips.
8 suppers outdoors
2 bycycle trips
2 skating parties.
3 socials.
1 annual dinner party.
2 dances to raise funds.
1 annual Christmas party.
1 annual Mother's Day Party.

All troops observed Scout Week by arranging programs and attending Church services in a body- also assisted in Memorial Day services and at the program for the Children's Christmas treat. The boys spend one day cleaning grounds at Bass Lake. 14 girls attended Scout Camp at Bass Lake. The Junior Study Club prepared gifts at Christmas time for the Good-Will Farm at Houghton.

Bass Lake Camp.

The Cottage was opened May 15th, but the cottage and grounds were not cleaned by the Boy Scouts until June 1st.

A new floor was put in the men's change room and one large picnic table was erected outdoors. Lumber is on hand for two new toilets which will be constructed next spring.

The same rule- which permits club members the use of boats and cottage free of charge- was in force. The amount of \$35.00 was collected from non-members for the use of boats and cottage. The Cleveland-Cliffs Iron Company paid the wages of the care-taker.

64 different groups held basket picnics. 900 bathers used beach.

23.

g. GWINN ASSOCIATION (Continued)

Cottage Bass Lake.	ttendance
1 annual supper - ex-servicemen.	20
l picnic Gwinn School paper staff	15
10 groups of families had cottage from 3 days to 1 week.	68
1 annual picnic Negaunee Band	40
1 dinner - local School Faculty	22
Gwinn Girl Scouts	14
Marguette Girl Scouts	16
Sunday all-day picnics -4- Sportsmen's Rabbit Supper	115
Total estimated attendance at grounds	2200

Association Building.

As in other years during the summer months the building was put into condition for the fall and winter activities. All floors needing varnish and wax were given attention. All lavatories repainted; the men's shower room was enlarged and made more comfortable; all basement floors repainted. Some necessary work on the outside brick wall was completed. Roofs over the general meeting room and living quarters were given two coats of tar. All stairways were put in good condition.

The kindergarten rooms used by the school had a small fire last March. Damage at the time was repaired so that the school could be resumed but during the summer the entire section was de-decorated and all floor surfaces sanded and varnished.

Material and equipment was purchased so that all departments are working in good order; this included supplies for bowling alleys, re-covering pool and billiards tables, table tennis equipment, athletic supplies, janitor supplies, magazines and newspapers, scoreboard for basketball in gymnasium, equipment for club kitchen, 20 chairs for card room, new records for social dancing, coal and wood for heating building and gas for club kitchen.

The same financial arrangement to operate the Club was in effect as in other years. The Cleveland-Cliffs Iron Company gives financial assistance, the Cliffs Power & Light Company service, and the local school pays rental on use of building and equipment and local residents pay a membership fee.

No doubt a more even heat could be maintained during the winter months and the building be kept more comfortable and at less expense if it would be possible to have a stoker installed in connection with the furnace.

WELFARE DEPARTMENT.

h. ISHPEMING Y.M.C.A. BUILDING

23.

In the last two or three annual reports reference has been made to the Ishpeming Y.M.C.A. building and there is not very much new to report this year. The building is still closed and the windows are boarded. Within the last few weeks there has been some agitation to re-open the building since there seems to be need now for a meeting place for the various defense and Red Cross activities. The difficulty seems to lie in the fact that there are no funds immediately available for remodelling the building and for providing for the necessary leadership and supervision. It has been roughly estimated that it will cost in the neighborhood of \$5,000 to \$6,000 to put the building in shape and then there will have to be some type of organization created, including director or supervisor, clerical assistant, and caretaker and janitor. The overhead expense would be very close to \$6,000 a year. It seems that the only way that the necessary revenue could be raised would be for the City of Ishpeming to take the building over as a community center and then arrange for the necessary revenue to carry on the activities.

At the present time there seems to be no question that use could be made of the Y.M.C.A. building. It should be pointed out, however, that the City of Ishpeming also has a program under way, known as the Recreation Area Program. A Recreation Commission has been selected, consisting of three prominent business men who are studying the recreation needs of Ishpeming. I have said on previous occasions that it seems that the recreation area has the greatest possibilities. It does not seem that it is within the bounds of common sense to expect a city the size of Ishpeming to support both a Y.M.C.A. building and a new recreation area. The greatest good, it appears, would come from the recreation area and its development. However, there are plans now being considered for the reopening of the Y.M.C.A. building as a community center. It may be possible that the Community Chest will make funds available, but at the present time it seems that the only real assurance which would provide for the re-opening of the building and its maintenance is the placing of it under the control of a city commission and then provide city revenues or taxes for its support.

The building is an eyesore to the community since it stands on one of the main streets and on a prominent corner. It would be very desirable to have it re-opened but it should be pointed out that in the past it was difficult to maintain the building and its program and eventually it had to be closed. It seems at this time that if the building is again re-opened that assurance should be had at the outset that the program there may be continued over a reasonable period of time. In other words, it does not seem proper to spend five or six thousand dollars in the opening of the building and then discover that there are no funds to carry on a program.

1. SAFETY WORK

The Central Safety Committee held regular meetings during the year when they were called by Mr. William Conibear, Assistant General Superintendent in charge of safety. At each meeting a general discussion was had of the accidents which had occurred and a study was made of the possibility of preventing a like accident at a future time. Meetings were held during 1941 on the following dates:

> June 20, 1941 December 30, 1941

These meetings generally last from two to three hours and are often attended also by the captains of the various mines. The discussions are detailed and complete and many suggestions relating to general safety are brought up and considered. It is felt that these meetings are practical, helpful, and the results of the meetings are very worthwhile. Not only is the saming of life stressed, but the cost of accidents and the loss of time is also discussed.

The following are the members of the committee:

Mr. G. R. Jackson, Chairman Mr. S. R. Elliott Mr. William Conibear Mr. J. D. Preston Mr. L. C. Moore Mr. C. J. Stakel Mr. W. W. Graff Mr. H. O. Moulton Mr. C. W. Allen Mr. Carl Brewer Mr. W. F. Gries Mr. W. E. Johnson Mr. H. F. Rogers Mr. A. J. Stromquist Mr. Ernest Keast Mr. F. C. Stanford Mr. F. J. Haller Mr. Onni Marjamaa

The regular work of the Safety Department is covered in Mr. Conibear's report.

J. HOSPITALS AND MEDICAL SERVICE

The Welfare Department keeps in daily touch with the Ishpeming Hospital and with the Negaunee Dispensary. Practically every day a conference is had with the Superintendent of the Ishpeming Hospital and several times during the week the doctors at the Negaunee Dispensary are called upon for assistance with some problem dealing with the general welfare of our employees. Visits are made throughout the year to the doctor's office and dispensary at Gwinn. Three or four times during the year visits are made to the Iron River district and contacts are made with the Stambaugh Hospital which cares for our Spies-Virgil medical and hospital needs.

ISHPEMING HOSPITAL

The Ishpeming Hospital continues to serve the community as well as many persons who live outside of the district but who desire to come to the Ishpeming Hospital when hospitalized. The Ishpeming Hospital hascontinued to maintain its high rating with the American Hospital Association and the American College of Surgeons. Miss Margaret Bilkey, R.N. who succeeded Miss Hildur Swanson as Superintendent of the hospital was married during the year and on April 1 Miss Georgia Holmes, R.N. was engaged to become the new Superintendent. Miss Holmes came to us very well recommended and it is desired to write into the record at this time that her supervision of the Ishpeming Hospital is very superior. While Miss Holmes is rather strict, the effect of her leadership is very evident throughout the institution. We are very fortunate in having a person of her type as the Superintendent of the Ishpeming Hospital.

The entire staff, including the medical staff and the nurses, has had a very busy year and their cooperation has been most satisfactory. Because of the installation of new equipment, such as the new elevator, the repairs to other equipment, the continuance of the redecoration program, and the increase in costs of drugs and supplies, there has naturally been an increase in the cost of operation over previous years. Moreover, we have a larger group of employees in the district than we have had for several years and this will all reflect in the cost of operating the hospital.

It is sometimes felt that the excellent services rendered by the Ishpeming Hospital in the district are not fully appreciated. For years the employees and others who are privileged to use the Ishpeming Hospital have done so without having had much occasion to think of costs. Undoubtedly this problem will have to be given consideration sometime in the near future. It should be recorded, however, that the Ishpeming Hospital is looked upon as a sort of a "gift" of the Cleveland-Cliffs Iron Company to the whole district. There probably is no better source of public relations than the good will which is developed by people who are obliged to accept the services of our hospital.

j. HOSPITALS AND MEDICAL SERVICE (Continued)

Throughout the year Mr. G. R. Jackson, General Superintendent, and Mr. E. E. Riedinger, Chief Clerk, have served with the Superintendent of the Welfare Department, who acts as the Business Manager of the Ishpeming Hospital, as an Administrative Advisory Committee. This committee meets once each month to discuss the problems that arise in the administration of the hospital. The assistance of the committee has been very helpful to the Welfare Department and it is desired to express appreciation for the cooperation they have given. The committee has become quite interested in the problems of hospital administration and as time goes on they will become more and more familiar not only with the needs of the Ishpeming Hospital but with the administration and the possibilities of economies which may be effected.

The staff of the Ishpeming Hospital during the year 1941 was made up of the following:

Dr. A. W. Erickson, Chief of Staff Dr. P. P. Hartt Dr. W. A. Corcoran Dr. T. D. Stevenson Dr. R. J. Wescott

Miss Margaret Bilkey served as Superintendent during the first part of the year and Miss Georgia Holmes succeeded her and has served during the latter part of the year. Dr. T. D. Stevenson left our services last spring and he was succeeded by Dr. R. J. Wescott.

The staff at the Negaunee Dispensary is made up of the following:

Dr. D. R. MacIntyre Dr. W. A. Mudge Dr. Raymond L. Paine

Dr. MacIntyre has not been in active practice for the past three months due to illness. The regular work is being carried on by Dr. Mudge and Dr. Paine and while they are very busy at times, it appears that they are getting along quite well.

In the Gwinn District:

Dr. J. E. Witters

WELFARE DEPARTMENT

j. HOSPITALS AND MEDICAL SERVICE (Continued)

23.

Herewith is submitted special information covering operations of the Ishpeming Hospital for the calendar year 1941. This special annual report is made up from the regular monthly reports as well as some additional material which seems to be of interest and which should be placed on record.

The Ishpeming Hospital was established in 1918. It is owned and operated by the Cleveland-Cliffs Iron Company. It has been the continued purpose of the Ishpeming Hospital to give the best possible medical and hospital service to the employees of the Cleveland-Cliffs Iron Company and the participating companies in the district and their families. The administration of the hospital is carried on as a department of the Cleveland-Cliffs Iron Company and at the present time an Administrative Advisory Board, made up of Mr. G. R. Jackson, General Superintendent, Mr. E. E. Riedinger, Chief Clerk, and Mr. Walter F. Gries, Superintendent of the Welfare Department, meets monthly and discusses the various problems dealing with hospital administration. These regular monthly meetings are attended also by Dr. A. W. Erickson, who is Chief of Staff, and by Miss Georgia Holmes, R.N., the Superintendent of the hospital.

The hospital, when built in 1918, was considered to be of ample size to take care of future needs for many years to come. We find now, however, that many times during the year the hospital is not large enough to take care of all medical cases. At the present time we are listing the hospital as having a capacity of 53 beds and 12 bassinets.

The Ishpeming Hospital is a member of the American Hospital Association and is approved by the American College of Surgeons. There is a closed medical staff and a complete nursing staff of graduate, registered nurses. The hospital does not act as a training school and does not employ any who are not fully qualified and registered.

During the past few years a program of improvement has been carried on. The principal item of new equipment was the new silent type Otis elevator which was installed during 1941. The hospital is well equipped with x-ray equipment, proper type of equipment for diathermy, and considerable attention has been given during the past few years to the redecoration scheme which has tended to give the hospital a much brighter and more cheerful appearance. Arrangements were made also during 1941 to provide the hospital with a very good new type ambulance which will be in service shortly after the new year. While the Ishpeming Hospital is not the largest hospital in the Northern Peninsula of Michigan, it is as well equipped as any hospital in the peninsula and the daily admissions and enrollment statistics indicate that the hospital is known and used almost to full capacity. Present indications are that the Ishpeming Hospital will in a few years be unable to take care of the medical needs and hospitalization of the people in the district which it serves.

j. HOSPITALS AND MEDICAL SERVICE (Continued)

23.

The Ishpeming Hospital is a three-story fire-proof building of brick and of modern design. The lawns and gardens surrounding the hospitalare particularly attractive.

Much credit is due the Cleveland-Cliffs Iron Company and the participating companies in the district for the fine interest and support they have given the Ishpeming Hospital. For years the Ishpeming Hospital has rendered an outstanding service in the hospital field.

GOVERNING BOARD

- E. B. Greene, President
- S. R. Elliott, Manager
- G. R. Jackson, General Superintendent

ADVISORY COMMITTEE

G. R. Jackson E. E. Riedinger Walter F. Gries, Secretary & Chairman

Walter F. Gries, Director

ACTIVE MEDICAL STAFF

A. W. Erickson, M.D., President P. P. Hartt, M.D. D. R. MacIntyre, M.D. W. A. Mudge, M.D. J. E. Witters, M.D. W. A. Corcoran, M.D. R. J. Wescott, M.D. George McL. Waldie, M.D. R. L. Paine, M.D. 650

COURTESY STAFF

V. H. Vandeventer, M.D. P. Van Riper, M.D. I. Sicotte, M.D.

CONSULTING STAFF

A. W. Erickson, M. D.

WELFARE DEPARTMENT

j. HOSPITALS AND MEDICAL SERVICE (Continued)

23.

DEPARTMENT

Laboratory and Roentgenology A. W. Erickson, M. D.

Gwinn Dispensary J. E. Witters, M. D.

Negaunee Dispensary

D. R. MacIntyre, M. D. W. A. Mudge, M. D. R. L. Paine, M. D. Anesthesia P. P. Hartt, M. D.

Histories A. W. Erickson, M. D.

Industrial Hygiene Dept. Geo. McL. Waldie, M. D.

652

23. J. HOSPITALS AND MEDICAL SERVICE (Continued)

ISHPEMING HOSPITAL STATISTICAL REPORT FOR THE YEAR 1941

Number of patien	ts remaining in the hospital at be	eginning of year	34
Number of adult	patients admitted	1020	
	patients admitted	128	
Number of births		251	
			1000
	new patients for the year 1941		1399
Total	of all patients during the year 19	941	1433
Number of deaths		70	
Number discharge	d during the year	1313	
	number leaving the hospital		1383
Loudi .	number reaving the hospital		1000
Number of patien	ts remaining at the end of 1941		51
Classification of	f new cases:		
Newbor	0	257	
Surgie	al	557	
Medica		296	
Obstet		289	
003000	lical		
	Total		1399
Number of operat	ions:		
Major		222	
Minor		244	
	Circumcisions	58	
	ncy Room	141	
marge	ney room		
	Total		665
Number of patien	t days		16,791
Average number of	f patients per day		46.0
Average stay per			11.717
	NUMBER OF FRACTURE CASES DURING	1941	
	Cleveland-Cliffs Iron Company	76	*
	Inland Steel Company	9	
	Hercules Powder Company	1	
-	Oliver Iron Mining Company	2	
	Outside Parties	105	
	ANDING TOTATO	100	
	Mate 1	193	
	Total	190	

WELFARE DEPARTMENT

j. HOSPITALS AND MEDICAL SERVICE (Continued)

DEATHS FOR 1941 CLASSIFIED BY DISEASE

Acute Hepatitisl
Asphyxia neonatoruml
Atelectasis of newbornl
Carcinoma
Cardiacll
Cerebral Embolisml
Cerebral Hemorrhage4
Cirrhosis of the liverl
Diabetes mellitus2
Embolus to cerebral vessels and popliteal arteryl
Hemorrhagic disease of the newbornl
Intestinal obstruction1
Intra-cranial hemorrhage1
Marasmus1
Omphacele1
Perforated Gastric Ulcer1
Petitonitis2
Pneumonia4
Premature Birth
Premature Separation of the Placenta1
Puerperal Sepsisl
Pulmonary Abscess of the lungl
Ruptured abdominal aortic aneurysml
Skull fracture
Stillborn
Strangulated hernia2
Thrombosis of iliac vesselsl
Thymus1
Traumatic injuries
Undetermined

Total

70

23. j. <u>HOSPITALS AND MEDICAL SERVICE</u> (Continued)

DEATHS DURING THE YEAR 1941

8
2
70

Deaths	within 12 hours
Deaths	under 48 hours16
Deaths	over 48 hours

70

Total

SURGICAL DEATHS

Case No.	se No. Patient	
19588	Miss Emma Gluyas	62
19593	Miss Sanna Luoma	48
C		
19645	Vincent Schmeltz	30
19678	Mrs. Marion Jylha	67
19695	Albert Nyberg	51
19705	Mrs. Emma Johnson	75
20210	Mrs. Helmi Tuttila	62
20292	Toivo Koski	20

Acute hepatitis.
Acute suppurative appendicitis
with peritonitis? Coronary
thrombosis.
Perforated gastric ulcer.
Right strangulated hernia.
Gangrenous appendicitis.
Generalized peritonitis.
Strangulated femoral hernia.
Intestinal obstruction.
Terminal pneumonia. Myocarditis
Acute intestinal obstruction.
Ventral hernia.
Destruction of the respiratory
centersuicidal. Gunshot
wound of the brain, anterior
to the rolandic area.

Diagnosis

23.

j. HOSPITALS AND MEDICAL SERVICE (Continued)

DEATHS - TRAUMATIC SURGERY

Case No.	Patient	Age	Diagnosis
19440	John Battaglio	59	Skull fracture. Meningitis.
20135	Lathrop Anderson	26	Fractured skull. Compound fracture both bones left leg. Laceration left anterior superior spine to the rectum. Severe hemorrhage. Shock.
20407	Otto Romo	57	Basal skull fracture with severe brain injury.
20497	Oscar Joki	32	No diagnosis.
20684	Mrs. Pauline Picciano	82	Senility. Fracture surgical. Neck of the femur.
20713	Andrew Gustafson	82	Fracture left ulna. Fracture right tibia and fibula. Contusion of the head. Cerebral concussion.
20794	Hilge Erickson	36	Depressed skull fracture

EMERGENCY ROOM CASES FOR 1941

January	.1246
February	.1014
March	
April	766
May	
June	
July	
August	
September	
October	
November	
December	
Total	7,830

23. j. <u>HOSPITALS AND MEDICAL SERVICE</u> (Continued)

LABORATORY REPORT FOR 1941

Urinalysis
Hemoglobin
Red Cell Counts
White Cell Counts1119
Differential
Sedimentation Rate15
Blood Sugar63
Throat Culture15
Coagulation Time
Feces
Gastric Contents
Smears
Sputums
Blood Typing46
Blood Matching20
Phenolsulphonephthalein Test13
Pregnancy Test
Miscellaneous Examination593
Special Blood Examination
E.K.G.'s
Kahns (vena puncture)

9766

656

10047

PHYSIO-THERAPY REPORT FOR 1941

Diathermy				2337
Ultra-violet				103
Metabolism				70
Electrocardiogr	aph.			168
-Too ar opar ar opr	~pu.	••	•••	

j. HOSPITALS AND MEDICAL SERVICE (Continued)

23.

DEPARTMENT OF INDUSTRIAL HYGIENE

January 1941 - December 1941

Smear1
Urinalysis
Hemoglobin
Red Cell Count
White Cell Count
Differential
Sedimentation Rate
Blood Sugar
Vena Punctures taken for Kahn
E.K.G.'s
Basal Metabolism Test7
Glucose Tolerance Test
Spinal Blood Examination1

13,767

X-RAY REPORT FOR 1941

Extremities
Gastro-Intestinal Tract
Urinary Tract, Pyleography11
Disease of Bone2
Spine
Mastoid0
Sinuses2
Foreign Body15
Chest and Heart
Skull
Fetus
Cholecystography
Abdomen
Fluoroscopic Examination

1390

No.	of	Out Patients 389	
No.	of	In Patients	

658

WELFARE DEPT. ANNUAL REPORT YEAR 1941

j. HOSPITALS AND MEDICAL SERVICE (Continued)

23.

SARANAC INVESTIGATION

Chests	 	
Miscellaneous	 •••••	
		2941

DIETARY REPORT --- ISHPEMING HOSPITAL --- YEAR 1941

Patient Meals
Doctors, Nurses, Employees, Visitors
Total Meals for the Year
Formulas

Special Diet -- Patient Days:

Fat Free
Nephritic
Special Soft
Ulcer
Diabetic
Dry191
High Caloric12
Neutral
Low Protein
Allergy
High Vitamin11
Pre-Eclamptic8
High Caloric, High Salt, Low Fat 8
Bland
Reducing
Sippyll
Low Fat
Salt Free
Bost Operative Gastric Routine17

Total	Special	Diet	Patient	Days	ł

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23. j. <u>HOSPITALS AND MEDICAL SERVICE</u> (Continued)

DOCTORS' CALLS FOR YEAR 1941

HOME CALLS

	.C. C. I. Co.			. 0.	. O. I. M. Co.			. H. P. Co.			I. S. Co.			Private		
	. Med.	Obs.	Sur.	Med.	Obs.	Sur.	Med.	Obs.	Sur.	Med.	Obs.	Sur.	Med.	Obs.	Sur.	
Jan.	633	1	1	114	-	1	79	-		150		1	146	-		
Feb.	578		8	114		1	64			141		4	129		1	
Mar.	584	1	17	136		6	76		-	142		11	142			
April	561		6	131		7	101			163		3	84			
May	405	1		207	1	26	70		5	140		2	87		11	
June	476		27	99		6	95			127	-	1	39			
July	321		26	38	7	11	46	1	2	58		1	12	1		
August	376	2	6	93			87			109			37			
Sept.	360		8	73		2	61		2	48			28			
Oct.	365	2	16	76		2	80			8	1	2	14	1	1	
Nov.	456	1	13	102		2	85			89		5	9			
Dec.	454		20	86		-3	62		2	95		4	27			
Totals	5569	8	148	1269	8	67	906	1	11	1270	1	34	754	2	13	

OFFICE CALLS

	C. C. I. Co.		0. I. M. Co.		H. P. Co.		I.S	. Co.	Private	
	Med.	Sur.	Med.	Sur.	Med	Sur.	Med.	Sur.	Med.	Sur.
Jan.	843	729	124	30	70	18	159	100	121	267
Feb.	772	625	138	37	63	23	166	187	102	240
March	826	491	134	40	76	16	180	64	106	211
April	867	466	139	38	79	26	171	61	82	226
May	722	367	112	42	77	20	128	48	133	130
June	682	312	126	41	78	7	142	82	126	110
July	640	273	65	12	29	24	94	97	86	63
August	816	352	109	20	63	36	137	62	118	170
Sept.	764	222	84	21	59	14	119	54	88	224
Oct.	791	320	97	31	75	7	122	64	113	65
Nov.	832	227	109	26	62	8	138	41	105	72
Dec.	790	252	104	29	72	9	137	38	60	91
Totals	9345	4636	1341	367	803	208	1693	898	1240	1869

WELFARE DEPARTMENT

j. HOSPITALS AND MEDICAL SERVICE (Continued)

NEGAUNEE DISPENSARY

The Negaunee Dispensary, formerly known as the Negaunee Hospital, is used in the Negaunee district by our doctors and visiting nurse for offices, emergency first aid, and as a drug dispensary. At the present time there are approximately 1350 employees in the Negaunee District and the medical needs of this group and their families are served through the Negaunee Dispensary. The arrangement is a convenient one for the Negaunee people since they have medical service available right at home. A visit to the Negaunee Dispensary on any day will convince anyone that the doctors in that area are extremely busy. All hospital cases are taken care of in the Ishpeming Hospital since no hospitalization is undertaken at the Negaunee Dispensary.

The Negaunee Dispensary building, still referred to by many as the Negaunee Hospital, is in good condition. Considerable repairs have been made during recent years and the condition of the building and the equipment is fully adequate to carry on the work of our doctors in the Negaunee area.

GWINN HOSPITAL

Dr. J. E. Witters, who is our doctor at Gwinn, has an office in his home, directly across from the Gwinn Clubhouse and near the old Gwinn Hospital. He also has a small dispensary and he administers to the needs of the 228 employees of the Company who live in Gwinn and vicinity. Dr. Witters is also the health officer for the Township of Forsythand for two or three other townships in the district. The doctor is also the local representative for the Marquette County Department of Social Welfare. In other words, he is in charge of the health and medical needs of the indigent poor.

WELFARE DEPARTMENT

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j. HOSPITALS AND MEDICAL SERVICE (Continued)

REPUBLIC HOSPITAL

23.

The building formerly known as the Republic Hospital at Republic, Michigan is still being used by Dr. Van Riper as an office and a health center for the Republic district. Dr. Van Riper provides the medical attention for our employees in Champion, Humboldt, Republic and Ely Townships. He goes to Republic daily and holds a regular office hour in the building formerly used as the hospital. This is a very much needed service in that portion of Marquette County since Dr. Van Riper is the only doctor in the area and it is essential that he have some central place for people to go when they require medical attention.

Recently the Republic Township Board engaged a married person who is a nurse to live in the residence part of the building. This trained nurse is granted her rent, but she is expected to be on duty in case of emergency and the arrangement is a fortunate one for Republic Township.

IRON RIVER HOSPITAL

Four visits were made during the year to the hospital at Stambaugh. This hospital cares for the medical and hospital needs of our Spies-Virgil employees. It is a well equipped hospital and it is rendering a very fine service in the community.

Dr. L. E. Irvine continues to provide medical attention for our employees in the Iron River district.

PAYMENTS TO PHYSICIANS

For reference purposes the following statement is made:

On August 1, 1927, a new rate of payment for our Company went into effect. The men pay \$1.25 for the medical service for themselves and immediate members of their families, the Company paying 50¢ per man per month to cover medical and hospital services under the provisions of the Workmen's Compensation Law.

The above paragraph is carried in each annual report to show the date on which the new rate of payments became effective.

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j. HOSPITALS AND MEDICAL SERVICE (Continued)

PHYSICAL EXAMINATION OF EMPLOYEES

23.

The contract with the Trudeau Foundation of Saranac, New York was continued throughout 1941 with satisfactory results. Our contract runs from November 1 to October 31. During the year we have made some effort to increase the number of examinations and at the present time we are trying to examine twelve men each working day.

Mr. Hugo Lucstari continues to take care of the x-ray work for the Trudeau Foundation. During the year we have had visits from Mr. Don Cummings, the field representative for the Foundation.

INDUSTRIAL HYGIENE DEPARTMENT

The Industrial Hygiene Department was organized and started operations on April 1, 1939. We were fortunate that date in securing the services of Dr. George McL. Waldie. Reference has been made in previous reports to Dr. Waldie's training and experience. He is very well qualified for the type of work he is doing and he has succeeded in getting along very well with our employees. We very seldom hear any complaints about the physical examinations. While he makes a rather thorough examination of our men, they seem to be pleased with the manner and method the doctor employs.

Each week a schedule is prepared by the Welfare Department and employees who are to be examined are given a very definite time to report to Dr. Waldie's office for the examination. The making of the schedule for examinations a week ahead of time makes it possible for Dr. Waldie and his secretary to review the previous examinations of the individuals scheduled. It also has the advantage of giving a man a definite time to report so that no time is lost.

Dr. Waldie continues to do considerable follow-up work with the employees who have had some evidence of physical defects or illnesses. This part of the work has become a rather busy program, particularly with the large employment rolls now in force in the district.

j. HOSPITALS AND MEDICAL SERVICE (Continued)

The following number of examinations have been made to December 31, 1941:

Cleveland-Cliffs Iron Company	11,396
Calumet & Hecla Consolidated Co.	28
Inland Steel Company	1,995
Republic Steel Corporation	1,386
Pickands Mather Company	133
M. A. Hanna Company	173
North Range Mining Company	724
Oliver Iron Mining Company	460
Marguette County Road Commission	10
Hercules Powder Company	102
Total	16,407

Special attention is given to pre-employment examinations. Every new man who is being considered for employment is given a thorough examination and the monthly report which Dr. Waldie files with this department indicates that this plan is desirable because men have to be rejected from time to time for physical defects.

The establishment of the Industrial Hygiene Department was an important step and we have been very fortunate in the type of work that Dr. Waldie has done and in the attitude that he has built in the minds of our employees with respect to their health and physical fitness.

K. COMMUNITY HEALTH

It may be reported again that health conditions in Marquette County during the past year have been very good. There have been no epidemics or great loss of time because of prolonged illnesses of any kind. A check of the records indicates that more time is lost because of the common cold than for any other reason. Colds come very often following unseasonable weather periods.

Each city in the county has a health officer and also a full time school nurse. The city health officers in Marquette County are:

Marquette	-	Dr.	C.	P.	Drury
Ishpeming	-	Dr.	N.	J.	McCann
Negauhee	-	Dr.	N.	J.	Robbins

The Michigan Children's Fund throughout the year conducted its dental clinics and over 900 school children in the county were given free dental attention. Each year a number of children from all the counties in Northern Michigan are privileged to attend a seven-weeks camp period at Bay Cliff Health Camp at Big Bay in Marquette County. I have continued to serve as Chairman of the Board of the Bay Cliff Health Camp during the past year. The camp completed its seventh year with funds provided by the Michigan Children's Fund, better known as the Senator Couzen's Fund. The camp is maintained primarily for under-nourished children of normal mentality. We have been able to take care of approximately 150 children each summer and they go back into their home communities with new ideas about diet and nourishment and naturally they acquire better health habits.

We have, during the past two or three years, followed the regular camp period by a special period for diabetic children. This is a very highly organized and specialized course of training for children with diabetes. The results have been very gratifying.

WELFARE DEPARTMENT ANNUAL REPORT YEAR 1941.

RED CROSS (Continued)

23.

1.

Report of Nurse Marquette County Chapter American Red Cross.

Number of schools in County			25
Classroom inspections			28
Children excluded from school becau	ase of communicable diseases		60
Home calls for children needing gla			23
Children getting glasses thro the C			
parents paying for prescription			20
Number of glasses repaired by the C			2
Number of prescriptions paid by the			
Prescriptions paid by local groups	ocurry		2
Children to Michigan Children's Cli	nie		3
Bay Cliff Health Camp:	Orthopedic		1 2 3 3 1
bay offit heaton camp.	Undernourhshed		i
	onder nour inshea		-
Home Calls			
Visits to crippled children			65
Visits to handicapped children			4
Prenatal			3
Infent			51
Pre-school			42
School			74
For Red Cross Chapter			7
Ineffective (not home)			8
Other calls			23
Other Galls			60
Meetings and Conventions attended:			
Parent-Teachers			1
Public Health Nurses			ī
Crippled Children			ī
Dental Commission			ī
County Achievement Day			1
Marquette County Tuberculosis			1
Red Cross			2
Nutrition Conference at Ishpeming		2	days
Michigan State Nurses' Convention			days
Upper Peninsula Crippled Children			days
opper rearing dia orippies onital an			uaya
Interviews:			
Officials from the Michigan Departm	ent of		
Health and Children's Fund of Mich		-	14
County Physicians			16
County Dentists			
County Nurses			29
Township Supervisors			6
School Board members			22
Others			19

ANNUAL REPORT YEAR 1941. WELFARE DEPARTMENT

1. RED CROSS (Continued)

Immunization and Vaccination Number given Toxoid (first dose) Number given smallpox vaccination

3 157 197

		Children	Children	Broken
Townships	Days	Scheduled	Attending	Appointment
Chocolay	4	64	67	15
West Branch	2	32	31	3
Skandia	3	48	43	11
Marquette	2	32	28	20
Sands	2	32	28	14
Holy Family Orphanag		32	43	00
Michigan Children's	Aid 1	9 249	9 249	63
			20	
Marquette Clini			269	
Children used for mi				
	mily Orpha			14
	ce's Hospit			4
Bay Cla	Iff Health	Camp		20
				20
shpeming	6	96	84	21
shpeming City	1	16	13	3
egaunee Tnsp	2	32	25	8
epublic	5	85	66	21
ilden	5	83	66	23
ly	8	32	28	4
lic higamme	2	32	30	7
hampion	2	32	28	7
		408	340	94
			83	
Ishpeming Clini			423	
hildren used for Mi		intments:		
Ishpemin				53
Holy Fan	nily Orphan	8.80		<u>30</u> 83
				83
lichmond	31	56	45	11
lurin	2	40	43	0
Tells	22	32	25	7
forsyth	8	96	96	0
	5.3	224	209	18
			12	
Gwinn Clinic .			221	

Dr. M. L. Sullivan from the Children's Fund of Michigan was the dentist.

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m. RELIEF WORK

23.

The usual policy was followed in the extension of assistance to certain families who have shown special need through illness, death, or some type of disability.

	Ishpeming	Negaunee	Republic	Gwinn	Marquette	Total
January	146.73	85.12	43.83	2.48	10.00	288.16
February	192.04	47.11	8.00	107.48	10.00	364.63
March	256.47	59.83	27.09	27.24	10.00	380.63
April	213.41	106.77	60.34	107.38	10.00	497.90
May	201.33	48.99	23.45	67.40	-	341.17
June	183.97	58.01	23.45	27.48	20.00	312.91
July	264.73	68.99	13.82	67.40	10.00	424.94
August	104.21	64.31	24.43	67.48	-	260.43
September	180.39	83.05	23.45	82.79	10.00	379.68
October	203.19	47.06	38,90	87.36	10.00	386.51
November	188.32	39.82	54.35	61.79	10.00	354.28
December	260.73	31.06	11.49	82.70	20.00	405.98
	2,395.52	740.12	352.60	788.98	120.00	4,397.22
N-1-1-1-0-0-1						
Number of fami		,	2	5	1	36
assisted	20	8	6	5	1	00
Average amount	of relief ;	per family				\$122.145

The following is a statement of the assistance rendered:

n. EMPLOYMENT

Daily contact is made with the Employment Office, in charge of Mr. H. W. Sundberg. The registration records of the men who are employed at the various mines have been sent to this office and a separate record is kept so that we may have full knowledge of all persons employed.

WELFARE DEPARTMENT

667

o. INCAPACITATED EMPLOYEES

23.

During the year payments have continued to certain men and certain families who originally did not have sufficient service to bring them within the provisions of the pension system. To these people donations were granted. These men are those who have suffered from some disability through accidents or through injuries at the mines and some with large families who became incapacitated.

Following is a list of the families and the amount of the donations paid to them during the year:

DONATIONS TO INCAPACITATED EMPLOYEES

		Monthly Rate for 1941	Total durii	Amount	Paid 1941	
Fred Fred	lette	\$ 20.00	\$	240.00		
Sam Methe		14.40		172.80		
John Aho		14.40	· · · · ·	172.80		
Andrew Ni	emi	16.60		199.20		
Edmond Du		20.00		240.00	1	
Axel Eric		20.00		240.00		
	n Langenhoven	20.00		240.00		
Donato Va		20.00		240.00		
Fred Carl		16.00		192.00		
Joseph Th		75.00		900.00		
A. J. Yun		100.00		1200.00		
William H	-	25.00		300.00		
R. J. Che	•	50.00		600.00		
W. H. Mou		150.00		1800.00		
Gust A. F		20.00		200.00	Began	3/1/41.
John Maki		25.00		250.00		3/1/41.
William N		82.00		738.00		4/1/41.
John Salo		20.00		100.00	Began	8/1/41.
Charles V	and the second se	30.00		90.00		10/1/41.
	rew Larson	12.50		12.50		12/1/41.
	Total		\$	8127.30		
	H	OLMES MINE DONATIONS				
Peter Les	age	20.00		240.00		
Carl Jarv	-	16.99		203.88		
Bernt Wig	gen	20.00		240.00		
Martin Tr		20.00		240.00		
	Total		\$	923.88		

o. INCAPACITATED EMPLOYEES (Continued)

23.

DONATIONS TO WIDOWS

	Monthly Rate for 1941	Total Amount Paid during 1941
Mrs. J. H. Tregonning Mrs. Anna C. Nordeen	\$ 25.00 25.00	\$ 300.00 300.00
Mrs. Fiina Kampinen	25.00	300.00
Total		\$ 900.00

FURNACE DEPARTMENT DONATIONS

The donations, after being granted, were paid by the Furnace Department itself and later by the Cliffs-Dow Chemical Company. By directions from Cleveland on September 1, 1937, the donations have been paid from this office, and the following payments have been made during the year.

John Schrandt	25.00	300.00
Mrs. George Cameron	20.00	240.00
Jacob Hill	20.00	240.00
Julius Olson	25.00	, 300.00
Total		\$ 1080.00

Amount of Donations paid to Incapacitated Employees	\$ 8,127.30
Amount of Donations paid to Incapacitated Holmes Mine Employees	923.88
Amount of Donations paid to Widows	900.00
Amount of Donations paid to Furnace Department cases	1,080.00
Total Donations	\$ 11,031.18

WELFARE DEPARTMENT

o. INCAPACITATED EMPLOYEES (Continued)

Retirement Roll

Throughout 1941 several new names were added to our Retirement Roll. Each case is carefully studied with the superintendent of the mine and is finally referred to Mr. Elliott and if the case is approved, the name is added to the Retirement Roll. It has been the Company policy for a long time to give consideration to old and faithful employees. From time to time conferences are held with these employees and they are always encouraged to come in with their problems.

During 1941 several older employees, because of some physical ailment or because of old age, have been added to the rolls. In many of these cases the Social Security benefits are still quite low. The Company supplements the Social Security benefits and also permits the employee to carry a portion of his group insurance. The privilege of carrying group insurance on the part of older and retired employees means a good deal. Practically every individual who accepted retirement has also continued to carry the life insurance feature of his group insurance. This privilege is very highly appreciated.

At the present time the following men are on our Retirement Roll:

	Present Monthly Rate	Total Amount Paid During 1941
John Mattson	\$ 21.32	\$ 255.84
Mrs. Anna Simo	40.00	480.00
John Chiri	31.00	372.00
James Christian	39.00	468.00
Silvio DeGabriele	10.00	120.00
Matt Hemmila	27.00	324.00
Esten Peterson	33.50	402.00
William J. Phillips	49.50	594.00
Alfred Anderson	27.00	324.00
Victor Kalmi	16.50	107.25 Died 7/4/41
Swen Lahti	12.31	147.72
Anthony Mengori	32.50	390.00
August Reiklot	33.50	402.00
David Reed	30.00	360.00
Sam Roberts, Sr.	33.00	396.00
Sam Sims	39.00	468.00
Charles Abramson	46.50	558.00
Thomas Berryman	35.00	420.00
Victor Carlson	39.00	468.00
William J. Curtis	35.50	426.00
John Hendrickson	35.00	385.00 Died 11/24/41

o. INCAPACITATED EMPLOYEES (Continued)

\$ 45.00 \$ 540.00 Arvid Jernquist 34.00 Died 1/28/41 Jonas Johnson 34.00 Andrew Larson 10.00 120.00 384.00 Charles Larson 32.00 570.00 47.50 Albin Lyman John H. Maki 39.00 468.00 Lars Olson 36.20 434.40 35.00 420.00 Hemming Silas 32.00 384.00 Dave Spencer Joseph Villeneuve 31.00 372.00 50.00 600.00 Henry Beale 24.70 296.40 George Bredeson 35.00 420.00 John Hennessey 17.65 211.80 August Olson 13.81 165.72 Erick Soyrinki 240.00 William T. Waters 20.00 Fred L. Prudom 50.00 600.00 Charles Stevens 40.00 480.00 Nels Oja 27.50 275.00 Died 10/24/41 Matt Mattson 10.00 120.00 Henry Hendrickson 10.00 120.00 William Kennaugh 10.00 120.00 10.00 120.00 Anton Seagren 120.00 John Bjorne, Sr. 10.00 John Bergeson 10.00 120.00 Herman Johnson 10.00 120.00 John Johnson 10.00 120.00 120.00 Rasmus Christenson 10.00 August Wigg 10.00 120.00 10.00 120.00 Otto Lindstrom 10.00 120.00 John Chirio Simon Maki 10.00 120.00 Abram Lahtinen 10.00 120.00 Frank Martin 10.00 120.00 Gust Palomaki 120.00 10.00 C. A. Steede 10.00 120.00 120.00 Charles Anderson 10.00 John Walimaa, Sr. 10.00 120.00 Herman Aho 10.00 120.00 Alex Boz 10.00 120.00 Peter E. Nelson 10.00 120.00 John Cox 10.00 120.00 Joseph Grevious 120.00 10.00 Gust Holmgren 10.00 120.00 Edward King 10.00 50.00 Died 6/1/41

WELFARE	DEPT.	ANNUAL	REPORT	YEAR :	1941

23. o. <u>INCAPACITATED EMPLOYEES</u> (Continued)

Chris Stone	\$ 10.00	\$ 120.00	
Otto Franson	10.00	120.00	
Michael McNamara	10.00	120.00	
Otto Schadt	10.00	120.00	
Arsene Tousignant	10.00	120.00	
John K. Johnson	10.00	120.00	
Edwin Harper	10.00	110.00	
Peter Marriuzza	10.00	50.00	Died 9/25/41
William F. Worth	10.00	50.00	
William C. Mitchell	10.00	40.00	
Peter Nadeau	10.00	20.00	Died 12/7/41
Peter Coron	10.00	20.00	
George Young	10.00	20.00	

Total

\$ 18,983.13

p. COST OF LIVING

23.

The cost of living has increased during 1941. We occasionally check prices locally and compare them with other parts of the state, and the general conclusion is that food supplies and clothing are higher. The last estimate given to the State Social Welfare Commission a few weeks ago indicates that there is a general increase in all costs, averaging approximately 15%.

Inquiry is made occasionally among the merchants regarding general business conditions. They report that conditions are not as good as they should be and with higher wages now being paid many business men feel that their businesses are not up to a standard comparable with the wages being paid. It has been very evident during the past few years that people are using their money more for repairing of homes and the building of homes than they have done for a good many years. It is also evident that good automobiles are being driven and people spend more time and money in recreation.

Bank Deposits

During the year bank deposits increased, but near the end of the year a great many people started to put their money in defense bonds. There is more money in circulation due to the fact that payrolls are larger than they have been for some time and wages are higher.

Housing

The housing situation in Ishpeming and Negaunee still remains somewhat of a problem. A number of new homes were built in both cities during the past year, but with increased employment there is a very definite shortage of living quarters in both towns. Up to last year rents were not generally increased. During 1941, however, there has been somewhat of a general increase in rents. However, in comparison with other cities in the county, such as Marquette, rents in both Ishpeming and Negaunee are lower and are still reasonable.

During the year it is estimated that about forty new houses were built in Ishpeming and Negaunee. More were built in Ishpeming than in Negaunee but the increase in Negaunee is greater this year than it has been for some time in recent years.

Relief Situation

The relief situation in Marquette County again shows improvement. The case load is about as low in the county at this time as it has been at any time in recent years. This is due to the fact that there has been more

p. COST OF LIVING (Continued)

employment and greater income. The county still has a sizable W.P.A. program, but not as many men were employed on W.P.A. during 1941 as were at work in years previous. The W.P.A. is still providing employment for a great many men who cannot otherwise be employed.

The employees of the Cleveland-Cliffs Iron Company seem to be appreciative of the opportunity to work regularly and to receive a good wage. As I go about the district, attending various types of meetings and visiting the schools I find that people quite generally are well clothes. It is also noted that children are well nourished and in some school systems they are privileged to purchase a half pint of milk for a small price and each morning an opportunity is given for the children to drink the milk. Some schools also have a program for the giving of vitamin capsules free of charge.

Many homes have new equipment and furnishings. There has been an excellent sale of furniture and home equipment for the past two years. The living conditions generally in Marquette County, I believe, are considerably above the average for areas where mining is the chief occupation. People who come to this district for the first time are quite surprised to find our clean, healthy towns.

I have continued to serve as a member of the Michigan Social Welfare Commission throughout the year but I relinquished the Chairmanship on the first of July, 1941. I served as Chairman during the first two years of the Commission's existence and it reached the point where things were going along pretty well and I felt that the Chairmanship should be passed on to the Vice-Chairman, Mr. M. Clyde Stout of Ionia. The Commission meets monthly, generally in Lansing, but once a year holds a meeting in the Northern Peninsula, usually in Ishpeming. Each month the Commission allocates the funds for direct relief to the various counties in the state on a formula basis. Each county is granted relief money on the basis of its needs and its own ability to take care of the needs. The general relief program in Michigan last year, including Old Age Assistance, Aid to Dependent Children, Aid to the Blind, and direct relief, totalled approximately \$40,000,000.

Three years ago approximately \$16,500,000 was spent in Michigan for direct relief. Each year the Commission has tried to take advantage of the improved conditions and less money is being allocated. The budget for the current year is down to \$6,750,000, for direct relief.

q. IMPROVEMENT WORK

Mr. Julien Payen has charge of the improvement work around all the grounds and properties and the usual program of gardening was carried on at the Ishpeming Hospital.

The buildings and grounds surrounding our properties always present a very neat and trim appearance.

r. WELL KEPT PREMISES

The Best Kept Premises and Vegetable Garden contest, established by Mr. Mather was carried on in 1941. Our slogan was, "Well Kept Premises Display Character". This year we had 108 entries and during the last two weeks of August the judges, consisting of Mr. Julien Payen, Mr. W. E. Johnson of this department, and myself visited the premises of all the entrants and cash prizes, amounting to approximately \$500.00, were later awarded.

There was increased interest in the contest over the previous year. There are many very fine gardens and well kept premises in all the districts. Gwinn continues to have the best gardens because some of our Italian miners who live there are excellent gardeners and they get splendid results.

Appreciation is again expressed for Mr. Mather's interest in this particular phase of the work of the Welfare Department.

s. COMMUNITY SERVICE WORK

The American Legion building in Ishpeming, which was formerly the old hospital, continues to serve as the headquarters for all Legion activities and many other community activities. Many of the other civic organizations hold their regular meetings and social functions in the American Legion building. The building itself is kept in good condition.

The American Legion Club in Negaunee has continued to serve the usual purposes. The Negaunee Legion Club is not used as much as the Ishpeming Club and the Negaunee Legionnaires have some difficulty in trying to make both ends meet. They have not been able to give the building the care it should have and at the present time the Negaunee Legion Club needs painting very badly.

Reference has been made to the Y.M.C.A. building in Ishpeming previously. The building is boarded up and presents a problem in the city. Attempts have

s. COMMUNITY SERVICE WORK (Continued)

been made from time to time to open it and at the present time the possibility is again being discussed. There is some objection to the re-opening of the Y.M.C.A. building due to the fact that there would be some difficulty in getting ample funds to keep it going. Moreover, the recreation area in the City of Ishpeming is gradually being developed and it is felt that there is no need for both a new recreation area with equipment and a Y.M.C.A. building also.

t. CLUBS

23.

The Saturday Noon Luncheon Club, consisting of superintendents and other heads of departments, meets occasionally at the call of Mr. Elliott. Several meetings were held during the course of the year, but the former practice of meeting regularly on Saturdays during the winter months has not been followed. Mr. Elliott now calls the club together on Saturday noon when there is some definite reason for calling a meeting.

u. OUTDOOR ACTIVITIES

Throughout 1941 outdoor activities, particularly winter sports, have been stressed in Ishpeming and Negaunee. Many social functions are held at the Ishpeming Winter Sports Club and from time to time special programs are arranged for the entertainment of the public.

The Ski Tournament which is held on February 22 is the outstanding Winter Sports event in the district. The ski jumping contest has been carried on on Washington's Birthday for over fifty years and in 1941 attracted over 10,000 people. The practice of selecting an outdoor winter queen is carried on in several of the larger cities in the peninsula. This procedure is followed in both Ishpeming and Negaunee.

The City of Ishpeming's Recreation Commission, appointed by the city council over two years ago, continues to study the recreation needs of the community. The three gentlemen mention in last year's report continue to serve and they have been very active in their effort to determine the best possible program for the community from a recreation standpoint. The plans which this commission has developed for the future progress and extension of the recreation area are excellently thought out and in a few years time Ishpeming undoubtedly will have a very outstanding recreation area.

Mr. Elliott has met with the Recreation Commission from time to time and he is familiar with the work they are doing.

u. OUTDOOR ACTIVITIES (Continued)

The Mather Inn

23.

The Mather Inn is undoubtedly the most popular hotel in the Northern Peninsula of Michigan. Many people are very surprised to find a hotel so nicely equipped in this part of Michigan. The last report of the business of the hotel indicates that there was a small loss during 1941. However, the hotel continues to serve a very great need in the community.

w. VARIOUS DEPARTMENTS AND ACTIVITIES

It has been my privilege during the year to assist in various types of activities which are of public and civic nature. These include the Marquette County Chapter of the American Red Cross, of which I am a director, the Michigan Child Guidance Institute. Presently I am serving as Chairman of the Disaster Preparedness and Relief Commission of the American Red Cross in this county. I also serve on the Board of Directors of the Marquette County Branch of the Michigan Tuberculosis Association, the Michigan Delinquency Prevention Council, the Michigan Society for Crippled Children, Inc., the Upper Peninsula Law Enforcement Officers Association, and the Bay Cliff Health Camp Board. From time to time we are called upon to assist in many activities which normally are a part of the work of the Welfare Department.

William Conibear

I wish to include in my annual report this year a word of appreciation to Mr. William Conibear, Assistant General Superintendent in charge of safety, who retired on January 31, 1942. It was a rare privilege to have been associated with him and to have been a co-worker with him in the Cleveland-Cliffs Iron Company. Mr. Conibear cooperated with this department in any undertaking which concerned the welfare of the Cleveland-Cliffs Iron Company and its employees. w. Various Departments.

LAND DEPARTMENT

COMPARATIVE STATEMENT OF GENERAL WELFARE EXPENSES

FOR THE YEARS 1938 to 1941, Incl.

General Welfare Acct. No. 11	1938	1939	1940	1941
A-2 Prop. charged by Treas.	250.00	300.00	300.00	300:00
11-F Miscellaneous Expenses	240.00	240.00	240.00	230.00
	\$490.00	540.00	540.00	530.00
Donations:				
Munising Fire Department		10.00	10.00	10.00
U.P. Development Bureau Munising Hospital Benefit Dance	500.00	500.00	500.00	500.00
	\$ 500,00	510.00	512.00	510.00
Compensation:				
a. Funeral Expense				
d. Legal Expense				
g. Medical Expense				
i. Monthly payments to doctors	310.84	399.14	406.62	465.53
h. Compensation				
<pre></pre>				
Safety Work - Logging Operations				
Supplies	16.61			
Compensation - Logging Operations.				
Medical & Hospital	3076.85	324.84	1185.29	16.50
Compensation payments	6986.43	2547.07	3759.29	5680.12
Percentage of Payroll.	.04%	4.1%	5.2%	5.5%

WELFARE DEPARTMENT.

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VARIOUS DEPARTMENTS (Continued)

23.

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LAKE SUPERIOR & ISHPEMING RAILROAD COMPANY

COMPARATIVE STATEMENT OF GENERAL WELFARE EXPENSE

YEARS 1938 to 1941, INCLUSIVE.

Donations: Fire Department	-	1938	1939 15.00	1940	1941
Visiting Nurse-Marquette	Company of the second s	250.00	250.00	00.00	10.00
Community Chest Fund- Marq Negaunee, and Ishpeming	uette,			287.50	400.00
To Employees & Families		505.00			
	\$ 1	770.00	265.00	312.50	419.90
Pensions:			12130.89	2889.69	2420.00
		770.00	12395.89	3202.19	2839.90
	•	10.00	TURNOR	9404.19	1000.00
Compensation:					San Strand
Compensation Paid	:	524.00	2450.00	493.20	2402.41
Medical Expense	10	045.44	735.35	857.02	2240.76
Percentage of Payrolls					
Acct. Comp. Payments		.0005	.0036	.0007	.0029

WELFARE DEPARTMENTS.

