Electrical Department: (Cont'd)		
	brt. fwd.	5,734 HP.
ISHPEMING HOSPITAL:		
Spare for Dumb Waiter		3
" " Hot Water Return		5
		8
ATHENS MINE:		
Pump Motor		35
Fan "		40
Pump "		125
MAAS MINE:		
Winze Pump		15
Pump (from Morris Mine)		50
Hoist Motor from Stephenson Mine		75
Rheostat Pump		_2
		142
NEGAUNEE MINE:		WEA
Flywheel Hoist Set Motor Top Tram		350 50
Top Tram		400
PRINCETON MINE:		
Underground Pump		150
		150
PRINCETON CENTRAL SHOPS & CENT. POWER PLANT:		
Grinder		3
Austin Mine Hoist Motor		200
" Top Tram		25
Fire Pump from Mackinaw Mine Top Tram "Stephenson Mine		20 50
Top Tram "Stephenson Mine Rock " " " "		25
Ore n n n		50
		373
GWINN STORAGE SHED & STEPHENSON TRANSFER:		
Stephenson 5th level Plunger Pump		250
		250
" 8th " "		50
" 6th " Centri fugal Pump		125
Top Tram from Gardner Mine		25 5 0
" " Stephenson Mine	•	750
TILDEN MINE:		
Conveyor Belt		50
Trip Motor for Shovels		14
Water Supply Pump		_ 2
		534
	TOTAL	5,7353 HP.
	- AVERS	0,1002 111
Coope Notices of Cut on Tit and 1 Wares		
Spare Motors at Spies-Virgil Mine: Underground Haulage Set		150
Grinder Motor		3
	TOTAL	153 HP.

Electrical Department: (Cont'd)

Spare motors on Mesaba Range:

HILL-THUMBULL MINE &	SHOPS					
Log Washer					25 HI	
Pump					3	
Picking Belt					2	
Spare					3	
Log Washer	from	Grosby	Mine		40	
Screen					20	
Picking Belt	10	**			3	
Chip Screen		11	11		3	
Tables	11	11	11		20	
Centrifugal Pump			11		85	
#2 Turbo		11			20	
Feeder					20	
					2	44 HP.
CANISTEO MINE:						
Crosby Mine Plan	er				3	
Spare Pump from	Salis	bury Mi	ne		30	
Centrifugal Pump					600	
					6	33
HOLMAN-CLIFFS MINE:						
Shaft Pump					150	
					_1	.50
				TOTAL	1,0	27 HP.

Total	C.C.I.C	D. &	C.F.&L.	Co. load	comect	ed to	Power	System	*	12/31/32	-	26,7542	HP.	
•	Outside				•	"		•	-			18,590	HP.	
						TOTAL	CONNE	CTED LO	AD		-	45,3442	HP.	
Total	connecte	ed 10	ad at M	lesaba Ra	nge Mine	s -	Dec.	31st, 19	932	2 -		6,925	HP.	
•			" " 8	pies-Vir	gil Mine	•		•				1,398	HP.	
Mate ?	Cheva mo	****	on han	d Dog 3	1. 1932 -	Teho	and no	Distant				5,735 3	WD	
					1, 1902 -	- rani	hamr IIR	DISCIL	36			5,1004	Hr.	
		•				Spie	s-Vir	gil Win	9	•		153	HP.	
		**				- Mess	aba Ran	nge Min	98			1.027	HP.	

Electrical Department: (Cont'd)

The following direct current generators and exciters are installed and operating as needed:

operating as needed:				
		INSTALLED		
		TO JAN. 1	INSTALLED TAKEN OUT	JAN. 1,1933
		1932	IN 1932 IN 1932	TOTALS
AU TRAIN WATER POWER PLANT:				
Exciters	(2)			77A 1710
CARP RIVER WATER POWER PLANT:				34 KW.
Exciters	(2)	750		
Migiters	(4)	150		150
HOIST PLANT:				
Exciter		172		
"		_ 37		
		and Constitution		542
McCLURE PLANT:				
Exciters	(2)	110		
M. G. Exciter		_12		
				122
ESCANABA PLANT:		STATE OF THE PARTY		
Exciter		28		
				28
REPUBLIC PLANT:				
Exciter		18		
		_15		
WALLS OF LIVE				33
MAAS PLANT:				
Motor Driven Exciter		22 2 22 2		
TUIDO	(0)			
Compressor Motor Exciters	(2)			65
PRINCETON CENTRAL POWER PLANT:				00
Motor Driven Exciter		222		
Turbo " "		222		
24100				45
CLIFFS SHAFT MINE:				
Compressor Motor Exciters	(2)	_20		
				20
BROWNSTONE SUBSTATION:				
Battery Charging Set		2		
Line Testing Set		1/2		
Voltage Regulator Control		1/2		
Condenser Exciter		_15		
				18
ATHENS MINE:				
Nordberg Compressor Motor	Exciter	10		
Flywheel Set Exciter		15		
Skip Hoist Generator		700		
Battery Charging Motor-Gen		1/2		
Ingersoll-Rand Compressor	motor axciter	10		735★
MAAG OPTOWING DIANG.				1008
MAAS CRUSHING PLANT:		35		
Pan Conveyor Generator	iter	13/4		
				36 ³
			A STATE OF THE STA	
	fwd.	1,3413 KW.	0 0	1,3413 K.W.
	THE.	Tours Tille		-,4

						INSTALLE TO JAN. 1932	1,	INSTALLED IN 1932	TAKEN OUT IN 1932	JAN. 1,1933 TOPALS
			b	rt. f	wd.	1,3413	KW.	0	0	1,3413 KW.
NEGAUNEE MINE:										
Skip Hois	t Geme	rator				400				
Cage "						150				
Flywheel						25				
			ound Pump							
	-Hand	Compre	essor Moto	or Ex		10				
Nordberg		775.00				10				
Bell Sign			alter and the			1/	2			
Skip Hois	t Gene					400				
Cage "		"	#2			200				
Exciter	n New	Hoist	Set			35				1 0504
WARDER WEWE										1,258
MORRIS MINE:	Donal	a	1/	- D-		10	1		. 12	
	-Rand	Compre	ssor Moto	or MX	el ter	12	to	Inland St	eel 10	
Nordberg	Daniel					10	1		10	
Ingersoll	-nand									10
MACKINAW MINE:										10
Compresso		The Page	•			10				
compresso	P MOE	or made	rear							10
TILDEN MINE:										
Thrust Ge	marato	r on 1	actric S	Shove	1 #29	15				
Hoist		**	11	"	""	75				
Swing	**			**	11	15				
Exciter			. "	**		52				
		**		"	#31	52				
Thrust		"		11		15				
Hoist		11			tt.	75				
Swing	- 11			**	"	16				
Exciter i	for Syr	chron	us Motor			15				
						1000				237
			TOTAL			2,8794	KW.	0	22	2,8574 KW.

TINSTALLED TO JAN. 1. INSTALLED TAKEN OUT 1952 IN 1932 CLIFFS SHAFT MINE: Motor-Generator Set #2 100 kW. " " Charging Set 5 100 " " set #1 100 ATHENS MINE: Rotary Converter #1 100 " " #2 100 MAAS MINE: Motor-Generator Set #1 100 " " #2 150 MORRIS-LLOYD MINE: Motor-Generator Set #1 100 " " #2 150 MAGKINAW MINE: Rotary Converter #1 100 MAGKINAW MINE: Rotary Converter #1 100 MAGKINAW MINE: Rotary Converter 100	
CLIFFS SHAFT MINE: Motor-Generator Set #2 " " Charging Set 5 " " Set #1 100 ATHENS MINE: Rotary Converter #1 100 " " #2 100 MAAS MINE: Motor-Generator Set #1 100 " " #2 100 NEGAUNRE MINE: Motor-Generator Set #1 (new) 200 " " #2 150 MORRIS-LLOYD MINE: Motor-Generator Set #1 100 " " #2 (To Inhand Steel) 100 MACKINAW MINE: Rotary Converter 100	TOTALS
CLIFFS SHAFT MINE: Motor-Generator Set #2 " " Charging Set 5 " " Set #1 100 ATHENS MINE: Rotary Converter #1 100 " " #2 100 MAAS MINE: Motor-Generator Set #1 100 " " " #2 100 NEGAUNZE MINE: Motor-Generator Set #1 (new) 200 " " " #2 150 MORRIS-LLOYD MINE: Motor-Generator Set #1 100 " " #2 100 MAGKINAW MINE: Rotary Converter 100	,
Motor-Generator Set #2 100 kW. " " Charging Set 5 " " Set #1 100 ATHENS MINE: Rotary Converter #1 100 MAAS MINE: Motor-Generator Set #1 100 NEGAUNEE MINE: Motor-Generator Set #1 (new) 200 " " #2 150 MORRIS-LLOYD MINE: Motor-Generator Set #1 100 MACKINAW MINE: Rotary Converter 100	205 K.W.
" " Set #1 100 ATHENS MINE: Rotary Converter #1 100 MAAS MINE: Motor-Generator Set #1 100 " " #2 100 NEGAUNRE MINE: Motor-Generator Set #1 (new) 200 " " " #2 150 MORRIS-LLOYD MINE: Motor-Generator Set #1 100 " " #2 100 MACKINAW MINE: Rotary Converter 100	205 K.W.
# " Set #1	205 K.W.
# " Set #1	205 K.W.
ATHENS MINE: Rotary Converter #1 " " #2 MAAS MINE: Motor-Gene rator Set #1 " " #2 NEGAUNEE MINE: Motor-Gene rator Set #1 (new) " " #2 MORRIS-LLOYD MINE: Motor-Generator Set #1 " " #2 (To Inhand Steel) MACKINAW MINE: Rotary Converter 100	205 K.W.
Rotary Converter #1 " " #2 MAAS MINE: Motor-Generator Set #1 " " #2 NEGAUNEE MINE: Motor-Generator Set #1 (new) " " #2 MORRIS-ILOYD MINE: Motor-Generator Set #1 " " #2 (To Inhand Steel) MACKINAW MINE: Rotary Converter 100 100	
Rotary Converter #1 " " #2 MAAS MINE: Motor-Generator Set #1 " " #2 NEGAUNEE MINE: Motor-Generator Set #1 (new) " " #2 MORRIS-ILOYD MINE: Motor-Generator Set #1 " " #2 (To Inhand Steel) MACKINAW MINE: Rotary Converter 100 100	
MAAS MINE: Motor-Generator Set #1 100 " " #2 100 NEGAUNEE MINE: Motor-Generator Set #1 (new) 200 " " #2 150 MORRIS-LLOYD MINE: Motor-Generator Set #1 100 " " #2 (To Inhand Steel) 100 MACKINAW MINE: Rotary Converter 100	
MAAS MINE: Motor-Generator Set #1 100 " " #2 100 NEGAUNEE MINE: Motor-Generator Set #1 (new) 200 " " " #2 150 MORRIS-LLOYD MINE: Motor-Generator Set #1 100 " " #2 (To Inhand Steel) 100 MACKINAW MINE: Rotary Converter 100	
Motor-Generator Set #1 100 100 NEGAUNEE MINE: Motor-Generator Set #1 (new) 200 150 MORRIS-LLOYD MINE: Motor-Generator Set #1 100 100 MACKINAW MINE: Rotary Converter 100	200
Motor-Generator Set #1 100 100 NEGAUNEE MINE: Motor-Generator Set #1 (new) 200 150 MORRIS-LLOYD MINE: Motor-Generator Set #1 100 100 MACKINAW MINE: Rotary Converter 100	
NEGAUNEE MINE: Motor-Generator Set #1 (new) 200 " " #2 150 MORRIS-LLOYD MINE: Motor-Generator Set #1 100 " " #2 (To Inhand Steel) 100 MACKINAW MINE: Rotary Converter 100	
NEGAUNEE MINE: Motor-Generator Set #1 (new) 200 " " #2 150 MORRIS-LLOYD MINE: Motor-Generator Set #1 100 " " #2 (To Inhand Steel) 100 MACKINAW MINE: Rotary Converter 100	
Motor-Generator Set #1 (new) 200 150 MORRIS-LLOYD MINE: Motor-Generator Set #1 100 " " #2 (To Inhand Steel) 100 MACKINAW MINE: Rotary Converter 100	200
Motor-Generator Set #1 (new) 200 " " #2	
MORRIS-ILOYD MINE: Motor-Generator Set #1 100 " " #2 (To Inhand Steel) 100 MACKINAW MINE: Rotary Converter 100	
MORRIS-ILOYD MINE: Motor-Generator Set #1 100 " " #2 (To Inhand Steel) 100 MACKINAW MINE: Rotary Converter 100	
Motor-Generator Set #1 100 " #2 (To Inhand Steel) 100 MACKINAW MINE: Rotary Converter 100	350
Motor-Generator Set #1 100 " #2 (To Inhand Steel) 100 MACKINAW MINE: Rotary Converter 100	350
MACKINAW MINE: Rotary Converter	
MACKINAW MINE: Rotary Converter	
Rotary Converter	
Rotary Converter	100
	100
	1,155 KW.
Direct Current Motors:	
AU TRAIN WATER POWER PLANT:	
Governor Control Motors (2)1/4	
	1/4
CARP RIVER WATER POWER PLANT:	
Rheostat Control (2) 1/4 Governor * (2)1/4	
Governor * (2)1/4	
	1/2
McCLURE PLANT:	
Valve Control (2) 2 Rheostat " (2)1/2	
14.1	25
CLIFFS SHAFT MINE:	
Portable Hoist 10	
Car Puller	
12 Scrapers 180	
	194 1
fwd. 1993 HP. 0 0	196]
fwd. 1994 HP. 0 0	19 6} 199₹ HP•

Electrical	Department:	(Cont'd)
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Trect	LIGHT Dep	BITTH	ant:	Cont.	ai						
								INSTALLED			
											JAN. 1,1933
						100		1932		IN 1932	TOTALS
D-					brt.	fwd	•	199 2 H	P. 0	0	1993 HP.
	n mine:										
	Hoist Mot							100			
	Swing "			"	"	"		20			
								20			
	Swing "	1 11		,	11	#3		20			
	Thrust "				"	"		20			
	Hoist "							100			900
ATHEN	S MINE:										280
	Skip Hois	+						900			
	Ventilati		ana	7	- 5	HP.	motors	35			
	Sullivan				- 6		#	13			
	H	11	94.5		-15			150			
	Ventilati	ne P	9.71		-			15			
	Sullivan			2	-20	**	11	40			
	IR.				10	**	11	20			
						160					1,173
MAAS	MINE:										
	Timber Ho	ist -	- skip	pit				10			
			- 4th :	level				10			
	Ventilati	ng F	9271					15			
	Sullivan	Scraj	pers	12	- 15	HP.	motors	180			
	- #	"		7	- (in 2		452			
	Scraper S	lide						15			
	Ventilati	ng Fa	ans	7	- 5	, "		35			
	Scrapers			2	- 25	, "		50			
	Conway Lo	ader		(sto	(be:			50		50	
	IR. Ser	aper	8		- 15		**	105			
		"			- 10		19		30		
	Scrapers			2	- 20) "			40		
			- tela 1								535₺
- 1000 E- 1000	CRUSHING		.:					40			
	Pan Conve	yor						40			40
NTTO ATT	NEE MINE:										
Strategic Strategics	Skip Hois							500			
	Cage "	25.76						200			
	Timber Ho	10+	- 4101	mat 0	men	1 6870		10			
	11 III	11			2th	1000		10			
	Ventilati	no P	an Im	umed		& at	ored)	71		7章	
	Scrapers		100				P. motor				
	Sullivan	Same	na re				H H	65			
	H	1014	1		5 - 2			75			
	Ventilati	ng Fr	an	VELVE	SAL	State of		5			
	Denver Sc			2	- 1	0		30			
	Sullivan				- 1			105			
	Ingersoll							45			
	H	11			-]		" "	50			
					12.3		100				1.185
						f	wd.	3,4003 H	P. 70	572	3,4134 HP.

		INSTALLED		
		And the second s	NSTALLED TAKEN OUT	JAN. 1,1933
			IN 1932 IN 1932	TOTALS
	brt. fwd.	3,4003 HP.	70 572	3,4134 HP
ORRIS MINE:				
Ventilating Fan, 4		15	15	
Sullivan Scrapers	7 - 6 HP. motors		452	
Denver "	7 - 72 " "	522	522	
Sullivan "	2 - 10 " "	20	10	
	5 - 72 " "	372	37 ½	
	7 - 15 " "	105	45	
Scraper Slide Timber Hoist		15	7₺	
Scrapers	3 - 25 " "	7章 75	25	
Ingersoll-Rand Scr	[2] [2] [2] [3] [3] [4] [4] [4] [4] [4] [4] [4] [4] [4] [4	30		
THE GIROTI-INIM DOI	apers a - 10			165
ARDNER-MACKINAW MINE:				
Sullivan Scrapers	2 - 20 HP. (stored	1) 40	40	
Hoist		15	_ 15	
				0
	TOTAL D.C. MOTORS	3,8583 HB.	70 3502	3,5784 HP
Spare Generators a	and Exciters on hand Decem	mber 31st, 193	2:	
CLIFFS SHAFT		•	00 7777	
WOTOL-Ge	merator Set for Battery	unarging		20 KW.
GENERAL STORE	WOUST.			EU AN.
APPENDING TO A STATE OF THE PROPERTY OF THE PR	at Exciter		22	
014 mots				22
NEGAUNEE MINE				
Skip Hoi)	500 HP.	
		TOTAL		
				42 K.W
				42 K.W
				42 K.W
Spare Underground	Haulage Generators on har			42 K.W
				42 K.W
GENERAL STORE	House:	nd December 31	st, 1932:	42 K.W
GENERAL STORE		nd December 31	st, 1932:	
GENERAL STORE	House:	nd December 31	st, 1932:	42 K.W
GENERAL STORE	House:	nd December 31	st, 1932:	
GENERAL STORE Motor-Ge	House:	nd December 31 is)	st, 1932: 	
GENERAL STORE Motor-Ge	HOUSE: merator Set (from Morri	nd December 31 is)	st, 1932: 	
GENERAL STORE Motor-Ge	HOUSE: merator Set (from Morri	nd December 31 is)	st, 1932: 	
GENERAL STORE Motor-Ge Spare Direct Curre ATHENS MINE:	HOUSE: merator Set (from Morri	nd December 31 is)	100 HP.	
GENERAL STORE Motor-Ge Spare Direct Curre ATHENS MINE:	HOUSE: one rator Set (from Morri ont Motors on hand December	nd December 31 is)	st, 1932:	100 kw.
GENERAL STORE Motor-Ge Spare Direct Curre ATHENS MINE: Timber H Fan	HOUSE: one rator Set (from Morri ont Motors on hand December	nd December 31 is)	100 HP.	
GENERAL STORE Motor-Ge Spare Direct Curre ATHENS MINE: Timber H Fan LLOYD MINE:	HOUSE: merator Set (from Morri ent Motors on hand December loist Motor	nd December 31 is)	10 HP.	100 kw.
GENERAL STORE Motor-Ge Spare Direct Curre ATHENS MINE: Timber H Fan LLOYD MINE: Crane Mo	HOUSE: merator Set (from Morri ent Motors on hand December loist Motor	nd December 31 is)	100 HP. 10 HP.	100 kw.
GENERAL STORE Motor-Ge Spare Direct Curre ATHENS MINE: Timber H Fan LLOYD MINE:	HOUSE: merator Set (from Morri ent Motors on hand December loist Motor	nd December 31 is)	10 HP.	100 KW.
GENERAL STORE Motor-Ge Motor-Ge Spare Direct Curre ATHENS MINE: Timber H Fan LLOYD MINE: Crane Mo Ore Load	HOUSE: merator Set (from Morri ent Motors on hand December loist Motor	nd December 31 is)	100 HP. 10 HP.	100 kw.
GENERAL STORE Motor-Ge Motor-Ge Spare Direct Curre ATHENS MINE: Timber H Fan LLOYD MINE: Crane Mo Ore Load GENERAL STORE	HOUSE: merator Set (from Morri ent Motors on hand December doist Motor etor der HOUSE:	nd December 31 is)	100 HP. 15	100 KW.
GENERAL STORE Motor-Ge Motor-Ge Motor-Ge Motor-Ge Motor-Ge Motor-Ge Motor-Ge ATHENS MINE: Timber H Fan LLOYD MINE: Crane Mo Ore Load GENERAL STORE Pump Mot	HOUSE: merator Set (from Morri ent Motors on hand December loist Motor etor ler HOUSE:	nd December 31 is)	100 HP. 15 10 LP. 20	100 KW.
GENERAL STORE Motor-Ge Motor-Ge Motor-Ge ATHENS MINE: Timber H Fan LLOYD MINE: Crane Mo Ore Load GENERAL STORE Pump Mot Spare Ho	HOUSE: merator Set (from Morri ent Motors on hand December loist Motor HOUSE: for elst Motor for Shovel	nd December 31 is)	100 HP. 10 AP. 20 105	100 KW.
GENERAL STORE Motor-Ge Motor-Ge Motor-Ge Motor-Ge Motor-Ge Motor-Ge ATHENS MINE: Timber H Fan LLOYD MINE: Crane Mo Ore Load GENERAL STORE Pump Mot Spare Ho " Sw	HOUSE: merator Set (from Morri ent Motors on hand December loist Motor HOUSE: for pist Motor for Shovel ging " " "	nd December 31 is)	10 HP. 15 20 105 20	100 KW.
GENERAL STORE Motor-Ge Motor-Ge Motor-Ge Motor-Ge Motor-Ge Motor-Ge ATHENS MINE: Timber H Fan LLOYD MINE: Crane Mo Ore Load GENERAL STORE Pump Mot Spare Ho " Sw	HOUSE: merator Set (from Morri ent Motors on hand December loist Motor HOUSE: for elst Motor for Shovel	nd December 31 is)	100 HP. 10 AP. 20 105	100 KW.

A LINE AND DESCRIPTION OF THE PARTY OF THE P		
Electrical Department: (Cont'd)		
	brt. fwd.	192 HP.
GARDNER-MACKINAW MINE:		
	P. motors 30	
" Scraper	20	
Hoist	<u>15</u>	c E
	TOTAL	257 HP.
	TOTAL	apr nr.
MESABA RANGE:		
Exciters and Generators installed up to	o December 31st, 1932:	
BORING MINE:		
Compressor Motor Exciter	6 I	CW.
		6 KW.
CANISTEO MINE:		
Hoist Generator on Shovel	1372	
Swing " " "	40	
Thrust " " "	39	
Washing Plant Generator	150	
Arc Welder	10	
Shovel Hoist Generator	150	
" Thrust "	39	
" Swing "	40	
" Exciter		
		617
HILL-TRUMBULL MINE:		
Hoist Generator on Shovel	137g	
Swing " " "	40	
Thrust " " "		mel
HOT WANT OF TIME MINTE.		216
HOLMAN-CLIFFS MINE:	1704	
Hoist Generator on Shovel Swing " " "	1372	
Thrust " " "	39	
Generator for Feeder	150	
demotator for pager		366±
	TOTAL	1,206 KW.
Underground Haulage Generators install	ed up to Dec. 31st, 1932:	
HOLMAN-CLIFFS MINE:		
Motor*Generator Set	115 1	cw.
2001-46161601 860		
HILL-TRUMBULL MINE:		
Motor Generator Set	55	
WADE MINE:		
Rotary Converter	100	
	TOTAL	270 KW.
Direct Current Motors installed up to I	December 31st, 1932:	
CANISTEO MINE:		
Back Drives on Classifiers	4 - 5 HP. motors 20 H	IP.
Hoist Motor on Shovel	187g	
	40	
Swing " " " " Thrust " " "	40	
Pan Conveyor	40	
Zan Oonteyor	경기가 그 중에 있다. [전문의 경기 기업 시간 시간 경기 전 경기 기업 시간 시간 경기 기업	327 HP.
	far	Omi S III.

	brt.	fwd.	3272	HP.
HILL-TRUMBULL MINE:				
Feeder Motor		60		
Hoist Motor on Shovel		1875		
Swing " " "		40		
Thrust " " "		39		
Dorr Bowl Classifiers 2 - 5 H	P. motors	10	336	
HOLMAN-CLIFFS MINE:			Coog	
Pan Conveyor		40		
Log Washers 3 - 40		120		
Hoist Motor on Shovel		1872		
Swing " " "		40		
Thrust " " "		40		
			427	
	TOTAL		1,0912	HP.
MESABA RANGE:				
Total Exciters and Generators installed to December 31s	t, 1932 -		1,2062	KW.
" Haulage Generators " " " "		3.4	270	KW.
" Direct Current Motors " " " "			1,091	HP.
SPIES-VIRGIL MINE:				
Exciters installed to December 31st, 1932:				
Compressor Motor Exciter			10	KW.
Underground Haulage Generators installed to December 31	st, 1932 -		150	KW.
Top Tram Larry Cars 2 - 20 Hg. D.C. Motors		40		
Fan		15	55	HP.
ISHPEMING DISTRICT:				
Total D.C. Generators and Exciters installed to December	r 31st, 1932	-	2,8574	K.W.
" Underground Haulage Generators " " "		1.	1,155	K.W.
" Direct Current Motors " " "		•	3,5784	H.P.
Total Spare D.C. Generators and Exciters on hand "		•	42	K.W.
" " Underground Haulage Generators " " "		•	100	K.W.
" " Direct Current Motors " " "		•	257	H.P.

Electrical Department: (Cont'd)

Substation Transformers installed up to December 31st, 1932:

66.000/2.300 Volts	Phase	No.	K.V.A.	TOTAL K.	<u>√.A</u> .
Munising Substation	1	3	667	2,001	
Seney "	1	1	25	25	
Inland #1 "	i	3	500	1 500	
n #2 "	1	3	500	1 500	
					5.026 K.V.A.
33,000/66,000 Volts					
Gwinn Substation	1	3	1,250	3.750	
					3,750 "
33,000/13,200 Volts					
Clarksburg Substation	1	3	372	112	
				4045,730,000	1122 "
33,000/6,600 Volts					
Eben Substation	1	1	25	25	
				40.57200750	25 "
33.000/2.300 Volts					
Brownstone Substation	1	3	400	1,200	
Cliffs Shaft-Holmes Substation	1	6	500	3 000	
Morris-Lloyd Substation	1	3	590	1 770	
Princeton "	ī	3	250	750	
Republic **	1	3	400	1 200	
Maas	1	6	590	3 540	
Escanaba Plant "	ī	3	590	1 770	
Gwinn "	ī	3	625	1 875	
Munising	ī	3	200	600	
McClure Plant "	3	2	5.000	10 000	
Carp " "	i	3	1 900	5 700	
Au Train " "	3	1	1 250	1 250	
Palmer "	1	3	625	1 875	
Hoist " "	i	3	667	2 000	
Greenwood "	i	3	150	450	
Chatham "	ī	2	15	30	
					37,010 "
6,600/2,300 Volts					01,020
Carp Plant Substation	1	6	185	1,110	
Gwinn **	i	3	350	1 050	
Mackinaw "	i	3	350	1 050	
Inland #1 "	ī	3	25	75	
Blaney Park "			25	50	
11 11 11	1	2	15	15	
					3,350 m
6.600/115-230 Volts					
Germfask	1	1	15	15	
n n	ī	2	1.5	3	
	ī	2 2	3	6	
	North Assets				24 11
			GRAND TOTA	T	49,297 K. V.A.
Transformers used for Undergroun	nd Haulage in	nstall	ed to 12/3	1/32:	
Athens Mine converters	1	6	35	210	
Mackinaw Mine converter	1	3	35	105	
					315 K.V.A.

Electrical Department: (Cont'd)

Distribution Transformers installed up to December 31st, 1932:

300/220/110 Volts ANGELINE MINE:	PHASE	NO.		K.V.A.	TOTAL K.V.A.
Hoist Control	1	1		72	
CLIFFS SHAFT MINE:					72
Office Lights	1	1		10	
n	1	1		15	
"A" Shaft Hoists	1	2	(15)		
Pump Station Lights	ī	1		3	
Crusher House Lights	ī	2	(1)		
Crushers & Surface Lights	i	3	(10)		
Gravel Scraper	î	2	(37)		
Underground Scrapers	ī	4	(50)		
M H	i	3	(25)		
Motor-Generator Set for Battery C		3.40			
and 1st level "A" Scrapers	1	3	(15)	45	
Rectifiers	î	7	(5)		
Lights	i	34	(1章)		
Scraper Lights	i	1	(12)	2	
	i			5	
Signal in Engine House		1		3	
Scraper Lights	1	1		3	
Top Tram Control		•			582
HARD ORE, BROWNSTONE, ETC.					302
Light & Power	1	1		15	
1 11 11	î	î		72	
Shop	î	i		30	
Manager's Residence	i	2	(10)		
-creen a -congresse	596337 178	ĩ	1201	5	
F. C. Stanford & Testing	i	i		72	
n n n n	î	i		5	
					90
TILDEN MINE:				3.44	
Pump	1	2	(10)	20	
Lights & Power	1	1		10	
H H H	1	2	(5)		
	1	2		2	
Drills	1	3	(10)		
Shovel	1	3	(5)	15	
Crusher	i	3	(10)	30	
Synchronous Condenser	1	2	(7克)	15	
Scrapers	î	3	(15)		
botapers			120,		177
ATHENS MINE:					
Machine Shop	1	2	(10)	20	
Surface Lights & Lab. Hot Plates	ī	3	(10)		
Pump Station Lights	ī	1		5	
H H H	î	1		5 2	
100 G.P.M. Pump	3	ī		40	
Signal System	1	î		1	
Engine House Lights	î	î		5	
angine house bights	i	î		4	
Top Tram	i	i		2	
	i	i		i	
" " Control					110
				11 6 1	
			fwd.		966

MAAS MINE: Lights & Injection Pump Coal Crusher & Shop			13 8 12	William Program	966
Lights & Injection Pump Coal Grusher & Shop					2008
Coal Crusher & Shop	TO ALL THE	100	1201	70	
	1	3	(10)	30	
Of second County and	1	2	(10)	20	
Signal System	1	1		10	
3rd Level Pump Station	i	2	(5)	10	
Cage Hoist Control	i	1		10	
Skip " "		1		2	
Rock Tram	1	i	33	3	
[18] (Control of the control of the		i		1 72	
Heaters in Engine House Top Tram	1	i		2	
	î	i		15	
Shop					101
MAAS CHUSHING PLANT:					***
Lights	1	1		78	
		9.40			7世
NEGAUNEE MINE:		133			
Shop Light & Power	1	1	10-67	10	
	1	1		72	
Engine House Lights & Power	1	1		10	
	1	1		5	
Signal System	1	1	The S	22章	
Pump Station Lights, etc.	1	3	(7월)	222	
12th Level Pump	1	3	(5)	15	
Barn	1	1		5	
Gravel Pit	1	1		78	
Hoist & Lights - #2 Shaft	1	3	(10)	30	
Laboratory Lights & Power	1	2	(15)	30	
Undg. Haulage	1	1	-	3	146
SOUTH JACKSON CRUSHING PLANT:					140
Hoist Brake	1	1		- 5	
Lights	i	1		2	
algnt's					7
LLOYD MINE:					
Cage Hoist Control	1	1		72	
Skip " "	1	1		72	
Water Supply Pump House Lights	1	1		7 2 2 5 5 2	
Engine House Lights & Bell System	1	1		5	
Shaft House Lights	1	1		5	
Auxiliary Compressor	1	1		2	
Lights & Power	1	1		20	934
MORRIS MINE:					215
Location Lights	1	1		7世	
Club House Lights	ī	i		10	
					172
SECTION 6 SHAFT:					
Hoist Control	1	1		7世	
Lights	1	2	(2)_	4	
					115
			fwd		1,2882

Distribution Transformers (Cont'd)	PHASE	NO. K.V.A.	TOTAL K.V.A.
brt. fwd.			1,288
REFUBLIC MINE:			
Engine House Lights	1	1 75	
Hoist Control	1	1 25 2 (1) 2 1 3 1 1½	
Top Tram Controls	1	2 (1) 2	
Office Lights	1	1 3	
Water Power Plant Lights	1	1 12	
	1	1 _3	
AUSTIN MINE:			42
Shop	1	1 _10	
			10
GARDNER MINE:			
Cage Hoist Control	1	1 10	
Top Tram	1	1 2 (10) 20	
Power & Lights	1	2 (10) 20	
MACKINAW MINE:			31
Machine Shop	1	2 (5) 10	
Hoist Control	i	1 10	
Top Tram	ī	1 1	
7th Level Engine House Lights	1	1 1	
			22
PRINCETON_#2:			
Top Tram Lights	1	1 3 2 (10) 20	
Stockpile	1	2 (10) 20	23
PRINCETON MINE #3:			
Lighting & Bellt System	1	1 1	
			12
PRINCETON CENTRAL POWER PLANT:			
Coal Grusher	1	3 (72) 222	
Power Plant Lights	1.	1 _10	1
			32 2
PRINCETON CENTRAL SHOPS:	1	2 (10) 20	
Power & Lights		# (10)_#V	20
GWINN DISTRICT OFFICE:			
Lights	1	1 _10	The same of the same of the
			10
PRINCETON PUMP STATION:			
Power	1	3 (15) 45	
Lights	1	1	5 0
GUINN DISTRICT CRUSHER:			50
Power & Lights	1	2 (10) 20	
- Owel - Bigite			20
GWINN SUBSTATION:			
Lights	1	11/2	
			1/2
AU TRAIN WATER POWER:			
Operators Dwelling Lights	1	1 2 2	
Control Power & Lights. Dixon Location	7	2 (5) 10	
" " " Grand Island	1 1 1 1	2 (5) 10 2 (5) 10	
Lights, Forest Lake Location	î		
Chief Operator's Dwelling Lights	1	1 5	
Surge Tank Heaters		2 (5) 10	
Dixon Tie Mill	1		
Gravel Pit	1	2 (5) 10	Not the second
		fwd	. 1,551

brt. fwd.	PHASE	NO.	_K	·V.A.	1.551
U TRAIN WATER POWER:	brt.	fwd.		68	1,001
Camp Lights	1	1		5	
Grand Island	î	î		72	
total alaka	i	2	(5)_		
		-	1 21-	_10	901
ARP RIVER WATER POWER PLANT:					302
Power & Lights	1	100		10	
n n n	1	1		10	
BUT THE BOOK OF THE PARTY OF TH	i	1 2	1 21	20	
Pump	1000	~	(1)_	_2	32
OIST PLANT:			Bar Y		04
(1982년 - 1982년 - 1982년			1201	70	
Power & Lights	1	3	(10)_	30	
					30
CLURE PLANT:					
Power & Light	1	2	(10)_	20	
					20
SCANABA RIVER FLANT:		100	Total Col		TO STATE OF THE PARTY OF
Power & Light	1	3	(5)_	15	
		30.3			15
		G	RAND T	OTAL	1,73822
HE CLIFFS ELECTRIC CO.		18.5			
Austin Location Lighting	1	1		10	
Gwinn Street Lights	1	2	(1)	2	
n n n	1	1		2	
Gwinn Lighting - near Depot	1	1		1/2	
" - Poplar Alley	ī	ī		30	
* Power - Club House	î	2	(5)	10	
" Lighting - " "	i	ĩ		10	
" " - Mineral Street	î	i		10	
" - Pine "	i	2	(15)	30	
[25] : "보다는 1일 다양 전 경기 (C. 1925) 남아들이 보세하면 보세하면 경우 전혀 있다. (C. 1927) [C. 1925] 다양 시간 [C. 1925] [î	3	(5)	15	
20407			6 91	1 1 18 2 18 18 18 18	
	1	1	经间隔	10	
Cyr Location Lighting	1	1		2	
Princeton Upper Location Lighting	1	1		10	
" Lower " "	1	1		5	
New Swanzy	1	1		10	
Little Lake " "		1		5 71/2	
	100	1		72	
Chatham Lighting & Power	1	2	(元)	15	
	1	1		10	
	1	1		5	
	1	1		1	
Eben Lighting - School	1	1		10	
Sensy "	1	1		10	
	1	1		3	
Rumley "	1	2	(5)	10	
Dorsey Farm Lighting	1	1		22	
H H H	1	1		3	
Eben " "	1	1		3 3 21 3 5	
и и п	1	1		2	
Blaney Lighting Extensions	ī	1		3	
Dorsey Lighting	i	1		5	
MAY DON WI SHOTHE	i	11	(1½)	162	
			4491	100	
" " " Chatham Rural Lighting	i	2	(3)	6	

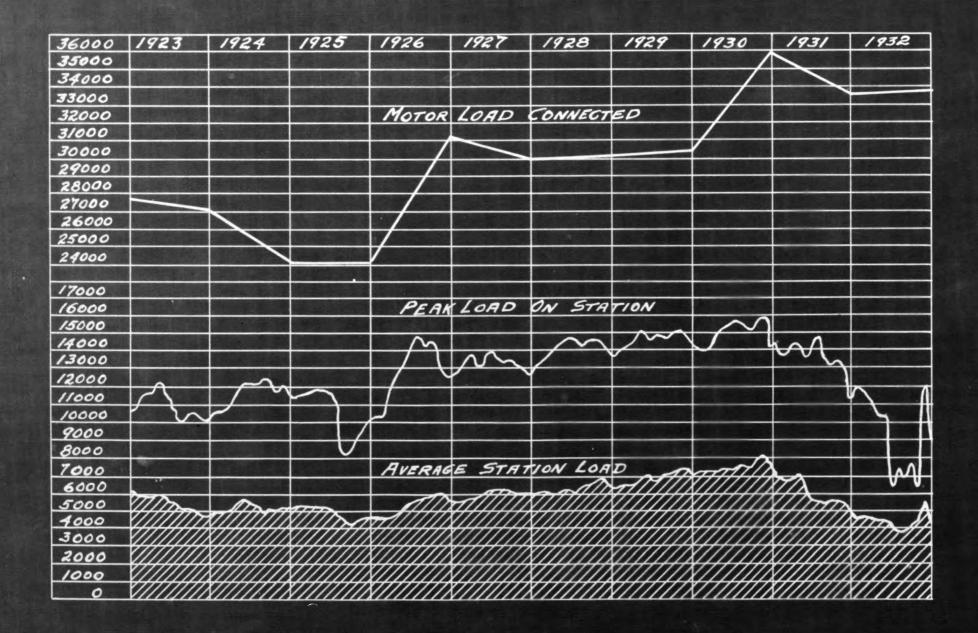
Electrical Department: (Cont'd)

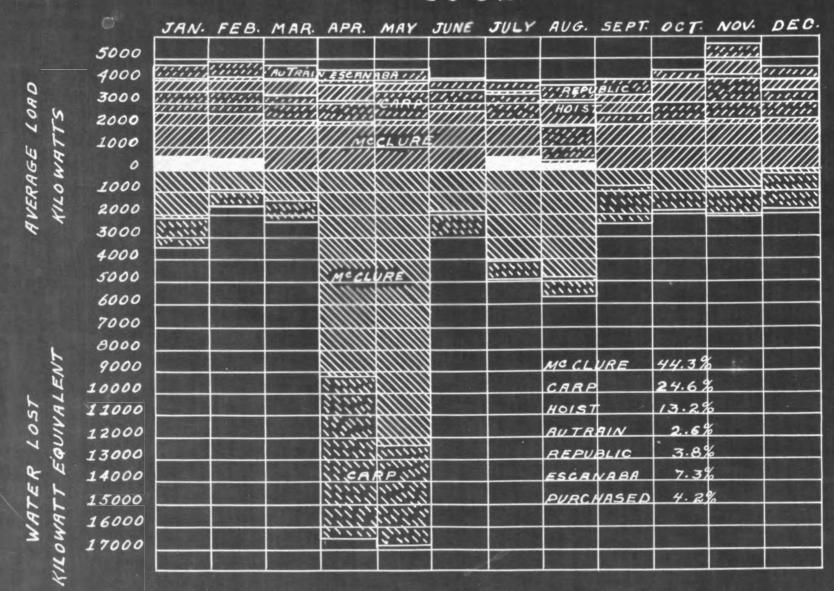
Spare Transformers on hand December 31st, 1932:

				PHASE	NO.	K.V.A.	TOTAL K.V.A.
ANGELINE MINE	G:						
	Electric			1	1	1	
							1
GENERAL STOR							
	nou se from			3	1	1,250	
deneral	Blectric	for 440	shaft pump	1	1	100	
				1	1	10	
	"	Page Page	. b14 a	1	1 7	60	
		from Repu	DITE	i	3	15	
				i	1	경출	
Western	Mectric			i	î	5	
	Electric			i		75) 225	
Agrigian	11			î	1	10	
				1"	î	10	
				î	i	10	
Westing	AP COL			î	î	15	
	Electric			i	1	5	
Allis-C				i	1	72	
	Electric			î	î	10	
1				i	i	3	
				ì	i	3	
				î	1	2	
Western	Electric			i	ī	10	
General	11			1	1	2	
Westing	house			i	1	5	
	Electric			1	1	5	
				1	1	1	
				1		15) 30	
** ** ** ** ** ** ** ** ** ** ** ** **				1	1	25	
				1	1	1/2	
							1,8312
ATHENS MINE:							
Spare				1	1	3	
Spare				1	1	3	
							6
REPUBLIC MINE							
General	Electric			1	1	4	
							4
GWINN SUBSTAT	CION:						
Spare				1	1	10	
							10
ESCANABA RIVI	CR PLANT:						
Spare				1	1	10	
50 Tre							10
PRINCETON MIN					16 80		
Surface	Lighting		The State of	1	1	5	
							5
					TOT	AT	7 0674
				100	TOI		1,8672

RATIVE TABLES:				CUBIC	
	TONS	TONS ORE		FT. AIR	GALLO
	COAL	& ROCK	CU. FT.	PER TON	OF WAT
YEAR	BURNED	HOISTED	AIR USED	HOISTED	PUMPE
CLIFFS SHAFT M	INE:				
1923	2,359	305,727	734,645,710	2,403	377,383
1924	2 224	309 996	784 461 617	2 530	388 257
1925	2 900	322 928	824 005 547	2 551	327 655
1926	1 470	350 604	801 351 000	2 285	379 727
1927	957	426 830	766 647 000	1 796	440 517
1928	1 008	416 344	804 600 000	1 932	463 182
1929	934	451 334	853 572 500	1 891	461 403
1930	716	444 511	896 693 000	2 017	446 650
1931	560	315 492	592 506 000	1 878	350 061
1932	611	92 125	188 127 000	2 042	369 057
ATHENS MINE:					
1923	971	246,704	635,535,000	2,576	103,329
1924	685	246 352	581 130 000	2 359	116 161
1925	789	214 510	468 900 000	2 186	131 715
1926	869	226 229	547 650 000	2 421	140 788
1927	790	233 221	679 815 000	2 914	127 086
1928	827	241 977	710 640 000	2 936	120 178
1929	767	344 534	1,154,380,000	3 350	117 645
1930	657	384 801	1 060 650 000	2 756	121 785
1931	621	254 660	686 750 000	2 696	136 215
1932	578	77 639	209 925 000	2 703	205 070
MAAS MINE:					
1923	548	228,528	472,220,000	2,066	509,330
1924	682	224 291	470 880 000	2 099	522 683
1925	670	144 408	372 735 000	2 581	480 918
1926	829	245 992	420 930 000	1 711	508 242
1927	767	274 586	521 730 000	1 900	534 129
1928	657	272 740	679 005 000	2 489	553 419
1929	577	347 232	1,067,265,000	3 074	554 452
1930	606	443 504	1 374 390 000	3 098	577 702
1931	618	332 206	756 405 000	2 076	585 922
1932	585	97 295	210 825 000	2 166	576 727
NEGAUNEE MINE:	_				
1923	996	383 914	655,695,000	1,708	582,912
1924	1,156	322 705	558 980 000	1 732	502 525
1925	1 100	342 824	660 600 000	1 927	436 422
1926	1 229	374 004	602 010 000	1 609	440 271
1927	1 139	501 516	895 680 000	1 785	603 746
1928	1 278	472 458	1,047,240,000	2 216	629 675
1929	1 410	569 489	1 123 840 000	1 973	648 591
1930	1 254	597 364	1 044 270 000	1 748	556 227
1931	885	346 533	620 641 000	1 791	482 294

COMPARATIVE TABLES:	(Cont'd)				
				CUBIC	
	TONS	TONS ORE	Att 1909	FT. AIR	GALLONS
VDAD	BURNED	& ROCK	CU. FT.	PER TON	OF WATER
YEAR	DUMMAD	HOISTED	AIR USED	HOISTED	PUMPED
TILDEN MINE:		753		1	
1929	625	441,769	ALCO MADE	48.50	
1930	498	287 043			
1931	244	137 010			
1932	38	19 957			
MORRIS-LLOYD MI	INE:				
1923	1,031	273,124	826,038,000	2,460	267,210,477
1924	894	229 968	381 573 000	1 659	221 874 604
1925	919	258 062	611 836 920	2 371	172 168 518
1926	1 190	291 852	469 265 000	1 608	203 411 761
1927	1 096	333 736	688 545 000	2 062	223 631 596
1928	1 295	364 123	693 360 000	1 904	227 752 992
1929	1 243	456 119	947 560 000	2 077	236 012 174
1930	1 314	490 395	1,058 670 000	2 158	224 981 368
1931	795	364 591	660 645 000	1 812	205 406 448
1932	852	93 671	320 310 000	3 419	213 788 532
GARDNER-MACKINA	W MINE:				
1928	336	91,293	214,020,000	2,344	52,760,063
1929	531	119 189	570 635 000	4 703	56 528 157
1930	316	129 321	621 450 000	4 805	74 823 761
1931	152	80 801	489 240 000	6 054	172 438 518
1932	106	24 761	126 945 000	5 122	119 155 845
SPIES-VIRGIL MI	NE:				
1923	495	19,732			
1924	272	55 953			
1925	313	72 542			
1926	392	92 407			
1927	424	163 911			
1928	366	184 141			
1929	292	168 913			
1930	318	146 027	THE REST OF SECTION SECTION	The State of	
1931	256	97 371			
1932	139	14 343			

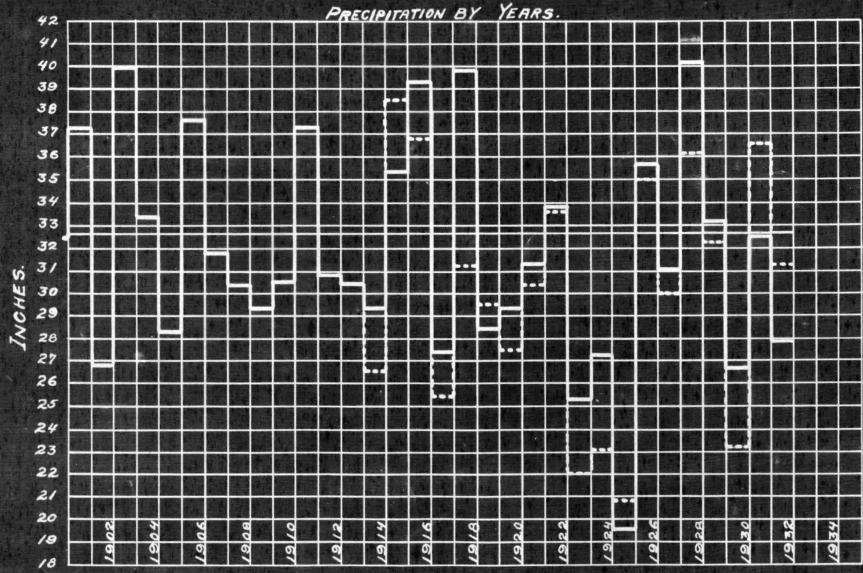




CURRENT MADE BY WATER POWER WATER LOST BY OVERFLOW POWER PURCHASED

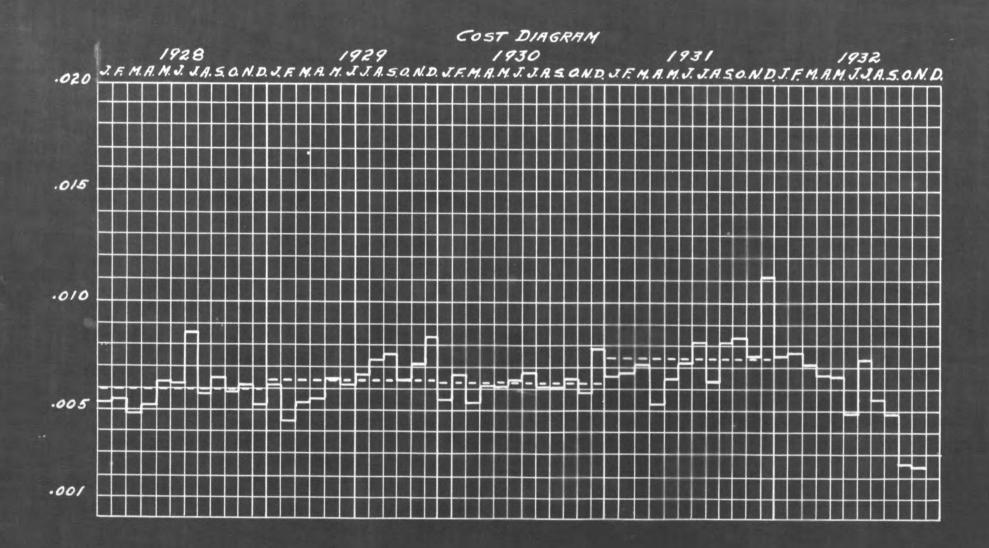
DISTRIBUTION OF ELECTRIC POWER 1928 -1929 - 1930 - 1931 - 1932

THE RESERVE THE PARTY OF THE PA	THO TION OF ELECTR	IL POWER 177	28-1429-1430.	./51 1/52
SHOVELS, C	CRUSHERS AND SURFAC	CETRAMS		1928
UNDER	GROUND SCRAPERS, T	RAMS AND LIGHT		1930 VIIII 1931 1932
	MISCELLANEOUS	POWER AND LIGH	47	
	HOIST	S		
		PUNPS		
		POWER PLANT A	THE RESERVE TO A SECOND	
			COMPRESS	ORS
			uuxuuxuuxuu	DLD TO OUTSIDE PARTIES
	س سے بہتر ہیں تھا کا	KILOWATTS	کا کے سرسے	
300 300 400	500 500 800 1000	1100 1200 1300 1400	THE RESIDENCE OF THE PERSON NAMED IN COLUMN TWO IS NOT THE OWNER.	2100 2100 2300 2400 2500



- MARQUETTE RECORD. ---

--- ISHPEMING RECORD.



Annual Report

Year 1932

AND PERSONAL INJURY

a. Fatal Accidents

The Mining Department was exempted from fatal accidents during 1932. While the total number of man shifts worked was less than one half the number for 1931 and approximately one third the number for 1930, yet the perfect record has run eighteen months, which is an unusually good accident record.

The fatal accident statistics covered in Tables I to IV, inclusive, of the 1931 Annual Report, are omitted in this report.

b. Non-Fatal Accidents

A total of nine lost time accidents occurred at the mines and plants. The most serious injury was the loss of an eye, and with this exception, there was no partial or permanent disability injury. The record of the mines appears in the following table:

TABLE I

<u>Mine</u>	Number of Lost Time Accidents
Athens	2
Canisteo-Cliffs	0
Cliffs-Shaft	1
Gardner Mackinaw	0
Maas	2
Morris Lloyd	0
Negaunee	3
Tilden	0
Wade	0
Spies Virgil	0
Miscellaneous	1
	9

These accidents were separated by causes according to the following classification:

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11. ACCIDENTS
AND
PERSONAL
INJURY

b. Non-Fatal Accidents (Continued)

TABLE II

By handling timber	3
By falls of ground	2
By haulage operation	2
By hand tool	1
By splinter & infection	1
	9

Table III, which follows, gives a classification of these accidents as determined by the Central Safety Committee.

TABLE III

I.	Trade Risk (Incidental and Non-Preventable)	2
II.	Negligence of Company	
	1. Failure to use appliances provided	1
	2. Improper method of doing work	1
	3. Failure to provide proper place to work	1
III.	Negligence of Workmen:	
	1. Improper method of doing work	4
		a

c. Safety Inspection:

A monthly inspection of all operations, surface and underground, including the period when the mines were idle, was made by the writer. These inspection tours covered the Company's mines and plants in Michigan only and excludes the Spies Virgil Mine, which was inspected three times.

A committee consisting of Ernest Keast, of the Mechanical Department, T. F. Guy, blacksmith foreman at the Cliffs Shaft Mine, and the writer, inspected the mechanical equipment of the local mines in December. The reports of this Committee were submitted to the Manager.

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11. ACCIDENTS
AND
PERSONAL
INJURY

c. Central Safety Committee:

This Committee held two sessions in 1932; one in May and another in December.

Special Safety Reports

The various reports and the number of the same that were made by foremen employed at the mines, copies of which are on file in the office of the Safety Department, are listed in Table IV.

TABLE IV

Hoisting Ropes	577
Skip and Cage Roads	198
Ladderways	159
Hoists	87
Cage Catches	66
Fire Equipment	64
	1,151

Safety Conferences

Conferences of foremen were held six times, with an average of 50 men present at each meeting. Supt. W. W. Graff presided as chairman at these conferences, which have for their chief purpose the education of all foremen in the work of accident prevention. Safety standards are revised and as new problems arise they are discussed and safe methods of procedure are adopted, if found practical. More efficient methods of operation is a subject that is being given serious study, when the safety program of a meeting has been covered.

Safety Award

The U. S. Bureau of Mines awarded the Company The Joseph A. Holmes Association's certificate of honor for having operated three underground and three open pit mines more than a year without a lost time accident, with production of more than 2,600,000 tons of ore and rock. The underground mines were the Morris-Lloyd, Cliffs Shaft and Gardner Mackinaw, and the open pits were the Tilden, Holman-Cliffs and Hill Trumbull. These records were made prior to 1932.

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Year 1932

11. ACCIDENTS PERSONAL INJURY

d. First Aid Training

Instruction in first aid to the injured was carried on at the local mines in January and February. On February 29th and March 1st, representatives of the Bureau of Mines examined 25 men who had completed our training These men have since received first aid certificates. First aid training was discontinued in March, as there is no necessity for it with the number of trained men employed compared with the total number now working. Few supplies were purchased.

e. Mine Rescue Training

Men were trained in self-contained oxygen apparatus at reasonable periods from January until the mines were closed. During the idle time all apparatus was inspected monthly and maintained fit for use in case of emergency. With the resumption of operations, training on a limited scale will be resumed early in 1933.

f. Department Expense

Salaries and expenditures charged to this department, as tabulated by our Cleveland office, are as follows:

TABLE V

Salaries	\$ 1,937.91
Auto Expense	255.12
Heat, Light & Power	48.65
Postage	11.41
Travel & Entertainment	24.48
Telephone & Telegraph	67.16
General - Unclassified	13.45
Total	\$ 2,358.18

Respectfully submitted,

Assistant Superintendent

21. ANNUAL REPORT OF THE MINING ENGINEERING DEPARTMENT FOR THE YEAR ENDING DECEMBER 31. 1932

The books of photographic maps and views of the Company's operations, usually prepared in connection with the Annual Report, have been reduced both in number and size, owing to the fact that all of the Minnesota properties were idle during 1932. No photographing of mine maps was done, the advance for the year being shown on prints made from plates on file. The following book was prepared in duplicate, one for the Cleveland office and one for the Engineering Department:

A. LIST OF ANNUAL REPORT MAP BOOK FOR 1932

The Cleveland-Cliffs Iron Company Ishpeming, Negaunee, North Lake, Gwinn, Iron River, and Minnesota Districts.

Most of the special books usually made for partners, fee owners, etc., have been of the Mesaba Range operations, and as these mines did not operate there was nothing to report. Also the usual books for Superintendents have been omitted. The following books were prepared for other parties:

NO. OF COPIES	MINE	FOR WHOM
1.	Athens Mine	Pickands, Mather & Co.,
1.	Negaunee Mine	Bethlehem Steel Corporation

B. Map reports were sent to parties interested in the mines held under lease, in accordance with the provisions of the various leases. These reports consisted of blue prints of the current mine maps showing the work done during the period covered. The following is the list of these reports sent during the year while the mines were operating:

ATHENS MINE

Maps of the Athens Mine were sent monthly to the Cleveland office for Pickands, Mather & Company. Semi-Annual letters were sent to the Agent representing the owners of the portion of the Athens Mine known as the Corbit Lease, that no mining was done in this area during the year. The Mine was idle between June 1 and November 1.

NEGAUNEE MINE

Fourteen sets of annual report prints of the 11th, 12th and 13th levels were sent to the Cleveland office for the fee owners of the Negaunee Mine. The Mine was idle between May 1st and November 1st.

MAAS MINE

Monthly maps of the underground workings of the Roman Catholic Cemetery property were sent to Mr. R. S. Archibald, Negaunee, Engineer in charge. Mine was idle between June 1st and November 1st.

MORRIS LLOYD MINE

Monthly maps of the underground workings of that portion of the Morris Mine on the Moore and Chase leases were sent to Mr. R. S. Archibald, Negaunee, Engineer in charge. The Morris Lloyd Mine was idle June 1st to the end of the year, except development in the Lloyd Mine after November 1st.

SPIES VIRGIL MINE

Five sets of maps of the mining operations of the SpiesVirgil Mine were sent to the lessors at the end of the first and last quarter during the year. Three sets of analysis and two sets of level maps have been sent monthly to the Republic Steel Corporation, showing workings on the Sherwood property, besides three sets for the 1st quarter. The Spies Virgil Mine was idle between March 1st and November 1st and no work was done on the Sherwood property after March 1st.

MACKINAW MINE

One set of monthly maps was sent to the lessors.

C. REMARKS ON THE ABSTRACTS AND VARIOUS SUBJECTS FOR THE YEAR 1932.

The following is a summary of the various documents entered on the records of the Engineering Department during the year. Copies of some of these documents have been placed on file in the Department:

	NUMBER RECEIVED	LAST FILE NUMBER
Land Offers	8	1879
Miscellaneous Documents	17	1199
Easements	37	375
Rights of Way	0	219
Water Rights	0	57
Surface Leases	157	3595
Applications for Sale	7	124
Sales	46	546
Tax Histories	8	567
Legal Opinions	0	193

LAND OFFERS

These have all been reported upon by the Geological Department.

MISCELLANEOUS DOCUMENTS

These documents cover various rights received or granted on mineral or mining lands.

EASEMENTS

Twenty three of these are franchises granted by various political bodies for transmission lines, copies of which were received during the year for the files. The other fourteen easements cover transmission line rights granted to perfect title to the rights of way.

SURFACE LEASES

These leases cover rights granted on any of the Company lands and were submitted by the Land Department for approval of the Mining Department.

APPLICATIONS FOR SALE AND SALES

These originated in the Land Department and cover Company lands off the mineral areas.

TAX HISTORIES

The additions received during the year cover lands that may some time be wanted for storage basin purposes.

ABSTRACTS OF TITLE

What little work has been done on the record of Abstracts during the year, has been of current interest relative to title or rights.

MICHIGAN STATE TAX COMMISSION

The usual set of maps and estimates of ore reserves of the various Michigan mines, were prepared and sent to the Commission before February 1st.

TAXES

The tax list of the Mining Department and Cliffs Power & Light Company lands were prepared and sent to the Land Department, Tax Department, Hibbing District office and Mr. O. D. McClure. The delinquent tax list of the various Michigan counties in which the Mining Department and Cliffs Power & Light Company are interested, were checked and reported upon. The most important question relative to delinquent taxes, is the matter of handling those covering lands crossed by the transmission line of the Cliffs Power & Light Company. Each parcel of land is considered by itself, and referred to the Legal Department for final decision.

LIST OF LANDS

The list of holdings of the Cliffs Power & Light Company was completed early in the year and a report submitted.

MISCELLANEOUS

The following comments cover some of the work done by the Engineering Department during the year that is not mentioned elsewhere in this report.

GARDEN LOTS

Over eight hundred garden lots were staked out in Negaunee, Ishpeming and North Lake Districts. These gardens were approximately 1/5 of an acre in size.

WOOD LOTS

The permits given by the Company to its employees and others to cut fire wood necessitated the laying out of areas for allotment. Inspections were made of the available wooded areas, and estimates made of the number of cords available. Parcels, comprising approximately one acre, were blazed out through the woods. There were about 1500 parcels blocked out in the Ishpeming, Negaunee and North Lake Districts.

JONES & LAUGHLIN STOCKPILE ORE LEASES

Estimates of stockpile ore for Jones & Laughlin Ore Company were made and the areas containing definite tonnages were laid out and witnessed in the field. These areas contained the following tonnages of ore:

GRADE	TONNAGE
Maas	150,000 tons
Lloyddale	103,447 "
Morris	100,000 "

All of the estimates and field work were done with and approved by Mr. J. H. Trebilcock, local engineer for the Jones & Laughlin Company.

D. THE FORCE

The curtailment of the Mining Department operations extended to the Engineering Department, two members of the staff being laid off on January 31st and five more on May 30th, and one returning on June 1st. On January 1st there were nine in the Department, on December 31st there were three.

The following table shows the personnel of the Department during the year, their position, date of employment, term of service and period employed during 1932:

NAME	POSITION	SERVICE ENTERED	YEARS	EMPLOYE	D 193	2
R. J. Chenneour	Asst.Chief Eng.	Jan.1903	30	12 m	onths	17-26
H. O. Moulton	Engineer	Apr.1910	213	7		(1)
J. Trosvig	and the second second	June 1911	193	5		(2)
T. A. Miller		Jan. 1916	162	5	**	(3)
A. Minnear	" & helper	June 1917	13-1/3	1		(4)
K. C. Pellow		Jan. 1918	141	5		(3)
C. W. Allen		June 1925	7	5		(3)
F. J. Haller		June 1930	1-2/3	1	11	(5)
E. A. Allen	Helper	Sept.1931	3/4	5		(6)

- (1) Efficiency Engineer between June 15, 1931 and June 1, 1932.
- (2) Laid off June 1, 1932, also between Oct. 15, 1914 and Dec. 1, 1915.
- (3) Laid off June 1, 1932
- (4) Laid off Feb. 1, 1932 and also between June 7, 1921 and October 12, 1922
- (5) Laid off Feb. 1, 1932
- (6) Transferred from Geological Department in 1931. Laid off June 1, 1932.

The following table shows total working days, days worked, days of sickness and vacation for all men in the Department during the year. Sundays and holidays are not included in vacation time.

NAME	WORKING DAYS	DAYS WORKED	DAYS OVERTIME	DAYS SICK	DAYS ABSENT
R. J. Chenneour	272	2461	5 1	121	181
H. O. Moulton	1601	1641	10	3 <u>1</u>	21/2
J. Trosvig	121½	123	11/2	0	0
T. A. Miller	1111	114	4 <u>1</u>	2	0
K. C. Pellow	1111	1061	11/2	61/2	0
C. W. Allen	1111	109	11/2	4	0
F. J. Haller	20	201	1/2	0	0
A. Minnear	20	20	0	0	0
E. A. Allen	1111	112	11/2	1	0

The following table shows the distribution of time spent underground, in the field or office, during the year:

NAME	UNDERGROUND	FIELD	OFFICE	TOTAL
R. J. Chenneour	25	70	151½	246½
H. O. Moulton	26½	98	40	1641
J. Trosvig	34	9	80	123
T. A. Miller	34 22½	16	75.5	114
K. C. Pellow	33-1	6	67	1062
C. W. Allen	33 ½ 27 ½	101	71 16½ 19½	109
F. J. Haller	4	0	161	201
A. Minnear	0	5	19½	20
E. A. Allen	31	12	69	112
TOTAL	204	222	590	1016
1	20%	21.8%	58.2%	100%

The work performed by each man is briefly described as follows:

Carl Brewer, Chief Mining Engineer, looked after all the routine of the office, entering upon the records all documents passing through the office, etc. He made up the tax lists of lands under the Mining Department and held by the Cliffs Power & Light Company and looked after the delinquent taxes reported upon lands in which the latter Company is interested. Owing to the increased number of lands on the delinquent tax lists each year, it is requiring more attention each year to protect the Power Company's interests. He did some work on the abstracts of title to Company lands, bringing them up to date and preparing the maps to accompany them, especially regarding the Cliffs Power & Light Company. The curtailment of the office force has delayed the completion of this work.

He assisted in the staking out of garden lots early in the summer and later looking over and blazing out the wood lots. He supervised and assisted in the stockpile ore estimates for the Jones & Laughlin Ore Company, and later staked the areas in the field.

When the mines resumed operations on November 1st, he looked after the engineering work at the Lloyd, Mackinaw-Gardner and Spies Virgil Mines, besides assisting in the surveys at the other mines.

Reginald J. Chenneour, Asst. Chief Mining Engineer, was engaged in completing the list of lands of the Cliffs Power & Light Company until April 1st. During April he did the engineering work at the Negaunee Mine, the property closing on May 1st. Early in May he made the estimate of ore in stock at the plant of the Algoma Steel Corporation at Sault Ste. Marie, Ontario, Canada. He laid out garden lots during May and June and for the rest of the summer was engaged mostly in connection with wood lots. He spent some time preparing sewer and water line maps and profiles of the Cleveland-Cliffs Iron Company's 2nd Addition to the City of Negaunee, but was unable to complete this work. He did some engineering work at the Carp River, Escanaba, Au Train and McClure Power Plants. He made the stockpile ore estimate for Jones & Laughlin Ore Company. On November 1st he assumed charge of the engineering work at the Athens and Cliffs Shaft Mines.

The following table shows the distribution of his time during the year:

PROPERTY	UNDERGROUND	FIELD	OFFICE	TOTAL
Athens Mine	4	3	8	15
Cliffs Shaft Mine	5	0	13½ 10	$18\frac{1}{2}$ $18\frac{1}{2}$
Maas Mine	5 4 ¹ / ₂	4	10	181
Mackinaw-Gardner	0	0	1	1
Morris Lloyd Mine	31/2		41/2	8
Negaunee Mine	0 3½ 8	1/2	211/2	30
Spies Virgil Mine	0	0 ² 8 ¹ / ₂ 54	11/2	1½ 53½
Cliffs Power & Light Co.		81/2	45	53-12
Miscellaneous	13	54	4 1 2 2 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	1001
TOTAL	25	70	151½	246 ¹ / ₂
1	10.1%	28.4%	61.5%	100

Henry 0. Moulton returned to the Engineering Department on June 1st.

Practically all of his time from then until October 19th was in connection with the wood cutting operations under Mr. C. J. Stakel. During November and December he looked after the engineering work at the Maas and Negaunee Mines, and assisted with those at the other mines, especially the Lloyd Mine.

The following table shows the description of his time for the last seven months of the year:

	DAYS				
PROPERTY	UNDERGROUND	FIELD	OFFICE	TOTAL	
Athens Mine		11/2	1	$2\frac{1}{2}$ 23 15 15 $\frac{1}{2}$ 108 $\frac{1}{2}$	
Maas Mine	10	1½ 1½ 2½	11½ 3 7½ 17	23	
Morris Lloyd	9½ 7	21/2	3	15	
Negaunee Mine		1	71/2	151	
Miscellaneous	0	912	17	108½	
TOTAL	26½	98	40	1641	
%	16.1%	59.6%	24.3%	100%	

John Tresvig, Engineer, was in charge of the engineering work at the Morris Lloyd Mine until it was closed down on June 1st, and at the Spies Virgil Mine between February 1st and it closing on March 1st. He made the Tax Commission estimate of the Morris Lloyd Mine. He commenced posting the North Lake surface maps to bring them up to date, and assisted in laying out garden lots at North Lake. He was laid off June 1st. He was engaged for 9 days in September to assist on estimates of ore, etc., in connection with the lease of the Morris Mine to the Inland Steel Company.

The following table shows the distribution of his time for the first five months of the year:

PROPERTY	UNDERGROUND	DAYS	OFFICE	TOTAL
Morris Lloyd Mine Spies Virgil Mine Miscellaneous	31 3 0	12 0 812	77 3 0	108½ 6 8½
TOTAL	34	9	80	123
1/2	27.7%	7.3%	65.0%	100%

Tom a Miller, Engineer, took care of the engineering and survey work at the Cliffs Shaft until it closed down June 1st. He did some special work in compiling data for Mr. Stakel and completed a map of the holdings of the Michigan Mineral Land Company that had been started by the Geological Department. He made the ore reserve estimate of the Cliffs Shaft Mine for the Tax Commission and assisted in the Lloyd Mine 6th Level survey. In May he assisted in the ore estimat at the Algoma Steel Corporation, Sault Ste. Marie, and in laying out garden lots in the Ishpeming District. He was laid off June 1st.

The following table gives the distribution of his time for the first five months of the year:

	DAYS				
PROPERTY	UNDERGROUND	FIELD	OFFICE	TOTAL	
Cliffs Shaft Mine Maas Mine Morris Lloyd Mine Miscellaneous	20 1/2 2 2 0	$3\frac{1}{2}$ 0 0 12 $\frac{1}{2}$	59½ 0 0 16	83 1/2 2 281/2	
TOTAL	22 1	16	75½	114	
1/2	20.0%	14.0%	66.0%	100%	

Kenneth C. Pellow, Engineer, did the engineering work at the Maas Mine until June 1st when it was closed, and at the Negaunee Mine until April 1st. He made the ore reserve estimates of both these mines for the Tax Commission. He assisted in a check survey at the Mackinaw-Gardner Mine between the 7th and 8th levels. During the latter part of May he laid out garden lots in the Negaunee District and assisted Mr. Graff in fertilizer distribution. He was laid off June 1st.

The following table shows the distribution of his time for the first five months of the year:

	DAYS				
PROPERTY	UNDERGROUND	FIELD	OFFICE	TOTAL	
Maas Mine Mackinaw-Gardner Negaunee Mine Miscellaneous	25 1 7½ 0	1/2 0 0 51/2	46 1 20 0	71½ 2 27½ 5½	
TOTAL	33½	6	67	1062	
1	31.5%	5.6%	62.9%	100%	

Charles W. Allen, Engineer, had charge of the engineering work at the Athens and Mackinaw-Gardner Mines until they were shut down on June 1st. He made the ore reserve estimates of both these mines for the Tax Commission. At the Mackinaw-Gardner Mine he made special surveys in connection with the extension of the incline shaft from the 7th to the 8th levels, and he ran a check survey at the Lloyd Mine on the 6th Level to check the drift going toward the Lloyd shaft. He finished a map of the gold bearing mineral district north of Ishpeming that had been started by the Geological Department. He laid out garden lots in both the Negaunee and Ishpeming Districts. He was laid off June 1st.

The following table shows the distribution of his time for the first five months of the year:

PROPERTY	DAYS			
	UNDERGROUND	FIELD	OFFICE	TOTAL
Athens Mine	12	1 1 /2	35	48½
Cliffs Shaft Mine	0	0	1/2	1
Mackinaw Gardner	13½	0	221	36
Morris Lloyd Mine	2	0	22½ 0 1½ 1 5½ 2	2
Negaunee Mine	0	0	11/2	11/2
Tilden Mine	0	0 1 2 0	1	11/2
Geological Dept.	0	0	51/2	2 1½ 1½ 5½ 2 11½
Cliffs Power & Light Co.	0	0 8 ½	2	2
Miscellaneous	0	8½	3	11½
TOTAL	27 1	101	71	109
1	25.2%	9.6%	65.2%	100%

F. Joseph Haller, Engineer, did the engineering at the Spies Virgil Mine and the Sherwood property during the month of January. He made the ore reserve estimate of the Spies Virgil Mine for the Tax Commission. He was laid off February 1st.

The following table shows the distribution of his time for the one month:

PROPERTY	DAYS			
	UNDERGROUND	FIELD	OFFICE	TOTAL
Spies Virgil Mine Sherwood Property	2 2	0	12½ 4	14½ 6
TOTAL	4	0	16½	20½
1/2	20.0%	0	80.0%	100%

Archibald Minnear, Engineer and helper, did miscellaneous office work during January, helping with the Annual Report maps, Cliffs Power & Light Company abstract maps, and other regular office work. He was laid off February 1st.

The following table shows the distribution of his time for the one month:

	DAYS			
PROPERTY	UNDERGROUND	FIELD	OFFICE	TOTAL
Athens Mine	0	0	$\frac{1^{\frac{1}{2}}}{2}$	11/2
Cliffs Shaft Mine	0	0		1½ 2 2 1½ 4
Maas Mine	0	0	2	2
Morris Lloyd Mine	0	0	1½ 3½	11/2
Negaunee Mine	0	0	3 1 /2	4
Sherwood Property	0	0	1	1
Cliffs Power & Light Co.	0	0 -	8	8
TOTAL	0	1/2	19½	20
1/2	0	0.2%	99.8%	1007

Ernest A. Allen, Helper, made blue prints in the office and assisted in all surveys underground and in the field. He spent four days in the field mapping the gold bearing mineral area north of Ishpeming for the Geological Department. He was laid off June 1st.

The following table shows the distribution of his time for the first five months of the year:

PROPERTY	DAYS			
	UNDERGROUND	FIELD	OFFICE	TOTAL
Athens Mine	11/2	0	11½	13
Cliffs Shaft Mine	11 2½ 11 3½ 1½ 1½	1 2	10° 11½ 5	21½ 14½ 16 14½ 14 2½ 5 4½ 6 ½
Maas Mine	21/2	0 12 0	1112	141
Mackinaw Gardner	11	0	5	16
Morris Lloyd Mine	31/2	1/2	101	141
Negaunee Mine	$1\frac{1}{2}$		10½ 12½ 2½ 5	14
Spies Virgil Mine	0	0	21/2	21/2
Cliffs Power & Light Co.	0	0	5	5
Geological Department	0	4 6½	0	41/2
Miscellaneous	0	61/2	0	61/2
TOTAL	31	12	69	112
1	27.7%	10.7%	61.6%	100%

E. DISTRIBUTION OF TIME

The following table shows the distribution of time spent underground, in the field and office for the various mines:

PROPERTY	DAYS			
	UNDERGROUND	FIELD	OFFICE	TOTAL
Athens Mine	17½	6	57	80½
Cliffs Shaft Mine	36	4	85½	1251
Maas Mine	421	62	81	130
Mackinaw-Gardner Mine	251	0	29½	55
Morris Lloyd Mine	51½	31/2	$96\frac{1}{2}$	1512
Negaunee Mine	24	2	66 <u>1</u>	921
Spies Virgil Mine	5	0	191	241
Sherwood Property	. 2	0	5	7
Tilden Mine	0	1/2	1	11/2
Cliffs Power & Light Co.	0	81/2	60	68 1/2 41/2 275
Geological Department		4	1/2	41/2
Miscellaneous	0	187	88	275
TOTAL	204	222	590	1016
%	20.1%	21.8%	58.1%	100%

F. COSTS

The following table shows the distribution of time and the cost to the various mines and other work for the last three years:

		1930		Mar In The	1931	Market Room		1932				1932 COST PE
MINES, ETC	LABOR	TIME IN DAYS	PER	LABOR	TIME IN DAYS	PER	LABOR	IN DAYS	PER	INCREASE	DECREASE	AND SUPPLIE
Athens Maas Negaunee Cliffs Shaft Holmes	\$1,994.90 2,268.90 2,179.93 2,988.01 1,408.07	223 ³ / ₂ 225 ¹ / ₃ 216 ¹ / ₃ 322 145 ¹ / ₃	8.0 9.1 8.8 12.0 5.6	\$1,736.05 2,112.45 1,600.38 3,382.40	190 ¹ / ₄ 268 178 368 ³ / ₄ 0	7.8 10.9 7.3 15.3	\$ 660.75 987.30 759.04 993.65	84 129 921 127	8.0 12.3 8.7 12.0	0.2 1.4 1.4	3.3	.011 .012 .010
Tilden Morris Lloyd Republic	1,388.29 3,471.97 5.91	152 3451 152	5.5 14.0 0	436.46 3,255.11 0	45 345 ¹ 0	1.9	11.17 1,087.39	1½ 1551 0	0.1 14.8		1.8	.001 .016
Spies Virgil Gardner Mackinaw	1,420.83 1,815.08	142 190	5.1 7.2	1,859.15 1,428.75	257 159	8.4 6.4	188.18 410.06	24 ¹ / ₃ 56	2.3	1. T.	6.1	.016
To ta 1	\$18,941.89	1,963	75.9	\$16,108.75	1,8114	72.8	\$5,177.25	670	63.5		9.3	
GWINN DISTRICT Francis Stephenson Gwinn Townsite	\$ 37.50 43.27 43.80	5 4 ¹ / ₂ 4 ¹ / ₃	0.1 0.2 0.2	\$ 23.24 0	0 21/3 0	0.1	0 0	0 0 0				
Tota 1	\$ 124.67	14	0.5	\$ 23.24	21/3	0.1	0	0		19/2012/		
CLIFFS POWER & LIGHT COMPANY Miscellaneous E&A #9, Power line to Inland Quarry	\$ 671.40 500.50	90½ 61½	2.7	\$ 1,724.41	15 0 1	7.8	\$ 606.96	56 1	5.3		2.5	
E&A #10, Autrain Storage Basin E&A #12 Power line to	2,958.66	299	11.8	351.80	45	1.6	0	0			1.6	
Greenwood Mine Surveys	234.22	28½ 0	1.0	0 0	0		44.71	0 6 1 / ₃	0.7	0.7		
TO TAL	\$ 4,364.78	4692	17.5	\$ 2,076.21	1952	9.4	651.67	63	6.0		3.4	
MESABA DIST. Al examiria Mine Canisteo Cliffs Dean Hibbing District Hill Trumbull Holman Cliffs Wade	5.90 38.26 6.50 2.96 50.51 30.01 55.81	1 5 1 7 1 7 4 6	0 0.2 0 0 0.2 0.2 0.2	\$ 7.42 7.42 0 0 14.23 7.42 7.42	15 15 0 0 25 15 15	0.1 0	0 0 0 0 0	0 0 0 0 0			0.1	
To tal	\$ 189.95	25	0.8	43.91	81	0.2	0	0			0.2	
SURVEYS & CONTOURS Summit Exploration Ishoming Gold Dist. E&A 2nd Addn.Negaunee Sherwood	71.49 0 329.63	7 0 511 0	0.3 0 1.3	0 0 2,565.44 77,50	0 0 231 11	10.7	0 66.36 87.88 49.67	0 10 11 7	1.0 1.0 0.6	1.0	9.7	
To tal	401.12	58 <u>1</u>	1.6	2,442.94	242 <u>1</u>	11.1	203.91	28	2,6		8.5	
MISCELLANEOUS Abstracts City of Negaunee, Misc Ore Estimate Relief ExpGardens -Woods Op. Michigan Mineral Land	221.30 0 0	5 13½ 18 0 0	0.2 0.3 0.9	180.05 0 67.83 0	15 0 6 0 0	0.8	9.31 0 0 476.14 653.90 93.33	1½ 0 0 67½ 112½ 13½ 17½	0.1 6.4 10.7 1.2	6.4 10.7 1.2	0.7	
Algoma Steel Corp. St Burden Expense Federal Taxes Miscellaneous		0 76 0 16 ¹ / ₃	2.0	880.80 100.29 191.18	0 14 0 2 9 27	3.9 0.5 0.9	141.01 394.23 32.64 8.57	17½ 76¼ 5½ 1	1.6 7.3 0.5 0.1	1.6	0.8	
To tal	921.66	129	3.7	1,420.18	197 1	6.4	1,809.13	294	27.9	21.5		
GRAND TO TAL	\$ 24,944.07	2,659	100.0	\$22,115.20	2,457	100.0	\$ 7,841.96	1,0551	100.0		The state of	

H. AUTOMOBILES

The Ford Sedan and Ford Station Wagon were used by the Department the entire year. The following mileage was covered by these two cars:

CAR	MILES
Sedan	5,849
Station Wagon	3,384

I. MINES

Every working place in all the soft ore mines was visited every week by the engineer in charge and monthly blue print reports made of the advances during the time the mines were operated. The Cliffs Shaft Mine, the Spies Virgil and the open stopes of the Morris LloydMine were only surveyed once a month. Prior to the shutting down of the mines, plans were prepared showing what development work or areas to be mined was to be done during the idle period

Special surveys at the mines for specific work are mentioned briefly as follows:

Maas Mine: The surveys on the 4th and 5th Levels were checked through a raise in the ore body.

Mackinaw-Gardner Mine: Check surveys were run between the 7th and 8th Levels through the winze, for putting up a small raise in the incline shaft. The raise holed November 18th and stripping of full size shaft commenced.

Morris Lloyd Mine: Two check surveys were run on the 6th Level from the Morris Shaft for the drift to the location of the Lloyd shaft. Also a complete loop was run from the Lloyd shaft on the 4th Level to the 6th Level plumbing the Morris Shaft between these lines. Lines were given for the shaft raise at the end of the year.

The coal piles at the various mines were estimated as of May 1st and that of the Morris Mine as of December 31st.

J. MISCELLANEOUS

The iron pins at the corners of the Cleveland-Cliffs Iron Company's 2nd Addition to the City of Negaunee were tied in to the regular Maas surveys, as the original survey of the plat had started from pins not connected with the mine surveys, and data taken of the mine surface to bring the maps up to date.

No surveys of ore in stock were made during the year. The estimates of last year were taken with the proper additions or subtractions for the ore stocked or shipped.

CHIEF MINING ENGINEER

Carl Brewer

11.

. a. Workmen's Compensation

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

The regular plan of seeing an injured man just as soon as possible has been followed and this has served to maintain the most friendly relations with the men making it possible to readily secure their signatures to the compensation agreements and keep them satisfied with the provisions of the Compensation Laws.

The payments have been made promptly, the checks being delivered to them at the office, when they are able to come for them, for the Ishpeming mines or delivered to them at the Hospitals or at their homes when they are unable to be out.

In the outside districts the Mine Clerks do this work for us.

In many cases this year while the mines were operating on a reduced basis the compensation paid is more than the men would receive on their return to work, but there has been very little difficulty in getting them to return to work when the Physicians have reported them able to do so and there was work for them.

The compensation based on the Michigan Law is 66-2/3 per cent. of the weekly wage which is six times the daily wage, regardless of the number of days regularly employed. In Minnesota the minimum weekly wage to be considered is five and one-half times the daily wage.

The men have shown a good spirit in returning to work just as soon as possible.

The greatly reduced number of accidents will result in reduced compensation costs which will be reflected in total costs as the old cases are ended, which run for 300 weeks in the case of a fatality and for 500 weeks for total disability.

Following is a list of cases requiring special attention during the year:

FRANK VOEGTLINE - REPUBLIC MINE ACC. REP. #740

This man was injured in 1925 and the case was closed early in 1927. In January 1932 he petitioned for additional compensation, but when we appeared ready to contest the case at a hearing on January 19, 1932, his attorney withdrew his petition.

ALBERT JOHNSON - MAAS MINE ACC. REP. #448

Johnson suffered a ruptured ear drum due to a blast on April 1, 1930. He was disabled six weeks and then returned to work. In June 1931 his ear again commenced to trouble him and he was sent to Ann Arbor where it was found that he was suffering from a radical mastoid and an operation was performed. In May 1932 we felt that he had sufficiently recovered to return to work, and as he persistently refused to try to work, we petitioned to stop compensation. The matter was heard on September 6, 1932 and decided in our favor.

11.

a. Workmen's Compensation (continued)

ALFRED BESSOLA - NEGAUNEE MINE

Bessola's wife divorced him in May 1930, and she was awarded the custody of the seven minor children, with alimony at a stated monthly rate. Bessola left our employ in July 1930 and on October 10th committed suicide at Gwinn. For several months prior to his death he exhibited signs of mental disorder. During the two year period from 1930 to 1932 Mrs. Bessola wrote frequent letters to various officials of the Company at first intimating and later insisting that Alfred's condition and resultant death was due to the accumulative action of several accidents which he had sustained while in our employ over a period of several years. Finally, in June 1932, a petition for compensation was filed on behalf of the seven minor children, they relying on an accident which occurred in February 1930 to sustain their claim. This injury was a slight scalp wound caused when a small piece of ore fell a distance of four or five feet and striking him on the head. The matter came on for hearing before a Deputy Commissioner on June 21, 1932 who denied the petition for compensation and on July 20, 1932 the Full Board sustained the findings of the Deputy Commissioner.

PHILIP JOSEPH - MORRIS LLOYD MINE ACC. REP. #764

He suffered a fractured metatarsal on December 15, 1930. He petitioned for further compensation and his case came on for hearing on November 15, 1932. His claim was disallowed and he did not appeal.

There were no fatalities during 1932.

Payments on account of the following fatal cases were completed during the year:

		Accident		Date of
Mine	Name	Rep. No.	Date of Acc.	Final Payment
Cliffs-Shaft	Isaac Setala	930	5/21/26	2/18/32
Republic	John Eckstrom	761	6/18/26	3/17/32
Stephenson	Basilio Paris	767	10/ 5/26	7/ 5/32
Ogden	Louis Tatrault	4	6/29/27	10/19/32
Spies-Virgil	Thomas Mitchell	115	12/18/26	9/17/32
Maas Crusher	Nels Fish	4	9/28/27	12/13/32

11.

a. Workmen's Compensation (continued)

The following is a list of the more serious cases occurring during 1932:

Mine & Rep.No.	Name	Nature of Injury	Compensation Paid
Maas #464	James Lowney	Fractured both bones of right leg.	\$ 748.20
Negaunee #599	Edward Magnuson	Loss of right eye	648,00 *
Employes Wood - Gwinn #1	Charles Hutchins	Concussion of brain	24.00 *

^{*} Denotes incomplete payments.

There were no lump sum payments made during the year.

As arranged for and begun in 1913, all compensation due in fatal cases and compensation to be paid in cases of injury for which a definite total amount is to be paid in accordance with the provisions of the compensation law was credited to an account called "Personal Injury Accounts Payable" and a corresponding charge was made against the mine at which the accident occurred and in the month of occurrance whenever possible, but if not, the charge was made in the following month. The compensation payments to men in these cases or to the dependents are made in the regular way weekly and charged to this account.

In April 1928, a new plan was adopted. An account has been set up and called "Personal Injury Expense Reserve."

This Reserve is accumulated by setting up 2% of the payrolls. It was made retroactive to January 1, 1928.

This was made effective at all properties except the Boeing Mine, charges for this mine being made on old plan.

No future charges will be made to P. I. A. P. account. The present amounts still in this account to be paid out in the old manner until the account is exhausted.

The following is a statement showing the balance due in different accident cases occurring during the year 1926 and 1927 inclusive.

BALANCE DUE PERSONAL INJURY ACCOUNTS PAYABLE, DECEMBE	MRER 31.	DECEMBER	PAYABLE.	ACCOUNTS	TNJURY	PERSONAL.	DITE	BATANCE.
---	----------	----------	----------	----------	--------	-----------	------	----------

		Dependent receiving		
Year	Mine	Compensation payment		
1927	Stephenson	Carolina Delbello and		
		Jacob Delbello, Guardian	\$ 182.00	
	Morris-Lloyd	Andrew Miemi	27.64	
	THE	CLEVELAND-CLIFFS IRON COMPANY		\$ 209.64

a. Workmen's Compensation (continued)

Year		Negaunee	Athens Ir.	Cliffs Pr.	Mesaba Cl.	Holman	Canisteo-	Alexandria	
	C. C. I. Co.	Mine Co.	Mng. Co.	& Light Co.	Ir.Mng.Co.	C1.M.Co.	Cl.Ming.Co.	Mine	TOTAL
1912	1073.81	105.08							-1178.89
1913	13149.70	1152.87	27.15						14329.72
1914	27416.82	2840.13	446.63	The supplied the second					30703.58
1915	15657.71	1699.28	656.07						18013.06
1916	32404.74	3496.75	672.29						36573.78
1917	45129.92	5301.30	911.46		The second				51342.68
1918	43734.77	6198.93	1197.57						51131.27
1919	59417.51	11724.68	2234.77		263.00				73639.96
1920	59535.76	8888.01	2928.15		3057.46				74409.38
1921	59065.26	4709.80	5208.92		2953.08				71937.06
1922	56794.35	5283.24	2048.23		1866.67				65992.49
1923	57856.37	4142.00	5007.88		4874.48				71880.73
1924	56335.89	5487.07	6394.01		9408.59				77625.56
1925	49376.47	4464.79	8305.60		7316.55				69463.41
1926	51123.41	5433.85	7087.93	514.40	9537.84				73697,43
1927	86156.10	5311.69	5489.81	939.86	7147.98				105045.44
1928	87186.58	6532.66	6235.08	1831.30	4576.56	9.00			106371.18
1929	76959.01	8899.76	6303.92	1895.50	3557.86	292.83	4.50		97913.38
1930	76753.51	10603.66	5803.45	1930.48	2531.15	1236.18	1357.05	1993.76	102209.24
1931	75167.79	10723.30	5233.65	1867.50	1489.36	559.63	1346.64	1700.87	98088.74
	52920.75	12137.00	5012.72	1398.25	1336.00	33.75	60.50	1074.00	73972.97
1932	01.02620	12101100	0010010			-	Contract I		THE STATE OF
TOTALS:	1083216.23	125135.85	77205.29	10377.29	59916.58	2131.39	2768.69	4768.63	1365519.95

PENSION DEPT.

11.

a. Workmen's Compensation (continued)

STATEMENT OF COMPENSATION PAYMENTS FROM JANUARY 1st. 1932 TO DECEMBER 31st. 1932

C	ompensation paid on 1932 accidents ompensation still pending ost of Medical and Hospital service	•	1946.33 96314.22 8871.04	
	Total			\$ 107131.59
	ess pendings for years 1922 to 1931 inclusive ess medical paid on accidents occurring prior		94376.99	
	to January 1, 1932		879.58	95256.57
	Cost of 1932 Accidents			\$ 11875.02
	Percentage of payrolls			.01503
A	- Number of accidents on which compensation			9
	payments were made			
В	- Number of non-compensable accidents			0
C	- Number of slight accidents which caused not l day's lost time	over		68

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ANNUAL REPORT YEAR 1932

STATEMENT OF COMPENSATION PAYMENTS FROM JANUARY 1st, 1932 to DECEMBER 31, 1932

Personal Injury Accounts Payable Barnes Hecker Per. Inj. Accts. Pay. Austin Cliffs Shaft Chief of Police District Welfare A332.12 18075.63 1058.00 7728.00 1848.00 18075.63 350.00 1872.00 1848.12 18075.63 350.00 1872.00 1848.12	1 3	,
Chief of Police 1 District Welfare 5	1	
Employes Gardens 5 1 24.00 312.00 37.20 Gardner-Mackinaw 78 1 174.80 509.00		
General Storehouse		
Holmes 15 2455.05 250.25 1300.00 904.80 5333.40 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2	
Maas 188 2 8 6461.28 308.88 1974.00 864.00 684.00 758.40 15428.64 1845.16 2 Maintenance of Locations 4 2 8 6461.28 308.88 1974.00 864.00 684.00 758.40 15428.64 1845.16 2 Mining Engineering 3 188.50 188.	6	
Morris Lloyd 188 11 4870.61 250.34 728.00 711.36 534.24 1773.40 9766.57 1007.25 3 Princeton 1 1 139.36 728.00 711.36 282.80 34.75 Republic 728.00 866.84 866.84 7753.94 50.00	2	
Safety Department 1 3.75 Shipping Department 2 12.25 Spies Virgil 32 1 54.00 Stephenson 1 2184.00 728.00 728.00 726.00 Tilden 9 47.00	3	3
Workmen's Compensation 1 Hospital 29 The Cliffs Power & Light Co. 38 1 1 1202.00 266.00 935.00 1152.00 196.25 1		
Negaunee 171 3 8 10797.82 180.96 728.00 149.76 1237.60 2811.00 2154.88 889.40 18139.73 1339.18 3	12	
Athens 160 2 10 4060.97	43	
Dean .75 Alexandria .75 Alexandria .77 Wade .77 Hibbing Office .99 Holman Brown .55 Alexandria .75 Section .75 Se		
Canisteo 58 15 587.75 Hill Trumbull 5 741.25 5832.75 48.75 1 11.25 11.25		
Total - Minnesota Mines 89 0 0 15 2041.25 1040.00 741.25 6812.75 856.50 2	A LONG	
Total - All Mines 1273 0 9 68 65101.93 180.96 1957.09 1764.88 2167.36 25736.71 5414.12 3123.64 6445.24 8071.13 1946.33 96314.22 8871.04 17	43	

11.

a. Workmen's Compensation (continued)

The following table shows the percentage of compensation costs since the law went into effect, the percentage of non-fatal accidents on which compensation payments were made, and the percentage of the cases in which compensation payments were made of the total number of men employed:

	Percentage of Payroll	Percentage of Compensable Accidents	Percentage of men paid compensation
1912 (4 months)	.00648		
1913	.01104	42.88	8.06
1914	.0160	42.49	6.51
1915	.01095	36.26	6.63
1916	.01903	43.76	8.29
1917	.01268	41.71	7.64
1918	.01214	37.61	5.73
1919	.00901	48.71	8.15
1920	.0079	60.56	10.52
1921	.01444	64.53	9.79
1922	.01570	68.49	10.22
1923	.01590	61.67	10.23
1924	.01885	66.59	10.15
1925	.01613	69.61	10.19
1926	.07641	66.75	10.73
1927	.01356	68.24	6.55
1928	.01357	69.92	4.27
1929	.01616	74.12	3.02
1930	.01254	78.20	2.33
1931	.01697	89.28	1.11
1932	.01503	100.00	.71

11.

a. Workmen's Compensation (continued)

Each year a calculation is made for the cost of the accidents occuring that year. To the actual compensation for the accidents paid during the year is added the payments to be made in our fatal cases and also those to be made in case of a specific period of disability continuing beyond the year. Estimate is also made of the ordinary disability cases still continuing at the end of the year. These estimates are based on the duration of similar accidents in previous years. The large annual statement of Compensation Costs and Percentages of the Payroll include the medical expenses. The payments of \$.50 per man per month is made regardless of whether there are any accidents or not, this amount being paid to the physicians to cover the cost of taking care of any accidents that may occur as provided for by the Workmen's Compensation Law. In addition to the regular medical payments of \$.50 per man per month, there is occasionally an added medical payment due to sending a man away for special treatment or operation or having a physician come here for such services, but these amounts are only a small percentage of the total amount paid for medical service.

COMPENSATION AND MEDICAL PAYMENTS

	Year		Total Cost	Medical	Compansation Payments
	1922	\$	42090.73	\$ 11765.36	\$ 30325.37
	1923	P.	63360.07	15266.32	48093.75
	1924		69889.27	15893.22	53996.05
	1925		56544.37	15814.74	40729.63
*	1926		81204.83	15391.11	65813.72
	1927		44730.22	13839.54	30890.68
	1928		40824.87	12665.85	28159.02
	1929	34	53642.17	13985.84	39656.33
	1930		50558.28	17182.50	33375.78
	1931		43317.26	13759.38	29557.88
	Avera	ge	10 years:		
			54616.21	14566.38	40059.82
	1932		11875.02	7991.46	3883.56

^{*} Barnes-Hecker Disaster not included in these calculations.

11.

a. Workmen's Compensation (continued)

MICHIGAN COMPENSATION LAW

There has been no change in the Law during the year.

A new ruling and a very important one has been made. The Department of Labor and Industry are now required to approve final settlements and notify the employer of their approval, which tends to more definitely close the case. This was because of a Supreme Court decision that a case was not closed unless the Department had approved the final settlement. This is of very great importance and will tend to prevent the opening up of old cases.

There has been no change in the officials of the Department, the following being the present members:

Samuel H. Roads, Chairman Isabel Larwill Arthur R. Sherk Samuel G. Beattie John S. Boer, Secretary

It is to be hoped that the new State Administration will continue Mr. McGregor as Deputy Commissioner in this District. His knowledge of mining affairs has been very helpful in all of the cases of men injured in the mines in this district.

MINNESOTA COMPENSATION LAW

There have been no changes in the Law during the year.

There has been a change in the Administration officials of the Commission, the present members being as follows:

- J. D. Williams, Chairman
- H. M. Gallagher
- C. R. Carlgren
- J. F. Emme, Secretary

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

		When Law went into effect	As amended in effect	In effect	In effect
MICHIGAN LAW	5	Sept. 1, 1912	Aug. 14, 1919	Aug.18,1931	Sept.4,1927
Percentage of we	ekly wages	50	60	60	66-2/3
Maximum weekly c	ompensation	\$10.00	14.00	14.00	18.00
Minimum weekly c	ompensation	4.00	7.00	7.00	7.00
Waiting period		2 weeks	1 week	1 week	1 week
Waiting period p	icked up at				
	end of	8 weeks	6 weeks	6 weeks	6 weeks
Maximum death pa	yment	\$3000.00	4200.00	4200.00	5400.00
Maximum compensa	tion for				
total di	sability	4000.00	6000.00	7000.00	9000.00

11,

a. Workmen's Compensation (continued)

MINNESOTA LAW	When Law went into effect Oct. 1, 1913	As Amended Apr. 26th 1919	As amended June 6th 1921	In effect since Oct.1,1923
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	\$3000.00	4500.00	7500.00	7500.00
Maximum compensation for				
total disability	4000.00	5000.00	10000.00	10000,00

11.

b. Benefit Funds

The general Benefit Funds were wiped out during the year 1927, and a complete report is shown in the annual report for that year.

Reference is made here so that this statement may be readily located at any time.

11.

c. Workmen's Compensation -- Barnes-Hecker

BARNES-HECKER

We have continued in giving special attention to the families of the Barnes-Hecker men, particularly on account of the year 1932 ending the payments.

The compensation payments which began on November 5, 1926, ended on August 3, 1932, and the donation payments which began on January 1, 1927, ended on September 30, 1932.

A few of the widows with small children have applied to the Probate Court for a Dependent Childrens Allowance, and some of the others have been referred to the Poor Commission for temporary help.

Early in the year each family was written to advising them of the date on which the compensation and donation payments would end so that they would be advised ahead of time in regard to the ending of the payments.

Ten of the widows have remarried, and two have died.

Mrs. Peter Carlyon - at the time of her death left no dependents, and the compensation ended.

Mrs. Ellen Luoma - who died at Morgan Heights Sanitorium on Dec. 19, 1931, left one child, of which her father has been appointed Guardian.

On the following sheets is shown the amount of compensation and donations paid.

YEAR 1932 PENSION DEPT. ANNUAL REPORT

c. Workmen's Compensation

BALANCE DUE E	BARNES HECKER P. I.	A. P. August :	51, 1932
	Compensation Payable	Interest on Lump Sum Payts.	Total Amount Paid
Herman Aho	4200 00		4200 00
Peter Carlyon	4200 00	2011 33 *	2188 67
Raymond Carlyon	1218 00	583 29 *	634 71
William Carlyon	4200 00		4200 00
Edwin Chapman	4200 00		4200 00
Herman Chapman Thomas Drew	2172 00 2100 00		2172 00 2100 00
Peter Derocha	4200 00		4200 00
Earl J. Ellersick	4200 00		4260 00
Gust Frendi	4200 00		4200 00
Joseph Gelmi	4200 00		4200 00
James Greene	4200 00		4200 00
Henry Haapala	4200 00		4200 00
Jack J. Hanna	4200 00		4200 00
Arvid Heino	4200 00		4200 00
Nels Hill	4200 00	249 50	3950 50
William Huot	4200 00		4200 00
William Kakkuri	1218 00	73 38	1144 62
Arvid Kallio	4200 00		4200 00
Thomas Kirby, Sr.	4200 00		4200 00
Thomas Kirby, Jr.	4200 00		4200 00 4200 00
Uno Koskinen Theodore Kiuru	4200 00 1446 00		1446 00
Ed Laituri	4200 00		4200 00
George Lampshire	4200 00		4200 00
Richard Lampshire	4200 00		4200 00
John Luoma	4200 00		4200 00
Emil Maki	4200 00		4200 00
Joseph Mankee	1218 00	17 22	1200 78
Walter Mattila	4200 00		4200 00
Solomon Myllymaki	4200 00		4200 00
Peter Mongiat	4200 00		4200 00
Sam Phillippi	4200 00		4200 00
W. Harry Quayle	4200 00		4200 00
Elias Ranta	4200 00	116 71	4083 29
John Santti	4200 00		4200 00
James Scopel	4200 00		4200 00 4200 00
Clement Simoneau Nestor Sulonen	4200 00 4200 00		4200 00
Eric Timo	4200 00		4200 00
Walter Tippett	4200 00		4200 00
William F. Tippett	4200 00		4200 00
William Tuomela	4200 00		4200 00
Louis Trudell	4200 00		4200 00
Nick Valenti	4200 00		4200 00
Solomon Walimaa	4200 00	58 07	4141 93
Harvey Wepsala	1977 00		1977 00
John Wiljanen	4200 00		4200 00
William Hill	4200 00		4200 00
Wilfred Wills	1372 00		1372 00
	189121 00	3109 50	186011 50

^{*} Dependent died. Unexpended balance.

STATEMENT SHOWING "DONATED COMPENSATION" CHARGED TO BARNES HECKER DISASTER EXPENSE TO SEPTEMBER 30, 1932

Year	1927	***************************************	32717.33
	1928	••••••	32543.16
**	1929	• • • • • • • • • • • • • • • • • • • •	37865.53
**	1930	***************************************	31674.71
**	1931	***************************************	29200.83
. "	1932	***************************************	21280.11
			185281.67

Discount on Lump Sum Payments

					186020.60
		592.63	124.21	22.09	738.93
Nanna Sant	ti		15.97		
	aforge		17.79	13.42	
	*		4.28		
	"		2.92		
н	*		3.10		
n	*		3.40		
**	"		3.64		
#	"		3.88		
Vangeline			4.11		
# #	"		24.62	8.67	
	Durocha	41.07	39.58		
	Dunacha	42.86			
H H	"	34.45			
	ma-Bessonen	131.28			
	nta	173.60			
		168.77	.92		
		1929	1930	1931	

Amounts Charged Off

Sarah	J.	Carlyon		196	0.00)						
"	**		• • • • • • • • • • • • • • • • • • • •	56	8.40)						2528,40
		Total a	mount set u	D -	-	-	-	-	-	-	-	188549.00

STATEMENT SHOWING "DONATED COMPENSATION" CHARGED TO BARNES HECKER DISASTER EXPENSE

FINAL STATEMENT

No.	. Name	Donation Payable	Weekly	1927	1928	Amounts 1929	Paid 1930	1931	1932	Interest Charged	Amounts Charged Off	Tota Paymer
Mo.	Name	Tayable	nace	1001	1320	1323	1550	1301	1302	Charged	off	rayme.
1	Hilma Aho-Johnson	4200.00	14.00	714.00	728.00	728,00	728.00	728.00	574.00			4200.
2	Sarah J. Carlyon	4200.00	14.00	714.00	728.00	798.00					1960.00	4200.
3	Sarah J. Carlyon	1218.00	4.06	207.06	211.12	231.42					568.40	1218.
4	Elly Carlyon	4200.00	14.00	714.00	728.00	728.00	728.00	728.00	574.00			4200.
5	Elsie Chapman-Peck	4200.00	14.00	714.00	728.00	728.00	728.00	728.00	574.00			4200
6	Elsie Chapman-Peck	2172.00	7.24	369.24	376.48	376.48	376.48	376.48	296.84			2172
7	Elizabeth E. Drew	2100.00	7.00	357.00	364.00	364.00	364.00	364.00	287.00			2100
8	Vangeline Derocha	4200.00	14.00	714.00	728.00	1036.33	1024.67	630.00		67.00		4200
9	Sarah Ellersick	4200.00	14.00	714.00	728.00	728.00	728.00	728.00	574.00			4200
0	Anna Frendi	4200.00	14.00	714.00	728.00	728.00	728.00	728.00	574.00			4200
1	Emma Gelmi	4200.00	14.00	714.00	728.00	728.00	728.00	728.00	574.00			4200
2	Marie Greene-Gaboury	4200.00	14.00	714.00	728.00	728.00	728.00	728.00	574.00			4200
3	Ina Haapala	4200.00	14.00	714.00	728.00	728.00	728.00	728.00	574.00			4200
4	Florence M. Hanna	4200.00	14.00	714.00	728.00	728.00	728.00	728.00	574.00			4200
5	Toini Heino	4200.00	14.00	714.00	728.00	728.00	728.00	728.00	574.00			4200
6	May Hill-Laforge	4200.00	14.00	714.00	728.00	728.00	892.21	938.58	168.00	31.21		4200
7	Clara Huot	4200.00	14.00	714.00	728.00	2239.23	349.08			169.69		4200
8	Einar Mantila, Adm.	400.00		400.00								400
9	Fiina Kakkuri	1218.00	4.06	207.06	211.12	211.12	211.12	211.12	166.46			1218
)	Sanna Kallio	4200.00	14.00	714.00	728.00	728.00	728.00	728.00	574.00			4200
	Anna Kirby	4200.00	14.00	714.00	728.00	728.00	728.00	728.00	574.00			4200
2	Bertha Kirby	4200.00	14.00	714.00	728.00	728.00	728.00	728.00	574.00			4200
5	Viana Koskinen	4200.00	14.00	714.00	728.00	728.00	728.00	728.00	574.00			4200
1	John Kiuru	1446.00	4.82	245.82	250.64	250.64	250.64	250.64	197.62			1446
5	Alli Laituri	4200.00	14.00	714.00	728.00	728.00	728.00	728.00	574.00			4200
6	Alice Lampshire-Lawson	4200.00	14.00	714.00	728.00	728.00	728.00	728.00	574.00			4200
7	Esther Cowling, Guardian	4200.00	14.00	714.00	728.00	728.00	728.00	728.00	574.00	THE THE P		4200
8	Ellen Luoma	4200.00	14.00	714.00	728.00	728.00	728.00	728.00	574.00		the state of	4200
9	Lempi Mackie	4200.00	14.00	714.00	728.00	728.00	728.00	728.00	574.00			4200
)	Elizabeth M. Pope	1218.00	4.06	207.06	211.12	756.96				42.86		1218
1	Lempi E. Mattila	4200.00	14.00	714.00	728.00	728.00	728.00	728.00	574.00			4200
2	Mini Myllymaki	4200.00	14.00	714.00	728.00	728.00	728.00	728.00	574.00			4200
3	Valentina Mongiat	4200.00	14.00	714.00	728.00	728.00	728.00	728.00	574.00			4200
	Mary Phillippi	4200.00	14.00	714.00	728.00	728:00	728.00	728.00	574.00			4200
5	Louisa Quayle	4200.00	14.00	714.00	728.00	728.00	728.00	728.00	574.00			4200
5	Amanda Ranta	4200.00	14.00	714.00	728.00	2332.40	252.00			173.60		4200
,	Nanna Santti	4200.00	14.00	714.00	728.00	728.00	908.03	728.00	378.00	15.97		4200
3	Frances Scopel	4200.00	14.00	714.00	728.00	728.00	728.00	728.00	574.00			4200
9	Elna Simoneau	4200.00	14.00	714.00	728.00	728.00	728.00	728.00	574.00			4200
0	Matilda Sulonen	4200.00	14.00	714.00	728.00	728.00	728.00	728.00	574.00			4200
	Amalia Timo	4200.00	14.00	714.00	728.00	728.00	728.00	728.00	574.00			4200
3	Marian Tippett-Hill	4200.00	14.00	714.00	728.00	728.00	728.00	728.00	574.00			4200
5	Nellie Tippett	4200.00	14.00	714.00	728.00	728.00	728.00	728.00	574.00			4200
	그리고 아이들이 하는데 아니 아이들은 그 그들은 아름은 제한 시간에 나는 그 때문에 그 얼마나 있었다.		14.00	714.00	728.00	728.00	728.00	728.00	574.00			4200
1	Florence Tuomela	4200.00	14.00	714.00	728.00	728.00	728.00	728.00	574.00			4200
5	Delia Trudell	4200.00	14.00	714.00	728.00	728.00	1349.80	607.33	31-1-00	72.87		4200
5	Mary Valenti-Keskey	4200.00					602.00	007.00		165.73		4200
7	Mary Walimaa-Bessonen	4200.00	14.00	714.00	728.00	1990.27	342.68	342.68	270.19	100.10		1977
8	Adam Wepsola	1977.00	6.59	336.09	342.68	342.00	342.08	00.00	61.013			400
9	Frank Wickman	400.00	24 00	400.00	700 00	man an	728.00	728.00	574.00			4200
0	Eliina Wiljanen Elizabeth Hill	4200.00	14.00	714.00	728.00	728.00		728.00	574.00			4200
		4200 - 00	14.00	714.00	728.00	728.00	728.00	160.00	21.400			-46

32717.33 32543.16 37865.53 31674.71 29200.83 21280.11 738.93 2528.40 188549.00

23.

a. Pension System

The year 1932 completed the twenty-fourth year of the operation of the Pension System.

The following Mining Dept. pensions were granted during the year:

			Date Pen-	Monthly
No.	Name	Mine	sion Began	Payment
No. 261	Robert Trudgen	Gardner-Mackinaw	Jan. 1, 1932	\$ 28.08
262	Matt Vanni	Negaunee & Maas	Jan. 1, 1932	20.03
263	J. S. Mennie	Various	Jan. 1. 1932	59.69

The following Old Age Pensions ceased during the year:

No.	Name	Date Pensioned	Date Died
156	A. P. Wahlstrom	July 1, 1922	Jan. 23, 1932
88	Richard Kinnish	Aug. 1, 1919	Feb. 21, 1932
212	John O. Flack	June 1, 1927	Mar. 6, 1932
167	Andrew Fandrem	Feb. 1, 1924	Mar. 20, 1932
115	John D. Stephens	May 1, 1921	May 8, 1932
240	C. J. Shaddick	Jan. 1, 1930	May 20, 1932
260	Thomas Sather	June 1, 1931	June 3, 1932
221	Henry Rasmussen	Jan. 1, 1928	June 23, 1932
204	Erick H. Anderson	Apr. 1, 1927	July 8, 1932
180	Claus Berg	Jan. 1, 1925	Sept. 2, 1932
89	Peter Rean	Sept.1, 1919	Sept. 9, 1932
203	James Stephens	Jan. 1, 1927	Oct. 23, 1932

	1931	1932
Number of pensions granted during the year	12	3
Number of deaths	7	12
Number of Old Age Pensions in force Dec. 31.	125	116
Average Annual Pension	454.14	327.82

No. 21, Niels Hansen, was added to the Furnace Dept. Pension Roll on Jan. 1, 1932.

No. 17, Bat Dillon, who was pensioned on July 1, 1928, died on March 30, 1932.

On Dec. 31, 1932 there were nine pensioners on the Furnace Dept. roll, with an annual average pension of \$ 357.77.

23.

a. Pension System (continued)

Pension payments for the years 1908 to 1932 inclusive are as follows:

MINING DEPARTMENT		Widows &		
Year	Old Age	Orphans		Total
1908	\$ 69.10	\$ 48.00	\$	117.10
1909	351.92	464.00		815.92
1910	896.44	1043.00		1939.44
1911	1690.37	2649.00		4339.37
1912	3865.95	3113.00		6978.95
1913	5133.62	3025.00		8158.62
1914	6179.57	3403.00		9582.57
1915	7910.35	2372.00		10282.35
1916	8787.02	1694.00		10481.02
1917	9327.22	1266.00		10593.22
1918	8889.14	944.00		9833.14
1919	9605.02	888.00		10493.02
1920	12613.29	814.00		13427.29
1921	21856.64	14.00		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	38924.88	143.00		39067.88
1927	45841.03	0.00		45841.03
1928	51869.03	0.00		51869.03
1929	52701.19	0.00		52701.19
1930	53779.24	0.00		53779.24
1931	56379.39	0.00		56379.39
1932	39611.69	0.00		39611.69
	561824.50	22547.00	5	84371.50
Payment made by				
Cleveland Office	120000	100		
in 1930	2500.00		Se to	2500.00
	564324.50	22547.00	5	86871.31

YEAR 1932 PENSION DEPT. ANNUAL REPORT

a. Pension System (continued)

FURNACE DEPARTMENT

The Pension payments for the years 1910 to 1932 inclusive are as follows:

Year	Old Age	Widows & Orphans	Total
1910	\$ 111.75	\$ 0.00	\$ 111.75
1911	268.20	120.00	388.20
1912	268.20	180.00	448.20
1913	268.20	180.00	448.20
1914	268.20	180.00	448.20
1915	268.20	180.00	448.20
1916	268.20	60.00	328,20
1917	268.20	0.00	268.20
1918	268.20	0.00	268.20
1919	130.55	0.00	130.55
1920	223.80	0.00	223.80
1921	781.63	0.00	781.63
1922	1118.04	0.00	1118.04
1923	1178.38	0.00	1179.38
1924	2085.82	0.00	2085.82
1925	2833.39	0.00	2833.39
1926	5351.35	0.00	5351.35
1927	4819.73	0.00	4819.73
1928	5481.50	0.00	5481.50
1929	6137.02	0.00	6137.02
1930	6191.42	0.00	6191.42
1931	5531.30	0.00	5531.30
1932	3327.09	0.00	3327.09
	47449.37	900.00	48349,37

REPUBLIC MINE

No new pensioners were added to the Pay Roll during the year. There are 20 pensioners on the Roll, the average annual pension being \$353.43.

The payments made from Oct. 1, 1920 to Dec. 31, 1932 are as follows:

1920	\$ 278.61
1921	3427.97
1922	5672.84
1923	6641.51
1924	8172.96
1925	8379.07
1926	9539.90
1927	12185.24
1928	12768.21
1929	14199.74
1930	13148.40
1931	11809.51
1932	7673.30
	\$ 113897,27

23.

a. Pension System (continued)

REPUBLIC MINE (continued)

The following Old Age Pensions ceased during the year:

No.	Name	Date Pensioned	Date Died
14	John Jacobson	July 1, 1922	Oct. 17, 1932
29	John Carlson	Dec. 1, 1926	Nov. 24, 1932
28	Stephen Rule	Dec. 1, 1926	Dec. 30, 1932

LAND DEPARTMENT

Erick Johnson continued on the Pension Roll during the year.

Total pension payments from January 1, 1927 to December 31, 1932 are as follows:

1927	\$ 333.36
1928	333.36
1929	333.36
1930	333.36
1931	333.36
1932	250.08
	\$ 1916.88

23.

b. Republic Mine Funds

In the report for 1930 will be found a full statement of the Sick Benefit, Relief and Fatal Accident Funds.

When the balance remaining unpaid was turned over to the Marquette Chapter of the American Red Cross a small amount was retained to take care of outstanding checks and within a few years this balance can be safely turned over to Red Cross if no further payments are called for.

We have had during the year a number of calls from people in connection with the old Republic Mine Funds, but in these cases it was found that the people applying were not entitled to the payments as their relationship was so remote as not to come within the provisions of the rules and resolutions adopted by the Club when the business was closed and the present balance of the fund turned over to the American Red Cross.

It is probably best to keep these funds intact in these small savings accounts for some time longer to make sure that there can be no question as to the payment to any people to whom the money rightfully belongs.

The funds turned over to the Red Cross were to be used for emergency relief, and in accordance with this some use has already been made of them. The heating boiler at the hospital gave out and the schools assumed the care of the building and the heating of it, and money was used to put in a new boiler. The schools make quite a little use of the building in connection with its physical education and other work, and because of this were willing to supply the fuel.

The Republic Bank was closed in 1932 and the Relief Organization had on deposit some \$165.00, and this was not available up to the end of the year. To meet the requirements and also because of the impossibility of raising any particular sums of money at this time in Republic, some \$400.00 was appropriated from the funds in the care of the Marquette County Red Cross Chapter for direct relief at this particular time.

The statement of these balances in savings accounts at the Miner's National Bank is as follows:

23.

b. Republic Mine Funds.

STATEMENT OF FUNDS REMAINING IN REPUBLIC MINE RELIEF AND SICK BENEFIT FUND "SAVINGS ACCOUNT" AS OF DECEMBER 31st, 1932.

		s Acct." as of Dec. the year 1932	31, 1931	\$ 56.71 1.69
Be	lance as per	Bank Balance of Dec.	31. 1932	\$ 58.40

STATEMENT OF FUNDS REMAINING IN THE REPUBLIC MINE FATAL ACCIDENT FUND "SAVINGS ACCOUNT" AS OF DECEMBER 31, 1932

	n "Savings Acct." as of Dec. 31st, 1931	\$163.15
Interest on Funds	during the year 1932	4.91
Balance	as per Bank Balance of Dec. 31, 1932	\$168.06

23.

c. Suspense Funds

In the 1918 Annual Report there is a complete statement of the payments made from the Suspense Fund from September 1st, 1912 at which time the Compensation Law in Michigan went into effect. The Funds were exhausted and report is made here from year to year so that it can always be readily determined where to look for the final report of the Suspense Fund.

d. Visiting Nurses

The work of the Visiting Nurses was interrupted by the Ishpeming and Negaunee nurses being taken off their regular work and used as nurses in the Hospital. This was from the month of February to May inclusive. After the mines shut down it was found that a good many investigations had to be made and the nurses were in better position to do this than anyone else, and, therefore, put back at the nursing work, but at reduced salaries. They have continued through the balance of the year.

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

The following nurses were employed during the year:

Ishpeming - Miss Myrtle Welander Negaunee - Miss Ina E. Atkin Iron River - Miss Laura N. Fisk

(who is employed jointly with other companies)

23.

d.	Visiting	Nurses

The following is the report of the Ishpeming Visiting Nurse for the year 1932:

Total number of p	atients	cared for	during year	r		314
Number of new cas						158
Total number of v						1954
Number of familie						37
Number of familie				of :	investigation calls	20
Number of social						8
Number died						8
Humbol Glou						
Classificati	on of nev	cases f	or the year:			
Number of adults		92	Male	9	Female	83
Number of childre	n	66	Male	32	Female	34
Nationalitie	s of new	cases fo	r the year:			
American		105	Irish			1
English		12	Italian	n		5
Finnish		18	Swedisl	h		6
French		11				
Diseases and	number o	of new ca	ses:			
Anemia	1	Empyem	a		l Paralysis	3
Arterio Sclerosis	2	Gen. D	eb.		l Pneumonia	2
Asthma	1	Grippe			l Post Operative	15
Baby Welfare	11	Heart	Trouble		l Prenatal	16
Bowel Trouble	2	Infant	s, Newborn	1'	7 Pul. Tuberculos	is 2
Bronchitis	1	Infect		000	9 Pyelitis	1
		TO THE PARTY OF TH	Course Course Control of the			and the same of th

Injury

Kidney Trouble

Miscarriage

Nephritis

Obstetrical

Otitis Media

3 Jaundice

2

2

5

1

Visiting Nurse: Miss Myrtle Welander

3

1

13

1

Stomach Trouble

7

2

Tonsilitis

Unclassified

Undiagnosed

Whooping Cough

Var. Ulcer

Burns

Cold

Carcinoma

Cystitis

Dysentary

Circumcision

Catarrhal Fever 1

23.

Visiting Nurses (c		ed) he report of the Nega	nnee Vi	siting Nurse for	the
year 1932:	6 10 0	no roport or with hoge	unce 11	or or other management	VV
Total number of p	atient	s cared for during year	ar		574
Number of new cas	es car	ed for during year			372
Total number of v	isits	to patients			2896
Number of familie	s visi	ted for the first time	8		12
Number of familie	s inve	stigated 495 Number	er of i	nvestigation call	750
		ed 7; Provisions	4; F	uel 3	
Number of social	calls				104
Number died					2
Classificati	on of	new cases for the year	r:		
Number of adults		172 Male	31	Female	141
Number of childre	n :	200 Male	108	Female	92
Nationalitie	s of n	ew cases for the year			
American		184	Iris	h	1
English		21	Ital	ian	20
Finnish		132	Swed	ish	. 6
French		7	Germ	an	1
Diseases and	number	r of new cases:			
Appendicitis	6	Infants, newborn	41	Quinsy	1
Asthma	1	Infections	14	Rheumatism	1
Bowel Trouble	19	Insanity	1	Rupture	4
Bronchitis	1	Injury	24	Scabies	2
Burns	3	Jaundice	2	Senility	2
Carcinoma	1	Kidney Trouble	2	Sore Eyes	1
Chicken Pox	3	Mal-Nutrition	7	Sprains	1
Cold	34	Measles	8	Stomach Trouble	2
Croup	1	Neuritis	3	Tonsilitis	6
Cystitis	1	Obstetrical	41	Trench Mouth	3
Eczema	1	Peritonitis	1	Typhoid Fever	1
Epileptic	1	Pertussis	1	Unclassified	8
Flu	62	Pleurisy	2	Undiagnosed	3
Gall Stones	2	Pneumonia	3	Var. Ulcer	2
Grippe	3	Post Operative	14	Whooping Cough	1
Gen. Deb.	2	Pregnancy	25		
Heart Trouble	3	Pul. Tuberculosis	1		

Visiting Nurse: Miss Ina E. Atkin

d. <u>Visiting Nurses</u> (continued)

NUMBER OF PATIENTS ATTENDED AND CALLS MADE BY VISITING NURSES

	No. of Patients	No. of New Cases	Male Adult	Female Adult	Male Children	Female Children
Ishpeming Negaunee	314 574	158 372	9 31	83	32	34
HeRannee	THE PERSON NAMED IN COLUMN	And the second of the second		141	108	92
	888	530	40	224	140	126
7	Total No. of Visits	No. Died	Social Calls	Families first to	visited	
Ishpeming	1954	8	8	31		
Negaunee	2896	_ 2	104	_ 1		
	4850	10	112	49		
		<u>N</u> A	TIONALITY	OF CASES		
	American	English	Finnish	French	German	Irish
Ishpeming	105	12	18	11		1
Negaunee	184	21	132	7	_1	_1_
	289	33	150	18	1	2
	Italian	Swedish				
Ishpeming	5	26				
Negaunee	20	6				
	25	12				

23.

f. North Lake Club

The work of the Club has continued during the year under the supervision of Mr. Stakel, and George Bowden, Mine Clerk, has acted as treasurer.

On account of the closing of the mines during the summer the work of the Club was very much reduced, and Fred Linn who had formerly been Chemist, and Alec Ham, divided their time at the Club House. The work was taken care of satisfactorily during this period and has proved a very useful place of gathering for the men while out of work and not employed with their gardens or cutting wood.

The following is the financial statement for the year.

YEAR 1932 PENSION DEPT. ANNUAL REPORT

23.

f. North Lake Club

Following is the financial statement for the year:

Balance on hand January 1st, 1932	\$ 87.15	
Receipts during year 1932	281,20	
		\$ 368.35
Motol ownerditures during your 1039		269.77
Total expenditures during year 1932 Balance on hand December 31st, 1932		98.58
paramee on mand becember ofst, 1902		30.00
j.		
Receip	ts .	
Membership Fees - Men	247.50	
Bowling Alleys	8.35	
Telephone Tolls	25.35	
		281.20
Expend	itures	
Building, Maintenance	7.40	
Lighting	28.14	
Heating	46.33	
Water	2.00	
Bowling Alleys	3.15	
Office Expense	54.60	
Reading Room	39.00	
Miscellaneous	59.65	

29.50

269.77

Telephone Tolls

23.

g. Gwinn Association

Mr. E. L. Miller has continued in the charge of the work at the Club House as Superintendent, under the personal supervision of Mr. Graff.

After our properties shut down a new plan of operation went into effect on October 1, 1927. At this time the Company reduced its salary payments to \$50.00 per month, paying this amount in order to retain control and supervision of the Club.

Those employed at the mines have paid 50 cents per month and the School Board pays a substantial sum for the use of the building for its physical training and the assistance rendered by Mr. Miller in this and the school athletic work.

In November it was decided to reduce the payment made by the men to 25 cents per month.

On the following sheets will be found a complete financial statement for the year and a statistical report prepared by Mr. Miller.

Attention is called to the following features from which a substantial revenue is received:

		Receipts	Expenditures	Profit
Pool and Billiards		\$ 356.10	\$ 30.21	\$ 325.89
Bowling Alleys		125.00	37.16	87.84
Buffet		225.25	136.52	85.73
Camp		10.00	7.16	2.84
	Total	713.35	211.05	502.30

winn Association (continued)		
Balance on hand January 1st, 1932	\$ 1457.45	
Receipts during year	3950.30	
Total		\$ 5407.7
Total Expenditures		4295.0
Balance on hand December 31st, 1932		\$ 1112.7
RECEIPTS		
Membership Fees Men	690.00	
Bowling Alley	125,00	
Pool and Billiards	356.10	
Buffet	222,25	
Towels and soap	28.00	
Camp	10.00	
Discount	3.95	
Telephone	15,00	
School Rental	2500.00	
Total		\$ 3950.3
EXPENDITURE	S	
Building, maintenance	46.46	
Lighting	267.90	
Heating	304.32	
Water	14.40	
	37.16	
Bowling Alleys	30.21	
Bowling Alleys Pool and billiards	00+21	
Pool and billiards	136.52	
Pool and billiards Buffet Entertainments	136.52 5.30	
Pool and billiards Buffet Entertainments Towels and Soap	136.52 5.30 23.00	
Pool and billiards Buffet Entertainments	136.52 5.30 23.00 11.92	
Pool and billiards Buffet Entertainments Towels and Soap Office Expense	136.52 5.30 23.00	
Pool and billiards Buffet Entertainments Towels and Soap Office Expense Camp	136.52 5.30 23.00 11.92 7.16	
Pool and billiards Buffet Entertainments Towels and Soap Office Expense Camp Salaries	136.52 5.30 23.00 11.92 7.16 3155.00	
Pool and billiards Buffet Entertainments Towels and Soap Office Expense Camp Salaries Theatre	136.52 5.30 23.00 11.92 7.16 3155.00 2.66	
Pool and billiards Buffet Entertainments Towels and Soap Office Expense Camp Salaries Theatre Library	136.52 5.30 23.00 11.92 7.16 3155.00 2.66 14.00	
Pool and billiards Buffet Entertainments Towels and Soap Office Expense Camp Salaries Theatre Library Reading room	136.52 5.30 23.00 11.92 7.16 3155.00 2.66 14.00 69.85	
Pool and billiards Buffet Entertainments Towels and Soap Office Expense Camp Salaries Theatre Library Reading room Athletics	136.52 5.30 23.00 11.92 7.16 3155.00 2.66 14.00 69.85 91.14	
Pool and billiards Buffet Entertainments Towels and Soap Office Expense Camp Salaries Theatre Library Reading room Athletics Music	136.52 5.30 23.00 11.92 7.16 3155.00 2.66 14.00 69.85 91.14 15.00	

23.

g. Gwinn Association (continued)

The following report and summary of the activities of the Association Clubhouse has been taken from the monthly reports issued during the year.

MEMBERSHIP

Owing to conditions in the district, may who had carried membership in the association for years requested that their names be dripped from the membership roll until they secured employment. These people continue to make use of the facilities and no doubt will renew their membership when possible.

January 1st 1933 - showed that 65 members were listed from the Gardner-Mackinaw Mine and 33 were listed from by other persons, business men or school teachers.

ATTENDANCE

Total estimated attendance at building for year 77400 Average monthly membership 6450

A slight increase in attendance can be accounted for by the fact that many more persons use the building during the morning and afternoon periods, also to the fact that during the summer many interested in the soft ball league used the building before and after games.

RECEIPTS AND EXPENDITURES

Total receipts including 1931 balance	\$ 5407.75
Total expenditures for year	4295.04
Balance on hand January 1st, 1933	1112.71

BUFFET

Receipts for year	222.25
Expenditures for year	136.52
Profit	85.73

BOWLING AND POCKET BILLIARDS

Receipts for year	481.10
Expenditures for year	67,37
Profit	413.73

23.

g. Gwinn Association (continued)

GENERAL ACTIVITIES AND ORGANIZATIONS USING BUILDING

38 - Meetings: 2 by Sportsmen's Association, 2 by American Legion,
7 by County Demonstration Agent, 6 by Health Department of State, 12 by Welfare Relief Workers, and 9
committee meetings.

- 2 Social card parties to raise church funds
- 3 Private party showers
- 3 Invitation Card parties young ladies
- 3 Dances given by Scouts to raise funds
- 16 Meetings by Women's Study Club
- 12 Free Dances by Association attendance 1250
- 3 Social parties under supervision school no dancing
- 5 Dancing parties by High School Classes
- 8 Dances after basketball games
- 9 Dances by local orchestras
- 1 Inter-city cribbage match
- 41 Dances held during year including social parties, dances held after basketball games, free dances and those covering an annual or special event.
- 71 Lunches served by different organizations.

CHURCH ORGANIZATIONS USING BUILDING

- 5 events by different organizations to raise funds
- 15 meetings by Episcopal Ladies Guild
- 16 meetings or socials by Methodist Church or Epworth League
- 4 meetings by Swedish Church

EVENTS OF SPECIAL INTEREST

Annual Easter Monday Ball	by	Orchestra
Annual Junior Class Party	by	High School
Farewell Party	by	St. Anthony Church
Annual Scout Ceremonial	by	Scout Troops
Special Dance to raise funds		
for Xmas Treat	by	Community Young Men
Annual Xmas Party	by	Girl Scouts
Annual Xmas Treat for Children	by	Community
Annual Firemen's Ball	by	Local Firemen
\$40\$ CHR \$40\$ CHR 441 LEAN ALCENDED TO BE \$200 CHR 50 C		

23.

g. Gwinn Association (continued)

MUSICAL ORGANIZATIONS

The senior band discontinued during the year, but the Junior band continued to function the greater part of the year - also a group of young ladies have organized and practice weekly under supervision.

Two orchestras have organized with local talent and make use of the building for practice and also appear for dancing parties, sometimes donating their services and at other times a charge of 15 cents is made. These organizations have also accepted out-of-town engagements and both are popular with the dancing fans.

Summary

18 - rehearsals by band organizations

21 - rehearsals by orchestras

9 - dances held by orchestras - charge affairs

6 - Free dances given - services donated

PHYSICAL AND ATHLETIC DEPARTMENT

Including all work conducted in the gymnasium and all outdoor recreations, such as; supervising baseball, physical training classes at school playgrounds, ice skating rink, tennis courts, shoe pitching court, football, speedball, archery and softball.

The employes of the association continue to supervise all athletic work for the local high school and furnish much of the material used.

The business men continue to meet twice a week and the women's supervised class meets weekly. The women's class entertained the National Mine Class with a demonstration and lunch during the early part of the year.

Summary:

Supervised work in Gymnasium	Periods	Attendance
High School girls classes	84	1656
High School boys classes	111	1783
High school basketball practice	60	716
Junior boys recreation	13	553
Seniors using gym	89	632
Business Men's Classes	21	229
Women's Classes	20	390
Swimming pool (not operated)		
Total for gymnasium	398	5959

g. Gwinn Association (continued)

Supervised work at school playground	Periods	Attendance
High School girls classes	39	1168
High School boys classes	62	1653
Total outdoor	101	2821
Total Indoor class work	398	5959
Total Outdoor class work	101	2821
Grand total	499	8780

BASKETBALL

The following basketball games were played under association supervision:

High School team - 5 games at home - 11 away
Club team - 3 games at home - 2 away

Practice games between high and club teams 7

Junior teams played in 10 preliminary games

Junior teams in league - 10 - number games played in league and tournament 70.

The high school team again won the district tournament at Marquette and lost their second game at the regional tournament at Lake Linden.

Total attendance at all home games and Junior Tournament 3200

ICE SKATING RINK

The ice skating rink was in condition for skating 34 days, and was flooded 12 times after being constructed. Attendance 2025

TENNIS COURT AND HORSESHOE COURT

BASEBALL

The association again placed a team in the Inter-county amateur baseball league. This is the fifth year of the league and is still under the control of association employees. The team made a good showing, completing their schedule and finishing in second place.

Estimated attendance at all home games 3700

PENSION DEPT.

23.

g. Gwinn Association (continued)

SOFTBALL LEAGUE

The activity that held the interest of the entire community during the summer was the softball league. This league was under the supervision of the association and material used was furnished by the association.

The schedule was started early in June and completed in August.
All games were free to spectators and many women enjoyed the contests.

League games 110
Games with outside teams. 7

LIBRARY AND READING ROOM

LIBRARY

Many of the men have turned their spare time into reading time and have made good use of the books that the association has in the library. Some of the books show the signs of wear but an effort has been made to keep them in shape for circulation.

		loaned during year	-1.1-10.750 (3.00), 100
Number	books lo	aned per month	181
Number	of books	added by purchase	56
Number	of books	added by donation	9
Number	of books	withdrawn - bad condition	47

READING ROOM

The following number of magazines and newspapers are received and placed on file and rack in reading room.

Weekly magazines 4 Daily newspapers 2 Monthly magazines 17 Weekly newspapers 2

23.

g. Gwinn Association (continued)

BASS LAKE CAMP

The cottage was opened with caretaker in charge June 11th, but owing to the fact that many local residents have their own camps and many were not operating their cars there was very little demand for reservation. The attendance at the grounds was also below average for the entire summer.

Number	different	parties	using	camp	overnight	6
Number	different	parties	using	camp	3 day periods	5
Number	different	parties	using	camp	5 day periods	2

Girl scouts did not take their annual camping trip, but 20 scouts used camp one night.

SCOUT ACTIVITIES

Two scout troops continue to be active. Troop No. 1 consists of the older girls and troop No. 2 the girls under 14 years of age. Both troops meet weekly in the association building under supervision.

The following summary covers the work of both troops:

Meetings; class and social - 104 - attendance 2145

- 25 lunches or suppers were held either after meetings indoor or after hikes, with meals outdoors.
- 7 parties were held
- 3 dances were held to raise funds
- 11 hikes for nature study or swimming parties were held
- 2 Hallow'een parties one for each troop
- 1 Valentine party
- 1 entertainment for mothers of scout members
- 1 annual ceremonial night and award of 65 merit badges
- 2 annual Xmas parties one for each troop
- 1 candy sale to raise funds

Scouts attended church in body during scout week. Scouts dressed and donated dolls and made toys for children at Xmas time.

BUILDING

The association continued to handle the larger part of the operation expense, although it was necessary for the Cleveland-Cliffs Iron Co. to again assist by donating coal and also in a financial way to pay a part of the employees salary. The building at the close of the year was in fair condition, having had no special re-decoration or alterations made, but was given a general overhauling in the fall. During the summer exterior repair work was completed replacing the brick work that had gotten out of line on top of building. The roof on north side of building was in bad shape and was re-tarred and repaired and is now in good shape.

PENSION DEPT.

23.

g. Gwinn Association (continued)

BUILDING (continued)

All possible means to economize in the operation of the building were considered. Salaries were again reduced, the heating and lighting items are being watched carefully and the movie equipment has been removed from the booth to lower insurance rates on the building.

23.

h. Ishpeming Y. M. C. A.

The year at the "Y" has been a satisfactory one under the direction of Floyd B. Rathmas as Secretary, and Mr. C. J. Stakel as President of the Board of Directors. It has been a hard year in it not being possible, on account of the mines being idle, to make a regular canvas for funds. Contributions have come in to quite a satisfactory degree by personal appeal.

Consideration has been given to the matter of the bonds on account of the Oliver Iron Mining Co. not having paid their regular monthly contribution. This has been taken up with the local Oliver officials and through them with the officials at Duluth.

The present officials are as follows:

C. J. Stakel President
Sam Cohodas Vice President
R. J. Chenneour Secretary
Judge Wm. St. John Treasurer

The building has been used more than ever before and is in constant use throughout the day. The summer camp was operated as in previous years at Ross Lake and was very successful and was the source of some profit.

23.

i. Safety Work

We have cooperated with the Safety Department during the year. There has been very few accidents, only nine for the year, and on account of the mines being idle from June until October inclusive, there has been no occasion for the regular Central Safety Committee meetings, but these were resumed in December with the closing up of the year.

The following are the present members of the Committee:

Mr. G. R. Jackson, Chairman

Mr. S. R. Elliott

Mr. O. D. McClure

Mr. C. J. Stakel

Mr. W. W. Graff

Mr. W. R. Meyers

Mr. Carl Brewer

Mr. William Conibear

Mr. W. H. Moulton, Secretary

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

ACCIDENT FREQUENCY

NUMBER OF ACCIDENTS PER 1000 DAYS OF LABOR - DECEMBER 1932

Rank Dec. 1932	Days of Labor	Number of 1932	Accidents - 1931	Rate per 1932	1000 Days
		0			
1	2744			•000	.000
2	2445			.000	.000
	2232	0	1	.000	.364
4	709	0	0	.000	.000
5	707	0	0	.000	.000
6	678	0	0	.000	.000
7	422		0	.000	.000
8	222		0	.000	.000
9	98		0	.000	.000
10	97	0	0	.000	.000
11	93	0	0	.000	.000
12	84	0	0	.000	.000
13	68	0	0	.000	.000
14	67	0	0	.000	.000
				-117	.042
15	2230	1	0	.448	.000
			0	.499	. 000
	2115				
	33				
	17048	2	1		
RANK AN	D RATE FO	OR THE YEAR	1932		
1	21505	0	5	•000	.094
					.064
			0		.000
			0		.000
					.124
		0	0	.000	.000
7	2242	0	1	.000	.095
8	1694	0	0	.000	.000
9	1559	0	0	.000	.000
10	999	0	0	.000	.000
11	862		1	.000	.069
			1		
12	25883	0	1	.039	.029
				.048	.054
17	22731	9	6	088	.102
					.047
					.097
					.254
10				• 122	
	452				
	189101	9	27		
	Dec. 1932 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 RANK AN 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	Dec. 1932 Labor 1 2744 2 2445 3 2232 4 709 5 707 6 678 7 422 8 222 9 98 10 97 11 93 12 84 13 68 14 67 15 2230 16 2004 2115 33 17048 RANK AND RATE FOR Section 1899 4 8994 5 4374 6 3164 7 2242 8 1694 9 1559 10 999 11 862 12 25883	Dec. 1932 Labor 1932 1 2744 0 2 2445 0 3 2232 0 4 709 0 5 707 0 6 678 0 7 422 0 8 222 0 9 98 0 10 97 0 11 93 0 12 84 0 13 68 0 14 67 0 15 2230 1 16 2004 1 2115 33 17048 2 RANK AND RATE FOR THE YEAR 1 21505 0 2 14827 0 3 9250 0 4 8994 0 5 4374 0 6 3164 0 7 2242 0 8 1694 0 9 1559 0 10 999 0 11 862 0 12 25883 0 13 22734 2 14 19350 2 15 19959 3 16 2327 1 28926 452	Dec. 1932 Labor 1932 - 1931 1 2744 0 0 0 2 2445 0 0 0 3 2232 0 1 4 709 0 0 0 5 707 0 0 0 6 678 0 0 0 7 422 0 0 0 9 98 0 0 0 10 97 0 0 0 11 93 0 0 12 84 0 0 13 68 0 0 14 67 0 0 15 2230 1 0 16 2004 1 0 2115 33 17048 2 1 RANK AND RATE FOR THE YEAR 1932 1 21505 0 5 2 14827 0 2 3 9250 0 0 0 4 8994 0 0 0 5 4374 0 2 6 3164 0 0 0 7 2242 0 1 8 1694 0 0 0 9 1559 0 0 0 10 999 0 0 0 11 862 0 1 12 25883 0 1 13 22734 2 6 14 19350 2 2 15 19959 3 5 16 2327 1 1 28926 452	Dec. 1932 Labor 1932 - 1931 1932 1 2744 0 0 0 0 000 2 2445 0 0 0 000 3 2232 0 1 000 4 709 0 0 0 000 5 707 0 0 0 000 6 6578 0 0 0 000 7 422 0 0 0 000 9 98 0 0 0 000 10 97 0 0 0 000 11 93 0 0 0 000 12 84 0 0 0 000 14 67 0 0 0 000 14 67 0 0 0 000 15 233 1 0 0 448 16 2004 1 0 499 2115 33 17048 2 1 RANK AND RATE FOR THE YEAR 1932 1 21505 0 5 0 000 2 14827 0 2 000 3 9250 0 0 0 000 4 8994 0 0 0 000 5 4374 0 2 000 6 3164 0 0 0 000 7 2242 0 1 000 8 1694 0 0 0 000 9 1559 0 0 0 000 10 999 0 0 000 11 862 0 1 000 12 25883 0 1 039 .048 13 22734 2 6 088 14 19350 2 2 103 15 19959 3 5 5 150 16 2327 1 1 429 28926 452

ACCIDENT SEVERITY

NUMBER OF FORKING DAYS LOST PER 1000 DAYS OF LABOR

ON ACCOUNT OF ACCIDENTS OCCURRING IN 1932

	Rank Dec.1932	Days of Labor	Number of 1932	Days Lost - 1931	Rate per 1932	1000 Days - 1931
Cliffs Shaft "A"			0	0		
Cliffs Shaft "B"	1	2744	0	0	.000	.000
Maas	2	2445	0	0	.000	.000
Morris Lloyd	3	2232	0	45½	.000	16.545
Spies Virgil	4	709	0	0	.000	.000
C. P. & L. Co.	5	707	0	0	.000	.000
Gardner Mackinaw	6	678	0	0	.000	.000
Canisteo	7	422	0	0	.000	.000
General, Storehouse	8	222	0	0	.000	.000
Hill Trumbull	9	98	0	0	.000	.000
:/ade	10	97	0	0	.000	.000
Holman Brown	11	93	0	0	.000	.000
Miscellaneous	12	84	0	0	.000	.000
Alexandria	13	68	0	0	.000	.000
Tilden	14	67	0	0	.000	.000
AVERAGE					6.012	1.930
Negaunee	15	2230	22	0	9.865	.000
Athens	16	2004	801	0	40.120	.000
General Roll		2115	002		10.120	•000
Various Properties		33				
TOTAL ALL PROPERTIES		17048	1021	451		
	RANK AN	D RATE FO	R THE YEAR	1932		
Morris Lloyd	1	21505	0	1944	.000	36.486
Canisteo	2	14827	0	1382	.000	4.433
Gardner-Mackinaw	3	9250	0	0	.000	.000
C. P. & L. Co.	4	8994	0	0	.000	.000
Spies Virgil	5	4374	0	95	.000	5.887
General Storehouse	6	3164	0	0	.000	.000
Wade	7	2242	0	241	.000	22.838
Hill Trumbull	8	1694	0	0	.000	.000
Holman Brown	9	1559	0	0	.000	.000
Tilden	10	999	0	0	.000	.000
Alexandria	11	862	0	86	.000	5.932
Cliffs Shaft "A"	12	25883	58½	1800	2.260	29.636
Cliffs Shaft "3"	12	20000	0	240	2.200	29.000
AVERAGE					7.678	15.553
Athens	13	19350	160 ¹ / ₂	219	8.294	5.171
Maas	14	22734	349	2102	15.351	35.780
Negaunee	15	19959	723	8332	36.224	16.273
Miscellaneous	16	2327	161	6	69 188	1.523
General Roll		28926				
Various Properties		452				
TOTAL ALL PROPERTIES		189101	1452	7705		

23.

j. Hospitals & Medical Service

Throughout the year this Department has kept in close touch with the hospitals in Ishpeming and Iron River and the dispensary service at Negaunee and Republic.

ISHPEMING HOSPITAL

The Hospital has maintained its standard of fine service and has continued on the accredited list of the American College of Physicians and Surgeons.

Miss Hildur Swanson has continued in charge as Superintendent, having begun her work as Superintendent on July 1, 1930.

In the Fall when it was found there were so few patients coming to the Hospital the second floor was closed to patients, except such as could employ a private nurse, in order to save the expense of the nurses there. The force at the Hospital has been very much reduced and the salaries of those remaining reduced also so that the operating cost of the Hospital is much nearer the receipts.

The staff of the Ishpeming Hospital and the Negaunee Dispensary are as follows:

Dr. V. H. Vandeventer, Chief

Dr. J. D. Crane

Dr. P. P. Hartt

Dr. A. W. Erickson

Dr. D. R. MacIntyre

DDr. W. A. Mudge

Dr. W. A. Corcoran

Miss Hildur Swanson, Superintendent

During the year regular meetings of the staff have been held each month with Dr. Vandeventer as Chairman.

On the following sheets will be found a summary of the report of the Superintendent of the Hospital for the year.

23.

j. Hospitals (continued)

ISHPEMING HOSPITAL STATISTICAL REPORT FOR THE YEAR 1932

Number of patients remaining	in Hospital at beginning of year	16
Number of adult patients admitted	576	
Number of child patients admitted	54	
Number of births	83	
Total new patients for the ye	ar	713
Total of all patients for the		729
Number of deaths	36	
Number discharged during year	682	
Total number leaving Hospital		718
Number of patients remaining at en	d of year, Dec. 31, 1932	11
CLASSIFICATION OF NEW CASES:		
Surgical	398	
Medical	148	
Obstetrical	84	
New Born	83	
Total		713
Number of operations		338
Number of emergency room operations	8	48
Number of patient days		7956
Number of meals for patients	23868	
Number of meals for nurses, superin	ntendent, & dietitian 15597	
Number of meals for physicians and		
Number of meals for help	5526	
Total number of meals		45181
Average Number of 1	Patients Per day:	
1919	12.2	
1920	17.6	
1921	15.9	

1919	12.2
1920	17.6
1921	15.9
1922	16.5
1923	20.1
1924	20.5
1925	19.9
1926	21.3
1927	21.8
1928	25.4
1929	30.1
1930	31.4
1931	29.9
1932	21.8

23.

j. Hospital (continued)

Following will be found a statement showing the number of consultations taken care of by each of the physicians at the hospital, and the number of house calls, these being classified according to the employers of the men and their families. This includes the cases of the Cleveland-Cliffs Iron Co., the Oliver Iron Mining Co., the Hercules Powder Co., Jones & Laughlin Ore Co., the Inland Steel Co., and private cases.

These sheets show the percentage of work done for the people belonging to our own Company.

OFFICE AND HOUSE CALLS OF THE DIFFERENT PHYSICIANS

Office Calls	G.C.I.Co.	0.1.M.Co.	Her- cules Expl.Co.	Jones & Laughlin Ore Co.	Inland Steel Co.	Private	Total	C.C.I.Co. Percent
Vandeventer	2087	216	44		33	528	2908	71.77
Crane	3106	743	117	2	105	227	4300	72.23
H Hartt	3099	912	335	25	52	275	4698	65.96
Erickson	4232	636	96	39	140	306	5449	77.66
Total	12524	2507	592	66	330	1336	17355	72.16
House Calls								
Vandeventer	1078	180	89	6	32	496	1881	57.31
Crane	2515	643	87		68	437	3750	67.07
Hartt	2568	731	458	19	39	506	4321	59.43
Erickson	3723	502	89		55	598	4967	74.75
Total	9884	2056	723	25	194	2037	14919	66.25
TOTAL CALLS								
Vandeventer	3165	396	133	6	65	1024	4789	66.09
Crane	5621	1386	204	2	173	664	8050	69.82
Hartt	5667	1643	793	44	91	781	9019	62.83
Erickson	7955	1138	185	39	195	904	10416	76.37
Total	22408	4563	1315	91	524	3373	32274	69.43

23.

j. Hospitals (continued)

NEGAUNEE DISPENSARY

OFFICE AND HOUSE CALLS OF THE DIFFERENT PHYSICIANS

Office			Jones & Laughlin	Hercules	Inland Steel			C.C.I.Co.
Calls	C.C.I.Co.	0.1.M.Co.	Ore Co.	Expl.Co.	Co.	Private	TOTAL	Percent
MacIntyre	6161	101	19		10	677	6968	88.42
Mudge	11566	79	13	7		1132	12797	90.38
Corcoran	1867	73	8	17	13	105	2083	89.63
Hirwas	158	41		13		20	232	68.10
Total	19752	294	40	37	23	1934	22080	89.45
House Calls								
MacIntyre	2614	8				99	2721	96.07
Mudge	6718	63		6		1229	8016	83.81
Corcoran	1167	108	10	25	5	137	1452	80.37
Hirwas	161	81	<u></u>	12		28	282	57.09
Total	10660	260	10	43	5	1493	12471	85.48
TOTAL CALLS								
MacIntyre	8775	109	19		10	776	9689	90.56
Mudge	18284	142	13	13		2361	20813	87.85
Corcoran	3034	181	18	42	18	242	3535	85.83
Hirwas	319	122		25		48	514	62.06
TOTAL	30412	554	50	80	28	3427	34551	88.02

23.

j. Hospitals (continued)

NEGAUNEE DISPENSARY

The plan of using the former hospital building for the Doctor's offices and a dispensary has continued to work out well, all hospital cases being taken to the Ishpeming Hospital.

On February 1st, a reduction in the medical force was put into effect and Dr. Hirwas was let out and Dr. Corcoran was taken from Ishpeming to Negaunee.

The following physicians now have their offices in the building and look after the Negaunee work:

Dr. D. R. MacIntyre Dr. W. A. Mudge Dr. W. A. Corcoran

REPUBLIC HOSPITAL

Dr. Van Riper of Champion goes to Republic regularly for one hour each day and at such other times as he is called. Dr. Van Riper is exceedingly conscientious in his work and has done a great deal of work for which there can be no payment, but he receives some payment from the County as Poor Physician, which helps to reimburse him for the work.

GWINN

Dr. R. A. Burke of Negaunee and Palmer is in charge of the medical service for the district, and has an assistant, Dr. P. N. Wharton, living and having his office in Gwinn.

IRON RIVER

The new Hospital has now had a year of service and it has been very satisfactory in all respects. This is covered by the report of Mr. Meyers.

Payments to Physicians

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.

23.

j. Medical Service (continued)

PHYSICAL EXAMINATIONS OF EMPLOYES:

Any new man put to work has first been sent to the physician for a complete examination, this examination being reported to this office, and if found satisfactory the mine at which he is to be employed is so notified. In some cases in which the examination has shown some disability the matter has been taken up with Mr. Elliott and decision reached as to whether the man should be employed or not. In most of these cases the men have been asked to put themselves under the doctor's care, and in some instances their improvement has been sufficient to enable them to go to work.

Previous to the reopening of the mines in November it was decided that all of the men should be re-examined and they, therefore, have been sent to the physicians and the report handled in the regular way. The doctors have expressed themselves as gratified with the physical condition of the men.

The re-examinations up to the end of December 1932 are as follows:

Cliffs-Shaft	258
Morris-Lloyd	106
Negaunee	238
Maas	207
Athens	133
Gardner-Mackinaw	36
Spies-Virgil	66
	The second second second

Total.... 1044

23.

k. Health

All of our cities had been quite free from contagious diseases until early in the winter, since which time there has been quite an epidemic of influenza. It was not of such a serious character as that in 1917 and 1918 and in one subsequent year, but there have been quite a few deaths from pneumonia resulting from it.

The health officers of our three principal cities of the County have been very active and have done good work throughout the year. They are as follows:

> Ishpeming - Dr. G. G. Barnett Negaunee - Dr. W. A. Mudge Marquette - Dr. T. R. Laughbaum

1. Red Cross

The following officers have continued through the year 1932:

President - Thomas Redmond, Marquette
Vice- - Phillip Levine, Negaunee
Secretary - R. J. Chenneour, Ishpeming
Treasurer - E. S. Bice, Marquette

Of the Ishpeming Branch, Thomas Clancey has continued as Chairman. Of the Negaunee Branch, F. A. Bell has continued as Chairman.

As was expected, the annual Red Cross canvas for members did not yield returns as in previous years, but it was more satisfactory than the officers had expected.

Mr. Walter Gries has continued as chairman of the Nursing Activities Committee of the chapter. Mrs. A. L. Johnson has continued as County Nurse under the direction of the Nursing Activities Committee of the Red Cross. Her salary and expenses are paid by the County, the committee directing her work by request of the County Board of Supervisors. Her report for the fiscal yearing ending September 1st, will be found on the following pages.

23. 1. Red Cross (continued) REPORT OF MARQUETTE COUNTY NURSE Fiscal year ending September 1, 1932

School Examination.	
Number of Schools in County	43
Number of Schools examined	
Number of children	
Number of Children found with defects Sept. 1, 1931 to Sept. 1, 1932	
Eyes	
Teeth	
Tonsils	
Ears	
Orthopedic	
Total	
Number of corrections made by parents Sept. 1, 1931 to Sept. 1, 1932	
Eyes	
Teeth	
Tonsils	
Total	
Number of corrections made by Red Cross Sept. 1, 1931 to Sept. 1, 19	
Eyes	
Tonsils & Adenoids	
Total	15
Number of corrections made and paid for by Republic C.C.I.Co. Fund	3675-6355
Eyes Tonsils and Adenoids	
Dental	
Total	-
- MINGS - CHANGE - C	
Total No. corrections made by Parents, Red Cross & C.C.I.Co. Fund	224
Number of days spent at Clinics	
Crippled Children's clinic	
Mental	
Chest	-
Total	8
Number of Children taken to Hospitals and Schools.	
Orthopedic cases to Ann Arbor	
Deaf & Dumb Schools at Flint	
School for Blind at Lansing	
Children's Hospital at Detroit	
Northern Michigan Children's Clinic at Marquette	
Crittendon Home at Detroit	
Total	75
Investigations Made	
Veteran's Bureau Detroit	
For Ann Arbor	
County Poor	
Cleveland Associated Charities	
Home Calls	
Total	748

1. Red Cross (continued)

Meetings Attended.	
District Nurses Meetings	10
Red Cross Meetings	2
T. B. Seal Meetings	2
Nursing Activities	4
Parent Teachers Meetings	2
Nursing Meeting at Saginaw - 3 days	6
Health Conference at Lansing - 4 days	4
Home Hygiene Conf. at Children's Clinic at Marquette	1
County Agents meeting at Marquette	1
Health Meeting in County with speaker from State Health Dept	3
Health Lectures by Dr. Walk	4
With Miss Akinner National Relief Worker from Washington - 1 day	1
T. B. Booth at County Fair	1

Special Work

Brought 7 children to the Northern Michigan Children's Clinic, who had had infantile paralysis, where they gave blood for the cure of new cases developing.

Gifts

300 bushels potatoes from Mr. Perkins - Huron Mt. Club. 20 bushels potatoes from Mr. Perkins - Huron Mt. Club. \$32.00 cash from children of Huron Mountain Club.

Martha C. Johnson, R. N. Marquette County Red Cross Nurse

23.

m. Relief Work

Help has been extended to certain families who have been in special need, through sickness or death, or special disability.

Following is a list of the assistance rendered:

	Ishpeming	Negaunee	North Lake	Republic	Gwinn	Total
January	\$ 286.09	\$ 210.75	\$ 28.51	\$ 27.25	\$	\$ 552.60
February	309.09	137.17	69.90	36.00	9.78	561.94
March	201.48	265.43	20.96	18.25	10.39	516.51
April	169.59	149.68	13.41	18.06	19.45	370.19
May	244.61	200.64		18.23	17.77	481.25
June	100.70	100.25		9.01	9.00	218.96
July	106.34	69.12		16.97	9.20	201.63
August	113.16	112.53		26.20		251.89
September	64.34	85.66		5.65	9.04	164.69
October	76.87	103.70		36.02	15.05	231.64
November	101.96	88.54		13.20	9.27	212.97
December	209.43	96.09	10.00	45.63	8.32	369.47
TOTAL	1983.66	1619,56	142.78	270.47	117.27	4133.74
No. of fami	lies					
assi	sted 39	30	6	3	3	81
Average amo	unt of Relief	per Family				\$ 51.03

23.

n. Employment

The records of employment are kept in this Department, although from lack of clerical assistance the records are not now up to date. These will be gone over and corrected as opportunity permits.

23.

o. Incapacitated Employes

During the year payments have continued to certain men whose years of service do not bring them within the provisions of the Pension System. These men are those who have become incapacitated after a considerable period of service and some with very large families and who have been injured in our employment.

Some widows of men who lost their lives in previous years are included in this list.

The following is a statement of the families to whom these donations have been made:

NATIONS TO INCAP	PACITATED EMPLOYES				
Monthly Rate for Yr. 1932	Total Amount paid				
\$ 20.00	\$ 240.00				
14.40	172.80				
20.00	240.00				
14.40	172.80				
16.00	192.00				
16.00	192.00				
16.60	199.20				
20.00	240.00				
20.00	240.00				
20.00	240.00				
20.00	240.00				
20.00	240.00				
18.00	216.00				
20.00	240.00				
20.00	80.00	Died	Apr.	2,	1932.
20.00	220.00				
20.00	240.00				
20.00	20.00	Died	Jan.	10,	1932
20.00	240.00				
20.00	240.00				
16.00	192.00				
20.00	40.00	Died	Feb.	1,	1932
17.66	211.92				
\$ 429.06	\$ 4548.72				
HOLMES MINE	DONATIONS				
20.00	240.00				
16.99	203.88				
20.00	240.00				
20.00	240.00				
20.00	240.00				
12.00	24.00	Died	Feb.	18,	1932
	Monthly Rate for Yr. 1932 \$ 20.00 14.40 20.00 14.40 16.00 16.60 20.00	Monthly Rate for Amount paid Yr. 1932 during 1932 \$ 20.00 \$ 240.00 14.40 172.80 20.00 240.00 14.40 172.80 16.00 192.00 16.60 199.20 20.00 240.00	## Amount paid during 1932 \$ 20.00	Monthly Rate for Amount paid Yr. 1932 during 1932 \$ 20.00 \$ 240.00 14.40 172.80 20.00 240.00 14.40 172.80 16.00 192.00 16.60 199.20 20.00 240.00	Monthly Rate for Amount paid Yr. 1932 during 1932 \$ 20.00

23.

o. Incapacitated Employes (continued)

DONATIONS TO WIDOWS

		Monthly Rate for year 1932	Total Amount paid during 1932
Mrs.	John Makela	\$ 20.00	\$ 240.00
Mrs.	Rose Bertucci	12.00	144.00
Mrs.	Wilhelmina Marjamaa	12.00	144.00
Mrs.	Henry Karkkainen	12.00	144.00
Mrs.	Matilda Carlson	12.00	144.00
Gust	Myllimaki Estate	12.00	144.00
	Kate Tuomela	16.00	192.00
		\$ 96.00	\$ 1152.00

Amount of Donations paid to Incapacitated Employes during 1932 \$ 4548.72

Amount of Donations paid to Incapacitated Holmes Mine Employes 1187.88

Amount of Donations paid to Widows during 1932 - - - - 1152.00

TOTAL - \$ 6888.60

23.

p. Cost of Living

We have continued to send out our report blanks on the 15th of each month to various stores in our different communities upon which are reported the prices of the different commodities considered by the United States Government in computing the cost of living.

This serves to advise the store keepers that we are keeping track of the prices which they are charging which we believe has served in some measure to keep the prices in our various stores at a somewhat reasonable figure.

We have made one complete calculation of Cost of Living, this being on December 1, 1932.

The following tabulation shows comparison with previous years based on a family of five.

June 1913 - \$ 692.56 June 1914 -706.17 June 1917 -1006.79 June 1920 -1408.65 June 1921 -1054.28 June 1924 -1015.83 Dec. 1925 -1049.16 Oct. 1931 -910.82 Dec. 1932 -752.52

The Government reports show that the index number for cost of living in November 1932 as compared with 1914, is 121.94. This gives the value of \$1.00 as compared with its value in 1914, .82.

From our own calculations and prices furnished to us by the merchants here the cost of living in Ishpeming is a little lower than in some other places. Our index figure for the cost of living as compared with 1914 is 106.56. The value of \$1.00 as compared with its value in 1914 is 93.84

q. Improvement Work

The services of Mr. Warren H. Manning were dispensed with during the season of 1932. Mr. Julian Payen looked after the regular work and there was no new work undertaken, except that at the ground at the new hotel, which had been planned by Mr. Manning and who was here twice in the early part of the year to see that everything was carried out satisfactorily.

23.

r. Prize Premises

On account of the business depression it was decided not to offer prizes for the Best Kept Premises and Vegetable Gardens for the season of 1932.

s. Community Service Work

The Legion Building and Y. M. C. A. at Ishpeming are serving the City as a meeting place for activities of all kinds.

The Legion Building at Negaunee, opened in 1927, has also worked out very satisfactorily.

t. Clubs

On account of the men being out of work it was thought best not to make collections for The Cleveland-Cliffs Iron Mining Club, and no meetings were held during the year.

u. Outdoor Sports

The Department helped in connection with the Ski Tournament which was held on February 22nd. This was conducted in an economic manner at no great cost to anyone, and thought it was beneficial at the time when there was so little work being done.

During the summer a large number of baseball teams played Kitten Ball. They were organized under the direction of the Y. M. C. A. and games were played every week-day evening throughout the different parts of the city. It was exceedingly popular and people attended in very large number throughout the whole season and it kept them interested during the time when there was no work at the mines and very little being done anywhere.

23.

w. Various Departments

Throughout the year we have cooperated with the different departments in the matter of accident cases and Workmen's Compensation and Medical Service. We have given special attention to the cases of the Lumbering Dept. work now being handled by the Land Department, and also with the Furnace Department.

An old case of considerable importance was brought up on account of an injury to a man in 1917 at the Gladstone Furnace, hearing being held in Escanaba by the Deputy Commissioner, which was decided in our favor. On appeal hearing was held before the Full Commission in Marquette and the decision was still in our favor. At the time of writing this report the thrity days are nearly up in which the attorneys for this man have the right to bring the matter before the Supreme Court, but we have not heard anything it and we do not expect that it will be taken up higher.

The Welfare Statements covering compensation costs will be found on the following sheets.

23.

w. Various Departments (continued)

LAKE SUPERIOR & ISHPEMING RAILROAD CO.

COMPARATIVE STATEMENT OF GENERAL WELFARE EXPENSE

FOR THE YEARS 1928 to 1932 INCLUSIVE

	1928	1929	1930	1931	1932
Donations:		10		F-10-14, E-1	
Fire Department	45.00	35.00	35.00	35.00	30.00
Celebrations			100.00		
Ishpeming Y. M. C. A.		200.00	200.00	200.00	
Visiting Nurse - Marq. Munising Hospital	120.00	90.00	120.00	120.00	120.00
St. Lukes Hospital	400.00	400.00	400.00	400.00	400.00
To Employes & Families	690.00				200.00
Pensions	432.00	396.00	947.85	1165.34	2207.88
	1687.00	1121.00	1802.85	1920.34	2957.88
Compensation:					
Compensation Paid	2371.65	3264.71	2465.53	2308.00	3249.20
Medical Expense	1169.95	1076.21	535,29	693.21	305.81
Percentage of Payrolls					
Act. Comp. Payments	.0026	.0033	.0027	.0027	.0096

23.

w. Various Departments (continued)

LAND DEPARTMENT

COMPARATIVE STATEMENT OF GENERAL WELFARE EXPENSE

FOR THE YEARS 1929 TO 1932 INCLUSIVE

General Welfare Acc. #11. A-2 Prop. Chgd. By Treas. 11-F Miscellaneous Expense	1929 244.20 810.96 1055.16	1930 217.13 810.96 1028.09	1931 821.38 810.96 1632.34	1932 318.08 523.47 841.55
Donations				
Negaunee Fire Department Munising Baseball Club	10.00	10.00	10.00	10.00
Munising Fire Department			10.00	10.00
U. P. Development Bureau John Ripley Munising Golf Club	750.00	750.00	750.00	500.00
Alger County Club		9.16		
D. W. McDougall Forest Taxation		61.00		
Sacred Heart Church - Munising Brotherhood of R.R.Trainmen-#612			12.31	
Marquette			10.00	
Xmas presents to School Children- Logging Operations				25.00
Compensation a. funeral expense d. legal expense				
g. medical expense		10.55		
h. compensation	380.00	286.80	99.00	
i. monthly payments to doctors Percentage of Payrolls	87.00	89.00	99.50	82.50
Actual Compensation Payments	.02204	.00552	.00146	
Safety Work - Logging Operations: Supplies			129.09	
Duppites			TUB. OA	
Compensation - Logging Operations:				
Medical and Hospital			6798.12	3106.16
Compensation Payments Percentage of Payroll			6882.28 .07166	5394.33
Tor contrage of Lahrott			•0,100	•10041

PIONEER IRON COMPANY FURNACE DEPT.

COMPARATIVE STATEMENT OF GENERAL WELFARE EXPENSE YEARS - 1929, 1930, 1931 and 1932

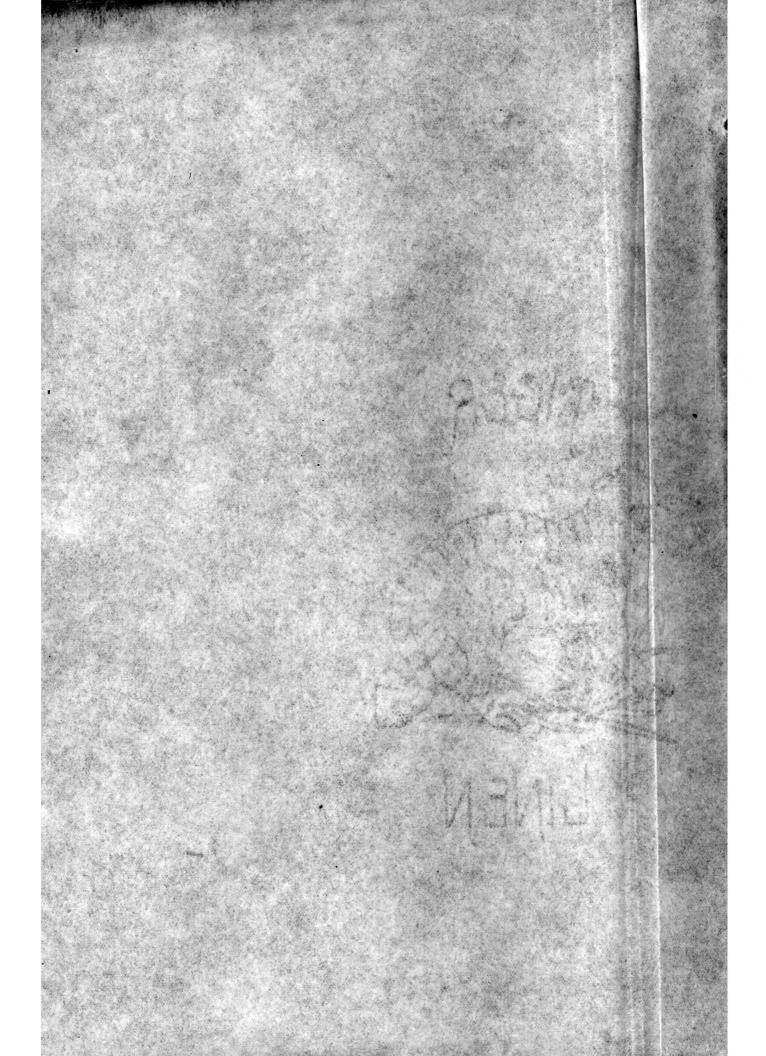
General Welfare Acct. #11	1929	1930	1931	1932
A-2 Prop. Charged by Treas.	1,703.11	1,522.78	771.85	438.88
B Prizes to Tenants				
Xmas Baskets	10.63	25.11		
Community Chest	281.25			
Flowers-Deceased Employees	10.00		22.00	5.00
Marq. Independent Basketball League Dinner for employees who assisted		16.00		
Alfred Malette		48.75		
Donations:				
American Legion			12.00	
Fire Department	10.00		10.00	5.00
Persons (Mrs.Orhenen & Mrs. Cameron)	350.00	427.18	673.00	681.00 #
House Rents	90.00			
Golf Club				
B. of R.T. (Railroad Trainmen)	10.00			5.00
Soceities				
Community Chest		375.00	375.00	281.25
Michigan Regimental Reunion		25.00		
Institutions				
St.Luke's Hospital	400.00	400.00	400.00	100.00
Tubercular Stamps			10.00	5.00
	2,864.99	2,839.82	2,273.85	1,521.13
Pensions Paid	6,137.02	6,191,42	5,531,30	3,327.09
TOTAL	9,002.01	9,031.24	7,805.15	4,848.22
Safety Work				
Charges for work and equipment	63.75	70.58	41.18	53.04
Compensation				
Medical & Hospital Expense	3,362.12	3,861.51	1,664.37	1,938.61
Compensation Paid	2,699.42	2,204.81	1,795.54	1,209.16
Compensation Payments-				
Percentage of Payrolls				
Marquette Plant	•005573	.004762	.008992	.0093413

#Detail of Donations - Persons - Mrs. Cameron \$240.00

Mrs. Pellinen 220.00

Mrs. Wilder 10.00

Mrs. Cameron 11.00 (wood)



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